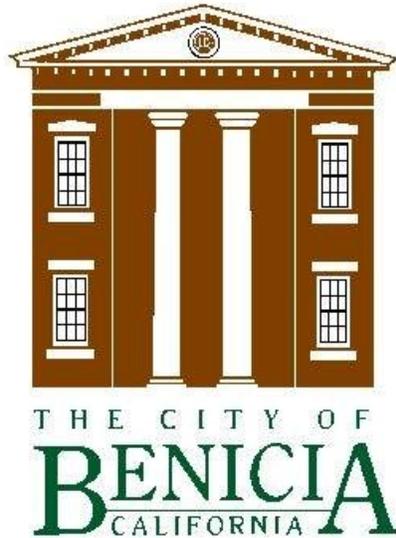


City of Benicia
Community Development Department



Lake Herman Road Solar Project
Initial Study/Mitigated Negative Declaration

May 2020

Prepared by



1501 Sports Drive, Suite A, Sacramento, CA 95834

EXHIBIT B

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INITIAL STUDY
MAY 2020

A. BACKGROUND

1. Project Title: Lake Herman Road Solar Project
2. Lead Agency Name and Address: City of Benicia
Community Development Department
250 East L Street
Benicia, CA 94510
3. Contact Person and Phone Number: Suzanne Thorsen
Principal Planner
(707) 746-4382
4. Project Location: East of Lake Herman, Northwest of Lake Herman Road
Benicia, CA 94510
Assessor's Parcel Number (APN): 0080-030-050
5. Project Sponsor: Renewable Properties, LLC
665 Montgomery Street, Suite 1430
San Francisco, CA 94111
6. Existing General Plan: General Open Space
7. Existing Zoning: Open Space (OS)
8. Surrounding Land Uses and Setting:

The project site consists of 88.5 acres and is part of a largely undeveloped swath of hills located in the northern portion of the City of Benicia. Lake Herman is directly west of the project site, and Lake Herman Road is to the south. The site is currently undeveloped and existing land uses in the surrounding area include single-family homes to the southwest, heavy industrial uses to the south, and extensive undeveloped hillsides used for cattle grazing to the north and east. The nearest residence to the project site is located approximately 300 feet to the west. An area north of the property was historically used as a hazardous waste disposal site, and is currently in remediation.

9. Project Description Summary:

The Lake Herman Road Solar Project (proposed project) would include the development of a 35-acre, 5-Megawatt Alternating Current (AC) solar facility with 18,424 solar modules. The modules would be ground-mounted photovoltaic (PV) single-axis solar arrays oriented in the north-south direction to allow each row to slowly rotate over the course of the day. The proposed project would not require a grading permit, and panels would be arranged to avoid areas of the site containing steep slopes. Additionally, the proposed project would include a Zoning Text Amendment to allow Solar Utilities within areas zoned as Open Space (OS) throughout the City.

10. Status of Native American Consultation Pursuant to Public Resources Code Section 21080.3.1.:

In compliance with Assembly Bill (AB) 52 (Public Resources Code Section 21080.3.1), project notification letters were distributed to the Cortina Rancheria – Kletsel Dehe Band of Wintun Indians, Lone Band of Miwok Indians, United Auburn Indian Community of the Auburn Rancheria, and Yocha Dehe Wintun Nation. The letters were distributed on November 8, 2019 and requests to consult were not received during the consultation period.

B. SOURCES

All technical reports prepared for the project analysis are available upon request at the City of Benicia City Hall, located at 250 East L Street, Benicia, CA 94510. The following documents are referenced information sources utilized by this analysis:

1. Anderson Pine Corporation. *Stormwater Control Plan for a Regulated Project, Lake Herman Solar*. July 2019.
2. Arc GIS California Scenic Highways. Available at: <https://www.arcgis.com/home/webmap/viewer.html?useExisting=1&layers=f0259b1ad0fe4093a5604c9b838a486a>. Accessed on November 7, 2019.
3. Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines*. May 2017.
4. CAL FIRE Fire and Resource Assessment Program. *Draft Fire Hazard Severity Zones in LRA, Solano County*. September 17, 2007.
5. CAL FIRE Fire and Resource Assessment Program. *Fire Hazard Severity Zones in SRA, Solano County*. November 7, 2007.
6. California Air Resources Board. *Air Quality and Land Use Handbook: A Community Health Perspective* [Table 1-2]. April 2005.
7. California Air Resources Board. *The 2017 Climate Change Scoping Plan Update*. January 20, 2017.
8. California Department of Conservation. *California Important Farmland Finder*. Available at: <https://maps.conservation.ca.gov/dlrp/ciff/>. Accessed October 2019.
9. California Department of Conservation. *Geologic Hazards Data & Maps*. Available at: <https://maps.conservation.ca.gov/geologichazards/>. Accessed November 8, 2019.
10. California Public Utilities Commission, Energy Division. *CA Energy Efficiency Strategic Plan: New Residential Zero Net Energy Action Plan 2015-2020*. June 2015.
11. City of Benicia. *Benicia General Plan: From 1847 Into the 21st Century* [pg. 72]. June 15, 1999.

12. Cleveland, Thomas H. *Health and Safety Impacts of Solar Photovoltaics: A California-Focused Forward to the Health and Safety Impacts of Solar Photovoltaics white paper published by the N.C. Clean Energy Technology Center at North Carolina State University in May 2017.* July 29, 2019.
13. Cleveland, Thomas, PE. *Glare Impact Study of Lake Herman Solar Facility.* July 29, 2019.
14. Contra Costa County. *Contra Costa County Airport Land Use Compatibility Plan.* December 2000.
15. Federal Aviation Administration. *Determination of No Hazard to Air Navigation.* April 12, 2019.
16. Federal Emergency Management Agency. *Flood Insurance Rate Map 06095C0635E.* Effective May 4, 2009.
17. Garcia and Associates. *Biological Site Assessment for the RPCA Solar 4, LLC Lake Herman Solar Project Solano County, California.* July 2019.
18. Garcia and Associates. *Cultural Resources Inventory Report: Lake Herman Solar Project, Solano County, California.* July 2019.
19. HEI Corporation. *Phase 1 Environmental Site Assessment – Undeveloped Pasture Land 88.54 Acres on the North side of Lake Herman Road Benicia, California.* July 2019.
20. Renewable Properties, LLC. *Lake Herman Solar – Traffic Analysis – 7.29.19.* July 2019.
21. Renewable Properties. *Lake Herman Solar – Visual Simulation from Lake Herman Road.* September 20, 2019.
22. Sacramento Fish & Wildlife Office Species Information, California Red-legged Frog. Available at: https://www.fws.gov/sacramento/es_species/Accounts/Amphibians-Reptiles/ca_red_legged_frog/. Accessed November 7, 2019.
23. Sacramento Metropolitan Air Quality Management District. *Mitigation: Construction Emissions Mitigation.* Available at: <http://www.airquality.org/businesses/ceqa-land-use-planning/mitigation>. Accessed November 18, 2019.
24. Solano County Airport Land Use Commission. *Travis Air Force Base Land Use Compatibility Plan.* June 13, 2002.
25. United States Department of Agriculture Natural Resources Conservation Service Web Soil Survey. Available at: <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>. Accessed November 5, 2019.
26. United States Environmental Protection Agency. *Emissions & Generation Resource Integrated Database (eGRID) Summary Tables 2016.* February 15, 2018.

C. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is “Potentially Significant” as indicated by the checklist on the following pages.

- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forest Resources | <input type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input checked="" type="checkbox"/> Geology and Soils | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards and Hazardous Materials |
| <input type="checkbox"/> Hydrology and Water Quality | <input type="checkbox"/> Land Use and Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Population and Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation | <input checked="" type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Wildfire | <input type="checkbox"/> Utilities and Service Systems | |

D. DETERMINATION

On the basis of this Initial Study:

- I find that the Proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the Proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the applicant. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the Proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Suzanne Thorsen

Printed Name

Date

City of Benicia

For

E. BACKGROUND AND INTRODUCTION

This Initial Study/Mitigated Negative Declaration (IS/MND) provides an environmental analysis pursuant to the California Environmental Quality Act (CEQA) for the proposed project. This document has been prepared by the City of Benicia as lead agency under CEQA. The IS/MND contains an analysis of the environmental effects of construction and operation of the proposed project.

As discussed throughout this IS/MND, due to the level of impacts anticipated for the proposed solar facility, as well as any future solar facility within the OS District subsequent to the ZTA, in conjunction with the requirement that any future solar facility within the OS District undergo separate CEQA environmental review, the potential for any impacts associated with the proposed project to incrementally contribute to the cumulative environment is limited. Furthermore, a number of the CEQA environmental issue areas addressed within this IS/MND are predominantly project- and/or site-specific, and do not have the potential to cumulatively combine. Accordingly, cumulative impacts associated with the proposed project, including future solar facilities within the OS District, as conditionally allowable by the proposed ZTA, are addressed within this IS/MND where applicable.

The mitigation measures prescribed for environmental effects described in this IS/MND would be implemented in conjunction with the project, as required by CEQA, and the mitigation measures would be incorporated into the project. In addition, a project Mitigation Monitoring and Reporting Program (MMRP) would be adopted in conjunction with approval of the project.

In accordance with Section 15073 of the CEQA Guidelines, this document is being circulated to local, state, and federal agencies and to interested organizations and individuals who may wish to review and comment on the report. After the public review period, the City will evaluate comments received on the draft IS/MND, and will prepare responses to address any substantial evidence that the proposed project could have a significant impact on the environment.

F. PROJECT DESCRIPTION

The following section includes a description of the project's location and surrounding land uses, as well as a discussion of the project components and discretionary actions requested of the City of Benicia.

Project Location and Surrounding Land Uses

The project site is an 88.5-acre parcel (Assessor's Parcel Number 0080-030-050), which is part of a largely undeveloped swath of hills located in the northern portion of the City of Benicia, in Solano County. The parcel is located north of Lake Herman Road and 0.25 miles east of Lake Herman Dam (see Figure 1). The project site is currently undeveloped and surrounding existing land uses include a single-family residence directly west of the site, single-family homes to the southwest, heavy industrial uses to the south, and extensive undeveloped hillsides to the north and east that are used as pasture for horses and cattle. An area north of the project site was historically used as a hazardous waste disposal site, and is currently in remediation. The lowest elevation on the project site is in the southwestern corner (~85 feet above sea level), and the highest elevation is near a ridgetop along the northern boundary (~300 feet above sea level) of the site. Outside of the project site, an intermittent creek parallels the western parcel boundary. The City of Benicia General Plan designates the site as General Open Space and the site is zoned Open Space (OS).

Figure 1
Project Site



Project Components

The proposed project consists of the construction, operation, and maintenance of a 35-acre, 5-Megawatt AC solar facility (see Figure 2). The proposed project includes approximately 18,424 solar modules and 40 string inverters, which convert solar energy into usable AC power. The modules would be under eight feet in height, and mounted on a steel racking system that would be anchored into the ground, and oriented in the north-south direction. A low horsepower, electric-powered motor would be used to slowly rotate each row over the course of the day from a 60-degree tilt towards the east at sunrise to a 60-degree tilt toward the west by sunset.

In addition, the proposed project would involve construction of two power stations and 10 equipment racks. Each power station would include a Medium Voltage (MV) transformer, Distributed Antenna System (DAS), and Weather Station. The equipment rack would include four Sungrow 125-kilowatt (kW) string inverters, and a 600-amp (A) main lug only (MLO) panel. The only off-site improvement would involve a substation hardware upgrade.

Long-term operations and management would include six maintenance trips to the site annually. Maintenance performed during each trip would include solar panel washing, vegetation management, and equipment preventative management. Water for panel washing would be trucked to the site, and the runoff would percolate through the underlying soils. The power generated from the solar facility would be sold to Marin Clean Energy (MCE) through a long-term Power Purchase Agreement. Additionally, the project would be equipped with energy storage systems to allow energy generated onsite to be stored and dispatched onto the grid when needed.

The proposed project would require City approval of a Use Permit and Design Review. Additionally, the proposed project would include a Zoning Text Amendment to allow solar utilities within areas zoned as OS throughout the City upon approval of a Use Permit.

The details of the proposed project are described in further detail below.

Access and Circulation

Access to the project site would be provided by a 20-foot (ft) gravel road off of Lake Herman Road. The 20-ft gravel access road would be designed to accommodate all construction, operations, maintenance, and utility traffic throughout the site. A 12-ft wide dirt road would be constructed along the site perimeter.

Landscaping

A vegetative screen would be planted along the western and southern borders of the project site to limit the visibility of the solar panels. Landscaping would incorporate primarily non-invasive, drought-tolerant, and native vegetation to support beneficial species and avoid the proliferation of invasive weeds. Once the proposed project is built, the area under the panels would be hydroseeded with native grasses to deter erosion onsite. Several Scrub oak and Interior Live oak trees would be planted south and west of the project site, and an additional row of Coffeeberry shrubs would be planted along Lake Herman Road and along the northwestern site border (see Figure 3).

Figure 2
Preliminary Site Plan

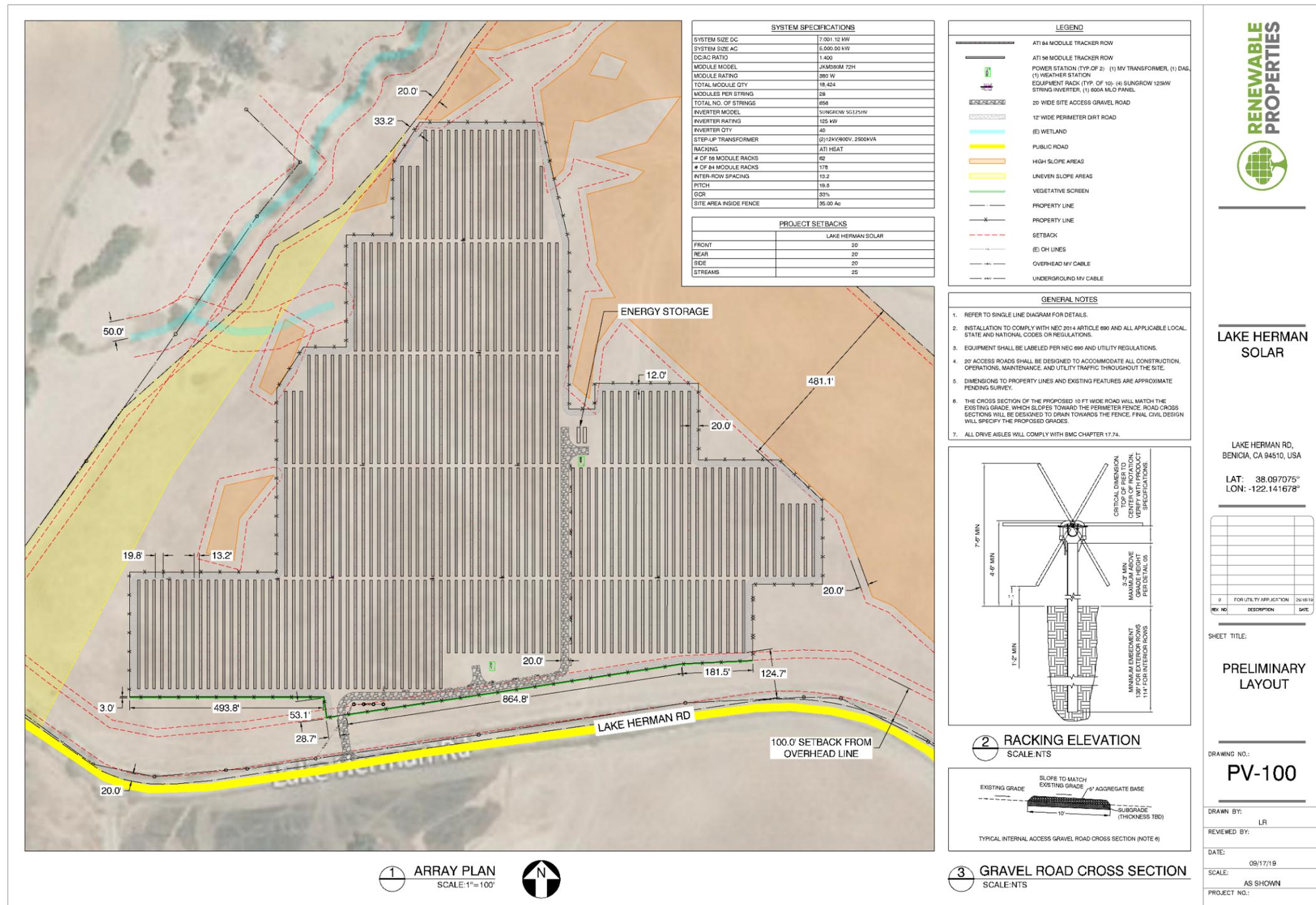
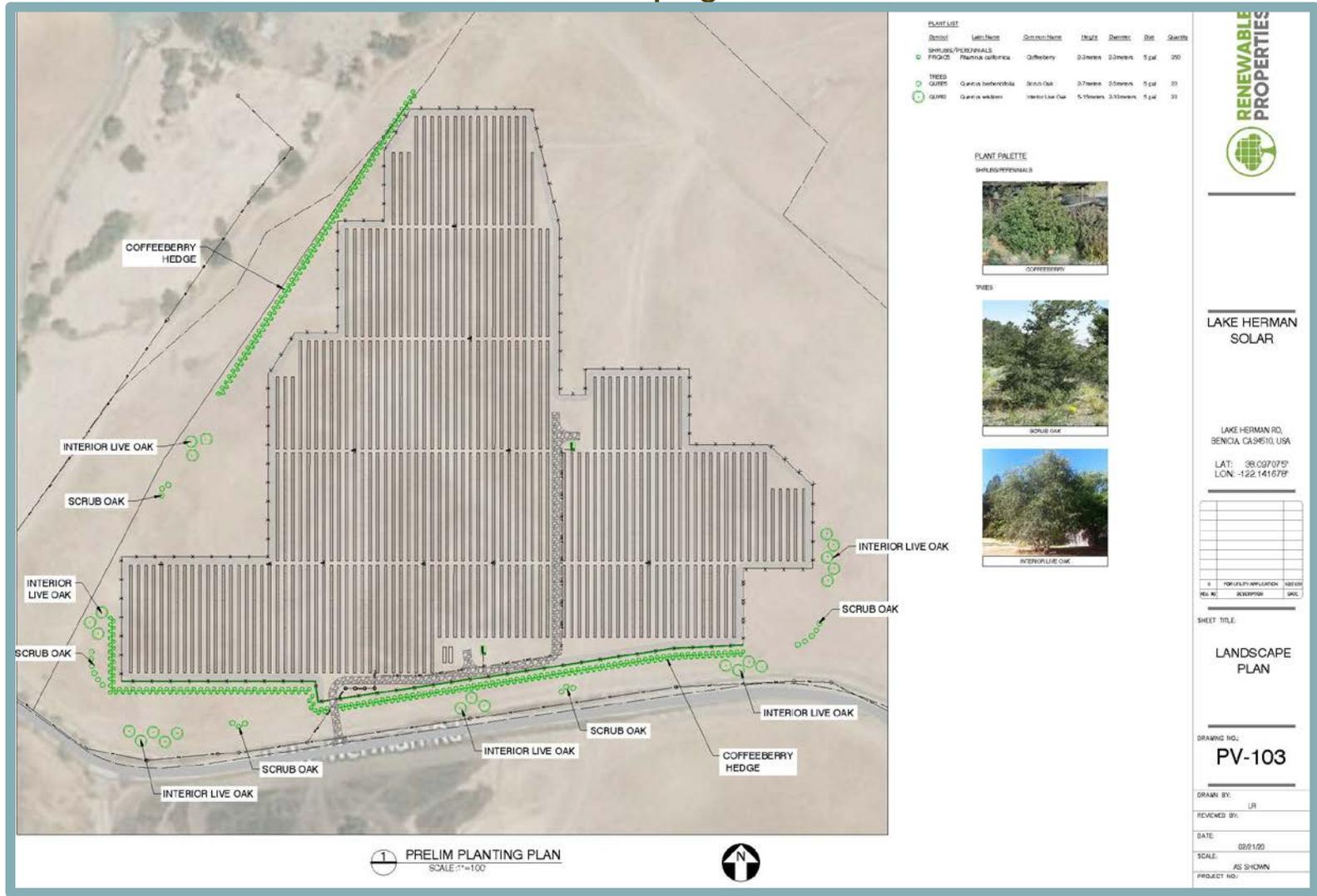


Figure 3
Landscaping Plan



Utilities

The proposed project would connect to Pacific Gas and Electric’s (PG&E’s) pre-existing 12kV electrical infrastructure located on-site. A project level recloser, primary overhead services, and revenue metering would be installed on the project site. In addition, PG&E would replace an existing LTC controller with a Beckwith M2001D controller set to ‘cogen’ mode. The aforementioned upgrade would be within the existing Bahia Substation, located approximately one mile south of the project site. Both on-site power stations would connect to underground MV cables, which would lead to the overhead MV cable. The overhead MV cable would connect to the electric overhead lines that currently exist along Lake Herman Road. Water and sewer service would not be required for the proposed project.

The off-site improvement to the substation would be managed by PG&E, and would only involve replacing a hardware unit. Therefore, the upgrade would not result in any physical environmental effects and, for the purpose of this analysis, the substation upgrade is not further discussed.

Construction Details

Construction of the proposed project would not involve mass grading of the site. Ground disturbing activities would be limited to driving piers into the ground for the steel racking system, construction of the 20-ft access road and 12-ft perimeter road, and trenching for electrical utilities. All electrical lines would be undergrounded from each solar panel to a connection point at the access road, at which point the lines would be pole-mounted and drawn overhead across Lake Herman Road to the existing PG&E poles.

Zoning Text Amendment

The proposed project would include a Zoning Text Amendment to allow solar utilities within areas zoned as OS, and define the conditions for developing a solar utility project within the City. The Zoning Text Amendment would change the Benicia Municipal Code (BMC) to create and define a new land use classification of “Utilities, Solar”, and permit that use in “OS” zoning districts, subject to a Use Permit. The amendment would allow construction of the proposed solar facility on the project site, as well as construction of potential future solar facilities on areas zoned OS in the City, subject to approval of Use Permits.

BMC Chapters 17.36 and 17.70 would be revised as follows (added text in red font):

I. Amendments to Chapter 17.36 (OS OPEN SPACE DISTRICT)

BMC § 17.16.040 Public and semipublic use classifications.

"Utilities, solar" means photovoltaic electric panels and appurtenant structures and facilities, designed to provide energy for off-site use such as a power purchase agreement, or direct sale of energy to a local utility company.

BMC § 17.36.030 Land use regulations.

OS District: Land Use Regulations

	OS	Additional Regulations
Public and Semipublic		
Utilities, Major	U	(F)
Waste Facility	U	(F)

Utilities, Solar	U	(I)
Utilities, Minor	P	

OS District: Additional Use Regulations
[footnotes for L1 – H omitted]

(I) See BMC 17.70.420, Solar utilities.

II. Amendments to Chapter 17.70 (GENERAL REGULATIONS)

BMC § 17.70.420 Solar utilities.

The following standards shall apply to all solar utilities:

- A. Agricultural Protections. Solar utilities shall not be sited on any land subject to a Williamson Act Contract, unless the landowner has rescinded that contract pursuant to its terms.
- B. No Municipal Services. Solar utilities shall not require or benefit from municipal services, such as water or sewer services.
- C. Development Standards. Solar arrays shall comply with all applicable setback restrictions, including creek setbacks, for the applicable zoning district.
- D. Height. For ground-mounted installations, the maximum height shall not exceed 15 feet from finished grade.
- E. Noise. Noise levels shall be in compliance with the noise regulations identified in Chapter 8.20 BMC.
- F. Decommissioning. Upon ceasing operations, or if the utility solar project is non-operational for a period of 12 months, the project should be decommissioned (or deactivated and removed) in an efficient and thorough manner. A Decommissioning Plan shall be submitted and approved by the Community Development Director prior to the issuance of Building Permits. Financial Assurance shall be provided to City of Benicia in a form and amount, as established by an independent engineer to secure the expense of decommissioning and restoring the project site consistent with the approved Decommissioning Plan. Financial Assurance shall be submitted and accepted by City of Benicia prior to final occupancy/finalizing the Building Permit (Project Close Out).
- G. Stormwater Management. All projects greater than one acre shall submit a Stormwater Pollution Prevention Plan and include erosion and sediment control best management practices into the plan.
- H. Minimal Traffic. Solar utilities shall not generate new daily traffic trips during normal operation outside of occasional trips for maintenance.
- I. Solar utilities shall comply with the applicable provisions of the Travis Air Force Base Airport Land Use Compatibility Plan.
- J. Hillside Protection. Solar utilities shall be prohibited on areas of greater than 20 percent slope.
- K. Scenic Vista and Views. Solar utilities shall not impede any scenic vistas or views as defined in the General Plan.

- L. The aggregate amount of Solar utilities allowed within the Open Space District shall be no more than 10 Megawatts AC.

IV. Amendments to Chapter 17.74 (OFF-STREET PARKING AND LOADING REGULATIONS)

BMC § 17.74.030 Off-street parking and loading spaces required.

Use Classification	Off-Street Parking Spaces: Schedule A	Off-Street Parking Spaces: Schedule B Group Number
Utilities, Solar	As specified by use permit	1

Discretionary Actions

Implementation of the proposed project would require the approval of the following entitlements by the City of Benicia:

- Adoption of the IS/MND;
- Adoption of the Mitigation Monitoring and Reporting Program;
- Zoning Text Amendment;
- Use Permit; and
- Design Review.

G. ENVIRONMENTAL CHECKLIST

The following checklist contains the environmental checklist form presented in Appendix G of the CEQA Guidelines. The checklist form is used to describe the impacts of the proposed project. A discussion follows each environmental issue area identified in the checklist. Included in each discussion are project-specific mitigation measures required, where necessary, as part of the proposed project.

For this checklist, the following designations are used:

Potentially Significant Impact: An impact that could be significant, and for which mitigation has not been identified. If any potentially significant impacts are identified, an EIR must be prepared.

Less Than Significant With Mitigation Incorporated: An impact that requires mitigation to reduce the impact to a less-than-significant level.

Less-Than-Significant Impact: Any impact that would not be considered significant under CEQA relative to existing standards.

No Impact: The project would not have any impact.

I. AESTHETICS.

Would the project:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>

Discussion

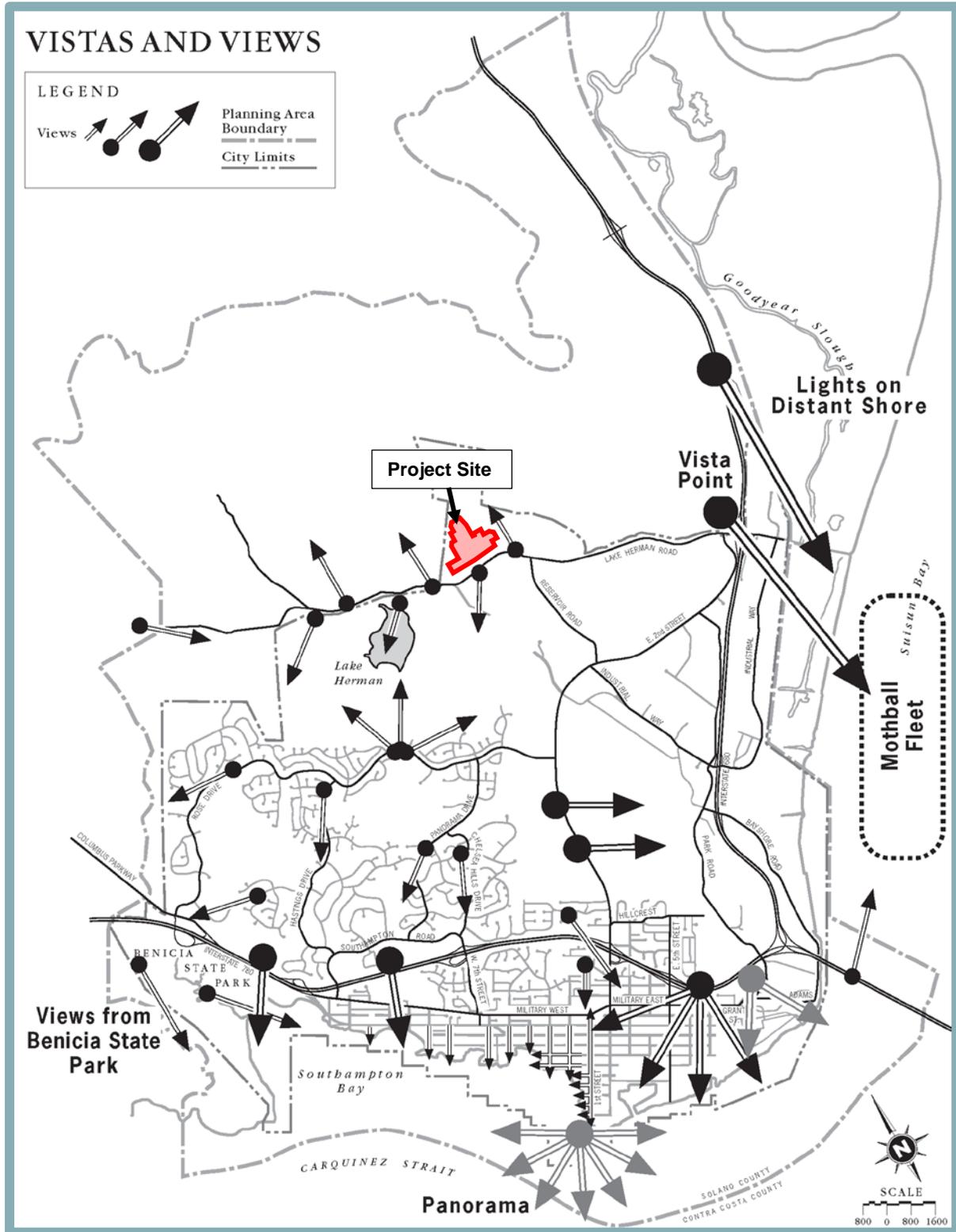
a,c. Examples of typical scenic vistas include mountain ranges, ridgelines, or bodies of water as viewed from a highway, public space, or other area designated for the express purpose of viewing and sightseeing. In general, a project’s impact to a scenic vista would occur if development of the project would substantially change or remove a scenic vista. The project site is in close proximity to several General Plan designated scenic vistas (see Figure 4), and Policy 2.20.3 of the City’s General Plan requires the maintenance of, “Lake Herman Road as a rural, two-lane, curving scenic route”.¹ The proposed project would be visible at multiple locations along a portion of Lake Herman Road.

The closest designated vista point is directly east of the project site. From the east of the project site and from the neighborhood to the south, the topography of the rolling hills adjacent to the site shields views of the site and would shield views of the proposed panels (see Figure 5). Thus, the likelihood of the proposed panels resulting in a substantial adverse effect on the scenic vista to the east of the site would be low. Additionally, the proposed project would have a minimal impact to the existing scenery as the project footprint represents a small fraction of the entire vista of rolling hills that are characteristic of northern Benicia. The rolling hills in the surrounding area block some views of the solar panels, and portions of Lake Herman Road currently have a natural vegetative barrier that parallels the roadway and would potentially block views of the project from portions of the road. Furthermore, the panels would be under eight feet in height, which would ensure that views of the rolling hills beyond the project site would not be impeded (see Figure 6 and Figure 7). The proposed project would be visible along a 1.5-mile stretch of Lake Herman Road, and the project design includes construction of a vegetative screen along the southern boundary of the project site to screen the proposed project. At the nearest point, the project perimeter would be over 115 feet from the road.² The setback from the road would be substantial, distancing viewers from the proposed panels. Therefore, the overall character of Lake Herman Road would be maintained to the extent feasible.

¹ City of Benicia. *Benicia General Plan: From 1847 Into the 21st Century* [pg. 72]. June 15, 1999.

² Renewable Properties. *Lake Herman Solar – Visual Simulation from Lake Herman Road*. September 20, 2019.

Figure 4
Scenic Vistas and Views



Source: City of Benicia. Benicia General Plan: From 1847 Into the 21st Century [pg. 112]. June 15, 1999.

Figure 5
**View Approaching the Project Site from the East,
Heading West Along Lake Herman Road**



Figure 6
Looking North onto the Project Site (Year 1)



Figure 7
Looking North onto the Project Site (Year 3-6)



The Bay Area Ridge Trail is not a designated scenic trail. However, the trail is locally important, and therefore, a Viewshed Analysis was prepared for the proposed project. The model indicates that the project site is visible from the Bay Area Ridge Trail, and at the closest point, the project site and the Bay Area Ridge Trail are approximately 1.98 miles apart. Using the Federal Highway Administration's (FHWA's) definitions for distance and visibility, the view of the project site is considered "background." Considering the distance between the trail and the project site, and the FHWA classification as background, the project would not cause a substantial change to the existing visual character of views from the Bay Area Ridge Trail.

The combination of the existing natural topography, limited project size, height of the panels, vegetative screening, and setback from the road allow the rural disposition of the surrounding area to be maintained. While the visual character of the project site would change from an undeveloped hillside to a solar array, there would not be an adverse effect on a recognized scenic vista or degradation of public views. Thus, the project would not degrade the visual quality of the site.

The project includes proposed amendments to the BMC, which would define a new land use classification, "Utilities, Solar" and establish standards for development of solar utilities within areas designated as OS in the City. Per the proposed Zoning Text Amendment, development of new solar utilities within areas designated as OS would require approval of Use Permits. Approval of Use Permits is subject to the requirements of CEQA; consequently, while the proposed project would expand the uses allowable in all areas designated as OS within the City, development of new solar utilities would require site-specific environmental review and would not be allowed by-right by the proposed zoning amendment. The proposed text amendment also limits panel height to 15 feet and requires a setback to be met, further minimizing aesthetic impacts. Thus, implementation of the proposed project would not necessarily result in development of any other solar

utilities within OS areas in the City, and impacts from potential future solar utilities on aesthetics would be assessed at the time that such projects are proposed.

Due to the project size and design, and with the implementation of adequate vegetative buffering along the southern perimeter of the project site, the project is not expected to have a negative visual impact. The project would not cause a substantial adverse effect on a scenic vista or substantially degrade the existing visual character or quality of public views of the site and its surroundings, and a **less-than-significant** impact would occur.

- b. According to the California Scenic Highway Map, the nearest scenic highway, State Route 37, is located over seven miles west of the project site.³ Therefore, the project site is not located within the vicinity of an officially designated State Scenic Highway.

The project includes the proposed Zoning Text Amendment mentioned above. Future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to project-specific CEQA review. Consequently, any potential impacts related aesthetics would be addressed through future project-specific analysis.

Thus, the project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway, and a **less-than-significant** impact would occur.

- d. The proposed project would not include any illuminated equipment or lighting fixtures that would create new sources of light. The remaining discussion focuses on potential glare that could result from construction of the proposed project.

Thomas Cleveland, PE, conducted a glare impact analysis for the proposed project using ForgeSolar Solar Glare Hazard Analysis Tool (SGHAT) software.⁴ PV modules are designed to absorb close to 100 percent of the solar energy that strikes the panel. However, when sunlight strikes the glass front of a solar panel at a glancing angle, a significant portion of the solar radiation is reflected, which can potentially lead to solar glare impacting a person's vision. The project-specific glare impact analysis considered the potential effects of glare on motorists traveling along Lake Herman Road and residential and commercial developments within one mile of the project site, and concluded that glare would not be expected during any time of the year at any of the analyzed locations.

The report also analyzed potential glare effects on the final approach paths for all six runways at Travis Air Force Base, located 14.1 miles northeast of the project site. The Travis Air Force Base Land Use Compatibility Plan classifies all land surrounding the base as one of several impact zones depending on the potential to impact operations. The project site falls within Zone D, and thus, requires that any commercial-scale solar facility not create a glare hazard that would impact the base. The glare impact model predicted that glare of any intensity would not be expected during any minute of the year for any of the flight paths or the air traffic control tower at Travis Air Force Base. It should be noted that the Buchanan Field Airport is also located in the vicinity of the project site, but because

³ Arc GIS California Scenic Highways. Available at: <https://www.arcgis.com/home/webmap/viewer.html?useExisting=1&layers=f0259b1ad0fe4093a5604c9b838a486>. Accessed on November 7, 2019.

⁴ Cleveland, Thomas, PE. *Glare Impact Study of Lake Herman Solar Facility*. July 29, 2019

the project site is not included in the associated Airport Influence Area or Land Use Compatibility Plan, potential impacts of glare from the proposed project on Buchanan Field Airport were not analyzed.

As discussed previously, while the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to project-specific CEQA review. Consequently, any potential impacts related to new sources of light or glare would be addressed through future project-specific analysis.

Therefore, the proposed project would not create new sources of light or glare that could affect day or nighttime views in the area, and impacts related to light and glare would be considered ***less-than-significant***.

II. AGRICULTURE AND FOREST RESOURCES.

Would the project:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	E No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

a,e. Per the California Important Farmland Finder, the entire project site is designated as “Grazing Land”.⁵ As such, the site does not contain Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Furthermore, the project site is not currently zoned or designated for agricultural purposes.

As discussed previously, although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to CEQA review. Consequently, any potential impacts to agricultural resources would be addressed through future project-specific analysis.

Based on the discussion above, the proposed project would not result in the loss of farmland, Unique Farmland, or Farmland of Statewide Importance, or involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use, and impacts would be ***less-than-significant***.

b. The project site is currently designated General Open Space per the City’s General Plan and is currently zoned OS; thus, the site is not zoned for agricultural use. Additionally, the site is not under a Williamson Act contract. Thus, the proposed project would not conflict with existing zoning for agricultural use or conflict with a Williamson Act contract.

As discussed previously, although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a

⁵ California Department of Conservation. *California Important Farmland Finder*. Available at: <https://maps.conservation.ca.gov/dlrp/ciff/>. Accessed October 2019.

Use Permit and would be subject to CEQA review. Consequently, any potential impacts to agricultural resources would be addressed through future project-specific analysis.

Based on the above, the site is not zoned as agricultural and is not under a Williamson Act, and **no impact** would occur as a result of the proposed project.

- c,d. The project area contains 17 trees total, and thus is not considered forest land (as defined in Public Resources Code section 12220[g]), timberland (as defined by Public Resources Code section 4526), and is not zoned Timberland Production (as defined by Government Code section 51104[g]).

As discussed previously, although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to CEQA review. Consequently, any potential impacts to agricultural resources would be addressed through future project-specific analysis.

For the reasons discussed above, the proposed project would have **no impact** with regard to conversion of forest land or any potential conflict with forest land, timberland, or Timberland Production zoning.

III. AIR QUALITY.

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

a,b. The City of Benicia is located in the San Francisco Bay Area Air Basin (SFBAAB), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The SFBAAB area is currently designated as a nonattainment area for the State and federal ozone, State and federal fine particulate matter 2.5 microns in diameter (PM_{2.5}), and State respirable particulate matter 10 microns in diameter (PM₁₀) ambient air quality standards (AAQS). The SFBAAB is designated attainment or unclassified for all other AAQS. It should be noted that on January 9, 2013, the U.S. Environmental Protection Agency (USEPA) issued a final rule to determine that the Bay Area has attained the 24-hour PM_{2.5} federal AAQS. Nonetheless, the Bay Area must continue to be designated as nonattainment for the federal PM_{2.5} AAQS until such time as the BAAQMD submits a redesignation request and a maintenance plan to the USEPA, and the USEPA approves the proposed redesignation.

In compliance with regulations, due to the nonattainment designations of the area, the BAAQMD periodically prepares and updates air quality plans that provide emission reduction strategies to achieve attainment of the AAQS, including control strategies to reduce air pollutant emissions through regulations, incentive programs, public education, and partnerships with other agencies. The current air quality plans are prepared in cooperation with the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG).

The most recent federal ozone plan is the 2001 Ozone Attainment Plan, which was adopted on October 24, 2001 and approved by the California Air Resources Board (CARB) on November 1, 2001. The plan was submitted to the USEPA on November 30, 2001 for review and approval. The most recent State ozone plan is the 2017 Clean Air Plan (CAP), adopted on April 19, 2017. The 2017 CAP was developed as a multi-pollutant plan that provides an integrated control strategy to reduce ozone, PM, toxic air contaminants (TACs), and greenhouse gases (GHGs). Although a plan for achieving the State PM₁₀ standard is not required, the BAAQMD has prioritized measures to reduce PM in developing the control strategy for the 2017 CAP. The control strategy serves as the backbone of the BAAQMD's current PM control program.

The aforementioned air quality plans contain mobile source controls, stationary source controls, and transportation control measures to be implemented in the region to attain the State and federal AAQS within the SFBAAB. Adopted BAAQMD rules and regulations, as well as the thresholds of significance, have been developed with the intent to ensure

continued attainment of AAQS, or to work towards attainment of AAQS for which the area is currently designated nonattainment, consistent with applicable air quality plans. The BAAQMD’s established significance thresholds associated with development projects for emissions of the ozone precursors reactive organic gases (ROG) and oxides of nitrogen (NO_x), as well as for PM₁₀, and PM_{2.5}, expressed in pounds per day (lbs/day) and tons per year (tons/yr), are listed in Table 1. Thus, by exceeding the BAAQMD’s mass emission thresholds for operational emissions of ROG, NO_x, PM₁₀, or PM₂₅ a project would be considered to conflict with or obstruct implementation of the BAAQMD’s air quality planning efforts.

Table 1 BAAQMD Thresholds of Significance			
Pollutant	Construction	Operational	
	Average Daily Emissions (lbs/day)	Average Daily Emissions (lbs/day)	Maximum Annual Emissions (tons/year)
ROG	54	54	10
NO _x	54	54	10
PM ₁₀ (exhaust)	82	82	15
PM _{2.5} (exhaust)	54	54	10

Source: BAAQMD, CEQA Guidelines, May 2017.

The primary construction activity associated with the proposed project would be driving the steel support piers into the ground, which would require the use of a bore/drill rig. In addition to use of the bore/drill rig, emissions would occur from the movement of materials to the site, trenching for utilities, and land clearing for the proposed access roads. Specifics about material movement are currently unknown, but given the limited amount of material needed for the project, material movement is not anticipated to represent a significant source of emissions. The proposed project’s construction emissions were quantified using the Sacramento Metropolitan Air Quality Management District (SMAQMD) Construction Mitigation Tool.⁶ The SMAQMD Construction Mitigation Tool is a model designed to quantify air quality emissions from specific construction equipment. Although the proposed project would not be under the jurisdiction of SMAQMD, BAAQMD does not currently have a construction mitigation tool. Thus, the district has permitted the SMAQMD tool to be used for analyzing construction emissions throughout the State. The modeling prepared for the project included the following assumptions based on applicant-provided information and conservative estimates:

- Construction would commence in June of 2020;
- A Grader and Scraper would be used to site preparation and land clearing for the proposed roads;
- The Bore/Drill Rig used would be a 50 horsepower, 1999 model GAYK 4000 pile driver;
- The pile driver would be diesel powered; and
- Estimated total hours of use for construction would be approximately 200 hours.

The proposed project’s estimated emissions associated with construction and operations are presented and discussed in further detail below. A discussion of the proposed project’s

⁶ Sacramento Metropolitan Air Quality Management District. *Mitigation: Construction Emissions Mitigation*. Available at: <http://www.airquality.org/businesses/ceqa-land-use-planning/mitigation>. Accessed on November 18, 2019.

contribution to cumulative air quality conditions is provided below as well. All SMAQMD Construction Mitigation Tool results are included in Appendix A.

Construction Emissions

According to the SMAQMD Construction Mitigation Tool results, the proposed project would result in maximum unmitigated construction criteria air pollutant emissions as shown in Table 2.

Table 2 Maximum Construction Emissions (lbs/day)			
Pollutant	Effect Daily Emissions	Threshold of Significance	Exceeds Threshold?
ROG	1.06	54	NO
NO _x	3.79	54	NO
PM ₁₀ (exhaust)	0.36	82	NO
PM _{2.5} (exhaust)	0.34	54	NO
<i>Source: SMAQMD Mitigation Model, November 2019 (see Appendix A).</i>			

As shown in the table above, the proposed project’s construction emissions would be well below the thresholds of significance for all applicable compounds. In addition, all projects within the jurisdiction of the BAAQMD are required to implement all of the BAAQMD’s Basic Construction Mitigation Measures, which include the following:

1. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
2. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
3. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).
4. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
5. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
6. All construction equipment shall be maintained and properly tuned in accordance with manufacturer’s specifications. All equipment shall be checked by a certified visible emissions evaluator.
7. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District’s phone number shall also be visible to ensure compliance with applicable regulations.

The proposed project’s required implementation of the BAAQMD’s Basic Construction Mitigation Measures listed above would help to further minimize construction-related emissions. The above measures would also address dust emissions resulting from land clearing. Because construction would result in emissions below all applicable thresholds

of significance, the proposed project would not result in a significant air quality impact during construction.

Operational Emissions

Operational emissions associated with the proposed project would be attributable to the increase of approximately six vehicle trips per year for maintenance visits. In addition, a low horsepower, electric-powered motor would be used to rotate the solar array throughout the course of the day. The small panel motors and six vehicle trips per year required for maintenance would not result in emissions of NO_x, ROG, PM₁₀, or PM_{2.5} in excess of the BAAQMD's recommended significance thresholds or degrade the region's air quality. Therefore, the proposed project's operational emissions would not result in a significant impact to air quality.

Cumulative Emissions

Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By nature, air pollution is largely a cumulative impact. A single project is not sufficient in size to, by itself, result in nonattainment of AAQS. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant. In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. The thresholds of significance presented in Table 1 represent the levels at which a project's individual emissions of criteria air pollutants or precursors would result in a cumulatively considerable contribution to the SFBAAB's existing air quality conditions. If a project exceeds the significance thresholds presented in Table 1, the proposed project's emissions would be cumulatively considerable, resulting in significant adverse cumulative air quality impacts to the region's existing air quality conditions. Because the proposed project would result in emissions well below the applicable threshold of significance for construction-related and operational emissions, the project would not cause a cumulatively considerable contribution to the region's existing air quality conditions.

Zoning Text Amendment

As discussed previously, although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to CEQA review. Consequently, any potential impacts to air quality or emissions of a criteria pollutant would be addressed through future project-specific analysis.

Conclusion

According to BAAQMD, if a project would not result in significant and unavoidable air quality impacts, the project may be considered consistent with the air quality plans due to the exceedance of the applicable thresholds of significance. The proposed project would result in operational and construction emissions far below the applicable thresholds of significance. Therefore, the proposed project would not conflict with or obstruct implementation of the applicable air quality plan nor result in a cumulatively considerable net increase of a criteria pollutant, and a ***less-than-significant*** impact would occur.

- c. Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, childcare centers, playgrounds, retirement homes, convalescent homes, hospitals, and medical clinics. The nearest existing sensitive receptors is the residence located approximately 300 feet west of the site.

The major pollutant concentrations of concern are localized carbon monoxide (CO) emissions and toxic air contaminant (TAC) emissions, which are addressed in further detail below.

Localized CO Emissions

Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. High levels of localized CO concentrations are only expected where background levels are high, and traffic volumes and congestion levels are high. Emissions of CO are of potential concern, as the pollutant is a toxic gas that results from the incomplete combustion of carbon-containing fuels such as gasoline or wood.

In order to provide a conservative indication of whether a project would result in localized CO emissions that would exceed the applicable threshold of significance, the BAAQMD has established screening criteria for localized CO emissions. According to BAAQMD, a proposed project would result in a less-than-significant impact related to localized CO emission concentrations if all of the following conditions are true for the project:

- The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans;
- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour; and
- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, underpass, etc.).

Traffic resulting from construction materials would be short-term, and the six annual vehicle trips for maintenance would be a negligible increase in traffic. Thus, the proposed project would not contribute to the traffic along Lake Herman Road. As such, the proposed project would not generate substantial levels of localized CO that would exceed BAAQMD standards.

TAC Emissions

Another category of environmental concern is TACs. The CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (Handbook) provides recommended setback distances for sensitive land uses from major sources of TACs, including, but not limited to, freeways and high traffic roads, distribution centers, and rail yards. The CARB has identified diesel particulate matter (DPM) from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and

constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. Health risks associated with TACs are a function of both the concentration of emissions and the duration of exposure, where the higher the concentration and/or the longer the period of time that a sensitive receptor is exposed to pollutant concentrations would correlate to a higher health risk.

The proposed project would not involve any land uses or operations that would be considered major sources of TACs, including DPM. As such, the proposed project would not generate any substantial pollutant concentrations during operations. However, short-term, construction-related activities could result in the generation of TACs, specifically DPM, from on-road haul trucks and off-road equipment exhaust emissions. Construction is temporary and occurs over a relatively short duration in comparison to the operational lifetime of the proposed project. Specifically, as noted above, construction would occur over approximately six weeks. Health risks are typically associated with exposure to high concentrations of TACs over extended periods of time (e.g., 30 years or greater), whereas the construction period associated with the proposed project would be far less.

All construction equipment and operation thereof would be regulated per the In-Use Off-Road Diesel Vehicle Regulation, which is intended to help reduce emissions associated with off-road diesel vehicles and equipment, including DPM. Project construction would also be required to comply with all applicable BAAQMD rules and regulations, particularly associated with permitting of air pollutant sources. Construction of this particular project would be limited, and only a few pieces of equipment would be used. Due to the temporary nature of construction and the relatively short duration of potential exposure to associated emissions, the potential for any one sensitive receptor in the area to be exposed to concentrations of pollutants for a permanent or substantially extended period of time would be low.

According to BAAQMD, research conducted by CARB indicates that DPM is highly dispersive in the atmosphere.⁷ The closest residential property along the western border of the project site is located approximately 300 feet from the proposed construction activity. As a result of the dispersive nature of DPM, emissions at the project site would be substantially dispersed at the nearest sensitive receptor. Therefore, construction of the proposed project would not be expected to expose nearby sensitive receptors to substantial pollutant concentrations.

Zoning Text Amendment

As discussed previously, although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to CEQA review. Consequently, any potential impacts regarding exposure of sensitive receptors to substantial pollutant concentrations would be addressed through future project-specific analysis.

⁷ California Air Resources Board. *Air Quality and Land Use Handbook: A Community Health Perspective* [Table 1-2]. April 2005.

Conclusion

Based on the above discussion, the proposed project would not expose any sensitive receptors to excess concentrations of localized CO, TACs, or criteria pollutants during construction or operation. Therefore, the proposed project would result in a **less-than-significant** impact related to the exposure of sensitive receptors to substantial pollutant concentrations.

- d. Emissions of pollutants have the potential to adversely affect sensitive receptors within the project area. Pollutants of principal concern include emissions leading to odors, emissions of dust, or emissions considered to constitute air pollutants. Air pollutants have been discussed in sections “a” through “c” above. Therefore, the following discussion focuses on emissions of odors and dust during construction and operation of the project.

Odors

Per the BAAQMD CEQA Guidelines, odors are generally regarded as an annoyance rather than a health hazard.⁸ Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, quantitative methodologies to determine the presence of a significant odor impact do not exist. Certain land uses such as wastewater treatment facilities, landfills, confined animal facilities, composting operations, food manufacturing plants, refineries, and chemical plants have the potential to generate considerable odors. The proposed project would not introduce any such land uses. Solar utilities are not typically associated with the creation of substantial objectionable odors.

Construction activities often include diesel fueled equipment and heavy-duty trucks, which could create odors associated with diesel fumes that may be considered objectionable. However, as discussed above, construction activities would be temporary and involve few pieces of equipment. Project construction would also be required to comply with all applicable BAAQMD rules and regulations, particularly associated with permitting of air pollutant sources. Considering the short-term nature of construction activities and the regulated and intermittent nature of the operation of construction equipment, construction of the proposed project would not be expected to create objectionable odors affecting a substantial number of people.

It should be noted that BAAQMD regulates objectionable odors through Regulation 7, Odorous Substances, which does not become applicable until the Air Pollution Control Officer (APCO) receives odor complaints from ten or more complainants within a 90-day period. Once effective, Regulation 7 places general limitation on odorous substances and specific emission limitations on certain odorous compounds, which remain effective until such time that citizen complaints have been received by the APCO for one year. The limits of Regulation 7 become applicable again when the APCO receives odor complaints from five or more complainants within a 90-day period. Thus, although not anticipated, if odor complaints are made during construction, BAAQMD would ensure that such odors are addressed and any potential odor effects reduced to less than significant.

⁸ Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines* [pg. 7-1]. May 2017.

Dust

All projects under the jurisdiction of BAAQMD are required to implement BAAQMD's Basic Construction Mitigation Measures. The measures, which are listed in response to questions (a) through (c) of this IS/MND, would act to reduce construction related dust, which would ensure that construction of the proposed project does not result in substantial emissions of dust. Following project construction, a revegetation plan would be carried out, and exposed topsoil would not be present on the project site. Thus, project operations would not include any substantial sources of dust.

Zoning Text Amendment

While the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to CEQA review. Consequently, any potential impacts to air quality relating to odors or dust would be addressed through future project-specific analysis.

Conclusion

The proposed solar facility project would not create any objectionable odors. In addition, the nearest sensitive receptor that would be affected by odors is located approximately 300 feet away, at which distance any potential odors would dissipate. Therefore, impacts related to the creation of objectionable odors or dust affecting a substantial number of people would be ***less-than-significant***.

IV. BIOLOGICAL RESOURCES.

Would the project:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

The following discussion is primarily based off the Technical Biological Report prepared for the proposed project by Garcia and Associates.⁹

- a. The project site is currently undeveloped pasture of rolling hills dominated by non-native annual grassland vegetation. Grazing and related agricultural activities have altered the vegetation in favor of species that are tolerant to such disturbances. The project site is defined as a low-growing herbaceous community, dominated by the following non-native annual species: ripgut brome (*Bromus diandrus*), Italian ryegrass (*Festuca perennis*), and black mustard (*Brassica nigra*). Additional non-native species well represented in the project site include Mediterranean linseed (*Bellardia trixago*), false brome (*Brachypodium distachyon*), purple star-thistle (*Centaurea calcitrapa*), yellow star-thistle (*C. solstitialis*), field bindweed (*Convolvulus arvensis*), medusahead (*Elymus caput-medusae*), and seaside barley (*Hordeum marinum*). Despite the heavy grazing pressure, some native plant species are present, including soft blow wives (*Achyrachaena mollis*), harvest brodiaea (*Brodiaea elegans*), and hayfield tarweed (*Hemizonia congesta*).

Annual grasslands often contain the California ground squirrel (*Otospermophilus beecheyi*), whose burrows provide habitat for various bird and owl species. Three ephemeral channels and a stock pond were identified within the project site, along with 17

⁹ Garcia and Associates. *Biological Site Assessment for the RPCA Solar 4, LLC Lake Herman Solar Project Solano County, California*. July 2019.

trees that meet the City of Benicia's recognized tree size requirement. The project site does not overlap with any federally listed critical habitat.

Special-status species include those plant and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the federal and State Endangered Species Acts. Both acts afford protection to listed and proposed species. In addition, California Department of Fish and Wildlife (CDFW) Species of Special Concern, which are species that face extirpation in California if current population and habitat trends continue, U.S. Fish and Wildlife Service (USFWS) Birds of Conservation Concern, sensitive species included in USFWS Recovery Plans, and CDFW special-status invertebrates are all considered special-status species. Although CDFW Species of Special Concern generally do not have special legal status, they are given special consideration under CEQA. In addition to regulations for special-status species, most birds in the U.S., including non-status species, are protected by the Migratory Bird Treaty Act (MBTA) of 1918. Under the MBTA, destroying active nests, eggs, and young is illegal. In addition, plant species on California Native Plant Society (CNPS) Lists 1 and 2 are considered special-status plant species and are protected under CEQA.

Prior to field surveys, Garcia and Associates conducted a database search to acquire information concerning known habitats and special-status species that may occur on the Project Area. The Project Area is defined as the project site and a two-mile radius outside of the border of the project site in all directions. The following sources were consulted:

- U.S. Fish and Wildlife's (USFWS's) online Information for Planning and Consultation system;
- USFWS's National Wetlands Inventory (NWI) database;
- California Department of Fish and Wildlife's (CDFW's) California Natural Diversity Database (CNDDB);
- California Native Plant Society's (CNPS) online inventory;
- Solano County General Plan;
- City of Benicia General Plan; and
- City of Benicia Tree Ordinance.

On June 11, 2019, Garcia and Associates conducted a field survey to evaluate botanical and wildlife resources by walking meandering transects within the project site. The survey assessed habitat suitability for special-status species, and identified potentially protected trees, aquatic features, and presence or potential presence of special-status wildlife and plants. The results of the database search and field survey are discussed below.

Special-Status Plants

Based on the database search, a total of 17 special-status plant species have been recorded within the Project Area. Of 17 identified species, suitable habitat is present for only the following ten taxa: bent-flowered fiddleneck (*Amsinckia lunaris*), California androsace (*Androsace elongata* ssp. *acuta*), big-scale balsamroot (*Balsamorhiza macrolepis*), big tarplant (*Blepharizonia plumosa*), Jepson's coyote thistle (*Eryngium jepsonii*), Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*), pappose tarplant (*Centromadia parryi* ssp. *parryi*), Parry's rough tarplant (*Centromadia parryi* ssp. *rudis*), Santa Cruz tarplant (*Holocarpha macradenia*), and two-forked clover (*Trifolium amoenum*). Related taxa with similar life history characteristics were not present in the project site, suggesting the absence of the 10 aforementioned special-status plants.

Furthermore, the survey was conducted during peak blooming season for many of the special-status plants, and none of the special-status plants were observed.¹⁰ Due to the disturbed nature of the grassland, the probability of special-status plants to occur is low. Although special-status plant species have not been previously documented on the project site and none were observed during the botanical survey, potential habitat suitable for the aforementioned plant taxa exists on the site. Consequently, target species could inhabit the site over time. Should project construction begin on or after June 11, 2021, an additional pre-construction survey would be required in order to determine whether any special-status plants have inhabited the site. Thus, construction activities associated with the proposed project could result in adverse effects to special-status plant species.

Special-Status Wildlife

Based on the results of the CNDDDB search, 26 special-status wildlife species were evaluated, nine of which have occurrence within a two-mile radius of the project site. Based on the site survey, Garcia and Associates concluded that none of the special-status wildlife species have a high potential to occur in the project site, but three species, golden eagle (*Aquila chrysaetos*), burrowing owl (*Athene cunicularia*), and Swainson's hawk (*Buteo swainsoni*) have a moderate potential to occur. In addition, the project site is immediately outside areas that are designated by the USFWS as California red-legged frog (CRLF, *Rana draytonii*) critical habitat. A potential raptor prey species, California ground squirrel, and their burrows, which can be used by CRLF and other special-status species, were also observed onsite.¹¹

California Red-Legged Frog (CRLF)

CRLF tend to occupy specific habitats that combine both aquatic and upland habitat requirements. Aquatic habitat is comprised of slow-moving streams or ponds, with suitable breeding habitat generally found in deep (greater than 2.5 feet) still or slow-moving pools. Upland habitat includes nearly any area within two miles of an aquatic breeding site that stays cool during summer, and includes sheltering habitat such as logs or small mammal burrows, including California ground squirrel burrows.¹²

The nearest reported CNDDDB occurrence of CRLF was over three miles outside of the Project Area. The project site does not contain known occurrences of CRLF nor suitable breeding habitat for CRLF. However, unpublished surveys found CRLF in aquatic habitat at the confluence of an intermittent creek and Sulfur Springs Creek, which is located approximately 1.6 miles west of the Project Area. Another intermittent stream with associated aquatic habitat parallels the western boundary of the Project Area, but the stream is located on private land and the surveyors did not have access to the parcel. Therefore, evaluation of the stream's potential to provide suitable habitat for CRLF was limited. However, based on the surveyor's evaluation of visible portions of the stream, Garcia and Associates concluded that the stream is not likely to provide suitable breeding habitat due to the extremely shallow depth, presence of livestock, and the seasonal nature of the stream.

¹⁰ Garcia and Associates. *Biological Site Assessment for the RPCA Solar 4, LLC Lake Herman Solar Project Solano County, California* [pg. 14]. July 2019.

¹¹ *Ibid* [pg. 9].

¹² Sacramento Fish & Wildlife Office Species Information, California Red-legged Frog. Available at https://www.fws.gov/sacramento/es_species/Accounts/Amphibians-Reptiles/ca_red_legged_frog/. Accessed November 7, 2019

The Project Area lies immediately (approximately 350 feet) outside designated critical habitat for CRLF. The stock pond and California ground squirrel burrows within the project site provide potentially suitable non-breeding and upland habitat for CRLF. Frequent use of the stock pond by livestock and an absence of vegetation or other features for attachment of egg-masses suggests that the stock pond is not suitable breeding habitat for CRLF, but it may serve as aquatic non-breeding habitat. If ground disturbing activities or loud noises were to occur near CRLF habitat, the frogs may flee the area and be at risk for predation or breeding failure. For the aforementioned reasons, and because the site is adjacent to designated critical habitat and provides potential non-breeding habitat, a potentially significant impact could occur.¹³

Burrowing Owls

Although burrowing owls were not observed during the site survey, the project site and adjacent area contains suitable habitat for burrowing owls. Suitable habitat for burrowing owls includes open areas with rolling hills and grasslands, which is consistent with the characteristics identified at the project site. Additionally, California ground squirrel burrows were present on the project site, and burrows are often associated with burrowing owls. If ground-disturbing activities were to occur during the nesting season (February 1 through August 31), nests and nestlings that may be present could be destroyed. Thus, in the absence of preconstruction surveys and establishment of exclusion zones for burrowing owls, a potentially significant impact could occur.¹⁴

Swainson's Hawk

Swainson's hawks were not observed during the site survey. However, the project site is dominated by annual grassland that includes California ground squirrels, thus providing suitable foraging habitat for the species. Additionally, the areas adjacent to the project site contain eucalyptus trees, which are considered suitable nesting habitat for Swainson's hawks. If ground-disturbing activities were to occur during the nesting season (February 1 through August 31), nests and nestlings that may be present could be destroyed or disturbed. Thus, in the absence of preconstruction surveys and establishment of exclusion zones for nesting Swainson's hawks, a potentially significant impact could occur.¹⁵

Golden Eagle

Golden eagles were not observed during the survey, and the project site has no suitable nesting sites. However, eucalyptus trees on adjacent land provide suitable nesting habitat, and the site's open grassland and presence of California ground squirrels could be suitable foraging habitat for the golden eagle. In 1987, golden eagles successfully nested within 1.5 miles of the project area, but more recent use of the area for golden eagle nesting has not been documented, and may have been discouraged by subsequent urban development. If ground-disturbing activities were to occur during the nesting season (February 1 through August 31), and a golden eagle nest is located in proximity to the project site, nesting failure could occur. Thus, in the absence of preconstruction surveys and establishment of exclusion zones for nesting golden eagles, a potentially significant impact could occur.¹⁶

¹³ Garcia and Associates. *Biological Site Assessment for the RPCA Solar 4, LLC Lake Herman Solar Project Solano County, California* [pg. 11]. July 2019.

¹⁴ *Ibid* [pg. 13].

¹⁵ *Ibid* [pg. 13-14].

¹⁶ *Ibid* [pg. 12-13].

Nesting and Migratory Birds

One occupied American kestrel (*Falco sparverius*) nest was observed in a eucalyptus tree located immediately outside the project site, and an occupied black phoebe (*Sayornis nigricans*) nest was observed in a culvert under Lake Herman Road. In addition, one unoccupied raptor nest-structure was present in an oak tree south of the project site, and a single red-tailed hawk (*Buteo jamaicensis*) was perched on a distribution pole immediately west of the project. The aforementioned species as well as other species protected by the MBTA could potentially use the habitat located within the project site. If construction were to occur near protected nesting or migratory birds, a potentially significant adverse impact could occur.¹⁷

Zoning Text Amendment

As discussed previously, although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to CEQA review. Consequently, any potential impacts to biological resources would be addressed through future project-specific analysis.

Conclusion

Based on the discussion above, implementation of the proposed project could potentially affect special-status plants, CRLF's, burrowing owls, Swainson's hawk, golden eagles and protected nesting and migratory birds. Thus, the proposed project could have a substantial adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Therefore, a **potentially significant** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level. The mitigation measures below refer only to the proposed solar installation, and not the Zoning Text Amendment.

- IV-1. *Prior to initiation of construction, all personnel must attend a preconstruction environmental training to review potential special-status wildlife that could be found in the project area and ensure that mitigation measures for the project are understood and implemented. The training shall include a description of the species and their habitat needs, a report of the occurrence of the species in the project area, an explanation of the status of the taxa and its protection under ESA, CESA, and/or California Fish and Game Code, a list of measures being taken to reduce impacts to the species during construction, and responsibilities of employees. A fact sheet conveying this information shall be prepared for all personnel associated with the project and for anyone else who may enter the site. Upon completion of training, employees shall sign a form stating that they attended the training and understand all the conservation and protective*

¹⁷ Garcia and Associates. *Biological Site Assessment for the RPCA Solar 4, LLC Lake Herman Solar Project Solano County, California* [pg. 11]. July 2019.

measures. The training form shall be submitted to the City's Community Development Department.

Work areas, staging areas, and access roads shall be limited to those mentioned in the final project description. All heavy equipment, vehicles, and construction activities shall be confined to these designated areas. The activity footprint shall be minimized to reduce the potential for impacts to special-status species. The development of new access roads, including clearing and blading for temporary vehicle access in areas of natural vegetation, shall be minimized. Vehicle speeds on unpaved roads shall not exceed 15 miles per hour. Trash dumping, firearms, open fires (such as barbecues), hunting, and pets shall be prohibited at the work site. All trash and waste items generated by construction or crew activities shall be properly contained and removed from the project site. All project personnel shall visually check for animals beneath vehicles and equipment immediately prior to operation.

The potential for wildlife to seek refuge or shelter in pipes and culverts shall be minimized. Any pipes, culverts, or other open-ended materials and equipment stored onsite shall be inspected for animals prior to moving, burying, or capping to assure that no animals are present within the materials and equipment. To prevent accidental entrapment of wildlife during construction, all excavated holes, ditches, or trenches greater than one foot deep shall be covered at the end of each workday by suitable materials, or escape routes shall be constructed. After opening and before filling, such holes, ditches, and trenches shall be thoroughly inspected for trapped animals. Auger holes or fence post holes shall be immediately filled or securely covered so they do not become pitfall traps.

If a special-status species is discovered in the project area, the Project Manager shall be contacted. The Project Manager shall report the sighting to the appropriate natural resource agency(ies) (e.g., CDFW, USFWS, etc.) within 24 hours. The animal shall be allowed to move off site on its own accord. Special- status species shall not be taken off the premises or harassed. Soil shall be stockpiled within established work area boundaries and located so as not to enter water bodies, stormwater inlets, or other standing bodies of water. Stockpiled soil shall be covered prior to precipitation. A copy of all applicable permits and approvals, with associated maps, conditions, and mitigation measures shall be kept onsite at all times.

The project contractor shall ensure that all refueling, maintenance, and staging of equipment vehicles shall be located at least 100 feet from riverine and/or aquatic habitat. If refueling must be conducted closer to watercourses, a secondary containment area subject to review by an environmental field specialist and/or biologist shall be constructed. Spill prevention and cleanup equipment shall be placed and maintained in refueling areas.

Special-Status Plants

- IV-2. *Prior to any ground disturbance, should construction begin on or after June 11, 2021, a qualified biologist shall conduct a preconstruction survey to identify any special-status plant species on the project site. A written summary of the survey results shall be submitted to the City of Benicia Community Development Department and the CDFW.*

If special-status plant species are observed on the project site during the preconstruction survey, individuals shall be marked (e.g., with flagging or construction fencing) and avoided during construction activities. Depending on the species, buffer zones around the plants may be established to avoid effects on special-status plants. Proof of buffer zones shall be submitted to the City of Benicia Community Development Department.

California Red-Legged Frog

- IV-3. *To the extent feasible, ground disturbing activities shall be conducted during the dry season (April 1 to October 31).*

If construction cannot be avoided outside of the dry season, then a qualified biologist shall survey the work area for CRLF no more than 48 hours prior to the start of initial ground disturbing activities. The survey shall consist of walking the project limits and within the project site to ascertain the possible presence of CRLF. The qualified biologist shall investigate all potential areas that would be used by CRLF. This includes adequate examination of mammal burrows. If CRLF are found, they shall be allowed to leave the project site on their own. Survey results shall be submitted to the City of Benicia Community Development Department.

If CRLF are encountered during construction, all activities which have the potential to result in the harassment, injury, or death of the individual shall be immediately halted, and the qualified biologist shall be contacted for further direction. To the maximum extent possible, contact with the frog shall be avoided and the frog shall be allowed to move out of the potentially hazardous situation to a secure location on its own volition. If the frog cannot leave the project site on its own, the qualified biologist shall contact the USFWS for further guidance.

A qualified biologist shall implement a buffer of 25 feet from the edge of ponds, aquatic features, and riparian areas shall be maintained. If maintaining the buffer is not possible because the areas are either in or adjacent to facilities, the field crew shall implement other measures as prescribed by the biologist to minimize impacts by flagging access, requiring foot access, restricting work until the dry season, or requiring a biological monitor during the activity. Proof of implementation shall be submitted to the Community Development Department.

Prior to initiation of construction, a qualified biologist shall determine if Construction Area Delineation and Environmentally Sensitive Area Fencing

shall be used to protect sensitive areas of the site. The boundaries of the project site shall be clearly identified with Construction Area Delineation fencing to prevent workers or equipment from straying outside the project site. All construction personnel, equipment, and activities shall be confined to designated construction work and staging areas. Proof of implementation of the sensitive area shall be submitted to the Community Development Department.

Burrowing Owl

IV-4. Prior to any ground disturbance, the project biologist shall conduct a pre-construction survey for western burrowing owls within the disturbance footprint and within 500 feet from the perimeter of the footprint where possible. Surveys shall take place no more than 30 days prior to construction and shall be conducted near sunrise or sunset in accordance with CDFW guidelines. All burrows or burrowing owls shall be identified and mapped. During the breeding season (February 1 to August 31), surveys shall document whether burrowing owls are nesting in or directly adjacent to disturbance areas. During the nonbreeding season (September 1 to January 31), surveys shall document whether burrowing owls are using habitat in or directly adjacent to any disturbance area. Survey results shall be valid only for the season (breeding or nonbreeding) during which the survey is conducted. Written results of the preconstruction survey shall be submitted to the City of Benicia Community Development Department. If western burrowing owls are not discovered, then further mitigation is not necessary.

IV-5. If burrowing owls are found during the breeding season (February 1 to August 31), the project proponent shall avoid all nest sites that could be disturbed by project construction during the remainder of the breeding season or while the nest is occupied by adults or young. Avoidance shall include establishment of a non-disturbance buffer zone (described below). Construction may occur during the breeding season if a qualified biologist monitors the nest and determines that the birds have not begun egg-laying and incubation or that the juveniles from the occupied burrows have fledged. During the nonbreeding season (September 1 to January 31), the project proponent shall avoid the owls and the burrows they are using, if possible. Avoidance shall include the establishment of a buffer zone (described below).

During the breeding season, buffer zones of at least 250 feet in which no construction activities can occur shall be established around each occupied burrow (nest site). Buffer zones of 160 feet shall be established around each burrow being used during the nonbreeding season. The buffers shall be delineated by highly visible, temporary construction fencing.

If occupied burrows for burrowing owls cannot be avoided outside of the nesting period, passive relocation shall be implemented. Owls shall be excluded from burrows in the immediate impact zone and within a 160-foot buffer zone by installing one-way doors in burrow entrances. Such doors

shall be in place for 48 hours prior to excavation. The project area shall be monitored daily for one week to confirm that the owl has abandoned the burrow. Whenever possible, burrows should be excavated using hand tools and refilled to prevent reoccupation (California Department of Fish and Game 1995). Plastic tubing or a similar structure shall be inserted in the tunnels during excavation to maintain an escape route for any owls inside the burrow.

Swainson's Hawk

IV-6. Prior to any ground disturbance which are conducted during the nesting season (March 15 to September 15), a qualified biologist shall conduct a preconstruction survey no more than one month prior to construction in order to establish whether occupied Swainson's hawk nests are located within 1,000 feet of the project site. A written summary of the survey results shall be submitted to the City of Benicia Community Development Department. If occupied nests are not found during the survey, further mitigation is not required.

IV-7. If potentially occupied nests are identified within the site or immediate vicinity of the project site, then the occupancy of the nests shall be determined by observation from public roads or by observations of Swainson's hawk activity (e.g., foraging) near the project site. If nests are occupied, minimization measures and construction monitoring are required (see below).

During the nesting season (March 15 to September 15), covered activities within the biologist-established exclusion zone of occupied nests or nests under construction shall be prohibited to prevent nest abandonment. If site-specific conditions or the nature of the covered activity (e.g., steep topography, dense vegetation, limited activities) indicate that a smaller buffer could be used, the Project applicant shall coordinate with CDFW/USFWS to determine the appropriate buffer size. If young fledge prior to September 15, covered activities may proceed normally. If the active nest site is shielded from view and noise from the project site by other development, topography, or other features, the project applicant may apply to the City of Benicia Community Development Department for a waiver of this avoidance measure. Any waiver must also be approved by USFWS and CDFW. While the nest is occupied, activities outside the buffer may take place. All active nest trees shall be preserved on site, if feasible. Nest trees, including non-native trees, lost to covered activities shall be mitigated by the project proponent according to the requirements below.

Golden Eagle

IV-8. Prior to any ground disturbance, a qualified biologist shall conduct a preconstruction survey to establish whether nests of golden eagles are occupied. A written summary of the survey results shall be submitted to the City of Benicia Community Development Department. If occupied nests are not found during the survey, further mitigation is not required.

- IV-9. *If nests are occupied, minimization requirements and construction monitoring shall be required to the satisfaction of the qualified biologist.*

Ground disturbing activities shall be prohibited within 0.5-mile of active nests. Nests can be built and active at almost any time of the year, although mating and egg incubation occurs late January through August, with peak activity in March through July. If site-specific conditions or the nature of the covered activity (e.g., steep topography, dense vegetation, limited activities) indicate that a smaller buffer could be appropriate or that a larger buffer should be implemented, the project applicant shall coordinate with CDFW/USFWS to determine the appropriate buffer size.

Construction monitoring shall focus on ensuring that construction activities do not occur within the buffer zone established around an active nest. Construction monitoring shall ensure that direct effects to golden eagles are minimized.

Raptors and Migratory Birds

- IV-10. *Prior to any ground disturbance related to covered activities during the nesting season (March 15 to September 15), a qualified biologist shall conduct a preconstruction survey 30 days or less prior to construction in order to establish whether occupied migratory bird and/or raptor nests are located within 250 feet of the project site. A written summary of the survey results shall be submitted to the City of Benicia Community Development Department. If occupied nests occur on-site or within 250 feet of the project site, then Mitigation Measure IV-11 shall be implemented. If occupied nests are not found, further mitigation is not necessary.*

- IV-11. *During the nesting season (March 15-September 15), if occupied nests occur on-site or within 250 feet of the project site, construction activities within 250 feet of occupied nests or nests under construction shall be prohibited to prevent nest abandonment. If site-specific conditions, or the nature of the covered activity (e.g., dense vegetation, limited activities) indicate that a smaller buffer could be used, the project applicant may coordinate with CDFW/USFWS to determine the appropriate buffer size. If young fledge prior to September 15, construction activities can proceed normally.*

- b,c. An assessment of aquatic ecosystems and riparian habitat within the project vicinity was conducted as part of the Technical Biological Report prepared by Garcia and Associates. Four aquatic features were present in the project site: three ephemeral channels and one stock pond. One of the ephemeral channels appears to accommodate seasonal water flow along the southern boundary of the project site. The stock pond is on the western side of the project site, and the two other channels occur both upstream and downstream of the stock pond and eventually lead to an intermittent stream outside of the project area.

USFWS's NWI database identified three riverine features in the project area. While the features are topographic low points, evidence from the field survey did not support the presence of wetlands or unvegetated water features. The dominant plant species in the

depressional topography were upland plants, including purple star-thistle, yellow star-thistle, ripgut brome, and field bindweed, and both indicators of hydric soils and wetland hydrology were lacking. In addition, no channel with bed and banks were present.

Vernal pools or wetlands were not observed in or near the project site.¹⁸ Thus, vernal pools or species associated with vernal pools would not be impacted by construction of the proposed project. The proposed project design complies with the City of Benicia General Plan Policy 3.22.1, which mandates a minimum 25-foot setback for developments near the top of streams and ravines.¹⁹

Riparian habitat refers to the ecosystem found along a moving body of water, such as a river or stream. Riparian habitat is associated with the ephemeral channels listed above, but the channels do not overlap or conflict with the proposed solar configuration.

As discussed previously, although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to CEQA review. Consequently, any potential impacts to aquatic features would be addressed through future project-specific analysis.

Construction of the proposed project involves minimal ground disturbance and the project design complies with the City's required 25-foot buffer from aquatic features. However, in an excess of caution, the following mitigation measure is recommended to ensure that construction would not impact any nearby aquatic features. Therefore, the proposed project could have a substantial adverse effect on riparian habitat, sensitive natural communities, or federally protected wetlands, and a **potentially significant** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level. The mitigation measure below applies only to the proposed solar installation.

IV-12. A fencing plan shall be prepared to avoid any aquatic features (i.e., stock pond and three ephemeral channels) if construction is to occur within 50 feet of the aquatic features. Prior to construction, the aquatic features shall be marked with flagging or construction fencing according to the fencing plan. Project improvement plans shall include the following requirements as notes:

Extreme caution shall be exercised when handling and or storing chemicals (fuel, hydraulic fluid, etc.) near waterways. All applicable laws/regulations and Best Management Practices (BMPs) shall be followed. Appropriate materials shall be kept on site to prevent and manage spills. Equipment, when not in use, shall be stored in upland areas outside of avoided aquatic features and riparian areas.

¹⁸ Garcia and Associates. *Biological Site Assessment for the RPCA Solar 4, LLC Lake Herman Solar Project Solano County, California* [pg. 9]. July 2019.

¹⁹ City of Benicia. *Benicia General Plan: From 1847 Into the 21st Century* [pg. 136]. June 15, 1999.

All construction equipment shall be well maintained to prevent leaks of fuels, lubricants or other fluids. All equipment shall be inspected before being brought on site, and daily while on site for leaks.

Any stationary equipment containing lubricating oils and fuel (e.g., portable compressor, hydraulic pump, cranes, generators, etc.) shall be placed within secondary containment, in upland areas whenever feasible. Where this is not feasible, stationary equipment and the secondary containment may be placed in areas that are dry, but shall not be left overnight, weekends, or other times when construction personnel are not present.

Once all work has been completed, the affected work areas shall be restored to as close to their original state as practicable. Newly denuded or exposed soils shall be stabilized using BMPs. The area shall be restored and/or revegetated as appropriate. Any seed used for post-construction restoration shall include California native species endemic to the project area. The recommended fencing plan and improvement plans shall be submitted by the project biologist to the City of Benicia Community Development Department for review and approval.

- d. The proposed project site could currently act as a movement corridor because of the open nature of the site. The project plan includes construction of a perimeter dirt road, which could pose a threat to the movement of certain species that require the presence of grasses for migration. However, the project site is bounded on three sides by open space, so if an animal were required to cross the site, the animal could do so by way of the northern boundary. Additionally, some species would be able to cross the project site after construction because the solar panel supports only occupy a small portion of the total site. The ephemeral channels onsite would not be impacted by the proposed construction, and even so, the intermittent nature of these waterways suggests that the channels are not used by migratory fish. Therefore, the proposed project would not inhibit wildlife movement.

As discussed previously, although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to CEQA review. Consequently, any potential impacts to wildlife corridors or migratory features would be addressed through future project-specific analysis.

As such, the project would not interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites. Thus, a **less-than-significant** impact would occur.

- e. Multiple trees currently exist on the project site, 17 of which meet the City of Benicia's recognized tree size requirement. However, construction of the proposed project does not involve removal of any trees. Therefore, the proposed project would not conflict with Chapter 12.24.030 of the BMC related to protected trees.

As discussed previously, although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City,

any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to CEQA review. Consequently, any potential impacts to trees or tree removal policies would be addressed through future project-specific analysis.

As a result, the proposed project would not conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and a **less-than-significant** impact would occur.

- f. The Solano Multi-Species Habitat Conservation Plan (HCP) covers portions of Solano County. The City of Benicia is not a participant in the HCP and the proposed project site is not within an area encompassed by the HCP.

As discussed previously, although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to CEQA review. Consequently, any potential impacts to biological resources would be addressed through future project-specific analysis. However, because the City is not a participant of the HCP, allowing solar utilities within OS areas of the City would not have potential to conflict with the HCP.

Therefore, the proposed project would not conflict with the local HCP and a **less-than-significant** impact would occur related to conflicts with an adopted HCP, NCCP, or other approved local, regional, or State HCP.

V. CULTURAL RESOURCES.

Would the project:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Disturb any human remains, including those interred outside of dedicated cemeteries.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

The following discussion is based off the Cultural Resources Inventory Report prepared for the proposed project.²⁰

a,b,c. Historical resources are features that are associated with the lives of historically important persons and/or historically significant events, that embody the distinctive characteristics of a type, period, region or method of construction, or that have yielded, or may be likely to yield, information important to the pre-history or history of the local area, California, or the nation. Examples of typical historical resources include, but are not limited to, buildings, farmsteads, rail lines, bridges, and trash scatters containing objects such as colored glass and ceramics.

Garcia and Associates requested a cultural resource records search that was conducted by the Northwest Information Center (NWIC) at Sonoma State University. The NWIC record search indicated that five previous cultural resource studies were conducted within the project area or within a 0.25-mile radius. While some historical resources were identified, none were eligible for listing under the National Register of Historic Places (NRHP). Garcia and Associates contacted the Native American Heritage Commission (NAHC) requesting information regarding a search of their Sacred Lands Files (SLF). The search of the SLF conducted by the NAHC indicated negative results for sacred sites within the project area and/or vicinity. In addition, Garcia and Associates contacted several local tribes, including the Cortina Rancheria – Kletsel Dehe Band of Wintun Indians, United Auburn Indian Community of the Auburn Rancheria, and Yocha Dehe Wintun Nation, with a consultation invitation. A pedestrian survey of the project area was conducted with a trowel and rock hammer using 15-meter wide parallel transects. Cultural resources were not observed during the pedestrian survey. Due to the absence of cultural resources within and in the vicinity of the project site, the project area is considered to have low sensitivity for cultural resources.

The proposed project would result in isolated drilling for steel piers, as well as construction of the gravel driveway and perimeter dirt road. Ground disturbance would be limited to discrete areas and a relatively small portion of the total project site. While historic resources have not been recorded at the project site, the potential exists for previously undiscovered subsurface resources to occur onsite. Thus, ground-disturbing activity related to project construction could encounter such resources.

²⁰ Garcia and Associates. *Cultural Resources Inventory Report: Lake Herman Solar Project, Solano County, California*. July 2019.

As discussed previously, although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to CEQA review. Consequently, any potential impacts to cultural resources would be addressed through future project-specific analysis.

Based on the analysis above, the proposed project could cause a substantial adverse change in the significance of a historic or archaeological resource pursuant to CEQA Guidelines Section 15064.5 and/or disturb human remains, including those interred outside of formal cemeteries during construction. Therefore, impacts related to implementation of the proposed project could be considered **potentially significant**.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level. The mitigation measures below apply only to the proposed solar installation.

- V-1. *Prior to the approval of the grading plans, the project's improvement plans shall include notes (per Public Resources Code 5097.97 and Health and Human Safety Section 7050.5 of the California Health and Safety Code) indicating that if cultural resources are identified during ground disturbing activities associated with the proposed project, all work within 100-feet of the finding shall be halted until a qualified archaeologist can review and assess the nature of the find. If the resource is also a tribal cultural resource the consultation tribe(s) will also require notification and opportunity to consult on the findings. This will be conducted in accordance with the City and land owner. No ground disturbing work in the vicinity of the find shall occur until the resource has been evaluated, if the resource is found eligible for CRHR and avoidance is not feasible then an evaluation and/or data recovery mitigation program shall be drafted and implemented. The archaeologist shall be required to submit a report of findings to the City's Community Development Department for review.*
- V-2. *Prior to the approval of the grading plans, the project's improvement plans shall include notes (per Public Resources Code 5097.97 and Health and Human Safety Section 7050.5(b) of the California Health and Safety Code) indicating that if human remains are encountered during ground disturbing activities, the following actions shall apply. Upon identification of human remains all excavation or disturbance of the location must be halted in the vicinity of the find, and the county coroner contacted. If the coroner determines the remains are Native American, the coroner shall contact the NAHC. The NAHC will identify the person or persons believed to be most likely descendant (MLD) from the deceased Native American. The MLD will provide recommendations regarding the treatment of the remains with appropriate dignity (refer to PRC 5097.94 for complete guidelines).*
- V-3. *If the project design changes and ground disturbance are anticipated beyond the proposed project area, as it is currently defined, further surveys shall be conducted in those areas to assess the presence of cultural resources. Any newly discovered or previously recorded sites within the additional survey areas shall be recorded (or updated) on appropriate DPR*

523-series forms. If avoidance of these resource is not feasible then an evaluation and/or data recovery program shall be drafted and implemented. The project applicant shall be required to submit the updated project design and corresponding surveys to the City's Community Development Department prior to any ground-disturbing activity beyond the original project area.

VI. ENERGY.

Would the project:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✘

Discussion

- a. Ground disturbance associated with the proposed project would be limited to driving anchoring piers into the ground to support the proposed solar panels, and building the access road and perimeter dirt road. Overall, the construction process would be relatively low-impact and efficient, considering construction does not require mass grading, paving, or development of any new structures. During operation, the project’s energy demand would be electricity use associated with adjusting the angle of the proposed solar panels over the course of the day. Additionally, the proposed project would include generation of renewable energy, resulting in a net gain in energy resources.

The project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City. However, future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to project-specific CEQA review. Any potential impacts to consumption of energy resources would be addressed in future project-specific analysis.

Therefore, the proposed project would have a **less-than-significant** impact on energy demands due to wasteful, inefficient, or unnecessary consumption of energy resources.

- b. Alternative energy, such as solar power, is supported in California’s Energy Efficiency Strategic Plan,²¹ which establishes the groundwork for accomplishing zero-net energy statewide. The proposed project would involve the generation of renewable energy, and therefore would not conflict with any state or local plans regarding energy efficiency. The proposed project complies with State legislation regarding renewable energy generation and storage, and contributes to renewable energy resources.

As discussed previously, the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City. The Zoning Text Amendment would comply with the Energy Efficiency Strategic Plan mentioned above by allowing expedited development of renewable energy facilities. Future development of solar utilities in areas zoned OS would still require approval of a Use Permit and would be subject to CEQA review.

Based on the discussion above, the proposed project would have **no impact** with regard to conflicting with or obstructing state or local plans for renewable energy or energy efficiency.

²¹ California Public Utilities Commission, Energy Division. *CA Energy Efficiency Strategic Plan: New Residential Zero Net Energy Action Plan 2015-2020*. June 2015.

VII. GEOLOGY AND SOILS.

Would the project:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

ai, aii. The City of Benicia is located in the San Francisco Bay Area, which is a seismically active region. An active fault, the Green Valley fault line, is located roughly two miles east of the project site, and the Southhampton fault line is to west.²² However, the Southhampton fault line has not been active in the last 1.6 million years.

Because the project site is not directly on a fault line, rupture of a known earthquake fault would not directly cause adverse effects. However, due to the proximity to known fault lines, the project site has a high risk of substantial seismic ground shaking. The proposed project does not include residences or facilities for human occupancy; thus, humans would not be on-site and would not be subject to injury by ground shaking. Further, implementation of the proposed project would not include construction of any buildings that would be subject to damage from seismic activity.

As discussed previously, although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to CEQA review. Furthermore, future solar installations would be required to comply with applicable building standards, such as the California

²² California Department of Conservation. *Geologic Hazards Data & Maps*. Available at: <https://maps.conservation.ca.gov/geologic Hazards/>. Accessed November 8, 2019.

Building Standards Code (CBSC), which would ensure that the structures are adequately designed to resist damage from seismic activity. Consequently, any potential impacts to regarding rupture of a known earthquake fault or risks of damage from seismic activity would be addressed through future project-specific analysis.

Because the project is located in a seismically active area, there is a risk of property damage. However, humans would not be on-site during operations, and thus, human loss, injury, or death would not occur as a result of fault rupture, and the impact is considered ***less-than-significant***.

a.iii, a.iv,

- c. Based on the Department of Conservation's Geologic Hazards and Data map, the project site is not in a liquefaction zone or near a landslide zone.²³ Thus, the proposed solar panels would not be subject to hazards from liquefaction or landslides. Construction and soil displacement as a result of the proposed project would be limited to drilling panel footings, implementation of two unpaved roads, and trenching for utilities. Because ground disturbance of the proposed project is limited to the aforementioned activities, the project would not destabilize large areas of soil and would not increase the likelihood of soils becoming unstable.

Lateral spreading is horizontal ground movement of relatively flat-lying soil deposits towards a free face such as an excavation, channel, or open body of water; typically, lateral spreading is associated with liquefaction of one or more subsurface layers near the bottom of the exposed slope. The project site does not contain any open faces that would be considered susceptible to lateral spreading.

As discussed previously, although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to project-specific CEQA review. Consequently, any potential risks of damage from landslides, liquefaction, or lateral spreading would be addressed through future project-specific analysis.

Based on the above, the impact of the proposed project on risks related to landslides, liquefaction, and lateral spreading would be ***less-than-significant***.

- b. Soil loss and erosion can occur during construction due to removal of on-site vegetation and land clearing activities. Construction activities associated with the proposed project are limited to auger drilling for the panel footings, and creating the access road and perimeter road; thus, minimal soil disturbance on the project site is expected.

While the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to project-specific CEQA review. Consequently, any potential impacts to soil loss or erosion would be addressed through future project-specific analysis.

²³ California Department of Conservation. *Geologic Hazards Data & Maps*. Available at: <https://maps.conservation.ca.gov/geologichazards/>. Accessed November 1, 2019.

The proposed project includes a plan for revegetation by re-seeding the site with native grasses under the solar panels. Revegetation reduces the risk of erosion because plants and their root systems act as a soil support network. As a result, the project would have a **less-than-significant** impact related to soil erosion or the loss of topsoil.

- d. Expansive soils can undergo significant volume change with changes in moisture content. Specifically, such soils shrink and harden when dried and expand and soften when wetted. Highly expansive soils prone to shrink/swell activity could have adverse effects on structures constructed on such soils. Per the United States Department of Agriculture Web Soil Survey, the project site is 61.6 percent Altamont clay, 35.2 percent Dibble-Los Osos clay loams, and 3.2 percent Rincon clay loam.²⁴ The foregoing clay soils have the potential to be expansive. Although on-site soils are considered expansive, potential property damage would be minimal because the proposed project does not involve extensive use of concrete or paving or the construction of any buildings. The lack of residences or permanent employees on the site ensures that risks to human safety would be negligible, but the risk of property damage would still exist. If soil settling or contraction were to occur on-site, the proposed solar racking and foundation systems may be compromised, and damage to the solar arrays could follow.

As discussed previously, although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to project-specific CEQA review. Consequently, any potential risks of damage as a result of building on expansive soils would be addressed through future project-specific analysis.

Given the existence of potentially expansive soils within the project site and potential damage to the proposed solar arrays, a **potentially significant** impact could occur related to proposed structures being located on expansive soil.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impacts to a **less-than-significant** level. The mitigation measure below applies to the proposed solar installation.

- VII-1. *Prior to construction, a site-specific, design level geotechnical investigation shall be required to identify geologic hazards and provide recommendations to mitigate any such hazards in the final design of the proposed project. The analyses would be completed in accordance with applicable City ordinance and policies and consistent with the most recent version of the California Building Standards Code, which requires structural design that can accommodate ground accelerations expected from known active faults. The geotechnical investigation report shall evaluate the potential for ground shaking, liquefaction, expansive soils, and landslide hazards and shall include recommendations to ensure slope stability. The investigation shall be conducted by a California registered engineer or a certified engineering geology and all recommendations made in the investigation report shall be incorporated into the proposed project design*

²⁴ United States Department of Agriculture Natural Resources Conservation Service Web Soil Survey. Available at: <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>. Accessed November 5, 2019.

specifications. A summary of the geotechnical report shall be submitted to the City of Benicia Community Development Department.

- e. The proposed project would not include installation of septic systems on-site. Thus, the project would have **no impact** related to soils incapable of adequately supporting septic tanks.
- f. The project site is located on previously undeveloped land with no known unique paleontological or geological features. Construction activity would be limited and only a small overall portion of the project site would be disturbed.

As discussed previously, although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to project-specific CEQA review. Consequently, any potential impacts to geological and paleontological resources would be addressed through future project-specific analysis.

Despite the limited amount of proposed ground-disturbing activity included in the project, if a unique paleontological resource or unique geologic feature were to be found during construction, a **potentially significant** impact could occur.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impacts to a less-than-significant level.

- VII-2. *Prior to the approval of the grading plans, the project's improvement plans shall include a note indicating that if any unique paleontological or geological features are identified during ground-disturbing activities associated with the proposed project, all work within 100-feet of the finding shall be halted until a qualified paleontologist or geologist can review and assess the nature of the find. No ground disturbing work in the vicinity of the find shall occur until the resource has been evaluated. The paleontologist or geologist shall be required to submit a report of findings to the City's Community Development Department for review.*

VIII. GREENHOUSE GAS EMISSIONS.

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>

Discussion

a, b. Greenhouse gases (GHGs) are the atmospheric gases whose absorption of solar radiation is responsible for the greenhouse effect that contributes to global climate change. Emissions of GHGs are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on earth. An individual project’s GHG emissions are at a micro-scale level relative to global emissions and effects to global climate change; however, an individual project could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact. As such, impacts related to emissions of GHG are inherently considered cumulative impacts.

The proposed project is located within the jurisdictional boundaries of BAAQMD. BAAQMD’s approach to developing a threshold of significance for GHG emissions is to identify the emissions level for which a project would not be expected to substantially conflict with existing California legislation adopted to reduce statewide GHG emissions needed to move towards climate stabilization. BAAQMD does not currently list a threshold of significance for construction GHG emissions, and the threshold of significance for operational GHG emissions is 1,100 MTCO₂e/yr.

The primary source of GHG emissions resulting from the proposed project would be from construction activities, particularly emissions associated with the transport of materials to the project site. Emissions from construction would be minimal because the project would not require mass grading or extensive soil hauling. Further, construction would be short-term compared to the lifetime of the proposed project. PG&E’s expected CO₂ emission factor for the operational year of 2021 is 281.31 lb/MWh. By using this emission factor and converting the units from lb/hr to tons/yr, the proposed 5-Megawatt solar installation would reduce GHG emissions by approximately 6,100 MTCO₂e/yr by replacing natural gas/coal/fossil fuel-generated electricity with solar-generated electricity. This large emissions reduction would offset the project’s construction emissions, and would cause a net overall reduction in GHGs. Because GHG emissions would be negative, the proposed project would be considered to have a positive impact on global climate change and would be beneficial to the environment.

As discussed previously, although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to project-specific CEQA review. Consequently, any potential impacts related to GHG emissions would be addressed through future project-

specific analysis. However, future solar installations would also often carbon-generated electricity generation, and would contribute to an overall reduction in GHG emissions.

As described above, the proposed project would generate a minor amount of GHGs initially from construction, but would reduce a much larger volume of GHG emissions over the project lifetime. The GHG emissions would occur over a short period of time, and would cease upon the completion of construction activities. BAAQMD does not currently have a threshold of significance for GHG emissions during construction. Long-term project operations would include production of renewable energy, thereby offsetting potential GHG emissions that would otherwise occur associated with PG&E energy production. Therefore, the proposed project would not generate substantial GHGs nor conflict with any existing laws, plans, policies, or regulations adopted for the purpose of reducing the emissions of GHGs, and a ***less-than-significant*** impact would occur.

IX. HAZARDS AND HAZARDOUS MATERIALS.

Would the project:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✘
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✘
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✘
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
g. Expose people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>

Discussion

a. Solar facilities are not typically associated with the routine transport, use, disposal, or generation of hazardous materials. Maintenance and operation of the facility may use common household cleaning products, fertilizers, and herbicides on-site, any of which could contain potentially hazardous chemicals; however, such products would be expected to be used in accordance with label instructions. Based on the results of a study completed by the North Carolina Clean Energy Technology Center regarding the health concerns associated with utility-scale PC projects, issues related to toxicity, electromagnetic fields, electric shock and arc flash, and fire risk associated with such projects were determined not to pose a substantial risk to public health or safety.²⁵

As discussed previously, although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to CEQA review. Consequently, any potential impacts to hazards or hazardous resources would be addressed through future project-specific analysis.

25 Cleveland, Thomas H. *Health and Safety Impacts of Solar Photovoltaics: A California-Focused Forward to the Health and Safety Impacts of Solar Photovoltaics white paper published by the N.C. Clean Energy Technology Center at North Carolina State University in May 2017.* July 29, 2019.

Based on the above, the project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, and a **less-than-significant** impact would occur.

- b. Construction activities associated with the proposed project could involve the use of various products such as concrete, paints, and adhesives. In addition, heavy-duty construction equipment operating on the project site would contain hydraulic fluid, diesel fuel, and other petroleum products. Small quantities of such potentially toxic substances would be used at the project site and transported to and from the site during construction. However, the project contractor would be required to comply with all California Health and Safety Codes and local County ordinances regulating the handling, storage, and transportation of hazardous and toxic materials.

A Phase I ESA was prepared for the proposed project site by HEI Corporation.²⁶ The Phase I ESA included a survey of the site and a review of historical documentation, aerial photography, regulatory agency files, and environmental site radius reports. According to the Phase I ESA, the project site has never been developed with any permanent structures.

Per the Phase I ESA, hazardous materials or hazardous wastes were not identified on the project site. The project site is not included on the leaking underground storage tank (LUST) list or spills, leaks, investigations, and cleanups (SLIC) list. While a hazardous waste treatment, storage, and disposal facility, called the Panoche Facility, was located 0.3-mile to the northeast of the site, the facility does not qualify for inclusion onto the National Priority List. The Panoche Facility site was a hazardous waste disposal site from 1968 to 1986, and is now undergoing post-closure activities such as routine inspections, maintenance, and periodic groundwater sampling and monitoring, and thus, is unlikely to affect the environmental condition of the project site. Results of a Vapor Encroachment Screening (VES) conducted as part of the Phase I ESA indicate that vapor intrusion or vapor encroachment is unlikely at the project site.

As discussed previously, the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to project-specific CEQA review. Any potential impacts related to the release of hazardous materials would be addressed through future project-specific analysis.

Based on the above, the project site is not associated with any historical recognized environmental conditions, including contaminated soils, that would pose a risk to the proposed project. Therefore, development of the proposed project would result in a **less-than-significant** impact related to the creation of a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment.

- c. The nearest school relative to the project site is the Matthew Turner Elementary School, located approximately 1.2-mile southwest of the site. In addition, as noted above,

²⁶ HEI Corporation. *Phase 1 Environmental Site Assessment – Undeveloped Pasture Land 88.54 Acres on the North side of Lake Herman Road Benicia, California*. July 2019.

development of the proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

The project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, but any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to project-specific CEQA review. Therefore, any future solar installations to be built near an existing or proposed school would require project-specific analysis.

Based on the above, **no impact** would result relating to the emission or handling of hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

- d. The Phase I ESA indicates that the project site is not included on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

As discussed previously, while the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to project-specific CEQA review. Consequently, any potential risks related to development on hazardous material sites would be addressed through future project-specific analysis.

Therefore, **no impact** would result from implementation of the proposed project.

- e. The public airport nearest to the project site is the Buchanan Field Airport, located approximately 8.4 miles south of the project site at 550 Sally Ride Drive. The project site is located well outside of the Airport Influence Area (AIA) identified for the airport in Chapter 3 of the Contra Costa County Airport Land Use Compatibility Plan.²⁷ In addition, the Federal Aviation Administration conducted an aeronautical study for the proposed project and concluded that the proposed solar installation would not pose a hazard to air navigation.²⁸ As discussed in Section I, Aesthetics, of this IS, the project site is within Zone D of the Travis Air Force Base Land Use Compatibility Plan, but no adverse effects would result from construction of the proposed solar facility.

While the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to project-specific CEQA review. Consequently, any potential impacts on nearby airports would be addressed through future project-specific analysis.

Based on the discussion above, the proposed project would not result in an airport-related safety hazard for people residing or working in the project area, and **no impact** would occur.

- f. Implementation of the proposed project would not result in any substantial modifications to the City's existing roadway system and would not interfere with potential evacuation or response routes used by emergency response teams. Additionally, the proposed project

²⁷ Contra Costa County. *Contra Costa County Airport Land Use Compatibility Plan*. December 2000.

²⁸ Federal Aviation Administration. *Determination of No Hazard to Air Navigation*. April 12, 2019.

would not add a substantial amount of traffic to area roadways; thus, the proposed project is unlikely to impact evacuation efforts.

As discussed previously, although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to project-specific CEQA review. Consequently, any potential impacts to emergency response plans or evacuation plans would be addressed through future project-specific analysis.

Therefore, the project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, and a **less-than-significant** impact would occur.

- g. Per the California Fire Hazard Severity Zone Map, the project site falls within a Local Responsibility Area that is identified as a High Fire Hazards Severity Zone.²⁹ The area to the north of the site, beyond the City limits, is located within a State Responsibility Area and is rated as a High Fire Hazards Severity Zone.³⁰ While the project site is located in High Fire Hazard Zone, the project would not include development of any habitable structures or other uses that would be susceptible to fire risk. The structures onsite would be limited to the proposed solar panels, and two power stations mounted on concrete pads. In addition, all new power lines associated with the proposed project would be built underground. When power lines are overhead, high winds can cause electrical equipment to break or spark, leading to an increased fire risk. However, because the power lines for the proposed project would be underground, the potential risk of fire during high wind events would not be impacted, and the demand for fire protection would not increase. The site would be routinely maintained to ensure that all equipment is operating properly, and to mow on-site vegetation in the vicinity of the proposed solar installation.

As discussed previously, although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to project-specific CEQA review. Consequently, any potential wildfire risks would be addressed through future project-specific analysis.

Based on the above, the proposed project would not expose people or structures to the risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands, and a **less-than-significant** impact would occur.

²⁹ CAL FIRE Fire and Resource Assessment Program. *Draft Fire Hazard Severity Zones in LRA, Solano County*. September 17, 2007.

³⁰ CAL FIRE Fire and Resource Assessment Program. *Fire Hazard Severity Zones in SRA, Solano County*. November 7, 2007.

X. HYDROLOGY AND WATER QUALITY.

Would the project:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. Result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
iv. Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✘
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✘
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>

Discussion

a. Construction of the proposed project would involve relatively minimal ground disturbance, limited to approximately 0.7-acre associated with a gravel access road and two concrete pads for power stations. Per the City’s requirements, a minimum setback of 25 ft would be maintained from all streams and channels to ensure runoff from the project site would infiltrate underlying soils before reaching the aquatic feature. Construction would not result in substantial wind or water erosion and, therefore, would not discharge polluted sediment.

The State Water Resources Control Board (SWRCB) regulates stormwater discharges associated with construction activities where clearing, grading, or excavation results in a land disturbance of one or more acres. With the construction of impervious surfaces, trenching for electrical lines, and land clearing, the total land disturbance resulting from the proposed project would be greater than one acre, and the proposed project would be subject to applicable SWRCB regulations.

Per the Stormwater Control Plan (SWCP) prepared for the project, an 11-ft-wide grass-covered depression would be provided along the outer edge of the proposed access road to collect stormwater runoff from the gravel surface.³¹ Similarly, stormwater runoff from the proposed power stations would drain to a vegetated self-treating area. Throughout the remainder of the site, stormwater runoff from the proposed dirt perimeter road and the

³¹ Anderson Pine Corporation. *Stormwater Control Plan for a Regulated Project, Lake Herman Solar*. July 2019.

proposed solar array would infiltrate underlying soils. All on-site runoff would be retained and treated by on-site soils, and water quality would not be affected. During routine panel-washing, the runoff would be absorbed by the surrounding soils. Any excess runoff would drain towards the perimeter of the site, into the vegetated self-treating area.

As discussed previously, although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to CEQA review. Consequently, any potential impacts to hydrology and water quality resources would be addressed through future project-specific analysis.

Based on the above discussion, the proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Thus, a ***less-than-significant*** impact would occur.

- b,e. The proposed project consists of a solar farm and, thus, project operations would not have any water demand or require access to the City's water supply. The only water demand associated with the proposed project would be for routine panel-washing, and such water would be trucked onto the site. The proposed project would not require pumping of any groundwater. Further, construction of the gravel access road and two concrete pads for power stations are the only impervious surfaces associated with the proposed project. The solar panels are technically impervious, but are elevated and surrounded by pervious grass-covered land and therefore not considered new impervious surface area. Thus, the project would not impede groundwater recharge.

As discussed previously, although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to project-specific CEQA review. Consequently, any potential impacts to groundwater would be addressed through future project-specific analysis.

Therefore, the proposed project would result in a ***less-than-significant*** impact with respect to substantially decreasing groundwater supplies or interfering substantially with groundwater recharge such that the project would impede sustainable groundwater management of the basin. In addition, the project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

- ci-iii. As noted in the SWCP, implementation of the proposed project would involve the creation of approximately 0.7-acre (30,480 square feet) of new impervious surface area, including 0.014-acre associated with the two power stations mounted upon concrete pads and 0.69-acre associated with the proposed 20-ft wide gravel access road.

As part of the Clean Water Act, all municipalities within Solano County are required to develop surface water control standards for new development projects as part of the renewal of the Countywide NPDES permit. Known as the "C.3 Standards", new development and redevelopment projects that create or replace 10,000 or more sf of impervious surface area must contain and treat stormwater runoff from the site. Because the proposed project would create more than 10,000 sf of impervious surface area, the proposed project would be considered a C.3 regulated project and is required to include

appropriate site design measures, source controls, and hydraulically-sized stormwater treatment measures.

The SWCP prepared for the proposed project incorporates the most recent Stormwater C.3 Guidebook and all applicable City stormwater requirements. As noted in the SWCP, stormwater draining off of the concrete pads would be absorbed by the surrounding grass-covered area. Stormwater draining off of the gravel road would be diverted into an 11-ft wide grass-covered swale. The grass-covered, pervious area throughout the site would control for erosion from water coming off of the solar panels. All other land on the project site is considered self-retaining with regard to water runoff. Maintenance of the swale would include mowing and inspection for long-standing water, damage, or debris accumulation. The project site includes a 25 ft setback from the nearby ephemeral tributary, and thus, the design allows stormwater to be absorbed before the water would reach the waterway.

Although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to project-specific CEQA review. Consequently, any potential impacts to stormwater runoff would be addressed through future project-specific analysis.

The SWCP for the proposed project demonstrates that the proposed project would adequately manage all stormwater runoff from the project site. With proper management of the project site, a **less-than-significant** impact would occur with respect to substantially altering the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion, siltation, or flooding on- or off-site, creating or contributing runoff water which would exceed the capacity of existing or planned stormwater drainage systems, or providing substantial additional sources of polluted runoff.

- civ. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map for the project site, the project site is located within an Area of Minimal Flood Hazard (Zone X).³² The site is not classified as a Special Flood Hazard Area or otherwise located within a 100-year or 500-year floodplain.

The project includes the aforementioned proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, but any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to project-specific CEQA review. Consequently, any potential impacts related to flood flows would be addressed through future project-specific analysis.

Based on the discussion above, development of the proposed project would not impede or redirect flood flows and **no impact** would result.

- d. As discussed under question 'civ' above, the project site is not located within a flood hazard zone. Tsunamis are defined as sea waves created by undersea fault movement, whereas a seiche is a long-wavelength, large-scale wave action set up in a large closed body of water such as a lake or reservoir. The project site is not located in proximity to a

³² Federal Emergency Management Agency. *Flood Insurance Rate Map 06095C0635E*. Effective May 4, 2009.

coastline and would not be potentially affected by flooding risks associated with tsunamis. Seiches do not pose a risk to the proposed project, as the project site is not located adjacent to any large bodies of water.

Although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to project-specific CEQA review. Consequently, any potential risks of flooding, tsunami, or seiche would be addressed through future project-specific analysis.

Based on the above, the proposed project would not pose a risk related to the release of pollutants due to project inundation due to flooding, tsunami, or seiche, and ***no impact*** would occur.

XI. LAND USE AND PLANNING.

Would the project:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>

Discussion

- a. A project risks dividing an established community if the project would introduce infrastructure or alter land uses so as to change the land use conditions in the surrounding community, or isolate an existing land use. Currently, the project site is surrounded by open land, and Lake Herman Road runs along the southern border. One residence is located 300 feet west of the project site, and a neighborhood of single-family residences exists to the south, over 2,500 feet away. Because the project is surrounded by primarily undeveloped land, the project would not isolate an existing land use.

As discussed previously, although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to project-specific CEQA review. Consequently, any potential risks of physically dividing a community would be addressed through future project-specific analysis.

As such, the proposed project would not physically divide an established community, and a **less-than-significant** impact would occur.

- b. The project site is currently designated General Open Space per the City’s General Plan and is zoned OS. Although solar utilities are not currently allowed in OS areas, the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City. Under the proposed Zoning Text Amendment, development of solar utilities in areas zoned OS would require approval of a Use Permit. Furthermore, any future solar development within areas designed OS would be subject to project-specific CEQA review prior to approval of use permits. Consequently, any potential impacts to land use and planning would be addressed through future project-specific CEQA analysis.

As discussed throughout this IS/MND, the proposed project would not result in any significant environmental effects that cannot be mitigated to a less-than-significant level by the mitigation measures provided herein. In addition, the proposed project would not conflict with City policies and regulations adopted for the purpose of avoiding or mitigating an environmental effect, including, but not limited to, the City’s noise standards, applicable stormwater regulations, and water quality standards. For example, the proposed project would be consistent with the following General Plan (GP) and Climate Action Plan (CAP) items:

- GP Policy 2.1.5: The Policy mandates that urban development is not allowed beyond the Urban Growth Boundary, including the area north of Lake Herman Road. Urban development is defined as development requiring physical municipal infrastructure. Because the proposed solar project would not require construction

- of any physical municipal facilities, the project is not considered urban development and would be consistent with Policy 2.1.5.
- GP Policy 3.18.1: The Policy requires the preservation of rangeland north of Lake Herman Road. As noted on page 6 of the Initial Study, the project site is an 88.5-acre parcel, 35 acres of which would be used for the solar installation. As such, 64 percent of the total site would be preserved. Because a majority of the parcel would remain preserved as rangeland, the proposed project would be consistent with Policy 3.18.1.
 - GP Program 3.22.B: The Programs requires a minimum setback of 25 feet from the top of bank streams and ravines. The proposed project incorporates a 50-foot buffer from all waterways, and thus, would be consistent with Program 3.22.B.
 - GP Goal 2.5: The Goal is to facilitate and encourage new uses and development which provide substantial and sustainable fiscal and economic benefits to the City and the community. Approval of the proposed project, including the ZTA, would be consistent with the Goal in two ways: expanding the development of the local renewable energy market, and providing a pathway for the potential development of future solar installations.
 - CAP Objective E-3: The Objective encourages an increase in the amount of solar energy production in the City of Benicia. The proposed project is directly consistent with the Objective because the project is a solar installation that would contribute to local renewable electricity generation.

Based on the above, the proposed project would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact. Therefore, a ***less-than-significant*** impact related to any land use plan, policy, or regulation would occur.

XII. MINERAL RESOURCES.

Would the project:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✘
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✘

Discussion

a,b. One mineral resource area is located in the City of Benicia’s Planning Area, and the area was designated by the State of California as a Mineral Resource of Regional Significance. The area, located in the Sulfur Springs Mountains, west of Lake Herman, includes a deposit of igneous rock and an associated quarry. The project site is not within the mineral resource area. Therefore, the proposed project complies with City of Benicia General Plan Policy 3.25.1, which states that the mineral resource area on Sulphur Springs Mountain is maintained as an open space. Additionally, Policy 3.26.4 states that extraction of mineral resources outside of the State-designated area is prohibited.³³ Thus, the project site could not be used for mineral extraction.

As discussed previously, although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to CEQA review. Consequently, any potential impacts to mineral resources would be addressed through future project-specific analysis.

Based on the analysis above, the proposed project would not result in the loss of availability of a known mineral resource or a locally important mineral recovery site. Thus, the proposed project would have **no impact** to mineral resources.

³³ City of Benicia. *Benicia General Plan: From 1847 Into the 21st Century* [pg. 138]. June 15, 1999.

XIII. NOISE.

Would the project result in:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
b. Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>

Discussion

a. Construction activities would be the primary source of noise associated with the proposed project. The solar panels would be supported by a steel racking system driven into the ground, and the driving process is expected to cause temporary noise. The City of Benicia does not implement limitations specific to construction noise, but instead limits hours of construction activities to less sensitive daytime hours. Per Chapter 8.20.150 of the City of Benicia Municipal Code, any construction projects within 500 feet of a residential zone must comply with the allowable construction hours. The closest residence is approximately 300 feet away from the project site and, thus, construction activities would be required to comply with the noise regulations included in Chapter 8.20 of the Municipal Code.

Operation and maintenance of the proposed project would introduce noise associated with moving parts of the rotating panels and general maintenance activities such as mowing grasses, occasional cleaning, motor repair, panel replacement, etc. The small motors used to rotate the panels would produce very low levels of noise, and would be imperceptible from nearby residences because noise dissipates with distance. Similarly, the proposed pad-mounted power stations are small in scale and located over 300 feet from the closest residence, minimizing potential noise impacts. Maintenance activities would be infrequent, occurring only six times per year, and would occur only during daylight hours. The project would not include dwellings or other building development, and would not have the potential to generate any significant additional vehicle trips after construction is completed.

As discussed previously, although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to project-specific CEQA review. Future solar installations would likely require minimal construction activity and operational noise, similar to the proposed project. Future solar projects within the City would also be subject to the Municipal Code Chapter 8.20 noise regulations and, thus, would not be likely to cause an impact to ambient noise. However, any potential impacts to noise generation would be addressed through future project-specific analysis.

Thus, the proposed facility is not expected to generate noise in excess of City noise standards, and noise generated by operations of the proposed project would not be

audible at nearby residences. A substantial permanent increase in noise levels in the project vicinity would not occur, impacts would be considered ***less-than-significant***.

- b. Some groundborne noise and vibration could occur during construction of the proposed project, primarily during driving of the steel support piers into the ground. The nearest structure is a residence located over 300 feet outside of the project site, and because groundborne noise and vibration dissipate with distance, the residence is not expected to experience a perceptible increase in groundborne noise or exposure to groundborne vibration. Furthermore, the construction process would be relatively short-term compared to the lifetime of the solar installation. Sources of vibration would not exist during project operations, and no impact is expected.

While the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to project-specific CEQA review. Operations of solar utilities is not typically associated with groundborne vibrations, but construction may cause temporary noise and vibration. Future CEQA analysis would assess potential groundborne vibration and consider proximity to existing structures. Consequently, any potential future impacts to groundborne vibrations would be addressed through project-specific analysis.

Based on the above, the proposed project would not cause excessive groundborne vibration or groundborne noise levels, and the impact is expected to be ***less-than-significant***.

- c. The project site is not located within the vicinity of a public airport or a private airstrip and is not within an airport land use plan. However, the project also includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City. Any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to project-specific CEQA review. Future solar installations could potentially be located within the vicinity of a public airport, private airstrip, or airport land use plan, but impacts would be addressed in future project-specific analysis.

Based on the discussion above, the proposed solar installation would not be exposed to excessive air traffic noise, and a ***less-than-significant*** impact would occur.

XIV. POPULATION AND HOUSING. <i>Would the project:</i>	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✘
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✘

Discussion

a-b. The proposed project consists of the development of a 5-Megawatt solar PV array facility that would be operated remotely and would only require periodic maintenance visits. Development of the proposed project would not directly induce population growth in the area. The project would not create or increase the demand for any new housing or employment opportunities within the City of Benicia, nor would the project displace any existing housing or people.

As discussed previously, although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to CEQA review. Consequently, any potential impacts to population and housing resources would be addressed through future project-specific analysis.

Based on the discussion above, the proposed project is expected to cause ***no impact*** related to population and housing.

XV. PUBLIC SERVICES.

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
b. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
c. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
d. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
e. Other Public Facilities?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>

Discussion

a. The City of Benicia Fire Department provides fire suppression, fire prevention, basic and advanced life support medical services, technical rescue services, disaster preparedness, and weed abatement services within City limits. The proposed project is within the City limits, and the Benicia Fire Department would provide the aforementioned services to the project site. The proposed project does not include any structures designed for human occupancy and does not involve the use of hazardous or flammable materials that would increase the demand for fire protection services. In addition, all new power lines associated with the proposed project would be built underground. When power lines are overhead, high winds can cause electrical equipment to break or spark, leading to an increased fire risk. However, because the power lines for the proposed project would be underground, the potential risk of fire during high winds would not be impacted, and the demand for fire protection would not increase.

The project also includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to project-specific CEQA review. Future solar installations within the City would also be serviced by the Benicia Fire Department, but because solar installations typically do not include structures designed for human occupancy or use flammable materials, a substantial impact is not expected. Any potential impacts to fire protection services would be addressed through future project-specific analysis.

The proposed project is not expected to cause significant degradation to response times or service ratios, which would induce the need for physically altered or expanded governmental facilities, the construction of which could cause significant environmental impacts. Thus, the current services would be adequate to serve the proposed project, and impacts to fire protection services would be considered **less-than-significant**.

b. Law enforcement services are provided by the City of Benicia Police Department within the City’s sphere of influence. Because the proposed project does not include any structures designed for human use, such as residential, commercial, or industrial structures, the demand for police protection services would not significantly increase. Furthermore, the perimeter of the project site would be fenced, reducing the risk of trespassing and potential crime that would require police presence. Thus, the project

would not result in need for new or expanded government facilities in order to maintain acceptable response times.

Although the project includes the proposed Zoning Text Amendment discussed above, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to CEQA review. Consequently, any potential impacts to police services would be addressed through future project-specific analysis. However, considering the unmanned nature of such projects, an adverse effect on police resources is not expected as a result of future solar installations.

For the reasons discussed above, the current services would be adequate to serve the proposed project. The proposed project would not induce the need for physically altered or expanded governmental facilities, the construction of which could cause significant environmental impacts, and impacts related to police protection would be considered ***less-than-significant***.

- c-e. The proposed project would not introduce new residents to the project site or otherwise increase the population of the project area, hence the project would neither directly nor indirectly result in an increased demand for schools, parks, or other public facilities.

As discussed previously, although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to CEQA review. Consequently, any potential impacts to schools, parks, or public facilities would be addressed through future project-specific analysis. Because future solar installations are not likely to include new residences, an impact on the aforementioned facilities is not expected.

Based on the above, impacts related to the need for new or physically altered schools, parks, and other public facilities would be considered ***less-than-significant***.

XVI. RECREATION.

Would the project:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✘
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	✘

Discussion

a, b. A large-scale PV system is not considered a recreational facility, and thus, construction of the proposed project would not involve construction or expansion of any recreational facilities. The proposed project would not increase the use of existing local parks or recreational facilities because the proposed facility is not expected to attract visitors. While the project site is near the Lake Herman recreational area, existence of the proposed project would not impact public use of the Lake.

As discussed previously, although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to CEQA review. Consequently, any potential impacts to recreation resources would be addressed through future project-specific analysis.

Based on the discussion above, the proposed project would not result in an increased demand for new or expansion of any existing recreational facilities, and **no impact** to recreational facilities would occur.

XVII. TRANSPORTATION.

Would the project:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
d. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>

Discussion

- a. Due to the rural nature of the project area, significant public transit facilities, bike lands, and sidewalks do not currently exist in the immediate vicinity of the project site. The proposed roads associated with the project (access road and perimeter road) would be within the project site, and would not impact the surrounding traffic infrastructure. Because the project design does not include any measures that would influence transportation networks, the project is not expected to conflict with any local programs, plans, or policies regarding circulation. The following discussion includes a more detail regarding each phase of the proposed project and the associated potential impacts to transportation.

Construction

During construction, an increase in traffic along Lake Herman Road would occur due to trucks transporting construction equipment and project materials to the project site and employees commuting to the site. However, construction of the proposed facility would be relatively short-term compared to the lifetime of the proposed project, as construction is anticipated to take two years. Furthermore, construction of the proposed project is limited to installing the panels and building two on-site roads, and impacts to traffic would be equally limited compared to large-scale construction projects. Due to the small project size and temporary nature of construction, the minor increase in traffic along Lake Herman Road would not cause a substantial impact to transportation infrastructure.

Operations

Because the proposed project would not have permanent employees on-site during operations, project implementation would not result in an increase in demand or decline in performance for public transit, bicycle, or pedestrian facilities. The only increase in traffic during operations of the facility would be the six annual maintenance visits, for a total of twelve vehicle trips per year, which would be a negligible increase in traffic along Lake Herman Road.³⁴

Zoning Text Amendment

Although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to project-specific CEQA review. Consequently, any potential conflicts to policies regarding the circulation system would be addressed through future project-specific

³⁴ Renewable Properties, LLC. *Lake Herman Solar – Traffic Analysis – 7.29.19*. July 2019.

analysis. However, future solar installations would likely require limited, short-term construction and minimal operations as well, and a substantial impact to traffic is not expected.

Conclusion

Based on the lack of current circulation infrastructure in the project area and the minimal traffic associated with construction and operations of the proposed project, the project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities, and a **less-than-significant** impact would occur.

- b. Section 15064.3 of the CEQA Guidelines provides specific considerations for evaluating a project's transportation impacts. Per Section 15064.3, analysis of vehicle miles traveled (VMT) attributable to a project is the most appropriate measure of transportation impacts. While a qualitative discussion of VMT has been provided below, the provisions of Section 15064.3 apply only prospectively; determination of impacts based on VMT is not required Statewide until July 1, 2020.

Per Section 15064.3(3), a lead agency may analyze a project's VMT qualitatively based on the availability of transit, proximity to destinations, etc. While changes to driving conditions that increase intersection delay are an important consideration for traffic operations and management, the method of analysis does not fully describe environmental effects associated with fuel consumption, emissions, and public health. Section 15064.3(3) changes the focus of transportation impact analysis in CEQA from measuring impact to drivers to measuring the impact of driving.

VMT related to the proposed project would be due to project construction, and operational maintenance visits upon completion of construction. Vehicle trips associated with such construction would include transporting materials (solar panels, panel racks, etc.) to the project site along with employee commutes. As discussed in section (a), construction of the proposed facility would be relatively short-term compared to the lifetime of the proposed project. Due to the temporary nature of construction, the small increase in VMT would not cause a substantial impact to transportation. Maintenance activities would be conducted six times per year and would require one vehicle to drive to the site. The 12 annual trips provide a negligible increase to VMT along Lake Herman Road.

As discussed previously, although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to project-specific CEQA review. Consequently, any potential impacts to transportation would be addressed through future project-specific analysis. However, solar utilities are not typically associated with increased vehicle traffic after completion of construction, and a significant impact to transportation as a result of potential future solar facilities is not expected.

Based on the above, the proposed project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b), and a **less-than-significant** impact would occur.

- c. The proposed project would not include design features that would affect traffic safety, nor would it cause incompatible uses to be present on local roads. Construction of new public

roads is not proposed as part of the project, and a significant increase in traffic is not projected during project construction or operations.

While the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to project-specific CEQA review. Consequently, any potential impacts regarding increased hazards or incompatible uses would be addressed through future project-specific analysis.

Significant adverse impacts related to roadway design features or incompatible uses would not result from implementation of the proposed solar project, and **less-than-significant** would occur.

- d. The proposed project would not result in inadequate emergency access to the project area. During project construction, public roads would remain open and available for use by emergency vehicles and other traffic. The project site would be accessible by way of the entrance road from Lake Herman Road, and the road would be wide enough to accommodate emergency vehicles. The internal roadway and perimeter roads would be sized to properly accommodate emergency vehicles that may require circulation of the project site.

Although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to project-specific CEQA review. Consequently, any potential impacts regarding adequate access for emergency vehicles would be addressed through future project-specific analysis.

The proposed project would not result in any road closures and would include on-site roads of appropriate size to accommodate emergency vehicles, and a **less-than-significant** impact to emergency access would occur.

XVIII. TRIBAL CULTURAL RESOURCES.

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

a,b. A search of the NAHC Sacred Lands File did not yield any information regarding the presence of cultural resource within the project site or the immediate area. The project site and surrounding land is currently used as grazing land, and evidence of previous structures was not found.

In compliance with AB 52 (Public Resources Code Section 21080.3.1), a project notification letter was distributed to the Cortina Rancheria – Kletsel Dehe Band of Wintun Indians, United Auburn Indian Community of the Auburn Rancheria, and Yocha Dehe Wintun Nation on November 8, 2019. The Yocha Dehe Wintun Nation responded with a request for consultation, and the consultation is currently ongoing.

Based on the known history at the project site and the lack of identified cultural resources at the site, known Tribal Cultural Resources do not exist within the site. Nevertheless, the possibility exists that construction of the proposed project could result in a substantial adverse change in the significance of a tribal cultural resource if previously unknown tribal cultural resources are uncovered during ground-disturbing activities.

As discussed previously, although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to CEQA review. Consequently, any potential impacts to tribal cultural resources would be addressed through future project-specific analysis.

Based on the above, a **potentially significant** impact to Tribal Cultural Resources could occur.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level. The following mitigation measure applies only to the proposed solar installation.

XVIII-1 Implement Mitigation Measures V-1, V-2, and V-3.

XIX. UTILITIES AND SERVICE SYSTEMS.

Would the project:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	✘	<input type="checkbox"/>

Discussion

- a. New wastewater treatment, natural gas, and telecommunication facilities would not be required due to construction of the proposed project because the project would not increase demand for any of the aforementioned service systems. The proposed solar facility would generate electric power, and would connect to existing electrical infrastructure located within the immediate project vicinity. The connection to the existing electrical cables would involve minimal construction and would not involve relocation of existing facilities.

The project design includes plans to manage stormwater, such as an 11-ft vegetated swale alongside the gravel access road. In addition, construction of the project would include the conversion of less than one acre of land to impervious surface area. Considering the entire project site is over 35 acres, the new 0.7 acre of impervious area would not cause a substantial impact. Thus, stormwater would not increase in such a way as to require relocation or construction of stormwater drainage infrastructure.

As discussed previously, although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to project-specific CEQA review. Consequently, any potential impacts to water access, wastewater treatment, stormwater drainage, natural gas, or telecommunication facilities would be addressed through future project-specific analysis.

Based on the discussion above, a **less-than-significant** impact to the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities would occur.

- b. The proposed project would be operated remotely and would require maintenance only approximately six times a year; thus, the project would not require on-site water service to meet employee demand. Water demand would increase slightly during project construction activities and during operations for washing the solar panels during maintenance visits, but this demand would be met by trucking in water to the site, rather than provision of water service at the site. Due to the infrequency of maintenance visits and the temporary nature of project construction, the increase in water demand would be considered minimal.

Although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to project-specific CEQA review. Consequently, any potential impacts to water supply would be addressed through future project-specific analysis. Moreover, future solar projects are likely to create similarly low water demand, and would not be anticipated to greatly increase water demand in the City.

Based on the above, sufficient water supplies are available to serve the proposed project and reasonably foreseeable future development during normal, dry, and multiple dry years, and a **less-than-significant** impact would occur.

- c. The proposed project would not require any on-site employees, and thus, there would not be demand for wastewater treatment. An outside wastewater treatment provider would not be necessary, and no impact regarding the project's demand on wastewater treatment capacity would occur.

Although the project includes a proposed Zoning Text Amendment, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to project-specific CEQA review. Consequently, any potential impacts to wastewater treatment facility capacity would be addressed through future project-specific analysis.

As stated in the discussion above, the proposed solar installation would not require an outside wastewater treatment provider. Therefore, the project would not influence a wastewater treatment provider's capacity to serve the project's projected demand, and a **less-than-significant** impact would occur.

- d,e. Solid waste generated by the proposed project would be composed of construction-related solid waste and any waste collected from periodic maintenance visits. The quantity of solid waste generated by the proposed project is expected to be nominal, as demolition, which is typically the bulk of construction waste, would not be required. Any solid waste generated by construction activities would likely be hauled to the Republic Services Contra Costa Transfer Station in Martinez for waste disposal. Republic Services is one of the largest providers of solid waste collection, and the nominal amount of waste associated with the proposed project is not expected to impact landfill capacity. Any solid waste collected during maintenance visits would be removed by maintenance personnel and disposed of at an approved location.

The proposed project would be required to comply with all federal, state, and local statutes and regulations related to solid waste production. The project would not result in long-term solid waste generation, and solid wastes produced during construction or during future decommission activity would be disposed of in accordance with all applicable statutes and regulations.

While the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to project-specific CEQA review. Consequently, any potential impacts to solid waste generation would be addressed through future project-specific analysis. Future solar installations would also be required to comply with all applicable federal, state, and local statutes and regulations related to solid waste production.

Because waste generated by the proposed project would be minimal, a ***less-than-significant*** impact to solid waste production would occur.

XX. WILDFIRE.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

a-d. Per the California Fire Hazard Severity Zone Map, the project site falls within a Local Responsibility Area that is identified as a High Fire Hazards Severity Zone.³⁵ The area to the north of the site, beyond the City limits, is located within a State Responsibility Area and is rated as a High Fire Hazards Severity Zone.³⁶

Implementation of the proposed project would not result in any substantial modifications to the City’s existing roadway system and would not interfere with potential evacuation or response routes used by emergency response teams. Additionally, the proposed project would not add a substantial amount of traffic to area roadways; thus, the proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan. All new power lines associated with the proposed project would be undergrounded, thereby reducing wildfire risks associated with potential windy conditions, and all on-site vegetation would be regularly maintained to reduce fire risk. As such, the project would not exacerbate wildfire risk or require the installation or maintenance of associated infrastructure that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. Because the project does not involve the construction of any residences or habitable structures, humans would not be at risk from wildfire, nor associated flooding/landslides, on the project site. In addition, based on the Department of Conservation’s Geologic Hazards and Data map, the project site is not near a landslide zone.³⁷ Furthermore, the vegetation beneath the panels would anchor topsoil and further reduce the risk of a landslide. Relative to existing conditions, the proposed project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

³⁵ CAL FIRE Fire and Resource Assessment Program. *Draft Fire Hazard Severity Zones in LRA, Solano County.* September 17, 2007.

³⁶ CAL FIRE Fire and Resource Assessment Program. *Fire Hazard Severity Zones in SRA, Solano County.* November 7, 2007.

³⁷ California Department of Conservation. *Geologic Hazards Data & Maps.* Available at: <https://maps.conservation.ca.gov/geologichazards/>. Accessed November 1, 2019.

The project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City. Future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to project-specific CEQA review. Consequently, any potential impacts related wildfire would be addressed through future project-specific analysis. Furthermore, future solar installations are not anticipated to involve creation of substantial fire risks.

Based on the above, the project site is located within a High Fire Hazard Severity Zone. However, the proposed project would not result in substantially increased fire risks relative to existing conditions. Thus, the impact related to wildfire would be ***less-than-significant***.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE.	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

a. The proposed project would have a low potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory. However, the City’s incorporation of mitigation measures adopted as part of the proposed project would minimize the impacts on the environment. For example, Mitigation Measure IV-1 provides for protection of biological resources (e.g., Swainson’s Hawk, California Red-Legged Frog, etc.) that may be impacted by the proposed project.

As discussed previously, although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to project-specific CEQA review. Consequently, any potential impacts would be addressed through future project-specific analysis.

Based on the discussion above, impacts would be considered ***less-than-significant***.

b. This IS/MND contains mitigation measures for all potentially significant impacts to ensure that the impacts are reduced to less-than-significant levels. With the incorporation of mitigation measures, the proposed project would not result in significant or cumulatively considerable impacts, and in some cases, such as greenhouse gas emissions, would result in positive impacts and would be beneficial to the environment.

As discussed previously, although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, it is reasonable to conclude that there is no causal connection between the creation of a new land use classification in the OS District and induced development of solar facilities within the City of Benicia. Solar utilities do not currently exist within the OS District and no

other development applications have been submitted to the City or are currently being processed by the City for any similar type of land use. To the extent there may be such a future application is speculative. Any future actions on the part of landowners are too speculative to be considered in this IS/MND. Per Section 15145 of the CEQA Guidelines, CEQA does not require evaluation of speculative impacts. Thus, it can be concluded that the physical development of future solar facility projects under the OS District is not a reasonably foreseeable consequence of the proposed project, thus requiring analysis within the IS/MND.

In addition, any future development of solar utilities in areas zoned OS would do so independently of the proposed project, would require approval of a Use Permit, and would be subject to separate CEQA review and discretionary approval. Similar to the proposed project, all future solar utilities projects within the OS District would be subject to the same federal, State, and local requirements as the proposed project, which would ensure impacts are minimized to the extent practicable. Should any future solar utilities project within the OS District result in project-specific impacts, each future project would be required to include all feasible mitigation to ensure impacts are reduced to less-than-significant levels, similar to the proposed project. Consequently, any potential cumulatively considerable impacts to resources associated with future solar installation in OS areas would be addressed through future project-specific analysis.

Furthermore, as noted previously, impacts related to a number of environmental issue areas are predominantly project- and/or site-specific, and do not have the potential to cumulatively combine. For example, impacts resulting from development on expansive soils at one project site are not worsened by impacts from development on expansive soils at another project site. Rather, the soil conditions, and the implications of such conditions for each project, are independent, and mitigation measures are primarily site-specific and project-specific. As another example, while some cultural or tribal cultural resources may have regional significance, the resources themselves are site-specific, and impacts to them are project-specific. For instance, impacts to a subsurface archeological find at one project site would not generally be made worse by impacts to a cultural resource at another site due to development of another project. Rather the resources and the effects upon them are generally independent.

However, impacts such as those related to air quality, biological resources, energy, GHG emissions, noise, population and housing, public services, recreation, transportation, and utilities and service systems could cumulatively combine when considering a project in conjunction with all other past, present, and reasonably foreseeable projects.

Due to the nature and intensity of solar facilities, as analyzed and presented in this IS/MND, the environmental impacts associated with each future facility would be limited. Thus, the incremental contribution of each facility to the cumulative environment is similarly limited. For example, any future solar facility within the OS District would be expected to involve, similar to the proposed solar facility, minimal ground disturbance, minimal permanent impervious ground surfaces, little to no sources of light, minimal sources of noise, minimal increase in traffic, little to no increase in demand for public services, no increase in demand for utilities, no routine transport, use, or storage of hazardous materials, minimal air pollutant emissions, and no increase in housing or population. Accordingly, impacts associated with each future solar facility related to air quality, energy, GHG emissions, hazards and hazardous materials, noise, population and housing, public services, recreation, transportation, and utilities and service systems

would be expected to be minimal. In addition, future solar facilities would be expected to be scattered throughout the OS-zoned areas of the City, rather than concentrated in any one location. Accordingly, effects of future solar facilities would be more isolated, as opposed to if future facilities were nearer to one another, thus, increasing the potential for combined effects.

While effects of each individual project on biological resources is site- and project-specific, buildout of a general area could cumulatively result in impacts to biological resources. As discussed in Section IV, Biological Resources, of this IS/MND, all potential impacts to biological resources as a result of the proposed project could be reduced to a less-than-significant level with mitigation incorporated. As noted previously, any future solar utilities in the OS District would be subject to CEQA review, which would ensure that, similar to the proposed solar facility, feasible mitigation is applied sufficient to reduce all potential impacts to the maximum extent practical. While cumulative impacts related to biological resources could occur as a result of buildout of the City's General Plan in conjunction with the proposed project, including any future solar facilities within the OS District, CEQA Guidelines, Section 15064, Subdivision (h)(5) states, "[...]the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable." Therefore, even where cumulative impacts are significant, any level of incremental contribution is not necessarily deemed cumulatively considerable. In addition, the courts have explicitly rejected the notion that a finding of significance is required simply because a proposed project would result in a net loss of habitat. "[M]itigation need not account for every square foot of impacted habitat to be adequate. What matters is that the unmitigated impact is no longer significant." (Save Panoche Valley v. San Benito County (2013) 217 Cal.App.4th 503, 528, quoting Banning Ranch Conservancy v. City of Newport Beach (2012) 211 Cal.App.4th 1209, 1233.) The discussion within this IS/MND provides substantial evidence that, while the combined effects on biological resources resulting from approved/planned development throughout the City would be considered significant, the proposed project's incremental contribution to the significant cumulative effect could be reduced with implementation of the mitigation measures required in this IS/MND, as well as in CEQA compliance documentation for any future solar facilities within the OS District.

For the above reasons, the incremental contribution of impacts related to the proposed project, including the proposed ZTA, towards any significant cumulative impacts associated with full buildout of the City of Benicia would be less than cumulatively considerable, with implementation of the Mitigation Measures included herein, as well as required CEQA review for future projects. Therefore, cumulative impacts would be considered ***less-than-significant***.

- c. The proposed project would comply with all applicable General Plan policies, BMC standards, other applicable local and State regulations, and mitigation measures included herein. In addition, as discussed in Section III, Air Quality, Section IX, Hazards and Hazardous Materials, and Section XIII, Noise, of this IS/MND, the proposed project would not cause substantial effects to human beings, which cannot be mitigated to less-than-significant levels, including effects related to exposure to air pollutants, hazardous materials, and excessive noise.

While the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar

utilities in areas zoned OS would require approval of a Use Permit and would be subject to project-specific CEQA review. Consequently, any potential impacts to the environment or human beings would be addressed through future project-specific analysis.

Based on the discussion above, the proposed project's environmental impact on human beings would be ***less than significant***.

Appendix A

SMAQMD Construction Mitigation Tool Results

SMAQMD Construction Mitigation Program - Project Input Data Request

INSTRUCTIONS:
 (This tab allows user to provide project specific "Life-of-Project" and "Monthly Reporting" input data)
 1. Please first select the input data type in cell D14 before filling in any other information.
 2. After selecting the input data type, fill in all yellow highlighted cells from row 16 to row 31 (project information).
 3. Fill in construction equipment and haul-truck input data in following sections:
 A1: [Construction Equipment Input Data](#) A2: [Construction Equipment VDECs Data \(for ULSD equipment\)](#)
 B: [Haul Truck Emissions Calculation Input Data](#)
 4. Use the "Clear Input" button to clear the input and begin a new calculation.

To calculate overall project emissions, please select "Life-Of-Project (LOP) data"; for monthly reporting emissions, please select "Monthly reporting data" in cell D14.

Input Data Type:	Life-Of-Project (LOP) data
-------------------------	-----------------------------------

Clear Input

Submittal Date (mm/dd/yyyy):	11/18/2019
Contractor (Company):	Raney
Primary Contractor (Yes or No):	Raney
Mailing Address:	
Equipment List Contact Person:	
Phone #:	
Email address:	
PROJECT NAME:	Lake Herman Road Solar Project
Location (address or intersection):	Lake Herman Road
Project Start Date:	6/1/2020
Estimated days equipment will be used on the project (start to finish, not contract days):	25
Acres of the Project:	35
On-site Contact Person:	Raney
Phone #:	9163726100
Email address:	www.raneymanagement.com

A1. Construction Equipment Input Data

Current Calendar Year: 2020

LINE	Contractor (Company)	Equipment Mfgt. (Example: CAT)	Equipment Model No. (Example: 320L)	Type of Equipment (Example: Excavators)	CARB Equipment ID#	Contractor Equipment ID#	Engine Model Year	Engine HP	Estimated Total Hours of Operation for the Project	Engine Type or Fuel Use	Input Status & Notes
1		GAYK	4000	Bore/Drill Rigs			1999	50	200	ULSD	input not completed
2		CAT	default	Graders			1999	180	8	ULSD	input not completed
3		CAT	default	Scrapers			1999	350	8	ULSD	input not completed
4											
5											
6											
7											
8											
9											

EXHIBIT B

SMAQMD Construction Mitigation Program - Results

Version 8.0

11/27/2019 11:01

Project Name: Lake Herman Road Solar Project

Overall Life-Of-Project (LOP) Emissions

Project Start Date: 06/01/2020

Comparison of your project fleet's emissions with the statewide average for construction equipment

		NOx	ROG	PM10	PM2.5
Project fleet and statewide average construction equipment emission rates (g/bhp-hr)					
Your fleet's emission factors based on data entered >>	Project Fleet	6.20	1.69	0.57	0.52
Calculator estimated statewide average emission factors >>	Statewide Average	3.34	0.42	0.21	0.19
	Absolute Reduction	-2.86	-1.27	-0.36	-0.33
	Percent Reduction	-86%	-299%	-176%	-176%
Project fleet construction equipment average daily emissions (lbs/day)					
Your fleet's average daily emissions based on data entered >>	Project Fleet	3.79	1.06	0.36	0.34
Calculator estimated average daily fleet emissions using statewide average emission factors >>	Statewide Average	2.04	0.26	0.13	0.12

Project haul truck(s) daily emissions

		NOx	ROG	PM10	PM2.5
Project haul truck(s) average daily emissions (lbs/day)					
	Project Fleet	N/A	N/A	N/A	N/A

Project construction equipment and haul truck total emissions

		NOx	ROG	PM10	PM2.5
Project total construction equipment and haul truck average daily emissions (lbs/day)					
Days Equipment will be Used on the Project: 25	Construction Equipment	3.79	1.06	0.36	0.34
Days of Hauling:	Haul Truck(s)	N/A	N/A	N/A	N/A
	Total	3.79	1.06	0.36	0.34

NOTE: No haul truck VMT information provided.

Appendix B

Responses to Comments

RESPONSES TO COMMENTS

INTRODUCTION

This Responses to Comments document contains comments received during the public review period of the Lake Herman Road Solar Project Initial Study/Mitigated Negative Declaration (IS/MND).

According to CEQA Guidelines Sections 15073 and 15074, the lead agency must consider the comments received during consultation and review periods together with the IS/MND. However, unlike with an Environmental Impact Report (EIR), comments received on an IS/MND are not required to be attached to the negative declaration, nor must the lead agency make specific written responses to public agencies. Nonetheless, the lead agency has chosen to provide responses to those specific public comments that are related to the environmental analysis contained in the IS/MND. Non-environmental comments have been considered by the City as part of staff's report to the Planning Commission.

BACKGROUND

The City of Benicia used the following methods to solicit public input on the IS/MND: a Notice of Completion of the IS/MND was posted with the State Clearinghouse on January 3, 2020. The IS/MND was distributed to applicable public agencies, responsible agencies, and interested individuals. In addition, copies of the document were made available at the Community Development Department, located at 250 East L Street and at the Benicia Public Library, located at 150 East L Street. In addition, electronic copies were available on the City's website, www.ci.benicia.ca.us. The public review period ended February 14, 2020.

LIST OF COMMENTERS

The City of Benicia received four comment letters during the open comment period on the IS/MND for the proposed project. In addition, verbal comments were provided during the February 13, 2020 Planning Commission meeting. A transcript of the comments received during the February 13, 2020 meeting is included as Letter 4. The comment letters and verbal comments were received from the following representatives and are included in the Responses to Comments section below:

- Letter 1Bob Berman, Resident
- Letter 2Kathleen Catton, Planning Commission Member
- Letter 3Bill Everett, Resident
- Letter 4Planning Commission Meeting Comments
- Letter 5Donald Dean, Resident

RESPONSES TO COMMENTS

The Responses to Comments below includes each comment letter and a transcript of the verbal comments received regarding the Lake Herman Road Solar Project, as well as responses to each comment. Each bracketed comment letter is followed by numbered responses to each bracketed



comment. Where revisions to the IS/MND text were made, new text is double underlined and deleted text is ~~struck through~~.

All such revisions to the IS/MND are relatively minor, and do not affect the adequacy of the conclusions presented therein. CEQA Guidelines Section 15073.5 states the following regarding recirculation requirements for negative declarations:

- (c) Recirculation is not required under the following circumstances:
 - (1) Mitigation measures are replaced with equal or more effective measures pursuant to Section 15074.1.
 - (2) New project revisions are added in response to written or verbal comments on the project's effects identified in the proposed negative declaration which are not new avoidable significant effects.
 - (3) Measures or conditions of project approval are added after circulation of the negative declaration which are not required by CEQA, which do not create new significant environmental effects and are not necessary to mitigate an avoidable significant effect.
 - (4) New information is added to the negative declaration which merely clarifies, amplifies, or makes insignificant modifications to the negative declaration.

Based on the above, pursuant to CEQA Guidelines Section 15073.5, recirculation of the IS/MND is not warranted.

Master Response

Many of the commenters raised similar concerns related to the analysis of cumulative impacts presented in the IS/MND, particularly related to the cumulative impacts of the proposed Zoning Text Amendment (ZTA) to allow Solar Utilities within areas zoned as Open Space (OS), subject to a Use Permit. For such concerns, the City has prepared a master response. Through the master response, the City can address the common concern in a comprehensive manner and without duplication in the individual responses. The Master Response includes the following three main topics with respect to the comments received regarding cumulative impacts: 1) some utilities are already allowed within the Open Space (OS) zone, and the new, distinct land use designation would be consistent with the General Plan, as amended by Measure K, an initiative of the voters of the City of Benicia which was approved in 2003; 2) the IS/MND included an adequate discussion of cumulative effects, pursuant to Section 15130(b) of CEQA Guidelines; and 3) in an attempt to provide additional information, at the direction of Planning Commission, a Solar Site Inventory Analysis has been prepared and the cumulative effects of buildout of the identified sites within the OS District that could potentially accommodate solar facilities have been analyzed. Each of these topics is discussed in further detail below. Changes to the IS/MND text related to cumulative impacts is provided below, as well. The changes are for clarification and amplification only and would not change the conclusions presented in the IS/MND.

Allowable Uses within the OS District

Under Chapter 17.36 of the Municipal Code, Minor and Major Utilities, as well as Waste Facilities, are already allowed in OS areas, subject to a Use Permit for Major Utilities and Waste Facilities. Minor Utilities are defined as, "utility facilities that are necessary to support legally established uses and involve only minor structures such as electrical distribution lines and underground water



and sewer lines,” and are permitted by right in the OS District. Major Utilities, defined as, “generating plants greater than five megawatts in size, electrical substations, aboveground electrical transmission lines, refuse collection or disposal facilities, water reservoirs, water or wastewater treatment plants, and similar facilities of public agencies, public utilities or private utilities” are allowed in the OS District, subject to approval of a Use Permit. However, as noted under Item A of Section 17.36.030 of the Municipal Code, Major Utilities and Waste Facilities (Minor Utilities excepted) are, “not permitted on lands outside the urban growth boundary as delineated on the general plan land use diagram.”

Pursuant to Chapter 17.120, any new land use may be incorporated into the zoning regulations by a Zoning Text Amendment. Because solar facilities are a distinct use that are not contemplated within either Major or Minor Utilities use classifications, a new land use, Solar Utilities, was proposed as part of the project. This new use classification fills in a gap in existing municipal code use classifications which are otherwise silent on the type of uses contemplated by the Solar Utilities use. The Solar Utilities land use classification would conditionally allow solar facilities within the OS District, regardless of the relationship to the UGB, similar to Minor Utilities, and includes associated standards and limitations on development for such projects. The details of the ZTA are included in the IS/MND beginning on page 11.

Measure K, a General Plan Amendment approved in 2003, notes that the intention of the UGB is to discourage urban sprawl and ensure that urban development does not extend beyond the boundary. Urban development is defined as, “development requiring one or more basic municipal services, including, but not limited to, water service, sewer, improved storm drainage facilities, fire hydrants, and other physical public facilities and services”. As such, urban development is limited to developments which require physical municipal facilities. The proposed solar utilities use would be prohibited if the use required water service or sewer connections. Thus, a permitted solar utility use would not be considered “urban development” and, therefore, would be allowable outside of the UGB and would remain consistent with the General Plan.

To summarize, several types of utilities are already allowed in the OS District within the UGB. Solar facilities are considered a distinct land use that do not fall under the definition of Major or Minor Utilities. As such, the proposed ZTA was created to conditionally allow Solar Utilities within the OS District throughout Benicia. Because a solar facility would not require the construction of any physical municipal facilities, the land use would be allowed outside of the UGB pursuant to the General Plan, as amended by Measure K.

Adequate IS/MND Analysis

The potential effects associated with the proposed ZTA are discussed throughout the IS/MND related to each environmental issue area, as appropriate. The CEQA Guidelines Appendix G checklist question that specifically addresses cumulative impacts is question ‘b’ within Section XXI, Mandatory Findings of Significance, which is presented and addressed on page 78 of the IS/MND. The specific Appendix G checklist question is as follows:

- b. Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Section 15130(b) of CEQA Guidelines indicates that the level of detail of the cumulative analysis need not be as great as for the project impact analyses, but that analysis should reflect the



severity of the impacts and their likelihood of occurrence, and that the analysis should be focused, practical, and reasonable. Based on Section 15130(b) of CEQA Guidelines, to be considered adequate, a discussion of cumulative effects must include the following elements:

- (1) Either (a) a list of past, present and probable future projects, including, if necessary, those outside the agency's control, or (b) a summary of projections contained in an adopted general plan or related planning document, or in a prior certified EIR, which described or evaluated regional or area-wide conditions contributing to the cumulative impact, provide that such documents are reference and made available for public inspection at a specified location;
- (2) A summary of the individual projects' environmental effects, with specific reference to additional information and stating where such information is available; and
- (3) A reasonable analysis of all of the relevant projects' cumulative impacts, with an examination of reasonable, feasible options for mitigating or avoiding the project's contribution to such effects (Section 15130[b]).

As discussed above, the proposed land use classification would remain consistent with the General Plan and therefore would not be expected to result in any new or more severe impacts to the environment from what could and/or has already been anticipated to occur as a result of buildout of the General Plan. However, because the proposed ZTA would introduce a new land use classification, specific projections for that particular use have not been included in any adopted plan or certified EIR within which cumulative impacts of such have been evaluated. Thus, while the General Plan EIR analysis and conclusions could be referenced and used for informational purposes, the conclusions could not be applied directly to the proposed project's analysis within the IS/MND and part '(b)' of Section 15130(b)(1) of CEQA Guidelines, as presented above, could not be relied upon in this case.

Based on information from the City, solar utilities do not currently exist within the OS District and no other development applications have been submitted to the City or are currently being processed by the City for any similar type of land use. With respect to probable future projects, as specifically stated on page 17 of the IS/MND, "implementation of the proposed project would not necessarily result in development of any other solar utilities within OS areas in the City, and impacts from potential future solar utilities on aesthetics would be assessed at the time that such projects are proposed." While the aforementioned excerpt is specific to the analysis of aesthetics, a similar conclusion was made throughout the IS/MND.

Based on CEQA case law (*Union of Medical Marijuana Patients, Inc. v. City of San Diego*, 2019), a "reasonably foreseeable indirect physical change is one that the activity is capable, at least in theory, of causing." The court goes on to state:

Conversely, an indirect effect is not reasonably foreseeable if there is no causal connection between the proposed activity and the suggested environmental change or if the postulated causal mechanism connecting the activity and the effect is so attenuated as to be "speculative."

It is reasonable to conclude that there is no causal connection between the creation of a new land use classification in the OS District and induced development of solar facilities within the City of Benicia. The establishment of a new use classification, which classification requires issuance of a use prior to commencement of the contemplated use, would not operate to induce further solar



utility development, nor would such a zoning text amendment authorize future development. Rather, a use permit must still be obtained in order for any such solar utility development to occur. To the extent there may be such a future application is speculative. Any future actions on the part of landowners are too speculative to be considered in the IS/MND. Per Section 15145 of the CEQA Guidelines, CEQA does not require evaluation of speculative impacts. Thus, it can be concluded that the physical development of future solar facility projects under the OS District is not a reasonably foreseeable consequence of the proposed project, thus requiring analysis within the IS/MND. In addition, any future development projects applying for a Use Permit for the new land use classification would do so independently of the proposed project, and would be subject to separate environmental review and discretionary approval. Approval of the proposed ZTA would not commit the City towards any particular course of action regarding future Use Permits. Ultimately, the City Council retains the authority to approve or deny any subsequent solar utility projects in OS-zoned areas.

Additionally, due to the nature and intensity of typical solar facilities, as analyzed and presented in the IS/MND, the environmental impacts associated with each facility are limited. Thus, the incremental contribution of each facility to the cumulative environment is similarly limited. For example, solar facilities involve minimal ground disturbance, minimal permanent impervious ground surfaces, little to no sources of light, minimal sources of noise, minimal increase in traffic, little to no increase in demand for public services, no increase in demand for utilities, no routine transport, use, or storage of hazardous materials, minimal air pollutant emissions, and no increase in housing or population. Accordingly, impacts associated with typical solar facilities are generally minimal related to the following environmental issue areas of the Appendix G checklist of CEQA Guidelines: air quality, energy, GHG emissions, hazards and hazardous materials, noise, population and housing, public services, recreation, transportation, and utilities and service systems.

Impacts associated with a number of the remaining environmental issue areas of the Appendix G checklist, such as agriculture and forest resources, biological resources, cultural and tribal cultural resources, geology and soils, land use and planning, mineral resources, and wildfire are primarily project- and/or site-specific, and do not typically have the potential to cumulatively combine. For example, impacts resulting from development on expansive soils at one project site are not worsened by impacts from development on expansive soils at another project site. Rather, the soil conditions, and the implications of such conditions for each project, are independent, and mitigation measures are primarily site-specific and project-specific. As another example, while some cultural or tribal cultural resources may have regional significance, the resources themselves are site-specific, and impacts to them are project-specific. For instance, impacts to a subsurface archeological find at one project site would not generally be made worse by impacts to a cultural resource at another site due to development of another project. Rather the resources and the effects upon them are generally independent.

Similar to the proposed project, all future solar utilities projects within the OS District would be subject to the same federal, State, and local requirements as the proposed project, which would ensure impacts are minimized to the extent practicable. Should any future solar utilities project within the OS District result in project-specific impacts, each future project would be required to undergo CEQA, which would include all feasible mitigation to ensure impacts are reduced to less-than-significant levels, similar to the proposed project. Therefore, the IS/MND concluded that any potential impacts associated with cumulative development of solar projects within the OS area would not combine to result in a significant cumulative impact.



In conclusion, impacts related to the proposed ZTA and cumulative impacts were considered and addressed in the IS/MND, and the level of detail of the cumulative analysis was appropriate and sufficient for the proposed project. Overall, based on Section 15130(b) of CEQA Guidelines, the cumulative analysis included in the IS/MND is adequate.

Solar Site Inventory Analysis

Solar utilities do not currently exist as a land use classification within the City, including the OS District, no other development applications have been submitted to the City or are currently being processed by the City for any similar type of land use, and the proposed ZTA would not necessarily result in development of any other solar utilities within OS areas. To the extent future applications for solar utilities are submitted to the City is speculative and, per Section 15145 of the CEQA Guidelines, CEQA does not require evaluation of speculative impacts. In addition, any future development projects applying for a Use Permit for the new land use classification would do so independently of the proposed project, and would be subject to separate environmental review and discretionary approval. Approval of the proposed ZTA would not commit the City towards any particular course of action regarding future Use Permits. Ultimately, the City Council retains the authority to approve or deny any subsequent solar utility projects in OS zoned areas.

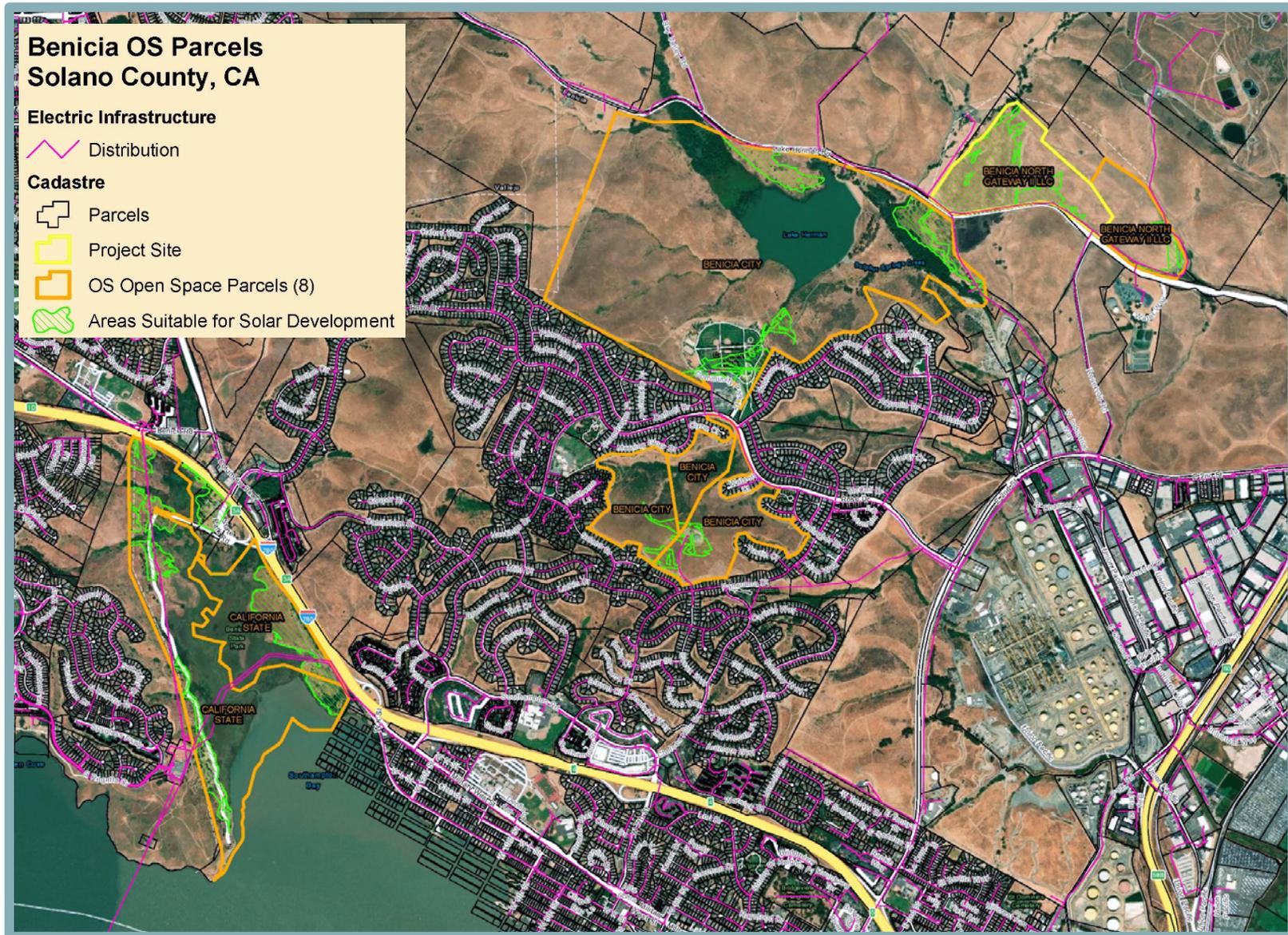
Nonetheless, in an attempt to provide more information in response to public comments received at the Planning Commission meeting of February 13, 2020, the applicant hired Faulk and Foster (F&F), a real estate consultant for wireless and wireline network development and renewable utility infrastructure, to prepare an independent, third-party analysis of potentially suitable sites for development of utility-scale solar PV projects within the OS-zoned parcels in the City of Benicia. The results of the analysis are presented in a Solar Site Inventory Analysis, which is included as an attachment to this Responses to Comments document.

F&F evaluated the viability of OS areas for solar development based on standard screening methodology. The screening methodology takes various factors into account that determine a site's suitability for a solar utility, including the following:

- Size of the site;
- Location within a floodplain or floodway;
- Existence of wetlands or sensitive biological resources;
- Terrain and topography; and
- Access and proximity to electrical infrastructure.

F&F used ESRI's ArcGIS software to input the aforementioned constraints and refine the number of OS parcels suitable for development. Geospatial data was obtained from publicly available sources including the Federal Emergency Management Agency (FEMA), U.S. Fish and Wildlife Service (USFWS), U.S. Geological Survey's National Elevation Dataset, and parcel and zoning data from Solano County. Using the methodology discussed above, eight OS parcels were determined to meet the criteria and were considered suitable land for a viable solar project. Out of the eight parcels, the City of Benicia owns four, the State owns two, and Benicia North Gateway II LLC owns two. Within the eight parcels, "stranded areas" were further screened out due to development constraints (see figure on the following page). When the "stranded areas" were removed from the total parcel acreage, only 206.98 acres, or 9.5 percent of the total OS zoning district is viable for potential solar development. When State and municipally-owned parcels are removed from the total acreage, only 60.85 acres, or 2.8 percent of the total OS zoning district area is viable for solar development.





Based on the results of the F&F analysis, as shown in the figure on the previous page, the sites identified for potential future solar viability are scattered throughout the OS areas of the City and are not necessarily concentrated in any one area. Because the potential future sites would be spread throughout the City, separate from one another, their effects would be more isolated, as opposed to if future facilities were nearer to one another, thus, increasing the potential for combined effects.

As discussed above, impacts related to a number of environmental issue areas are predominantly project- and/or site-specific, and do not have the potential to cumulatively combine. However, under CEQA Guidelines, Section 15065, Subdivision (a)(3), a project's incremental contribution may be cumulatively considerable if the incremental effects of the project are significant, "when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." Therefore, impacts such as those related to air quality, biological resources, energy, GHG emissions, noise, population and housing, public services, recreation, transportation, and utilities and service systems could cumulatively combine.

While not typically associated with cumulative effects, aesthetics is a common area of concern for solar utilities projects. The creation of glare at one location is not worsened by glare created at another location. Rather these effects are independent, and the determination as to whether they are adverse is specific to the project and location where they are created. Projects that block a view or affect the visual quality of a site also have localized aesthetic impacts. The impact occurs specific to a site or area and remains independent from another project elsewhere that may block a view or degrade the visual environment of a specific site. However, two types of aesthetic impacts may be additive in nature and, thus, cumulative, including night sky lighting and overall changes in the visual environment as the result of increasing urbanization of large areas. Because solar facilities do not involve substantial, if any, sources of lighting, night sky lighting impacts are not of concern. As development in one area changes from rural to urban, and this pattern continues to occur throughout the undeveloped areas of a jurisdiction, the changes in visual character may become additive and cumulatively considerable.

Based on the F&F analysis and the associated figure, the potential future solar utilities sites would be spread throughout the OS areas of the City, separate from one another. Thus, their effects on visual character would be isolated. As discussed in the IS/MND, the proposed project would not result in a substantial degradation of the visual character or quality of public views of the site. Similarly, as also discussed in the IS/MND, any future solar utilities project within the OS District would be subject to the same standards and requirements as the proposed project, including height limitations, and setback standards. Furthermore, the required subsequent CEQA review for any future solar utilities project in the OS District would allow the City to review each future project design for consistency with applicable design standards and policies, as well as ensure that each future project would not substantially degrade the visual character or quality of any public views of each site and surrounding area.

CEQA Guidelines, Section 15064, Subdivision (h)(5) states, "[...]the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable." Therefore, even where cumulative impacts are significant, any level of incremental contribution is not necessarily deemed cumulatively considerable. In addition, under CEQA Guidelines, Section 15130(a), an Initial Study is not required to discuss cumulative impacts of a project when a project's incremental effect is not, by itself, cumulatively considerable. Because the proposed solar facility, as well as any future solar facility within the OS District, would not result in the degradation of visual character or quality



individually, and due to the isolated locations of the areas identified as potentially viable for solar use, the incremental contribution of impacts related to degradation of visual character or quality of the proposed project, including the proposed ZTA, towards a significant cumulative impact associated with full buildout of the City of Benicia would be less than cumulatively considerable. Therefore, the combined impact of the proposed project and any potential future solar projects would not be considered cumulatively considerable under CEQA Guidelines.

Cumulative air quality impacts were addressed in the IS/MND on page 24. As stated therein, because operational emissions associated with the proposed solar facility would be nominal, the project would not cause a cumulatively considerable contribution to the region's existing air quality conditions. Due to the nature of the operations associated with a solar facility, any future solar utility project would be expected to result in similarly nominal emissions and would be subject to separate environmental review under CEQA, which would ensure that mitigation measures sufficient to reduce the project's emissions to appropriate levels are included in the event that the project results in any uncharacteristically high levels of emissions. A similar argument could be made related to noise and transportation due to the nature of the operations associated with a solar facility (i.e., substantial noise levels or increases in average daily traffic would not occur).

While effects of each individual project on biological resources is site- and project-specific, buildout of a general area could cumulatively result in impacts to biological resources. As discussed in Section IV, Biological Resources, of the IS/MND, all potential impacts to biological resources as a result of the proposed project could be reduced to a less-than-significant level with mitigation incorporated. As noted in the IS/MND, any future solar utilities in the OS District would be subject to CEQA review, which would ensure that, similar to the proposed solar facility, feasible mitigation is applied sufficient to reduce all potential impacts to the maximum extent practical. Ultimately, the Planning Commission retains the authority to approve or deny any subsequent solar utility projects in OS-zoned areas. As noted above, even where cumulative impacts are significant, any level of incremental contribution is not necessarily deemed cumulatively considerable. In addition, the courts have explicitly rejected the notion that a finding of significance is required simply because a proposed project would result in a net loss of habitat. "[M]itigation need not account for every square foot of impacted habitat to be adequate. What matters is that the unmitigated impact is no longer significant." (*Save Panoche Valley v. San Benito County* (2013) 217 Cal.App.4th 503, 528, quoting *Banning Ranch Conservancy v. City of Newport Beach* (2012) 211 Cal.App.4th 1209, 1233.) The discussion within the IS/MND provides substantial evidence that, while the combined effects on biological resources resulting from approved/planned development throughout the City would be considered significant, the proposed project's incremental contribution to the significant cumulative effect could be reduced with implementation of the mitigation measures required in the IS/MND, as well as in CEQA compliance documentation for any future solar facilities within the OS District.

Because the proposed project, as well as any future solar utilities project, would generate renewable energy, resulting in a net gain in energy resources, impacts would not occur related to energy. Thus, the proposed project in conjunction with buildout of any future solar facilities in the OS District would not result in any impacts related to energy that could cumulatively combine to be significant.

Impacts related to GHG emissions and global climate change are inherently cumulative, as discussed in Section VIII of the IS/MND. Because the proposed project, as well as any future solar facilities, would produce renewable energy, thereby offsetting potential GHG emissions that



would otherwise occur associated with traditional energy production, impacts were determined to be less than significant.

Because the proposed project, as well as any future solar utility project, would not involve the creation of housing or otherwise increase population in the City, impacts related to population and housing, public services, recreation, and utilities and service systems associated with such would not occur. Accordingly, the proposed project in conjunction with buildout of any future solar facilities in the OS District would not result in any impacts related to the aforementioned environmental issue areas that could cumulatively combine to be significant. In addition, the Measure K, as well as the proposed ZTA, requires that projects outside the UGB shall not require or benefit from municipal services such as water and sewer services. Municipal services covered in the Municipal Code include water, wastewater, telephone, electricity, gas, cable, and access to divisions in the civil service system, which includes police, recreation, and city officers. Furthermore, please see Responses to Comments 2-6, 3-4, 3-5, 4-8, and 4-19 below regarding concerns associated with fire protection services brought forth as part of public comments on the project. Overall, the conclusions within the IS/MND for the proposed project, including the proposed ZTA and any future solar facilities within the OS District, remain sufficient.

Therefore, even when considering the identified speculative future solar utilities sites within the OS District, consistent with the discussions above and conclusions in the IS/MND regarding impacts associated with the proposed ZTA and cumulative impacts, any potential impacts associated with cumulative development of solar projects within the OS area would not combine to result in any significant cumulative impacts. The analysis and conclusions presented in the IS/MND remain valid.

Revisions to IS/MND Related to Cumulative Impacts

Based on direction from the Planning Commission, the IS/MND text is hereby revised, where appropriate and as specified below, to amplify and clarify the discussion of cumulative impacts, particularly related to the proposed ZTA.

The Background and Introduction section on page 6 of the IS/MND is hereby revised as follows:

E. BACKGROUND AND INTRODUCTION

This Initial Study/Mitigated Negative Declaration (IS/MND) provides an environmental analysis pursuant to the California Environmental Quality Act (CEQA) for the proposed project. This document has been prepared by the City of Benicia as lead agency under CEQA. The IS/MND contains an analysis of the environmental effects of construction and operation of the proposed project.

As discussed throughout this IS/MND, due to the level of impacts anticipated for the proposed solar facility, as well as any future solar facility within the OS District subsequent to the ZTA, in conjunction with the requirement that any future solar facility within the OS District undergo separate CEQA environmental review, the potential for any impacts associated with the proposed project to incrementally contribute to the cumulative environment is limited. Furthermore, a number of the CEQA environmental issue areas addressed within this IS/MND are predominantly project- and/or site-specific, and do not have the potential to cumulatively combine. Accordingly, cumulative impacts associated with the proposed project, including future solar facilities within the OS District, as conditionally allowable by the proposed ZTA, are addressed within this IS/MND where applicable.



The mitigation measures prescribed for environmental effects described in this IS/MND would be implemented in conjunction with the project, as required by CEQA, and the mitigation measures would be incorporated into the project. In addition, a project Mitigation Monitoring and Reporting Program (MMRP) would be adopted in conjunction with approval of the project.

The above changes are for clarification purposes only and do not alter the conclusions of the IS/MND.

The discussion for question 'b' of the Mandatory Findings of Significance section of the IS/MND, beginning on page 78, is hereby amplified as follows:

- b. This IS/MND contains mitigation measures for all potentially significant impacts to ensure that the impacts are reduced to less-than-significant levels. With the incorporation of mitigation measures, the proposed project would not result in significant or cumulatively considerable impacts, and in some cases, such as greenhouse gas emissions, would result in positive impacts and would be beneficial to the environment.

As discussed previously, although the project includes a proposed ZTA to allow for solar utility development in areas zoned OS throughout the City, it is reasonable to conclude that there is no causal connection between the creation of a new land use classification in the OS District and induced development of solar facilities within the City of Benicia. Solar utilities do not currently exist within the OS District and no other development applications have been submitted to the City or are currently being processed by the City for any similar type of land use. To the extent there may be such a future application is speculative. Any future actions on the part of landowners are too speculative to be considered in this IS/MND. Per Section 15145 of the CEQA Guidelines, CEQA does not require evaluation of speculative impacts. Thus, it can be concluded that the physical development of future solar facility projects under the OS District is not a reasonably foreseeable consequence of the proposed project, thus requiring analysis within the IS/MND.

In addition, any future development of solar utilities in areas zoned OS would do so independently of the proposed project, would require approval of a Use Permit, and would be subject to separate CEQA review and discretionary approval. Similar to the proposed project, all future solar utilities projects within the OS District would be subject to the same federal, State, and local requirements as the proposed project, which would ensure impacts are minimized to the extent practicable. Should any future solar utilities project within the OS District result in project-specific impacts, each future project would be required to include all feasible mitigation to ensure impacts are reduced to less-than-significant levels, similar to the proposed project. Consequently, any potential cumulatively considerable impacts to resources associated with future solar installation in OS areas would be addressed through future project-specific analysis.

Furthermore, as noted previously, impacts related to a number of environmental issue areas are predominantly project- and/or site-specific, and do not have the potential to cumulatively combine. For example, impacts resulting from development on expansive soils at one project site are not worsened by impacts from development on expansive soils at another project site. Rather, the soil conditions, and the implications of such conditions for each project, are independent, and mitigation measures are primarily site-specific and project-specific. As another example, while some cultural or tribal cultural resources may



have regional significance, the resources themselves are site-specific, and impacts to them are project-specific. For instance, impacts to a subsurface archeological find at one project site would not generally be made worse by impacts to a cultural resource at another site due to development of another project. Rather the resources and the effects upon them are generally independent.

However, impacts such as those related to air quality, biological resources, energy, GHG emissions, noise, population and housing, public services, recreation, transportation, and utilities and service systems could cumulatively combine when considering a project in conjunction with all other past, present, and reasonably foreseeable projects.

Due to the nature and intensity of solar facilities, as analyzed and presented in this IS/MND, the environmental impacts associated with each future facility would be limited. Thus, the incremental contribution of each facility to the cumulative environment is similarly limited. For example, any future solar facility within the OS District would be expected to involve, similar to the proposed solar facility, minimal ground disturbance, minimal permanent impervious ground surfaces, little to no sources of light, minimal sources of noise, minimal increase in traffic, little to no increase in demand for public services, no increase in demand for utilities, no routine transport, use, or storage of hazardous materials, minimal air pollutant emissions, and no increase in housing or population. Accordingly, impacts associated with each future solar facility related to air quality, energy, GHG emissions, hazards and hazardous materials, noise, population and housing, public services, recreation, transportation, and utilities and service systems would be expected to be minimal. In addition, future solar facilities would be expected to be scattered throughout the OS-zoned areas of the City, rather than concentrated in any one location. Accordingly, effects of future solar facilities would be more isolated, as opposed to if future facilities were nearer to one another, thus, increasing the potential for combined effects.

While effects of each individual project on biological resources is site- and project-specific, buildout of a general area could cumulatively result in impacts to biological resources. As discussed in Section IV, Biological Resources, of this IS/MND, all potential impacts to biological resources as a result of the proposed project could be reduced to a less-than-significant level with mitigation incorporated. As noted previously, any future solar utilities in the OS District would be subject to CEQA review, which would ensure that, similar to the proposed solar facility, feasible mitigation is applied sufficient to reduce all potential impacts to the maximum extent practical. While cumulative impacts related to biological resources could occur as a result of buildout of the City's General Plan in conjunction with the proposed project, including any future solar facilities within the OS District, CEQA Guidelines, Section 15064, Subdivision (h)(5) states, "[...]the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable." Therefore, even where cumulative impacts are significant, any level of incremental contribution is not necessarily deemed cumulatively considerable. In addition, the courts have explicitly rejected the notion that a finding of significance is required simply because a proposed project would result in a net loss of habitat. "[M]itigation need not account for every square foot of impacted habitat to be adequate. What matters is that the unmitigated impact is no longer significant." (*Save Panoche Valley v. San Benito County* (2013) 217 Cal.App.4th 503, 528, quoting *Banning Ranch Conservancy v. City of Newport Beach* (2012) 211 Cal.App.4th 1209, 1233.) The discussion within this IS/MND



provides substantial evidence that, while the combined effects on biological resources resulting from approved/planned development throughout the City would be considered significant, the proposed project's incremental contribution to the significant cumulative effect could be reduced with implementation of the mitigation measures required in this IS/MND, as well as in CEQA compliance documentation for any future solar facilities within the OS District.

For the above reasons, the incremental contribution of impacts related to the proposed project, including the proposed ZTA, towards any significant cumulative impacts associated with full buildout of the City of Benicia would be less than cumulatively considerable, ~~W~~with implementation of the Mitigation Measures included herein, as well as required CEQA review for future projects. Therefore, cumulative impacts would be considered **less-than-significant**.

The above changes are for clarification and amplification purposes only and do not alter the conclusions of the IS/MND.



Letter 1

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707-208-1991

February 13, 2020

Suzanne Thorsen, Principal Planner
City of Benicia
Community Development Department

Subject: Lake Herman Road Solar Project Initial Study / Mitigated Negative Declaration

Dear Suzanne:

Below are my comments on the Lake Herman Road Solar Project Initial Study / Negative Declaration

Discussion of Cumulative Impacts is Deficient

The proposed project includes a zoning text amendment to allow solar utilities within areas zoned as Open Space throughout the City. Unfortunately, the Initial Study makes no attempt to evaluate the potential cumulative impacts of the proposed zoning text amendment. In several of the impact sections a form of the following is stated:

- 1-1 *As discussed previously, although the project includes a proposed Zoning Text Amendment to allow for solar utility development in areas zoned OS throughout the City, any future development of solar utilities in areas zoned OS would require approval of a Use Permit and would be subject to CEQA review. Consequently, any potential impacts to agricultural resources would be addressed through future project-specific analysis.*

This is simply inadequate.

- 1-2 The Initial Study must provide an exhibit that quantifies how many parcels or acres are zoned Open Space throughout the City. Based on the proposed development standards in the Zoning Text Amendment an effort must then be made to estimate the potential amount of solar utility development that could occur in these areas. Based on this potential buildout the cumulative impact of such development must be evaluated, and mitigation measures recommended if there are significant impacts.

Discussion in Section I. Aesthetics is Deficient

The discussion of aesthetics in section I. is deficient.

- 1-3 Figures 5 and 6 are at a minimum difficult to understand if not simply misleading. It is not clear to me what Figure 5 is illustrating, but the "road" shown in this Figure 5 does not look like the existing Lake Herman Road that I am familiar with. It is stated that Figure 6 is "demonstrating project size and vegetative screening". It is impossible to correlate what is shown in Figure 6 with what is shown on Figure 3 the landscaping plan. Furthermore, it does not state at what point in time Figure 6 is illustrating, is it in year 1 immediately after project completion or year 10 after the landscaping has had time to mature.

The Initial Study must thoroughly and accurately describe potential visual impacts. At a minimum please provide a current photograph of the existing condition and then provide accurate and



1-3
Cont'd

↑

understandable photomontages of the future condition. Please provide one photomontage immediately after completion of construction and a second photomontage 10 years after completion of construction when the landscaping has a chance to mature. These photomontages must be based on the proposed landscaping plan and information must be provided to demonstrate that the photomontages accurately illustrate the landscaping plan.

1-4

There also needs to be a discussion providing assurance that the landscaping as proposed will grow and survive on the project site. Perhaps there should be a mitigation measure that requires that 95 percent of the landscaping survives ten years and each year individual plants that have died are replaced.

Discussion in Section XI. Land Use and Planning is Deficient

The discussion in Section XI. Land Use and Planning is deficient and needs to be revised.

In subsection b. it is stated:

In addition, the proposed project would not conflict with City policies and regulations adopted for the purpose of avoiding or mitigating an environmental effect, including, but not limited to, the City's noise standards, applicable stormwater regulations, and water quality standards.

This section makes no attempt to demonstrate consistency with many relevant goals and polices of the City's General Plan that are designed to avoid or mitigate an environmental effect.

1-5

For example, policy 2.1.5 says:

An Urban Growth Boundary is established as shown on the General Plan Land Use Diagram in order to separate the City's urban area from its surrounding greenbelt of open lands and to maintain lands near Lake Herman and north of Lake Herman Road in permanent agriculture/open space use. No urban development is allowed beyond the Urban Growth Boundary. "Urban development" shall mean development requiring one or more basic municipal services including, but not limited to, water service, sewer, improved storm drainage facilities, fire hydrants and other physical public facilities and services.

The Initial Study must evaluate consistency of the proposed project (both the solar project and the Zoning Text Amendment) with this General Plan policy as well as all other relevant General Plan goals, policies, and programs plus the City's zoning regulations.

The City's General Plan, Urban Growth Boundary, and Zoning never anticipated energy projects such as wind turbines and large-scale solar projects – thus the need for the proposed zoning text amendment. The fact that such projects were not previously anticipated by the City makes it extremely important that the Initial Study thoroughly evaluate the consistency of the proposed project with all aspects of the City's General Plan, Urban Growth Boundary, and zoning regulations.

1-6

Please let me know if you have any questions regarding the above comments. Furthermore, please notify me when the revised Initial Study / Mitigated Negative Declaration is available for review.

Yours Truly,

Bob Berman



LETTER 1: BOB BERMAN, RESIDENT

Response to Comment 1-1

See Master Response.

Response to Comment 1-2

See Master Response.

Response to Comment 1-3

The discussion of aesthetics is sufficient, and fully addresses each CEQA question.

Figure 5 of the IS/MND depicts the view when approaching the project site from the east, and the solar panels are visible in the distance. The figures included in the IS/MND are computer renderings, not actual photographs, and therefore, may not appear exactly how the road looks in real life, but represent a realistic and good-faith effort to depict the conditions of Lake Herman Road. The intention of the figures is to depict how the local topography and proposed vegetation would affect public views of the solar panels. As such, the computer renderings accurately portray the visibility of the proposed project with the inclusion of vegetative screening and nearby hills.

Figure 6 of the IS/MND illustrates the view of the site when standing along Lake Herman Road, looking north onto the project site. The row of red shrubs seen in Figure 6 of the IS/MND correspond with the row of Toyon hedge shown along the southern site border in Figure 3, Landscaping Plan, of the IS/MND. Both Figures 5 and 6 of the IS/MND illustrate the site and proposed vegetation three years after planting. The figures accurately represent the proposed solar array.

In coordination with City Staff, an updated Landscaping Plan was prepared (see Figure 1), and updated figures were subsequently prepared. The updated figures are intended to replace Figure 6 of the IS/MND, and present the same viewpoint as Figure 6 of the IS/MND, but include the updated vegetation.

Figure 2, included in the following pages, depicts the site one year after implementation of the proposed project, when vegetation is young. The bushes seen in front of the solar panels in Figure 2 represent the row of Coffeeberry shrubs proposed for the southern edge of the project site shown in the Landscaping Plan.

Figure 3 depicts the same viewpoint three to six years after project implementation, when vegetation has had time to mature. As shown in Figure 3, the Coffeeberry shrubs are larger and more effectively screen the solar panels from view than what is shown in Figure 2.



Figure 1
Updated Landscaping Plan

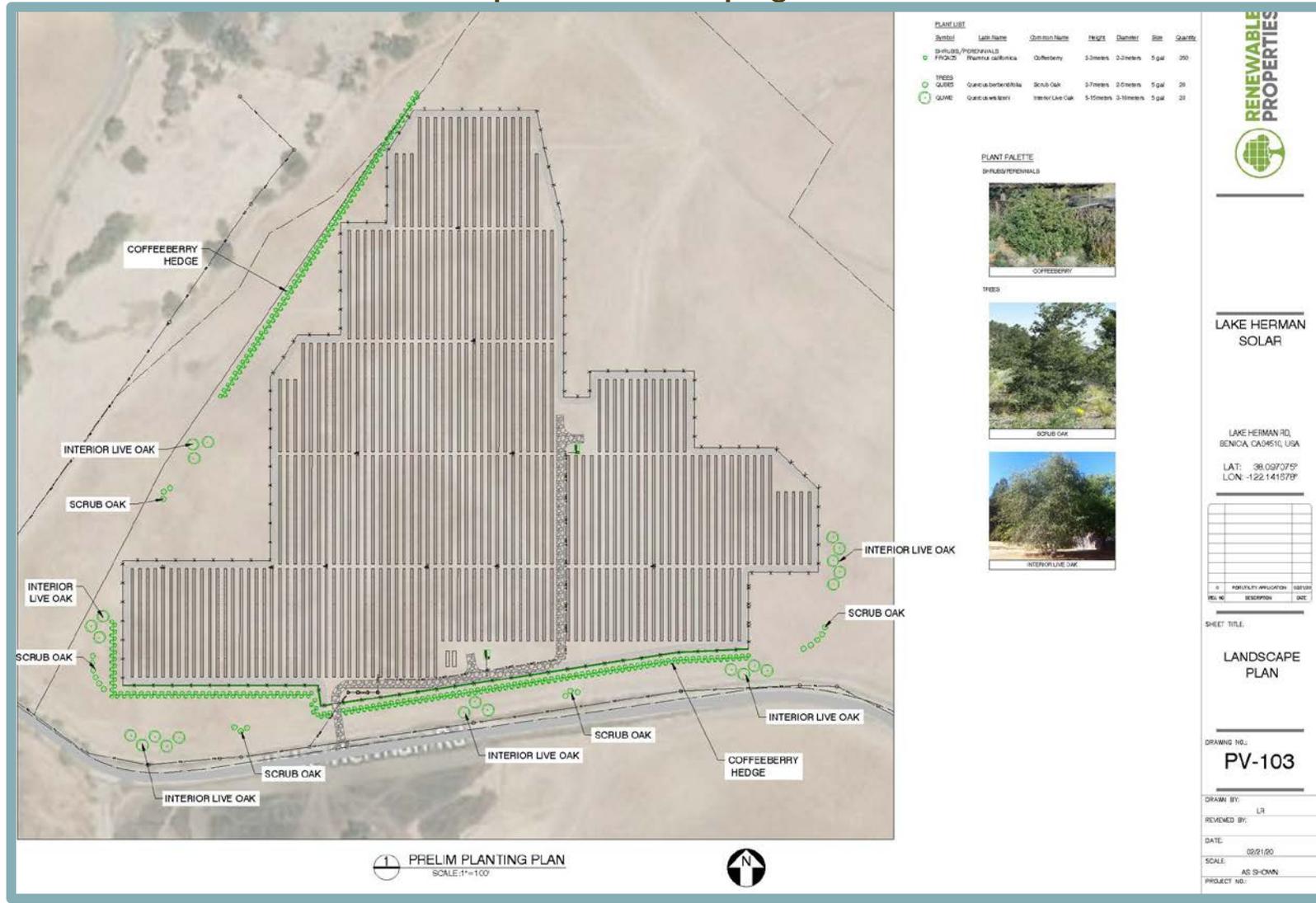


Figure 2
Looking North onto the Project Site (Year 1)



Figure 3
Looking North onto the Project Site (Year 3-6)



Response to Comment 1-4

As noted on page 9 of the IS/MND, vegetation management is already included as part of the proposed project. In section I, Aesthetics, of the IS/MND, the analysis concludes that, with the incorporation of the proposed landscaping plan, all aesthetic impacts of the proposed project would be less-than-significant. However, in response to the commenter's concerns, the project applicant has committed to incorporate a Vegetation Maintenance Plan (Plan) into the long-term Operations & Maintenance contract associated with the proposed project. The Plan would include a plant replacement provision and success rate requirements. To enforce the Plan, vegetation survival has been required by the City as a Condition of Approval of the project.

Response to Comment 1-5

As noted in the Master Response, solar facilities are not considered to be urban development because the facilities would not require the construction of physical municipal facilities. Therefore, the proposed land use would be allowed outside of the UGB pursuant to the General Plan, as amended by Measure K. Because other types of utilities are already currently allowed in the OS District, subject to a Use Permit, the addition of the Solar Utilities land use classification in the OS District would not be expected to result in any new or more severe impacts to the environment from what could and/or has already been anticipated to occur as a result of buildout of the General Plan.

In response to the Comment, page 60 of the Initial Study is hereby amplified as follows:

"As discussed throughout this IS/MND, the proposed project would not result in any significant environmental effects that cannot be mitigated to a less-than-significant level by the mitigation measures provided herein. In addition, the proposed project would not conflict with City policies and regulations adopted for the purpose of avoiding or mitigating an environmental effect, including, but not limited to, the City's noise standards, applicable stormwater regulations, and water quality standards. For example, the proposed project would be consistent with the following General Plan (GP) and Climate Action Plan (CAP) items:

- GP Policy 2.1.5: The Policy mandates that urban development is not allowed beyond the Urban Growth Boundary, including the area north of Lake Herman Road. Urban development is defined as development requiring physical municipal infrastructure. Because the proposed solar project would not require construction of any physical municipal facilities, the project is not considered urban development and would be consistent with Policy 2.1.5.
- GP Policy 3.18.1: The Policy requires the preservation of rangeland north of Lake Herman Road. As noted on page 6 of the Initial Study, the project site is an 88.5-acre parcel, 35 acres of which would be used for the solar installation. As such, 64 percent of the total site would be preserved. Because a majority of the parcel would remain preserved as rangeland, the proposed project would be consistent with Policy 3.18.1.
- GP Program 3.22.B: The Programs requires a minimum setback of 25 feet from the top of bank streams and ravines. The proposed project incorporates a 50-foot buffer from all waterways, and thus, would be consistent with Program 3.22.B.
- GP Goal 2.5: The Goal is to facilitate and encourage new uses and development which provide substantial and sustainable fiscal and economic benefits to the City and the community. Approval of the proposed project, including the ZTA, would be consistent with the Goal in two ways: expanding the development of the local renewable energy market, and providing a pathway for the potential development of future solar installations.



- CAP Objective E-3: The Objective encourages an increase in the amount of solar energy production in the City of Benicia. The proposed project is directly consistent with the Objective because the project is a solar installation that would contribute to local renewable electricity generation.

Based on the above ~~Therefore~~, the proposed project would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact. Therefore, a **less-than-significant** impact related to any land use plan, policy, or regulation would occur.”

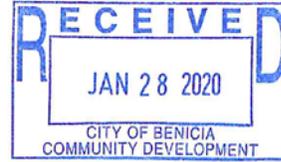
Response to Comment 1-6

The comment is a conclusion statement, and does not address the adequacy of the IS/MND.



Letter 2

Suzanne Thorsen
City of Benicia
Community Development Department
250 East L Street
Benicia, CA 94510



January 27, 2020

Dear Ms. Thorsen:

- 2-1** I am writing to voice concerns and opposition to the Lake Herman Road Solar Project as described in the City's Initial Study/Mitigated Negative Declaration. I own the ranch next to the project, in fact my house looks directly at the western portion of the project.
- 2-2** I am concerned that the project spoils the rural nature of Lake Herman Road area. It will negatively impact my views and property values. It is inconsistent with the City of Benicia's General Plan goals and
- 2-3** Open Space Zoning restrictions. Just because it is a solar project and "green" does not mean it is good land conservation.
- 2-4** The proposal acknowledges the incompatibility of the solar project with the City's goals to keep Lake Herman Road's rural character by planting landscaping to block views from Lake Herman Road for the benefit of occasional drivers passing by. However, there is no proposal to block the view from my property where I would be forced to see it all the time. It also seems unlikely that the southern mitigation will block views of the solar panels up the hill. The visual impacts, because of the rural nature and General Plan goals, are very significant.
- 2-5** Specifically, the conclusion that Aesthetic impacts are "less than significant" is terribly wrong. The rural image of Lake Herman Road will be irreversibly and negatively impacted 100%. The text explaining Figure 6 is contradicted by Figure 6.
- 2-6** I do not think the Initial Study adequately addresses wildfire risk. My home and business are very close to the site and would be at risk if the electrical system created sparks or overheated. The Initial Study acknowledges that my place is 300 feet from the project in one place, but then concludes that "The project site is not located within the vicinity of any existing residential uses" on page 76. This is wrong and appears that the desired conclusion is driving the analysis. The zoning change would only allow the
- 2-8** project if it did not require city services. Then who would provide fire protection for this area?
- 2-9** I think that the section on Land Use Planning is nuts. The land use planning is Open Space. The General Plan called for keeping the rural character north of Lake Herman Road. Changing the definition of Open Space to include a high density of non-rural, non-agricultural use is highly significant. If you want to approve this project, it should be zoned industrial or commercial. I think the city knows there would be opposition to rezoning. Redefining Open Space is not a clever way to get around it. Saying that the significant change in the zoning text would not be a problem because use permits would protect the intent of the Open Space and General Plan texts is false, since this very project's proposed use permit fails to do so.

Please reconsider this project and Initial Study.

Sincerely,

Bill Everett



LETTER 2: BILL EVERETT, RESIDENT

Response to Comment 2-1

This is an introductory statement, and does not address the adequacy of the IS/MND. The comment expresses an opinion on the project, and has been forwarded to the decision-makers for their consideration.

Response to Comment 2-2

In *Preserve Poway v. City of Poway* (2016) 245 Cal.App.4th 560, the Appellate Court evaluated whether community character is a consideration per CEQA and whether changes to community character or social impacts constitute an environmental impact under CEQA. The Court determined that CEQA does not require an analysis of subjective psychological feelings or social impacts. Rather, CEQA's overriding and primary goal is to protect the physical environment. CEQA defines a "significant effect on the environment" as "substantial, or potentially substantial, adverse changes in physical conditions" (PRC section 21100. subd. (d)). Thus, the commenters' concerns regarding the rural nature of the area do not address the adequacy of the IS/MND.

In the case of the proposed project, it is important to distinguish between public and private views. Private views are views seen from privately-owned land and are typically viewed by individual viewers, including views from private residences. Public views are views that are experienced by the collective public. In the case of the proposed project, public views would consist primarily of views from Lake Herman Road in the project vicinity.

CEQA (Pub. Resources Code, § 21000 et seq.) case law has established that only public views, not private views, are protected under CEQA. For example, in *Association for Protection etc. Values v. City of Ukiah* (1991) 2 Cal.App.4th 720 [3 Cal. Rptr.2d 488] the court determined that, "we must differentiate between adverse impacts upon particular persons and adverse impacts upon the environment of persons in general." As recognized by the court in *Topanga Beach Renters Assn. v. Department of General Services* (1976) 58 Cal.App.3d 188 [129 Cal.Rptr. 739]: "[A]ll government activity has some direct or indirect adverse effect on some persons. The issue is not whether [the project] will adversely affect particular persons but whether [the project] will adversely affect the environment of persons in general."

The commenter's concern addresses private views, the analysis of which is not required under CEQA. Based on the regulations stated above, it is appropriate for the IS/MND to focus the aesthetic impact analysis on potential impacts to public views, not private views.

Nevertheless, in response to the commenter's concerns, the applicant has committed to include an additional row of vegetative screening along the western site boundary to protect the view from the commenter's residence. The additional row can be seen in Figure 1, Updated Landscaping Plan, of this document. As such, page 9 of the Initial Study is hereby clarified:

"A vegetative screen would be planted along the western and southern borders of the project site to limit the visibility of the solar panels. Landscaping would incorporate primarily non-invasive, drought-tolerant, and native vegetation to support beneficial species and avoid the proliferation of invasive weeds."



Response to Comment 2-3

CEQA analysis is only required to address a project's consistency with plans, policies, or regulations that were adopted for the purpose of avoiding or mitigating an environmental effect. The proposed project's consistency to such General Plan policies and goals is discussed in Response to Comment 1-5.

Some types of utilities are already currently allowed in the OS District. The addition of a new and distinct Solar Utilities land use classification in the OS District would not be expected to result in any new or more severe impacts to the environment from what could and/or has already been anticipated to occur as a result of buildout of the General Plan. Therefore, with the proposed amendment, the proposed project would be consistent with OS zoning restrictions and the General Plan.

Response to Comment 2-4

See Response to Comment 2-2.

Response to Comment 2-5

See Response to Comment 2-2 for a discussion regarding the rural character of the project site.

On page 15 of the IS/MND, the text explaining Figure 6 notes that, "the panels would be under eight feet in height, which would ensure that views of the rolling hills beyond the project site would not be impeded" and the Figure 6 caption states that the figure is showing the, "view looking north onto the project site, demonstrating project size and vegetative screening." Figure 6 then depicts that the panels are short in height, and the rolling hills can be seen beyond the panels. Thus Figure 6 is looking north onto the project site, shows the project size/height of the panels, and the proposed vegetative screening. The text is not contradictory.

Response to Comment 2-6

Wildfire risk is discussed in Section IX, Hazards and Hazardous Materials, and Section XX, Wildfire, of the IS/MND. As noted therein, the project site is located in a High Fire Hazards Severity Zone, but wildfire risks would be minimized to the maximum extent feasible. The project design includes the following features that would reduce the risk of wildfire:

- 1) The proposed power stations would be mounted on concrete pads. Any potential overheating at the power station would not be near vegetation that could start a wildfire.
- 2) All on-site power lines would be undergrounded, with the exception of the lines near the site entrance because such lines need to connect to the existing overhead PG&E lines.
- 3) Equipment and vegetation would be routinely maintained. Well-maintained mechanical equipment and healthy, well-watered plants reduce the risk of fire and wildfire spread.

The project was designed in coordination with the Benicia Fire Department. The Fire Prevention Inspector notes that all fire access roads have been previously approved, the on-site power stations would be required to be constructed in accordance with Chapter 7A of the Building Code for wildland interface areas, the property would be routinely inspected for vegetation abatement, and the project applicant would be required to provide safety training to first responders prior to developments. Based on the aforementioned requirements, the project design, and the approval from the Benicia Fire Department Fire Prevention Inspector, the proposed project would not substantially increase wildfire risk in the area.



As noted in Section IX, Hazards and Hazardous Materials, of the IS/MND, a project-specific health and safety analysis was conducted to evaluate fire risk associated with solar facilities. As noted on page 52, “issues related to toxicity, electromagnetic fields, electric shock and arc flash, and fire risk associated with [utility-scale PC] projects were determined not to pose a substantial risk to public health or safety.”¹ Based on the study, concerns related to fire hazards should be limited because only a small portion of materials within the panels are flammable, and those components cannot self-support a significant fire. The study notes that the latest National Electric Code, with which the project would be required to comply, has added requirements that make it easier for first responders to safely and effectively turn off a solar array system. The study also includes discussion of an example where three acres of grass under a solar facility burned without igniting the panels mounted on fixed-tilt racks just above the grass. The fire took place in an arid area of California, and is used to demonstrate that, even in high fire risk areas, solar panels do not increase the risk of fire nor provide fuel to exacerbate wildfire.

Based on the above and the analysis within the IS/MND, the proposed project would not exacerbate the potential for wildfire in the area; thus, an increase in demand for fire protection services from what already occurs and/or is anticipated for the site and vicinity would not occur.

Response to Comment 2-7

Page 76 of the IS/MND is hereby revised:

[...] All new power lines associated with the proposed project would be undergrounded, thereby reducing wildfire risks associated with potential windy conditions, and all on-site vegetation would be regularly maintained to reduce fire risk. As such, the project would not exacerbate wildfire risk or require the installation or maintenance of associated infrastructure that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. Because the project does not involve the construction of any residences or habitable structures, humans would not be at risk from wildfire, nor associated flooding/landslides, on the project site. ~~The project site is not located within the vicinity of any existing residential uses.~~ In addition, based on the Department of Conservation’s Geologic Hazards and Data map, the project site is not near a landslide zone.² Furthermore, the vegetation beneath the panels would anchor topsoil and further reduce the risk of a landslide. Relative to existing conditions, the proposed project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

The Stormwater Control Plan prepared for the proposed project indicates that the nearby residence is not located downslope nor downstream from the proposed project. As a result, implementation of the project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. In addition, as noted in the excerpt above, implementation of the proposed project would not increase wildfire risk in the project area. Therefore, the foregoing change does not alter the conclusions presented in the IS/MND.

¹ Cleveland, Thomas H. *Health and Safety Impacts of Solar Photovoltaics: A California-Focused Forward to the Health and Safety Impacts of Solar Photovoltaics white paper published by the N.C. Clean Energy Technology Center at North Carolina State University in May 2017*. July 29, 2019.

² California Department of Conservation. *Geologic Hazards Data & Maps*. Available at: <https://maps.conservation.ca.gov/geologichazards/>. Accessed November 1, 2019.



Response to Comment 2-8

The City of Benicia Fire Department would service the project site.

Under proposed Municipal Code Section 17.70.420, the ZTA requires that the allowable solar utilities shall not require or benefit from municipal services, such as water and sewer services. Under Measure K, urban development is limited to developments which require physical municipal facilities. As such, fire protection is not considered an urban development/municipal service because fire service would not require the construction of any new physical facilities.

Response to Comment 2-9

Contrary to the comment, a high-density development is not proposed.

As noted in the Master Response, some types of utilities are already allowed in OS District with approval of a Use Permit. Therefore, adopting the ZTA to allow Solar Utilities, a new distinct use, would not redefine allowable uses in OS.

Refer to Response to Comment 1-5 for a consistency review with General Plan policies. CEQA only requires consistency discussion with policies and code standards adopted for the purpose of avoiding or mitigating an environmental effect. As noted throughout the IS/MND, all environmental impacts could be reduced to less-than-significant levels with mitigation incorporated. Nonetheless, the ultimate determination of General Plan consistency rests with the City Council.



Letter 3

From: Kathleen Catton <k.catton@comcast.net>
Sent: Tuesday, February 11, 2020 1:13 PM
To: Suzanne Thorsen <SThorsen@ci.benicia.ca.us>
Subject: Comment on Lake Herman Solar Project Visit
Suzanne,

3-1 I visited the Lake Herman site with Aaron. First, let me say I am deeply supportive of solar energy projects. However, my first thoughts are about wildfire planning on the site. Secondly, the compatibility with our General Plan and if large solar arrays are compatible with the goals in the General Plan.

3-2 Wildfire Protection/Reduction
I have attached the Fire Recovery Guide published by the California Native Plant Society in coordination with many agencies which discusses defendable spaces and materials. This site is wildfire prone adjacent to the roadway. Many grassfires have occurred in this area over the time that I have lived in the adjacent area.

3-3 1. Screening: The plant selections by this plan are natives and somewhat fire resistant and good choices for the native habitat. Oak Trees, if located properly not to impede the solar collection would be important. But why not provide screening for the adjacent ranch residence as well, if Oaks do not impede the solar collection they would provide the best visual screening from a distance. These plants will take years to grow to be an adequate visual screen for the solar array will not be immediate.

3-4 2. Defensive Space: My primary comments are in regarding to defendable space / fire access between the fence and the solar array with repeated 90 degree turns, these turns would be difficult for large fire trucks to make the turn with the fence and solar panels immediately adjacent. Defensible space next to structures is recommended at 30'. While these are not habituated structures, or do not put people at risk, not the highest priority of our fire department, they are valuable structures and contribute an economic and energy source important to our community. The solar company probably does not wish to give up space for the solar array but 24' would not be that much more than they have designed and provide more access and a more defensible space between grassland and structures.

3-5 3. Vegetation Under Solar Array: The plan is to have a native grass mix under the 6-9 feet high solar panels. Without an adequate defensible space adjacent to unirrigated grasslands, this should be of concern. The site plan shows only narrow perimeter access with a short partial access near the center. This leaves vast areas of difficult to access grassland should a grass fire ignite in the native grass under the panels, this inaccessible grassland could provide fuel and momentum for a grassland fire. The Fire Recovery Guide recommends seeding with low growing native perennials instead of native grasses, in most cases they are more fire resistant and provide less fuel. I do not know what the vegetation management plan is for grass under the panels, and this should be understood at a minimum. Putting in native grass is I guess a way to say they are supporting the land to remain in grasslands but it needs not to add to the wildland fire risk. The City has used a cloth with gravel on their solar array site at East Second Street and Rose Drive.



General Plan

In the land use and Growth Management section of our general plan, the City has adopted very specific goals for this area. I do believe there needs to be considerable discussion with the community in amending the Open Space zoning to incorporate solar projects. Is solar power generation commercial use or agriculture/open space? Is this consistent with conservation, preserving public view? What is the public interpretation, if known? The primary General Plan statements that give me hesitation are:

3-6

2.2 Maintain Lands near Lake Herman and north of Lake Herman Road in permanent agriculture/open space.

2.2.1 Protect and maintain agricultural and rural land uses, hillsides, two-lane curving roads, watershed, riparian corridors and upland grasslands.

2.2 a Initiate a variety of planning, regulatory and financial measures to ensure permanent protection of agricultural and open space uses near Lake Herman and north of Lake Herman Road.

2.2b Acquire property, development rights, or easements to preserve open space

3-7

Thank you perhaps some of my questions/concerns could be answered in the presentation at the scheduled meeting.

Thanks

Kathleen



feochadan land design
of "good land" ... design
kathleen i. catton
707-745-4487 MAIN
707-656-3660 CELL
FEOCHADAN.LANDDESIGN@COMCAST.NET

LETTER 3: KATHLEEN CATTON, PLANNING COMMISSION MEMBER

Response to Comment 3-1

This is an introductory statement that lists general concerns, but does not address the adequacy of the IS/MND.

Response to Comment 3-2

This comment does not address the adequacy of the IS/MND.

Response to Comment 3-3

As noted in Response to Comment 2-4, the project applicant has committed to include an additional row of vegetative screening along the western site boundary to provide visual screening for the adjacent residence. The commenter's Oak tree suggestion has been noted and forwarded to the decision-makers for their consideration.

Response to Comment 3-4

All roadways would be required to comply with all Fire Code standards required by the State and under Chapter 8.28 of the Municipal Code. In addition, project plans have been submitted to the Benicia Fire Department for review and approval. The Benicia Fire Department provided the following responses with regard to fire access and defensible space concerns:

- a. The proposed 12-foot perimeter road is intended to provide a fire break and allow access to the remainder of facility. The perimeter road is not designated or rated for larger fire apparatus, but meant for Type 4 wildland vehicles or smaller.
- b. The proposed 20-foot gravel access road is intended for larger emergency vehicles to access the power stations.
- c. Due to area and topography limitations, the width and configuration of both roads was previously reviewed and approved by the Fire Department.
- d. With regard to defensible space, the Fire Code requires a 10-foot clearance around ground-mounted panel systems. The applicant is responsible for maintaining the on-site vegetation, and is required to do so under the Vegetation Management Plan. Any accumulation of combustible debris or vegetation under the panels is prohibited and will be enforced, if required. All plant vegetation will be required to comply with City standards, and the property will be routinely inspected for compliance of vegetation abatement.
- e. The two on-site power stations are required to be constructed in accordance with Chapter 7A of the Building Code for wildland interface areas, which requires a 30-foot defensible space around all structures or the property line, whichever is nearer. The applicant is responsible for maintaining the required defensible space.
- f. It is a requirement of the pre-applicant process that the applicant provide safety training to first responders on how to handle the solar array, including the location of emergency shutoff features.³

Response to Comment 3-5

The adequacy of the access roads has been reviewed and approved by the Fire Department. As part of the required Vegetation Management Plan, on-site vegetation would be regularly

³ Email Correspondence between Robert Lewis, Benicia Fire Department Fire Prevention Inspector, and Suzanne Thorsen, Benicia City Planner. Monday, February 10, 2020.



maintained. However, the type of revegetation is a design consideration, and is at the discretion of the City and the project applicant. The suggestion to include native perennials has been passed along to the decision-makers for their consideration.

Response to Comment 3-6

Refer to Response to Comment 1-5 for a consistency review with General Plan policies that were adopted for the purpose of avoiding or mitigating an environmental effect.

The commenter expresses concern regarding the following specific General Plan policies:

- 2.2: Maintain lands near Lake Herman and north of Lake Herman Road in permanent agriculture/open space.
- 2.2.1: Protect and maintain agricultural and rural land uses, hillsides, two-lane curving roads, watershed, riparian corridors, and upland grasslands.
- 2.2a: Initiate a variety of planning, regulatory and financial measures to ensure permanent protection of agricultural and open spaces uses near Lake Herman and north of Lake Herman Road.
- 2.2b: Acquire property, development rights, or easements to preserve open space.

In response to Policy 2.2, it should be noted that some types of utilities are already currently allowed in the OS District. The addition of a new, distinct “Solar Utilities” land use classification in the OS District would not be expected to result in any new or more severe impacts to the environment from what could and/or has already been anticipated to occur as a result of buildout of the General Plan. In addition, solar facilities would not be considered urban development and, therefore, would be allowed outside of the UGB, north of Lake Herman Road. Furthermore, as noted in the Solar Site Inventory Analysis segment of the Master Response, a significant portion of OS area would not be suitable for solar development, and therefore, would be maintained as agriculture/open space. Nonetheless, the ultimate determination of General Plan consistency rests with the City Council.

In response to Policy 2.2.1, The proposed project would not affect hillsides, two-lane curving roads, watershed, or riparian corridors. The reseeding that is included as part of the vegetation management plan would plant native grasses onsite to maintain upland grassland habitat. As noted above, a substantial portion of land would be maintained for agricultural and rural land uses.

CEQA only requires a consistency discussion with policies and code standards adopted for the purpose of avoiding or mitigating an environmental effect. Policies 2.2a and 2.2b are planning-related and do not concern a physical environmental effect; therefore, such policies are not required to be analyzed under CEQA.

Response to Comment 3-7

This is a conclusion statement, and does not address the adequacy of the IS/MND.



Letter 4

**BENICIA PLANNING COMMISSION MEETING: LAKE HERMAN ROAD SOLAR PROJECT
FEBRUARY 13, 2020**

Commission Members in Attendance: Trevor Macenski, Kari Birdseye, Daina Dravnieks-Apple, Kathleen Catton, Terry Mollica

City Staff in Attendance: Suzanne Thorsen

VERBAL COMMENTS RECEIVED: THE FOLLOWING DOCUMENT PROVIDES A VERBATIM RECORD OF ALL COMMENTS RECEIVED REGARDING THE PROPOSED PROJECT. THIS DOCUMENT IS NOT A TRANSCRIPT OF THE ENTIRE MEETING.

[Comments from the Planning Commissioners begin]

Daina Dravnieks-Apple

4-1 You said that the timeline for completing the project is two years. Is that an average time frame for this type of project? It seems kind of long.

4-2 During our meeting at the site you only mentioned one concern of the neighbor, I didn't know about the concern of the visual impact until I read the letter in the packet. The neighbor is concerned about losing grazing area for cattle. Can you give us the outcome of the conversation you had with the neighbor?

Terry Mollica

4-3 One of the elements of this CEQA review has to do with how we get about approving a project in an Open Space area - to amend our Open Space Ordinance to allow for solar development with an Open Space area. I am curious as to why you approached the problem with a ZTA instead of seeking a Variance?

4-4 In terms of the EIR, there doesn't seem to be an analysis of what the cumulative impact would be of that fundamental change in the zoning designation. We cannot completely understand from the EIR whether or not this would result in many projects of the similar sort, and what the overall cumulative impact would be. Can you expand on that?

4-5 From your point of view, this particular site would be uniquely suited to solar development, but other sites that are also in the OS designation along Lake Herman Road would not?

Kathleen Catton

4-6 In our notes here, the concern I have is over what the mitigation is for what is defined as the potentially significant impact that could occur, to the burrowing owls, the hawks, the golden eagles, the red legged frog. It doesn't state what the mitigation is. It states in the notes that a potentially significant impact that could occur.

4-7 I understand [the mitigation] during construction, but long term? Anything that the project would help to alleviate any long-term impact other than just during construction for the wildlife? Are there going to be certain areas you are going to have exclusions zones for nesting?



4-8 I appreciate adding the Vegetation Management Plan, but can you explain what that vegetation management is? Since you are looking to put in native grass underneath the panels, that could be fuel for wildfire. I know we talked about the border being wide enough for the firetrucks and such which I appreciate that. What are the vegetation management plans under these very low panels?

Trevor Macenski

4-9 How long is your PPA?

4-10 Is it true that a CCA is required to take your project in if you're within their distribution area, if you can connect with the local grid or is that incorrect?

4-11 My other question is glossed over in Traffic. Obviously, the project would have minimal to no operational impact, right? But one concern is, as a local resident that lives here and travels on these roads, Lake Herman Road is actually pretty hazardous. It's in pretty bad condition, and we've had some collision incidents out there. One thing I would like to entertain by the Commission is to basically condition or put a comment that there should be a traffic construction management plan put together. Just because one: it's a really narrow road. Like you suggested, it's pretty hilly, and people traveling up and down aren't going to see your trucks that are going to be staging on the side of the road with the panels.

4-12 You mentioned it is going to be connected locally, on site – the power, right? Ultimately it goes somewhere so, can you please articulate the reconductoring associated with the line improvements back to the local substation?

4-13 I appreciate you saying that there will be substation upgrades, because I think that was one thing I don't think I saw in there. So, if we could, just as a comment for staff, just so we can articulate that the substation is actually part of the project would be appreciated.

4-14 The next one for you is: Kudos! Thanks for working with the land owner, with the adjacent land owners to try to come up with vegetative buffers, I think that's really important.

4-15 One part that I wanted to make sure that you caught on is, you've identified a series of vegetation improvements. We haven't had any discussion on anywhere on the site plans or a layout of how they are going to get water out there. So, is it an onsite well? How are you going to actually make the vegetation work? I'm a bit sensitive to this. We had another application where they said they were actually going to put a vegetated buffer around the site to make it look pretty, and it was in the gateway of our City and it totally failed. So, that is why I am bringing this to your attention.

4-16 I just want to make sure [the water use] gets reflected into the document as a quantification. Because I didn't see a panel washing figure in there. Obviously, you know how much water you are going to use when you wash it and it is being brought in. So, just a water consumption calculation, not only related to dust suppression, the vegetation landscaping usage, as well as the panel washing on an annual rate, we could know how much the project is actually using.

4-17 Next question: There was a good overview about the overall primary intent of the site and what the project itself is. I would echo Commissioner Mollica's statement about the kind of



4-17
Cont'd gloss over related to the fundamental change in the Open Spaces, you know, zoning, to allow for these uses.

4-18 I am just stating, I would disagree with what the Council's position is related to extending service because, having done a lot of solar projects, I would say that obviously responding for fire & police services is something that does take place. So, in regards to fire, it's really not about the solar panels, it's actually about the, in my opinion, the battery storage that you have on site, which you didn't necessarily talk about. Could you tell us a little bit more about that and the technology is and what you are proposing out there?

I would say it's not actually the function, but it's the location in your site. It's actually kind of tucked in off the road kind of battery runaway – one of the things people are worried about, especially in Open Space areas, is the fact that it can induce wildfire hazards. I would say, if you would like, I would make a recommendation to staff to actually move it closer to the road, so in the event that there is an emergency and the fire department needs to respond, that they can have a better shot, rather than having to traverse across the site to get to it.

4-19 In accordance with that, kind of regarding the fire fighter flow capacity question, usually the projects are utility scale, and obviously this is smaller. I'm just curious, and this is a question for staff, I assume in the event that if there was a fire out there, that they would be able to pull like one truck. Is there a hydrant actually at Lake Herman as far as that rest area? Where is the closest available fire fighter flow of water? Do you know?

4-20 On page 42 on the IS/MND document. I don't know if it was just a technical error, but earlier on, I think the method for construction was vibratory pile. Right? Vibratory pile with the high beams? Just a clarification - I was going to ask, "did we analyze the noise associated with drilling?" But there is no drilling, it's vibratory piles.

4-21 I then have a comment about the washing. I guess in general this will be for the consultant and the City. It is just a more aggregated look at the cumulative effects associated with opening up the Open Space for potential uses because, although it sounds, and not that I don't disagree, you know you're forward on your due diligence. This is probably the easiest, good, flat spot for you to put this but I think that the context surrounding that for the community would be appreciated of the thousands of acres that are in the City of Benicia that are of Open Space potential, there is one percent which is under the five percent slope that you would have to want to consider for development. I think that context would be important to support the finding so I'd make that recommendation but those are the questions that I have.

Kari Birdseye

4-22 I want to thank you for your reference to our Climate Action Plan, twice! So many times, I am up here and applicants and others that could be a good tool it's not utilized so I appreciate you referring to that in your proposal.

Trevor Macenski

4-23 Some just reiterating, just so I can give clear direction about the environmental analysis, is the quantification about the water usage.

4-24 Second would be that site is in a unique area related to that kind of that Sky Valley Open Space area, and actually, the backside on the top side of the hill is part of the Bay Area Ridge



4-24
Cont'd Trail. Actually, has a pretty large view down that valley, so I'd like some reference related to that Ridge Trail view down into the project site.

4-25 There are comments there in the Bio section, and I can mark the page for you, but I think it was an error related to occupancy of the California Red Legged Frog and Burrowing Owl holes, which is pretty unlikely.

4-26 There was reference in the Bio section again related to kind of potentially jurisdictional water features, and I wanted to just ask a question to what level - was it a reconnaissance level Bio evaluation? Did you do any wetland determinations or wetland delineation? Were any of those documents prepared?

4-27 I guess the last question, this is an archeological question. In his presentation it said there was a Cultural Research that was completed, but I wanted to clarify that, to my understanding, based on what you guys wrote, that there was just the record search completed at the information center, is that not right? If there was, I would just say update what you wrote in there. I think it only makes reference to the record search of inventory.

Terry Mollica

4-28 The question that I raised earlier with the applicant is having to do with the text changes to the designation of the Open Space, and whether the cumulative impacts of that kind of change to our Zoning Ordinance should be weighed in the Negative Declaration.

Kari Birdseye

4-29 The only time we are seeing the word "cumulative" in your report is related to emissions. I think we have a lot of Open Space in our community, and there should be some kind of related analysis to that Open Space that would be considered fair-game for this type of development. While I appreciate what the applicant brings forward as we stand here today, once this ZTA is made, it is fair-game for anybody that is in the solar industry, and so I think we have a lot of work to do around the ZTA.

[The public comment portion of the meeting begins]

Marilyn Bardet (Resident)

4-30 I wanted to ask a few questions – One thing I am concerned about, and it does have to do with Open Space protection in Benicia because it is one of the qualities our towns champions. We have other huge stresses on our spaces, what's left to develop for housing for instance, and that has not also been before you where significant places that haven't been considered that might become places for affordable housing or senior housing. I've seen proposals about Open Space, asking around about the bottom of Chelsea Drive, Hastings, Panorama for housing, and of course that's protected Open Space, people understand it. So, for this project, my other way of looking at it is to say: Renewable Properties, do they always have to own open space in order to build a project? I see that in Benicia, there are vast acreages of a car storage for Amports up on Park Road, down in the arsenal, and, at one time, I heard that there were 47,000 parking spaces in Benicia. That means there are asphalt beneath them, and we have good examples of putting up shade structures that are solar here, behind City Hall, and also at the Community Center. I think that is brilliant. I see it happening all over in other towns, and I would propose that before we start opening up Open Space with a wide space ordinance. We need to talk about, can companies like Renewable Properties work in partnership with a land owner who already, obviously, like Amports owns a lot of space and whether we could use solar arrays on top of their parking areas. I believe



4-30
Cont'd

in distributive solar - putting solar on more rooftops and I went out to Jasmine Powell like missionary on horseback or something talking about what you can do out here in the industrial park and put solar on rooftops, and she thought that was just, you know, what? The City is offering money, or you know, grants, to do that sort of project? You don't see that this is extended pretty far. I see lots of flat roofs in Benicia and the Industrial Park. Home owners can do more of it, and I do see more of it. But not enough for me to want to put solar arrays in an Open Space.

4-31

I appreciate all of your questions and concerns for vegetation and screening of this facility. Lake Herman Road is designated in our General Plan as a scenic road for Benicia. I know STA has talked about widening Lake Herman Road, taking out some of those curves, because they see it as a commuter route from Vallejo to the East. We've vigorously talked about that when the Seno project came up and still, talk about Open Space, it is still undecided. But I don't want to see more industrial development in Open Space. Avoid it as much as we can until we make use of these options.

Bob Berman (Resident)

4-32

I do have some comments on the Initial Study, some have been briefly or partly mentioned already. I have three main areas of concern.

4-33

One is the issue of the cumulative impacts; this has been already somewhat discussed. There is no analysis of the cumulative impacts of the ZTA in the Initial Study. I request that the Initial Study provide an exhibit that quantifies how many acres of zoned Open Space throughout the City, based on the proposed development standards in the ZTA, an effort must then be made for the potential amount of solar utility development that could occur in these areas. Based on the potential buildout of the cumulative impact of such development, mitigation levels might be necessary to reduce these impacts if they are identified as significant impacts. The statement in the Initial Study about future impacts would be addressed through future project-specific analysis just simply doesn't pass the "straight face" test. That's not how the process works.

4-34

In terms of aesthetics, I looked at Figures 5 and 6 of the document and it's not clear to me what Figure 5 is illustrating. The road that's shown in Figure 5 is not the Lake Herman Road that I know. And then, Figure 6 says it is demonstrating the project size and vegetative screening, but it's impossible, at least for me, to correlate what is shown in Figure 6 with what is shown on Figure 3, the landscaping plan. It also does not note at what point in time Figure 6 is illustrating. Is this year one of the project? Immediately after project completion? Or year 10 after landscaping has had time to mature? So, I am suggesting a more thorough and accurate description and analysis of potential impacts and to have additional photo montages. The applicant tonight provided a couple additional photo montages tonight. Again, since they're not a part of the Initial Study it's not part of the discussion here tonight. So, there needs to be more work done here. I also think that the photo montage should show the project at year 1 after completion and then a second photo montage at year 10 after completion of construction when the landscaping has matured.

4-35

I would also like to recommend a mitigation measure. I think one of you mentioned the Pine Lake experience we had here in Benicia. There needs to be a discussion providing assurance that the landscaping, as proposed, will grow and survive. I also think there needs to be a mitigation measure that would require 95% of the landscaping to survive 10 years, and that each year individual plants that have died are replaced an additional 10 years for those individual plants.

4-36

In terms of planning, I think that section is deficient. I appreciate that the applicant made some attempt tonight to demonstrate consistency with revolving goals and policies of the City's General



4-36
Cont'd

Plan. Unfortunately, that is not part of the Initial study. The Initial Study must evaluate consistency of the project - both the solar project and Zoning Amendment with General Plan policies as well as the City's General Plan, urban growth boundary, zoning. I would point out that all of these documents never anticipated energy projects such as wind turbines and large-scale solar projects. Thus, I guess that's why there is a need for the proposed Zoning Amendment. It makes it even more important that the Initial Study provides adequate analysis to thoroughly study consistency of the project with all aspects of the City's polices, plans, regulations. I will be submitting written comments.

Chuck Maddux (Resident)

4-37

One observation – you are speaking a lot about aesthetics and not having people see things, so obviously the City does not worry about those things for their own projects. For example, the E. 2nd Street and Rose Drive corner? No protection from those panels at all from the site, from anybody and they're very visible. I never heard comments previously about, "we've got to make it to where people don't worry about seeing the panels." The back of this building, the people parking right across the street, all they see is your panels. So, just something to keep in mind. The City has to be as responsive as you're trying to make your applicant.

4-38

The other that I thought was interesting – I didn't hear anything said about using native plants in this area. It is a rural area that would have ordinary type plants that would be indigenous to that area. These looks like things that you would buy from the local nursery, so it is something to think about, and the way they are being put in as strictly as a barrier. There is no aesthetics to an area where there is nothing, so you add a row that is 10 to 20 to 100 feet wide, and then there is nothing else on the rest of the road. You might want to consider putting native plants in the back, so that when they grow, it looks like they belong there. Just something to think of. We have a Native Plant Society here in town in Solano County that is very active. I am not one of them but my wife is. It just seems to me that we are going to have something like this – "a native plant area" that we should use for that area. Just seems logical.

Donald Dean (Resident)

4-39

This project we are talking about is actually two projects. We are talking about the solar array, 32 acres on Lake Herman Road, but we are also talking about a general Text Amendment which I think has not gotten nearly enough discussion.

4-40

Quickly about the project itself, the project description, it just talks about the 32 acres. I think it doesn't quite do it justice. This is really an industrial-sized commercial project. If you think about a comparison, something in town, the City Park on Military and 1st is about 4.5 acres, so you know, this array, when it is completed will be about seven to eight times that. So, we are really talking about an industrial-sized facility. When the applicant says that this isn't really urban – well, even though it doesn't really need anything like stormwater and sewer, we are really talking about development on an urban level. If you were to fly over the urban array at such a degree that you can't see the ground. I would consider that an urban development.

4-41

I noticed there were no photos of existing solar arrays in the project description. There were some in the presentation tonight, and it would be nice if maybe some additional ones could be included in the final document. In terms of aesthetics, I have a hard time thinking that such a large project along Lake Herman Road, which is an open space, and designated Open Space, that the environmental document could say that there is little to no impact. It seems to me almost counterproductive that if there is no impact, then why are we putting a vegetated curtain along Lake Herman Road to block it? So, you know, pick your poison. We are now going to take an



4-41 Cont'd Open Space and we are going to put in an array and block the view which is open with additional landscaping. I know some of the others will disagree with me on that one but that is a point worth discussing.

4-42 In terms of biology, just one quick note on that in the EIR: Mitigation Measure IV-2 says if the preconstruction survey identifies any special status plants on the project site, then a written statement is going to be submitted to the City. I think really the written summary needs to go to the City and the California Department of Fish & Wildlife. Then it gets in the record and if there are any additional steps in mitigation that needs to be taken, then those should be consistent with CDFW protocol. I'd like to see that amendment made to the mitigation measure.

4-43 In terms of land use and planning, I really don't think that it is adequate, particularly in terms to how this project relates to the General Plan. It says this use is allowed in the General Plan open space "allowable Open Space uses include agricultural, horticulture, passive recreation, and mineral extraction in state designated mineral resource areas only." So, how does this fit in here?

4-44 I think we really put the cart before the horse. Not that this isn't a good project, but don't we need to go back and look at the larger picture? If we need to revise the General Plan for some of these new uses then fine, but we need to have that discussion. In terms of the zoning that we are going to approve, this project by the way we are going to make this text amendment to the zoning at the same time, that seems to me just kind of a back-handed maneuver in terms of getting every single Project through without looking at the overall impact of what the overall text amendment would do.

4-45 In fact, to the Commissioner's point, if you are going to do a Text Amendment to the zoning, that requires a CEQA analysis and that is required by the State. Section 21080 of the State statute requires that if you do a ZTA, it's a project under CEQA, and therefore, you need to an analysis. If you look at the Initial Study, there is no analysis in there. They say, "this is a one-off project and the next time this comes up, we will look at it and a Use Permit will be involved." However, when you look at the General Plan map, Lake Herman Road is all Open Space, so you're now potentially opening up all of that Open Space for shoulder development and not just that space north of Lake Herman Road, but there is Open Space scattered out through (inaudible: 1:18:47) hills and, in fact, there is Open Space that extends to a certain degree to the border of Vallejo over by the State recreational area. So, are we saying that we are going to open all of that up? And what is the potential impact there? Potentially are you going to now convert your Open Space into energy production. That's certainly a discussion worth having at a higher level than just one project.

Kathleen Catton

4-46 As a member of the California Native Plant Society, I am very involved with native plants. Those three plants, the California Live Oak, the Toyon, and the Horse Chestnut, are all native plants for Solano County. They are recommending native grass. I have already shared with everyone the California Native Plant Society's Fire Recovery Guide, and in that guide, instead of using native grass, they would recommend native perennials, which are more fire-resistant than grass. So, that is the conversation I've had with the applicant on-site as well as with staff. As well as defensible space, offering enough defensible space for wildfire and vegetation management. So, I just wanted to share that those are native plants, and definitely looking they will take many years. The answer I was looking for that those California live oak plants will provide some habitat for these species. But they are also very large trees, so it does change the visual impact of the space, and looking at the General Plan gives me pause. We are changing the visual impact of the space and I do have concerns in looking at our



4-46
Cont'd

General Plan at how we treat Open Space versus the benefits of the solar that is an ongoing concern I still have besides the screening. It is a large space.

Daina Dravnieks-Apple

4-47

Getting back to the comment made about the Pine Lake inability of the trees to survive - that is a concern particularly in this case because you have no local water sources. Those trees are going to need professional arborist care and they will need to be watered carefully, frequently, especially initially. If trucking in water is going to happen, this really needs to be looked at and guaranteed because this could turn into a debacle. A lot of investment entries that end up dying because of inadequate professional attention. So, all of these other issues of course in play, but specifically, we have had difficulties and problems in Benicia with that. I would want to make sure there is a commitment and a plan under the (inaudible 1:26:42) of the professional arborist, if this goes forward, to make these trees survive.

Terry Mollica

4-48

So, we are here tonight to really view the adequacy of the CEQA document and only to provide comments that may be incorporated into that document in the future. Some of these issues have raised very good points, and I think they can be addressed in the subsequent Negative Declaration to the extent possible. The problem I am having, I'm a bit cross-purposed because, while I agree that climate change is a very serious issue, and that passing solar is one way of addressing climate change, our obligation here is to determine consistency with the General Plan and Zoning Ordinance. So, I have two comments that I think need to be incorporated into the planning document for purposes of determining consistency.

4-49

One is the General Plan. This is a general Open Space designation, but within the general Open Space designation, there are four sub-categories, including: Urban OS, OS for Public Health and Safety, Rural OS, and OS for Conservation of Natural Resources, which the General Plan defines as the Lake Herman watershed. This land may be technically outside of the Lake Herman watershed, but it is certainly adjacent to it, and so I would consider this particular general Open Space designation to be one for Conservation of Natural Resources. So, I think that needs to be evaluated in the planning document. Furthermore, if this is a general Open Space Natural Resources Conservation designation, then I am not confident that the ZTA that is proposed to the zoning designation of Open Space would be consistent with the General Plan.

4-50

Moreover, I don't feel confident that we can simply say this is an adequate EIR for this project, and we will deal down the road with any future projects that may come along and go through discretionary review or environmental review. I think it is important for us to know what the text amendment to the zoning ordinance, what the change to the designation and the meaning to open space would have at a cumulative level what likely outcomes there would be to other properties similarly designated as general open space and how that might ultimately affect the implementation of the general plan and the zoning ordinance and I don't feel that the document adequately addresses those points. Those are the things I would request to be addressed.

Trevor Macenski

4-51

I really support renewable energy and I actually think this is a good project. I have similar reservations related to, not necessarily just this project and this location, but the implications that the ZTA for the Ordinance would actually have Citywide. I think that it should be a



4-51
Cont'd

relatively easy exercise for staff to conclude, you know, with some sort of slope analysis for feasibility of development relative to the 1200 acres. We can come up with a percentage that can actually be developed in our town and that would give the public community some sort of context, like, "hey, we've got 10,000 acres, but really there is two that could potentially be developed," and is that significant or not? And obviously what the impacts could be. I do think that through this project, through this conversation, I hope that the project can address some of the challenges that we are seeing here. I am confident that they can be addressed, at least through some design modifications and further analysis, but I appreciate all of the Commissioners' thorough thoughts on potentially how to provide solutions. I've heard a lot of conversations about solutions to address some of the challenges we've identified. I think I've provided the rest of my comments.

Kari Birdseye

4-52 Was the Sky Valley Committee consulted during this process?

4-53 I am huge fan of renewable energy. I was on the Community Advisory Committee when we were considering bringing MCE to our town. So, I am all for smart projects like that, but I echo especially the comments from Bob Berman and Commission Mollica. I would like to ask our City Attorney if there are any thoughts regarding mitigation plans?

Terry Mollica

4-54 I wonder, Nira, if I can direct the question to you - would it not be feasible for this project to come back before us as a variance request? Rather than changing the text of the zoning ordinance?

Trevor Macenski

4-55 Can the applicant propose a General Plan Amendment to the parcel that is subject to the application?



**LETTER 4: PLANNING COMMISSION MEETING TRANSCRIPT,
FEBRUARY 13, 2020**

Response to Comment 4-1

As noted on page 22 of the IS/MND, heavy construction equipment would be used for approximately 200 hours total, based on applicant-provided information. Construction of the proposed solar array is anticipated to take place over approximately four months. However, the project applicant notes that full development of the project, including connections to the nearby PG&E lines, is anticipated to take three years.

Response to Comment 4-2

In response to the neighbor's aesthetic concerns, the project applicant has updated the site plan to include an additional vegetative buffer to the northwest side of the solar array. See Response to Comment 1-3 for the updated Landscaping Plan. The applicant and neighbor were able to come to an agreement regarding the grazing area concern.

Response to Comment 4-3

As noted in the Master Response, solar utilities are a distinct land use that do not fall under the defined allowable uses for Major or Minor Utilities. Pursuant to Chapter 17.120 of the Municipal Code, any new land use may be incorporated into the zoning regulations by a ZTA. Because solar facilities would be considered a new land use, the ZTA was proposed as part of the project to conditionally permit solar utilities within the OS District. The ZTA includes the requirement that future developments may not include municipal facilities. As such, pursuant to Measure K, solar facilities are not considered urban development and would be allowed outside of the UGB.

State law does not allow a variance for the purpose of approving land uses. A variance can only be applied for modifying development standards.

Response to Comment 4-4

See Master Response. In addition, it should be noted that due to the findings contained in the IS/MND, an EIR was not prepared for the proposed project.

Response to Comment 4-5

The comment does not pertain to the adequacy of the IS/MND. See the Solar Site Inventory Analysis segment of the Master Response for information regarding other sites within the OS designation that could be potentially suitable for solar facilities.

Response to Comment 4-6

Mitigation Measures IV-1 through IV-11, on pages 33 through 38 of the IS/MND, provide specific measures to protect wildlife species. Several of the Mitigation Measures require pre-construction surveys, depending on the time of year that construction occurs. For example, Mitigation Measure IV-10 (page 38) mandates a preconstruction survey for raptor and migratory birds if ground disturbance is expected to occur during the nesting season for such species. The actual conclusion questions 'a', 'b', and 'c' of the Biological Resources section is less-than-significant after mitigation. The other impact statements, questions 'd', 'e', and 'f', are all less-than-significant.



Response to Comment 4-7

The Biological Resources Assessment prepared for the proposed project included a field study, during which the biologist did not encounter any special-status species. While the species may not actually be present, the project site contains habitat that is considered suitable for the species that were listed in the IS/MND. It is a conservative practice, and typical for CEQA documents, to require a preconstruction survey to ensure that the species have not occupied the site prior to initiation of construction.

The proposed solar array would be mounted on a steel racking structure and then anchored into the ground. As such, the ground disturbance would be spread out, and sufficient space would remain for wildlife to roam on the land. As discussed in question 'd' of Section IV, Biological Resources, of the IS/MND, the proposed project would not bifurcate the hillside because animals could travel around and through the array. Therefore, long-term impacts to wildlife would be minimal, and project operations are expected to result in a less-than-significant impact to wildlife.

Response to Comment 4-8

As noted in Response to Comment 1-4, a Vegetation Management Plan has been added as a Condition of Approval for the proposed project. The Vegetation Management Plan would include preventative maintenance, mowing grasses, watering plants, etc.

With respect to the potential of grasses providing fuel for wildfire, the Vegetation Management Plan would include measures to ensure that grasses do not overgrow. The solar panels would be mounted four to six feet off the ground, and when the panel is fully tilted, the panel would reach approximately one foot off the ground. When the panels are tilted as such, if the surrounding grasses are too tall, the grass would shade the panels. As such, there is an operational efficiency-related incentive for the project applicant to maintain short grasses.

Refer to Response to Comment 3-4 for detailed responses from the Benicia Fire Department regarding the proposed roadways and defensible spaces.

Response to Comment 4-9

The Power Purchase Agreement (PPA) is a 20-year contract with Marin Clean Energy (MCE).

Response to Comment 4-10

This comment does not address the adequacy of the IS/MND. Nevertheless, a Community Choice Aggregation (CCA) has incentives for local renewable energy generation, but the requirements vary by CCA. MCE does have a local incentive to allow connection of the proposed project.

Response to Comment 4-11

Traffic impacts during construction of the proposed project are discussed in Section XVII, Transportation, of the IS/MND. As noted therein, construction traffic would not cause a substantial impact to transportation infrastructure nor result in significant adverse impacts related to roadway design features or incompatible uses. Potential impacts related to traffic hazards were thoroughly analyzed within the IS/MND, and concluded to be less-than-significant.

However, in response to the commenter's concerns, the applicant has agreed to submit a Construction Traffic Management Plan to further minimize any potential transportation hazards along Lake Herman Road during construction activities. In order to enforce compliance with the



Construction Traffic Management Plan, the City has added implementation of the Plan as a Condition of Approval.

Response to Comment 4-12

The existing PG&E line is sufficient to handle the proposed electricity generation, and the proposed project would not require reconductoring of the distribution line. Minimal substation upgrades would be required. The existing Bahia Substation would be upgraded to replace the existing LTC controller with a Beckwith M2001D controller set to 'cogen' mode.

Response to Comment 4-13

The top of page 9 of the IS/MND is hereby revised as follows:

In addition, the proposed project would involve construction of two power stations and 10 equipment racks. Each power station would include a Medium Voltage (MV) transformer, Distributed Antenna System (DAS), and Weather Station. The equipment rack would include four Sungrow 125-kilowatt (kW) string inverters, and a 600-amp (A) main lug only (MLO) panel. The only off-site improvement would involve a substation hardware upgrade.

In addition, page 9, under Utilities, is revised as follows:

The proposed project would connect to Pacific Gas and Electric's (PG&E's) pre-existing 12kV electrical infrastructure located on-site. system adjacent to the project site. A project level recloser, primary overhead services, and revenue metering would be installed on the project site. In addition, PG&E would replace an existing LTC controller with a Beckwith M2001D controller set to 'cogen' mode. The aforementioned upgrade would be within the existing Bahia Substation, located approximately one mile south of the project site. Both on-site power stations would connect to underground MV cables, which would lead to the overhead MV cable. The overhead MV cable would connect to the electric overhead lines that currently exist along Lake Herman Road. A pole-mounted customer recloser, utility recloser, disconnect switch, and utility meter would be built as part of the proposed project. Water and sewer service would not be required for the proposed project.

The off-site improvement to the substation would be managed by PG&E, and would only involve replacing a hardware unit. Therefore, the upgrade would not result in any physical environmental effects and, for the purpose of this analysis, the substation upgrade is not further discussed.

The foregoing revisions are intended to clarify the scope of the project and analysis presented in the IS/MND and do not affect the adequacy of the IS/MND.

Response to Comment 4-14

This comment does not address the adequacy of the IS/MND.

Response to Comment 4-15

As noted on page 9 of the IS/MND, "water for panel washing would be trucked to the site." The project site does not include access to an on-site well, and water would be trucked in to meet the water demands of the proposed project, including the water required to maintain the proposed vegetation. In an effort to minimize water demand, the plants that were selected are drought tolerant.



To ensure that the vegetation would survive, the Vegetation Maintenance Plan, included as a Condition of Approval for the project, would include a plant replacement provision and plant success rate requirements. Tree survival has been included as a requirement of the Design Review as a Condition of Approval of the project.

Response to Comment 4-16

In response to this concern, a water demand calculation was prepared to quantify the volume of water that would be required by the proposed project. The values presented in Table 1 below are estimates, and may change based on final plant selection and amount of actual module washing required.

As shown in the table, the most intensive water demand would be in the first two years of project implementation, while the vegetation is most sensitive and water dependent. Once the vegetation has reached full maturity, after approximately six years, the project's anticipated water demand for the lifetime of the project would be 160,000 gallons per year.

Table 1			
Lake Herman Road Solar Project Water Consumption			
Activity	Description	Gallons	Acre Feet
Year 0 - 2			
Shrubs	10 gal/plant/week for 40 weeks	140,000	0.079
Trees	15 gal/tree/week for 40 weeks	25,800	0.430
Module Washing	80,000 gal/cleaning	160,000	0.491
Annual Total Use		325,800	1.000
Year 3 - 5			
Shrubs	5 gal/plant/week for 40 weeks	70,000	0.396
Trees	7.5 gal/tree/week for 40 weeks	12,900	0.215
Module Washing	80,000 gal/cleaning	160,000	0.491
Annual Total Use		242,900	1.102
Year 6+ ¹			
Shrubs		0	0
Trees		0	0
Module Washing	80,000 gal/cleaning	160,000	0.491
Annual Total Use		160,000	0.491
<p><i>1. Year 6 assumes full maturity of all species and no further active watering needs.</i></p> <p>Source: Sandia Labs Report. Water Use and Supply Concerns for Utility-Scale Solar Projects in the Southwestern United States. July 2013.</p>			

Response to Comment 4-17

See Master Response.

Response to Comment 4-18

The proposed battery would use lithium ion technology.

Refer to Response to Comment 2-6 for more information regarding wildfire risk. As noted therein, a project-specific health and safety analysis was conducted to evaluate fire risk associated with



all components associated with solar facilities. As stated on page 52 of the IS/MND, “issues related to toxicity, electromagnetic fields, electric shock and arc flash, and fire risk associated with [utility-scale PC] projects were determined not to pose a substantial risk to public health or safety.”⁴ The study concluded that concerns related to fire hazards should be limited because only a small portion of materials within the panels are flammable, and those components cannot self-support a significant fire. The study also notes that the latest National Electric Code, by which the project would be required to comply, has added requirements that make it easier for first responders to safely and effectively turn off a solar array system. Based on such information, batteries and battery storage is not a concern for wildfire hazards.

Response to Comment 4-19

The closest fire hydrant to the proposed project is located on the west side of Lake Herman Road, between the Police Shooting range and the Lake Herman Recreation Area, approximately 200 feet from the base of the dam. However, the hydrant is not recommended to be accessed by emergency vehicles. The next closest fire hydrant is located at the corner of Reservoir Road and East Second Street. Additionally, fire hydrants exist on private property at 2201 Lake Herman Road and 100 Water Way. It should be noted that Lake Herman can also be used as a water source for firefighting purposes.

The Benicia Fire Department has been involved in the project planning process, and confirmed that the project design meets all needs for fire suppression and prevention. In addition, fire trucks are equipped with water tanks that are used in cases when a fire hydrant is not nearby.

Response to Comment 4-20

The commenter is correct. As noted on page 22 of the IS/MND, a 1999 model GAYK 4000 pile driver, a type of vibratory pile, would be used to drive the steel beams. Page 63 of the IS/MND discusses noise and groundborne vibration impacts related to the construction process.

Response to Comment 4-21

See Master Response.

Response to Comment 4-22

This comment does not address the adequacy of the IS/MND.

Response to Comment 4-23

See Response to Comment 4-16.

Response to Comment 4-24

The Sky Valley Open Space and Bay Area Ridge Trail are not designated Scenic Vistas per the City’s General Plan, and thus, do not require analysis under CEQA.

However, based on the comment, the presence of the Bay Area Ridge Trail is hereby acknowledged in the IS/MND, and page 14 is revised as follows:

⁴ Cleveland, Thomas H. *Health and Safety Impacts of Solar Photovoltaics: A California-Focused Forward to the Health and Safety Impacts of Solar Photovoltaics white paper published by the N.C. Clean Energy Technology Center at North Carolina State University in May 2017.* July 29, 2019.



[...] The proposed project would be visible along a 1.5-mile stretch of Lake Herman Road, and the project design includes construction of a vegetative screen along the southern boundary of the project site to screen the proposed project. At the nearest point, the project perimeter would be over 115 feet from the road.⁵ The setback from the road would be substantial, distancing viewers from the proposed panels. Therefore, the overall character of Lake Herman Road would be maintained to the extent feasible.

The Bay Area Ridge Trail is not a designated scenic trail. However, the trail is locally important, and therefore, a Viewshed Analysis was prepared for the proposed project. The model indicates that the project site is visible from the Bay Area Ridge Trail, and at the closest point, the project site and the Bay Area Ridge Trail are approximately 1.98 miles apart. Using the Federal Highway Administration's (FHWA's) definitions for distance and visibility, the view of the project site is considered "background." Considering the distance between the trail and the project site, and the FHWA classification as background, the project would not cause a substantial change to the existing visual character of views from the Bay Area Ridge Trail.

The foregoing changes are for clarification purposes, and do not alter the analysis or conclusions presented in the IS/MND.

Response to Comment 4-25

According to the Biological Resources Assessment, CRLF and burrowing owls are both known to use California ground squirrel burrows. Considering both species use small mammal burrows, it is likely that CRLF and burrowing owls could use the same types of burrows as habitat, and suitable small mammal burrows exist within the project site. The Biological Resources Assessment conservatively concluded that, while it may be unlikely, some potential does exist for CRLF and burrowing owls to occupy on-site burrows.

Response to Comment 4-26

As part of the Biological Resources Assessment, a field reconnaissance survey was conducted. The survey concluded that a wetland delineation was not required because wetlands do not exist on-site.

Response to Comment 4-27

In addition to the Sacred Lands File search conducted through the NAHC, a pedestrian survey was also completed as part of the Cultural Resources Study. This was noted on page 42 of the IS/MND, which states:

A pedestrian survey of the project area was conducted with a trowel and rock hammer using 15-meter wide parallel transects. Cultural resources were not observed during the pedestrian survey. Due to the absence of cultural resources within and in the vicinity of the project site, the project area is considered to have low sensitivity for cultural resources.

Response to Comment 4-28

See Master Response.

Response to Comment 4-29

See Master Response for a discussion of cumulative impacts.

⁵ Renewable Properties. *Lake Herman Solar – Visual Simulation from Lake Herman Road*. September 20, 2019.



Response to Comment 4-30

This comment does not address the adequacy of the IS/MND. However, the commenter's suggestions have been forwarded to the decision-makers.

Response to Comment 4-31

The comment does not address the adequacy of the IS/MND.

Response to Comment 4-32

This in an introductory statement, and does not address the adequacy of the IS/MND.

Response to Comment 4-33

See Master Response.

Response to Comment 4-34

See Response to Comment 1-3.

Response to Comment 4-35

See Response to Comment 1-4.

Response to Comment 4-36

See Response to Comment 1-5.

Response to Comment 4-37

This comment does not address the adequacy of the IS/MND.

Response to Comment 4-38

This comment does not address the adequacy of the IS/MND. However, the commenter's suggestions regarding expanded landscaping have been noted and provided to the decision-makers for their consideration.

Response to Comment 4-39

This in an introductory statement, and does not address the adequacy of the IS/MND.

Response to Comment 4-40

Policy 2.1.5 of the General Plan states:

“Urban development” shall mean development requiring one or more basic municipal services including, but not limited to, water service, sewer, improved storm drainage facilities, fire hydrants and other physical public facilities and services.

Regardless of size, a solar array is not considered an urban development by the City because the array would not require any of the aforementioned municipal facilities and services.

Response to Comment 4-41

See Response to Comment 1-3 for updated Figures.



The proposed vegetative screen ensures that the aesthetic impact remains less than significant. It should be noted that, under CEQA, a change to visual character does not necessarily result in a significant impact. According to Appendix G of CEQA Guidelines, a project is only considered to cause a significant aesthetic impact if the project would:

- a. Have a substantial adverse effect on a scenic vista;
- b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality; or
- d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.⁶

Because the proposed project would not induce any of the above changes, the impact to aesthetic resources remains less-than-significant.

Response to Comment 4-42

In response to the comment, as well as input from the City, Mitigation Measure IV-2, on page 34 of the IS/MND, is hereby revised:

IV-2. Prior to any ground disturbance, should construction begin on or after June 11, 2021, a qualified biologist shall conduct a preconstruction survey to identify any special-status plant species on the project site. A written summary of the survey results shall be submitted to the City of Benicia Community Development Department and the CDFW.

If special-status plant species are observed on the project site during the preconstruction survey, individuals shall be marked (e.g., with flagging or construction fencing) and avoided during construction activities. Depending on the species, buffer zones around the plants may be established to avoid effects on special-status plants. Proof of buffer zones shall be submitted to the City of Benicia Community Development Department.

The above revision is for clarification and does not alter the conclusions presented in the IS/MND.

Response to Comment 4-43

Refer to Response to Comment 1-5 for a discussion of the proposed project's consistency with the General Plan.

As noted by the commenter, the General Plan includes a list of four allowable uses within OS areas; however, the General Plan does not specify that these uses are the *only* allowable uses. For instance, Municipal Code Chapter 17.36 lists all allowable uses within OS districts, many of which do not fall under agriculture, horticulture, passive recreation, or mining. For example, the

⁶ Association of Environmental Professionals. 2020 CEQA: California Environmental Quality Act Statute & Guidelines [pg 311]. 2020.



following land uses are currently permitted, or permitted with approval of a use permit, in the OS District:

- Single-family Residential;
- Supportive Housing;
- Cemetery;
- Major and Minor Utilities;
- Waste Facilities;
- Religious Assembly; and
- Commercial Filming.

As noted above, other types of utilities are already allowed in OS areas, and including a new and distinct use for Solar Utilities would not conflict with the General Plan. It should be noted that some of the above listed land use types, such as Single-family Residential, would require the extension of municipal infrastructure, and therefore would not be allowed in the OS District that fall outside of the UGB. However, the proposed ZTA specifies that Solar Utilities may not require municipal services/facilities. Based on the definition of urban development presented in Measure K, Solar Utilities would not be considered urban development, and would be allowed outside of the UGB. This distinction separates Solar Utilities from the other uses that are currently allowed in the OS District.

Response to Comment 4-44

See Master Response.

Response to Comment 4-45

See Master Response.

Response to Comment 4-46

This comment does not address the adequacy of the IS/MND. However, the commenter's concerns have been noted and forwarded to the decision-makers for their consideration.

Response to Comment 4-47

See Response to Comment 1-4.

Response to Comment 4-48

This is an introductory comment, and does not address the adequacy of the IS/MND.

Response to Comment 4-49

The sub-categories listed in the General Plan provide reasons that land was designated OS. The General Plan does not specify or designate any parcels as one of the four types of OS. As such, the OS sub-categories do not correspond with specific regulations in the Municipal Code.

In addition, CEQA only requires consistency discussions of policies and regulations adopted for the purpose of avoiding or mitigating an environmental effect. A discussion of such policies can be found in Response to Comment 1-5.

Response to Comment 4-50



See Master Response.

Response to Comment 4-51

See Master Response.

Response to Comment 4-52

The Sky Valley Committee was not consulted. This is not a requirement under CEQA, does not change any analysis or conclusions within the IS/MND, and does not specifically address the adequacy of the IS/MND.

Response to Comment 4-53

This comment does not address the adequacy of the IS/MND.

Response to Comment 4-54

This comment does not address the adequacy of the IS/MND. However, Benicia Municipal Code Chapter 17.104.010 states the following:

Variances are intended to resolve practical difficulties or unnecessary physical hardships that may result from the size, shape, or dimensions of a site or the location of existing structures thereon; from geographic, topographic, or other physical conditions on the site or in the immediate vicinity; or from street locations or traffic conditions in the immediate vicinity of the site.

Authorization to grant variances does not extend to use regulations because the flexibility necessary to avoid results inconsistent with the land use objectives of this title is provided by the use permit process for specified uses and by the authority of the planning commission to determine whether a specific use belongs within one or more of the use classifications listed in Chapter 17.16 BMC. (Ord. 87-4 N.S., 1987).

Based on the above, a variance would not be appropriate for allowing solar utilities in OS.

Response to Comment 4-55

The proposed project does not warrant a General Plan Amendment. In addition, the comment does not address the adequacy of the IS/MND.



Hi Suzanne,

Letter 5

5-1 I have the following comments on the IS/MND for the Lake Herman Road Solar Project that I would like considered in the Final IS/MND:

5-2 The staff report on the IS/MND reported that notification of the IS/MND went to property owners/occupants within 500 feet of the project site and those who had expressed an interest in the project. As the project included an amendment to the OS zoning ordinance, were the property owners adjacent to OS zoning districts throughout the city notified? If not, what rationale was used in determining the notification process?. What will be the notification process for the Final IS/MND?

5-3 Discussion at the Planning Commission meeting indicated an interest in analyzing the cumulative effects of the amendment to the OS zoning district. The applicant replied that it was his opinion that few sites within the open space district would be suitable for solar development and potential impacts would be small if any. It's important that any environmental analysis of the zoning amendment be an independent analysis verifiable by the City. The siting criteria used by the applicant should not be the only criteria used by the City (or consultants) to determine potential projects. Other companies could have different technology and different siting criteria. In addition, the continuing demand for energy and new technology may make certain slopes and topography that currently are considered not suitable for solar development commercially viable in the future.

Thank you,

Donald Dean



LETTER 5: DONALD DEAN, RESIDENT

Response to Comment 5-1

This is an introductory statement that does not address the adequacy of the IS/MND.

Response to Comment 5-2

This comment refers to City planning protocols, and does not address the adequacy of the IS/MND. More information regarding the notification process can be found at the following website address: <https://www.ci.benicia.ca.us/communitydevelopment>.

Response to Comment 5-3

Refer to the Master Response for more information regarding the cumulative impact analysis. The commenter's suggestion has been noted and forwarded to the decision-makers for their consideration.



Appendix C

Errata Sheet

ERRATA SHEET

INTRODUCTION

This errata sheet presents, in ~~strike-through~~ and double-underline format, the revisions to the Initial Study/Mitigated Negative Declaration (IS/MND) for the Lake Herman Road Solar Project (proposed project). The revisions to the IS/MND reflected in this errata sheet do not affect the adequacy of the previous environmental analysis contained in the IS/MND. Because the changes presented below would not result in any new significant impacts or a substantial increase in the severity of an environmental impact identified in the IS/MND, recirculation of the IS/MND is not required.

CHANGES TO THE IS/MND

The Background and Introduction section on page 6 of the IS/MND is hereby revised as follows:

E. BACKGROUND AND INTRODUCTION

This Initial Study/Mitigated Negative Declaration (IS/MND) provides an environmental analysis pursuant to the California Environmental Quality Act (CEQA) for the proposed project. This document has been prepared by the City of Benicia as lead agency under CEQA. The IS/MND contains an analysis of the environmental effects of construction and operation of the proposed project.

As discussed throughout this IS/MND, due to the level of impacts anticipated for the proposed solar facility, as well as any future solar facility within the OS zone subsequent to the ZTA, in conjunction with the requirement that any future solar facility within the OS zone undergo separate CEQA environmental review, the potential for any impacts associated with the proposed project to incrementally contribute to the cumulative environment is limited. Furthermore, a number of the CEQA environmental issue areas addressed within this IS/MND are predominantly project- and/or site-specific, and do not have the potential to cumulatively combine. Accordingly, cumulative impacts associated with the proposed project, including future solar facilities within the OS zone, as conditionally allowable by the proposed ZTA, are addressed within this IS/MND where applicable.

The mitigation measures prescribed for environmental effects described in this IS/MND would be implemented in conjunction with the project, as required by CEQA, and the mitigation measures would be incorporated into the project. In addition, a project Mitigation Monitoring and Reporting Program (MMRP) would be adopted in conjunction with approval of the project.

The above changes are for clarification purposes only and do not alter the conclusions of the IS/MND.

The top of page 9 of the IS/MND is hereby revised as follows:

In addition, the proposed project would involve construction of two power stations and 10



equipment racks. Each power station would include a Medium Voltage (MV) transformer, Distributed Antenna System (DAS), and Weather Station. The equipment rack would include four Sungrow 125-kilowatt (kW) string inverters, and a 600-amp (A) main lug only (MLO) panel. The only off-site improvement would involve a substation hardware upgrade.

The above revision does not alter the conclusions of the IS/MND.

In addition, page 9 is hereby revised to reflect the updated landscaping plan:

Landscaping

A vegetative screen would be planted along the western and southern borders of the project site to limit the visibility of the solar panels. Landscaping would incorporate primarily non-invasive, drought-tolerant, and native vegetation to support beneficial species and avoid the proliferation of invasive weeds. Once the proposed project is built, the area under the panels would be hydroseeded with native grasses to deter erosion onsite. Several Scrub oak and Interior Live oak trees would be planted south and west of the project site, and an additional row of ~~Feyer~~ Coffeeberry shrubs would be planted along Lake Herman Road and along the northwestern site border (see Figure 3).

Utilities

The proposed project would connect to Pacific Gas and Electric's (PG&E's) pre-existing 12kV electrical infrastructure located on-site, system adjacent to the project site. A project level recloser, primary overhead services, and revenue metering would be installed on the project site. In addition, PG&E would replace an existing LTC controller with a Beckwith M2001D controller set to 'cogen' mode. The aforementioned upgrade would be within the existing Bahia Substation, located approximately one mile south of the project site. Both on-site power stations would connect to underground MV cables, which would lead to the overhead MV cable. The overhead MV cable would connect to the electric overhead lines that currently exist along Lake Herman Road. A pole-mounted customer recloser, utility recloser, disconnect switch, and utility meter would be built as part of the proposed project. Water and sewer service would not be required for the proposed project.

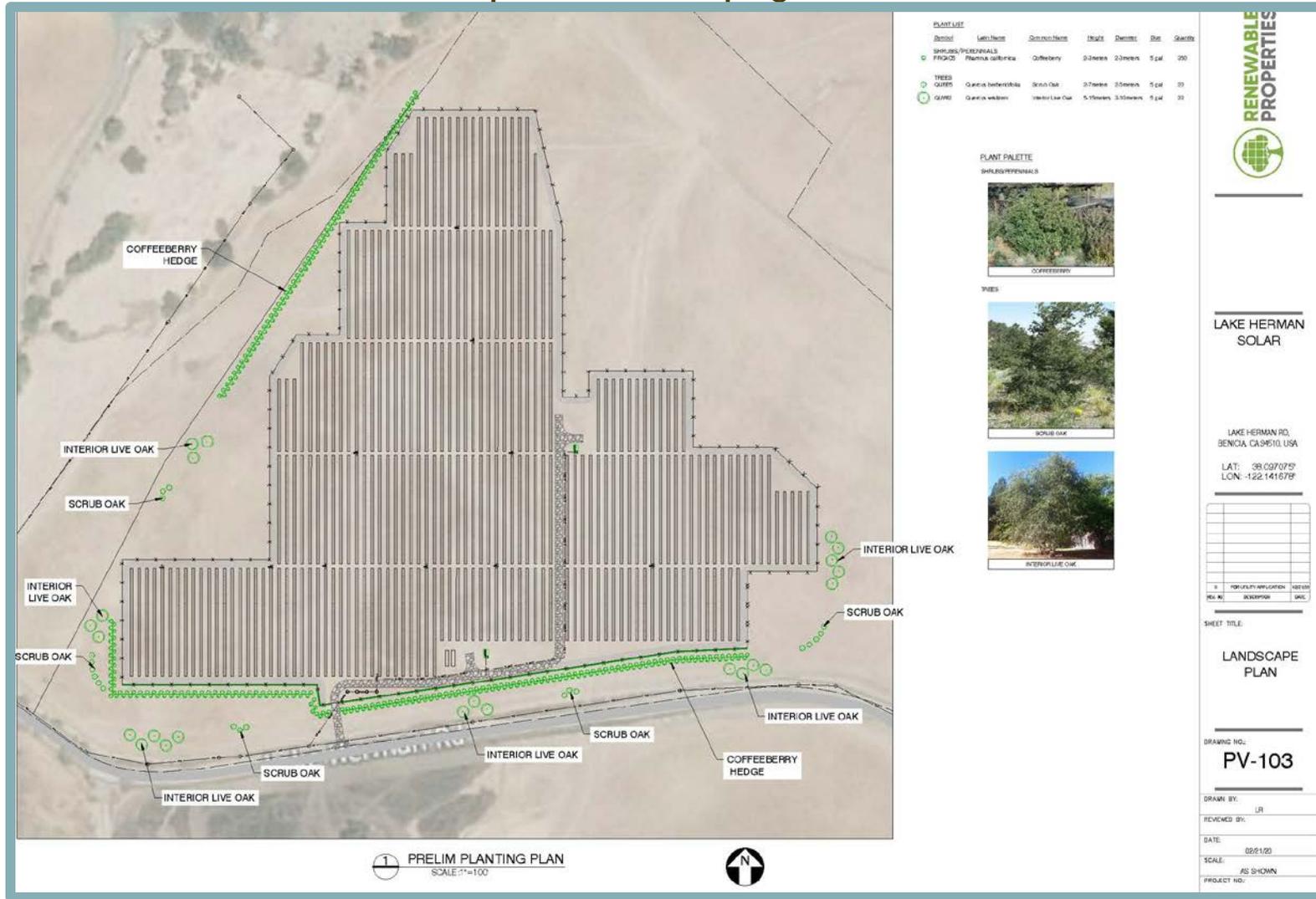
The off-site improvement to the substation would be managed by PG&E, and would only involve replacing a hardware unit. Therefore, the upgrade would not result in any physical environmental effects and, for the purpose of this analysis, the substation upgrade is not further discussed.

The above revisions are for clarification purposes, and do not alter the conclusions within the IS/MND.

Figure 3, Landscaping Plan, on page 10, has been updated and is presented on the following page. The updated Landscaping Plan is provided for clarification purposes, and does not affect the conclusions within the IS/MND.



Figure 3
Updated Landscaping Plan



Pages 11 and 12 of the ISMND are hereby revised to reflect the proposed amendments to Municipal Code Chapter 17.70:

II. Amendments to Chapter 17.70 (GENERAL REGULATIONS)

BMC § 17.70.420 Solar utilities.

The following standards shall apply to all solar utilities:

- A. Agricultural Protections. Solar utilities shall not be sited on any land subject to a Williamson Act Contract, unless the landowner has rescinded that contract pursuant to its terms.
- B. No Municipal Services. Solar utilities shall not require or benefit from municipal services, such as water or sewer services.
- C. Development Standards. Solar arrays shall comply with all applicable setback restrictions, including creek setbacks, for the applicable zoning district.
- D. Height. For ground-mounted installations, the maximum height shall not exceed 15 feet from finished grade.
- E. Noise. Noise levels shall be in compliance with the noise regulations identified in Chapter 8.20 BMC.
- F. Decommissioning. Upon ceasing operations, or if the facility utility solar project is non-operational for a period of 12 months, the facility project should be decommissioned (or deactivated and removed) in an efficient and thorough manner. A Decommissioning Plan shall be submitted and approved by the Community Development Director prior to the issuance of Building Permits. Financial Assurance shall be provided to City of Benicia in a form and amount, as established by an independent engineer to secure the expense of decommissioning and restoring the project site consistent with the approved Decommissioning Plan. Financial Assurance shall be submitted and accepted by City of Benicia prior to final occupancy/finalizing the Building Permit (Project Close Out).
- G. Stormwater Management. All projects greater than one acre shall submit a Stormwater Pollution Prevention Plan and include erosion and sediment control best management practices into the plan.
- H. Minimal Traffic. Solar utilities shall not generate new daily traffic trips during normal operation outside of occasional trips for maintenance.
- I. Solar utilities shall comply with the applicable provisions of the Travis Air Force Base Airport Land Use Compatibility Plan.
- J. Hillside Protection. Solar utilities shall be prohibited on areas of greater than 20 percent slope.
- K. Scenic Vista and Views. Solar utilities shall not impede any scenic vistas or views as defined in the General Plan.



L. The aggregate amount of Solar utilities allowed within the Open Space District shall be no more than 10 Megawatts AC.

The above changes are for clarification purposes only and do not alter the conclusions of the IS/MND.

Page 14 of the IS/MND is hereby revised as follows:

[...] The proposed project would be visible along a 1.5-mile stretch of Lake Herman Road, and the project design includes construction of a vegetative screen along the southern boundary of the project site to screen the proposed project. At the nearest point, the project perimeter would be over 115 feet from the road.¹ The setback from the road would be substantial, distancing viewers from the proposed panels. Therefore, the overall character of Lake Herman Road would be maintained to the extent feasible.

The Bay Area Ridge Trail is not a designated scenic trail. However, the trail is locally important, and therefore, a Viewshed Analysis was prepared for the proposed project. The model indicates that the project site is visible from the Bay Area Ridge Trail, and at the closest point, the project site and the Bay Area Ridge Trail are approximately 1.98 miles apart. Using the Federal Highway Administration's (FHWA's) definitions for distance and visibility, the view of the project site is considered "background." Considering the distance between the trail and the project site, and the FHWA classification as background, the project would not cause a substantial change to the existing visual character of views from the Bay Area Ridge Trail.

The foregoing changes do not alter the analysis or conclusions presented in the IS/MND.

Figure 6, on page 16, has been replaced by the following two Figures:

¹ Renewable Properties. *Lake Herman Solar – Visual Simulation from Lake Herman Road*. September 20, 2019.



Figure 6
Looking North onto the Project Site (Year 1)



Figure 7
Looking North onto the Project Site (Year 3-6)



The above changes are intended to accurately represent the updated Landscaping Plan, and do not alter the conclusions of the IS/MND.

Based on a technical memorandum from Garcia and Associates, dated January 10, 2020, City staff has initiated the following changes to the IS/MND for clarification purposes only. The technical memorandum is included as an attachment to this document. Page 30 of the IS/MND is hereby revised as follows:



Special-Status Plants

Based on the database search, a total of 17 special-status plant species have been recorded within the Project Area. Of 17 identified species, suitable habitat is present for only the following ten taxa: bent-flowered fiddleneck (*Amsinckia lunaris*), California androsace (*Androsace elongata* ssp. *acuta*), big-scale balsamroot (*Balsamorhiza macrolepis*), big tarplant (*Blepharizonia plumosa*), Jepson's coyote thistle (*Eryngium jepsonii*), Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*), pappose tarplant (*Centromadia parryi* ssp. *parryi*), Parry's rough tarplant (*Centromadia parryi* ssp. *rudis*), Santa Cruz tarplant (*Holocarpha macradenia*), and two-forked clover (*Trifolium amoenum*). Related taxa with similar life history characteristics were not present in the project site, suggesting the absence of the 10 aforementioned special-status plants. Furthermore, the survey was conducted during peak blooming season for many of the special-status plants, and none of the special-status plants were observed.² Due to the disturbed nature of the grassland, the probability of special-status plants to occur is low. Although special-status plant species have not been previously documented on the project site and none were observed during the botanical survey, potential ~~However, the habitat is~~ suitable for the aforementioned plant taxa- exists on the site. Consequently, target species could inhabit the site over time. Should project construction begin on or after June 11, 2021, an additional pre-construction survey would be required in order to determine whether any special-status plants have inhabited the site. Thus, construction activities associated with the proposed project could result in adverse effects to special-status plant species.

The aforementioned revisions are for clarification purposes only, and do not affect the conclusions of the IS/MND.

Mitigation Measure IV-2, on page 34 of the IS/MND, is hereby revised as follows:

IV-2. *Prior to any ground disturbance, should construction begin on or after June 11, 2021, a qualified biologist shall conduct a preconstruction survey to identify any special-status plant species on the project site. A written summary of the survey results shall be submitted to the City of Benicia Community Development Department and the CDFW.*

If special-status plant species are observed on the project site during the preconstruction survey, individuals shall be marked (e.g., with flagging or construction fencing) and avoided during construction activities. Depending on the species, buffer zones around the plants may be established to avoid effects on special-status plants. Proof of buffer zones shall be submitted to the City of Benicia Community Development Department.

The above revisions are for clarification purposes only, and do not affect the conclusions of the IS/MND.

Page 60 of the IS/MND is hereby revised as follows:

As discussed throughout this IS/MND, the proposed project would not result in any significant environmental effects that cannot be mitigated to a less-than-significant level by

² Garcia and Associates. *Biological Site Assessment for the RPCA Solar 4, LLC Lake Herman Solar Project Solano County, California* [pg. 14]. July 2019.



the mitigation measures provided herein. In addition, the proposed project would not conflict with City policies and regulations adopted for the purpose of avoiding or mitigating an environmental effect, including, but not limited to, the City's noise standards, applicable stormwater regulations, and water quality standards. For example, the proposed project would be consistent with the following General Plan (GP) and Climate Action Plan (CAP) items:

- GP Policy 2.1.5: The Policy mandates that urban development is not allowed beyond the Urban Growth Boundary, including the area north of Lake Herman Road. Urban development is defined as development requiring physical municipal infrastructure. Because the proposed solar project would not require construction of any physical municipal facilities, the project is not considered urban development and would be consistent with Policy 2.1.5.
- GP Policy 3.18.1: The Policy requires the preservation of rangeland north of Lake Herman Road. As noted on page 6 of the Initial Study, the project site is an 88.5-acre parcel, 35 acres of which would be used for the solar installation. As such, 64 percent of the total site would be preserved. Because a majority of the parcel would remain preserved as rangeland, the proposed project would be consistent with Policy 3.18.1.
- GP Program 3.22.B: The Programs requires a minimum setback of 25 feet from the top of bank streams and ravines. The proposed project incorporates a 50-foot buffer from all waterways, and thus, would be consistent with Program 3.22.B.
- GP Goal 2.5: The Goal is to facilitate and encourage new uses and development which provide substantial and sustainable fiscal and economic benefits to the City and the community. Approval of the proposed project, including the ZTA, would be consistent with the Goal in two ways: expanding the development of the local renewable energy market, and providing a pathway for the potential development of future solar installations.
- CAP Objective E-3: The Objective encourages an increase in the amount of solar energy production in the City of Benicia. The proposed project is directly consistent with the Objective because the project is a solar installation that would contribute to local renewable electricity generation.

Based on the above ~~Therefore~~, the proposed project would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact. Therefore, a **less-than-significant** impact related to any land use plan, policy, or regulation would occur.”

The above changes are for clarification and amplification purposes only and do not alter the conclusions of the IS/MND.

Page 76 of the IS/MND is hereby revised as follows:

[...] All new power lines associated with the proposed project would be undergrounded, thereby reducing wildfire risks associated with potential windy conditions, and all on-site vegetation would be regularly maintained to reduce fire risk. As such, the project would not exacerbate wildfire risk or require the installation or maintenance of associated infrastructure that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. Because the project does not involve the construction of any residences or habitable structures, humans would not be at risk from wildfire, nor associated flooding/landslides, on the project site. ~~The project site is not located within the vicinity of any existing residential uses.~~ In addition, based on the Department of Conservation's Geologic Hazards and Data map, the project site is not near a landslide



zone.3 Furthermore, the vegetation beneath the panels would anchor topsoil and further reduce the risk of a landslide. Relative to existing conditions, the proposed project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

The above revision does not alter the conclusions of the IS/MND.

The discussion for question 'b' of the Mandatory Findings of Significance section of the IS/MND, beginning on page 78, is hereby revised as follows:

This IS/MND contains mitigation measures for all potentially significant impacts to ensure that the impacts are reduced to less-than-significant levels. With the incorporation of mitigation measures, the proposed project would not result in significant or cumulatively considerable impacts, and in some cases, such as greenhouse gas emissions, would result in positive impacts and would be beneficial to the environment.

As discussed previously, although the project includes a proposed ZTA to allow for solar utility development in areas zoned OS throughout the City, it is reasonable to conclude that there is no causal connection between the creation of a new land use classification in the OS zone and induced development of solar facilities within the City of Benicia. Solar utilities do not currently exist within the OS zone and no other development applications have been submitted to the City or are currently being processed by the City for any similar type of land use. To the extent there may be such a future application is speculative. Any future actions on the part of landowners are too speculative to be considered in this IS/MND. Per Section 15145 of the CEQA Guidelines, CEQA does not require evaluation of speculative impacts. Thus, it can be concluded that the physical development of future solar facility projects under the OS zone is not a reasonably foreseeable consequence of the proposed project, thus requiring analysis within the IS/MND.

In addition, any future development of solar utilities in areas zoned OS would do so independently of the proposed project, would require approval of a Use Permit, and would be subject to separate CEQA review and discretionary approval. Similar to the proposed project, all future solar utilities projects within the OS zone would be subject to the same federal, State, and local requirements as the proposed project, which would ensure impacts are minimized to the extent practicable. Should any future solar utilities project within the OS zone result in project-specific impacts, each future project would be required to include all feasible mitigation to ensure impacts are reduced to less-than-significant levels, similar to the proposed project. Consequently, any potential cumulatively considerable impacts to resources associated with future solar installation in OS areas would be addressed through future project-specific analysis.

Furthermore, as noted previously, impacts related to a number of environmental issue areas are predominantly project- and/or site-specific, and do not have the potential to cumulatively combine. For example, impacts resulting from development on expansive soils at one project site are not worsened by impacts from development on expansive soils at another project site. Rather, the soil conditions, and the implications of such conditions for each project, are independent, and mitigation measures are primarily site-specific and project-specific. As another example, while some cultural or tribal cultural resources may have regional significance, the resources themselves are site-specific, and impacts to them are project-specific. For instance, impacts to a subsurface archeological find at one project

3 California Department of Conservation. *Geologic Hazards Data & Maps*. Available at: <https://maps.conservation.ca.gov/geologichazards/>. Accessed November 1, 2019.



site would not generally be made worse by impacts to a cultural resource at another site due to development of another project. Rather the resources and the effects upon them are generally independent.

However, impacts such as those related to air quality, biological resources, energy, GHG emissions, noise, population and housing, public services, recreation, transportation, and utilities and service systems could cumulatively combine when considering a project in conjunction with all other past, present, and reasonably foreseeable projects.

Due to the nature and intensity of solar facilities, as analyzed and presented in this IS/MND, the environmental impacts associated with each future facility would be limited. Thus, the incremental contribution of each facility to the cumulative environment is similarly limited. For example, any future solar facility within the OS zone would be expected to involve, similar to the proposed solar facility, minimal ground disturbance, minimal permanent impervious ground surfaces, little to no sources of light, minimal sources of noise, minimal increase in traffic, little to no increase in demand for public services, no increase in demand for utilities, no routine transport, use, or storage of hazardous materials, minimal air pollutant emissions, and no increase in housing or population. Accordingly, impacts associated with each future solar facility related to air quality, energy, GHG emissions, hazards and hazardous materials, noise, population and housing, public services, recreation, transportation, and utilities and service systems would be expected to be minimal. In addition, future solar facilities would be expected to be scattered throughout the OS-zoned areas of the City, rather than concentrated in any one location. Accordingly, effects of future solar facilities would be more isolated, as opposed to if future facilities were nearer to one another, thus, increasing the potential for combined effects.

While effects of each individual project on biological resources is site- and project-specific, buildout of a general area could cumulatively result in impacts to biological resources. As discussed in Section IV, Biological Resources, of this IS/MND, all potential impacts to biological resources as a result of the proposed project could be reduced to a less-than-significant level with mitigation incorporated. As noted previously, any future solar utilities in the OS zone would be subject to CEQA review, which would ensure that, similar to the proposed solar facility, feasible mitigation is applied sufficient to reduce all potential impacts to the maximum extent practical. While cumulative impacts related to biological resources could occur as a result of buildout of the City's General Plan in conjunction with the proposed project, including any future solar facilities within the OS zone, CEQA Guidelines, Section 15064, Subdivision (h)(5) states, "[...]the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable." Therefore, even where cumulative impacts are significant, any level of incremental contribution is not necessarily deemed cumulatively considerable. In addition, the courts have explicitly rejected the notion that a finding of significance is required simply because a proposed project would result in a net loss of habitat. "[M]itigation need not account for every square foot of impacted habitat to be adequate. What matters is that the unmitigated impact is no longer significant." (*Save Panoche Valley v. San Benito County* (2013) 217 Cal.App.4th 503, 528, quoting *Banning Ranch Conservancy v. City of Newport Beach* (2012) 211 Cal.App.4th 1209, 1233.) The discussion within this IS/MND provides substantial evidence that, while the combined effects on biological resources resulting from approved/planned development throughout the City would be considered significant, the proposed project's incremental contribution to the significant cumulative effect could be reduced with implementation of the mitigation measures required in this IS/MND, as well as in CEQA compliance documentation for any future solar facilities within the OS zone.



For the above reasons, the incremental contribution of impacts related to the proposed project, including the proposed ZTA, towards any significant cumulative impacts associated with full buildout of the City of Benicia would be less than cumulatively considerable. With implementation of the Mitigation Measures included herein, as well as required CEQA review for future projects, Therefore, cumulative impacts would be considered **less-than-significant**.

The above changes are for clarification and amplification purposes only and do not alter the conclusions of the IS/MND.



Attachment 1: Technical Memorandum



Garcia and Associates
Natural and Cultural Resources Consultants
140 Diamond Creek Place
Roseville, California 95747

January 10, 2020

To: Aaron Halimi, President
RP Napa Solar 4, LLC
Renewable Properties, LLC
655 Montgomery Street, Suite 1430
San Francisco, CA 94111

From: Susan Dewar, Senior Ecologist and Project Manager

**RE: Lake Herman Road Solar Project Response to Draft Initial Study/Mitigated
Negative Declaration**

Garcia and Associates (GANDA) would like to clarify the results and period of validity for the botanical assessment conducted in association with site surveys and background review for the *Biological Site Assessment for the RPCA Solar 4, LLC Lake Herman Solar Project, Solano County, California* (GANDA 2019). In association with this study, GANDA identified 17 special-status plant taxa with potential to occur on the project site. No special-status plant taxa have previously been documented on site, and none were observed during the botanical site assessment that occurred on June 11, 2019, during the peak bloom period for many of the potential species.

Though no special-status plant species have been previously documented on the project site, there is potential habitat for 17 special-status plant species, and therefore, target species could colonize the site over time. If construction disturbance does not occur prior to June 11, 2021, then a pre-construction survey targeting special-status plants should be conducted to ensure impacts are avoided.

Please contact me if you have any questions.

Sincerely,



Susan Dewar, MS, PLA, QSD/P
Ecologist and Landscape Architect (CA Lic. #5640), Certified Arborist (ISA #WE-7374A)
Garcia and Associates
Cell: 530-521-2385

