651 Commerce Drive
Roseville, CA 95678

phone (916) 781-3636
fax (916) 783-7693
web www.ncpa.com

August 28, 2019

TO: Facilities Committee

FROM: Carrie Pollo

SUBJECT: Notice of the Facilities Committee Meeting

Facilities Committee: In compliance with the Brown Act, if participating on the conference call **and/or online presentation**, please attend one of the locations listed below and post this notice at a publicly accessible location at the participation location **72-hours** before the call begins.

Date:	**Wednesday, September 4, 2019**
Time:	**9:00 am**
Where:	**NCPA Headquarters** **651 Commerce Drive** **Roseville, CA 95678**
Contact at NCPA:	Carrie Pollo 916.781.4282

ALAMEDA MUNICIPAL PWR 2000 Grand St., Alameda 510.748.3901	BAY AREA RAPID TRANSIT 300 Lakeside Drive, Oakland 510.464.6435	CITY OF BIGGS 465 "C" Street, Biggs 530.868.5493
CITY OF GRIDLEY 685 Kentucky Street, Gridley 530.846.5695	CITY OF HEALDSBURG 401 Grove Street, Healdsburg 707.431.3317	CITY OF LODI 1331 S. Ham Lane, Lodi 209.333.6762
CITY OF LOMPOC 100 Civic Ctr. Plaza, Lompoc 805.875.8299	CITY OF PALO ALTO 250 Hamilton Ave, Palo Alto 650.329.2273	PORT OF OAKLAND 530 Water Street, Oakland 510.627.1100
PLUMAS-SIERRA REC 73233 Hwy 70, Portola 530.832.4261	CITY OF REDDING 3611 Avtech Parkway, Redding 530.339.7344	CITY OF ROSEVILLE 2090 Hilltop Cir, Roseville 916.774.5602
CITY OF SANTA CLARA 881 Martin Avenue, Santa Clara 408.261.5490	TURLOCK IRR. DISTRICT 333 E. Canal Drive, Turlock 209.883.8300	CITY OF UKIAH 300 Seminary Ave, Ukiah 707.463.6200

651 Commerce Drive
Roseville, CA 95678

phone (916) 781-3636
fax (916) 783-7693
web www.ncpa.com

Agenda

Date: **Wednesday, September 4, 2019**

Subject: **Facilities Committee Meeting**

Location: **NCPA Headquarters, 651 Commerce Drive, Roseville CA.**

Time: **9:00 am**

The Committee may take action on any of the items listed on this Agenda regardless of whether the matter appears on the Consent Calendar or is described as an Action Item, a Report or an Informational Item. This agenda is often supplemented by various documents which are available to the public upon request. Pursuant to Government Code Section 54957.5, the following is the location at which the public can view agendas and other public writings: NCPA Offices, 651 Commerce Drive, Roseville California, or www.ncpa.com.

Persons requiring accommodation in accordance with the Americans with Disabilities Act in order to attend or participate in this meeting are requested to contact the NCPA Secretary at 916.781.3636 in advance of the meeting to arrange for such accommodations.

REVIEW SAFETY PROCEDURES

1. **Call Meeting to Order and Roll Call**

PUBLIC FORUM

Any member of the public who wishes to address the Committee on matters not on the Agenda, but within the subject matter jurisdiction of the Committee, or any member of the public who desires to address the Committee on any item considered by the Committee at this meeting before or during the Committee's consideration of that item, shall so advise the Chair and shall thereupon be given an opportunity to do so.

OPEN SESSION

2. **Approve Minutes from the August 7, 2019 Facilities Committee Meeting.**

3. **All Generation Services Facilities, Members, SCPPA – Worley Group, Inc. First Amendment to MTPSA –** Staff is seeking a recommendation for Commission approval of a First Amendment to the Multi-Task Professional Services Agreement with Worley Parsons Group, Inc. accepting assignment as Worley Group, Inc., with no changes to the not to exceed amount or the terms and conditions, for continued use at all facilities owned and/or operated by NCPA, its Members, SCPPA, and SCPPA Members. All purchase orders issued pursuant to the agreement will be charged against approved Annual Operating Budgets. *(Commission Category: Consent; Sponsor: CTs)*

4. **All Generation Services Facilities (Except LEC), Members, SCPPA – Ardent Companies, LLC First Amendment to MTGSA –** Staff is seeking a recommendation for Commission approval of a First Amendment to the five-year Multi-Task General Services Agreement with Ardent Companies, LLC, increasing the not to exceed amount from $200,000 to $1,200,000, for use at all facilities owned and/or operated by NCPA (with exception of the Lodi Energy Center), its Members, SCPPA,

and SCPPA Members. All purchase orders issued pursuant to the agreement will be charged against approved Annual Operating Budgets. *(Commission Category: Consent; Sponsor: Geo)*

5. **NCPA Solar Project 1 – Healdsburg WRF Site – CEQA Mitigated Negative Declaration for the Healdsburg Water Reclamation Facility Site** – Staff is seeking a recommendation for Commission approval of a resolution adopting the Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program, and directing staff to file a Notice of Determination with the State Clearinghouse and Sonoma County. *(Commission Category: Discussion/Action Item; Sponsor Generation Services Administration)*

6. **NCPA Solar Project 1 – Lodi Sites – CEQA Mitigated Negative Declaration for the Lodi Pixley Basin, Century East/West, and Parking Garage Sites** – Staff is seeking a recommendation for Commission approval of a resolution adopting the Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program, and directing staff to file a Notice of Determination with the State Clearinghouse and San Joaquin County. *(Commission Category: Discussion/Action Item; Sponsor Generation Services Administration)*

7. **NCPA Solar Project 1 – Plumas-Sierra Chilcoot Site – CEQA Mitigated Negative Declaration for the Plumas-Sierra Chilcoot Site –** Staff is seeking a recommendation for Commission approval of a resolution adopting the Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program, and directing Staff to file a Notice of Determination with the State Clearinghouse and Plumas County. *(Commission Category: Discussion/Action; Sponsor: Generation Services Administration)*

8. **Generation Services 2020 Outage Schedule –** Staff is seeking a recommendation for Facilities Committee approval of the 2020 Outage Schedule for NCPA's CT, Geo, and Hydro facilities. *(Commission Category: Informational; Sponsor: Generation Services Administration)*

9. **NCPA Generation Services Plant Updates –** NCPA Plant Staff will provide the Committee with an informational update on current plant activities and conditions. *(Commission Category: Informational; Sponsor: Generation Services Administration)*

10. **CAISO Initiative – The Market Settlement Timeline Change –** Staff will provide an update regarding this recent CAISO initiative. *(Commission Category: Informational; Sponsor: Power Settlements)*

11. **Combined Integrated Resource Plan 2019 Annual Update –** NCPA staff will provide notice to the committee that the 2019 Combined Integrated Resource Plan Annual Update was filed with Western on June 28, 2019, on behalf of the NCPA Pool Members. *(Commission Category: N/A; Sponsor: Power Management)*

12. **CY 2020 NCPA Capacity Pool Rates –** NCPA staff will review and seek a recommendation for approval of the Resource Adequacy capacity rates, to be used in the NCPA Capacity Pool during calendar year 2020. *(Commission Category: Consent; Sponsor: Power Management)*

13. **NID Services Agreement –** NCPA staff will review and seek a recommendation for approval of terms and conditions for development of a Services Agreement between NCPA and Nevada Irrigation District (NID). *(Commission Category: TBD; Sponsor: Power Management)*

14. **Clean Energy Savings Initiative Program (CESI) –** A working group of NCPA staff and members received an overview of the CESI program from the Agency's financial advisor, PFM. Staff was asked to open this item for discussion with members who may be interested in moving forward with the next steps of this program. *(Commission Category: Informational; Sponsor: Administrative Services)*

15. **Planning and Operations Update** – Staff will provide an update on issues related to planning and operations.

16. **Next Meeting Date –** The next Facilities Committee meeting is currently scheduled for October 2, 2019.

ADJOURNMENT
/cp

651 Commerce Drive
Roseville, CA 95678

phone (916) 781-3636
fax (916) 783-7693
web www.ncpa.com

Minutes – Draft

Date: August 8, 2019

To: NCPA Facilities Committee

From: Carrie Pollo

Subject: August 7, 2019 Facilities Committee Meeting Minutes

1. **Call meeting to order & Roll Call –** The meeting was called to order by Committee Vice-Chair Bill Forsythe at 9:05 am. A sign-in sheet was passed around. Attending via teleconference and/or on-line presentation were Alan Harbottle and Alex Smith (Alameda), Mark Sorensen (Biggs), Terry Crowley (Healdsburg), Shiva Swaminathan (Palo Alto), Basil Wong and Steve Hance (Santa Clara), and Willie Manual (TID). Those attending in person are listed on the attached Attendee Sign-in Sheet. Committee Representatives from BART, Gridley, Lompoc, Plumas-Sierra, Port of Oakland, Redding, and Ukiah were absent. Introductions included Joel Ledesma, new Generations Services AGM, and Brian Schinstock, Electric Resource Analyst, with Roseville Electric. A quorum of the Committee was established.

PUBLIC FORUM
No public comment.

2. **Approve Minutes from the July 3, 2019 Facilities Committee Meeting.**

   Motion: A motion was made by Jiayo Chiang and seconded by Bill Forsythe recommending approval of the July 3, 2019 Facilities Committee meeting minutes. A vote was taken by roll call: YES = Alameda, Biggs, Healdsburg, Lodi, Palo Alto, Roseville, Santa Clara, and TID. The motion passed.

3. **All Generation Services Facilities – Brenntag Pacific, Inc. MTS –** Staff presented background information and was seeking a recommendation for Commission approval of a five-year Multi-Task Agreement for Purchase of Supplies with Brenntag Pacific, Inc., for purchase of chemicals, with a not to exceed amount of $2,500,000, for use at all facilities owned and/or operated by NCPA. This is a renewal agreement with an existing vendor. It is an enabling agreement with no commitment of funds. This company is based in Santa Fe Springs, CA, but provides local delivery of supplies. All purchase orders issued pursuant to the agreement will be charged against approved Annual Operating Budgets. A draft Commission Staff Report and the draft agreement were available for review.

   Motion: A motion was made by Shiva Swaminathan and seconded by Bill Forsythe recommending Commission approval authorizing the General Manager or his designee to enter into a Multi-Task Agreement for Purchase of Supplies with Brenntag Pacific, Inc. for bulk

chemical purchases, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed $2,500,000.00 over five years, for use at all facilities owned and/or operated by NCPA. A vote was taken by roll call: YES = Alameda, Biggs, Healdsburg, Lodi, Palo Alto, Roseville, Santa Clara, and TID. The motion passed.

4. **NCPA CT1 Facilities – Circuit Breaker Replacement Project –** Staff provided background information and was seeking a recommendation for Commission approval to replace the generator circuit breakers at both the CT1 Alameda and CT1 Lodi facilities. Both CT1 Unit generator circuit breakers are inspected annually with maintenance performed as needed. During recent annual maintenance, tests indicated circuit breaker timing response issues. It has been determined that the breakers are at the end of life, and all spare parts have been used with no more available. NCPA staff recommend replacement of the generator circuit breakers. Staff will bid the work needed to carry out the project according to NCPA's Procurement Policies and Procedures. The estimated cost for this project is $510,000.00.

   Motion: A motion was made by Jiayo Chiang and seconded by Bill Forsythe recommending Commission approval authorizing the replacement of the generator circuit breakers at NCPA's CT1 Alameda and CT1 Lodi facilities and authorizing the General Manager or his designee to enter into agreements and issue purchase orders to complete this work without further approval by the Commission, with a total cost not to exceed $510,000.00. A vote was taken by roll call: YES = Alameda, Biggs, Healdsburg, Lodi, Palo Alto, Roseville, and Santa Clara. ABSTAIN = TID. The motion passed.

5. **NCPA Geothermal Facilities – Modify Scope of Current Geothermal Drilling Project** – Staff presented background information and was seeking a recommendation for Commission approval to modify the scope of the current Geothermal Drilling Project to including sites Q-10 and Q-3, pending completion of current P-Site drilling, and assuming the current project comes in under budget.

   The Commission approved the P-Site Drilling Project in November 2018 for a not to exceed amount of $9 million. The P-Site Drilling Project is nearing completion, and it currently appears that this project will come in under the initial budgeted amount. Staff would like to use remaining funds to complete work on two additional wells, which are Q-10 and Q-3. Work on the Q-Site wells is contingent on P-Site drilling coming in at least $3 million or more under budget. Staff propose fixing Q-10 first. The casing is ripped with rocks falling down inside the well, blocking the injection water from passing through to the reservoir. It is an extremely valuable injector that was completed in 2006. It will be either P&N or plug and abandon. If funds remain after fixing Q-10, staff propose fixing Q-3, which is a very simple fix.

   Motion: A motion was made by Steve Hance and seconded by Bill Forsythe recommending Commission approval expanding the scope of the current P-Site Drilling Project to include additional work on Q-Site wells using excess funds from the P-Site Drilling Project, and authorizing the General Manager or his designee to issue purchase orders for the additional work on the Q-Site wells. A vote was taken by roll call: YES = Alameda, Biggs, Healdsburg, Lodi, Roseville, Santa Clara, and TID. ABSTAIN = Palo Alto. The motion passed.

6. **All Generation Services Facilities, Members, SCPPA – Aspen Environmental First Amendment to MTCSA –** Staff presented background information and was seeking a recommendation for Commission approval of a First Amendment to the five-year Multi-Task Consulting Services Agreement with Aspen Environmental Group for electric system resource planning and assessment services, increasing the not to exceed amount from $240,000 to $1,000,000, for use at all facilities owned and/or operated by NCPA, its Members, SCPPA, and SCPPA Members. The current agreement has been used by numerous NCPA Members, and is

now low on funds. Staff recommend increasing the amount to keep utilizing this agreement. This is an enabling agreement with no commitment of funds. All purchase orders issued pursuant to the agreement will be charged against approved Annual Operating Budgets. A draft Commission Staff Report and the draft agreement were available for review.

Motion: A motion was made by Jiayo Chiang and seconded by Bill Forsythe recommending Commission approval authorizing the General Manager or his designee to enter into a First Amendment to the Multi-Task Consulting Services Agreement with Aspen Environmental Group, with any non-substantial changes as recommended and approved by the NCPA General Counsel, increasing the not to exceed amount from $240,000 to $1,000,000, for use at any facilities owned and/or operated by Agency, its Members, SCPPA, or SCPPA Members, with the exception of NCPA's Lodi Energy Center. A vote was taken by roll call: YES = Alameda, Biggs, Healdsburg, Lodi, Palo Alto, Roseville, and Santa Clara. ABSTAIN = TID. The motion passed.

7. **All Generation Services Facilities, Members, SCPPA – IEC Corporation MTPSA –** Staff provided background information and was seeking a recommendation for Commission approval of a five-year Multi-Task Professional Services Agreement with Integrated Engineers & Contractors Corporation dba IEC Corporation, for energy related consulting services, with a not to exceed amount of $1,000,000, for use at all facilities owned and/or operated by NCPA, its Members, SCPPA, and SCPPA Members. This is a renewal agreement with an existing vendor. It is an enabling agreement with no commitment of funds. All purchase orders issued pursuant to the agreement will be charged against approved Annual Operating Budgets. A draft Commission Staff Report and the draft agreement were available for review.

   Motion: A motion was made by Bill Forsythe and seconded by Jiayo Chiang recommending Commission approval authorizing the General Manager or his designee to enter into a Multi-Task Professional Services Agreement with Integrated Engineers and Contractors Corporation dba IEC Corporation for energy related consulting services, with any non-substantial changes recommended and approved by the NCPA General Counsel, which shall not exceed $1,000,000 over five years, for use at all facilities owned and/or operated by NCPA, its Members, the Southern California Public Power Authority ("SCPPA"), or by SCPPA Members. A vote was taken by roll call: YES = Alameda, Biggs, Healdsburg, Lodi, Palo Alto, Roseville, and Santa Clara. ABSTAIN = TID. The motion passed.

8. **Generation Services 2020 Outage Schedule –** Staff reviewed the proposed draft 2020 Outage Schedule for NCPA's CT, Geo, and Hydro facilities and was seeking a recommendation for Facilities Committee approval. After discussing the proposed plant outages, it was decided to bring this item back for approval at the next meeting. Members expressed concern about the two outages for the Geo plants during two different months. This may cause conflicts with scheduling and/or substituting RA during this time. Staff will re-evaluate and try to reschedule both plant outages in April, proposing one at the beginning of the month, and one towards the end of the month.

9. **PG&E Negotiated Gas Transmission Rate Agreement –** Staff gave background information and was seeking a recommendation for Commission approval of the PG&E Negotiated Gas Transmissions Rate Agreement.

   PG&E filed a gas transmission rate case in November 2017. This case is still moving through the approval process including CPUC hearings and is nearing a final decision. NCPA has been participating on the rate case through the Northern California Generation Coalition (NCGC) which includes Redding, Roseville, Silicon Valley Power, Modesto Irrigation District (MID), and Turlock Irrigation District (TID), as well as NCPA. The Administrative Law Judge issued a proposed decision late July 2019. The original proposal was $1.65/MMBtu, and has dropped

significantly to $1.10/MMBtu. The PG&E negotiated rate consists of two components, including a fixed fee based on estimated revenue requirements for EG-LT transmission cost only, and a variable component equal to the other components in the transmission rate that are not directly associated with gas pipeline transmission costs (i.e.-CPUC, Energy efficiency, etc.) plus a $0.05 adder. Parties recognize the gas transportation costs are impacting the wholesale market prices. The proposed decision is recommending PG&E conduct hearings to look for alternative rate designs for the market responsive EG-LT.

A CPUC hearing is scheduled for late August. Most experts think the CPUC will approve the proposed decision for the negotiated transmission rate, at the August meeting. If this is approved in the August CPUC meeting, PG&E will file new rates that will go into effect October 1, 2019. Rate design hearings will be scheduled within 90 days of the CPUC approval of the proposed rate case decision. This date could still change as Calpine and SMUD are fighting the need of a hearing for all. Randy Howard thanked Ken Speer and Steve Hance for all their outstanding work on this rate case.

Motion: A motion was made by Jiayo Chiang and seconded by Basil Wong recommending Commission approval of the PG&E Negotiated Gas Transmissions Rate Agreement, subject to legal counsel review. A vote was taken by roll call: YES = Alameda, Biggs, Healdsburg, Lodi, Palo Alto, Roseville, and Santa Clara. ABSTAIN = TID. The motion passed.

10. **NCPA Generation Services Plant Updates –** NCPA Plant Staff provided the Committee with an informational update on current plant activities and conditions.

CTs – The July operations for CT1 included 15 actual starts with 22 ghost starts, of 62 starts forecasted, bringing the FYTD to 37 total. The 22 ghost starts brought in $26,000. CT2 had 4 actual starts out of 7 forecasted for a FYTD of 4. CT2 had a planned forced outage to replace isolation valves and pump, for chiller work. The chiller is a big air conditioner to keep the plant operating at a cooler temperature and maximize the MW output.
Geo – There was one safety incident to report at Geo for the month of July. A contractor on site was stung by a bee while backing his vehicle up, so hit a 21kV pole. No injuries were reported, however the pole was damaged, and was de-energized during the accident. The contractor will take care of and pay for all repairs. Fire mitigation measures continue with inspections of the transmission towers, and vegetation management around pipelines, roads, and buildings as well. BLM also gave approval to re-establish fire breaks, and is coordinating with Roseville on developing a fire mitigation strategy. Net generation for July totaled 84.5MW. The estimated monthly total was 62.9GWhr, 2.3% above forecast. The P-9 and P-7 well workovers have been completed. The P-7 well is working great since the workover. P-9 was plugged and abandoned. Remaining well workovers include P-5 and P-4. The estimated cost for this project is $3 million out of a $9 million budget. The estimated completion of the P-site well workovers is late August, or early September.
Hydro – The Collierville Generator Rewind for Unit 1 started August 5, 2019. The turbine has been removed with the runner down, and is currently on deck for the contractor to inspect. This project is scheduled to be finished before Thanksgiving with staff and contractors working around the clock. Staff will update the Committee next month with progress of this project.

11. **Amendment No. 1 to Cotenancy Agreement** – Staff provided an update regarding the status of Amendment No. 1 to the Castle Rock Junction-Lakeville 230-kV Transmission Line Agreement.

NCPA is a cotenant and “Party” to the Agreement of Cotenancy in the Castle Rock Junction to Lakeville 230kV transmission line. The cotenancy line connects the NCPA Geothermal projects to the CAISO controlled Grid. NCPA, SVP, CDWR, and PG&E all own transmission entitlements to the line. CDWR provided notice of its intent to withdraw from the agreement, on July 30, 2018.

PG&E, with support from NCPA and SVP, filed an amendment at FERC acknowledging CDWR's request for termination. CDWR is disputing the cost of removal for terminating the agreement. The amendment filed effectively rejected CDWR's request, pending resolution of the cost of removal in dispute. All other matters have been delayed until this issue is resolved. NCPA and SVP are planning to jointly file comments in support of PG&E's position. This should provide additional time and process to resolve the cost of removal dispute, and other outstanding matters between the parties. Pending FERC action, NCPA anticipates this matter will be set for a settlement hearing.

12. New Business Opportunities – Staff provided an update regarding new business opportunities.

NCPA previously submitted a proposal to Nevada Irrigation District (NID) to supply scheduling and dispatch services for the Deer Creek Powerhouse. On behalf of Lompoc, NCPA augmented the proposal and also submitted an offer to purchase the output of the project for a period of two (2) years. NID has acknowledged receipt of NCPA's proposals, but indicated that due to staff vacations, they would provide a response to NCPA's proposal in August 2019.

NCPA submitted a draft proposal to South Feather Water and Power Agency (SFWPA). Power Management services would include scheduling and dispatch services, and/or purchasing the SFWPA hydroelectric output. The NCPA technical team toured SFWPA facilities on July 29, 2019, focusing on SCADA, communications, and control systems. Staff are taking integration steps, and have created a collaboration site on NCPA Connect to share information. Staff submitted an indicative offer to purchase the output of the project through a long-term PPA. SFWPA responded with questions and comments. Staff have scheduled a meeting with SFWPA to continue negotiations. The PG&E contract with SFWPA expires July 1, 2020.

13. Planning and Operations Update –

- Staff have been working on a couple of major software upgrade projects, including an ADS system upgrade, and a new LEC Multi-Stage Generator Unit Model (MSG). The ADS upgrade will help with automation of CAISO dispatch instructions, and will increase efficiency and durability. The new MSG software will enable LEC to be dispatched in different operating modes which will be a key benefit enabling energy produced during the LEC start-up to be scheduled into the DAM.
- Staff have been working on an update to the staffing study and operational impacts regarding increasing provision of services to Members and customers. The study is focused on NCPA processes as well as staffing, plus the NERC low to medium impacts on operations. Staff will update the Committee when the final study is completed either in September or October.
- CAISO TAC – Due to transmission costs through the Scheduling Coordinator Agreement, Member collateral deposits in the GOR account have increased significantly. Staff is currently evaluating and developing a summary regarding this issue. When completed, staff will update the Committee.

14. Schedule next meeting date – the next regular Facilities Committee meeting is scheduled for September 4, 2019

ADJOURNMENT

The meeting was adjourned at 12:05 pm.

Northern California Power Agency
August 7, 2019 Facilities Committee Meeting
Attendance List

NCPA Facilities Committee Members, Alternates & Staff are requested to sign, but signature by members of the public is voluntary.

NAME	AFFILIATION
Carrie Pollo	NCPA
Bill Forsythe	Roseville
Brian Schmitock	Roseville
Jeremy Lawson	NCPA
Ken Speer	NCPA
Michael DeBortoli	NCPA
Ben Young	& NCPA
Marty LeBrett	NCPA
Joel Ledesma	NCPA
Randy Howard	NCPA
Jiayo Chiang	Lodi
Michael Whitney	NCPA
Dennis Sismaet	NCPA
Monty Hanks	NCPA
Tony Zimmer	NCPA

Northern California Power Agency
August 7, 2019 Facilities Committee Meeting
Attendance List

NCPA Facilities Committee Members are requested to sign, but signature by members of the public is voluntary.

MEMBER	NAME
ALAMEDA	
BART	
BIGGS	
GRIDLEY	
HEALDSBURG	
LODI	Gwayo Chiang
LOMPOC	
PALO ALTO	
PLUMAS-SIERRA REC	
PORT OF OAKLAND	
REDDING	
ROSEVILLE	Bill Forsythe
SANTA CLARA	
TID	
UKIAH	

Commission Staff Report

Date: August 20, 2019

COMMISSION MEETING DATE: September 27, 2019

SUBJECT: WorleyParsons Group, Inc. – First Amendment to the Five Year Multi-Task Professional Services Agreement; Applicable to the following projects: All NCPA Facilities, Members, SCPPA and SCPPA Members.

AGENDA CATEGORY: Consent

FROM:	Joel Ledesma	**METHOD OF SELECTION:**
	Assistant General Manager	*N/A*
Division:	Generation Services	*If other, please describe:*
Department:	Combustion Turbines	

IMPACTED MEMBERS:

All Members	☒	**City of Lodi**	☐	**City of Shasta Lake**	☐
Alameda Municipal Power	☐	**City of Lompoc**	☐	**City of Ukiah**	☐
San Francisco Bay Area Rapid Transit	☐	**City of Palo Alto**	☐	**Plumas-Sierra REC**	☐
City of Biggs	☐	**City of Redding**	☐	**Port of Oakland**	☐
City of Gridley	☐	**City of Roseville**	☐	**Truckee Donner PUD**	☐
City of Healdsburg	☐	**City of Santa Clara**	☐	**Other**	☐
		If other, please specify			

RECOMMENDATION:

Approval of Resolution XX-XX authorizing the General Manager or his designee to enter into a First Amendment to the Five Year Multi-Task Professional Services Agreement with WorleyParsons Group, Inc., with any non-substantial changes as recommended and approved by the NCPA General Counsel, to change the vendor name in the agreement to Worley Group, Inc., for continued use at all facilities owned and/or operated the Northern California Power Agency (NCPA), its Members, by the Southern California Public Power Authority (SCPPA), or by SCPPA Members.

BACKGROUND:

Various consulting services, including those related to project support and plant operations, are required at NCPA, Member, SCPPA, and SCPPA Member locations from time to time.

On May 2, 2019, NCPA entered into a Five Year Multi-Task Professional Services Agreement for consulting services with WorleyParsons Group, Inc. Effective May 8, 2019, WorleyParsons Group, Inc. notified NCPA of their intention to change their name to Worley Group, Inc. This amendment will change their name in the agreement to Worley Group, Inc. This amendment does not change any of the other terms or conditions of the agreement.

FISCAL IMPACT:

Upon execution, the total cost of the Agreement is still not to exceed $1,500,000 over five years, to be used out of NCPA approved annual operating budgets as services are rendered. Purchase orders referencing the terms and conditions of the Agreement will be issued following NCPA procurement policies and procedures.

SELECTION PROCESS:

This enabling agreement does not commit NCPA to any expenditure of funds. At the time services are required, NCPA will bid the specific scope of work consistent with NCPA procurement policies and procedures. NCPA currently has similar agreements in place with HDR Engineering, Inc., Power Engineers, Inc., and Thermal Engineering Company and seeks bids from multiple qualified providers whenever services are needed. Bids are awarded to the lowest cost provider. NCPA will issue purchase orders based on cost and availability of the services needed at the time the service is required.

ENVIRONMENTAL ANALYSIS:

This activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a “project” for purposes of Section 21065 the California Environmental Quality Act. No environmental review is necessary.

COMMITTEE REVIEW:

Pending committee review.

Respectfully submitted,

RANDY S. HOWARD
General Manager

Attachments (3):

- Resolution
- Multi-Task Professional Services Agreement with WorleyParsons Group, Inc.
- First Amendment to Multi-Task Professional Services Agreement with WorleyParsons Group, Inc.

RESOLUTION 19-XX

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING A FIRST AMENDMENT TO THE FIVE YEAR MULTI-TASK PROFESSIONAL SERVICES AGREEMENT WITH WORLEYPARSONS GROUP, INC.

(reference Staff Report #XXX:19)

WHEREAS, consulting services, including those related to project support and plant operations, are required from time to time at facilities owned and/or operated by Northern California Power Agency (NCPA), its Members, Southern California Public Power Authority (SCPPA), and SCPPA Members; and

WHEREAS, WorleyParsons Group, Inc. is a provider of these services; and

WHEREAS, NCPA entered into a five year Multi-Task Professional Services Agreement with WorleyParsons Group, Inc. on May 2, 2019; and

WHEREAS, effective May 8, 2019, WorleyParsons Group, Inc. notified NCPA of their intention to change their name to Worley Group, Inc.; and

WHEREAS, NCPA now desires to enter into a First Amendment with WorleyParsons Group, Inc. to amend the current agreement and reflect the consultant's name change to Worley Group, Inc.; and

WHEREAS, this activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a "project" for purposes of Section 21065 the California Environmental Quality Act. No environmental review is necessary; and

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency authorizes the General Manager or his designee to enter into a First Amendment to the Five Year Multi-Task Professional Services Agreement with WorleyParsons Group, Inc., with any non-substantial changes as approved by the NCPA General Counsel, changing the vendor name to Worley Group, Inc., for continued use at all facilities owned and/or operated by NCPA, its Members, by the Southern California Public Power Authority (SCPPA), or by SCPPA Members.

PASSED, ADOPTED and APPROVED this ____ day of _____, 2019 by the following vote on roll call:

	Vote	Abstained	Absent
Alameda			
San Francisco BART			
Biggs			
Gridley			
Healdsburg			
Lodi			
Lompoc			
Palo Alto			
Port of Oakland			
Redding			
Roseville			
Santa Clara			
Shasta Lake			
Truckee Donner			
Ukiah			
Plumas-Sierra			

ROGER FRITH
CHAIR

ATTEST: CARY A. PADGETT
ASSISTANT SECRETARY

MULTI-TASK PROFESSIONAL SERVICES AGREEMENT BETWEEN THE NORTHERN CALIFORNIA POWER AGENCY AND WORLEYPARSONS GROUP, INC.

This Professional Services Agreement ("Agreement') is made by and between the Northern California Power Agency, a joint powers agency with its main office located at 651 Commerce Drive, Roseville, CA 95678-6420 ("Agency") and WorleyParsons Group, Inc., a Delaware corporation with its office located at 2330 East Bidwell Street, Suite 150, Folsom, CA 95630 ("Consultant") (together sometimes referred to as the "Parties") as of MAY 1, 2019 ("Effective Date") in Roseville, California.

Section 1. SERVICES. Subject to the terms and conditions set forth in this Agreement, Consultant shall provide to Agency the services described in the Scope of Services attached hereto as Exhibit A and incorporated herein ("Services"), at the time and place and in the manner specified therein.

1.1 Term of Agreement. The term of this Agreement shall begin on the Effective Date and shall end when Consultant completes the Services, or no later than five (5) years from the date this Agreement was signed by Agency, whichever is shorter.

1.2 Standard of Performance. Consultant shall perform the Services in the manner and according to the standards observed by a competent practitioner of the profession in which Consultant is engaged and for which Consultant is providing the Services. Consultant represents that it is licensed, qualified and experienced to provide the Services set forth herein.

1.2.1 If Contractor's failure to conform to this standard of performance is discovered within four (4) years of the completion of the Services under any Purchase Order, and provided that Contractor is notified of such nonconformance within thirty (30) days after the discovery thereof, then Contractor shall, as its sole obligation, re-perform the deficient Services at no cost to Agency.

1.3 Assignment of Personnel. Consultant shall assign only competent personnel to perform the Services. In the event that Agency, in its sole discretion, at any time during the term of this Agreement, requests the reassignment of any such personnel, Consultant shall, immediately upon receiving written notice from Agency of such request, reassign such personnel.

1.4 Services Provided. Services provided under this Agreement by Consultant may include Services directly to the Agency or, as requested by the Agency and consistent with the terms of this Agreement, to Agency members, Southern California Public Power Authority ("SCPPA") or SCPPA members.

1.5 Request for Services. At such time that Agency determines to use Consultant's Services under this Agreement, Agency shall issue a Purchase Order. The Purchase Order shall identify the specific services to be performed ("Requested

Services"), may include a not-to-exceed monetary cap on Requested Services and expenditures authorized by that Purchase Order, and a time by which the Requested Services shall be completed. Consultant shall have seven calendar days from the date of the Agency's issuance of the Purchase Order in which to respond in writing that Consultant chooses not to perform the Requested Services. If Consultant agrees to perform the Requested Services, begins to perform the Requested Services or does not respond within the seven day period specified, then Consultant will have agreed to perform the Requested Services on the terms set forth in the Purchase Order, this Agreement and its Exhibits.

Section 2. **COMPENSATION.** Agency hereby agrees to pay Consultant an amount **NOT TO EXCEED** ONE MILLION FIVE HUNDRED THOUSAND dollars ($1,500,000.00) for the Services, which shall include all fees, costs, expenses and other reimbursables, as set forth in Consultant's fee schedule, attached hereto and incorporated herein as Exhibit B. This dollar amount is not a guarantee that Agency will pay that full amount to the Consultant, but is merely a limit of potential Agency expenditures under this Agreement.

2.1 **Invoices.** Consultant shall submit invoices, not more often than once a month during the term of this Agreement, based on the cost for services performed and reimbursable costs incurred prior to the invoice date. Invoices shall contain the following information:

- The beginning and ending dates of the billing period;
- Services performed;
- The Purchase Order number authorizing the Services;
- At Agency's option, the total number of hours of work performed under the Agreement by Consultant and each employee, agent, and subcontractor of Consultant performing services hereunder; and
- At Agency's option, when the Consultant's Scope of Work identifies tasks, for each work item in each task, a copy of the applicable time entries showing the name of the person doing the work, the hours spent by each person, a brief description of the work, and each reimbursable expense, with supporting documentation, to Agency's reasonable satisfaction.

Invoices shall be sent to:

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678
Attn: Accounts Payable
AcctsPayable@ncpa.com

2.2 **Monthly Payment.** Agency shall make monthly payments, based on invoices received, for services satisfactorily performed, and for authorized reimbursable costs incurred. Agency shall have thirty (30) days from the receipt of an invoice

that complies with all of the requirements above to pay Consultant; provided that in the event Agency disputes an invoice in whole or in part, the Agency shall notify Consultant in writing by the payment due date of the basis for the portion in dispute and pay the undisputed amount of the invoice within the time provided for herein. Consultant shall be entitled to suspend until fully paid, or terminate the Services under this Agreement should Agency fail to compensate Consultant in accordance with the terms and conditions of this Agreement for undisputed Services performed.

2.3 Payment of Taxes. Consultant is solely responsible for the payment of all federal, state and local taxes, including employment taxes, incurred under this Agreement.

2.4 Authorization to Perform Services. The Consultant is not authorized to perform any Services or incur any costs whatsoever under the terms of this Agreement until receipt of written authorization from the Contract Administrator.

2.5 Timing for Submittal of Final Invoice. Consultant shall have ninety (90) days after completion of its Services to submit its final invoice. In the event Consultant fails to submit an invoice to Agency for any amounts due within the ninety (90) day period, Consultant is deemed to have waived its right to collect its final payment from Agency.

Section 3. FACILITIES AND EQUIPMENT. Except as set forth herein, Consultant shall, at its sole cost and expense, provide all facilities and equipment that may be necessary to perform the Services.

Section 4. INSURANCE REQUIREMENTS. Before beginning any work under this Agreement, Consultant, at its own cost and expense, shall procure the types and amounts of insurance listed below and shall maintain the types and amounts of insurance listed below for the period covered by this Agreement.

4.1 Workers' Compensation. If Consultant employs any person, Consultant shall maintain Statutory Workers' Compensation Insurance and Employer's Liability Insurance for any and all persons employed directly or indirectly by Consultant with limits of not less than one million dollars ($1,000,000.00) per accident.

4.2 Commercial General and Automobile Liability Insurance.

4.2.1 Commercial General Insurance. Consultant shall maintain commercial general liability insurance for the term of this Agreement, including products liability, covering any loss or liability, including the cost of defense of any action, for bodily injury, death, personal injury and broad form property damage which may arise out of the operations of Consultant. The policy shall provide a limit of $1,000,000 per occurrence/$2,000,000 aggregate. Commercial general coverage shall be at least as broad as ISO Commercial General Liability form CG 0001

(current edition) on "an occurrence" basis covering comprehensive General Liability, with a self-insured retention or deductible of no more than $250,000. No endorsement shall be attached limiting the coverage.

4.2.2 Automobile Liability. Consultant shall maintain automobile liability insurance form CA 0001 (current edition) for the term of this Agreement covering any loss or liability, including the cost of defense of any action, arising from the operation, maintenance or use of any vehicle (symbol 1), whether or not owned by the Consultant, on or off Agency premises. The policy shall provide a minimum limit of $1,000,000 per each accident, with a self-insured retention or deductible of no more than $100,000. This insurance shall provide contractual liability covering all motor vehicles and mobile equipment to the extent coverage may be excluded from general liability insurance.

4.2.3 General Liability/Umbrella Insurance. The coverage amounts set forth above may be met by a combination of underlying and umbrella policies as long as in combination the limits equal or exceed those stated.

4.3 Professional Liability Insurance. Consultant shall maintain professional liability insurance appropriate to Consultant's profession performing work in connection with this Agreement in an amount not less than one million dollars ($1,000,000.00) and two million dollars ($2,000,000) aggregate covering the Consultant's errors and omissions. Such insurance shall be on a "claims-made" basis, subject to the following conditions: (1) the retroactive date of the policy shall be on or before the Effective Date of this Agreement; (2) the policy shall be maintained for at least five (5) years after completion of the Services and, if requested by Agency, evidence of coverage shall be provided during this period; and (3) if, within five (5) years of completion of the Services, coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a retroactive date prior to the Effective Date of this Agreement, Consultant shall purchase "extended reporting" coverage for a minimum of five (5) years after completion of the Services and, if requested by Agency, provide evidence of coverage during this period.

4.4 All Policies Requirements.

4.4.1 Verification of coverage. Prior to beginning any work under this Agreement, Consultant shall provide Agency with (1) a Certificate of Insurance that demonstrates compliance with all applicable insurance provisions contained herein and (2) policy endorsements to the policies referenced in Section 4.2, adding the Agency as an additional insured and declaring such insurance primary in regard to work performed pursuant to this Agreement.

4.4.2 Notice of Reduction in or Cancellation of Coverage. Consultant shall provide at least thirty (30) days prior written notice to Agency of any

reduction in scope or amount, cancellation, or modification adverse to Agency of the policies referenced in Section 4.

4.4.3 Reserved.

4.4.4 Additional Certificates and Endorsements. If Consultant provides services to Agency members, SCPPA and/or SCPPA members, Consultant shall provide certificates of insurance and policy endorsements, as referenced in Section 4.4.1, naming the specific Agency member, SCPPA or Agency member for which the Services are to be performed.

4.4.5 Waiver of Subrogation. Consultant agrees to waive subrogation which any insurer of Consultant may acquire from Consultant by virtue of the payment of any loss. Consultant agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation. In addition, the Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of Agency for all work performed by Consultant, its employees, agents and subcontractors.

4.5 Consultant's Obligation. Consultant shall be solely responsible for ensuring that all equipment, vehicles and other items utilized in the performance of Services are operated, provided or otherwise utilized in a manner that ensues they are and remain covered by the policies referenced in Section 4 during this Agreement. Consultant shall also ensure that all workers involved in the provision of Services are properly classified as employees, agents or independent contractors and are and remain covered by any and all workers' compensation insurance required by applicable law during this Agreement.

Section 5. INDEMNIFICATION AND CONSULTANT'S RESPONSIBILITIES.

5.1 Effect of Insurance. Agency's acceptance of insurance certificates and endorsements required under this Agreement does not relieve Consultant from liability under this indemnification and hold harmless clause. This indemnification and hold harmless clause shall apply to any damages or claims for damages whether or not such insurance policies shall have been determined to apply. By execution of this Agreement, Consultant acknowledges and agrees to the provisions of this Section and that it is a material element of consideration.

5.2 Scope. Consultant shall indemnify, defend with counsel reasonably acceptable to the Agency, and hold harmless the Agency and its officials, commissioners, officers, employees, and volunteers from and against any and all claims to the extent that the claims arise out of, pertain to or relate to the negligence, recklessness or willful misconduct of the Consultant in its performance of Services under this Agreement. Consultant shall bear all losses, costs, damages, expense and liability of every kind, nature and description to the extent that they arise out of, pertain to, or relate to such claims, whether directly or indirectly

("Liabilities"). Such obligations to defend, hold harmless and indemnify the Agency shall not apply to the extent that such Liabilities are caused by the negligence, active negligence, or willful misconduct of the Agency.

5.3 **Limitation of Liability**. Notwithstanding any other provision herein to the contrary:

5.3.1 In no event shall either Party be liable to the other for special, indirect, incidental, punitive or consequential damages of any nature (regardless of whether such damages are alleged to have risen from negligence; breach of warranty; breach of contract; or other act, error or omission; or from strict or absolute liability in tort; or from any other cause whatsoever; or any combination of the foregoing) including, but not limited to: damages arising from the use or loss of use of any facility; loss of anticipated profits or revenues; costs of replacement services, goods and utilities; damages arising from delay; claims of customers; or interest; and

5.3.2 Consultant's maximum cumulative liability as to property damage and bodily injury under any Purchase Order issued hereunder shall be limited to the greater of the compensation received by Consultant under such Purchase Order or ten million dollars ($10,000,000).

Section 6. STATUS OF CONSULTANT.

6.1 **Independent Contractor.** Consultant is an independent contractor and not an employee of Agency. Agency shall have the right to control Consultant only insofar as the results of Consultant's Services and assignment of personnel pursuant to Section 1; otherwise, Agency shall not have the right to control the means by which Consultant accomplishes Services rendered pursuant to this Agreement. Notwithstanding any other Agency, state, or federal policy, rule, regulation, law, or ordinance to the contrary, Consultant and any of its employees, agents, and subcontractors providing services under this Agreement shall not qualify for or become entitled to, and hereby agree to waive any and all claims to, any compensation, benefit, or any incident of employment by Agency, including but not limited to eligibility to enroll in the California Public Employees Retirement System (PERS) as an employee of Agency and entitlement to any contribution to be paid by Agency for employer contributions and/or employee contributions for PERS benefits.

Consultant shall indemnify, defend, and hold harmless Agency for the payment of any employee and/or employer contributions for PERS benefits on behalf of Consultant or its employees, agents, or subcontractors, as well as for the payment of any penalties and interest on such contributions, which would otherwise be the responsibility of Agency. Consultant and Agency acknowledge and agree that compensation paid by Agency to Consultant under this Agreement is based upon Consultant's estimated costs of providing the Services, including salaries and benefits of employees, agents and subcontractors of Consultant.

Consultant shall indemnify, defend, and hold harmless Agency from any lawsuit, administrative action, or other claim for penalties, losses, costs, damages, expense and liability of every kind, nature and description that arise out of, pertain to, or relate to such claims, whether directly or indirectly, due to Consultant's failure to secure workers' compensation insurance for its employees, agents, or subcontractors.

Consultant agrees that it is responsible for the provision of group healthcare benefits to its fulltime employees under 26 U.S.C. § 4980H of the Affordable Care Act. To the extent permitted by law, Consultant shall indemnify, defend and hold harmless Agency from any penalty issued to Agency under the Affordable Care Act resulting from the performance of the Services by any employee, agent, or subcontractor of Consultant.

6.2 **Consultant Not Agent.** Except as Agency may specify in writing, Consultant shall have no authority, express or implied, to act on behalf of Agency in any capacity whatsoever as an agent. Consultant shall have no authority, express or implied, pursuant to this Agreement to bind Agency to any obligation whatsoever.

6.3 **Assignment and Subcontracting.** This Agreement contemplates personal performance by Consultant and is based upon a determination of Consultant's unique professional competence, experience, and specialized professional knowledge. A substantial inducement to Agency for entering into this Agreement was and is the personal reputation and competence of Consultant. Consultant may not assign this Agreement or any interest therein without the prior written approval of the Agency. Consultant shall not subcontract any portion of the performance contemplated and provided for herein, other than to the subcontractors identified in Exhibit A, without prior written approval of the Agency. Where written approval is granted by the Agency, Consultant shall supervise all work subcontracted by Consultant in performing the services and shall be responsible for all work performed by a subcontractor as if Consultant itself had performed such work. The subcontracting of any work to subcontractors shall not relieve Consultant from any of its obligations under this Agreement with respect to the services and Consultant is obligated to ensure that any and all subcontractors performing any services shall be fully insured in all respects and to the same extent as set forth under Section 4, to Agency's satisfaction.

6.4 **Certification as to California Energy Commission.** If requested by the Agency, Consultant shall, at the same time it executes this Agreement, execute Exhibit C.

Section 7. LEGAL REQUIREMENTS.

7.1 **Governing Law.** The laws of the State of California shall govern this Agreement.

7.2 **Compliance with Applicable Laws.** Consultant and its subcontractors and agents, if any, shall comply with all laws applicable to the performance of the work hereunder.

7.3 **Licenses and Permits.** Consultant represents and warrants to Agency that Consultant and its employees, agents, and subcontractors (if any) have and will maintain at their sole expense during the term of this Agreement all licenses, permits, qualifications, and approvals of whatever nature that are legally required to practice their respective professions.

Section 8. TERMINATION AND MODIFICATION.

8.1 **Termination.** Agency may cancel this Agreement at any time and without cause upon ten (10) days prior written notice to Consultant.

In the event of termination, Consultant shall be entitled to compensation for Services satisfactorily completed as of the effective date of termination; Agency, however, may condition payment of such compensation upon Consultant delivering to Agency any or all records or documents, as referenced in Section 9.1 hereof.

8.2 **Amendments.** The Parties may amend this Agreement only by a writing signed by all the Parties.

8.3 **Survival.** All obligations arising prior to the termination of this Agreement and all provisions of this Agreement allocating liability between Agency and Consultant shall survive the termination of this Agreement.

8.4 **Options upon Breach by Consultant.** If Consultant materially breaches any of the terms of this Agreement, including but not limited to those set forth in Section 4, Agency's remedies shall include, but not be limited to, the following:

8.4.1 Immediately terminate the Agreement;

8.4.2 Retain the plans, specifications, drawings, reports, design documents, and any other work product prepared by Consultant pursuant to this Agreement;

8.4.3 Retain a different consultant to complete the Services not finished by Consultant; and/or

8.4.4 Charge Consultant the difference between the costs to complete the Services that are unfinished at the time of breach and the amount that Agency would have paid Consultant pursuant hereto if Consultant had completed the Services.

Section 9. KEEPING AND STATUS OF RECORDS.

9.1 Records Created as Part of Consultant's Performance. All reports, data, maps, models, charts, studies, surveys, photographs, memoranda, plans, studies, specifications, records, files, or any other documents or materials, in electronic or any other form, that Consultant prepares or obtains pursuant to this Agreement and that relate to the matters covered hereunder shall be the property of the Agency. Consultant hereby agrees to deliver those documents to the Agency upon termination of the Agreement. Agency and Consultant agree that, unless approved by Agency in writing, Consultant shall not release to any non-parties to this Agreement any data, plans, specifications, reports and other documents.

9.2 Consultant's Books and Records. Consultant shall maintain any and all records or other documents evidencing or relating to charges for Services or expenditures and disbursements charged to the Agency under this Agreement for a minimum of three (3) years, or for any longer period required by law, from the date of final payment to the Consultant to this Agreement.

9.3 Inspection and Audit of Records. Any records or documents that this Agreement requires Consultant to maintain shall be made available for inspection, audit, and/or copying at any time during regular business hours, upon oral or written request of the Agency. Under California Government Code Section 8546.7, if the amount of public funds expended under this Agreement exceeds ten thousand dollars ($10,000.00), the Agreement shall be subject to the examination and audit of the State Auditor, at the request of Agency or as part of any audit of the Agency, for a period of three (3) years after final payment under the Agreement.

9.4 Confidential Information and Disclosure.

9.4.1 Confidential Information. The term "Confidential Information", as used herein, shall mean any and all confidential, proprietary, or trade secret information, whether written, recorded, electronic, oral or otherwise, where the Confidential Information is made available in a tangible medium of expression and marked in a prominent location as confidential, proprietary and/or trade secret information. Confidential Information shall not include information that: (a) was already known to the Receiving Party or is otherwise a matter of public knowledge, (b) was disclosed to Receiving Party by a third party without violating any confidentiality agreement, (c) was independently developed by Receiving Party without reverse engineering, as evidenced by written records thereof, or (d) was not marked as confidential Information in accordance with this section.

9.4.2 Non-Disclosure of Confidential Information. During the term of this Agreement, either party may disclose ("The Disclosing Party") confidential Information to the other party ("the Receiving Party"). The Receiving

Party: (a) shall hold the Disclosing Party's Confidential Information in confident; and (b) shall take all reasonable steps to prevent any unauthorized possession, use, copying, transfer or disclosure of such Confidential Information.

9.4.3 **Permitted Disclosure.** Notwithstanding the foregoing, the following disclosures of Confidential Information are allowed. Receiving Party shall endeavor to provide prior written notice to Disclosing Party of any permitted disclosure made pursuant to Section 9.4.3.2 or 9.4.3.3. Disclosing Party may seek a protective order, including without limitation, a temporary restraining order to prevent or contest such permitted disclosure; provided, however, that Disclosing Party shall seek such remedies at its sole expense. Neither party shall have any liability for such permitted disclosures:

9.4.3.1 Disclosure to employees, agents, consultants, contractors, subcontractors or other representatives of Receiving Party that have a need to know in connection with this Agreement.

9.4.3.2 Disclosure in response to a valid order of a court, government or regulatory agency or as may otherwise be required by law; and

9.4.3.3 Disclosure by Agency in response to a request pursuant to the California Public Records Act.

9.4.4 **Handling of Confidential Information**. Upon conclusion or termination of the Agreement, Receiving Party shall return to Disclosing Party or destroy Confidential Information (including all copies thereof), if requested by Disclosing Party in writing. Notwithstanding the foregoing, the Receiving Party may retain copies of such Confidential Information, subject to the confidentiality provisions of this Agreement: (a) for archival purposes in its computer system; (b) in its legal department files; and (c) in files of Receiving Party's representatives where such copies are necessary to comply with applicable law. Party shall not disclose the Disclosing Party's Information to any person other than those of the Receiving Party's employees, agents, consultants, contractors and subcontractors who have a need to know in connection with this Agreement.

Section 10. MISCELLANEOUS PROVISIONS.

10.1 **Attorneys' Fees.** If a party to this Agreement brings any action, including an action for declaratory relief, to enforce or interpret the provision of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees in addition to any other relief to which that party may be entitled. The court may set such fees in the same action or in a separate action brought for that purpose.

10.2 **Venue.** In the event that either party brings any action against the other under this Agreement, the Parties agree that trial of such action shall be vested exclusively in the state courts of California in the County of Placer or in the United States District Court for the Eastern District of California.

10.3 **Severability.** If a court of competent jurisdiction finds or rules that any provision of this Agreement is invalid, void, or unenforceable, the provisions of this Agreement not so adjudged shall remain in full force and effect. The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision of this Agreement.

10.4 **No Implied Waiver of Breach.** The waiver of any breach of a specific provision of this Agreement does not constitute a waiver of any other breach of that term or any other term of this Agreement.

10.5 **Successors and Assigns.** The provisions of this Agreement shall inure to the benefit of and shall apply to and bind the successors and assigns of the Parties.

10.6 **Conflict of Interest.** Consultant may serve other clients, but none whose activities within the corporate limits of Agency or whose business, regardless of location, would place Consultant in a "conflict of interest," as that term is defined in the Political Reform Act, codified at California Government Code Section 81000 *et seq.*

Consultant shall not employ any Agency official in the work performed pursuant to this Agreement. No officer or employee of Agency shall have any financial interest in this Agreement that would violate California Government Code Sections 1090 *et seq.*

10.7 **Contract Administrator.** This Agreement shall be administered by Ken Speer, Assistant General Manager, or his/her designee, who shall act as the Agency's representative. All correspondence shall be directed to or through the representative.

10.8 **Notices.** Any written notice to Consultant shall be sent to:

WorleyParsons Group, Inc.
Attention: Marc Pelletier
2330 East Bidwell Street, Suite 150
Folsom, CA 95630

With a copy to:

David Mussa
Legal Department; Lobby Level G2A
2675 Morgantown Road
Reading, PA 19607

Any written notice to Agency shall be sent to:

Randy S. Howard
General Manager
Northern California Power Agency
651 Commerce Drive
Roseville, CA 95678

With a copy to:

Jane E. Luckhardt
General Counsel
Northern California Power Agency
651 Commerce Drive
Roseville, CA 95678

10.9 **Professional Seal.** Where applicable in the determination of the Agency, the first page of a technical report, first page of design specifications, and each page of construction drawings shall be stamped/sealed and signed by the licensed professional responsible for the report/design preparation.

10.10 **Integration; Incorporation.** This Agreement, including all the exhibits attached hereto, represents the entire and integrated agreement between Agency and Consultant and supersedes all prior negotiations, representations, or agreements, either written or oral. All exhibits attached hereto are incorporated by reference herein.

10.11 **Alternative Dispute Resolution**. If any dispute arises between the Parties that cannot be settled after engaging in good faith negotiations, Agency and Consultant agree to resolve the dispute in accordance with the following:

10.11.1 Each party shall designate a senior management or executive level representative to negotiate any dispute;

10.11.2 The representatives shall attempt, through good faith negotiations, to resolve the dispute by any means within their authority.

10.11.3 If the issue remains unresolved after fifteen (15) days of good faith negotiations, the Parties shall attempt to resolve the disagreement by negotiation between legal counsel. If the above process fails, the Parties shall resolve any remaining disputes through mediation to expedite the resolution of the dispute.

10.11.4 The mediation process shall provide for the selection within fifteen (15) days by both Parties of a disinterested third person as mediator, shall be commenced within thirty (30) days and shall be concluded within fifteen (15) days from the commencement of the mediation.

10.11.5 The Parties shall equally bear the costs of any third party in any alternative dispute resolution process.

10.11.6 The alternative dispute resolution process is a material condition to this Agreement and must be exhausted as an administrative prior to either Party initiating legal action. This alternative dispute resolution process is not intended to nor shall be construed to change the time periods for filing a claim or action specified by Government Code §§ 900 *et seq*.

10.12 Controlling Provisions. In the case of any conflict between the terms of this Agreement and the Exhibits hereto, a Purchase Order, or Consultant's Proposal (if any), the Agreement shall control. In the case of any conflict between the Exhibits hereto and a Purchase Order or the Consultant's Proposal, the Exhibits shall control. In the case of any conflict between the terms of a Purchase Order and the Consultant's Proposal, the Purchase Order shall control.

10.13 Counterparts. This Agreement may be executed in multiple counterparts, each of which shall be an original and all of which together shall constitute one agreement.

10.14 Construction of Agreement. Each party hereto has had an equivalent opportunity to participate in the drafting of the Agreement and/or to consult with legal counsel. Therefore, the usual construction of an agreement against the drafting party shall not apply hereto.

10.15 No Third Party Beneficiaries. This Agreement is made solely for the benefit of the parties hereto, with no intent to benefit any non-signator third parties. However, should Consultant provide services to an Agency member, SCPPA or SCPPA member (collectively for the purpose of this Section only "Member") pursuant to Section 1.4, the parties recognize that such Member may be a third party beneficiary solely as to the Purchase Order and Requested Services relating to such Member.

The Parties have executed this Agreement as of the date signed by the Agency.

NORTHERN CALIFORNIA POWER AGENCY	WORLEYPARSONS GROUP, INC.
Date 5/1/2019	Date April 17, 2019
Marty Hall for	
RANDY S. HOWARD,	**E.B. JENSEN,**
General Manager	Vice President, Power & New Energy

Attest:

Assistant Secretary of the Commission

Approved as to Form:

Jane E. Luckhardt, General Counsel

EXHIBIT A
SCOPE OF SERVICES

WorleyParsons Group Inc. ("Consultant") shall provide the following consulting services related to project support and plant operations to the Northern California Power Agency ("Agency"), its Members, SCPPA, and/or SCPPA Members:

Services to include, but not be limited to the following:

- Feasibility Studies
- Business Model Development
- Conceptual Design Cost
- Estimating Contract
- Planning
- Engineering Services (preliminary and detailed)
- Engineering Studies
- Execution Planning
- Operations and Maintenance Evaluation and Support
- Vendor Quality Assurance
- Construction Management
- Start-up and Commissioning service

EXHIBIT B
COMPENSATION SCHEDULE AND HOURLY FEES

Compensation for all tasks, including hourly fees and expenses, shall not exceed amount as set forth in Section 2 of the Agreement. The hourly rates and or compensation break down and an estimated amount of expenses is as follows:

2018-2019 Rate Schedule for Billing Classifications, Hourly Rates* and Expenses

Classification	POSITION TITLE	HOURLY RATES	
		Straight Time	Overtime
3A	Senior Project Manager / Engineering Manager	$190.29	$190.29
3B	Senior Supervising Engineer / Project Manager	$169.97	$169.97
4A	Supervising Engineer / Technical Consultant	$151.83	$151.83
4B	Principal Engineer / Project Engineer	$139.05	$139.05
5A	Sr. Engineer	$123.05	$123.05
5B	Engineer II	$113.12	$113.12
5C	Engineer I	$102.32	$102.32
4B	Principal Designer	$141.72	$172.86
5A	Sr. Designer	$118.98	$145.13
5D	Designer II	$107.10	$130.64
6A	Sr. CAD Technician	$92.69	$113.06
6B	CAD Technician	$82.58	$100.72
4B	Project Control	$102.32	$102.32
5A	Senior Project Control	$123.05	$123.05
5D	Admin Assistant/Billing	$86.09	$105.01
5C	Principal Document Controller	$86.09	$105.01
5A	Procurement	$123.05	$123.05

***Labor rates are valid through December 27, 2019.**

This is a summary rate sheet and is not indicative of all services available WorleyParsons. Additional rates may be provided on a Task Order basis Principal Project Manager, Principal Technical Consultant, Senior Technical and Construction Director. Depending on the specific skill and knowledge, positions are billed at individual hourly rates, to be negotiated per Task

Pricing for services to be performed at NCPA Member or SCPPA locations will be quoted at the time services are requested.

NOTE: As a public agency, NCPA shall not reimburse Consultant for travel, food and related costs in excess of those permitted by the Internal Revenue Service.

EXHIBIT C

CERTIFICATION

Affidavit of Compliance for Contractors

I, E.B. JENSEN

(Name of person signing affidavit)(Title)

do hereby certify that background investigations to ascertain the accuracy of the identity and employment history of all employees of

WORLEYPARSONS GROUP, INC.

(Company name)

for contract work at:

LODI ENERGY CENTER, 12745 N. THORNTON ROAD, LODI, CA 95242

(Project name and location)

have been conducted as required by the California Energy Commission Decision for the above-named project.

(Signature of officer or agent)

Dated this 17 day of APRIL, 20 17.

THIS AFFIDAVIT OF COMPLIANCE SHALL BE APPENDED TO THE PROJECT SECURITY PLAN AND SHALL BE RETAINED AT ALL TIMES AT THE PROJECT SITE FOR REVIEW BY THE CALIFORNIA ENERGY COMMISSION COMPLIANCE PROJECT MANAGER.

FIRST AMENDMENT TO MULTI-TASK PROFESSIONAL SERVICES AGREEMENT BETWEEN THE NORTHERN CALIFORNIA POWER AGENCY AND WORLEYPARSONS GROUP, INC. CHANGING NAME TO WORLEY GROUP, INC.

This First Amendment ("Amendment") to the Multi-Task Professional Services Agreement is entered into by and between the Northern California Power Agency ("Agency") and Worley Group, Inc. ("Consultant") (collectively referred to as "the Parties") as of _____, 2019 ("Amendment Effective Date").

WHEREAS, the Parties entered into a Multi-Task Professional Services Agreement dated effective May 1, 2019, (the "Agreement") for Consultant to provide consulting services related to project support and plant operations for the Agency, Agency Members, the Southern California Public Power Authority (SCPPA), or SCPPA Members; and

WHERAS, effective May 8, 2019, WorleyParsons Group, Inc. changed its name to Worley Group, Inc. and the Agency desires to amend the Agreement to reflect the change of Consultant's name to Worley Group, Inc.

WHEREAS, the Parties now desire to amend Section 10.8 entitled "Notices" of the Agreement to reflect change of the Consultant's name; and

WHEREAS, the Parties have agreed to modify the Agreement as set forth above; and

WHEREAS, in accordance with Section 8.2 all changes to the Agreement must be in writing and signed by all the Parties; and

WHEREAS, WorleyParsons Group, Inc. consents to the amendment;

NOW, THEREFORE, the Parties agree as follows:

1. **As of the Amendment Effective Date,** the preamble to the Agreement is replaced in its entirety as follows:

   "This Professional Services Agreement ("Agreement") is made by and between the Northern California Power Agency, a joint powers agency with its main office located at 651 Commerce Drive, Roseville, CA 95678-6420 ("Agency") and Worley Group, Inc., a Delaware Corporation with its main office located at 2330 East Bidwell Street, Suite 150, Folsom, CA 95630 ("Consultant") (together sometimes referred to as "Parties") as of May 01, 2019 ("Effective Date") in Roseville, California."

2. **As of the Amendment Effective Date, Section 10.8 Notices** is replaced in its entirety as follows:

   10.8 Notices. Any written notice to Consultant shall be sent to:

Worley Group, Inc.
Attention: Marc Pelletier
2330 East Bidwell Street, Suite 150
Folsom, CA 95630

With a copy to:
David Mussa
Legal Department; Lobby Level G2A
2675 Morgantown Road
Reading, PA 19607

Any written notice to Agency shall be sent to:

Randy S. Howard
General Manager
Northern California Power Agency
651 Commerce Drive
Roseville, CA 95678

With a copy to:

Jane E. Luckhardt
General Counsel
Northern California Power Agency
651 Commerce Drive
Roseville, CA 95678

3. Agency hereby approves the name change of the Agreement from WorleyParsons Group, Inc. to Worley Group, Inc., Consultant.

4. **Exhibit A – SCOPE OF SERVICES** is amended and restated to read in full as set forth in the attached Exhibit A.

5. This Amendment in no way alters the terms and conditions of the Agreement except as specifically set forth herein.

Date:_____	Date:_____
NORTHERN CALIFORNIA POWER AGENCY	WORLEY GROUP, INC.
_____	_____
RANDY S. HOWARD, General Manager	**E.B JENSEN,** **Vice President, Power & New Energy**

Attest:

_____
Assistant Secretary of the Commission

Approved as to Form:

_____
Jane E. Luckhardt, General Counsel

EXHIBIT A
SCOPE OF SERVICES

Worley Group, Inc. ("Consultant") shall provide the following consulting services related to project support and plant operations to the Northern California Power Agency ("Agency"), its Members, SCPPA, and/or SCPPA Members:

Services to include, but not be limited to the following:

- Feasibility Studies
- Business Model Development
- Conceptual Design Cost
- Estimating Contract
- Planning
- Engineering Services (preliminary and detailed)
- Engineering Studies
- Execution Planning
- Operations and Maintenance Evaluation and Support
- Vendor Quality Assurance
- Construction Management
- Start-up and Commissioning service

Commission Staff Report – *DRAFT*

Date: September 4, 2019

COMMISSION MEETING DATE: September 27, 2019

SUBJECT: Ardent Companies, LLC – First Amendment to Five Year Multi-Task General Services Agreement for specialty electrical and instrumentation (E&I) services; Applicable to the following projects: All NCPA Facilities (with exception of Lodi Energy Center), NCPA Members, SCPPA, and SCPPA Members.

AGENDA CATEGORY: Consent

FROM:	Joel Ledesma	**METHOD OF SELECTION:**
	Assistant General Manager	*N/A*
Division:	Generation Services	*If other, please describe:*
Department:	Geothermal	

IMPACTED MEMBERS:

All Members	☒	**City of Lodi**	☐	**City of Shasta Lake**	☐
Alameda Municipal Power	☐	**City of Lompoc**	☐	**City of Ukiah**	☐
San Francisco Bay Area Rapid Transit	☐	**City of Palo Alto**	☐	**Plumas-Sierra REC**	☐
City of Biggs	☐	**City of Redding**	☐	**Port of Oakland**	☐
City of Gridley	☐	**City of Roseville**	☐	**Truckee Donner PUD**	☐
City of Healdsburg	☐	**City of Santa Clara**	☐	**Other**	☐

If other, please specify _____

_____

RECOMMENDATION:

Approval of Resolution XX-XX authorizing the General Manager or his designee to enter into a First Amendment to the Multi-Task General Services Agreement with Ardent Companies, LLC, with any non-substantial changes recommended and approved by the NPCA General Counsel, increasing the not to exceed amount from $200,000 to $1,200,000, for continued use at any facilities owned and/or operated by NCPA, its Members, SCPPA, or SCPPA Members, with the exception of NCPA's Lodi Energy Center.

It is recommend that this item be placed on the Commission Consent Calendar.

BACKGROUND:

Various specialty electrical and instrumentation (E&I) services are required from time to time related to project support at facilities owned and/or operated by NCPA, its Members, by the Southern California Public Power Authority (SCPPA), and by SCPPA Members.

NCPA entered into a five year Multi-Task General Services Agreement with Ardent Companies, LLC effective June 17, 2019 for an amount not to exceed $200,000. NCPA has found this vendor to be reliable with competitive pricing, and continues to have a good working relationship with them. NCPA anticipates utilizing this vendor for upcoming wooden pole maintenance on the 21KV Line at its Geothermal plant. In anticipation of this and other potential upcoming work, the agency is requesting an increase in the not to exceed amount form $200,000 to $1,200,000. This amendment is still available for use at any facility owned and/or operated by NCPA at any facilities owned and/or operated by the NCPA, its Members, Southern California Public Power Authority (SCPPA), or SCPPA Members, with the exception of NCPA's Lodi Energy Center.

FISCAL IMPACT:

Upon execution, the total cost of the agreement is not to exceed $1,200,000 over five years, to be used out of the NCPA approved annual operating budgets as services are rendered. Purchase orders referencing the terms and conditions of the agreement will be issued following NCPA procurement policies and procedures.

SELECTION PROCESS:

This enabling agreement does not commit NCPA to any expenditure of funds. At the time services are required, NCPA will bid the specific scope of work consistent with NCPA procurement policies and procedures. NCPA is currently soliciting vendors for similar services and seeks bids from as many qualified providers as possible. Bids are awarded to the lowest cost provider. NCPA will issue purchase orders based on cost and availability of the services needed at the time the service is required.

ENVIRONMENTAL ANALYSIS:

This activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a "project" for purposes of Section 21065 the California Environmental Quality Act. No environmental review is necessary.

COMMITTEE REVIEW:

Pending committee review.

Respectfully submitted,

RANDY S. HOWARD
General Manager

Attachments (3):

- Resolution
- Multi-Task General Services Agreement with Ardent Companies, LLC
- First Amendment to the Multi-Task General Services Agreement with Ardent Companies, LLC

RESOLUTION 19-XX

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING A FIRST AMENDMENT TO MULTI-TASK GENERAL SERVICES AGREEMENT WITH ARDENT COMPANIES, LLC

(reference Staff Report #xxx:19)

WHEREAS, specialty electrical and instrumentation (E&I) services are required from time to time at facilities owned and/or operated by NCPA, its Members, Southern California Public Power Authority (SCPPA), or SCPPA Members, with the exception of NCPA's Lodi Energy Center; and

WHEREAS, Ardent Companies LLC is a provider of these services; and

WHEREAS, NCPA entered into a Multi-Task General Services Agreement with Ardent Companies, LLC effective June 17, 2019; and

WHEREAS, NCPA recently used this vendor to complete the replacement of six wooden poles on a 21KV line and anticipates utilizing this vendor for the replacement of additional poles, and wants to ensure there are sufficient funds available on this agreement; and

WHEREAS, NCPA seeks to increase the not to exceed amount of the current agreement from $200,000 to $1,200,000; and

WHEREAS, this activity would not result in a direct or reasonably foreseeable indirect change in the physical environment and is therefore not a "project" for purposes of Section 21065 the California Environmental Quality Act. No environmental review is necessary; and

NOW, THEREFORE BE IT RESOLVED, that the Commission of the Northern California Power Agency authorizes the General Manager or his designee to enter into a First Amendment to the Multi-Task General Services Agreement with Ardent Companies, LLC with any non-substantial changes as approved by the NCPA General Counsel, increasing the not to exceed amount from $200,000 to $1,200,000 for specialty electrical and instrumentation (E&I) services for use at all facilities owned and/or operated by NCPA (with exception of the Lodi Energy Center), its Members, Southern California Public Power Authority (SCPPA), or SCPPA Members.

PASSED, ADOPTED and APPROVED this ____ day of _____, 2019 by the following vote on roll call:

	Vote	Abstained	Absent
Alameda			
San Francisco BART			
Biggs			
Gridley			
Healdsburg			
Lodi			
Lompoc			
Palo Alto			
Port of Oakland			
Redding			
Roseville			
Santa Clara			
Shasta Lake			
Truckee Donner			
Ukiah			
Plumas-Sierra			

_____ ATTEST: _____

ROGER FRITH CARY A. PADGETT

CHAIR ASSISTANT SECRETARY

MULTI-TASK
GENERAL SERVICES AGREEMENT BETWEEN
THE NORTHERN CALIFORNIA POWER AGENCY AND
ARDENT COMPANIES, LLC

This Multi-Task General Services Agreement ("Agreement') is made by and between the Northern California Power Agency, a joint powers agency with its main office located at 651 Commerce Drive, Roseville, CA 95678-6420 ("Agency") and Ardent Companies, Inc., a corporation with its office located at 170 New Camellia Blvd., Suite 200 Covington, LA 70433 ("Contractor") (together sometimes referred to as the "Parties") as of 6/17, 2019 ("Effective Date") in Roseville, California.

Section 1. SCOPE OF WORK. Subject to the terms and conditions set forth in this Agreement, Contractor is willing to provide to Agency the range of services and/or goods described in the Scope of Work attached hereto as Exhibit A and incorporated herein ("Work").

1.1 Term of Agreement. The term of this Agreement shall begin on the Effective Date and shall end when Contractor completes the Work, or no later than five (5) years from the date this Agreement was signed by Agency, whichever is shorter.

1.2 Standard of Performance. Contractor shall perform the Work in the manner and according to the standards observed by a competent practitioner of the profession in which Contractor is engaged and for which Contractor is providing the Work. Contractor represents that it is licensed, qualified and experienced to provide the Work set forth herein.

1.3 Assignment of Personnel. Contractor shall assign only competent personnel to perform the Work. In the event that Agency, in its sole discretion, at any time during the term of this Agreement, requests the reassignment of any such personnel, Contractor shall, immediately upon receiving written notice from Agency of such request, reassign such personnel.

1.4 Work Provided. Work provided under this Agreement by Contractor may include Work directly to the Agency or, as requested by the Agency and consistent with the terms of this Agreement, to Agency members, Southern California Public Power Authority ("SCPPA") or SCPPA members.

1.5 Request for Work to be Performed. At such time that Agency determines to have Contractor perform Work under this Agreement, Agency shall issue a Purchase Order. The Purchase Order shall identify the specific Work to be performed ("Requested Work"), may include all related expenditures authorized by that Purchase Order, and shall include a time by which the Requested Work shall be completed. Contractor shall have fourteen calendar days from the date of the Agency's issuance of the Purchase Order in which to respond in writing that Contractor chooses not to perform the Requested Work. If Contractor agrees to perform the Requested Work, begins to perform the Requested Work, or does not respond within the fourteen day period specified, then Contractor will

have agreed to perform the Requested Work on the terms set forth in the Purchase Order, this Agreement and its Exhibits.

Section 2. COMPENSATION. Agency hereby agrees to pay Contractor an amount **NOT TO EXCEED** TWO HUNDRED THOUSAND dollars ($200,000) for the Work, which shall include all fees, costs, expenses and other reimbursables, as set forth in Contractor's fee schedule, attached hereto and incorporated herein as Exhibit B. This dollar amount is not a guarantee that Agency will pay that full amount to the Contractor, but is merely a limit of potential Agency expenditures under this Agreement.

2.1 Invoices. Contractor shall submit invoices, not more often than once a month during the term of this Agreement, based on the cost for services performed and reimbursable costs incurred prior to the invoice date. Invoices shall contain the following information:

- The beginning and ending dates of the billing period;
- Work performed;
- The Purchase Order number authorizing the Requested Work;
- At Agency's option, for each work item in each task, a copy of the applicable time entries or time sheets shall be submitted showing the name of the person doing the work, the hours spent by each person, a brief description of the work, and each reimbursable expense, with supporting documentation, to Agency's reasonable satisfaction;
- At Agency's option, the total number of hours of work performed under the Agreement by Contractor and each employee, agent, and subcontractor of Contractor performing work hereunder.

Invoices shall be sent to:

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678
Attn: Accounts Payable
AcctsPayable@ncpa.com

2.2 Monthly Payment. Agency shall make monthly payments, based on invoices received, for Work satisfactorily performed, and for authorized reimbursable costs incurred. Agency shall have thirty (30) days from the receipt of an invoice that complies with all of the requirements above to pay Contractor.

2.3 Payment of Taxes. Contractor is solely responsible for the payment of all federal, state and local taxes, including employment taxes, incurred under this Agreement.

2.4 Authorization to Perform Work. The Contractor is not authorized to perform any Work or incur any costs whatsoever under the terms of this Agreement until receipt of a Purchase Order from the Contract Administrator.

2.5 **Timing for Submittal of Final Invoice.** Contractor shall have ninety (90) days after completion of the Requested Work to submit its final invoice for the Requested Work. In the event Contractor fails to submit an invoice to Agency for any amounts due within the ninety (90) day period, Contractor is deemed to have waived its right to collect its final payment for the Requested Work from Agency.

Section 3. FACILITIES AND EQUIPMENT. Except as set forth herein, Contractor shall, provide all facilities and equipment that may be necessary to perform the Work, pricing for equipment is set forth in Contractor's fee schedule.

Section 4. INSURANCE REQUIREMENTS. Before beginning any Work under this Agreement, Contractor, at its own cost and expense, shall procure the types and amounts of insurance listed below and shall maintain the types and amounts of insurance listed below for the period covered by this Agreement.

4.1 **Workers' Compensation.** If Contractor employs any person, Contractor shall maintain Statutory Workers' Compensation Insurance and Employer's Liability Insurance for any and all persons employed directly or indirectly by Contractor with limits of not less than one million dollars ($1,000,000.00) per accident.

4.2 **Commercial General and Automobile Liability Insurance.**

4.2.1 **Commercial General Insurance.** Contractor shall maintain commercial general liability insurance for the term of this Agreement, including products liability, covering any loss or liability, including the cost of defense of any action, for bodily injury, death, personal injury and broad form property damage which may arise out of the operations of Contractor. The policy shall provide a minimum limit of $1,000,000 per occurrence/$2,000,000 aggregate. Commercial general coverage shall be at least as broad as ISO Commercial General Liability form CG 0001 (current edition) on "an occurrence" basis covering comprehensive General Liability, with a self-insured retention or deductible of no more than $100,000. No endorsement shall be attached limiting the coverage.

4.2.2 **Automobile Liability.** Contractor shall maintain automobile liability insurance form CA 0001 (current edition) for the term of this Agreement covering any loss or liability, including the cost of defense of any action, arising from the operation, maintenance or use of any vehicle (symbol 1), whether or not owned by the Contractor, on or off Agency premises. The policy shall provide a minimum limit of $1,000,000 per each accident, with a self-insured retention or deductible of no more than $100,000. This insurance shall provide contractual liability covering all motor vehicles and mobile equipment to the extent coverage may be excluded from general liability insurance.

4.2.3 **General Liability/Umbrella Insurance.** The coverage amounts set forth above may be met by a combination of underlying and umbrella policies as long as in combination the limits equal or exceed those stated.

4.3 Professional Liability Insurance. Intentionally Omitted.

4.4 Pollution Insurance. Intentionally Omitted

4.5 All Policies Requirements.

4.5.1 Verification of coverage. Prior to beginning any work under this Agreement, Contractor shall provide Agency with (1) a Certificate of Insurance that demonstrates compliance with all applicable insurance provisions contained herein and (2) policy endorsements to the policies referenced in Section 4.2 and in Section 4.4, if applicable, adding the Agency as an additional insured and declaring such insurance primary in regard to work performed pursuant to this Agreement.

4.5.2 Notice of Reduction in or Cancellation of Coverage. Contractor shall provide at least thirty (30) days prior written notice to Agency of any reduction in scope or amount, cancellation, or modification adverse to Agency of the policies referenced in Section 4.

4.5.3 Higher Limits. If Contractor maintains higher limits than the minimums specified herein, the Agency shall be entitled to coverage for the higher limits maintained by the Contractor.

4.5.4 Additional Certificates and Endorsements. If Contractor performs Work for Agency members, SCPPA and/or SCPPA members pursuant to this Agreement, Contractor shall provide the certificates of insurance and policy endorsements, as referenced in Section 4.5.1, naming the specific Agency member, SCPPA and/or SCPPA member for which the Work is to be performed.

4.5.5 Waiver of Subrogation. Contractor agrees to waive subrogation which any insurer of Contractor may acquire from Contractor by virtue of the payment of any loss. Contractor agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation. In addition, the Workers' Compensation policy shall be endorsed with a waiver of subrogation in favor of Agency for all work performed by Contractor, its employees, agents and subcontractors.

4.6 Contractor's Obligation. Contractor shall be solely responsible for ensuring that all equipment, vehicles and other items utilized in the performance of Work are operated, provided or otherwise utilized in a manner that ensures they are and remain covered by the policies referenced in Section 4 during this Agreement. Contractor shall also ensure that all workers involved in the provision of Work are properly classified as employees, agents or independent contractors and are and remain covered by any and all workers' compensation insurance required by applicable law during this Agreement.

Section 5. INDEMNIFICATION AND CONTRACTOR'S RESPONSIBILITIES.

5.1 **Effect of Insurance.** Agency's acceptance of insurance certificates and endorsements required under this Agreement does not relieve Contractor from liability under this indemnification and hold harmless clause. This indemnification and hold harmless clause shall apply to any damages or claims for damages whether or not such insurance policies shall have been determined to apply. By execution of this Agreement, Contractor acknowledges and agrees to the provisions of this section and that it is a material element of consideration.

5.2 **Scope.** Contractor shall indemnify, defend with counsel reasonably acceptable to the Agency, and hold harmless the Agency, and its officials, commissioners, officers, employees, agents and volunteers from and against all losses, liabilities, claims, demands, suits, actions, damages, expenses, penalties, fines, costs (including without limitation costs and fees of litigation), judgments and causes of action of every nature arising out of or in connection with any acts or omissions by Contractor, its officers, officials, agents, and employees, except as caused by the sole or gross negligence of Agency. Notwithstanding, should this Agreement be construed as a construction agreement under Civil Code section 2783, then the exception referenced above shall also be for the active negligence of Agency.

Section 6. STATUS OF CONTRACTOR.

6.1 **Independent Contractor.** Contractor is an independent contractor and not an employee of Agency. Agency shall have the right to control Contractor only insofar as the results of Contractor's Work and assignment of personnel pursuant to Section 1; otherwise, Agency shall not have the right to control the means by which Contractor accomplishes Work rendered pursuant to this Agreement. Notwithstanding any other Agency, state, or federal policy, rule, regulation, law, or ordinance to the contrary, Contractor and any of its employees, agents, and subcontractors providing services under this Agreement shall not qualify for or become entitled to, and hereby agree to waive any and all claims to, any compensation, benefit, or any incident of employment by Agency, including but not limited to eligibility to enroll in the California Public Employees Retirement System (PERS) as an employee of Agency and entitlement to any contribution to be paid by Agency for employer contributions and/or employee contributions for PERS benefits.

Contractor shall indemnify, defend, and hold harmless Agency for the payment of any employee and/or employer contributions for PERS benefits on behalf of Contractor or its employees, agents, or subcontractors, as well as for the payment of any penalties and interest on such contributions, which would otherwise be the responsibility of Agency. Contractor and Agency acknowledge and agree that compensation paid by Agency to Contractor under this Agreement is based upon Contractor's estimated costs of providing the Work, including salaries and benefits of employees, agents and subcontractors of Contractor.

Contractor shall indemnify, defend, and hold harmless Agency from any lawsuit, administrative action, or other claim for penalties, losses, costs, damages,

expense and liability of every kind, nature and description that arise out of, pertain to, or relate to such claims, whether directly or indirectly, due to Contractor's failure to secure workers' compensation insurance for its employees, agents, or subcontractors.

Contractor agrees that it is responsible for the provision of group healthcare benefits to its fulltime employees under 26 U.S.C. § 4980H of the Affordable Care Act. To the extent permitted by law, Contractor shall indemnify, defend and hold harmless Agency from any penalty issued to Agency under the Affordable Care Act resulting from the performance of the Services by any employee, agent, or subcontractor of Contractor.

6.2 **Contractor Not Agent.** Except as Agency may specify in writing, Contractor shall have no authority, express or implied, to act on behalf of Agency in any capacity whatsoever as an agent. Contractor shall have no authority, express or implied, pursuant to this Agreement to bind Agency to any obligation whatsoever.

6.3 **Assignment and Subcontracting.** This Agreement contemplates personal performance by Contractor and is based upon a determination of Contractor's unique professional competence, experience, and specialized professional knowledge. A substantial inducement to Agency for entering into this Agreement was and is the personal reputation and competence of Contractor. Contractor may not assign this Agreement or any interest therein without the prior written approval of the Agency. Contractor shall not subcontract any portion of the performance contemplated and provided for herein, other than to the subcontractors identified in Exhibit A, without prior written approval of the Agency. Where written approval is granted by the Agency, Contractor shall supervise all work subcontracted by Contractor in performing the Work and shall be responsible for all work performed by a subcontractor as if Contractor itself had performed such work. The subcontracting of any work to subcontractors shall not relieve Contractor from any of its obligations under this Agreement with respect to the Work and Contractor is obligated to ensure that any and all subcontractors performing any Work shall be fully insured in all respects and to the same extent as set forth under Section 4, to Agency's satisfaction.

6.4 **Certification as to California Energy Commission.** Intentionally Omitted

6.5 **Certification as to California Energy Commission Regarding Hazardous Materials Transport Vendors.** Intentionally Omitted

6.6 **Maintenance Labor Agreement.** Intentionally Omitted

Section 7. LEGAL REQUIREMENTS.

7.1 **Governing Law.** The laws of the State of California shall govern this Agreement.

7.2 **Compliance with Applicable Laws.** Contractor and its subcontractors and agents, if any, shall comply with all laws applicable to the performance of the work hereunder.

7.3 **Licenses and Permits.** Contractor represents and warrants to Agency that Contractor and its employees, agents, and subcontractors (if any) have and will maintain at their sole expense during the term of this Agreement all licenses, permits, qualifications, and approvals of whatever nature that are legally required to practice their respective professions.

7.4 **Monitoring by DIR.** The Work is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

7.5 **Registration with DIR.** During the term of this Agreement, Contractor warrants that it is registered with the Department of Industrial Relations and qualified to perform Work consistent with Labor Code section 1725.5.

7.6 **Prevailing Wage Rates.** In accordance with California Labor Code Section 1771, not less than the general prevailing rate of per diem wages for work of a similar character in the locality in which the Work is to be performed, and not less than the general prevailing rate of per diem wages for holiday and overtime work as provided in the California Labor Code must be paid to all workers engaged in performing the Work. In accordance with California Labor Code Section 1770 and following, the Director of Industrial Relations has determined the general prevailing wage per diem rates for the locality in which the Work is to be performed; the Agency has obtained the general prevailing rate of per diem wages and the general rate for holiday and overtime work in the locality in which the Work is to be performed for each craft, classification or type of worker needed to perform the project; and copies of the prevailing rate of per diem wages are on file at the Agency and will be made available on request. Throughout the performance of the Work, Contractor must comply with all applicable laws and regulations that apply to wages earned in performance of the Work. Contractor assumes all responsibility for such payments and shall defend, indemnify and hold the Agency harmless from any and all claims made by the State of California, the Department of Industrial Relations, any subcontractor, any worker or any other third party with regard thereto.

Additionally, in accordance with the California Administrative Code, Title 8, Group 3, Article 2, Section 16000, Publication of Prevailing Wage Rates by Awarding Bodies, copies of the applicable determination of the Director can be found on the web at: http://www.dir.ca.gov/DLSR/PWD/ and may be reviewed at any time.

Contractor shall be required to submit to the Agency during the contract period, copies of Public Works payroll reporting information per California Department of Industrial Relations, Form A- 1-131 (New 2-80) concerning work performed under this Agreement.

Contractor shall comply with applicable law, including Labor Code Sections 1774 and 1775. In accordance with Section 1775, Contractor shall forfeit as a penalty to Agency $50.00 for each calendar day or portion thereof, for each worker paid less than the prevailing rates as determined by the Director of Industrial Relations for such work or craft in which such worker is employed for any Work done under the Agreement by Contractor or by any subcontractor under Contractor in violation of the provisions of the Labor Code and in particular, Labor Code Sections 1770 *et seq.* In addition to the penalty and pursuant to Section 1775, the difference between such prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing wage rate shall be paid to each worker by the Contractor.

Section 8. TERMINATION AND MODIFICATION.

8.1 **Termination.** Agency may cancel this Agreement at any time and without cause upon ten (10) days prior written notice to Contractor.

In the event of termination, Contractor shall be entitled to compensation for Work satisfactorily completed as of the effective date of termination; Agency, however, may condition payment of such compensation upon Contractor delivering to Agency any or all records or documents (as referenced in Section 9.1 hereof).

8.2 **Amendments.** The Parties may amend this Agreement only by a writing signed by both of the Parties.

8.3 **Survival.** All obligations arising prior to the termination of this Agreement and all provisions of this Agreement allocating liability between Agency and Contractor shall survive the termination of this Agreement.

8.4 **Options upon Breach by Contractor.** If Contractor materially breaches any of the terms of this Agreement, including but not limited to those set forth in Section 4, Agency's remedies shall include, but not be limited to, the following:

8.4.1 Immediately terminate the Agreement;

8.4.2 Retain the plans, specifications, drawings, reports, design documents, and any other work product prepared by Contractor pursuant to this Agreement;

8.4.3 Retain a different Contractor to complete the Work not finished by Contractor; and/or

Section 9. KEEPING AND STATUS OF RECORDS.

9.1 **Records Created as Part of Contractor's Performance.** All reports, data, maps, models, charts, studies, surveys, photographs, memoranda, plans, studies, specifications, records, files, or any other documents or materials, in

electronic or any other form, that Contractor prepares or obtains pursuant to this Agreement and that relate to the matters covered hereunder shall be the property of the Agency. Contractor hereby agrees to deliver those documents to the Agency upon termination of the Agreement. Agency and Contractor agree that, unless approved by Agency in writing, Contractor shall not release to any non-parties to this Agreement any data, plans, specifications, reports and other documents.

9.2 **Contractor's Books and Records.** Contractor shall maintain any and all records or other documents evidencing or relating to charges for Work or expenditures and disbursements charged to the Agency under this Agreement for a minimum of three (3) years, or for any longer period required by law, from the date of final payment to the Contractor under this Agreement.

9.3 **Inspection and Audit of Records.** Any records or documents that this Agreement requires Contractor to maintain shall be made available for inspection, audit, and/or copying at any time during regular business hours, upon oral or written request of the Agency. Under California Government Code Section 8546.7, if the amount of public funds expended under this Agreement exceeds ten thousand dollars ($10,000.00), the Agreement shall be subject to the examination and audit of the State Auditor, at the request of Agency or as part of any audit of the Agency, for a period of three (3) years after final payment under this Agreement.

9.4 **Confidential Information and Disclosure.**

9.4.1 **Confidential Information.** The term "Confidential Information", as used herein, shall mean any and all confidential, proprietary, or trade secret information, whether written, recorded, electronic, oral or otherwise, where the Confidential Information is made available in a tangible medium of expression and marked in a prominent location as confidential, proprietary and/or trade secret information. Confidential Information shall not include information that: (a) was already known to the Receiving Party or is otherwise a matter of public knowledge, (b) was disclosed to Receiving Party by a third party without violating any confidentiality agreement, (c) was independently developed by Receiving Party without reverse engineering, as evidenced by written records thereof, or (d) was not marked as Confidential Information in accordance with this section.

9.4.2 **Non-Disclosure of Confidential Information**. During the term of this Agreement, either party may disclose (the "Disclosing Party") Confidential Information to the other party (the "Receiving Party"). The Receiving Party: (a) shall hold the Disclosing Party's Confidential Information in confidence; and (b) shall take all reasonable steps to prevent any unauthorized possession, use, copying, transfer or disclosure of such Confidential Information.

9.4.3 Permitted Disclosure. Notwithstanding the foregoing, the following disclosures of Confidential Information are allowed. Receiving Party shall endeavor to provide prior written notice to Disclosing Party of any permitted disclosure made pursuant to Section 9.4.3.2 or 9.4.3.3. Disclosing Party may seek a protective order, including without limitation, a temporary restraining order to prevent or contest such permitted disclosure; provided, however, that Disclosing Party shall seek such remedies at its sole expense. Neither party shall have any liability for such permitted disclosures:

9.4.3.1 Disclosure to employees, agents, contractors, subcontractors or other representatives of Receiving Party that have a need to know in connection with this Agreement.

9.4.3.2 Disclosure in response to a valid order of a court, government or regulatory agency or as may otherwise be required by law; and

9.4.3.3 Disclosure by Agency in response to a request pursuant to the California Public Records Act.

9.4.4 Handling of Confidential Information. Upon conclusion or termination of the Agreement, Receiving Party shall return to Disclosing Party or destroy Confidential Information (including all copies thereof), if requested by Disclosing Party in writing. Notwithstanding the foregoing, the Receiving Party may retain copies of such Confidential Information, subject to the confidentiality provisions of this Agreement: (a) for archival purposes in its computer system; (b) in its legal department files; and (c) in files of Receiving Party's representatives where such copies are necessary to comply with applicable law. Party shall not disclose the Disclosing Party's Information to any person other than those of the Receiving Party's employees, agents, consultants, contractors and subcontractors who have a need to know in connection with this Agreement.

Section 10. PROJECT SITE.

10.1 Operations at the Project Site. Each Project site may include the power plant areas, all buildings, offices, and other locations where Work is to be performed, including any access roads. Contractor shall perform the Work in such a manner as to cause a minimum of interference with the operations of the Agency; if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4; and other contractors at the Project site and to protect all persons and property thereon from damage or injury. Upon completion of the Work at a Project site, Contractor shall leave such Project site clean and free of all tools, equipment, waste materials and rubbish, stemming from or relating to Contractor's Work.

10.2 **Contractor's Equipment, Tools, Supplies and Materials.** Contractor shall be solely responsible for the transportation, loading and unloading, and storage of any equipment, tools, supplies or materials required for performing the Work, whether owned, leased or rented. Neither Agency nor, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4, will be responsible for any such equipment, supplies or materials which may be lost, stolen or damaged or for any additional rental charges for such. Equipment, tools, supplies and materials left or stored at a Project site, with or without permission, is at Contractor's sole risk. Anything left on the Project site an unreasonable length of time after the Work is completed shall be presumed to have been abandoned by the Contractor. Any transportation furnished by Agency or, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4, shall be solely as an accommodation and neither Agency nor, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4, shall have liability therefor. Contractor shall assume the risk and is solely responsible for its owned, non-owned and hired automobiles, trucks or other motorized vehicles as well as any equipment, tools, supplies, materials or other property which is utilized by Contractor on the Project site. All materials and supplies used by Contractor in the Work shall be new and in good condition.

10.3 **Use of Agency Equipment.** Contractor shall assume the risk and is solely responsible for its use of any equipment owned and property provided by Agency and, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4, for the performance of Work.

Section 11. WARRANTY.

11.1 **Nature of Work.** In addition to any and all warranties provided or implied by law or public policy, Contractor warrants that all Work shall be free from defects in design and workmanship, and that Contractor shall perform all Work in accordance with applicable federal, state, and local laws, rules and regulations including engineering, construction and other codes and standards and prudent electrical utility standards, and in accordance with the terms of this Agreement.

11.2 **Deficiencies in Work.** In addition to all other rights and remedies which Agency may have, Agency shall have the right to require, and Contractor shall be obligated at its own expense to perform, all further Work which may be required to correct any deficiencies which result from Contractor's failure to perform any Work in accordance with the standards required by this Agreement. If during the term of this Agreement or the one (1) year period following completion of the Work, any equipment, supplies or other materials or Work used or provided by Contractor under this Agreement fails due to defects in material and/or workmanship or other breach of this Agreement, Contractor shall, upon any reasonable written notice from Agency, replace or repair the same to Agency's satisfaction.

11.3 **Assignment of Warranties.** Contractor hereby assigns to Agency all additional warranties, extended warranties, or benefits like warranties, such as insurance, provided by or reasonably obtainable from suppliers of equipment and material used in the Work.

Section 12. **HEALTH AND SAFETY PROGRAMS.** The Contractor shall establish, maintain, and enforce safe work practices, and implement an accident/incident prevention program intended to ensure safe and healthful operations under their direction. The program shall include all requisite components of such a program under Federal, State and local regulations and shall comply with all site programs established by Agency and, if applicable, the entity for which Contractor is performing the Work, as referenced in Section 1.4.

12.1 Contractor is responsible for acquiring job hazard assessments as necessary to safely perform the Work and provide a copy to Agency upon request.

12.2 Contractor is responsible for providing all employee health and safety training and personal protective equipment in accordance with potential hazards that may be encountered in performance of the Work and provide copies of the certified training records upon request by Agency. Contractor shall be responsible for proper maintenance and/or disposal of their personal protective equipment and material handling equipment.

12.3 Contractor is responsible for ensuring that its lower-tier subcontractors are aware of and will comply with the requirements set forth herein.

12.4 Agency, or its representatives, may periodically monitor the safety performance of the Contractor performing the Work. Contractors and its subcontractors shall be required to comply with the safety and health obligations as established in the Agreement. Non-compliance with safety, health, or fire requirements may result in cessation of work activities, until items in non-compliance are corrected. It is also expressly acknowledged, understood and agreed that no payment shall be due from Agency to Contractor under this Agreement at any time when, or for any Work performed when, Contractor is not in full compliance with this Section 12.

12.5 Contractor shall immediately report any injuries to the Agency site safety representative. Additionally, the Contractor shall investigate and submit to the Agency site safety representative copies of all written accident reports, and coordinate with Agency if further investigation is requested.

12.6 Contractor shall take all reasonable steps and precautions to protect the health of its employees and other site personnel with regard to the Work. Contractor shall conduct occupational health monitoring and/or sampling to determine levels of exposure of its employees to hazardous or toxic substances or environmental conditions. Copies of any sampling results will be forwarded to the Agency site safety representative upon request.

12.7 Contractor shall develop a plan to properly handle and dispose of any hazardous wastes, if any, Contractor generates in performing the Work.

12.8 Contractor shall advise its employees and subcontractors that any employee who jeopardizes his/her safety and health, or the safety and health of others, may be subject to actions including removal from Work.

12.9 Contractor shall, at the sole option of the Agency, develop and provide to the Agency a Hazardous Material Spill Response Plan that includes provisions for spill containment and clean-up, emergency contact information including regulatory agencies and spill sampling and analysis procedures. Hazardous Materials shall include diesel fuel used for trucks owned or leased by the Contractor.

12.10 If Contractor is providing Work to an Agency Member, SCPPA or SCPPA member (collectively "Member" solely for the purpose of this section) pursuant to Section 1.4 hereof, then that Member shall have the same rights as the Agency under Sections 12.1, 12.2, 12.4, 12.5, and 12.6 hereof.

Section 13. MISCELLANEOUS PROVISIONS.

13.1 **Attorneys' Fees.** If a party to this Agreement brings any action, including an action for declaratory relief, to enforce or interpret the provision of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees in addition to any other relief to which that party may be entitled. The court may set such fees in the same action or in a separate action brought for that purpose.

13.2 **Venue.** In the event that either party brings any action against the other under this Agreement, the Parties agree that trial of such action shall be vested exclusively in the state courts of California in the County of Placer or in the United States District Court for the Eastern District of California.

13.3 **Severability.** If a court of competent jurisdiction finds or rules that any provision of this Agreement is invalid, void, or unenforceable, the provisions of this Agreement not so adjudged shall remain in full force and effect. The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision of this Agreement.

13.4 **No Implied Waiver of Breach.** The waiver of any breach of a specific provision of this Agreement does not constitute a waiver of any other breach of that term or any other term of this Agreement.

13.5 **Successors and Assigns.** The provisions of this Agreement shall inure to the benefit of and shall apply to and bind the successors and assigns of the Parties.

13.6 **Conflict of Interest.** Contractor may serve other clients, but none whose activities within the corporate limits of Agency or whose business, regardless of location, would place Contractor in a "conflict of interest," as that term is defined

in the Political Reform Act, codified at California Government Code Section 81000 *et seq.*

Contractor shall not employ any Agency official in the work performed pursuant to this Agreement. No officer or employee of Agency shall have any financial interest in this Agreement that would violate California Government Code Sections 1090 *et seq.*

13.7 **Contract Administrator.** This Agreement shall be administered by Ken Speer, Assistant General Manager, or his/her designee, who shall act as the Agency's representative. All correspondence shall be directed to or through the representative.

13.8 **Notices.** Any written notice to Contractor shall be sent to:

Legal
Ardent Companies, INC.
170 New Camellia Blvd., Suite 200
Covington, LA 70433

With a copy to:

Bill Bryant
West Coast Manager
Ardent Companies, LLC
4824 Rosedale Lane
Bakersfield, CA 93314

Any written notice to Agency shall be sent to:

Randy S. Howard
General Manager
Northern California Power Agency
651 Commerce Drive
Roseville, CA 95678

With a copy to:

Jane E. Luckhardt
General Counsel
Northern California Power Agency
651 Commerce Drive
Roseville, CA 95678

13.9 **Professional Seal.** Where applicable in the determination of the Agency, the first page of a technical report, first page of design specifications, and each page of construction drawings shall be stamped/sealed and signed by the licensed professional responsible for the report/design preparation.

13.10 **Integration; Incorporation.** This Agreement, including all the exhibits attached hereto, represents the entire and integrated agreement between Agency and Contractor and supersedes all prior negotiations, representations, or agreements, either written or oral. All exhibits attached hereto are incorporated by reference herein.

13.11 **Alternative Dispute Resolution**. If any dispute arises between the Parties that cannot be settled after engaging in good faith negotiations, Agency and Contractor agree to resolve the dispute in accordance with the following:

13.11.1 Each party shall designate a senior management or executive level representative to negotiate any dispute;

13.11.2 The representatives shall attempt, through good faith negotiations, to resolve the dispute by any means within their authority.

13.11.3 If the issue remains unresolved after fifteen (15) days of good faith negotiations, the Parties shall attempt to resolve the disagreement by negotiation between legal counsel. If the above process fails, the Parties shall resolve any remaining disputes through mediation to expedite the resolution of the dispute.

13.11.4 The mediation process shall provide for the selection within fifteen (15) days by both Parties of a disinterested third person as mediator, shall be commenced within thirty (30) days and shall be concluded within fifteen (15) days from the commencement of the mediation.

13.11.5 The Parties shall equally bear the costs of any third party in any alternative dispute resolution process.

13.11.6 The alternative dispute resolution process is a material condition to this Agreement and must be exhausted as an administrative remedy prior to either Party initiating legal action. This alternative dispute resolution process is not intended to nor shall be construed to change the time periods for filing a claim or action specified by Government Code §§ 900 *et seq*.

13.12 **Controlling Provisions.** In the case of any conflict between the terms of this Agreement and the Exhibits hereto, a Purchase Order, or Contractor's Proposal (if any), the Agreement shall control. In the case of any conflict between the Exhibits hereto and a Purchase Order or the Contractor's Proposal, the Exhibits shall control. In the case of any conflict between the terms of a Purchase Order and the Contractor's Proposal, the Purchase Order shall control.

13.13 **Counterparts.** This Agreement may be executed in multiple counterparts, each of which shall be an original and all of which together shall constitute one agreement.

13.14 **Construction of Agreement.** Each party hereto has had an equivalent opportunity to participate in the drafting of the Agreement and/or to consult with legal counsel. Therefore, the usual construction of an agreement against the drafting party shall not apply hereto.

13.15 **No Third Party Beneficiaries.** This Agreement is made solely for the benefit of the parties hereto, with no intent to benefit any non-signator third parties. However, should Contractor provide Work to an Agency member, SCPPA or SCPPA member (collectively for the purpose of this section only "Member") pursuant to Section 1.4, the parties recognize that such Member may be a third party beneficiary solely as to the Purchase Order and Requested Work relating to such Member.

Section 14. CONSEQUENTIAL DAMAGES.

14.1 NOTWITHSTANDING ANYTHING TO THE CONTRARY CONTAINED ELSEWHERE HEREIN, AND EXCEPT FOR A PARTY'S INDEMNIFICATION OBLIGATIONS HEREUNDER, OR A PARTY'S GROSS NEGLIGENCE, WILFUL MISCONDUCT, NO MEMBER OF EITHER PARTY SHALL BE LIABLE TO ANY MEMBER OF THE OTHER PARTY FOR ANY CONSEQUENTIAL, INCIDENTAL, INDIRECT OR PUNITIVE DAMAGES OF ANY KIND OR CHARACTER, INCLUDING, BUT NOT LIMITED TO, LOSS OF USE, LOSS OF PROFIT, LOSS OF REVENUE, LOSS OF PRODUCTIVITY, LOSS OF EFFICIENCY, LOSS OF PRODUCT OR PRODUCTION, RESERVOIR DAMAGE, WHENEVER ARISING UNDER THIS AGREEMENT OR AS A RESULT OF, RELATING TO OR IN CONNECTION WITH THE PERFORMANCE OF THIS AGREEMENT OR THE SERVICES HEREUNDER, AND NO CLAIM SHALL BE MADE BY ANY MEMBER OF EITHER PARTY AGAINST THE OTHER FOR SUCH DAMAGES REGARDLESS OF WHETHER SUCH CLAIM IS BASED OR CLAIMED TO BE BASED ON NEGLIGENCE (INCLUDING SOLE, JOINT, ACTIVE, PASSIVE, CONCURRENT OR GROSS NEGLIGENCE), FAULT, BREACH OF WARRANTY, BREACH OF AGREEMENT, STATUTE, STRICT LIABILITY OR OTHERWISE.

The Parties have executed this Agreement as of the date signed by the Agency.

NORTHERN CALIFORNIA POWER AGENCY	ARDENT COMPANIES, INC.
Date 6/17/19	Date June 13, 2019
Randy S Howard	
RANDY S. HOWARD, General Manager	**Albert F. Vallotton, III, President**

Attest:

Assistant Secretary of the Commission

Approved as to Form:

Jane E. Luckhardt, General Counsel

EXHIBIT A

SCOPE OF WORK

Ardent Companies, LLC ("Contractor") shall provide, but not limited to specialty electrical and instrumentation (E&I) services as requested by Northern California Power Agency ("Agency") at any facilities owned and/or operated by Agency, its Members, Southern California Public Power Authority ("SCPPA") or SCPPA members.

NOTE: Lodi Energy Center (LEC) is excluded from this Agreement.

No project under this Agreement shall include Work that would qualify as a Public Works Project under the California Public Contract Code.

EXHIBIT B

COMPENSATION SCHEDULE AND HOURLY FEES

Compensation for all work, including hourly fees and expenses, shall not exceed the amount set forth in Section 2 hereof. The hourly rates and or compensation break down and an estimated amount of expenses is as follows:

1. LABOR RATE SCHEDULE

CLASSIFICATIONS	STRAIGHT TIME	DAILY OT	SATURDAY OT	SUNDAY/HOLIDAY OT
INDIRECTS				
Supervisor Inside Wireman	$ 143.42	$ 180.59	$ 180.59	$ 225.00
Supervisor Outside Wireman	$ 152.68	$ 247.18	$ 247.18	$ 252.12
DIRECTS				
Inside Wireman	$ 129.42	$ 159.59	$ 159.59	$ 197.00
Outside Wireman	$ 135.68	$ 213.18	$ 213.18	$ 218.12

1.1. Per Diem assumes housing is available within a forty-five (45) minute drive of the project jobsite.

1.2. Ardent's Management Personnel (Indirects) Pre-diem Rate is $150 per day, all Craft Personnel Pre-diem Rate is $100 per day. Ardent reserves the right to adjust daily per diems based on seasonal, locational, and availability demands. Current per diem rate structures are based on our best estimate at this time.

2. LABOR RATE TERMS AND CONDITIONS

2.1. Straight Time - Applies to first (8) eight hours worked Monday – Friday. .

2.2. Daily Overtime – Applies to hours worked beyond (8) eight hours but not exceeding (12) twelve hours Monday through Friday. Saturday Overtime – Applies to all hours worked on Saturday.

2.3. Sunday/Holidays – Applies to all hours worked on Sundays and all Nationally recognized Holidays.

2.4. Work Week – Period beginning 12:01AM Monday and concluding 11:59PM Sunday.

2.5. Labor rates include applicable insurance, taxes, payroll benefits, small tools (under $500 value each), fringe benefits, home office overhead and profit.

2.6. Call out work for our personnel will be billed from the Bakersfield office to your facility at our Standard Labor & Equipment Rates.

2.7. Stand by time for our personnel will be billed at our Standard Labor & Equipment Rates.

2.8. Ardent will charge a minimum two (4) hour show up time for all weather-related shutdowns, customer directed work stoppages, cancellation or demobilization.

2.9. Materials, sub-contractors, 3rd party rental equipment and fuel cost will be invoiced at Ardent's cost (including freight and taxes) plus a fifteen percent (15 %) mark-up. Drivers time for delivery of materials and equipment to the job site (if required) will be billed at the above apprentice rate, plus mileage at $0.65 per mile.

2.10. Ardent's superintendent and/or foreman will require a company truck. This truck will be billable per enclosed equipment rental rates.

2.11. Ardent equipment rental rates assume a single work shift. If additional work shifts are required, equipment for those additional shifts will be billable at seventy-five percent (75%) of the listed rental rate.

2.12. If Ardent listed equipment is unavailable, that equipment will be rented via a 3rd party at cost plus our listed mark-up.

2.13. Freight charges for mobilization and demobilization of tools and equipment will be billed at cost plus our listed mark-up.

2.14. Time becomes billable upon entering Facility Gates and extends to exiting Facility gate.

2.15. Any DIR prevailing wage increases will constitute a pricing revision. The current published wage determination expresses expiration dates as listed below.

Inside Wireman - 6/1/2020

Outside Wireman -12-31-19

3. EQUIPMENT RENTAL RATES

Description	Hourly
VEHICLES	
Truck, ½ Ton Pick-Up	$22
Truck, ¾" Ton Pick-Up	$25
Truck, ¾" Ton 4WD Pick-Up	$28
Truck, 4WD Crew Cab Pick-Up	$30
Truck, Service Truck	$26
Truck, Stakebed (1 ton)	$20
Van, 15 Passenger	$19
Truck - Derrick Digger (2WD)	$45
Truck - Derrick Digger (4WD)	$50
Truck - Bucket, 55' Reach (2WD)	$45
Truck - Bucket, 55' Reach (4WD)	$50
Truck - Bucket, 70' Reach (2WD)	$55
Truck - Bucket, 70' Reach (4WD)	$60
Truck - Communication Bucket (4WD)	$38
Single Reel Trailer	$20
Pole Dolly Trailer	$20
Hydraulic Pole Tamp	$10
Hydraulic Pole Puller	$10
Wan – Battery Operated Metal Detector	$4
EQUIPMENT	
Trailer, 6' x 20' Flat Bed	$4
Trailer, 8' x 20' Enclosed	$10
Trailer, Instrument Calibration to 20 ft - (less test equipment)	$24
Trailer, Bending/Threading (1/2" thru 2")	$22
Trailer, Hydraulic Bending (5" - 6")	$47
Computer/Laptop, w/ Monitor	$4
Welding Machine	$8
Generator, Portable 6KW	$3
THREADING	
Threader, Portable	$3
Threader, Die, 2.5" to 4" (Rigid#141 or equal)	$5
Threader, Die, 4" to 6" (Rigid#161 or equal)	$8
Threading Station, to 2" (Rigid#535 or equal)	$13
Threading Station, to 4" (Rigid#1224 or equal)	$18

BENDING	
Bender, Mechanical, Conduit, ½" to 1"	$2
Bender, Mechanical, Conduit, 1-1/4" to 1-1/2""	$2
Bender, Electric, Conduit w ½ to 2" Rigid Shoes	$9
Bender, Electric, Conduit, Plasti-Bond Shoes to 2"	$4
Bender, Hydraulic, Conduit 2.5" to 4" (w/ Hydraulic Pump) Rigid Shoes Only	$19
Bender, Hydraulic, Conduit 2.5" to 5" (w/ Hydraulic Pump) Rigid Shoes Only	$21
Bender, Hydraulic, Conduit, Plastibond Shoes 2" to 5"	$5
Bending, Hydraulic, Conduit, Table for Hydraulic Benders	$4
Bender, Hydraulic, Conduit, Pump for Bender	$9
Bender, Hydraulic, Tubing	$10
CABLE PULLING	
Cable Pulling, Tray Roller Kit (50 rollers)	$12
Cable Pulling, Tray Roller, 90 Degree, 60" R	$3
Cable Pulling, Tugger	$5
Cable Pulling, Jack Stands (5,000#) - Pair	$2
Cable Pulling, Powered Roller Stand	$7
MISCELLANEOUS	
Knock-Out, Hydraulic, Slug Splitter ½" to 2"	$7
Knock-Out, Hydraulic, Slug Splitter ½" to 4"	$8
Crimp Tool, Hydraulic to 750MCM (dieless)	$3
Crimp Tool, Battery to 750MCM (dieless)	$6
Whitney Punch (w/ Hydraulic Pump)	$5
Drill, Magnetic, Drill Press	$3
Driver, Ground Rod, Jack Hammer, 60# w Attachment	$7
Heater, 4" PVC	$2
Heater, 6" PVC	$3
Panel Jack, Heavy Duty, Hydraulic - Pair	$3
Gang Box, 36" x 60", w/Basic Tool Setup Up	$6
Drill Motor	
Bandsaw	
Dies, Conduit thru 2"	

Reamer, Conduit	
Vise, Conduit and Oil Bucket	
Sawsall	
Gang Box, Print Shack Style	$4
TEST EQUIPMENT	
Testing, IS Radio, Charger, Mic, etc	$2
Testing, Megger, 1000 Volt	$2
Testing, Megger, 5000 Volt	$7
Testing, Ground Resistance Tester	$6
Testing, High Pot, 50kvdc	$17
Testing, High Pot, 120kvdc	$19
Testing, Phase Meter, 21kv	$4
Testing, Test Kit, High Voltage	$5
High Voltage Flash Suit	
High Voltage Gloves	
High Voltage Blankets & Clips	
High Voltage Ground Cables	
FIBER OPTICS EQUIPMENT	
Testing, OTDR Dual MM (850/1300) / Dual SM (1300/1550)	$5
Testing, Fusion Splicer	$9
Testing, Scope 350 UTP, Cat 5/6 Tester	$2
Testing, Set Of 3 Reference Jumpers (Multi or Single)	$2
Testing, Dual MM/Dual SM Test Set	$3
CALIBRATION EQUIPMENT	
Calibration, Hydraulic, Hand Pump W Test Gauges (0 to 3,000 psi)	$9
Calibration, Dry Block, Temp Calibrator	$10
Calibration, RTD Calibrator	$3
Calibration, Thermocouple Calibrator	$3
Calibration, Multifunction Calibrator	$5
Calibration, Loop Calibrator	$2
Calibration, Process Multimeter	$2
Calibration, Communicator, Hart 375 or 475	$14
Calibration, Communicator, Honeywell STS103	$5
Calibration, Dead Weight Tester	$5
Calibration, Wally Box	$5

Calibration, Digital Pressure Calibrator	$3

Pricing for services to be performed at NCPA Member or SCPPA locations will be quoted at the time services are requested.

NOTE: As a public agency, NCPA shall not reimburse Contractor for travel, food and related costs in excess of those permitted by the Internal Revenue Service.

EXHIBIT C – Not Applicable

CERTIFICATION

Affidavit of Compliance for Contractors

I,

_____

(Name of person signing affidavit) (Title)

do hereby certify that background investigations to ascertain the accuracy of the identity and employment history of all employees of

_____

(Company name)

for contract work at:

LODI ENERGY CENTER, 12745 N. THORNTON ROAD, LODI, CA 95242

(Project name and location)

have been conducted as required by the California Energy Commission Decision for the above-named project.

_____

(Signature of officer or agent)

Dated this _____ day of _____, 20 _____.

THIS AFFIDAVIT OF COMPLIANCE SHALL BE APPENDED TO THE PROJECT SECURITY PLAN AND SHALL BE RETAINED AT ALL TIMES AT THE PROJECT SITE FOR REVIEW BY THE CALIFORNIA ENERGY COMMISSION COMPLIANCE PROJECT MANAGER.

EXHIBIT D – Not Applicable

CERTIFICATION

Affidavit of Compliance for Hazardous Materials Transport Vendors

I, _____,

(Name of person signing affidavit) (Title)

do hereby certify that the below-named company has prepared and implemented security plans in conformity with 49 CFR 172, subpart I and has conducted employee background investigations in conformity with 49 CFR 172.802(a), as the same may be amended from time to time,

_____

(Company name)

for hazardous materials delivery to:

LODI ENERGY CENTER, 12745 N. THORNTON ROAD, LODI, CA 95242

(Project name and location)

as required by the California Energy Commission Decision for the above-named project.

_____

(Signature of officer or agent)

Dated this _____ day of _____, 20 __.

THIS AFFIDAVIT OF COMPLIANCE SHALL BE APPENDED TO THE PROJECT SECURITY PLAN AND SHALL BE RETAINED AT ALL TIMES AT THE PROJECT SITE FOR REVIEW BY THE CALIFORNIA ENERGY COMMISSION COMPLIANCE PROJECT MANAGER.

EXHIBIT E – Not Applicable

ATTACHMENT A [from MLA]
AGREEMENT TO BE BOUND

MAINTENANCE LABOR AGREEMENT ATTACHMENT
LODI ENERGY CENTER PROJECT

The undersigned hereby certifies and agrees that:

1) It is an Employer as that term is defined in Section 1.4 of the Lodi Energy Center Project Maintenance Labor Agreement ("Agreement" solely for the purposes of this Exhibit E) because it has been, or will be, awarded a contract or subcontract to assign, award or subcontract Covered Work on the Project (as defined in Section 1.2 and 2.1 of the Agreement), or to authorize another party to assign, award or subcontract Covered Work, or to perform Covered Work.

2) In consideration of the award of such contract or subcontract, and in further consideration of the promises made in the Agreement and all attachments thereto (a copy of which was received and is hereby acknowledged), it accepts and agrees to be bound by the terms and condition of the Agreement, together with any and all amendments and supplements now existing or which are later made thereto.

3) If it performs Covered Work, it will be bound by the legally established trust agreements designated in local master collective bargaining agreements, and hereby authorizes the parties to such local trust agreements to appoint trustees and successor trustee to administer the trust funds, and hereby ratifies and accepts the trustees so appointed as if made by the undersigned.

4) It has no commitments or agreements that would preclude its full and complete compliance with the terms and conditions of the Agreement.

5) It will secure a duly executed Agreement to be Bound, in form identical to this documents, from any Employer(s) at any tier or tiers with which it contracts to assign, award, or subcontract Covered Work, or to authorize another party to assign, award or subcontract Covered Work, or to perform Covered Work.

DATED: _____ Name of Employer _____

_____
(Authorized Officer & Title)

_____

_____
(Address)

_____

EXHIBIT F

CONTRACTOR'S CLARIFICATIONS AND EXCEPTIONS

1.1. TECHNICAL PROJECT CLARIFICATIONS

1.1.1. Price is based on a Time & Material Type Basis, daily or weekly hour time sheets will be captured by our Project Manager, for signature by the client. Ardent will use these signed time sheets as backup for the Printed Labor/Equipment Tickets and invoicing, using Ardent's Labor & Equipment Proposed Rate sheet.

1.1.2. All material for this project can be purchased by the client or by Ardent.

1.1.3. Proposal is based on all access roads being open and maintained.

1.1.4. Clearing and disposal of trees is excluded from proposal.

1.1.5. Demolition and disposal of damaged or unnecessary poles, cable and hardware is handled is reasonability of the client and is excluded from proposal.

1.2. COMMERCIAL CLARIFICATIONS

1.2.1. Proposal is based upon working a 5-8 hour day work week. Any Overtime hours billed at overtime, or premium time rates listed in Exhibit B.

1.2.2. Price breakdown provided is for accounting purposes only and shall not be utilized for any additions or deletions.

Ardent Services will invoice on a monthly basis for progress earned and materials purchased.Terms of payment are net thirty (30) days. Invoices paid beyond thirty (30) days will attract an additional invoice handling charge of 1.5% per month or portion thereof.

FIRST AMENDMENT TO MULTI-TASK GENERAL SERVICES AGREEMENT BETWEEN THE NORTHERN CALIFORNIA POWER AGENCY AND ARDENT COMPANIES LLC

This First Amendment ("Amendment") to Multi-Task General Services Agreement is entered into by and between the Northern California Power Agency ("Agency") and Ardent Companies, LLC ("Contractor") (collectively referred to as "the Parties") as of _____, 2019.

WHEREAS, the Parties entered into a Multi-Task General Services Agreement dated effective June 17, 2019, (the "Agreement") for Ardent Companies LLC to provide, but not limited to specialty electrical and instrumentation (E&I) services as requested by NCPA at any facilities owned or operated by Agency (with exception of NCPA's Lodi Energy Center), its Members, Southern California Public Power Authority ("SCPPA"), or SCPPA members; and

WHEREAS, the Agency now desires to amend the Agreement to increase the total compensation authorized by the Agreement from a "NOT TO EXCEED" amount of $200,000 to a NOT TO EXCEED amount of $1,200,000; and

WHEREAS, the Parties have agreed to modify the Agreement as set forth above; and

WHEREAS, in accordance with Section 8.2 all changes to the Agreement must be in writing and signed by all the Parties; and

NOW, THEREFORE, the Parties agree as follows:

1. **Section 2—Compensation** of the Agreement is amended and restated to read as follows:

   Agency hereby agrees to pay Contractor an amount **NOT TO EXCEED** ONE MILLION TWO HUNDRED THOUSAND dollars ($1,200,000) for the Work, which shall include all fees, costs, expenses and other reimbursables, as set forth in Contractor's fee schedule, attached hereto and incorporated herein as Exhibit B. This dollar amount is not a guarantee that Agency will pay that full amount to the Contractor, but is merely a limit of potential Agency expenditures under this Agreement.

   The remainder of Section 2 of the Agreement is unchanged.

2. This Amendment in no way alters the terms and conditions of the Agreement except as specifically set forth herein.

SIGNATURES ON FOLLOWING PAGE

Date:_____

NORTHERN CALIFORNIA POWER AGENCY

_____

RANDY S. HOWARD, General Manager

Date:_____

ARDENT COMPANIES, INC.

_____

ALBERT F. VALLOTTON, III, President

Attest:

_____

Assistant Secretary of the Commission

Approved as to Form:

_____

Jane E. Luckhardt, General Counsel

Commission Staff Report – *DRAFT*

Date: September 4, 2019

COMMISSION MEETING DATE: September 27, 2019

SUBJECT: NCPA Solar Project 1: Healdsburg Water Reclamation Facility Site; Initial Study, Mitigated Negative Declaration, and Mitigation Monitoring Program

AGENDA CATEGORY: Discussion/Action

FROM:	Joel Ledesma	**METHOD OF SELECTION:**
	Assistant General Manager	*N/A*
Division:	Generation Services	*If other, please describe:*
Department:	Generation Services	

IMPACTED MEMBERS:

All Members	☒	**City of Lodi**	☐	**City of Shasta Lake**	☐
Alameda Municipal Power	☐	**City of Lompoc**	☐	**City of Ukiah**	☐
San Francisco Bay Area Rapid Transit	☐	**City of Palo Alto**	☐	**Plumas-Sierra REC**	☐
City of Biggs	☐	**City of Redding**	☐	**Port of Oakland**	☐
City of Gridley	☐	**City of Roseville**	☐	**Truckee Donner PUD**	☐
City of Healdsburg	☐	**City of Santa Clara**	☐	**Other**	☐

If other, please specify _____

_____

RECOMMENDATION:

Approval of Resolution 19-XX adopting the Mitigated Negative Declaration and Mitigation Monitoring Program (IS&MND) for the Healdsburg Water Reclamation Facility Site, and directing staff to file a notice of Determination with the State Clearinghouse and Sonoma County.

It is recommended that this item be listed as a Discussion/Action Item on the Commission agenda.

BACKGROUND:

The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories with construction of most sites to start by the end of 2019. The fleet will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The City of Healdsburg has selected a site located within a 36-acre water reclamation facility site that is situated between Foreman Lane to the north and Cohn Road to the south. The proposed technology type for the solar project is floating arrays, whereby the panels would be mounted to pontoons that are anchored to ballasts located outside the ponds. The site would accommodate three arrays totaling 8.1 acres. The total installed capacity would be approximately 3.6 megawatts-direct current (MW_{dc}).

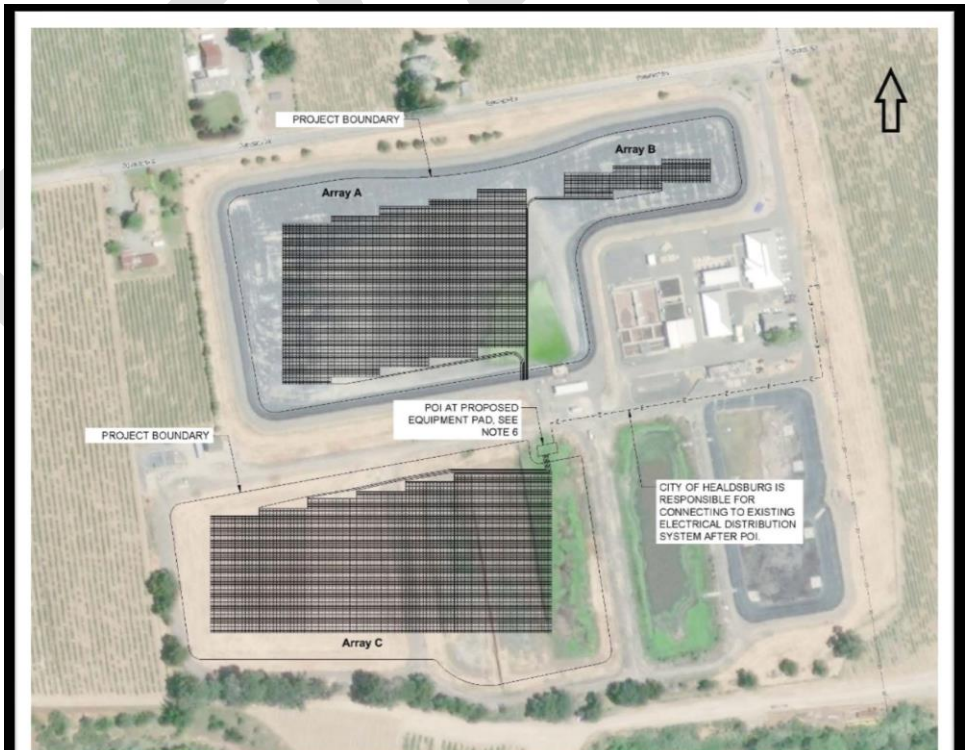


Figure 1 - Healdsburg Water Reclamation Facility Site

ENVIRONMENTAL ANALYSIS:

For purposes of the California Environmental Quality Act (CEQA), NCPA is the Lead Agency and the City of Healdsburg is the Responsible Agency. NCPA had an Initial Study prepared for the project and, together with a proposed Mitigated Negative Declaration and Mitigation Monitoring Program, was circulated for public review on June 7, 2019. The public review period ended on July 8, 2019. Comments were received from the following individuals and agencies: Scott Morgan (Director, State Clearinghouse, Governor's Office of Planning and Research), Buffy McQuillen (Tribal Historic Preservation Officer of the Federated Indians of Graton Rancheria), and Loren W. Smith, Jr. (Tribal Historic Preservation Officer of the Stewards Point Racheria Band of Kashia Pomo Indians). Copies of the comments were compiled and responded to in the Consultation Summary located on NCPA's website (www.NCPA.com) under "Requests for Bidding and Public Notifications", or at NCPA's Headquarters under the custody of the Commission.

A Notice of Intent to Adopt a Mitigated Negative Declaration and Mitigation Monitoring Program was published on June 6, 2019 in the Healdsburg Tribune, a newspaper of general circulation in the Project area, and on June 7, 2019 in the Roseville Press-Tribune, a newspaper of general circulation in the area of the Lead Agency. NCPA prepared and circulated for public review the document to 20 Federal, State, City and County agencies, and interested agencies. In addition, the State Clearinghouse circulated it to 15 selected State agencies.

The Initial Study found no substantial evidence that the proposal, as mitigated, may result in a significant adverse impact on the environment. The project includes mitigation measures in regards to Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, and Noise that will reduce any potential significant impacts to less than significant level.

The Mitigated Negative Declaration is a finding to that effect. A copy of the Initial Study accompanying studies, and the proposed Mitigated Negative Declaration are attached to this Staff Report. A copy of a draft Mitigation Monitoring Program is also attached.

After considering the entire record, Staff recommends that the Commission adopt the Mitigated Negative Declaration prior to acting on the proposal. Staff further recommends that the Commission adopt the Mitigation Monitoring Program.

FISCAL IMPACT:

The recommended actions have no direct budgetary impact at this time. Adopting Resolution 19-XX defines, for CEQA purposes, "NCPA Solar Project 1: Healdsburg Water Reclamation Facility Site" as a project and directs that specific actions be carried out to comply with CEQA. Implementation of the mitigation plan will be the responsibility of the project developer under the direction of NCPA.

COMMITTEE REVIEW:

Pending Committee review.

Respectfully submitted,

RANDY S. HOWARD
General Manager

Attachments (2):

- Resolution
- April 2019 Initial Study & Mitigated Negative Declaration

RESOLUTION 19-xx

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING THE MITIGATED NEGATIVE DECLARATION PREPARED FOR THE NCPA SOLAR PROJECT 1: HEALDSBURG WATER RECLAMATION FACILITY SITE, ADOPTING THE MITIGATION MONITORING AND REPORTING PROGRAM, AND DIRECTING THE STAFF TO FILE THE NOTICE OF DETERMINATION WITH THE STATE CLEARINGHOUSE AND CLERK OF THE COUNTY OF SONOMA

(reference Staff Report #xxx:19)

WHEREAS, the Northern California Power Agency (NCPA) anticipates the implementation of its Mitigated Negative Declaration and Mitigation Monitoring Program for its NCPA Solar Project 1: Healdsburg Water Reclamation Facility (Project); and

WHEREAS, NCPA is developing a Renewable Energy Supply on behalf of the Participating Member Agencies; and

WHEREAS, the Solar Project 1: Healdsburg Water Reclamation Facility (Project) is a proposed site within a 36-acre water reclamation facility owned by the City of Healdsburg and located between Foreman Lane to the north and Cohn Road to the south, in which the City of Healdsburg desires to build three floating solar arrays totaling 8.1 acres, with an installed capacity of 3.6 MWdc; and

WHEREAS, NCPA is the Lead Agency for the Project as the public agency with the principal responsibility for approving the Project; the City of Healdsburg is the Responsible Agency, as the public agency with the responsibility to approve the Project for which the Lead Agency has prepared the Initial Study, Mitigated Negative Declaration and Mitigation Monitoring Program; and

WHEREAS, after completing the Initial Study, Mitigated Negative Declaration and Mitigation Monitoring Program, NCPA circulated the documents for public review beginning on June 7, 2019 and ending on July 8, 2019; and

WHEREAS, NCPA also provided a Notice of Intent to Adopt a Mitigated Negative Declaration and Mitigation Monitoring Program to all organizations and individuals who had previously requested such notice, all affected public agencies, and published the Notice of Intent on June 6, 2019 in the Healdsburg Tribune, a newspaper of general circulation in the Project area, and on June 7, 2019 in the Roseville Press-Tribune, a newspaper of general circulation in the area of the Lead Agency. In addition, NCPA made copies of the Initial Study, Mitigated Negative Declaration and Mitigation Monitoring Program available at its Roseville Headquarters Office (651 Commerce Drive, Roseville, CA 95678) and at the City of Healdsburg office (401 Grove Street, Healdsburg, CA 95448). The document was also submitted to 15 select State agencies by the State Clearinghouse; and

WHEREAS, any comments received during the review period have been considered and acknowledged in the Consultation Summary. NCPA consulted with and requested comments from all responsible and trustee agencies, other regulatory agencies, and others pursuant to State CEQA Guidelines section 15086; and

WHEREAS, all the requirements of the California Environmental Quality Act (CEQA), the State CEQA Guidelines, and any of NCPA's local guidelines have been satisfied by NCPA in the Initial Study, Mitigated Negative Declaration and Mitigation Monitoring Program, which is sufficiently detailed so that all of the potentially significant environmental effects of the Project have been

adequately evaluated; and

WHEREAS, all of the findings and conclusions made by NCPA pursuant to this Resolution, including the Consultation Summary, Initial Study, Mitigated Negative Declaration and Mitigation Monitoring Program, are located on NCPA's website (www.NCPA.com) under "Bidding Opportunities and Public Notifications, or at NCPA's Headquarters under the Custody of the Commission; and

NOW, THEREFORE BE IT RESOLVED, that the Commission of NCPA has reviewed and considered the Initial Study, Mitigated Negative Declaration and Mitigation Monitoring Program in evaluating the impacts of the proposed NCPA Solar Project 1: Healdsburg Water Reclamation Facility, in respect to the Comments made during the Review Period, find that the Initial Study, Mitigated Negative Declaration and Mitigation Monitoring Program were finalized in compliance with the CEQA, the State CEQA Guidelines, and NCPA's California Environmental Quality Act Manual; and finds that the Initial Study, Mitigated Negative Declaration and Mitigation Monitoring Program reflect NCPA's independent judgment and analysis.

1. The Commission finds that the Initial study was prepared for the Project and, together with a proposed Mitigated Negative Declaration, was circulated for public review on June 7, 2019. The public review period ended on July 8, 2019.

2. The Initial Study, Mitigated Negative Declaration and Mitigation Monitoring Program found no substantial evidence that the Project, as mitigated, may result in a significant adverse impact on the environment. The Project includes mitigation measures in regards to: Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, and Noise that will reduce any potential significant impacts to less than significant. The Mitigated Negative Declaration is a finding to that effect.

3. The NCPA Commission hereby adopts the Mitigated Negative Declaration prior to acting on the Project and adopts the Mitigation Monitoring Program, a copy of which is attached to the Staff Report referenced above. The Commission is directed to file a Notice of Determination with the State Clearinghouse and Sonoma County as required by the CEQA.

PASSED, ADOPTED and APPROVED this ____ day of _____, 2019, by the following vote on roll call:

	Vote	Abstained	Absent
Alameda			
San Francisco BART			
Biggs			
Gridley			
Healdsburg			
Lodi			
Lompoc			
Palo Alto			
Port of Oakland			
Redding			
Roseville			
Santa Clara			
Shasta Lake			
Truckee Donner			
Ukiah			
Plumas-Sierra			

ROGER FRITH
CHAIR

ATTEST: CARY A. PADGETT
ASSISTANT SECRETARY

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678-6420

Initial Study and Mitigated Negative Declaration
NCPA Solar Project 1
Healdsburg Water Reclamation Facility Site

Prepared by:

K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
951-699-2082
Email: ksdpe67@gmail.com

June 2019

Table of Contents

Page

List of Tables

Page

List of Figures

Page

Acronyms and Abbreviations

AADT	annual average daily traffic
AAM	annual arithmetic mean
ADOE	Archaeological Determinations of Eligibility
AGM	annual geometric mean
AQMP	Air Quality Management Plan
ARB	Air Resources Board
BAQMD	Bay Area Air Quality Management District
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CDFW	California Department of Fish and Wildlife
CARB	California Air Resources Board
Caltrans	California Department of Transportation
CCAA	California Clean Air Act
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
cfs	cubic feet per second
CH_4	methane
CNDDB	California Natural Diversity Data Base
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CRWQCB, NCR	California Regional Water Quality Control Board, North Coast Region
dB(A)	decibels on the A-scale
DEIR	Draft Environmental Impact Report

DTSC	Department of Toxic Substances Control
DWR	Department of Water Resources
EA	Environmental Assessment
EIR	Environmental Impact Report
EMP	Energy Management Plan
EPA	U.S. Environmental Protection Agency
EPDC	expected peak day concentration
ESA	Endangered Species Act
g	acceleration due to gravity
GHG	greenhouse gases
GIS	Geographic Information System
gpm	gallons per minute
ISA	Integrated Science Assessment
GWP	global warming potential
HPD	Historic Property Directory
kV	kilovolts
kW	kilowatts
KSD&A	K.S. Dunbar & Associates, Inc.
Ldn	day-night average sound level
Leq	noise equivalent
LUSTIS	Leaking Underground Storage Tank Information System
MBTA	Migratory Bird Treaty Act
MDB&M	Mount Diablo Base and Meridian
MMRP	Mitigation Monitoring and Reporting Program
MT	metric tons
MW	megawatts
MW_{dc}	megawatts measured as direct current
MWh	megawatt hours
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission

NDDB	Natural Diversity Data Base
NO	nitrogen oxide
NO_2	nitrogen dioxide
NO_x	oxides of nitrogen
NPL	National Priorities List
NRCS	Natural Resources Conservation Service
NSCAPCD	Northern Sonoma County Air Pollution Control District
O_3	ozone
OES	Office of Emergency Services
OHP	Office of Historic Preservation
Pb	lead
Pga	peak ground acceleration
PM	particulate matter
PM_{10}	particulate matter (less than 10 microns in diameter)
$PM_{2.5}$	particulate matter (less than 2.5 microns in diameter)
ppb	parts per billion
ppm	parts per million
PRC	Public Resources Code
PV	photovoltaic
RCRA	Resource Conservation and Recovery Act
ROG	reactive organic gases also called VOC (volatile organic compounds)
Sa	spectral acceleration
SAAQS	State Ambient Air Quality Standards
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SIP	State Implementation Plan
SMAQMD	Sacramento Metropolitan Air Quality Management District
SO_2	sulfur dioxide
SO_x	oxides of sulfur
SRA	Source Receptor Area

State Water Board	State Water Resources Control Board
SWIS	Solid Waste Information System
SWPPP	Storm Water Pollution Prevention Plan
TOG	total organic gases
USDA	U.S. Department of Agriculture
USF&WS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Service
$\mu g/m^3$	micrograms per cubic meter

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678-6420

Executive Summary

Initial Study and Mitigated Negative Declaration

NCPA Solar Project 1

Healdsburg Water Reclamation Facility Site

Prepared by:

K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
951-699-2082
Email: ksdpe67@gmail.com

June 2019

Executive Summary

Overview of the Proposed Project

The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories to be under construction by the end of 2019. The plants will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. The City of Healdsburg selected a potential site at the Healdsburg Water Reclamation Facility (WRF) for further analysis as shown below:

Site	Location		Developable Area (acres)	Estimated Capacity (MW_{dc})
	Latitude, Longitude	Section, Township, Range		
Healdsburg WRF	38°35'00.03" N, 122°51'45.37" W	Sec 5, T 9 N, R 9 W, MDB&M	8.13	3.62

The Project site is located within a 36-acre water reclamation facility site that is situated between Foreman Lane to the north and Cohn Road to the south (Figure ES-1). The proposed technology type for the solar project is floating arrays, whereby the panels would be mounted to pontoons that are anchored to ballasts located outside the ponds. As shown on Figure ES-2, the site would accommodate three arrays totaling 8.13 acres. The total installed capacity would be approximately 3.62 MW_{dc}.

Figure ES-1 Healdsburg Water Reclamation Facility Site Location

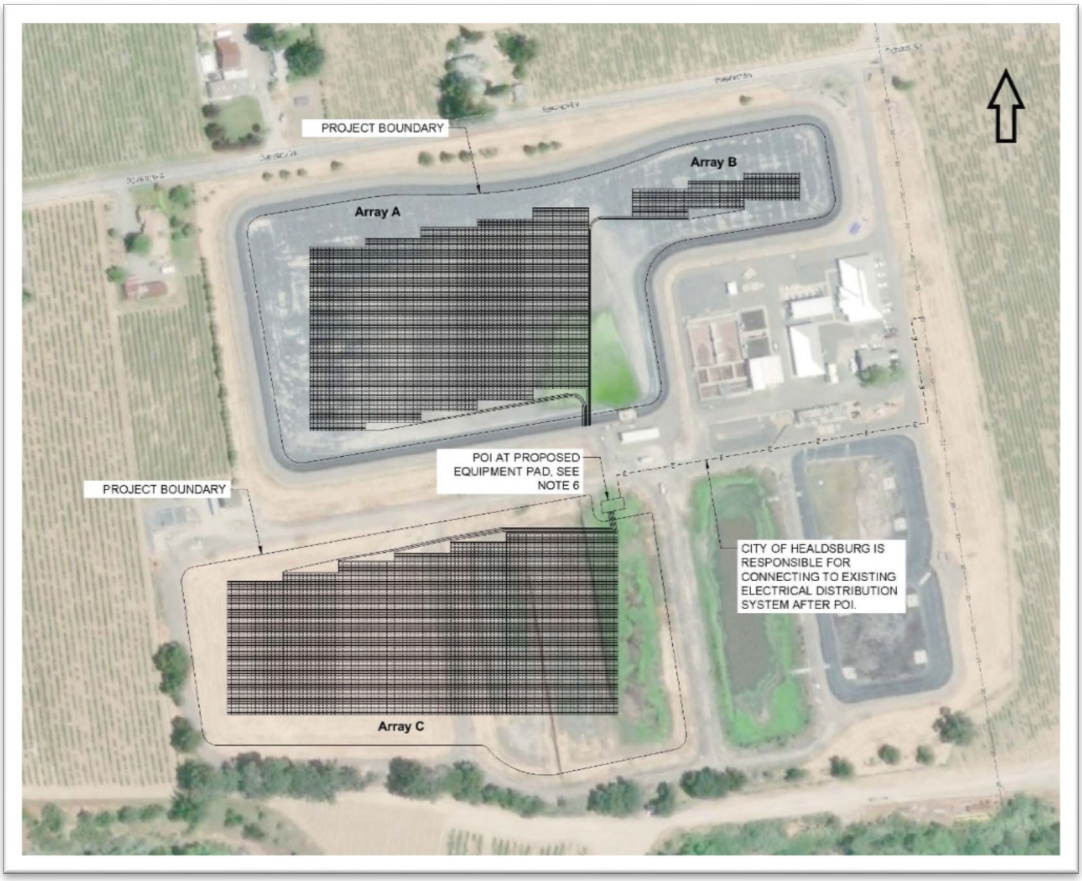


Figure ES-1 Proposed Solar Array Locations

Impacts and Mitigation Measures

Table ES-1 identifies each potential significant effect, Standard Construction Practices/Design Features, and proposed mitigation measures that would reduce or avoid that effect. Proposed mitigation measures are NCPA Staff's and its consultant's recommendations to reduce potential impacts associated with implementation of the proposed Project. Should NCPA's Commission adopt the Mitigation Monitoring and Reporting Program (Appendix F in the IS&MND) these mitigation measures would become mandatory and part of the Project.

Table ES-1
Impacts and Mitigation Measures

Environmental Factor:	Biological Resources
Impact:	Potential impacts to nesting birds.
Standard Construction Practices/Design Features	NCPA will include the following mitigation measures in its contract documents for this project.
Mitigation Measures:	❖ If construction occurs between February 1st and August 31st, a pre-construction clearance survey for nesting birds shall be conducted within three (3) days of the start of any vegetation removal or ground disturbing activities to ensure that no nesting birds will be disturbed during construction. The biologist conducting the clearance survey should document a negative survey with a brief letter report indicating that no impacts to active avian nests will occur. If an active avian nest is discovered during the pre-construction clearance survey, construction activities should stay outside of a no-disturbance buffer. The size of the no-disturbance buffer will be determined by the wildlife biologist and will depend on the level of noise and/or surrounding anthropogenic disturbances, line of sight between the nest and the construction activity, type and duration of construction activity, ambient noise, species habituation, and topographical barriers. These factors will be

	evaluated on a case-by-case basis when developing buffer distances. Limits of construction to avoid an active nest will be established in the field with flagging, fencing, or other appropriate barriers; and construction personnel will be instructed on the sensitivity of nest areas. A biological monitor should be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, construction activities within the buffer area can occur. It should be noted that the City of Healdsburg will be preforming work within the proposed Project footprint prior to the implementation of the solar project. If disturbances within the Project footprint continue to occur after the City completes its work and before the solar project starts, a pre-construction nesting bird clearance survey will not be required due to the decreased potential for nesting to occur. However, if there is a gap between projects, especially during the breeding season, a pre-construction survey will be required prior to the initiation of the proposed solar project.
Impact After Mitigation:	Less than significant impact
Environmental Factor:	**Cultural Resources**
Potential Impact:	Possible inadvertent discoveries of cultural resources or human remains during excavation activities.
Standard Construction Practices/Design Features	NCPA will include the following mitigation measures in its contract documents for this project.
Mitigation Measures:	❖ In the unlikely event that potentially significant archaeological materials are encountered during construction activities, all work shall be halted in the vicinity of the archaeological discovery until a qualified archaeologist can visit the site of discovery, access the significance of the archaeological resource, and provide proper management recommendations. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted. The treatment and disposition of cultural material that might be discovered during excavation shall be in accordance with applicable laws and regulations. ❖ All sacred items, should they be encountered within the Project sites, shall be avoided and preserved as the preferred mitigation, if feasible. All cultural materials that are collected during excavation and other earth disturbing activities on the Project sites, with the exception of sacred items, burial goods and human remains which will be addressed in any required Treatment Agreement, shall be tribally curated according to the current repository standards. The collections and associated records shall be transferred, including title, to the closet tribe to the Project site. ❖ In the event of an accidental discovery or recognition of any human remains, the County Coroner shall be notified and construction activities at the affected work site shall be halted. If the coroner determines the remains to be Native American: (1) the coroner shall contact the Native American Heritage Commission (NAHC) within 24-hours, and (2) the NAHC shall identify the person or persons it believes to be the most likely descended from the deceased Native American. The treatment and disposition of human remains that might be discovered during excavation shall be in accordance with applicable laws and regulations.
Impact After Mitigation:	Less than significant impact
Environmental Factor	**Geology and Soils**
Potential Impact	Possible inadvertent discoveries of paleontological resources during excavation activities.
Standard Construction Practices/Design Features	NCPA will include the following mitigation measures in its contract documents for this project.
Mitigation Measures	❖ In the unlikely event that potentially significant paleontological materials (e.g., fossils) are encountered during construction of the project, all work shall be halted in the vicinity of the paleontological discovery until a qualified paleontologist can visit the site of discovery, assess the significance of the paleontological resource, and provide proper management recommendations. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted. The treatment and disposition of paleontological material that might be discovered during excavation shall be in accordance with applicable laws and regulations.
Environmental Factor	**Hazards and Hazardous Materials**
Potential Impact	During construction, the contractor would utilize equipment that uses petroleum-based fuels and lubricants, which are subject to both leakage from engine blocks and containers, or spillage during refueling and lubrication operations
Standard Construction Practices/Design Features	NCPA's contract documents for this project will include the following: During project construction, the construction contractor shall implement the following measures to address the potential environmental constraints associated with the presence of hazardous materials at the project site to the satisfaction of NCPA:

	❖ The contractor shall prepare a Health and Safety Plan in compliance with the requirements of Chapter 6.95, Division 20 of the Health and Safety Code (§25500 – 25532). The plan shall include measures to be taken in the event of an accidental spill. ❖ The contractor shall enforce strict on-site handling rules to keep construction and maintenance materials out of receiving waters and storm drains. In addition, the contractor shall store all reserve fuel supplies only within the confines of designated construction staging areas; refuel equipment only with the designated construction staging areas; and regularly inspect all construction equipment for leaks. ❖ The construction staging area shall be designed to contain contaminants such as oil, grease, and fuel products to ensure that they do not drain towards receiving waters or storm drain inlets.
Mitigation Measures	No additional mitigation is required.
Impact After Mitigation	Less than significant impact.

Areas of Controversy

There are no areas of controversy associated with the NCPA Solar Project 1 – Healdsburg Water Reclamation Facility site.

Issues to be Resolved

There are no issues to be resolved associated with the NCPA Solar Project 1 – Healdsburg Water Reclamation Facility site.

Document Availability and Contact Personnel

The Initial Study and Mitigated Negative Declaration is available for review at the following locations:

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678

City of Healdsburg Electric, Water and Wastewater Department
401 Grove Street
Healdsburg, California 95448

and can be downloaded at:

http://www.ncpa.com/wp-content/uploads/2019/08/Healdsburg-ISMND.pdf.

All comments regarding the Project or environmental documents should be mailed or emailed to:

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE
K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
(951) 699-2082
Email: ksdpe67@gmail.com

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678-6420

Initial Study and Mitigated Negative Declaration
NCPA Solar Project 1
Healdsburg Water Reclamation Facility Site

Prepared by:

K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
951-699-2082
Email: ksdpe67@gmail.com

June 2019

1 Introduction

1.1 Introduction

The following Initial Study addresses the environmental impacts associated with the NCPA Solar 1 Project – Healdsburg Water Reclamation Facility site (Project) being implemented by the Northern California Power Agency (NCPA) (Figure 1.1-1). This Initial Study has been prepared in accordance with the *California Environmental Quality Act of 1970,* as amended, (CEQA), the *State CEQA Guidelines,* and NCPA's *Local Guidelines for Implementing the California Environmental Quality Act*, as amended. NCPA is the Lead Agency and the City of Healdsburg is a Responsible Agency for the purposes of CEQA for this project.

Figure 1.1-1 NCPA Solar Project 1 – Healdsburg Water Reclamation Facility Location

1.2 Project Summary

The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories with construction to be started by the end of 2019. The plants will be managed by NCPA as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. The City of Healdsburg selected a potential site at the Healdsburg Water Reclamation Facility (WRF) for further analysis as shown below:

Site	Location		Developable Area (acres)	Estimated Capacity (MW_{dc})
	Latitude, Longitude	Section, Township, Range		
Healdsburg WRF	38°35'00.03" N, 122°51'45.37" W	Sec 5, T 9 N, R 9 W, MDB&M	8.13	3.62

The Project site is located within a 36-acre water reclamation facility site that is situated between Foreman Lane to the north and Cohn Road to the south. The proposed technology type for the solar project is floating arrays, whereby the panels would be mounted to pontoons that are anchored to ballasts located outside the ponds. As shown on Figure 1.2-2, the site would accommodate three arrays totaling 8.13 acres. The total installed capacity would be approximately 3.62 MW_{dc}.

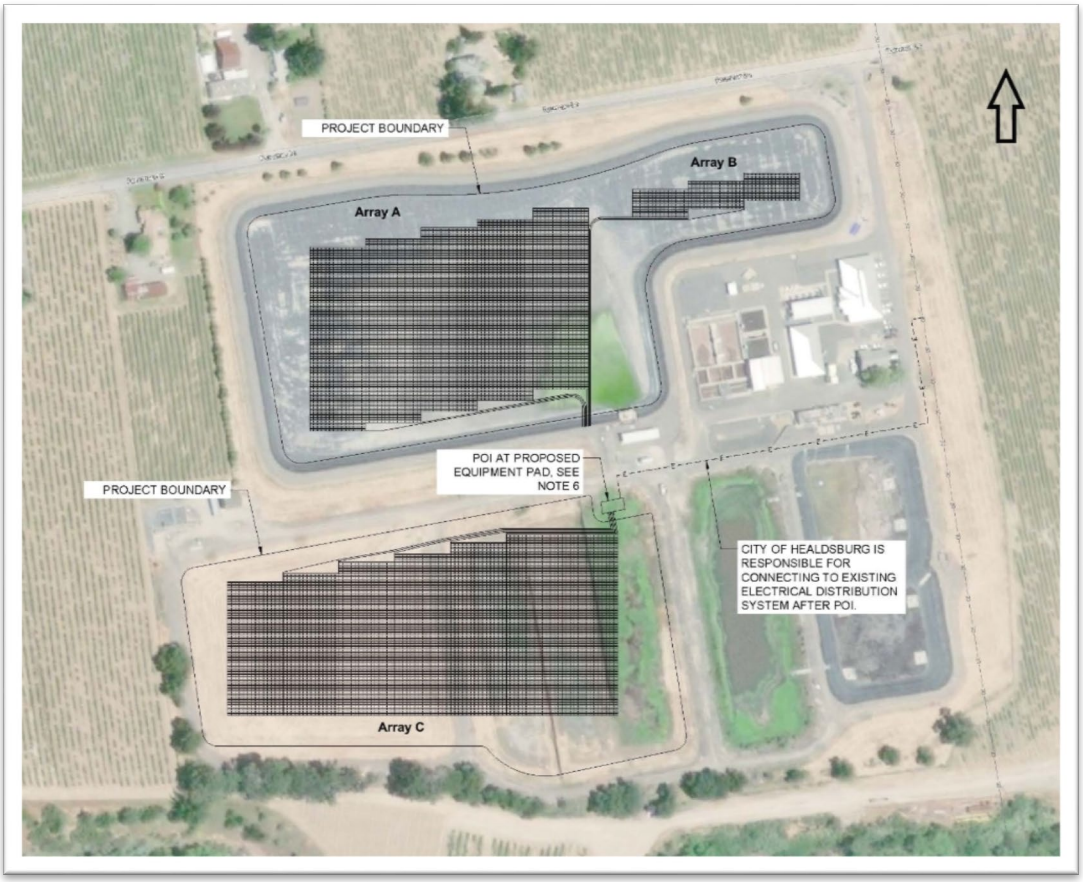


Figure 1.2-2 Proposed Solar Array Locations

1.3 California Environmental Quality Act Compliance

The California Environmental Quality Act (California Public Resources Code §21000 et seq., "CEQA"), requires that the environmental impacts of proposed projects be evaluated and that feasible methods to reduce, avoid or eliminate significant adverse impacts of these projects be identified and eliminated. Therefore, to fulfill the purpose and intent of CEQA, NCPA, as the lead agency, has caused this Initial Study/Mitigated Negative Declaration (IS/MND) to be prepared to address the potentially significant adverse environmental impacts associated with implementation of the Project.

1.3.1 Purposes of an Initial Study

The purposes of an Initial Study, as outlined in §15063(c) of the State CEQA Guidelines, are:

1) *Provide the Lead Agency with information to use as the basis for deciding whether to prepare an EIR or a Negative Declaration;*

2) *Enable an applicant or Lead Agency to modify a project, mitigating adverse impacts before an EIR is prepared, thereby enabling the project to qualify for a Negative Declaration;*

3) *Assist the preparation of an EIR, if one is required, by:*

   a. *Focusing the EIR on the effects determined to be significant,*
   b. *Identifying the effects determined not to be significant,*
   c. *Explaining the reasons for determining that potentially significant effects would not be significant, and*
   d. *Identifying whether a program EIR, tiering, or another appropriate process can be used for analysis of the project's environmental effects.*

4) *Facilitate environmental assessment early in the design of a project;*

5) *Provide documentation of the factual basis for the finding in a Negative Declaration that a project will not have a significant effect on the environment;*

6) *Eliminate unnecessary EIR's; and*

7) *Determine whether a previously prepared EIR could be used with the project.*

1.3.2 Contents of an Initial Study

The contents of an Initial Study are defined in §15063(d) of the CEQA Guidelines as follows:

1) *A description of the project including the location of the project;*

2) *An identification of the environmental setting;*

3) *An identification of environmental effects by use of a checklist, matrix, or other method, provided that entries on a checklist or other form are briefly explained to indicate that there is some evidence to support the entries. The brief explanation may be either through a narrative or a reference to another information source such as an attached map, photographs, or an earlier EIR or negative declaration. A reference to another document should include, where appropriate, a citation to the page or pages where the information is found;*

4) *A discussion of ways to mitigate the significant effects identified, if any;*

5) *An examination of whether the project would be consistent with existing zoning, plans, and other applicable land use controls;*

6) *The name of the person or persons who prepared or participated in the Initial Study.*

1.3.3 Intended Uses of the Initial Study

The Initial Study will be presented to NCPA's Commission for its use in implementing the California Environmental Quality Act (CEQA). The basic purposes of CEQA as outlined in §15002(a) of the CEQA Guidelines are to:

1) *Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities.*

2) *Identify the ways that environmental damage can be avoided or significantly reduced.*

3) *Prevent significant avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.*

4) *Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.*

As pointed out above, one purpose of an Initial Study is:

> Provide the Lead Agency with information to use as the basis for deciding whether to prepare an Environmental Impact Report (EIR) or Negative Declaration.

1.3.4 Lead Agency Decision-Making Process

The Lead Agency (i.e., NCPA) would base its decision on the Project on the findings contained within this Initial Study plus the professional knowledge and judgment of its staff and consultants. During the review process, mitigation measures contained in this document should be evaluated with respect to their effectiveness in reducing impacts to a level of insignificance. Public input, including responsible and trustee agencies, should also be requested and evaluated during the review process.

The approval process for the proposed Project will begin with NCPA's Commission making a decision to prepare a Negative Declaration or an Environmental Impact Report for the Project. Should NCPA decide to prepare a Negative Declaration, based on this Initial Study, it would also determine whether or not it would approve of the Project in accordance with §15074 of the State CEQA Guidelines. Should NCPA decide to prepare an Environmental Impact Report for the Project, it would also have to make findings in accordance with §15091 of the State CEQA Guidelines and to certify the Final Environmental Impact Report in accordance with §15090 of the CEQA Guidelines.

1.3.5 Approvals for which this Initial Study will be Used

The following agencies would also utilize this document in their decision-making process regarding the Proposed Project:

City of Healdsburg

Project Approval

2 Project Background and Description

2.1 Introduction

The Northern California Power Agency (NCPA), a California Joint Action Agency, was established in 1968 by a consortium of locally owned electric utilities to make joint investments in energy resources that would ensure an affordable, reliable and clean supply of electricity for customers in its member communities. Today those members include the Cities of Alameda, Biggs, Gridley, Healdsburg, Lodi, Lompoc, Palo Alto, Redding, Roseville, Santa Clara, Shasta Lake, and Ukiah as well as the Bay Area Rapid Transit District, Port of Oakland, Plumas-Sierra Rural Electric Cooperative, and Tahoe Donner Public Utility District.

Over the past four decades, NCPA has constructed and today operates and maintains a fleet of power plants that is among the cleanest in the nation and that provides reliable and affordable electricity to more than 600,000 Californians. NCPA made major investments in renewable energy in the early 1980s when it developed two geothermal power plants and financed and built a 259 MW hydroelectric facility. Thirty years later those resources continue to generate reliable, emission-free electricity for its member communities.

NCPA's 775-megawatt portfolio of power plants is approximately 50% greenhouse gas emission free. Its mix of geothermal, hydroelectric and natural gas resources is well positioned to help its members achieve California's goal of a 60% Renewable Portfolio Standard (RPS) by 2030. NCPA member utilities also have invested heavily in the most environmentally friendly form of electricity – the megawatts that are not used. The Agency members have collectively spent more than $100 million on energy efficiency since 2006 reducing demand for electricity by more than 350 gigawatt hours during that time.

NCPA's commitment to the environment reflects its status as a not-for-profit public entity whose policies and values are set not by investors but by locally elected or appointed officials who serve as the energy regulators in the cities, towns and districts that are members of the Agency.

2.2 Project Background

Now NCPA intends to implement the NCPA Solar Project 1. The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories to be under construction by the end of 2019. The plants will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. Six of the member agencies have decided to participate in this project. They are the Cities of Healdsburg, Lodi and Redding as well as the Plumas-Sierra Rural Electric Cooperative. Six potential sites have been selected for further analysis as shown below:

Site	Location	Developable Area (acres)	Estimated Capacity (MW_{dc})
Healdsburg – Water Reclamation	38°35'00.03" N, 122°51'45.37" W	8.13	3.62
Lodi – Pixley Basin	38°07'18.06" N, 121°15'12.14" W	15.0	3.51
Lodi – Century East/West	38°06'26.66" N, 121°16'21.63" W	2.5	0.63
Lodi – Parking Structure	38°08'05.25" N, 121°16'18.58" W	0.9	0.18
Plumas-Sierra – Chilcoot	39°47'56.66" N, 120°09'49.99" W	28.2	6.11
Redding – Airport	40°29'41.73" N, 122°16'46.41" W	54.7	11.40

Due to the timing of implementation and the great distance between the member agencies, it was determined that the most logical approach to satisfying the requirements of CEQA for this project was to issue separate CEQA documents for each member agency's projects. Therefore, this document focuses on the water reclamation facility site project proposed by the City of Healdsburg.

2.3 Project Description

As shown on Figure 2.3-1, the Healdsburg Water Reclamation Facility is located south of the City at 340 Foreman Lane, Healdsburg.

Figure 2.3-1 Healdsburg Water Reclamation Facility Location

As shown on Figure 2.3-2, the Project site is within the confines of the 36-acre water reclamation facility. The proposed technology type for this installation is floating arrays whereby the panels would be mounted on pontoons that are anchored to ballasts located outside the storage ponds. As shown on Figure 2.3-3, the northerly pond would accommodate Arrays A and B. Work is currently underway to remove the levee separating the two southerly ponds. The combined southerly pond would accommodate Array C.

Figure 2.3-2 Healdsburg Water Reclamation Facility Site

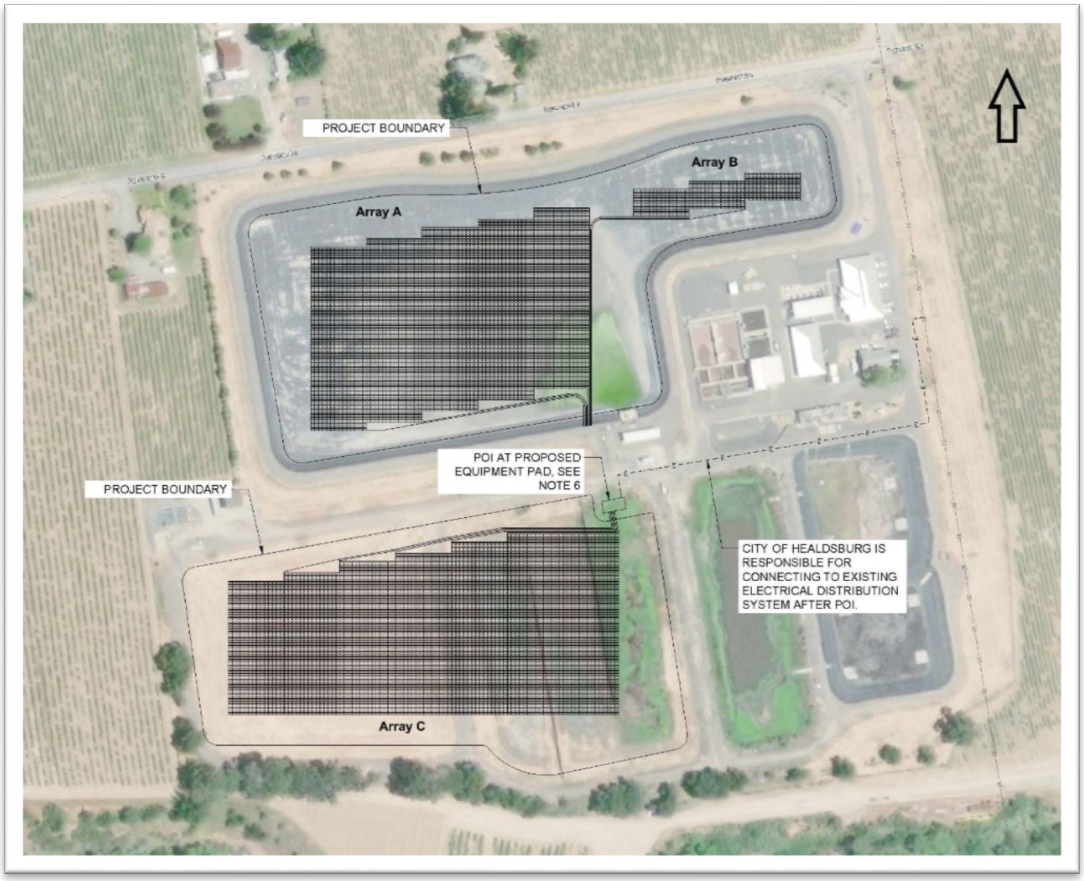


Figure 2.3-3 Conceptual Solar Array Layout

A typical floating array installation is shown on Figure 2.3-4.

Figure 2.3-4 Example of Floating Solar Array

Design criteria for this installation are provided in Table 2.3-1.

Table 2.3-1
Design Parameters

Design Parameter	North Pond	South Pond
Project Size	1.70 MW_{dc}	1.92 MW_{dc}
Approximate Pond Size (bottom area)	7.17 acres	7.37 acres
Project Area	3.82 acres	4.31 acres
Floating Devices	5,012	5,656
340 W Modules	5,012	5,656
Total MV Cable Length	3,552 lineal feet	2,878 lineal feet

3 Environmental Checklist, Analysis and Mitigation Measures

3.1 Introduction

1. Project Title:	**NCPA Solar Project 1 – Healdsburg Water Reclamation Facility Site**
2. Lead Agency Name and Address:	Northern California Power Agency 651 Commerce Drive Roseville, California 95678-6420
3. Contact Person, Phone Number and Email:	Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE K.S. Dunbar & Associates, Inc. Environmental Engineering 45375 Vista Del Mar Temecula, California 92590-4314 (951) 699-2082 ksdpe67@gmail.com
4. Project Location:	Within the City of Healdsburg, Sonoma County Section 5, Township 9 North, Range 9 West, Mount Diablo B&M 38º 35' 00.03" N, -122º 51' 45.37" W
5. Project Sponsor's Name and Address:	Northern California Power Agency 651 Commerce Drive Roseville, California 95678 City of Healdsburg Electric, Water and Wastewater Department 401 Grove Street Healdsburg, California 95448
6. General Plan Designations:	Public/Quasi Public (PQP)
7. Zoning:	Public/Quasi Public (PQP)
8. Project Description (Describe the whole action involved, including, but not limited to, later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets, if necessary):	NCPA intends to install a solar photovoltaic generation system at the Healdsburg Water Reclamation Facility property. The installed capacity would be 3.62 megawatts, direct current (MW_{dc}).
9. Surrounding Land Uses and Setting:	Mixture of residential uses, agricultural land and open space.
10. Other Public Agencies whose Approval is Required (e.g., permits, financing approval, or participation agreement):	City of Healdsburg

11. Have California Native American Tribes traditionally and culturally affiliated with the project area requested information pursuant to Public Resources Code Section 21080.3.1? If so, has consultation begun?	Yes.

3.2 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by the Project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐	Aesthetics	☐	Agriculture and Forestry Resources	☐	Air Quality
☐	Biological Resources	☐	Cultural Resources	☐	Energy
☐	Geology/Soils	☐	Greenhouse Gas Emissions	☐	Hazards & Hazardous Materials
☐	Hydrology/Water Quality	☐	Land Use/Planning	☐	Mineral Resources
☐	Noise	☐	Population and Housing	☐	Public Services
☐	Recreation	☐	Transportation	☐	Tribal Cultural Resources
☐	Utilities/Service Systems	☐	Wildfire	☐	Mandatory Findings of Significance

3.3 Determination

On the basis of this initial evaluation:

☐	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 project proponent. 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" impact 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 in 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 or NEGATIVE DECLARATION pursuant to applicable legal standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

K.S. Dunbar for
Ron Yuen
Director of Engineering, Generation Services

June 3, 2019
Date

3.4 Chapter Organization

This section describes how this chapter of the Draft Initial Study and Mitigated Negative Declaration is organized. In this analysis, potential reasonably foreseeable impacts are evaluated with respect to aesthetics, agriculture and forestry resources, air quality, biological resources, cultural resources, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation, tribal cultural resources, utilities and service systems, and wildfire. Additionally, mandatory findings of significance regarding short-term, long-term, and cumulative impacts are evaluated. Each topic area begins with a listing of the factors identified by the State CEQA Guidelines for analysis, followed by a discussion of the environmental setting, the analysis for each factor, and an overall conclusion.

3.4.1 Environmental Setting

Throughout this document and according to the State CEQA Guidelines, the environmental setting is intended to mean the environmental conditions as they exist at the time the environmental analysis is commenced. The environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant. The description of the environmental setting shall be no longer than is necessary to gain an understanding of the significant effects of the proposed Project and its alternatives.

3.4.2 Discussion and Mitigation Measures

The Initial Study includes an analysis of direct and reasonably foreseeable physical changes in the environment from the proposed Project and feasible mitigation measures that would reduce such impacts to a less than significant level. Thresholds of significance for each potential impact are provided as appropriate.

A "significant effect on the environment" is defined in the State CEQA Guidelines Section 15382 as a "substantial or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. A social or economic change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant."

"Environment" is defined in the State CEQA Guidelines Section 15360 as "the physical conditions which exist within the area which will be affected by a proposed project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance."

A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a Lead Agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

The following requirements for evaluating environmental impacts are cited directly from the State CEQA Guidelines Appendix G.

1) All answers must take into account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

2) Once the Lead Agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation incorporated, or less than

significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect is significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

3) "Negative Declaration: Less Than Significant with Mitigation Incorporated" applies when the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact". The Lead Agency must describe the mitigation measures, and briefly explain how they reduce the effect to less than significant.

4) Earlier analyses may be used where pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. [§15063(c)(3)(D)]. In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.

   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) Mitigation Measures. For effects that are "Less Than Significant with Mitigation Incorporated", describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

5) Lead Agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

6) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

7) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

8) The explanation of each issue should identify:

   a) The significance criteria or threshold, if any, used to evaluate each question; and

   b) The mitigation measures identified, if any, to reduce the impact to less than significance.

3.5 Aesthetics

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
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. Substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	◙
d. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☐	☐	◙	☐

3.5.1 Environmental Setting

As shown on Figure 3.5-1, the proposed Project site is within the confines of the Healdsburg Water Reclamation Facility. The Project site is bounded by rural residential and agricultural properties to the north and west and open space and agricultural lands to the south and east.

Figure 3.5-1 Proposed Project Site, Healdsburg Water Reclamation Facility

3.5.2 Discussion and Mitigation Measures

Aesthetics a. *Would the project have a substantial adverse effect on a scenic vista?*

Answer: No Impact.

Discussion:

As shown on Figure 3.5-2, there are scenic vistas to vineyards and the distant mountains from the proposed Project site. However, the solar panels would be installed within the existing ponds and would be of low profile not interfering with those views. Therefore, there would be no adverse effects on a scenic vista caused by implementation of the Project. Consequently, no further analysis or mitigation is required.

Figure 3.5-2 View from Foreman Lane Adjacent to Project Site

Aesthetics b. *Would the project* substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Answer: No Impact.

Discussion:

There are no officially designated State scenic highways within the Project area. Therefore, no further analysis or mitigation is required.

Aesthetics c. Would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Answer: No Impact.

Discussion:

According to the City of Healdsburg's General Plan, the proposed Project site is designated as public/quasi-public. Installation of solar facilities is a permitted use in this designation. Therefore, there would be no conflicts with applicable zoning and therefore no further analysis or mitigation is required.

Aesthetics d. *Would the project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?*

Answer: Less than Significant Impact.

Discussion:

According to the June 2014 Meister Consultants Group Solar and Glare Fact Sheet prepared for the U.S. Department of Energy, a common misconception about solar photovoltaic (PV) panels is that they intently cause or create "too much" glare, posing a nuisance to neighbors and a safety risk for pilots. While in certain situations the glass surfaces of solar PV systems can produce a glint (a momentarily flash of bright light) and glare (a reflection of bright light for a longer duration), light adsorption, rather than reflection is central to the function of a solar PV panel – to absorb solar radiation and convert it to electricity. Solar PV panels are constructed of dark-colored (usually blue or black) materials and are covered with anti-reflective coatings. Modern PV panels reflect as little as two percent of incoming sunlight, about the same as water and less than soil or even wood shingles.

Based on the above discussion, the potential for substantial glare from the solar PV panels would be considered less than significant and therefore no further analysis or mitigation is required.

3.5.3 Conclusion

No significant impacts were identified; therefore, no further analysis or mitigation is required.

3.6 Agriculture and Forestry Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project, and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. *Would the Project:*				
a. Convert Prime 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?	☐	☐	☐	◙
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	◙
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 511104(g))?	☐	☐	☐	◙
d. Result in the loss of forest land or conversion of forest land to non-forest uses.	☐	☐	☐	◙
e. Involve other changes in the existing environment that, 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?	☐	☐	☐	◙

3.6.1 Environmental Setting

As shown previously on Figure 3.5-1, the Project site is within the confines of the Healdsburg Water Reclamation Facility. There are no Farmlands or forest lands on the Project site

3.6.2 Discussion and Mitigation Measures

Agriculture and Forestry Resources. a. *Would the project 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?*

Answer: No Impact.

Discussion:

There are no Prime Farmlands or Farmlands of Statewide Importance as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency at the Project site *(resources.ca.gov, 3/12/2019)*. Therefore, there would be no impacts and no further analysis or mitigation is required.

Agriculture and Forestry Resources. b. *Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?*

Answer: No Impact.

Discussion:

The site is zoned as Public/Quasi Public (P/QP). It is not under a Williamson Act contract. Therefore, there would be no impacts and no further analysis or mitigation is required.

Agriculture and Forestry Resources. c. *Would the project 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))?*

Answer: No Impact.

Discussion:

The site is not zoned for forest land or timber land use. Therefore, there would be no impacts and no further analysis or mitigation is required.

Agriculture and Forestry Resources. d. *Would the project result in the loss of forest land or conversion of forest land to non-forest use?*

Answer: No Impact.

Discussion:

There is no forest land within the Project site. Therefore, there would be no impacts and no further analysis or mitigation is required.

Agriculture and Forestry Resources. e. *Would the project 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?*

Answer: No Impact.

Discussion:

There is no Farmland or forest land at the Project site. Therefore, there would be no impacts and no further analysis or mitigation is required.

3.6.3 Conclusion

No significant impacts were identified; therefore, no further analysis or mitigation is required.

3.7 Air Quality

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. *Would the Project:*				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	◙
b. Result in cumulatively considerable net increase of any criteria pollutant under an applicable federal or state ambient air quality standard?	☐	☐	☐	◙
c. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	◙
d. Result in other emissions (such as those leading to odors or dust) adversely affecting a substantial number of people?	☐	☐	☐	◙

3.7.1 Environmental Setting

Ambient air quality is affected by both the rate and location of pollutant emissions and by meteorological conditions that influence the local and regional dispersal of pollutants. Atmospheric conditions such as wind speed and direction and air temperature gradients combined with local topography provide the link between air pollutant emissions and air quality.

The proposed Project is within the North Coast Air Basin. Planning for the attainment and maintenance of both federal and State air quality standards in the Project area is the responsibility of the Northern Sonoma County Air Pollution Control District. The North Coast Air Basin is in attainment for all federal ambient air quality standards; therefore, an air quality management plan is not required for this air basin.

The California Air Resources Board (ARB) provides ambient air quality data for most air basins in the State. A summary of the data available for the nearest monitoring station to the Project area (i.e., Healdsburg Municipal Airport) is provided in Tables 3.7-1 and 3.7-2.

Table 3.7-1
Ozone Trends Summary: Healdsburg Municipal Airport
National Standards

	Days > Standard			1-hr Observations				8-hr Observations				
	8-hr			EENED[1]				0.070 Std.		0.075 Std.		
Year	0.070	0.075	0.08	Max.	1-Yr	3-Yr	D.V.[2]	Max.	D.V.[2]	Max.	D.V.[2]	Coverage
2017	0	0	0	*0.083*	*0.0*	*0.0*	*0.074*	0.069	0.058	0.069	0.059	98
2016	0	0	0	*0.072*	*0.0*	*0.0*	*0.070*	0.066	0.058	0.066	0.059	94
2015	0	0	0	*0.072*	*0.0*	*0.0*	*0.069*	0.063	0.058	0.063	0.058	98
2014	0	0	0	*0.070*	*0.0*	*0.0*	*0.070*	0.064	0.058	0.064	0.058	99
2013	0	0	0	*0.069*	*0.0*	*0.0*	*0.070*	0.062	*	0.062	*	97
2012	0	0	0	*0.073*	*0.0*	*0.0*	*0.073*	0.063	*	0.063	*	99
2011	0	0	0	*0.073*	*0.0*	*	*0.070*	0.064	*	0.064	*	36
2010	*	*	*	*	*	*	*	*	*	*	*	0
2009	0	0	0	*0.070*	*0.0*	*0.0*	*0.070*	0.063	0.056	0.063	0.056	98
2008	0	0	0	*0.080*	*0.0*	*0.0*	*0.070*	0.065	0.058	0.065	0.058	99

Notes: All concentrations expressed in parts per million.

The national 1-hour ozone standard was revoked in June 2005. Statistics related to the revoked standard are shown in *italics* or ***italics***.

National exceedances shown in **orange**.

An exceedance is not necessarily a violation.

Daily maximum 8-hour averages associated with the National 0.070 ppm standard exclude those 8-hour averages that have first hours between midnight and 6:00 am, Pacific Standard Time.

Daily maximum 8-hour averages associated with the National 0.070 ppm standard include only those 8-hour averages from days that have sufficient data for the day to be considered valid.

Daily maximum 8-hour averages associated with the National 0.075 ppm standard may come from days that don't have sufficient data for the day to be considered valid, provided the daily maximum 8-hour average itself includes sufficient data to be considered valid.

[1] EENED = Estimated Expected Number of Exceedance Days

[2] D.V. = National Design Value

* There was insufficient (or no) data available to determine the value.

Source: arb.ca.gov, 04/02//2019

Table 3.7-2
Ozone Trends Summary: Healdsburg Municipal Airport
State Standards

	Days > Standard		1-Hour Observations			8-Hour Averages			Year
Year	1-Hour	8-Hour	Max.	EPDC[1]	D.V.[2]	Max.	EPDC[1]	D.V.[2]	Coverage
2017	0	0	0.083	0.0741	0.07	0.069	0.0661	0.066	98
2016	0	0	0.072	0.0722	0.07	0.066	0.0660	0.066	91
2015	0	0	0.072	0.0728	0.07	0.064	0.0668	0.064	98
2014	0	0	0.070	0.0721	0.07	0.064	0.0659	0.064	98
2013	0	0	0.069	0.0708	0.07	0.063	*	0.035	95
2012	0	0	0.073	*	0.07	0.063	*	0.065	99
2011	0	0	0.073	*	0.07	0.065	*	0.065	36
2010	*	*	*	*	*	*	*	*	0
2009	0	0	0	0.0732	0.07	0.064	0.0644	0.064	97
2008	0	0	0.080	0.0739	0.07	0.065	0.0647	0.065	99

Notes: All concentrations expressed in parts per million.

National exceedances shown in **green**.

An exceedance is not necessarily a violation.

[1] EPDC = Expected Peak Day Concentration

[2] D.V. = State Designation Value

*There was insufficient (or no) data available to determine the value.

Source: arb.ca.gov, 02/03/2019

Both the ARB and the EPA issue area designations for individual pollutants for California's air basins. The latest designations for Northern Sonoma County are shown in Table 3.7-3.

Table 3.7-3

Ambient Air Quality Area Designations for Northern Sonoma County

Pollutant	State Area Designation	National Area Designation
Ozone	Attainment	Unclassified/Attainment
Particulate Matter Less than 2.5 microns in diameter ($PM_{2.5}$)	Attainment	Unclassified/Attainment
Particulate Matter Less than 10 microns in diameter (PM_{10})	Attainment	Unclassified
Carbon Monoxide (CO)	Unclassified	Unclassified/Attainment
Nitrogen Dioxide (NO_2)	Attainment	Unclassified/Attainment
Sulfur Dioxide (SO_2)	Attainment	Unclassified/Attainment
Sulfates	Attainment	--
Lead (Pb)	Attainment	Unclassified/Attainment
Hydrogen Sulfide (H_2S)	Unclassified	--
Visibility Reducing Particles	Unclassified	--

Source: arb.ca.gov, 4/02/2019

3.7.2 Discussion and Mitigation Measures

Air Quality. a. *Would the project conflict with or obstruct implementation of the applicable air quality plan?*

Answer: No Impact.

Discussion:

Northern Sonoma County has been designated as attainment for all federal Ambient Air Quality Standards. Therefore, as explained above, an Air Quality Plan is not required for the Project area. Consequently, implementation of the Project would not result in a conflict with the applicable air quality plan and no further analysis or mitigation is required.

Air Quality. b. *Would the project result in cumulatively considerable net increase of any criteria pollutant under an applicable federal or state ambient air quality standard)?*

Answer: No Impact.

Discussion:

Although the Northern Sonoma County APCD has not developed recommended thresholds of significance for projects that are subject to CEQA review, the Mendocino County Air Quality Management District (immediately to the north) and the Bay Area Air Quality Management District (immediately to the south) have adopted thresholds of significance for criteria air pollutants and precursors. Those thresholds are: reactive organic gases, 54 pounds per day; oxides of nitrogen, 54 pounds per day; respirable particulate matter, PM_{10}, 82 pounds per day; and fine particulate matter, $PM_{2.5}$, 54 pounds per day.

The Northern Sonoma County APCD has not established numerical significance thresholds for carbon monoxide (CO) or oxides of sulfur (SO_x). Other AQMDs have established such thresholds among them the South Coast AQMD. For construction projects, those thresholds are 550 pounds per day and 150 pounds per day, respectively. Those thresholds are used in this Initial Study to determine significance.

The Northern Sonoma County APCD has not adopted significance thresholds for the evaluation of toxic air contaminants (TACs) and associated human health risks. Cancer risks from TACs is typically expressed in numbers of excess cancer cases per million persons exposed over a defined period of exposure, for example, over an assumed 70-year lifetime. Non-cancer health hazards for chronic and acute diseases are expressed in terms of a hazard index (HI), which is ratio of TAC concentration to a reference exposure level (REL), below which no adverse health effects are expected to occur. This analysis relies on commonly applied thresholds typically recommended by other air pollution control districts in California, as identified in the California Air Pollution

Control Officers Association's (CAPCOA) *Health Risk Assessments for Proposed Land Use Projects (2009)*. Exposure to TACs would be considered significant if the probability of contracting cancer for the maximum exposed individual would exceed 10 in one million or would result in a hazard index greater than one. *(Sacramento Metropolitan Air Quality Management District, May 2015)*

The Northern Sonoma County APCD has not adopted significance criteria for the evaluation of greenhouse gas (GHG) emissions. Thresholds for GHG emissions are usually expressed in terms of carbon dioxide equivalents (CO_2 eq). EPA has suggested a reportable significance threshold of 25,000 tons of CO_2 eq per year. However, the Sacramento Metropolitan AQMD has adopted a significance criteria threshold of 1,100 metric tons (MT) per year for construction projects. For the purposes of evaluating the proposed project's GHG impacts, emissions resulting from construction of the Project will be quantified and compared to the SMAQMD threshold of 1,100 metric tons of CO_2 eq per year (1,210 tons per year).

A summary of the threshold criteria to determine significance utilized in this Initial Study is provided in Table 3.7-4.

Table 3.7-4

Threshold Criteria Utilized to Determine Significance

Pollutant	Threshold Limit	
	tons per year	pounds per day
Reactive Organic Gases (ROG)	10	54
Carbon Monoxide (CO)	--	550
Oxides of Nitrogen (NO_x)	10	54
Oxides of Sulfur (SO_x)	--	150
Respirable Particulate Matter (PM_{10})	15	82
Fine Particulate Matter ($PM_{2.5}$)	10	54
Toxic Air Contaminants (TACs), Odor and GHG Thresholds		
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million Chronic and Acute Hazard Index ≥ 1.0 (project increment)	
GHG	1,100 MT/yr CO_2eq (1,210 tons per year).	

Criteria Pollutants

It is anticipated that NCPA would install solar equipment at the Healdsburg Water Reclamation Facility site. A typical construction equipment list for this activity follows:

Equipment	Number	Horsepower	Load Factor[1]	Hours per Day
Crane	2	399	0.43	8
Tractor/Backhoe/Loader	1	108	0.55	8
Water Truck	1	189	0.50	2

Notes:
[1] Percentage of the engines' maximum horsepower rating that the equipment actually operates.

These additional assumptions are also utilized in the air quality analyses for installation of the solar equipment:

- The disturbed area is estimated at 0.25 acre (1,000± feet of trench with a 10-foot wide disturbed area).
- There would be two heavy-duty trucks delivering supplies to the site. Mileage for each truck is assumed at 100 miles per day.
- There would be approximately 2 pickup trucks traveling to and from the site by inspectors. Mileage for each pickup would be approximately 100 miles per day.
- Approximately 10 construction workers would be involved at the site on the peak day of activities. Mileage for worker commuters would be approximately 50 per day.
- Construction activities would occur for about 90 days.

K.S. Dunbar & Associates, Inc., developed an Excel Spreadsheet model, based on the California Air Resources Board's 2011 OFFROAD emission factors, that calculates estimated emissions from construction activities. That model was used to estimate construction related emissions from off-road heavy construction equipment. Based on construction occurring in 2019, the model generated estimated construction emissions as shown in Table 3.7-5 (detailed model results are contained in Appendix B)[1].

Table 3.7-5
Estimated Emissions from Off-Road Heavy Construction Equipment
Solar Equipment Installation

	Pollutant (pounds per day)[a]					
	ROG	CO	NO_x	SO_x	PM_{10}	$PM_{2.5}$
Solar Equipment Installation	2.79	23.40	27.87	0.04	0.21	0.19
Threshold Limits[b]	54	550	54	150	82	54

[a] Use of particulate traps reduces PM_{10} and $PM_{2.5}$ by 85% and oxidation catalysts reduces NO_x by 15%.
[b] Construction-related threshold limits developed to determine significance.

As can be seen by the data in Table 3.7-5, emissions from heavy construction equipment during solar equipment installation would not exceed the construction-related threshold limits contained in Table 3.7-4.

There would also be 2 heavy-duty trucks transporting equipment to the site as well as two pickup trucks utilized by inspectors at the job site. Based on the assumption that each heavy-duty truck and each pickup travel 100 miles per day, exhaust emissions would be as shown in Table 3.7-6.

Table 3.7-6
Estimated Emissions from On-Road Vehicles
Solar Equipment Installation

Equipment	Pollutant (pounds per day)					
	ROG	CO	NO_x	SO_x	PM_{10}	$PM_{2.5}$
On-Road Trucks	0.24	1.13	2.78	0.01	0.14	0.11
Pickups	0.11	1.01	0.10	0.00	0.02	0.01
Totals	0.35	2.14	2.88	0.01	0.16	0.12

Vehicles owned by construction workers would be an additional source of air pollutants. An estimate of emissions based on 10 worker vehicles per day of which 100 percent are pickup trucks (gross vehicle weight of 8,500 pounds or less) with an average round trip of 50 miles is presented in Table 3.7-7.

Table 3.7-7
Construction Worker Commute Vehicle Emissions
Solar Equipment Installation

Pollutant (pounds per day)					
ROG	CO	NO_x	SO_x	PM_{10}	$PM_{2.5}$
0.29	2.51	0.24	0.01	0.05	0.03

Earthmoving activities would create fugitive dust emissions. It is estimated that fugitive dust emissions from construction activities on disturbed soil approximate 5 pounds per acre per day (PM_{10}) with no mitigation. However, the application of water as required would reduce the emissions by 61 percent *SCAQMD, October 2016)*. As stated above, it is anticipated that approximately 0.25 acres would be disturbed at the peak day of activity. Therefore, the resulting PM_{10} emissions would be 0.49 pounds per day. SCAQMD also estimates that the $PM_{2.5}$ emissions in fugitive dust are equal to 21 percent of the PM_{10} emissions in fugitive dust *(SCAQMD, October 2006).* Therefore, the $PM_{2.5}$ emissions would be 0.10 pounds per day.

[1] Should the construction period be delayed, the emissions from heavy construction equipment would be less due to technology improvements and phasing out of older equipment. Therefore, the emissions shown are considered the worst-case scenario.

The total estimated emissions from the installation of the solar equipment at the Healdsburg Water Reclamation Facility site are shown in Table 3.7-8

Table 3.7-8
Total Estimated Construction Emissions[a]
Solar Equipment Installation

Source	Pollutant (pounds per day)					
	ROG	CO	NO_x	SO_x	PM_{10}	$PM_{2.5}$
Construction Equipment	2.79	23.40	27.87	0.04	0.21	0.19
On-Road Vehicles	0.35	2.14	2.88	0.01	0.16	0.12
Worker Commutes	0.29	2.51	0.24	0.01	0.05	0.03
Fugitive Dust	0.00	0.00	0.00	0.00	0.49	0.10
Totals	3.43	28.05	30.99	0.06	0.91	0.44
Threshold Limits[b]	54	550	54	150	82	54

[a] Use of particulate traps reduces PM_{10} and $PM_{2.5}$ by 85% and oxidation catalysts reduces NO_x by 15%.
[b] Construction-related threshold limits developed to determine significance.

As shown in Table 3.7-8, the total estimated emissions from installation of the solar equipment at the Healdsburg Water Reclamation Facility site would not exceed the construction-related threshold limits for significance presented in Table 3.7-4. Therefore, there would be no impact and no further analysis or mitigation is required,

Operation and maintenance personnel might make two or three trips per week to the Project site. Consequently, there would be essentially no emissions associated with vehicle travel to and from the site during operation and maintenance of the new facilities. Operation of the actual facilities would produce essentially no emissions.

Toxic Air Contaminants (TACs)

The combustion of diesel fuel produces diesel particulate matter as a byproduct. Diesel particulate matter has been identified by the California Air Resources Board (ARB) as a toxic air contaminant (TAC). While TACs can have long-term and/or short-term effects, diesel TAC has been shown by the ARB to have little or no short-term impact.

The ARB determined that the chronic impact of diesel particulate matter was of more concern than the acute impact in the Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines *(ARB 2000)*. In that document, ARB noted that "Our analysis shows that the potential cancer risk from inhalation is the critical path when comparing cancer and non-cancer risk. In other words, a cancer risk of 10 cases per million from the inhalation of diesel particulate matter (PM) will result from diesel PM concentrations that are much less than the diesel PM or TAC concentrations that would result in chronic or acute non-cancer hazard index values of 1 or greater." Consequently, any analysis of diesel TAC should focus on the long-term, chronic cancer risk posed by diesel emissions. Chronic cancer risk is normally measured by assessing what the risk to an exposed individual from a source of TACs would be if the exposure occurred over 70 years. Diesel emissions related to construction of the proposed Project would only occur for less than a one-year period. Therefore, the impact would be considered less than significant and no further analysis is required.

Air Quality. c. *Would the project expose sensitive receptors to substantial pollutant concentrations?*

Answer: No Impact.

Discussion:

As shown above, all emissions from construction of the Project would be less than significant based on the threshold limits shown in Table 3.7-4. Therefore, implementation of the Project would not expose sensitive receptors to substantial pollutant concentrations. Consequently, no further analysis or mitigation is required.

Air Quality. d. *Would the project result in other emissions (such as those leading to odors or dust) adversely affecting a substantial number of people?*

Answer: No Impact.

Discussion:

As shown above in Table 3.7-8, the fugitive dust emissions would be less than significant based on threshold criteria shown in Table 3.7-4. In addition, implementation of the Project would not result in the generation of odors. Consequently, there would be no impacts and no further analysis or mitigation is required.

3.7.3 Conclusions

No impacts were identified; therefore, no further analysis or mitigation is required.

3.8 Biological Resources

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

3.8.1 Environmental Setting

A habitat and jurisdictional assessment was conducted by ELMT Consultant's Biologist Travis J. McGill on April 16, 2019 to document baseline conditions and assess the potential for special-status[2] plant and wildlife species to occur within the Project site that could pose a constraint to implementation of the proposed Project. Special attention was given to the suitability of the Project site to support special-status plant and wildlife species identified by the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB), and other electronic databases as potentially occurring in the general vicinity of the Project site. EMLT's complete report is included as Appendix C of this document.

Existing Site Conditions

The Project site is located on two ponds, each roughly 7-acres, totaling 14-acres. The site is surrounded by agricultural fields on three sides, with the nearest residences located on adjacent parcels to the west of the site, approximately 45-feet from site parcel edge and north at approximately 65-feet and 125-feet from the site parcel edge. According to the National Wetland Inventory (NWI) data, a wetland feature has been mapped on the southern portion of the parcel (proposed Array C). The Federal Emergency

[2] As used in this report, "special-status" refers to plant and wildlife species that are federally and State listed, proposed, or candidates; plant species that have been designated with a California Native Plant Society Rare Plant Rank; wildlife species that are designated by the CDFW as fully protected, species of special concern, or watch list species; and specially protected natural vegetation communities as designated by the CDFW.

Management Agency (FEMA) data indicates that a majority of the site is located in an area above the 500-year flood level, and a small portion on the southern parcel is located within the 100-year flood zone.

The proposed project footprint is relatively flat at an approximate elevation of 90 feet above mean sea level, with the exception of the side slopes of the ponds that have been dug out to create the onsite basins. Based on the US Department of Agriculture's National Resources Conservation Services' (NRCS) Web Soil Survey, the project site is underlain by the following soil units: Yolo sandy loam, overwash (0 to 5 percent slopes), and Yolo loam (0 to 10 percent slopes). Refer to Exhibit 4, *Soils*, in Attachment A in ELMT's report in Appendix C. Soils on-site have been mechanically disturbed and heavily compacted from development of the WRF.

Vegetation

Due to existing land uses, no native plant communities or natural communities of special concern were observed on the Project site. The Project site primarily consists of the existing WRF that consist of existing ponds and associated infrastructure and buildings that are subject to ongoing anthropogenic disturbances. These disturbances have eliminated the natural plant communities that once occurred within the boundaries of the Project site. Refer to Attachment B, *Site Photographs*, for representative site photographs in ELMT's report in Appendix C. No native plant communities will be impacted from implementation of the proposed Project.

The Project site consists of land cover types that would be classified as disturbed and developed. Refer to Exhibit 5, *Vegetation* in Attachment A in ELMT's report in Appendix C. Within the proposed Project footprint, developed areas consist of the existing buildings and structures associated with the WRF, and the disturbed areas within the Project footprint consist of the areas that have been subject to routine anthropogenic disturbances. It should be noted that the southern ponds that will form Array C are earthen lined and support non-native and early succession/ruderal plant species. Plant species observed onsite include filaree (*Erodium sp.*), wild radish (*Raphanus raphanistrum*), yellow sweet clover (*Mililotus officinalis*), wild oat (*Avena sp.*), mouse barley (*Hordeum murinum*), milk thistle (*Silybum marianum*), ripgut (*Bromus diandrus*), mulefat (*Baccharis salicifolia*), blackberry (*Rubus ursinus*), short-podded mustard (*Hirschfeldia incana*), cheeseweed (*Malva parviflora*), prickly lettuce (*Lactuca serriola*), and curly dock (*Rumex crispus*).

Wildlife

Plant communities provide foraging habitat, nesting/denning sites, and shelter from adverse weather or predation. This section provides a discussion of those wildlife species that were observed or are expected to occur within the Project site. The discussion is to be used a general reference and is limited by the season, time of day, and weather conditions in which the field investigation was conducted. Wildlife detections were based on calls, songs, scat, tracks, burrows, and direct observation. The Project site provides limited habitat for wildlife species except those adapted to a high degree of anthropogenic disturbances and development.

Fish

No fish were observed in the onsite ponds during the field investigation. The ponds only support water for portions of the year and do not provide a perennial water source or connect to natural water features that would provide suitable habitat for fish species. The only fish species that have the potential to occur in the ponds are fish that are exotic or introduced such as mosquitofish (*Gambusia affinis*) and bluegill (*Lepomis macrochirus*). No special-status fish species are expected to occur within the Project site.

Amphibians

No amphibians were observed within the ponds during the field investigation. The ponds only support water for portions of the year and do not provide a perennial water source or connect to natural water features that would provide long term habitat for amphibian species. The only amphibian species that have the potential to occur in the ponds are tree frog (*Pseudacris regilla*). No special-status amphibian species are expected to occur within the Project site.

Reptiles

During the field investigation, no reptilian species were observed on the Project site. Common reptilian species adapted to a high degree of anthropogenic disturbances that have the potential to occur on the Project site include western side-blotched lizard (*Uta stansburiana elegans*), and alligator lizard (*Elgaria multicarinata*). Due to the high level of anthropogenic disturbances on-site no special-status reptilian species are expected to occur within the Project site. Further, when the ponds onsite are filled with water, they have the potential to support introduced/exotic turtles such as red-eared slider (*Trachemys scripta elegans*).

Birds

The Project site provides foraging and cover habitat for bird species adapted to a high degree of human disturbance. Bird species detected during the field investigation included northern mockingbird (*Mimus polyglottos*), mourning dove (*Zenaida macroura*), house finch (*Haemorhouse mexicanus*), American crow (*Corvus brachyrhynchos*), killdeer (*Charadrius vociferus*), turkey vulture (*Cathartes aura*), Canada goose (*Branta canadensis*), bufflehead (*Bucephala albeola*), red-tailed hawk (*Buteo jamaicensis*), black phoebe (*Sayornis nigricans*), California towhee (*Melozone crissalis*), golden crowned sparrow (*Zonotrichia atricapilla*), mallard (*Anas platyrhynchos*), and northern rough-winged swallow (*Stelgidopteryx serripennis*). Due to routine disturbance associated with the existing WRF, the Project site does not provide suitable habitat for special-status bird species known to occur in the area.

Mammals

During the field investigation no mammalian species were observed on the Project site. Common mammalian species adapted to a high degree of anthropogenic disturbances that have the potential to occur within the Project site include California ground squirrel (*Otospermophilus beecheyi*), Botta's pocket gopher (*Thomomys bottae*), opossum (*Didelphis virginiana*), and raccoon (*Procyon lotor*).

Nesting Birds

No active nests or birds displaying nesting behavior were observed during the field investigation. The Project site and surrounding area provides foraging and nesting habitat for year-round and seasonal avian residents, as well as migrating songbirds that could occur in the area. The Project site has the potential to provide suitable nesting opportunities for birds that nest on the open ground and those aclimated to routine disturbances. Additionally, the trees that border the Project site provide suitable nesting opportunies.

Migratory Corridors and Linkages

Habitat linkages provide connections between larger habitat areas that are separated by development. Wildlife corridors are similar to linkages but provide specific opportunities for animals to disperse or migrate between areas. A corridor can be defined as a linear landscape feature of sufficient width to allow animal movement between two comparatively undisturbed habitat fragments. Adequate cover is essential for a corridor to function as a wildlife movement area. It is possible for a habitat corridor to be adequate for one species yet still inadequate for others. Wildlife corridors are features that allow for the dispersal, seasonal migration, breeding, and foraging of a variety of wildlife species. Additionally, open space can provide a buffer against both human disturbance and natural fluctuations in resources.

It should be noted that the Russian River, Mill Creek, and Dry Creek support natural habitats which allow wildlife to move through the region in search of food, shelter, or nesting habitat. The Project site is separated from the influences of the Russian River, Mill Creek, and Dry Creek by agricultural fields and the proposed Project will be confined to existing disturbed/developed areas. Implementation of the proposed Project is not expected to result in temporary and/or permanent impacts to potential wildlife movement opportunities along the Russian River, Mill Creek, and Dry Creek during construction and operation activities.

Jurisdictional Areas

There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The U.S. Army Corps of Engineers (Corps) Regulatory Branch regulates discharge of dredge or fill materials into "waters of the United States" pursuant to Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the CDFW regulates alterations to streambed and bank under Fish and Game Code Sections 1600 et seq., and the Regional Board regulates discharges into surface waters pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act.

The Project site does not support any discernible drainage courses, inundated areas, wetland features, or hydric soils that would be considered jurisdictional by the Corps, Regional Board, or CDFW. Therefore, Project activities will not result in impacts to Corps, Regional Board, or CDFW jurisdictional areas and regulatory approvals will not be required.

According to the NWI data, a wetland feature has been mapped as supporting a freshwater pond on the southern portion of the parcel (proposed Array C). The mapped freshwater pond is located on the southern portion of the Project site where the existing water retention basins were created. During the field investigation, no evidence of a freshwater pond was observed onsite within the existing water retention basins. As a result, no impacts to the NWI mapped freshwater pond will occur from the proposed Project.

Special-Status Biological Resources

The CNDDB Rarefind 5 and the CNPS Electronic Inventory of Rare and Endangered Vascular Plants of California were queried for reported locations of special-status plant and wildlife species as well as special-status natural plant communities in the Healdsburg and Guerneville USGS 7.5-minute quadrangles. The habitat assessment evaluated the conditions of the habitat(s) within the boundaries of the Project site to determine if the existing plant communities, at the time of the survey, have the potential to provide suitable habitat(s) for special-status plant and wildlife species.

The literature search identified thirty-three (33) special-status plant species, thirty-seven (37) special-status wildlife species, and one (1) special-status plant community as having potential to occur within the Healdsburg and Guerneville USGS 7.5-minute quadrangles. Special-status plant and wildlife species were evaluated for their potential to occur within the Project site based on habitat requirements, availability and quality of suitable habitat, and known distributions. Species determined to have the potential to occur within the general vicinity of the Project site are presented in Attachment C*: Potentially Occurring Special-Status Biological Resources* in ELMT's report in Appendix C.

Special-Status Plants

According to the CNDDB and CNPS, thirty-three (33) special-status plant species have been recorded in the Healdsburg and Guerneville quadrangles (refer to Attachment C) in ELMT's report in Appendix C. No special-status plant species were observed onsite during the habitat assessment. The Project site consists of the existing WRF that has been subject to various anthropogenic disturbances and development. These disturbances have eliminated the natural plant communities that once occurred on-site which has removed suitable habitat for special-status plant species known to occur in the general vicinity of the Project site. Based on habitat requirements for specific special-status plant species and the availability and quality of habitats needed by each species, it was determined that the Project site does not provide suitable habitat for any of the special-status plant species known to occur in the area and are presumed to be absent from the Project site. No focused surveys are recommended.

Special-Status Wildlife

According to the CNDDB, thirty-seven (37) special-status wildlife species have been reported in the Healdsburg and Guerneville quadrangles (refer to Attachment C in ELMT's report in Appendix C.). No special-status wildlife species were observed onsite during the habitat assessment. The Project site consists of the existing WRF that has been subject to various anthropogenic

disturbances and development. These disturbances have eliminated the natural plant communities that once occurred on-site which have greatly reduced potential foraging opportunities for wildlife species. Based on habitat requirements for specific species and the availability and quality of on-site habitats, it was determined that the proposed Project site has a low potential to support great egret (*Ardea alba*), and great blue heron (*Ardea herodias*). Both of these species are not federally, or state listed. All remaining special-status wildlife species were determined to have a low potential to occur or are presumed to be absent from the Project site because it has been heavily disturbed from onsite disturbances. No focused surveys are recommended.

Special-Status Plant Communities

According to the CNDDB, one (1) special-status plant community has been reported in the Healdsburg and Guerneville USGS 7.5-minute quadrangles: Northern Hardpan Vernal Pool. Based on the results of the field investigation, no special-status plant communities were observed onsite.

Critical Habitat

Under the federal Endangered Species Act, "Critical Habitat" is designated at the time of listing of a species or within one year of listing. Critical Habitat refers to specific areas within the geographical range of a species at the time it is listed that include the physical or biological features that are essential to the survival and eventual recovery of that species. Maintenance of these physical and biological features requires special management considerations or protection, regardless of whether individuals or the species are present or not. All federal agencies are required to consult with the United States Fish and Wildlife Service (USFWS) regarding activities they authorize, fund, or permit which may affect a federally listed species or its designated Critical Habitat. The purpose of the consultation is to ensure that projects will not jeopardize the continued existence of the listed species or adversely modify or destroy its designated Critical Habitat. The designation of Critical Habitat does not affect private landowners, unless a project they are proposing is on federal lands, uses federal funds, or requires federal authorization or permits (e.g., funding from the Federal Highways Administration or a CWA Permit from the Corps). If a there is a federal nexus, then the federal agency that is responsible for providing the funding or permit would consult with the USFWS.

The Project site is not located within federally designated Critical Habitat. Refer to Exhibit 6, *Critical Habitat* in Attachment A in ELMT's report in Appendix C. The nearest designated Critical Habitat is located approximately 0.15 mile east of the Project site for steelhead (*Oncorhynchus mykiss*) and Chinook salmon (*Oncorhynchus tshawytscha*) associated with Dry Creek and the Russian River. Therefore, the loss or adverse modification of Critical Habitat from site development will not occur and consultation with the USFWS for impacts to Critical Habitat will not be required for implementation of the proposed Project.

3.8.2 Discussion and Mitigation Measures

Biological Resources. a. *Would the project 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?*

Answer: Less than Significant with Mitigation Incorporated.

Discussion:

No special-status plant or wildlife species were observed on the Project site during the site visit. However, The Project site and surrounding area provides foraging and nesting habitat for year-round and seasonal avian residents, as well as migrating songbirds that could occur in the area. The Project site has the potential to provide suitable nesting opportunities for birds that nest on the open ground and those aclimated to routine disturbances. Additionally, the trees that border the Project site provide suitable nesting opportunies.

Nesting birds are protected pursuant to the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (Sections 3503, 3503.5, 3511, and 3513 prohibit the take, possession, or destruction of birds, their nests or eggs). In order to protect migratory bird

species, a nesting bird clearance survey should be conducted prior to any ground disturbance or vegetation removal activities that may disrupt the birds during the nesting season. Therefore, NCPA will add the following to its contract documents for this Project:

- If construction occurs between February 1st and August 31st, a pre-construction clearance survey for nesting birds shall be conducted within three (3) days of the start of any vegetation removal or ground disturbing activities to ensure that no nesting birds will be disturbed during construction. The biologist conducting the clearance survey should document a negative survey with a brief letter report indicating that no impacts to active avian nests will occur. If an active avian nest is discovered during the pre-construction clearance survey, construction activities should stay outside of a no-disturbance buffer. The size of the no-disturbance buffer will be determined by the wildlife biologist and will depend on the level of noise and/or surrounding anthropogenic disturbances, line of sight between the nest and the construction activity, type and duration of construction activity, ambient noise, species habituation, and topographical barriers. These factors will be evaluated on a case-by-case basis when developing buffer distances. Limits of construction to avoid an active nest will be established in the field with flagging, fencing, or other appropriate barriers; and construction personnel will be instructed on the sensitivity of nest areas. A biological monitor should be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, construction activities within the buffer area can occur.

It should be noted that the City of Healdsburg will be preforming work within the proposed Project footprint prior to the implementation of the solar project. If disturbances within the Project footprint continue to occur after the City completes its work and before the solar project starts, a pre-construction nesting bird clearance survey will not be required due to the decreased potential for nesting to occur. However, if there is a gap between projects, especially during the breeding season, a pre-construction survey will be required prior to the initiation of the proposed solar project.

Implementation of the above mitigation measure will ensure that the impacts to nesting birds are less than significant.

Biological Resources. b. *Would the project 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 U.S. Fish and Wildlife Service?*

Answer: No Impact.

Discussion:

As discussed above, there are no riparian habitats or other sensitive natural communities on the Project site. Therefore, no further analysis or mitigation is required.

Biological Resources. c. *Would the project 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?*

Answer: No Impact

Discussion:

The Project site does not support any discernible drainage courses, inundated areas, wetland features, or hydric soils that would be considered jurisdictional by the Corps, Regional Board, or CDFW. Therefore, Project activities will not result in impacts to Corps, Regional Board, or CDFW jurisdictional areas and regulatory approvals will not be required.

According to the NWI data, a wetland feature has been mapped as supporting a freshwater pond on the southern portion of the parcel (proposed Array C). The mapped freshwater pond is located on the southern portion of the Project site where the existing water retention basins were created. During the field investigation, no evidence of a freshwater pond was observed onsite within the existing water retention basins. As a result, no impacts to the NWI mapped freshwater pond will occur from the proposed Project. Therefore, no further analysis or mitigation is required.

Biological Resources. d. *Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

Answer: No Impact.

Discussion:

As stated above, the Russian River, Mill Creek, and Dry Creek support natural habitats which allow wildlife to move through the region in search of food, shelter, or nesting habitat. The Project site is separated from the influences of the Russian River, Mill Creek, and Dry Creek by agricultural fields and the proposed Project will be confined to existing disturbed/developed areas. Implementation of the proposed Project is not expected to result in temporary and/or permanent impacts to potential wildlife movement opportunities along the Russian River, Mill Creek, and Dry Creek during construction and operation activities. Therefore, no further analysis or mitigation is required.

Biological Resources. e. *Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

Answer: No Impact.

Discussion:

There are no local policies or ordinances protecting biological resources that would apply to the Project. Therefore, no further analysis or mitigation is required.

Biological Resources. f. *Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?*

Answer: No Impact.

Discussion:

There are no adopted habitat conservation plans that apply to the Project site. Therefore, no further analysis or mitigation is required.

3.8.3 Conclusion

Implementation of the above mitigation measures will insure that the impacts to biological resources are reduced to a level of less than significant.

3.9 Cultural Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☐	◙
b. Cause a substantial adverse change in the significance of an archeological resource pursuant to §15064.5?	☐	◙	☐	☐
c. Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	◙	☐	☐

3.9.1 Environmental Setting

Anza Resource Consultants (Anza) was retained by K.S. Dunbar & Associates, Inc. to conduct a Phase I cultural resources study for the NCPA Solar Project 1 – Healdsburg Water reclamation Facility (WRF) located at 340 Foreman Lane in the City of Healdsburg, Sonoma County, California.

The Phase 1 study includes a cultural resources records search, Sacred Lands File search and Native American scoping, a pedestrian survey of the project site, and preparation of a technical report in compliance with the cultural resources requirements of CEQA. A complete copy of Anza's report is included in Appendix D of this report.

The cultural resource records search, Native American scoping, and pedestrian survey identified no cultural resources within or adjacent to the project site. Anza recommends a finding of ***no impact to historical resources*** under CEQA. No further cultural resources study is recommended; however, standard mitigation measures are recommended to avoid potential impacts from the unanticipated discovery of cultural resources during project-related ground disturbing activities.

3.9.2 Discussion and Mitigation Measures

Cultural Resources. a. *Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?*

Answer: No Impact.

Discussion:

Anza requested a search of cultural resource records housed at the California Historical Resources Information System (CHRIS), Northwest Information Center (NWIC) located at Sonoma State University. The search was conducted by NWIC on April 22, 2019, to identify all previous cultural resources work and previously recorded cultural resources within a 0.5-mile radius of the project site (Appendix A). The CHRIS search included a review of the NRHP, CRHR, the California Points of Historical Interest list, the California Historical Landmarks list, the Archaeological Determinations of Eligibility list, and the California State Historic Resources Inventory list. The records search also included a review of all available historic USGS 7.5-, 15-, and 30-minute quadrangle maps.

The record search revealed three historic built resources within 0.5 mile of the project site (Table 2 in Anza's report in Appendix D). None of these resources is closer than 0.4 mile to the project site.

These historic resources would not be impacted by the project as they are located well off the Project site. Therefore, there would be no impacts to historic resources and no analysis or mitigation is required.

Cultural Resources. b. *Would the project cause a substantial adverse change in the significance of an archeological resource pursuant to §15064.5?*

Answer: Less than Significant with Mitigation Incorporated.

Discussion:

The records search revealed the presence of one prehistoric archaeological site (P-49-00598) within 0.4 miles of the Project site. This prehistoric lithic artifact deposit would not be impacted by Project implementation as it is well outside the Project site.

Although there were no archaeological sites discovered on the Project site, there is always the possibility of an inadvertent discovery of an unknown site during excavation. Therefore, NCPA will include the following mitigation measures in its contract documents for this Project.

- In the unlikely event that potentially significant archaeological materials are encountered during construction activities, all work shall be halted in the vicinity of the archaeological discovery until a qualified archaeologist can visit the site of discovery, access the significance of the archaeological resource, and provide proper management recommendations. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted. The treatment and disposition of cultural material that might be discovered during excavation shall be in accordance with applicable laws and regulations.

- All sacred items, should they be encountered within the Project sites, shall be avoided and preserved as the preferred mitigation, if feasible. All cultural materials that are collected during excavation and other earth disturbing activities on the Project sites, with the exception of sacred items, burial goods and human remains which will be addressed in any required Treatment Agreement, shall be tribally curated according to the current repository standards. The collections and associated records shall be transferred, including title, to the closet tribe to the Project site.

Cultural Resources. d. *Would the project disturb any human remains, including those interred outside of formal cemeteries?*

Answer: Less than Significant with Mitigation Incorporated.

Discussion:

No human remains were discovered on-site. However, there is always the potential to inadvertently discover human remains during excavation. Therefore, NCPA will include the following in its standard contract documents for this Project.

- In the event of an accidental discovery or recognition of any human remains, the County Coroner shall be notified and construction activities at the affected work site shall be halted. If the coroner determines the remains to be Native American: (1) the coroner shall contact the Native American Heritage Commission (NAHC) within 24-hours, and (2) the NAHC shall identify the person or persons it believes to be the most likely descended from the deceased Native American. The treatment and disposition of human remains that might be discovered during excavation shall be in accordance with applicable laws and regulations.

3.9.3 Conclusion

Implementation of the above mitigation measures would ensure that any impact to cultural resources would be reduced to a level of less than significant.

3.10 Energy

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☐	◙
b. Conflict or obstruct a state of local plan for renewable energy or energy efficiency?	☐	☐	☐	◙

3.10.1 Environmental Setting

The City of Healdsburg has owned and operated its own electric utility for more than 100 years. The utility now serves more than 11,000 residents and 1,000 commercial customers. Because the City owns geothermal and hydroelectric power plants, it provides electricity with a high renewable and carbon free content. During most years, the City's electric energy ranges between 50 to 60% carbon free with roughly 41% of that energy coming from the nearby Geysers. During 2017, the renewable energy content was 37% geothermal, 1% small hydro, and 39% large hydro. Only 23% of its energy supply was from non-renewable sources.

3.10.2 Discussion and Mitigation Measures

Energy. a. *Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*

Answer: No Impact.

Discussion:

During construction, it would be necessary to use diesel-powered equipment. This would not be considered a wasteful, inefficient or unnecessary consumption of energy resources.

It is proposed to install solar photovoltaic electric generation systems at the Healdsburg water reclamation site. The installed capacity would be 3.6 MW_{dc}. It is anticipated that these facilities would generate a total of approximately 2,700 MWhr per year during their first year of operation. This generation of electrical energy would far outweigh the minor amount of resources used to construct the facilities.

Therefore, there would be no impacts to energy caused by implementation of the Project. Consequently, there would be no further analysis or mitigation required.

Energy. b. Would the project conflict or obstruct a state of local plan for renewable energy or energy efficiency?

Answer: No Impact.

Discussion:

The addition of approximately 3.6 MW_{dc} of renewable energy generation would assist NCPA and the City of Healdsburg in continuing to meet their goals of a 60 percent Renewable Portfolio Standard (RPS) by 2030. Therefore, implementation of the Project would not conflict or obstruct implementation of that plan. Consequently, no further analysis or mitigation is required.

3.10.3 Conclusion

No adverse impacts were identified; therefore, no further analysis or mitigation is required.

3.11 Geology and Soils

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
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 or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	◙
i. Strong seismic ground shaking?	☐	☐	◙	☐
ii. Seismic-related ground failure, including liquefaction?	☐	☐	◙	☐
iii. Landslides?	☐	☐	☐	◙
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	◙
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?	☐	☐	☐	◙
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	◙
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?	☐	☐	☐	◙
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	◙	☐	☐

3.11.1 Environmental Setting

Geologic Setting

The Project site is northern Sonoma County in the central portion of the Russian River watershed. The region is within the central portion of the Coast Ranges geomorphic province of California, a region characterized by north-west trending valleys and mountain ranges. This alignment of valleys and ridges has developed in response to uplift, folding and faulting along the San Andreas system of active faults. The Project area is underlain by alluvium (Qal). These sediments were deposited by ancestral streams and consist of clay, silt, sand and gravel. Older alluvium also exists along the Russian River.

Seismicity

The following discussion on seismicity is taken from the General Plan Background Report prepared by the City of Healdsburg.

Seismicity in Healdsburg is directly related to activity on the San Andreas fault system, including major active faults in the region and within the City. The active Healdsburg-Rogers Creek fault passes through the eastern and northern areas of the City. The Healdsburg-Rogers Creek fault is a right-lateral strike-slip fault (i.e., the land west of the fault generally moves north with respect to the land east of the fault during large earthquakes). It has been the source of significant earthquakes during historic time.

Other major active faults in the region include the San Andreas, 19 miles to the west, and the Maacama, four miles to the east. Other, more distant, active faults in the region include the West Napa, Green Valley, Hayward, San Gregorio, Calaveras, Concord and Greenville faults. Table 3.11-1 shows the distance to these faults from Healdsburg and the maximum earthquake each fault is capable of producing.

Table 3.11-1
Fault Parameters

Fault	Distance and Direction from Healdsburg	Maximum Moment Magnitude
Healdsburg-Rogers Creek	6 miles east of Project site*	7.0
Maacama	4.5 miles north	6.9
San Andreas	19 miles west	7.9
Hunting Creek	29 miles northeast	6.9
West Napa	28 miles southeast	6.5
Concord-Green Valley	40 miles east	6.9
Cordelia	43 miles southeast	6.7
Hayward	46 miles southeast	7.1
San Gregorio	52 miles south	7.3

*Based on California Division of Mines and Geology's Earthquake Zones of Required Investigation Map.

Soils

According to the U.S. Department of Agriculture's National Conservation Service's Web Soils Survey for Sonoma County, soils at the site are composed of Yolo sandy loam, overwash, 0 to 5% slopes (YmB) and Yolo loam. 0 to 10% slopes, moist (YnA). The Yolo series are very deep well-drained soils formed in alluvium from rocks.

3.11.2 Discussion and Mitigation Measures

Geology and Soils. a. i. *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving 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 or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*

Answer: No impact.

Discussion:

The Alquist-Priolo Earthquake Fault Zoning Act identifies special study zones for areas where existing known faults are located. The main purpose of the Act is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The Act also required the State Geologist to establish regulatory zones (known as Earthquake Fault Zones) around the surface traces of active faults and to issue appropriate maps. As shown in Table 3.11-2, the nearest Alquist-Priolo Earthquake Fault Zone (northern extent of the Healdsburg-Rogers Creek fault) is approximately 6 miles east of the proposed Project site. Therefore, no further analysis or mitigation is required.

Geology and Soils. a. ii. *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?*

Answer: Less than Significant.

Discussion:

The potential for strong seismic ground shaking in the Project area is similar to that in surrounding areas. Because the Proposed Project consists of facilities that are not intended for human habitation, the Proposed Project will not expose people or critical structures to adverse effects resulting from seismic-related ground failure, including liquefaction. In addition, the Proposed Project facilities are specifically designed to withstand seismic conditions anticipated to occur at the Proposed Project site. Seismic conditions expected to occur in the Proposed Project area can be mitigated by special design using reasonable construction and/or maintenance practices common to the Sonoma County area. Any potential impacts would be considered less than significant and no further analysis or mitigation is required.

Geology and Soils. a. iii. *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?*

Answer: Less than Significant.

Discussion:

The risk of ground shaking and liquefaction (transformation of water-saturated granular soils to a liquid state during ground shaking) in the Project area is considered low. Any potential impacts would be considered less than significant; therefore, no further analysis or mitigation is required.

Geology and Soils. a. 4. *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?*

Answer: No Impact.

Discussion:

Seismically triggered landslides or other types of ground failure, including expansive soils (those that swell when wet and shrink when dry) and subsidence (gradual settling or sinking of an area with little or no horizontal movement) are not considered a significant hazard in the Project area due to the fairly level terrain.. Therefore, no further analysis or mitigation is required.

Geology and Soils. b. *Would the project result in substantial soil erosion or the loss of topsoil?*

Answer: No Impact.

Discussion:

The Yolo soil types in the Project area have a moderate potential for wind erosion. Less than 0.25 acres of these soils could be exposed during installation of the solar equipment at the Healdsburg Water Reclamation Facility site. However, as shown in the Air Quality section, watering the disturbed areas of the site twice daily would ensure that there would be impacts due to erosion.

Geology and Soils. c. *Would the project 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?*

Answer: No Impact.

Discussion:

As stated above, the Project area is not located on a geologic unit or soil that would become unstable. Therefore, no further analysis or mitigation is required.

Geology and Soils. d. *Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?*

Answer: No Impact.

Discussion:

Expansive soils are largely composed of clay which expand in volume when water is absorbed and shrink when dried. The soils at the Project sites are loams which are not susceptible to expansion and shrinking. Therefore, there would be no impacts and no further analysis or mitigation is required.

Geology and Soils. e. *Would the project 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?*

Answer: No Impact.

Discussion:

The Project does not include the use of septic tanks or alternative wastewater disposal systems. Therefore, there are no impacts associated with the use of septic tanks or alternative wastewater disposal systems and no mitigation is required.

Geology and Soils. f. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Answer: Less than Significant with Mitigation Incorporated.

Discussion:

Although the site has been previously disturbed, there is always the possibility of an inadvertent discovery of paleontological resources during construction. However, NCPA's construction documents for the Project will include the following best management practices:

- In the unlikely event that potentially significant paleontological materials (e.g., fossils) are encountered during construction of the project, all work shall be halted in the vicinity of the paleontological discovery until a qualified paleontologist can visit the site of discovery, assess the significance of the paleontological resource, and provide proper management recommendations. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted. The treatment and disposition of paleontological material that might be discovered during excavation shall be in accordance with applicable laws and regulations.

3.11.3 Conclusion

Strict adherence to NCPA's best management practices outlined above would insure that no significant impacts to geology and soils would occur; therefore, no further analysis or additional mitigation is required.

3.12 Greenhouse Gas Emissions

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance?	☐	☐	◙	☐
b. Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emission of greenhouse gases?	☐	☐	☐	◙

3.12.1 Environmental Setting

Under Assembly Bill 32 (AB 32) greenhouse gases (GHGs) are defined as carbon dioxide (CO_2), methane (CH_4), nitrous oxide (NO_2), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF_6),

GWP is a measure of how much a given mass of greenhouse gas is estimated to contribute to global warming. It is a relative scale that compares the gas in question to the same mass of carbon dioxide (whose GWP by definition is 1). A GWP is calculated over a specific time interval and the value of this must be stated whenever a GWP is quoted or else the value is meaningless. A substance's GWP depends on the time span over which the potential is calculated. A gas which is quickly removed from the atmosphere may initially have a large effect but for longer time periods as it has been removed becomes less important. For the purposes of a CEQA analysis, especially an analysis of operating emissions, the maximum GWP is typically used, regardless of the actual atmospheric lifetime. This approach simplifies the analysis and provides a very conservative analysis, especially for the fluorinated gases. The GWP of the six Kyoto GHGs is shown in Table 3.12-1 [U.S. EPA (www.epa.gov)].

Table 3.12-1
Global Warming Potential of Kyoto GHGs

Gas	Atmospheric Lifetime	GWP
Carbon Dioxide (CO_2)	50 – 200	1
Methane (CH_4)	12 ± 3	21
Nitrous Oxide (NO_2)	120	310
HFC-23 (Hydrofluorocarbons)	264	11,700
HFC-32	5.6	650
HFC-125	32.6	2,800
HFC-134a	14.6	1,300
HFC-143a	48.3	3,800
HFC-152a	1.5	140
HFC-227ea	36.5	2,900
HFC-236fa	209	6,300
HFC-4310mee	17.1	1,300
CF_4 (Perfluorocarbons)	50,000	6,500
C_2F_6	10,000	9,200
C_4F_{10}	2,600	7,000
C_6F_{14}	3,200	7,400
Sulfur Hexafluoride (SF_6)	3,200	23,900

Source: U.S. EPA (www.epa.gov)

According to the California Air Resources Board's *California Greenhouse Gas Emission for 2000 to 2016 Trends of Emissions and Other Indicators,* California uses the annual statewide greenhouse gas (GHG) emission inventory to track progress toward meeting statewide GHG targets. The inventory for 2016 shows that California's GHG emissions continue to

decrease, a trend observed since 2007. In 2016, emissions from routine GHG emitting activities statewide were 429 million metric tons of CO_2 equivalent ($MMTCO_2e$), 12 $MMTCO_2e$ lower than 2015 levels. This puts total emissions just below the 2020 target of 431 million metric tons. Emissions vary from year-to-year depending on the weather and other factors, but California will continue to implement its greenhouse gas reductions program to ensure the state remains on track to meet its climate targets in 2020 and beyond. These reductions come while California's economy grows and continues to generate jobs. Compared to 2015, California's GDP grew 3% while the carbon intensity of its economy declined by 6%.

- The largest reductions came from the electricity sector which continues to see decreases as a result of the state's climate policies, which led to growth in wind generation and solar power, including growth in both rooftop and large solar array generation.
- The abundant precipitation in 2016 provided higher hydropower to the state.
- The industrial sector shows a slight decrease in emissions in the past twoyears.
- The transportation sector remains the largest source of GHG emissions in the state and saw a 2% increasein emissions in 2016.
- Emissions from the remaining sectors are relatively constant in recent years, although emissions from high Global Warming Potential (GWP) gases also continued to increase as they replace Ozone Depleting Substances (ODS) banned under the 1987 Montreal Protocol.

3.12.2 Discussion and Mitigation Measures

Greenhouse Gas Emissions. a. *Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance?*

Answer: Less than Significant.

Discussion:

As shown in the Air Quality section, construction of the Project would generate exhaust emissions, including GHGs. from the construction equipment and on-road vehicles. The carbon dioxide equivalent of those emissions (CO_2 and CH_4) are estimated at 165 metric tons during 2019. The Northern Sonoma County APCD has not established threshold limits for GHGs. However, the Sacramento Metropolitan Air Quality Management District (SMAQMD) has suggested a threshold limit of 1,100 metric tons per year. Based on this threshold limit, emissions of GHGs during construction of the Project would be less than significant. Therefore, no further analysis or mitigation is required.

Operation of the project has the potential to lower GHG emissions as the production of solar power does not produce GHGs as opposed to fossil fuel or gas-fired generation facilities.

Greenhouse Gas Emissions. b. *Would the project conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emission of greenhouse gases?*

Answer: No Impact.

Discussion:

As previously stated in the Energy section, the addition of approximately 3.6 MW_{dc} of renewable energy generation would assist NCPA and the City of Healdsburg in meeting its goals of a 60 percent Renewable Portfolio Standard (RPS) by 2030. Therefore, implementation of the Project would not conflict or obstruct implementation of that plan. Consequently, no further analysis or mitigation is required.

3.12.3 Conclusion

No significant impacts were identified; therefore, no further analysis or mitigation is required.

3.13 Hazards and Hazardous Materials

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?	☐	◙	☐	☐
b. Create a significant hazard to the public or the environment through reasonably upset accident conditions involving the release of hazardous materials into the environment?	☐	◙	☐	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	◙
d. Be located on a site that 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?	☐	☐	☐	◙
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, and if so, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	◙
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	◙
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	◙

3.13.1 Environmental Setting

Hazards

Seismic and Geologic Hazards

Seismic and geologic hazards were discussed in Section 3.11.

Fire

According to Cal Fire maps, the Project site is not within a State Responsibility Area or a Fire Hazard Severity Zone.

Flooding

The Project site is shown on the Federal Emergency Management Agency's Flood Insurance Rate Map 060378 as an Area of Minimal Flood Risk (Zone X).

Hazardous Materials

Several standard environmental record services are available to determine the potential for recognized environmental conditions in an area. Those databases are briefly described in the following paragraphs.

Superfund Enterprise Management System (SEMS)

In 2014, the Superfund Program implemented a new information system, the Superfund Enterprise Management System (SEMS). SEMS integrates multiple legacy systems (e.g., CERCLIS, ICTS, SDMS) into a comprehensive tracking and reporting tool,

providing data on the inventory of active and archived hazardous waste sites evaluated by the Superfund program. It contains sites that are either proposed to be, or are on, the National Priority List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. SEMS also includes information from the California Department of Toxic Substances Control's Envirostor database. The SEMS search did not reveal any sites in the Project area.

Envirostor

Envirostor is a database maintained and primarily used by the California Department of Toxic Substances Control (DTSC) to determine the location of all hazardous waste sites. The Envirostor search did not reveal any active sites near the Project site.

Geotracker

Geotracker is the State Water Resources Control Board's data management system for managing sites that impact groundwater, especially those that require groundwater cleanup (Underground Storage Tanks, Department of Defense Site Cleanup Program) as well as permitted facilities such as operating USTs and land disposal sites. The Geotracker search did not reveal any active sites near the Project site.

Leaking Underground Storage Tank Information System (LUSTIS)

The State Water Resources Control Board (State Water Board) administers the Leaking Underground Storage Tank Information System (LUSTIS). The LUSTIS database includes all reported leaks from underground storage tanks. The LUSTIS database is now reported in the Geotracker results.

Site Mitigation Program Property Database (formerly CalSites)

The California Environmental Protection Agency's Department of Toxic Substances Control (DTSC) administers the CalSites program. Information in the CalSites database is preliminary in nature; therefore, most sites listed in the database need additional work to determine if contamination exists. There are no sites in the CalSites database within the Project area.

Hazardous Waste and Substances Sites List (Cortese)

California's Government Code §65962.5 requires the California Department of Toxic Substances Control to develop, at least annually, an updated list of Hazardous Waste and Substances Sites. This list, known as the Cortese List, is a planning document used by the State, local agencies and developers to comply with the California Environmental Quality Act requirements in providing information about the location of hazardous materials release sites. DTSC is responsible for a portion of the information contained in the Cortese List. Other State and local agencies are required to provide additional hazardous materials release information for the Cortese List. The Cortese List is to be submitted to the Secretary of the California Environmental Protection Agency. There are no sites on the Cortese List within the Project area.

Solid Waste Information System (SWIS)

The Solid Waste Information System (SWIS) is a database provided by the California Department of Resources Recycling and Recovery (CalRecycle) which consists of both open as well as closed and inactive solid waste disposal facilities and transfer stations. There are no active sites in the SWIS database within the Project area.

3.13.2 Discussion and Mitigation Measures

Hazards and Hazardous Materials. a. *Would the project create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?*

Answer: Less than Significant with Mitigation Incorporated.

Discussion:

Implementation of the proposed Project would not create any significant hazards as a result of the routine transport, use, storage, or disposal of hazardous materials. However, construction would include the temporary use and transport of fuels, lubricating fluids, solvents and other hazardous materials. The contractor would be required to adhere to the requirements of a *Health and Safety Plan* that it would develop for the Project pursuant to Chapter 6.95, Division 20 of the Health and Safety Code (§§ 25500—25532) as shown in the following mitigation measures.

During project construction, the construction contractor shall implement the following measures to address the potential environmental constraints associated with the presence of hazardous materials associated with construction of the Project to the satisfaction of NCPA:

- The contractor shall prepare a Health and Safety Plan in compliance with the requirements of Chapter 6.95, Division 20 of the Health and Safety Code (§25500 – 25532). The plan shall include measures to be taken in the event of an accidental spill.

- The contractor shall enforce strict on-site handling rules to keep construction and maintenance materials out of receiving waters and storm drains. In addition, the contractor shall store all reserve fuel supplies only within the confines of designated construction staging areas; refuel equipment only with the designated construction staging areas; and regularly inspect all construction equipment for leaks.

- The construction staging area shall be designed to contain contaminants such as oil, grease, and fuel products to ensure that they do not drain towards receiving waters or storm drain inlets.

Hazards and Hazardous Materials. b. *Would the project create a significant hazard to the public or the environment through reasonably upset accident conditions involving the release of hazardous materials into the environment?*

Answer: Less than Significant with Mitigation Incorporated.

Discussion:

Construction equipment used to construct the Project facilities would have the potential to release oils, grease, solvents and other finishing products through accidental spills. However, adherence to the above mitigation measures would result in less-than-significant impacts. Therefore, no further analysis or additional mitigation is required.

Hazards and Hazardous Materials. c. *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

Answer: No Impact.

Discussion:

There are no known schools, existing or proposed, within one-quarter mile of the Project site. Therefore, no further analysis or mitigation is required.

Hazards and Hazardous Materials. d. *Would the project be located on a site that 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?*

Answer: No Impact.

Discussion:

Several standard environmental record services are available to determine the potential for recognized environmental conditions in an area. Those databases include:

- Superfund Enterprise Management System (SEMS)
- Envirostor
- Geotracker
- Site Mitigation Program Property Database (formerly CalSites)
- Hazardous Waste and Substances Sites List (Cortese)
- Solid Waste Information System (SWIS)

These databases were searched for the presence of hazardous materials sites within the Project area. According to those databases, there are no active sites in the Project area. Therefore, no further analysis or mitigation is required.

Hazards and Hazardous Materials. e. *Would the project be 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, and if so, would the project result in a safety hazard or excessive noise for people residing or working in the project area?*

Answer: No Impact.

Discussion:

The Project site is not within an airport land use plan or within two miles of a public airport or public use airport. Therefore, there would be no impacts and no further analysis or mitigation is required.

Hazards and Hazardous Materials. f. *Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

Answer: No Impact.

Discussion:

Implementation of the Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan as it would not be constructed within public rights-of-way. Therefore, there would be no impacts and no further analysis or mitigation is required.

Hazards and Hazardous Materials. h. *Would the project expose people or structures, either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?*

Answer: No Impact.

Discussion:

The Project area is not within a high fire severity zone or a state fire responsibility area. Therefore, there would be no impacts and no further analysis or mitigation is required.

3.13.3 Conclusion

Implementation of the above mitigation measures will ensure that the impacts associated with hazards and hazardous materials are reduced to a less than significant level and no further environmental review or mitigation is required.

3.14 Hydrology and Water Quality

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☐	◙
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable ground management of the basin?	☐	☐	☐	◙
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;	☐	☐	☐	◙
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	☐	◙
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	☐	☐	☐	◙
iv. Impede or redirect flood flows?	☐	☐	☐	◙
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	◙
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	◙

3.14.1 Environmental Setting

The Project site is within the Russian River Basin which covers approximately 1,500 square miles in Mendocino and Sonoma Counties. It is approximately 110 miles long and terminates at the Pacific Ocean in Jenner. Major reservoirs and lakes include Lake Mendocino and Lake Sonoma.

The Russian River Watershed falls under the jurisdiction of the California Regional Water Quality Control Board, North Coast Region. The Regional Board has established beneficial uses and water quality objectives for the Russian River in its Water Quality Control Plan for the North Coast Region.

The Project site lies over the Healdsburg Groundwater Subbasin within the upper reaches of the greater Santa Rosa Plain geologic unit.

3.14.2 Discussion and Mitigation Measures

Hydrology and Water Quality. a. *Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*

Answer: No Impact.

Discussion:

It is anticipated that less than one acre of soils would be disturbed during construction of the Project. Therefore, the Project would not be subject to the provisions of the National Pollutant Discharge Elimination System (NPDES) Construction Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities [NPDES No. CAS000002 (State Water Resources Control Board Order No. 2009-0009-DWQ)]. Consequently, no impacts are anticipated and no further analysis or mitigation is required.

Hydrology and Water Quality. b. *Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable ground management of the basin?*

Answer: No Impact.

Discussion:

The proposed Project includes the installation of solar photovoltaic facilities and does not include any facilities to extract groundwater. It will not result in the use of groundwater and thus will not substantially deplete groundwater supplies or interfere with groundwater recharge. Therefore, no further analysis or mitigation is required.

Hydrology and Water Quality. c.i. *Would the project 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 result in substantial erosion or siltation on- or off-site?*

Answer: No Impact.

Discussion:

The Project site is essentially level and will require only a minimum amount of grading. The panels will be installed on pontoons within the ponds at the water reclamation facility and have no effect on runoff from the site. Therefore, no impacts to the existing drainage pattern of the site would occur. Consequently, no further analysis or mitigation is required.

Hydrology and Water Quality. c.ii. *Would the project 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 result in flooding on- or off-site?*

Answer: No Impact.

Discussion:

As discussed above, no impacts to the existing drainage pattern of the site would occur. Consequently, no further analysis or mitigation is required.

Hydrology and Water Quality. c.iii. *Would the project create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?*

Answer: No Impact.

Discussion:

As discussed above, no impacts to the existing drainage pattern of the site would occur. Consequently, no further analysis or mitigation is required.

Hydrology and Water Quality. c.iv. *Would the project impede or redirect flood flows?*

Answer: No Impact.

Discussion:

As discussed above, no impacts to the existing drainage pattern of the site would occur. Consequently, no further analysis or mitigation is required.

Hydrology and Water Quality. d. *Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?*

Answer: No Impact.

Discussion:

According to the Federal Emergency Management Agency's Flood Insurance Rate Map 060378, the proposed Project site is within an Area of Minimal Flood Risk (Zone X). Therefore, there would be no impacts and no further analysis or mitigation is required.

Hydrology and Water Quality. e. *Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

Answer: No Impact.

Discussion:

As shown above, the Project would have no effect on water quality and therefore would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Consequently, no further analysis or mitigation is required.

3.14.3 Conclusion

No significant impacts were identified; therefore, no further analysis or mitigation is required.

3.15 Land Use and Planning

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?	☐	☐	☐	◙
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?	☐	☐	☐	◙

3.15.1 Environmental Setting

The City of Healdsburg Land Use Map designates the Project site as Public/Quasi-Public (P/QP). This designation allows the installation of government-owned facilities which would apply to the proposed solar installations. Therefore, the proposed Project is consistent with the City's land use designation.

3.15.2 Discussion and Mitigation Measures

Land Use and Planning. a. *Would the project physically divide an established community?*

Answer: No Impact.

Discussion:

As stated above, the proposed City-owned Project site is within the confines of the water reclamation facility. There are a few rural residences north and west of the Project site; however, implementation of the Project would not change the access to these residences and, therefore, not physically divide an established community. Consequently, no further analysis or mitigation is required.

Land Use and Planning. b. *Would the project 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?*

Answer: No Impact.

Discussion:

The water reclamation facility site is presently zoned public/quasi-public (P/QP). Solar installations are permitted uses in the designated land use. Therefore, no further analysis or mitigation is required.

3.15.3 Conclusions

No significant effects were identified; therefore, no further analysis or mitigation is required.

3.16 Mineral Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Result in the loss of availability of a known resource that would be of value to the region and the residents of the state?	☐	☐	☐	◙
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?	☐	☐	☐	◙

3.16.1 Environmental Setting

The area south and west of the water reclamation facility was historically the site of sand and gravel mining activities (e.g., Basalt and Syar Industries). However, the County of Sonoma's Land Use Map (LU-2c, Healdsburg and Environs) shows the entire area surrounding the water reclamation facility site as Land Intensive Agriculture.

3.16.2 Discussion and Mitigation Measures

Mineral Resources. a. *Would the project result in the loss of availability of a known resource that would be of value to the region and the residents of the state?*

Answer: No Impact.

Discussion:

There are no known mineral resources in the Project area that would be of value to the region and the residents of the State. Therefore, there would be no impacts anticipated and no mitigation is required.

Mineral Resources. b. *Would the project 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?*

Answer: No Impact.

Discussion:

There are no locally-important mineral resource recovery sites delineated on the applicable local general plans, specific plan or other land use plan in the Project area. Therefore, there would be no impacts anticipated and no mitigation is required.

3.16.3 Conclusion

No impacts are anticipated; therefore, no further analysis or mitigation is required.

3.17 Noise

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
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?	☐	☐	☐	◙
b. Generation of excessive groundbourne vibration or groundbourne noise levels?	☐	☐	☐	◙

3.17.1 Environmental Setting

The ambient noise level of a region is the total noise generated within the specific environment and is usually composed of sounds emanating from natural and manmade sources. Noise levels monitored in a region tend to have wide spatial and temporal variation due to the great diversity of contributing sources. This is especially true for the greater project area with its blend of rural land uses adjacent to a mix of residential and agricultural uses.

Characterization of the Project area noise levels is difficult due to the lack of actual field measurements. Very little noise measurement data are available for the Project area in general. However, typical noise levels for areas like the Project area are in the range of 40 to 45 dB(A).

Generally, the noise levels in the Project area are affected by natural and manmade sources. However, the sound levels are more strongly influenced by human rather than natural sound sources. Within the Project area, the major sources of noise include agricultural equipment, aircraft and vehicular traffic.

3.17.2 Discussion and Mitigation Measures

Noise. a. *Would the project result in 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?*

Answer: No Impact.

Discussion:

Section 9.32.07.A. of the Healdsburg Municipal Code includes the following restrictions related to construction noise and vibration:

> *Noise sources associated with or vibration created by construction, repair, remodeling, or grading of any real property or during authorized seismic surveys are permitted, provided such activities do not take place between the nighttime hours of 6:00 p.m. and 7:30 a.m. daily, or at any time on Sunday or a legal holiday, and provided the noise level created by such activities and any vibration created does not endanger the public health, welfare, and safety.*

Construction would not occur during the restricted hours shown above. Consequently, no further analysis or mitigation is required.

Noise. b. *Would the project result in generation of excessive groundbourne vibration or groundbourne noise levels?*

Answer: No Impact.

Discussion:

Construction activities associated with the Project could result in some minor amount of ground vibration. The California Department of Transportation (Caltrans) has developed a vibration manual. According to that manual, the use of small bulldozers (backhoes) and loaded trucks during construction activities could produce vibration. Depending on the level of vibration, the vibration could cause annoyance or damage structures within the project vicinity. Caltrans has developed a screening tool to determine if vibration from construction equipment is substantial enough to impact surrounding uses. Those thresholds are presented in Tables 3.17-1 and 3.17-2.

Table 3.17-1
Vibration Damage Potential Threshold Criteria

Structural Integrety	Maximum PPV (in/sec)	
	Transient	Continuous
Historic and some older buildings	0.50	0.25
Older residential structures	0.50	0.30
New residential structures	1.00	0.50
Modern industrial and commercial structures	2.00	0.50

Table 3.17-2
Vibration Annoyance Potential Threshold Criteria

Human Response	Maximum PPV (in/sec)	
	Transient	Continuous
Barely perceptible	0.035	0.012
Distinctly perceptible	0.24	0.035
Strongly perceptible	0.90	0.10
Severely perceptible	2.00	0.40

Construction equipment, such as small bulldozers (backhoes), are repetitive sources of vibration; therefore, the continuous threshold should be used in the vibration analysis for this project. The nearest residences to any part of the project site is approximately 150 feet. As shown in Table 3.17-3, the ground vibration from small bulldozers and loaded trucks would not be perceptible to those residences within 150 feet of the construction activity.

Table 3.17-3
Construction Vibration Impacts

Equipment	PPVref	Distance (feet)	PPV (in/sec)
Small Bulldozer (Backhoe)	0.003	150	0.0004
Loaded Truck	0.076	150	0.0106

Therefore, there would be no impacts and no further analysis or mitigation is required.

3.17.3 Conclusion

No impacts were identified; therefore, no further analysis or mitigation is required.,

3.18 Population and Housing

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	◙
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	◙

3.18.1 Environmental Setting

The 2010 Census indicated a population of 11,466 and a housing stock of 4,737 units in the City of Healdsburg *(www.usa.com, 04/08/2019).*

3.18.2 Discussion and Mitigation Measures

Population and Housing. a. *Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*

Answer*: No Impact.*

Discussion:

The Project includes the installation of solar photovoltaic systems at the Healdsburg Water Reclamation Facility. It does not include construction of homes, businesses or other infrastructure that would induce unplanned population growth. Therefore, no further analysis or mitigation is required.

Population and Housing. b. *Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

Answer: No Impact.

Discussion:

The Project facilities would be constructed on City-controlled land that does not include housing and therefore would not displace people or housing. Consequently, no further analysis or mitigation is required.

3.18.3 Conclusion

No impacts were identified; therefore, no further analysis or mitigation is required.

3.19 Public Services

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. 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:				
1. Fire Protection?	☐	☐	☐	◙
2. Police Protection?	☐	☐	☐	◙
3. Schools?	☐	☐	☐	◙
4. Parks?	☐	☐	☐	◙
5. Other Public Facilities?	☐	☐	☐	◙

3.19.1 Environmental Setting

Several entities provide public services to residents in the Project area. They include:

- Police Protection: City of Healdsburg Police Department
Sonoma County Sheriff's Department
- Fire Protection: City of Healdsburg Fire Department
- Schools: Healdsburg Unified School District

3.19.2 Discussion and Mitigation Measures

Public Services. a.1. *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* ***fire protection services****?*

Answer: No Impact.

Discussion:

Implementation of the Project would not result in the need for additional fire protection services because the Project involves a negligible expansion of operations for which fire protection services would be required. Therefore, there would be no impacts anticipated and no mitigation is required.

Public Services. a.2. *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* ***police protection services****?*

Answer: No Impact.

Discussion:

Implementation of the Project would not result in the need for additional police protection services because the Project involves a negligible expansion of operations for which police services would be required. Additional police protection services (e.g., equipment, sworn officers) would not be required. Therefore, there would be no impacts anticipated and no mitigation is required.

Public Services. a.3. *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 schools****?*

Answer: No Impact.

Discussion:

Implementation of the Project would not result in a need for additional schools because the Project does not include the development of residential uses for which school services would be required. Therefore, there would be no impacts anticipated and no mitigation is required.

Public Services. a.4. *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 parks****?*

Answer: No Impact.

Discussion:

Implementation of the Project would not result in a need for additional park facilities because the Project does not include the development of uses for which public parks would be required. Therefore, there would be no impacts anticipated and no mitigation is required.

Public Services. a.5. *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* ***other public services****?*

Answer: No Impact.

Discussion:

Implementation of the Project would not result in a need for expansions to other public services. Therefore, there would be no impacts anticipated and no mitigation is required.

3.19.3 Conclusion

There were no significant impacts identified; therefore, no further analysis or mitigation is required.

3.20 Recreation

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. 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?	☐	☐	☐	◙
b. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	◙

3.20.1 Environmental Setting

There are several parks, golf courses and water-oriented recreational facilities in the greater Project area.

3.20.2 Discussion and Mitigation Measures

Recreation. 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?*

Answer: No Impact.

Discussion:

The proposed Project would not increase the use or demand for park or recreational facilities because the Project does not include the development of uses that would place demands on these facilities, such as residential dwellings or office employment. Therefore, there would be no impacts anticipated and no further analysis or mitigation is required.

Recreation. b. *Would the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?*

Answer: No Impact.

Discussion:

The Project does not include recreational facilities. Therefore, there would be no impacts anticipated and no further analysis or mitigation is required.

3.20.3 Conclusion

No significant impacts were identified; therefore, no further analysis or mitigation is required.

3.21 Transportation

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Conflict with a plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle lanes and pedestrian paths?	☐	☐	☐	◙
b. For a land use project, would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)(1)?	☐	☐	☐	◙
c. For a transportation project, would the project conflict with CEQA Guidelines section 15064.3, subdivision (b)(3)?	☐	☐	☐	◙
d. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	◙
e. Result in inadequate emergency access?	☐	☐	☐	◙

3.23.1 Environmental Setting

Regional access to the Project site is via Highway 101.

The California Department of Transportation's (Caltrans) latest traffic counts (2017) for this highway near the Project area are shown in Table 3.23-1.

Table 3.23-1
Selected Traffic Counts by Caltrans
(2017)

Location	Southbound or Westbound			Northbound or Eastbound		
	Peak Hour	Peak Month	AADT[1]	Peak Hour	Peak Month	AADT[1]
Highway 101						
South Healdsburg	5,100	62,000	57,800	3,700	43,500	40,500
Westside Road	3,700	43,500	40,500	4,100	49,500	45,200
Dry Creek Road	4,100	49,500	45,200	3,500	39,500	35,700

[1] AADT = Average Annual Daily Traffic
Source: Caltrans 2019, www.dot.ca.gov (4/11/2019)

3.23.2 Discussion and Mitigation Measures

Transportation/Traffic. a. *Would the project conflict with a plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle lanes and pedestrian paths?*

Answer: No Impact.

Discussion:

The Project consists of solar photovoltaic installation at city-owned property at the Healdsburg Water Reclamation Facility. Therefore, the Project would not conflict with a plan, ordinance or policy addressing the circulation system. Consequently, no further analysis or mitigation is required.

Transportation/Traffic. b. *For a land use project, would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)(1)?*

Answer: No Impact.

Discussion:

The Project is not a land use project; therefore, this potential impact category would not apply to the Project. Consequently, there would be no impacts anticipated and no further analysis or mitigation is required.

Transportation/Traffic. c. *For a transportation project, would the project conflict with CEQA Guidelines section 15064.3, subdivision (b)(3)??*

Answer: No Impact.

Discussion:

The Project is not a transportation project; therefore, this potential impact category would not apply to the Project. Consequently, there would be no impacts anticipated and no further analysis or mitigation is required.

Transportation/Traffic. d. *Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

Answer: No Impact.

Discussion:

Implementation of the Project would not substantially increase other hazards due to a geometric design feature or incompatible uses. Therefore, there would be no impacts anticipated and no further analysis or mitigation is required.

Transportation/Traffic. e. *Would the project result in inadequate emergency access?*

Answer: No Impact.

Discussion:

Implementation of the Project would not result in inadequate emergency access. Therefore, there would be no impacts anticipated and no further analysis or mitigation is required.

3.23.3 Conclusion

No impacts were identified; therefore, no further analysis or mitigation is required.

3.24 Tribal Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code §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:				
1) Listed or eligible for listing on the California Register of Historical Resources, or on a local register of historical resources as defined in Public Resources Code §5020.1(k), or	☐	☐	☐	◙
2) A resource determined by a 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 §5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code § 5024.1, the lead agency shall consider the significance of the resources to a California Native American tribe.	☐	☐	☐	◙

3.24.1 Environmental Setting

NAHC Sacred Lands File Search

On March 26, 2019, K.S. Dunbar & Associates, Inc., sent a request to the Native American Heritage Commission for a search of its Sacred Lands file. Subsequently, on April 15, 2019, Katy Sanchez, Associate Environmental Planner sent an email response to Keith S. Dunbar in which she stated:

> *A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were positive. Please contact the Mishewal Wappo Tribe of Alexander Valley on the attached list for more information. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.*

As shown below, a letter was sent to Scott Gabaldon, Chairman of the Mishewal-Wappo Tribe of Alexander Valley on March 27, 2019. To date, he has not responded.

AB 52 Consultation

On March 27, 2019, K.S. Dunbar & Associates, Inc., sent AB 52 Notifications to the following based on a list of tribes that had requested notification by the City of Healdsburg:

Chris Wright, Chairperson
Dry Creek Rancheria of Pomo Indians
1550 Airport Road, Suite 101
Santa Rosa, California 95401

Loren Smith, Tribal Historic Preservation Officer
Kashia Band of Pomo Indians or the Stewarts Point
1420 Guerneville Road, Suite 1
Santa Rosa, California 95403

Marjorie Mejia, Chairperson
Lytton Rancheria of California
437 Aviation Boulevard
Santa Rosa, California 95403

Scott Gabaldon, Chairman
Mishewal-Wappo Tribe of Alexander Valley
2275 Silk Road
Windsor, California 95492

To date, none of these tribes responded to the Notification or asked for formal consultation.

3.24.2 Discussion and Mitigation Measures

Tribal Cultural Resources. 1). *Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code §21074 as 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, that is listed or eligible for listing on the California Register of Historical Resources, or on a local register of historical resources as defined in Public Resources Code §5020.1(k),*

Answer: No Impact.

Discussion:

Based on record searches at the Native American Heritage Commission and the California Historic Resources Information System, field surveys and Native American consultation, there are no tribal cultural resources within the Proposed Project area. Therefore, no further analysis or mitigation is required.

Tribal Cultural Resources. 2). *Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code §21074 as a resource determined by a lead agency, in its discretion and supported by substantial evidence, to be significant according to the historical register criteria in Public Resources Code §5023.1(c), and considering the significance of the resource to a California Native American tribe.*

Answer: No Impact.

Discussion:

Based on record searches at the Native American Heritage Commission and the California Historic Resources Information System, field surveys and Native American consultation, there are no tribal cultural resources within the Proposed Project area. Therefore, no further analysis or mitigation is required.

3.24.3 Conclusion

No impacts were identified; therefore, no further analysis or mitigation is required.

3.25 Utilities and Service Systems

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
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 telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	◙
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	◙
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?	☐	☐	☐	◙
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?	☐	☐	☐	◙
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	◙

3.25.1 Environmental Setting

Several entities provide utilities and service systems within the Project area including:

- Water — City of Healdsburg Department of Electric, Water and Wastewater
- Wastewater — City of Healdsburg Department of Electric, Water and Wastewater
- Electricity — City of Healdsburg Department of Electric, Water and Wastewater
- Natural Gas — Pacific Gas & Electric
- Trash — Recology

3.25.2 Discussion and Mitigation Measures

Utilities and Service Systems. a. *Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?*

Answer: No Impact.

Discussion:

The Project includes the construction and operation of a solar photovoltaic system at a city-owned site at the Healdsburg Water Reclamation Facility. It will not result in the relocation or construction of new or expanded services. The connections to the local electrical grid are immediately adjacent to the Project site. The local grid has the capacity to accept the additional electricity generated by the Project. Therefore, there would be no impacts and no further analysis or mitigation is required.

Utilities and Service Systems. b. *Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?*

Answer: No Impact.

Discussion:

The Project will require a minimal amount of water to periodically clean the solar panels. However, the City's existing water supplies are adequate to provide this service. Therefore, there would be no impacts and no further analysis or mitigation is required.

Utilities and Service Systems. c. *Would the project 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?*

Answer: No Impact.

Discussion:

The Project will not require wastewater service. Therefore, there would be no impacts and no further analysis or mitigation is required.

Utilities and Service Systems. d. *Would the project 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?*

Answer: No Impact.

Discussion:

The Project will not generate solid waste. Therefore, there would be no impacts and no further analysis or mitigation is required.

Utilities and Service Systems. e. *Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?*

Answer: No Impact.

Discussion:

The Project would comply with all federal, state and local regulations related to solid waste. Therefore, there would be no impacts and no further analysis or mitigation is required.

3.25.3 Conclusion

No impacts were identified; therefore, no further analysis or mitigation is required.

3.26 Wildfire

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a. Impair and adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	◙
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?	☐	☐	☐	◙
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 risks or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	◙
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?	☐	☐	☐	◙

3.26.1 Environmental Setting

Data provided by Calfire indicate that the Project area is not within a high fire severity zone or a state fire responsibility area.

3.26.2 Discussion and Mitigation Measures

Wildlife. a. *Would the project impair an adopted emergency response plan or emergency evacuation plan?*

Answer: No Impact.

Discussion:

As discussed in the Transportation section, the Project would not impair an adopted emergency response plan. Therefore, no further analysis or mitigation is required;

Wildlife. b. *Would the project 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?*

Answer: No Impact.

Discussion:

The Project site is relatively flat with no risk of wildland fires. Implementation of the Project would not change this. Therefore, there would be no impacts and no further analysis or mitigation is required.

Wildlife. c. *Would the project 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 risks or that may result in temporary or ongoing impacts to the environment?*

Answer: No Impact.

Discussion:

The Project would be connected to the local electrical grid. However, the connections would be made immediately adjacent to the Project site and be underground. Therefore, there would be no impacts and no further analysis or mitigation is required.

Wildlife. d. *Would the project 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?*

Answer: No Impact.

Discussion:

The Project area is not subject to wildland fires. Therefore, there would be no impacts and no further analysis or mitigation is required.

3.26.3 Conclusion

No impacts were identified; therefore, no further analysis or mitigation is required.

3.27 Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. 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?	☐	◙	☐	☐
b. 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.)	☐	◙	☐	☐
c. Have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	◙	☐	☐

3.27.1 Discussion and Mitigation Measures

Mandatory Findings of Significance. a. *Would 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?*

Answer: Less than Significant with Mitigation Incorporated.

Discussion:

Compliance with the mitigation measures included in Sections 3.5 through 3.26 above will ensure that implementation of the proposed Project does not have the potential to significantly 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.

Mandatory Findings of Significance. b. *Would 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.)*

Answer: Less than Significant with Mitigation Incorporated.

Discussion:

To facilitate recycled water storage, the City of Healdsburg is in the process of re-ling several decommissioned storage ponds. This includes the southern pond which will contain Solar Array C. Due to the fact that these ponds were previously used for the treatment and storage of wastewater, the rehabilitation work is being completed under a Notice of Exemption (reconstruction of existing facilities with no or negligible expansion). The rehabilitation work will be completed prior to construction of the solar facilities. Combined, the impacts from these two projects would not exceed any of the thresholds discussed in Sections 3.5 through 3.26. In addition, compliance with the mitigation measures included in Sections 3.5 through 3.26 above will ensure that implementation of the proposed Project does not have impacts that are individually limited, but cumulatively considerable.

Mandatory Findings of Significance. c. *Would the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?*

Answer: Less than Significant with Mitigation Incorporated.

Discussion:

Compliance with the mitigation measures included in Sections 3.5 through 3.26 above will ensure that implementation of the proposed Project does not have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly.

3.27.2 Conclusion

All potential significant impacts associated with the proposed Project can be mitigated to a less than significant level. Therefore, no further environmental review or mitigation is required.

4 Persons and Organizations Consulted

On June 3, 2019, K.S. Dunbar & Associates, Inc., the Northern California Power Agency's environmental consultant, mailed copies of the Notice of Intent to Adopt a Mitigated Negative Declaration with a link to the Northern California Power Agency's website where the Initial Study and Mitigated Negative Declaration could be electronically downloaded to the following;

4.1 Federal Agencies

Jennifer Norris, Field Supervisor
Sacramento Fish & Wildlife Office
U.S. Fish & Wildlife Service
2800 Cottage Way, Room W-2605
Sacramento, California 95825-1888

Michael S. Jewell, Chief
Regulatory Division
U.S. Army Corps of Engineers – Sacramento District
1325 J Street, Room 1350
Sacramento, California 95814-2922

Amy Dutschke, Regional Director
Pacific Region Regional Office
Bureau of Indian Affairs
U.S. Department of the Interior
2800 Cottage Way, Room W-2820
Sacramento, California 94825-1885

4.2 State Agencies

Scott Morgan, Director
State Clearinghouse
Governor's Office of Planning and Research
Post Office Box 3044
Sacramento, California 95812-3044

Gregg Erikson, Regional Manager
Bay-Delta Region (Region 3)
California Department of Fish and Wildlife
2825 Cordelia Road, Suite 100
Fairfield, California 94534

Matthais St. John, Executive Officer
California Regional Water Quality Control Board, North Coast Region
5550 Skyland Boulevard, Suite A
Santa Rosa, California 95403-1072

Julianne Polanco
State Historic Preservation Officer
Office of Historic Preservation
California Department of Parks and Recreation
1725 23rd Street, Suite 100
Sacramento, California 95816-7100

Wade Crowfoot, Secretary
California Natural Resources Agency
1416 Ninth Street, Suite 1311
Sacramento, California 95814

Christina Snider, Executive Secretary
California Native American Heritage Commission
1550 Harbor Boulevard, Suite 100
West Sacramento, California 95691-3830

4.3 County Agencies

Rob Bamford
Air Pollution Control Officer/Executive Officer
Northern Sonoma County Air Pollution Control District
150 Matheson Street
Healdsburg, California 95448

Johannes J. Hoevertez, Director
Department of Transportation and Public Works
Sonoma County
La Plaza B
2300 County Center Drive
Santa Rosa, California 95403

4.4 City Agencies

Terry Crowley, Utilities Director
Electric, Water and Wastewater Department
City of Healdsburg
401 Grove Street
Healdsburg, California 95448

Maya DeRosa, Director
Building and Planning Director
City of Healdsburg
401 Grove Street
Healdsburg, California 95448

4.5 Interested Entities

Chris Wright, Chairperson
Dry Creek Rancheria of Pomo Indians
1550 Airport Boulevard, Suite 101
Santa Rosa, California 95401

Loren Smith, Tribal Historic Preservation Officer
Kashia Band of Pomo Indians of the Stewarts Point
1420 Guerneville Road, Suite 1
Santa Rosa, California 95403

Marjarie Mejia, Chairperson
Lytton Rancheria of California
437 Aviation Boulevard
Santa Rosa, California 95403

Scott Gabalon, Chairman
Mishewai-Wappo Tribe of Alexander Valley
2275 Silk Road
Windsor, California 95492

Patricia Hermasillo, Chairperson
Cloverdale Rancheria of Pomo Indians
555 S. Cloverdale Boulevard, Suite A
Cloverdale, California 95425

Gregg Sarris, Chairperson
Federation Indians of Graton Rancheria
6400 Redwood Drive, Suite 300
Rohnert Park, California 94928

Jose Simon, Chairperson
Middletown Rancheria of Pomo Indians
Post Office Box 1035
Middletown, California 96461-1035

5 Report Authors/Contributors

5.1 Report Authors

This Initial Study and Mitigated Negative Declaration was prepared under contract to the Northern California Power Agency by:

K.S. Dunbar & Associates, Inc.

Environmental Engineering

45375 Vista Del Mar
Temecula, California 92590-4314
(951) 699-2082
Cell: (949) 412-2634
Email: ksdpe67@gmail.com

Erica D. Dunbar, President
Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE, Project Manager

Anza Resource Consultants

(Cultural Resources)
Kevin Hunt, President
Katherine Collins, M.A., RPA, Principal Investigator
Spencer Bietz, GIS Specialist

ELMT Consulting

(Biological Resources)
Thomas J. McGill, Managing Director
Travis J. McGill, Director/Biologist

5.2 Report Contributors

Northern California Power Agency

Ron Yuen, Director of Engineering, Generation Services

City of Healdsburg

Terry Crowley, Utilities Director

6 References

Air Resources Board. 2000. Risk *Guidance for the Permitting of New Stationary Diesel-Fueled Engines.*

Air Resources Board. 2019. www.arb.ca.gov, 3/08/2019

Air Resources Board. 2018. *California Greenhouse Gas Emissions for 2000 to 2016 Trends of Emissions and Other Indicators. 2018 Edition.*

Anza Resource Consultants. 2019. *Cultural Resources Survey for the Northern California Power Agency Solar Project 1 – Healdsburg Wastewater Reclamation Facility Sonoma County, California.* K.S. Dunbar & Associates, Inc., April.

Association of Environmental Professionals. 2019. *2019 CEQA, California Environmental Quality Act, Statutes & Guidelines.*

Bay Area Air Quality Management District. 2017. *CEQA Guidelines.* May.

Burns and McDonnell. 2018. *Healdsburg Phase 2B Site Screening and Fatal Flaw Evaluation*. Northern California Power Agency. July 18.

Burns & McDonnell. 2019. *Healdsburg WRF Site Plan Development, Northern California Power Agency, Project No. 107642, Revision 2,* February 13.

California Department of Transportation. 2019. *List of Scenic Highways in California*. www.dot.ca.gov, 3/11/2019.

California Department of Transportation. 2019. Traffic Counts. www.dot.ca.gov, 3/11/2019.

California Department of Transportation. 2017. *California Manual on Uniform Traffic Control Devices. 2014 Edition, Revision 2.* April 7, 2017.

California Department of Transportation. 2013. *Transportation and Construction Vibration Guidance Manual.* September

California Department of Toxic Substances Control. 2019. www.dtsc.ca.gov. 3/11/2019.

California Department of Water Resources. 2010. *Guidelines, Proposition 84 & Proposition 1E, Integrated Regional Water Management.* August.

California Natural Resources Agency. 2019. Proposed Regulatory Text for the State CEQA Guidelines.

California Regional Water Quality Control Board, North Coast Region. 2018. *The Water Quality Control Plan for the North Coast Region.* June.

City of Healdsburg Building and Planning Department. 2010. *Healdsburg 2030 General Plan, Background Report.* January 4.

City of Healdsburg. 2010. *Healdsburg 2030 General Plan.* January 4.

City of Healdsburg Utilities Department. 2018. *Annual Electric System Report.*

ELMT Consulting. 2019. *Habitat and Jurisdictional Assessment for the Northern California Power Agency Solar Project 1 – Healdsburg Water Reclamation Facility Located in the City of Healdsburg, Sonoma County, California*. K.S. Dunbar & Associates, Inc. May.

K.S. Dunbar & Associates, Inc., 2014. *Initial Study and Mitigated Negative Declaration, Solar Photovoltaic Renewable Energy Initiative – Phase II.* Eastern Municipal Water District. July.

K.S. Dunbar & Associates, Inc., 2018. *Initial Study, Solar Photovoltaic Renewable Energy Initiative – Phase III,* Eastern Municipal Water District. August.

Meister Consultants Group. 2014. *Solar and Glare.* Prepared for the U.S. Department of Energy. June.

Mendocino County Air Quality Management District. 2010. *Adopted Air Quality CEQA Thresholds of Significance.* June 2.

SCAQMD. 2006. *Final Methodology to Calculate Particulate Matter (PM) 2.5 and PM 2.5 Significance Thresholds.* October.

SCAQMD. 2016. *Draft Final 2016 Air Quality Management Plan.* December.

SCAQMD. 2016. *Appendix I, Health Effects. Draft Final 2016 Air Quality Management Plan.* December.

SCAQMD. 1999. *CEQA Air Quality Handbook*. Revised March 2011. www.aqmd.gov. 5/24/2014

SCAQMD. 2008. Localized Significance Thresholds. July. www.aqmd.gov. 5/24/2014

U.S. Department of Agriculture, Natural Resources Conservation Service, Web Soil Survey, Sonoma County California. www.websoilsurvey.gov, 4/05/2019.

SCAQMD. 2008. *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold.* October.

www.usa.com, 4/06/2019

Appendix A

Mitigated Negative Declaration

Mitigated Negative Declaration
NCPA Solar Project 1 – Healdsburg WRF Site

1. Name of project:	**NCPA Solar Project 1 – Healdsburg Water Reclamation Facility Site**		
2. Project location – Identify street address and cross streets or attach a map showing the project site (preferably a USGS 7½' or 15' topographical map identified by quadrangle name):	See attachment.		
3. Entity or Person undertaking project:			
A. Entity			
(1) Name:	Northern California Power Agency		
(2) Address:	651 Commerce Drive, Roseville, California 95678-6420		
B. Other (Private)			
(1) Name:			
(2) Address:			

Northern California Power Agency, having reviewed the Initial Study of this proposed project, having reviewed the written comments received prior to the public meeting of the Northern California Power Agency, having reviewed the recommendations of the Northern California Power Agency's Staff, does hereby find and declare that the proposed project will not have a significant effect on the environment. A brief statement of the reasons supporting the Northern California Power Agency's findings are as follows:

The Initial Study concluded that all significant impacts can be reduced to a level of less than significant by implementation of the Mitigation Monitoring and Reporting Program developed for this Project.

The Northern California Power Agency finds that the Mitigated Negative Declaration reflects its independent judgment. A copy of the Initial Study and Mitigation Monitoring and Reporting Program are attached.

The location and custodian of the documents and any other materials which constitute the record of proceedings upon which the Northern California Power Agency based its decision to adopt this Mitigated Negative Declaration are as follows:

Custodian:	Ron Yuen Director of Engineering, Generation Services	Location:	Northern California Power Agency 651 Commerce Driver Roseville, California 95678-6420
Phone:	(916) 781-4258		

Date:	Signature

Overview of the Proposed Project:

The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories construction to be started before the end of 2019. The plants will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. Burns & McDonnell was retained by NCPA to complete Phase 2 Site Screening, Plan Development, and Procurement services for each site selected by the member agencies. The City of Healdsburg selected a site at its water reclamation facility for development. That site is the subject of this Initial Study and Mitigated Negative Declaration (IS&MND).

Location of the Proposed Project

As shown on Figure 1, the Healdsburg Water Reclamation Facility is located south of the City at 340 Foreman Lane, Healdsburg, Sonoma County, California.

Figure 1 Healdsburg Water Reclamation Facility Location

The Project site is located within a 36-acre waste reclamation facility site that is situated between Foreman Lane to the north and Cohn Road to the south. The proposed technology type for the solar project is floating arrays, whereby the panels would be

mounted on pontoons that are anchored to ballasts located outside the ponds. As shown on Figure 2, the site would accommodate three arrays totaling 8.13 acres. The total installed capacity would be approximately 3.62 MW_{dc}.

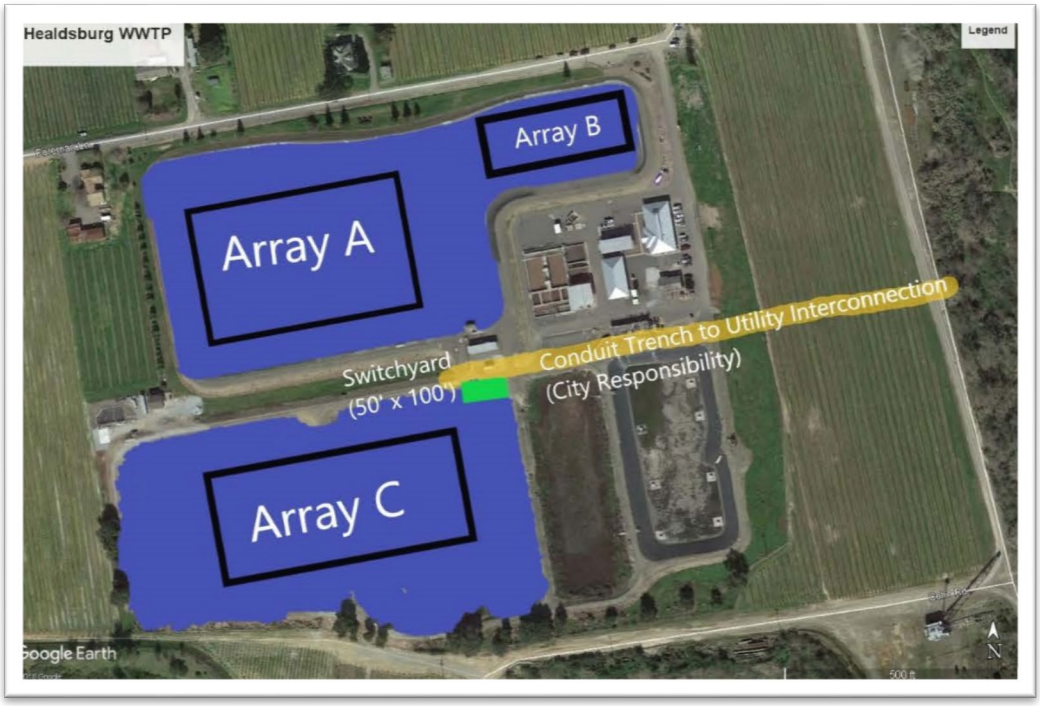


Figure 1 Proposed Solar Array Locations

Appendix B

Air Quality Modeling Results

N+A1:I45CPA Solar Project 1 - Healdsburg Water Reclamation Facility Site
Northern California Power Agency
Estimated Construction Emissions from Off-Road Heacy Duty Contstuction Equipment During Solar Equipment Installation

2019 Construction Year

Equipment	Emission Factor gr/hp-hr	Emission Factor lb/hp-hr	Number	horsepower	load factor	hours/day	Emissions pounds per day	Mitigated Emissions pounds per day
			Reactive Organic Gases (ROG)					
Crane	0.3491	0.00076894	2	399	0.43	8	2.11	
Tractors/Backhoes/Loaders	0.3678	0.00081013	1	108	0.55	8	0.38	
Water Trucks	0.2635	0.00058040	1	500	0.5	2	0.29	
Totals							2.79	

Equipment	Emission Factor gr/hp-hr	Emission Factor lb/hp-hr	Number	horsepower	load factor	hours/day	Emissions pounds per day	Mitigated Emissions pounds per day
			Carbon Monoxide (CO)					
Crane	2.96983	0.00654148	2	399	0.43	8	17.96	
Tractors/Backhoes/Loaders	3.63777	0.00801271	1	108	0.55	8	3.81	
Water Trucks	1.48346	0.00326753	1	500	0.5	2	1.63	
Totals							23.40	

Equipment	Emission Factor gr/hp-hr	Emission Factor lb/hp-hr	Number	horsepower	load factor	hours/day	Emissions pounds per day	Mitigated Emissions pounds per day
			Oxides of Nitrogen (NO_x)					
Crane	4.29654	0.00946374	2	399	0.43	8	25.98	22.08
Tractors/Backhoes/Loaders	3.69287	0.00813407	1	108	0.55	8	3.87	3.29
Water Trucks	2.66851	0.00587778	1	500	0.5	2	2.94	2.50
Totals							32.78	27.87

Equipment	Emission Factor gr/hp-hr	Emission Factor lb/hp-hr	Number	horsepower	load factor	hours/day	Emissions pounds per day	Mitigated Emissions pounds per day
			Oxides of Sulfur (SO_x)					
Crane	0.0049	0.00001079	2	399	0.43	8	0.03	
Tractors/Backhoes/Loaders	0.0049	0.00001079	1	108	0.55	8	0.01	
Water Trucks	0.0049	0.00001079	1	500	0.5	2	0.01	
Totals							0.04	

Equipment	Emission Factor gr/hp-hr	Emission Factor lb/hp-hr	Number	horsepower	load factor	hours/day	Emissions pounds per day	Mitigated Emissions pounds per day
			Respirable Particulate Matter (PM_{10})					
Crane	0.173	0.00038106	2	399	0.43	8	1.05	0.16
Tractors/Backhoes/Loaders	0.2465	0.00054295	1	108	0.55	8	0.26	0.04
Water Trucks	0.097	0.00021366	1	500	0.5	2	0.11	0.02
Totals							1.41	0.21

Equipment	Emission Factor gr/hp-hr	Emission Factor lb/hp-hr	Number	horsepower	load factor	hours/day	Emissions pounds per day	Mitigated Emissions pounds per day
			Fine Particulate Matter ($PM_{2.5}$)					
Crane	0.1592	0.00035066	2	399	0.43	8	0.96	0.14
Tractors/Backhoes/Loaders	0.2268	0.00049956	1	108	0.55	8	0.24	0.04
Water Trucks	0.0893	0.00019670	1	500	0.5	2	0.10	0.01
Totals							1.30	0.19

Equipment	Emission Factor gr/hp-hr	Emission Factor lb/hp-hr	Number	horsepower	load factor	hours/day	Emissions pounds per day	Mitigated Emissions pounds per day
			Carbon Dioxide (CO_2)					
Crane	483.1422	1.06418987	2	399	0.43	8	2,921	
Tractors/Backhoes/Loaders	486.8508	1.07235859	1	108	0.55	8	510	
Water Trucks	485.3832	1.06912599	1	500	0.5	2	535	
Totals							3,965	

Equipment	Emission Factor gr/hp-hr	Emission Factor lb/hp-hr	Number	horsepower	load factor	hours/day	Emissions pounds per day	Mitigated Emissions pounds per day
			Methane (CH_4)					
Crane	0.1529	0.00033678	2	399	0.43	8	0.92	
Tractors/Backhoes/Loaders	0.1537	0.00033855	1	108	0.55	8	0.16	
Water Trucks	0.1536	0.00033833	1	500	0.5	2	0.17	
Totals							1.25	

Appendix C

Biological Resources Technical Report

May 2, 2019

K.S. DUNBAR & ASSOCIATES
Contact: Keith S. Dunbar, P.E., BCEE, Hon.D.WRE, F.ASCE
45375 Vista Del Mar
Temecula, California 92590

SUBJECT: **Habitat and Jurisdictional Assessment for the Northern California Power Agency Solar Project 1 – Healdsburg Water Reclamation Facility Located in the City of Healdsburg, Sonoma County, California**

Introduction

This report contains the findings of ELMT Consulting's (ELMT) habitat and jurisdictional assessment for the Northern California Power Agency (NCPA) Solar Project 1 – Healdsburg Water Reclamation Facility (WRF) (project site or site) located in the City of Healdsburg, Sonoma County, California. The habitat and jurisdictional assessment was conducted by biologist Travis J. McGill on April 16, 2019 to document baseline conditions and assess the potential for special-status[1] plant and wildlife species to occur within the project site that could pose a constraint to implementation of the proposed project. Special attention was given to the suitability of the project site to support special-status plant and wildlife species identified by the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB), and other electronic databases as potentially occurring in the general vicinity of the project site.

Project Location

The project site is generally located south and west of U.S. Route 101, east of the Sonoma Mountains, and north of State Route 116 in the City of Healdsburg, Sonoma County, California. The project site is depicted on the Healdsburg quadrangle of the United States Geological Survey's (USGS) 7.5-minute topographic map series within an unsectioned portion of Township 9 North, Range 8 West. Specifically, the project site is located at 340 Foreman Lane within a 36-acre existing waste water treatment plant between Foreman Lane to the north and Cohn Road to the south. Refer to Exhibits 1 thru 3 in Attachment A.

Project Description

The proposed project will be located on two ponds, each roughly 7-acres. The north pond will contain Array A and Array B and the south pond will contain Array C. Currently, the pond that encompasses Array C is separated into two ponds by an embankment; however, work is underway to remove the embankment and combine the two ponds. The ponds are emptied by May 1st of each year to allow the maximum amount of

1 As used in this report, "special-status" refers to plant and wildlife species that are federally and State listed, proposed, or candidates; plant species that have been designated with a California Native Plant Society Rare Plant Rank; wildlife species that are designated by the CDFW as fully protected, species of special concern, or watch list species; and specially protected natural vegetation communities as designated by the CDFW.

storage during the summer seasons. In the summer months, irrigation and other uses will draw from the ponds. As a result, the water level in the ponds will range from two feet below top of embankment to fully empty. The solar photovoltaic ("PV") arrays must rise and fall with the changing water levels throughout the year without damaging the existing pond liner, embankment, or the solar PV system itself.

Based on the site layout in, the aggregate project size across all three arrays is estimated to be 3.6 MW direct current ("MWdc") or 2.7 MW alternating current with an assumed DC/AC ratio of 1.3. The proposed technology type for the solar project is floating arrays, whereby the panels will be mounted to pontoons that are anchored to ballasts located outside the treatment ponds. The current treatment pond will be developed to house both Arrays A and B. Healdsburg indicated it has plans to pond the two areas just south of the existing treatment pond, shown as Array C.

Methodology

A literature review and records search were conducted to determine which special-status biological resources have the potential to occur on or within the general vicinity of the project site. In addition to the literature review, a general habitat assessment or field investigation of the project site was conducted to document existing conditions and assess the potential for special-status biological resources to occur within the project site.

Literature Review

Prior to conducting the field investigation, a literature review and records search was conducted for special-status biological resources potentially occurring on or within the vicinity of the project site. Previously recorded occurrences of special-status plant and wildlife species and their proximity to the project site were determined through a query of the CDFW's QuickView Tool in the Biogeographic Information and Observation System (BIOS), CNDDB Rarefind 5, the California Native Plant Society's (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants of California, Calflora Database, compendia of special-status species published by CDFW, and the United States Fish and Wildlife Service (USFWS) species listings.

All available reports, survey results, and literature detailing the biological resources previously observed on or within the vicinity of the project site were reviewed to understand existing site conditions and note the extent of any disturbances that have occurred within the project site that would otherwise limit the distribution of special-status biological resources. Standard field guides and texts were reviewed for specific habitat requirements of special-status and non-special-status biological resources, as well as the following resources:

- Google Earth Pro historic aerial imagery (1993-2019);
- United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS), Soil Survey[2];
- USFWS Critical Habitat designations for Threatened and Endangered Species; and

2 A soil series is defined as a group of soils with similar profiles developed from similar parent materials under comparable climatic and vegetation conditions. These profiles include major horizons with similar thickness, arrangement, and other important characteristics, which may promote favorable conditions for certain biological resources.

- USFWS Endangered Species Profiles.

The literature review provided a baseline from which to inventory the biological resources potentially occurring within the project site. The CNDDB database was used, in conjunction with ArcGIS software, to locate the nearest recorded occurrences of special-status species and determine the distance from the project site.

Habitat Assessment/Field Investigation

Following the literature review, biologist Travis J. McGill inventoried and evaluated the condition of the habitat within the project site on April 16, 2019. Plant communities and land cover types identified on aerial photographs during the literature review were verified by walking meandering transects throughout the project site. In addition, aerial photography was reviewed prior to the site investigation to locate potential natural corridors and linkages that may support the movement of wildlife through the area. These areas identified on aerial photography were then walked during the field investigation.

All plant and wildlife species observed, as well as dominant plant species within each plant community, were recorded. Plant species observed during the field investigation were identified by visual characteristics and morphology in the field. Unusual and less familiar plant species were photographed during the field investigation and identified in the laboratory using taxonomical guides. Wildlife detections were made through observation of scat, trails, tracks, burrows, nests, and/or visual and aural observation. In addition, site characteristics such as soil condition, topography, hydrology, anthropogenic disturbances, indicator species, condition of on-site plant communities and land cover types, and presence of potential jurisdictional drainage and/or wetland features were noted.

Soil Series Assessment

On-site and adjoining soils were researched prior to the field investigation using the USDA NRCS Soil Survey for Sonoma County, California. In addition, a review of the local geological conditions and historical aerial photographs was conducted to assess the ecological changes that the project site have undergone.

Plant Communities

Plant communities were mapped using 7.5-minute USGS topographic base maps and aerial photography. The plant communities were classified in accordance with Sawyer, Keeler-Wolf and Evens (2009), delineated on an aerial photograph, and then digitized into GIS Arcview. The Arcview application was used to compute the area of each plant community and/or land cover type in acres.

Plants

Common plant species observed during the field investigation were identified by visual characteristics and morphology in the field and recorded in a field notebook. Unusual and less familiar plants were photographed in the field and identified in the laboratory using taxonomic guides. Taxonomic nomenclature used in this study follows the 2012 Jepson Manual (Hickman 2012). In this report, scientific names are provided immediately following common names of plant species (first reference only).

Wildlife

Wildlife species detected during the field investigation by sight, calls, tracks, scat, or other sign were recorded during surveys in a field notebook. Field guides used to assist with identification of wildlife species during the survey included The Sibley Field Guide to the Birds of Western North America (Sibley 2003), A Field Guide to Western Reptiles and Amphibians (Stebbins 2003), and A Field Guide to Mammals of North America (Reid 2006). Although common names of wildlife species are well standardized, scientific names are provided immediately following common names in this report (first reference only).

Jurisdictional Drainages and Wetlands

Aerial photography was reviewed prior to conducting a field investigation in order to locate and inspect any potential natural drainage features, ponded areas, or water bodies that may fall under the jurisdiction of the United States Army Corps of Engineers (Corps), Regional Water Quality Control Board (Regional Board), or CDFW. In general, surface drainage features indicated as blue-line streams on USGS maps that are observed or expected to exhibit evidence of flow are considered potential riparian/riverine habitat and are also subject to state and federal regulatory jurisdiction. In addition, ELMT reviewed jurisdictional waters information through examining historical aerial photographs to gain an understanding of the impact of land-use on natural drainage patterns in the area. The USFWS National Wetland Inventory (NWI) and Environmental Protection Agency (EPA) Water Program "My Waters" data layers were also reviewed to determine whether any hydrologic features and wetland areas have been documented on or within the vicinity of the project site.

Existing Site Conditions

The project site is located on two ponds, each roughly 7-acres, totaling 14-acres. The site is surrounded by agricultural fields on three sides, with the nearest residences located on adjacent parcels to the west of the site, approximately 45-feet from site parcel edge and north at approximately 65-feet and 125-feet from the site parcel edge. According to the NWI data, a wetland feature has been mapped on the southern portion of the parcel (proposed Array C). The Federal Emergency Management Agency (FEMA) data indicates that a majority of the site is located in an area above the 500-year flood level, and a small portion on the southern parcel is located within the 100-year flood zone.

The proposed project footprint is relatively flat at an approximate elevation of 90 feet above mean sea level, with the exception of the side slopes of the ponds that have been dug out to create the onsite basins. Based on the NRCS USDA Web Soil Survey, the project site is underlain by the following soil units: Yolo sandy loam, overwash (0 to 5 percent slopes), and Yolo loam (0 to 10 percent slopes). Refer to Exhibit 4, *Soils*, in Attachment A. Soils on-site have been mechanically disturbed and heavily compacted from development of the WRF.

Vegetation

Due to existing land uses, no native plant communities or natural communities of special concern were observed on the project site. The project site primarily consists of the existing WRF that consist of existing ponds and associated infrastructure and buildings that are subject to ongoing anthropogenic disturbances. These disturbances have eliminated the natural plant communities that once occurred within the boundaries of the project site. Refer to Attachment B, *Site Photographs*, for representative site photographs. No native

plant communities will be impacted from implementation of the proposed project.

The project site consists of land cover types that would be classified as disturbed and developed. Refer to Exhibit 5, *Vegetation* in Attachment A. Within the proposed project footprint, developed areas consist of the existing buildings and structures associated with the WRF, and the disturbed areas within the project footprint consist of the areas that have been subject to routine anthropogenic disturbances. It should be noted that the southern ponds that will form Array C are earthen lined and support non-native and early succession/ruderal plant species. Plant species observed onsite include filaree (*Erodium sp.*), wild radish (*Raphanus raphanistrum*), yellow sweet clover (*Mililotus officinalis*), wild oat (*Avena sp.*), mouse barley (*Hordeum murinum*), milk thistle (*Silybum marianum*), ripgut (*Bromus diandrus*), mulefat (*Baccharis salicifolia*), blackberry (*Rubus ursinus*), short-podded mustard (*Hirschfeldia incana*), cheeseweed (*Malva parviflora*), prickly lettuce (*Lactuca serriola*), and curly dock (*Rumex crispus*).

Wildlife

Plant communities provide foraging habitat, nesting/denning sites, and shelter from adverse weather or predation. This section provides a discussion of those wildlife species that were observed or are expected to occur within the project site. The discussion is to be used a general reference and is limited by the season, time of day, and weather conditions in which the field investigation was conducted. Wildlife detections were based on calls, songs, scat, tracks, burrows, and direct observation. The project site provides limited habitat for wildlife species except those adapted to a high degree of anthropogenic disturbances and development.

Fish

No fish were observed in the onsite ponds during the field investigation. The ponds only support water for portions of the year and do not provide a perennial water source or connect to natural water features that would provide suitable habitat for fish species. The only fish species that have the potential to occur in the ponds are fish that are exotic or introduced such as mosquitofish (*Gambusia affinis*) and bluegill (*Lepomis macrochirus*). No special-status fish species are expected to occur within the project site.

Amphibians

No amphibians were observed within the ponds during the field investigation. The ponds only support water for portions of the year and do not provide a perennial water source or connect to natural water features that would provide long term habitat for amphibian species. The only amphibian species that have the potential to occur in the ponds are tree frog (*Pseudacris regilla*). No special-status amphibian species are expected to occur within the project site.

Reptiles

During the field investigation no reptilian species were observed on the project site. Common reptilian species adapted to a high degree of anthropogenic disturbances that have the potential to occur on the project site include western side-blotched lizard (*Uta stansburiana elegans*), and alligator lizard (*Elgaria multicarinata*). Due to the high level of anthropogenic disturbances on-site no special-status reptilian species are expected to occur within project site. Further, when the ponds onsite are filled with water, they have the potential to support introduced/exotic turtles such as red-eared slider (*Trachemys scripta elegans*).

Birds

The project site provides foraging and cover habitat for bird species adapted to a high degree of human disturbance. Bird species detected during the field investigation included northern mockingbird (*Mimus polyglottos*), mourning dove (*Zenaida macroura*), house finch (*Haemorhouse mexicanus*), American crow (*Corvus brachyrhynchos*), killdeer (*Charadrius vociferus*), turkey vulture (*Cathartes aura*), Canada goose (*Branta canadensis*), bufflehead (*Bucephala albeola*), red-tailed hawk (*Buteo jamaicensis*), black phoebe (*Sayornis nigricans*), California towhee (*Melozone crissalis*), golden crowned sparrow (*Zonotrichia atricapilla*), mallard (*Anas platyrhynchos*), and northern rough-winged swallow (*Stelgidopteryx serripennis*). Due to routine disturbance associated with the existing WRF, the project site does not provide suitable habitat for special-status bird species known to occur in the area.

Mammals

During the field investigation no mammalian species were observed on the project site. Common mammalian species adapted to a high degree of anthropogenic disturbances that have the potential to occur within the project site include California ground squirrel (*Otospermophilus beecheyi*), Botta's pocket gopher (*Thomomys bottae*), opossum (*Didelphis virginiana*), and raccoon (*Procyon lotor*).

Nesting Birds

No active nests or birds displaying nesting behavior were observed during the field investigation. The project site and surrounding area provides foraging and nesting habitat for year-round and seasonal avian residents, as well as migrating songbirds that could occur in the area. The project site has the potential to provide suitable nesting opportunities for birds that nest on the open ground and those aclimated to routine disturbances. Additionally, the trees that border the project site provide suitable nesting opportunies. A pre-construction nesting bird clearance survey should be conducted within three (3) days prior to ground disturbance to ensure no nesting birds will be impacted from site development.

Migratory Corridors and Linkages

Habitat linkages provide connections between larger habitat areas that are separated by development. Wildlife corridors are similar to linkages but provide specific opportunities for animals to disperse or migrate between areas. A corridor can be defined as a linear landscape feature of sufficient width to allow animal movement between two comparatively undisturbed habitat fragments. Adequate cover is essential for a corridor to function as a wildlife movement area. It is possible for a habitat corridor to be adequate for one species yet still inadequate for others. Wildlife corridors are features that allow for the dispersal, seasonal migration, breeding, and foraging of a variety of wildlife species. Additionally, open space can provide a buffer against both human disturbance and natural fluctuations in resources.

It should be noted that the Russian River, Mill Creek, and Dry Creek support natural habitats which allow wildlife to move through the region in search of food, shelter, or nesting habitat. The project site is separated from the influences of the Russian River, Mill Creek, and Dry Creek by agricultural fields and the proposed project will be confined to existing disturbed/developed areas. Implementation of the proposed project is not expected to result in temporary and/or permanent impacts to potential wildlife movement opportunities along the Russian River, Mill Creek, and Dry Creek during construction and operation activities.

Jurisdictional Areas

There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The Corps Regulatory Branch regulates discharge of dredge or fill materials into "waters of the United States" pursuant to Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the CDFW regulates alterations to streambed and bank under Fish and Wildlife Code Sections 1600 et seq., and the Regional Board regulates discharges into surface waters pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act.

The project site does not support any discernible drainage courses, inundated areas, wetland features, or hydric soils that would be considered jurisdictional by the Corps, Regional Board, or CDFW. Therefore, project activities will not result in impacts to Corps, Regional Board, or CDFW jurisdictional areas and regulatory approvals will not be required.

According to the NWI data, a wetland feature has been mapped as supporting a freshwater pond on the southern portion of the parcel (proposed Array C). The mapped freshwater pond is located on the southern portion of the project site where the existing water retention basins were created. During the field investigation, no evidence of a freshwater pond was observed onsite within the existing water retention basins. As a result, no impacts to the NWI mapped freshwater pond will occur from the proposed project.

Special-Status Biological Resources

The CNDDB Rarefind 5 and the CNPS Electronic Inventory of Rare and Endangered Vascular Plants of California were queried for reported locations of special-status plant and wildlife species as well as special-status natural plant communities in the Healdsburg and Guerneville USGS 7.5-minute quadrangles. The habitat assessment evaluated the conditions of the habitat(s) within the boundaries of the project site to determine if the existing plant communities, at the time of the survey, have the potential to provide suitable habitat(s) for special-status plant and wildlife species.

The literature search identified thirty-three (33) special-status plant species, thirty-seven (37) special-status wildlife species, and one (1) special-status plant community as having potential to occur within the Healdsburg and Guerneville USGS 7.5-minute quadrangles. Special-status plant and wildlife species were evaluated for their potential to occur within the project site based on habitat requirements, availability and quality of suitable habitat, and known distributions. Species determined to have the potential to occur within the general vicinity of the project site are presented in Attachment C*: Potentially Occurring Special-Status Biological Resources*.

Special-Status Plants

According to the CNDDB and CNPS, thirty-three (33) special-status plant species have been recorded in the Healdsburg and Guerneville quadrangles (refer to Attachment C). No special-status plant species were observed onsite during the habitat assessment. The project site consists of the existing WRF that has been subject to various anthropogenic disturbances and development. These disturbances have eliminated the natural plant communities that once occurred on-site which has removed suitable habitat for special-status plant species known to occur in the general vicinity of the project site. Based on habitat requirements for specific special-status plant species and the availability and quality of habitats needed by each species, it

was determined that the project site does not provide suitable habitat for any of the special-status plant species known to occur in the area and are presumed to be absent from the project site. No focused surveys are recommended.

Special-Status Wildlife

According to the CNDDB, thirty-seven (37) special-status wildlife species have been reported in the Healdsburg and Guerneville quadrangles (refer to Attachment C). No special-status wildlife species were observed onsite during the habitat assessment. The project site consists of the existing WRF that has been subject to various anthropogenic disturbances and development. These disturbances have eliminated the natural plant communities that once occurred on-site which have greatly reduced potential foraging opportunities for wildlife species. Based on habitat requirements for specific species and the availability and quality of on-site habitats, it was determined that the proposed project site has a low potential to support great egret (*Ardea alba*), and great blue heron (*Ardea herodias*). Both of these species are not federally, or state listed. All remaining special-status wildlife species were determined to have a low potential to occur or are presumed to be absent from the project site since the project sites have been heavily disturbed from onsite disturbances. No focused surveys are recommended.

In order to ensure impacts to the aforementioned species do not occur from implementation of the proposed project, a pre-construction nesting bird clearance survey should be conducted prior to ground disturbance. With implementation of mitigation through the pre-construction clearance survey, impacts to the aforementioned species will be less than significant.

Special-Status Plant Communities

According to the CNDDB, one (1) special-status plant community has been reported in the Healdsburg and Guerneville USGS 7.5-minute quadrangles: Northern Hardpan Vernal Pool. Based on the results of the field investigation, no special-status plant communities were observed onsite.

Critical Habitat

Under the federal Endangered Species Act, "Critical Habitat" is designated at the time of listing of a species or within one year of listing. Critical Habitat refers to specific areas within the geographical range of a species at the time it is listed that include the physical or biological features that are essential to the survival and eventual recovery of that species. Maintenance of these physical and biological features requires special management considerations or protection, regardless of whether individuals or the species are present or not. All federal agencies are required to consult with the United States Fish and Wildlife Service (USFWS) regarding activities they authorize, fund, or permit which may affect a federally listed species or its designated Critical Habitat. The purpose of the consultation is to ensure that projects will not jeopardize the continued existence of the listed species or adversely modify or destroy its designated Critical Habitat. The designation of Critical Habitat does not affect private landowners, unless a project they are proposing is on federal lands, uses federal funds, or requires federal authorization or permits (e.g., funding from the Federal Highways Administration or a CWA Permit from the Corps). If a there is a federal nexus, then the federal agency that is responsible for providing the funding or permit would consult with the USFWS.

The project site is not located with federally designated Critical Habitat. Refer to Exhibit 6, *Critical Habitat*

in Attachment A. The nearest designated Critical Habitat is located approximately 0.15 mile east of the project site for steelhead (*Oncorhynchus mykiss*) and Chinook salmon (*Oncorhynchus tshawytscha*) associated with Dry Creek and the Russian River. Therefore, the loss or adverse modification of Critical Habitat from site development will not occur and consultation with the USFWS for impacts to Critical Habitat will not be required for implementation of the proposed project.

Recommendations

Migratory Bird Treaty Act and Fish and Game Code

Nesting birds are protected pursuant to the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (Sections 3503, 3503.5, 3511, and 3513 prohibit the take, possession, or destruction of birds, their nests or eggs). In order to protect migratory bird species, a nesting bird clearance survey should be conducted prior to any ground disturbance or vegetation removal activities that may disrupt the birds during the nesting season.

If construction occurs between February 1st and August 31st, a pre-construction clearance survey for nesting birds should be conducted within three (3) days of the start of any vegetation removal or ground disturbing activities to ensure that no nesting birds will be disturbed during construction. The biologist conducting the clearance survey should document a negative survey with a brief letter report indicating that no impacts to active avian nests will occur. If an active avian nest is discovered during the pre-construction clearance survey, construction activities should stay outside of a no-disturbance buffer. The size of the no-disturbance buffer (generally 300 feet for migratory and non-migratory song birds and 500 feet raptors and special-status species) will be determined by the wildlife biologist, in coordination with the CDFW, and will depend on the level of noise and/or surrounding disturbances, line of sight between the nest and the construction activity, ambient noise, and topographical barriers. These factors will be evaluated on a case-by-case basis when developing buffer distances. Limits of construction to avoid an active nest will be established in the field with flagging, fencing, or other appropriate barriers; and construction personnel will be instructed on the sensitivity of nest areas. A biological monitor should be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, construction activities within the buffer area can occur.

Conclusion

Based on the proposed project footprint and existing site conditions discussed in this report, none of the special-status plant or wildlife species known to occur in the general vicinity of the project site are expected to be directly or indirectly impacted from implementation of the proposed project. With completion of the recommendations provided above, no impacts to year-round, seasonal, or special-status avian residents will occur from implementation of the proposed project. Therefore, it was determined that implementation of the project will have "no effect" on federally or State listed species known to occur in the general vicinity of the project site. Additionally, the development of the project will not impact designated Critical Habitats or regional wildlife movement corridors/linkages.

Please do not hesitate to contact Tom McGill at (951) 285-6014 or tmcgill@elmtconsulting.com or Travis McGill at (909) 816-1646 or travismcgill@elmtconsulting.com should you have any questions this report.

Sincerely,

Thomas J. McGill, Ph.D.
Managing Director

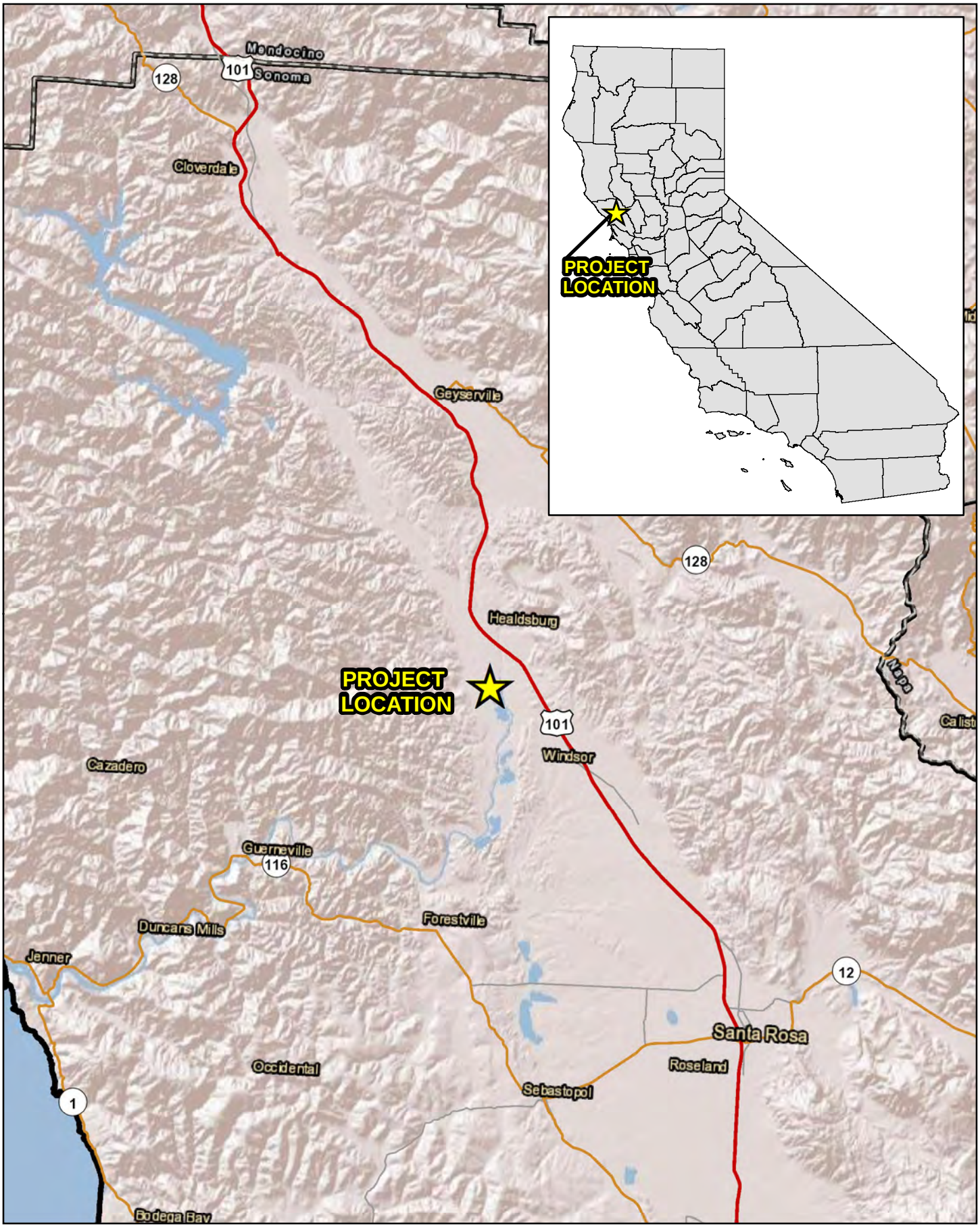
Travis J. McGill
Director

Attachments:

A. *Project Exhibits*
B. *Site Photographs*
C. *Potentially Occurring Special-Status Biological Resources*
D. *Regulations*

Attachment A

Project Exhibits



NCPA SOLAR PROJECT 1 - HEALDSBURG WRF SITE
HABITAT AND JURISDICTIONAL ASSESSMENT

Regional Vicinity

ELMT CONSULTING

0 2.5 5 10 Miles

Source: World Transportation, World Shaded Relief, Sonoma County

Exhibit 1

NCPA SOLAR PROJECT 1 - HEALDSBURG WRF SITE
HABITAT AND JURISDICTIONAL ASSESSMENT

Site Vicinity

ELMT CONSULTING

0 1,250 2,500 5,000 Feet

Source: USA Topographic Map, Sonoma County

Exhibit 2

NCPA SOLAR PROJECT 1 - HEALDSBURG WRF SITE
HABITAT AND JURISDICTIONAL ASSESSMENT

ELMT CONSULTING

0 250 500 1,000 Feet

Source: ESRI World Imagery, Sonoma County

Project Site

Exhibit 3

NCPA SOLAR PROJECT 1 - HEALDSBURG WRF SITE
HABITAT AND JURISDICTIONAL ASSESSMENT

ELMT CONSULTING

0 250 500 1,000 Feet

Source: ESRI World Imagery, NRCS Soil Survey Geographic Database, Sonoma County

Soils

Exhibit 4

NCPA SOLAR PROJECT 1 - HEALDSBURG WRF SITE
HABITAT AND JURISDICTIONAL ASSESSMENT

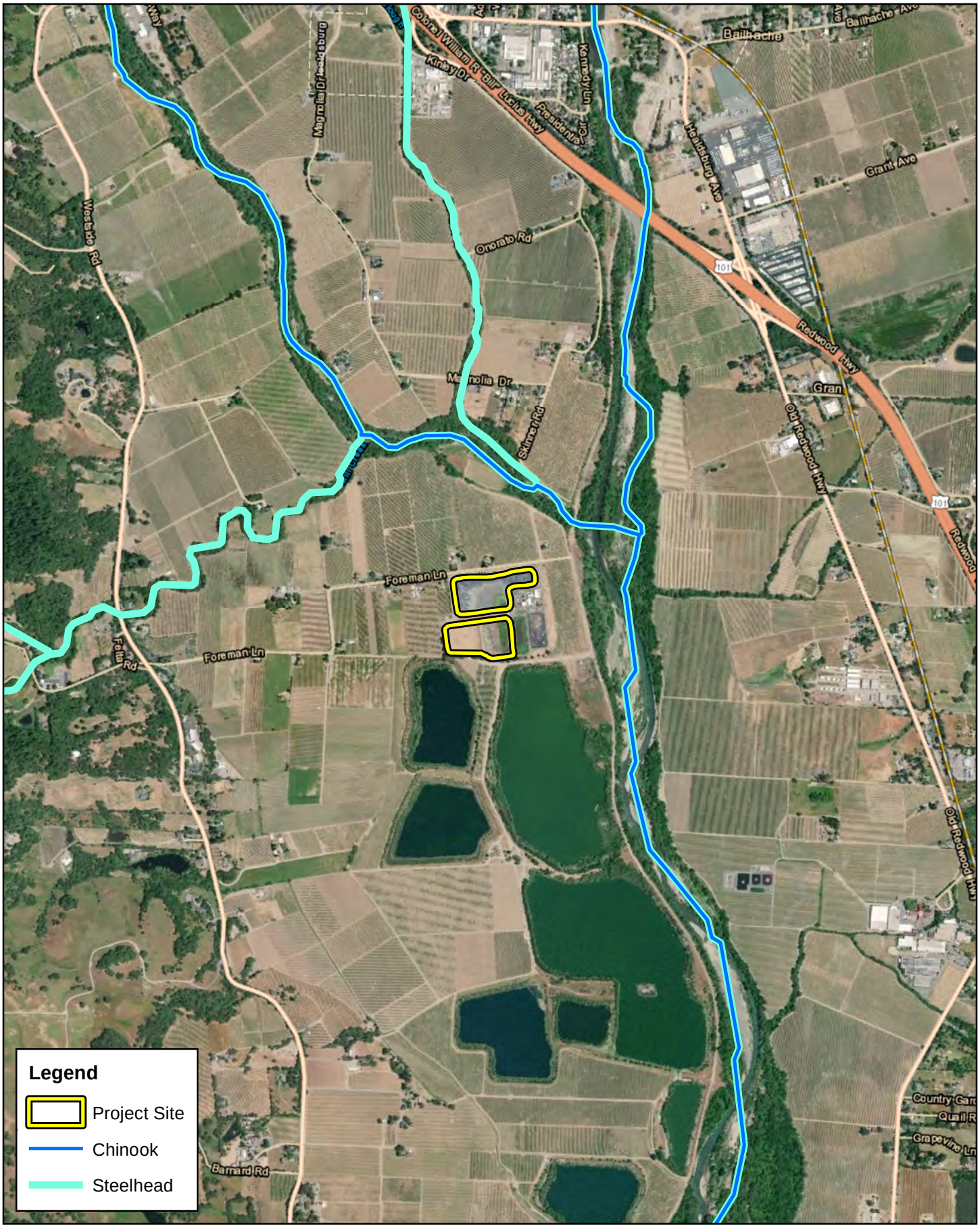
Vegetation

ELMT CONSULTING

0 250 500 1,000 Feet

Source: ESRI World Imagery, Sonoma County

Exhibit 5



NCPA SOLAR PROJECT 1 - HEALDSBURG WRF SITE
HABITAT AND JURISDICTIONAL ASSESSMENT

Critical Habitat

ELMT CONSULTING

0 500 1,000 2,000 Feet

Source: ESRI World Imagery, USFWS Critical Habitat, Sonoma County

Exhibit 6

Attachment B

Site Photographs

Photograph 1: From the eastern boundary of the north pond looking west.

Photograph 2: From the northeast corner of the north pond looking southwest.

Photograph 3: From the northwest corner of the north pond looking east along the northern boundary of the pond.

Photograph 4: From the southwest corner of the north pond looking northeast.

Photograph 5: View of the southeast corner of the north pond.

Photograph 6: From the northeast corner of the southern pond looking southwest.

Photograph 7: From the southeast corner of the southern pond looking northwest.

Photograph 8: Looking northeast across the eastern portion of the southern pond.

Photograph 9: From the southeast corner of the western portion of the southern pond looking northwest.

Photograph 10: From the northwest corner of the western portion of the southern pond looking southeast.

Attachment C

Potentially Occurring Special-Status Biological Resources

Scientific Name	Common Name	Federal Status	State Status	CDFW Listing	CNPS Rare Plant Rank	Potential to Occur
Special-Status Wildlife Species						
Accipiter cooperii	Cooper's hawk	None	None	WL	-	Moderate
Ammodramus savannarum	grasshopper sparrow	None	None	SSC	-	Presumed Absent
Antrozous pallidus	pallid bat	None	None	SSC	-	Presumed Absent
Ardea alba	great egret	None	None	-	-	Low
Ardea herodias	great blue heron	None	None	-	-	Low
Athene cunicularia	burrowing owl	None	None	SSC	-	Presumed Absent
Bombus caliginosus	obscure bumble bee	None	None	-	-	Presumed Absent
Bombus occidentalis	western bumble bee	None	None	-	-	Presumed Absent
Corynorhinus townsendii	Townsend's big-eared bat	None	None	SSC	-	Presumed Absent
Dicamptodon ensatus	California giant salamander	None	None	SSC	-	Presumed Absent
Dubiraphia giulianii	Giuliani's dubiraphian riffle beetle	None	None	-	-	Presumed Absent
Elanus leucurus	white-tailed kite	None	None	FP	-	Presumed Absent
Emys marmorata	western pond turtle	None	None	SSC	-	Presumed Absent
Entosphenus tridentatus	Pacific lamprey	None	None	SSC	-	Presumed Absent
Erethizon dorsatum	North American porcupine	None	None	-	-	Presumed Absent
Gonidea angulata	western ridged mussel	None	None	-	-	Presumed Absent
Hysterocarpus traskii pomo	Russian River tule perch	None	None	SSC	-	Presumed Absent
Icteria virens	yellow-breasted chat	None	None	SSC	-	Presumed Absent
Lasiurus cinereus	hoary bat	None	None	-	-	Presumed Absent
Lavinia exilicauda exilicauda	Sacramento hitch	None	None	SSC	-	Presumed Absent
Lavinia symmetricus navarroensis	Navarro roach	None	None	SSC	-	Presumed Absent
Lavinia symmetricus ssp. 4	Clear Lake - Russian River roach	None	None	SSC	-	Presumed Absent
Linderiella occidentalis	California linderiella	None	None	-	-	Presumed Absent
Margaritifera falcata	western pearlshell	None	None	-	-	Presumed Absent
Mylopharodon conocephalus	hardhead	None	None	SSC	-	Presumed Absent
Oncorhynchus keta	chum salmon	None	None	-	-	Presumed Absent
Oncorhynchus kisutch pop. 2	coho salmon - southern Oregon / northern California ESU	Threatened	Threatened	-	-	Presumed Absent
Oncorhynchus kisutch pop. 4	coho salmon - central California coast ESU	Endangered	Endangered	-	-	Presumed Absent
Oncorhynchus mykiss irideus pop. 16	steelhead - northern California DPS	Threatened	None	-	-	Presumed Absent
Oncorhynchus mykiss irideus pop. 8	steelhead - central California coast DPS	Threatened	None	-	-	Presumed Absent
Oncorhynchus tshawytscha pop. 17	chinook salmon - California coastal ESU	Threatened	None	-	-	Presumed Absent
Pandion haliaetus	osprey	None	None	WL	-	Presumed Absent
Rana boylii	foothill yellow-legged frog	None	Candidate Threatened	SSC	-	Presumed Absent
Rana draytonii	California red-legged frog	Threatened	None	SSC	-	Presumed Absent
Taricha rivularis	red-bellied newt	None	None	SSC	-	Presumed Absent
Taricha torosa	Coast Range newt	None	None	SSC	-	Presumed Absent
Vulpes vulpes patwin	Sacramento Valley red fox	None	None	-	-	Presumed Absent
Special-Status Plant Species						
Amorpha californica var. napensis	Napa false indigo	None	None	-	1B.2	Presumed Absent
Arctostaphylos bakeri ssp. sublaevis	The Cedars manzanita	None	Rare	-	1B.2	Presumed Absent
Arctostaphylos hispidula	Howell's manzanita	None	None	-	4.2	Presumed Absent
Blennosperma bakeri	Sonoma sunshine	Endangered	Endangered	-	1B.1	Presumed Absent
Brodiaea leptandra	narrow-anthered brodiaea	None	None	-	1B.2	Presumed Absent

Calamagrostis ophitidis	serpentine reed grass	None	None	-	4.3	Presumed Absent
Calochortus raichei	The Cedars fairy-lantern	None	None	-	1B.2	Presumed Absent
Carex comosa	bristly sedge	None	None	-	2B.1	Presumed Absent
Castilleja ambigua var. ambigua	johnny-nip	None	None	-	4.2	Presumed Absent
Ceanothus confusus	Rincon Ridge ceanothus	None	None	-	1B.1	Presumed Absent
Ceanothus purpureus	holly-leaved ceanothus	None	None	-	1B.2	Presumed Absent
Centromadia parryi ssp. parryi	pappose tarplant	None	None	-	1B.2	Presumed Absent
Cordylanthus tenuis ssp. capillaris	Pennell's bird's-beak	Endangered	Rare	-	1B.2	Presumed Absent
Cypripedium montanum	mountain lady's-slipper	None	None	-	4.2	Presumed Absent
Downingia pusilla	dwarf downingia	None	None	-	2B.2	Presumed Absent
Erigeron biolettii	streamside daisy	None	None	-	3	Presumed Absent
Fritillaria liliacea	fragrant fritillary	None	None	-	1B.2	Presumed Absent
Hemizonia congesta ssp. congesta	congested-headed hayfield tarplant	None	None	-	1B.2	Presumed Absent
Hesperevax caulescens	hogwallow starfish	None	None	-	4.2	Presumed Absent
Hosackia gracilis	harlequin lotus	None	None	-	4.2	Presumed Absent
Juglans hindsii	Northern California black walnut	None	None	-	1B.1	Presumed Absent
Kopsiopsis hookeri	small groundcone	None	None	-	2B.3	Presumed Absent
Lasthenia burkei	Burke's goldfields	Endangered	Endangered	-	1B.1	Presumed Absent
Leptosiphon acicularis	bristly leptosiphon	None	None	-	4.2	Presumed Absent
Lessingia hololeuca	woolly-headed lessingia	None	None	-	3	Presumed Absent
Limnanthes vinculans	Sebastopol meadowfoam	Endangered	Endangered	-	1B.1	Presumed Absent
Microseris paludosa	marsh microseris	None	None	-	1B.2	Presumed Absent
Monardella viridis	green monardella	None	None	-	4.3	Presumed Absent
Navarretia leucocephala ssp. bakeri	Baker's navarretia	None	None	-	1B.1	Presumed Absent
Navarretia leucocephala ssp. plieantha	many-flowered navarretia	Endangered	Endangered	-	1B.2	Presumed Absent
Perideridia gairdneri ssp. gairdneri	California Gairdner's yampah	None	None	-	4.2	Presumed Absent
Ranunculus lobbii	Lobb's aquatic buttercup	None	None	-	4.2	Presumed Absent
Usnea longissima	Methuselah's beard lichen	None	None	-	4.2	Presumed Absent
Special-Status Plant Community						
Northern Hardpan Vernal Pool		-	-	Sensitive Habitat	-	Absent

U.S. Fish and Wildlife Service (Fed) - Federal
END- Federal Endangered
THR- Federal Threatened

California Department of Fish and Wildlife (CA) - California
END- California Endangered
THR- California Threatened
Candidate- Candidate for listing under the California Endangered Species Act
FP- California Fully Protected
SSC- Species of Special Concern
WL- Watch List

California Native Plant Society (CNPS)
California Rare Plant Rank
1B Plants Rare, Threatened, or Endangered in California and Elsewhere
2B Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
3 Plants About Which More Information is Needed – A Review List

CNPS Threat Ranks
0.1- Seriously threatened in California
0.2- Moderately threatened in California
0.3- Not very threatened in California

Attachment D

Regulations

Special status species are native species that have been afforded special legal or management protection because of concern for their continued existence. There are several categories of protection at both federal and state levels, depending on the magnitude of threat to continued existence and existing knowledge of population levels.

Federal Regulations

Endangered Species Act of 1973

As defined within the Federal Endangered Species Act (FESA) of 1973, an endangered species is any animal or plant listed by regulation as being in danger of extinction throughout all or a significant portion of its geographical range. A threatened species is any animal or plant that is likely to become endangered within the foreseeable future throughout all or a significant portion of its geographical range. Without a special permit, federal law prohibits the "take" of any individuals or habitat of federally listed species. Under Section 9 of the FESA, take is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct." The term "harm" has been clarified to include "any act which actually kills or injures fish or wildlife, and emphasizes that such acts may include significant habitat modification or degradation that significantly impairs essential behavioral patterns of fish or wildlife." The presence of any federally threatened or endangered species within a project area generally imposes severe constraints on development, particularly if development would result in "take" of the species or its habitat. Under the regulations of the FESA, the United States Fish and Wildlife Service (USFWS) may authorize "take" when it is incidental to, but not the purpose of, an otherwise lawful act.

Critical Habitat is designated for the survival and recovery of species listed as threatened or endangered under the ESA. Critical Habitat includes those areas occupied by the species, in which are found physical and biological features that are essential to the conservation of an FESA listed species and which may require special management considerations or protection. Critical Habitat may also include unoccupied habitat if it is determined that the unoccupied habitat is essential for the conservation of the species.

Whenever federal agencies authorize, fund, or carry out actions that may adversely modify or destroy Critical Habitat, they must consult with USFWS under Section 7 of the ESA. The designation of Critical Habitat does not affect private landowners, unless a project they are proposing uses federal funds, or requires federal authorization or permits (e.g., funding from the Federal Highway Administration or a permit from the U.S. Army Corps of Engineers (Corps)).

If the USFWS determines that Critical Habitat will be adversely modified or destroyed from a proposed action, the USFWS will develop reasonable and prudent alternatives in cooperation with the federal institution to ensure the purpose of the proposed action can be achieved without loss of Critical Habitat. If the action is not likely to adversely modify or destroy Critical Habitat, USFWS will include a statement in its biological opinion concerning any incidental take that may be authorized and specify terms and conditions to ensure the agency is in compliance with the opinion.

Migratory Bird Treaty Act

Pursuant to the Migratory Bird Treaty Act (MBTA) (16 U.S. Government Code [USC] 703) of 1918, as amended in 1972, federal law prohibits the taking of migratory birds or their nests or eggs (16 USC 703; 50 CFR 10, 21). The statute states:

> *Unless and except as permitted by regulations made as hereinafter provided in this subchapter, it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill...any migratory bird, any part, nest, or egg of any such bird...included in the terms of the [Migratory Bird] conventions…*

The MBTA covers the taking of any nests or eggs of migratory birds, except as allowed by permit pursuant to 50 CFR, Part 21. Disturbances causing nest abandonment and/or loss of reproductive effort (i.e., killing or abandonment of eggs or young) may also be considered "take." This regulation seeks to protect migratory birds and active nests.

In 1972, the MBTA was amended to include protection for migratory birds of prey (e.g., raptors). Six families of raptors occurring in North America were included in the amendment: Accipitridae (kites, hawks, and eagles); Cathartidae (New World vultures); Falconidae (falcons and caracaras); Pandionidae (ospreys); Strigidae (typical owls); and Tytonidae (barn owls). The provisions of the 1972 amendment to the MBTA protects all species and subspecies of the families listed above. The MBTA protects over 800 species including geese, ducks, shorebirds, raptors, songbirds and many relatively common species.

State Regulations

California Environmental Quality Act (CEQA)

The California Environmental Quality Act (CEQA) provides for the protection of the environment within the State of California by establishing State policy to prevent significant, avoidable damage to the environment through the use of alternatives or mitigation measures for projects. It applies to actions directly undertaken, financed, or permitted by State lead agencies. If a project is determined to be subject to CEQA, the lead agency will be required to conduct an Initial Study (IS); if the IS determines that the project may have significant impacts on the environment, the lead agency will subsequently be required to write an Environmental Impact Report (EIR). A finding of non-significant effects will require either a Negative Declaration or a Mitigated Negative Declaration instead of an EIR. Section 15380 of the CEQA Guidelines independently defines "endangered" and "rare" species separately from the definitions of the California Endangered Species Act (CESA). Under CEQA, "endangered" species of plants or animals are defined as those whose survival and reproduction in the wild are in immediate jeopardy, while "rare" species are defined as those who are in such low numbers that they could become endangered if their environment worsens.

California Endangered Species Act (CESA)

In addition to federal laws, the state of California implements the CESA which is enforced by CDFW. The CESA program maintains a separate listing of species beyond the FESA, although the provisions of each act are similar.

State-listed threatened and endangered species are protected under provisions of the CESA. Activities that may result in "take" of individuals (defined in CESA as; "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill") are regulated by CDFW. Habitat degradation or modification is not included in the definition of "take" under CESA. Nonetheless, CDFW has interpreted "take" to include the destruction of nesting, denning, or foraging habitat necessary to maintain a viable breeding population of protected species.

The State of California considers an endangered species as one whose prospects of survival and reproduction are in immediate jeopardy. A threatened species is considered as one present in such small numbers throughout its range that it is likely to become an endangered species in the near future in the absence of special protection or management. A rare species is one that is considered present in such small numbers throughout its range that it may become endangered if its present environment worsens. State threatened and endangered species are fully protected against take, as defined above.

CDFW has also produced a species of special concern list to serve as a species watch list. Species on this list are either of limited distribution or their habitats have been reduced substantially, such that a threat to their populations may be imminent. Species of special concern may receive special attention during environmental review, but they do not have formal statutory protection. At the federal level, USFWS also uses the label species of concern, as an informal term that refers to species which might be in need of concentrated conservation actions. As the Species of Concern designated by USFWS do not receive formal legal protection, the use of the term does not necessarily ensure that the species will be proposed for listing as a threatened or endangered species.

Fish and Game Code

Fish and Game Code Sections 3503, 3503.5, 3511, and 3513 are applicable to natural resource management. For example, Section 3503 of the Code makes it unlawful to destroy any birds' nest or any birds' eggs that are protected under the MBTA. Further, any birds in the orders Falconiformes or Strigiformes (Birds of Prey, such as hawks, eagles, and owls) are protected under Section 3503.5 of the Fish and Game Code which makes it unlawful to take, possess, or destroy their nest or eggs. A consultation with CDFW may be required prior to the removal of any bird of prey nest that may occur on a project site. Section 3511 of the Fish and Game Code lists fully protected bird species, where the CDFW is unable to authorize the issuance of permits or licenses to take these species. Pertinent species that are State fully protected by the State include golden eagle (*Aquila chrysaetos*) and white-tailed kite (*Elanus leucurus*). Section 3513 of the Fish and Game Code makes it unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

Native Plant Protection Act

Sections 1900–1913 of the Fish and Game Code were developed to preserve, protect, and enhance Rare and Endangered plants in the state of California. The act requires all state agencies to use their authority to carry out programs to conserve Endangered and Rare native plants. Provisions of the Native Plant Protection Act prohibit the taking of listed plants from the wild and require notification of the CDFW at

least ten days in advance of any change in land use which would adversely impact listed plants. This allows the CDFW to salvage listed plant species that would otherwise be destroyed.

California Native Plant Society Rare and Endangered Plant Species

Vascular plants listed as rare or endangered by the CNPS, but which have no designated status under FESA or CESA are defined as follows:

California Rare Plant Rank

1A- Plants Presumed Extirpated in California and either Rare or Extinct Elsewhere

1B- Plants Rare, Threatened, or Endangered in California and Elsewhere

2A- Plants Presumed Extirpated in California, But More Common Elsewhere

2B- Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere

3- Plants about Which More Information is Needed - A Review List

4- Plants of Limited Distribution - A Watch List

Threat Ranks

.1- Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)

.2- Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

.3- Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known).

There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The Corps Regulatory Branch regulates activities pursuant to Section 404 of the Federal Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the CDFG regulates activities under the Fish and Game Code Section 1600-1616, and the Regional Board regulates activities pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act.

Federal Regulations

Section 404 of the Clean Water Act

Since 1972, the Corps and U.S. Environmental Protection Agency (EPA) have jointly regulated the filling of "waters of the U.S.," including wetlands, pursuant to Section 404 of the Clean Water Act (CWA). The Corps has regulatory authority over the discharge of dredged or fill material into the waters of the United States under Section 404 of the CWA. The Corps and EPA define "fill material" to include any "material placed in waters of the United States where the material has the effect of: (i) replacing any portion of a water of the United States with dry land; or (ii) changing the bottom elevation of any portion of the waters of the United States." Examples include, but are not limited to, sand, rock, clay, construction debris, wood chips, and "materials used to create any structure or infrastructure in the waters of the United States." In order to further define the scope of waters protected under the CWA, the Corps and EPA published the Clean Water Rule on June 29, 2015. Pursuant to the Clean Water Rule, the term "*waters of the United States*" is defined as follows:

(i) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.

(ii) All interstate waters, including interstate wetlands[1].

(iii) The territorial seas.

(iv) All impoundments of waters otherwise defined as waters of the United States under the definition.

(v) All tributaries[2] of waters identified in paragraphs (i) through (iii) mentioned above.

(vi) All waters adjacent[3] to a water identified in paragraphs (i) through (v) mentioned above, including wetlands, ponds, lakes, oxbows, impoundments, and similar waters.

---

1 The term *wetlands* means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

2 The terms *tributary* and *tributaries* each mean a water that contributes flow, either directly or through another water (including an impoundment identified in paragraph (iv) mentioned above), to a water identified in paragraphs (i) through (iii) mentioned above, that is characterized by the presence of the physical indicators of a bed and banks and an ordinary high water mark.

3 The term *adjacent* means bordering, contiguous, or neighboring a water identified in paragraphs (i) through (v) mentioned above, including waters separated by constructed dikes or barriers, natural river berms, beach dunes, and the like.

(vii) All prairie potholes, Carolina bays and Delmarva bays, Pocosins, western vernals pools, Texas coastal prairie wetlands, where they are determined, on a case-specific basis, to have a significant nexus to a water identified in paragraphs (i) through (iii) meantioned above.

(viii) All waters located within the 100-year floodplain of a water identified in paragraphs (i) through (iii) mentioned above and all waters located within 4,000 feet of the high tide line or ordinary high water mark of a water identified in paragraphs (i) through (v) mentioned above, where they are determined on a case-specific basis to have a significant nexus to a waters identified in paragraphs (i) through (iii) mentioned above.

The following features are not defined as "waters of the United States" even when they meet the terms of paragraphs (iv) through (viii) mentioned above:

(i) Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the Clean Water Act.

(ii) Prior converted cropland.

(iii) The following ditches:

- (A) Ditches with ephemeral flow that are not a relocated tributary or excavated in a tributary.
- (B) Ditches with intermittent flow that are not a relocated tributary, excavated in a tributary, or drain wetlands.
- (C) Ditches that do not flow, either directly or through another water, into a water of the United States as identified in paragraphs (i) through (iii) of the previous section.

(iv) The following features:

- (A) Artificially irrigated areas that would revert to dry land should application of water to that area cease;
- (B) Artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, or cooling ponds;
- (C) Artificial reflecting pools or swimming pools created in dry land;
- (D) Small ornamental waters created in dry land;
- (E) Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand, or gravel that fill with water;
- (F) Erosional features, including gullies, rills, and other ephemeral features that do not meet the definition of a tributary, non-wetland swales, and lawfully constructed grassed waterways; and
- (G) Puddles.

(v) Groundwater, including groundwater drained through subsurface drainage systems.

(vi) Stormwater control features constructed to convey, treat, or store stormwater that are created in dry land.

(vii) Wastewater recycling structures constructed in dry land; detention and retention basins built for wastewater recycling; groundwater recharge basins; percolation ponds built for wastewater recycling; and water distributary structures built for wastewater recycling.

Section 401 of the Clean Water Act

Pursuant to Section 401 of the CWA, any applicant for a federal license or permit to conduct any activity which may result in any discharge to waters of the United States must provide certification from the State or Indian tribe in which the discharge originates. This certification provides for the protection of the physical, chemical, and biological integrity of waters, addresses impacts to water quality that may result from issuance of federal permits, and helps insure that federal actions will not violate water quality standards of the State or Indian tribe. In California, there are nine Regional Water Quality Control Boards (Regional Board) that issue or deny certification for discharges to waters of the United States and waters of the State, including wetlands, within their geographical jurisdiction. The State Water Resources Control Board assumed this responsibility when a project has the potential to result in the discharge to waters within multiple Regional Boards.

State Regulations

Fish and Game Code

Fish and Game Code Sections 1600 et. seq. establishes a fee-based process to ensure that projects conducted in and around lakes, rivers, or streams do not adversely impact fish and wildlife resources, or, when adverse impacts cannot be avoided, ensures that adequate mitigation and/or compensation is provided.

Fish and Game Code Section 1602 requires any person, state, or local governmental agency or public utility to notify the CDFW before beginning any activity that will do one or more of the following:

(1) substantially obstruct or divert the natural flow of a river, stream, or lake;
(2) substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or
(3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake.

Fish and Game Code Section 1602 applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the State. CDFW's regulatory authority extends to include riparian habitat (including wetlands) supported by a river, stream, or lake regardless of the presence or absence of hydric soils and saturated soil conditions. Generally, the CDFW takes jurisdiction to the top of bank of the stream or to the outer limit of the adjacent riparian vegetation (outer drip line), whichever is greater. Notification is generally required for any project that will take place in or in the vicinity of a river, stream, lake, or their tributaries. This includes rivers or streams that flow at least periodically or permanently through a bed or channel with banks that support fish or other aquatic life and watercourses having a surface or subsurface flow that support or have supported riparian vegetation. A Section 1602 Streambed Alteration Agreement would be required if impacts to identified CDFW jurisdictional areas occur.

Porter Cologne Act

The California *Porter-Cologne Water Quality Control Act* gives the State very broad authority to regulate waters of the State, which are defined as any surface water or groundwater, including saline waters. The Porter-Cologne Act has become an important tool in the post SWANCC and Rapanos regulatory environment, with respect to the state's authority over isolated and insignificant waters. Generally, any person proposing to discharge waste into a water body that could affect its water quality must file a Report of Waste Discharge in the event that there is no Section 404/401 nexus. Although "waste" is partially defined as any waste substance associated with human habitation, the Regional Board also interprets this to include fill discharged into water bodies.

Appendix D

Cultural Resources Technical Report

CULTURAL RESOURCES SURVEY
FOR THE
NORTHERN CALIFORNIA POWER AGENCY
SOLAR PROJECT 1 – HEALDSBURG WASTEWATER RECLAMATION FACILITY
SONOMA COUNTY, CALIFORNIA

Prepared for
K.S. Dunbar and Associates, Inc.
45375 Vista Del Mar
Temecula, CA 92590-4314

Prepared by
Anza Resource Consultants
603 Seagaze Drive, #1018
Oceanside, CA 92054
www.anzaresourceconsultants.com

USGS Quadrangle
Healdsburg, California
Anza Project No. 19-0007

April 2019

EXECUTIVE SUMMARY

Anza Resource Consultants (Anza) was retained by K.S. Dunbar & Associates, Inc. to conduct a Phase I cultural resources study for the Northern California Power Agency (NCPA) Solar Project 1 – Healdsburg Wastewater Reclamation Facility (WRF) located at 340 Foreman Lane the City of Healdsburg, Sonoma County, California. The NCPA Solar Project 1 – Healdsburg WRF Project would occupy approximately 14 acres (atop two ponds) within the existing 36-acre WRF. The proposed project is subject to the California Environmental Quality Act (CEQA) with NCPA serving as lead agency.

This study includes a cultural resources records search, Sacred Lands File search and Native American scoping, a pedestrian survey of the project site, and preparation of this technical report in compliance with the cultural resources requirements of CEQA.

The cultural resource records search, Native American scoping, and pedestrian survey identified no cultural resources within or adjacent to the project site. Anza recommends a finding of ***no impact to historical resources*** under CEQA. No further cultural resources study is recommended; however, the following standard measures are recommended to avoid potential impacts from the unanticipated discovery of cultural resources during project related ground disturbing activities.

CULTURAL RESOURCES WORKER SENSITIVITY TRAINING

Prior to the start of construction, NCPA shall hold a pre-grading meeting. The Project Archaeologist shall attend the pre-grading meeting with NCPA's Project Administrator, Field Engineering Inspector and any contractors to conduct a Cultural Resources Worker Sensitivity Training for all construction personnel working on the proposed Project. The training shall include an overview of potential cultural resources that could be encountered during ground disturbing activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated, and any other appropriate protocols.

UNANTICIPATED DISCOVERY OF CULTURAL RESOURCES

If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) must be contacted immediately to evaluate the find. If the discovery proves to be significant under CEQA, additional work such as data recovery excavation may be warranted.

UNANTICIPATED DISCOVERY OF HUMAN REMAINS

The discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the county coroner must be notified immediately. If the human remains are determined to be prehistoric, the coroner will notify the Native American Heritage Commission, which will determine and notify a Most Likely Descendant. The Most Likely Descendant shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF PHOTOGRAPHS

APPENDICES

1. INTRODUCTION

Anza Resource Consultants (Anza) was retained by K.S. Dunbar & Associates, Inc. to conduct a Phase I cultural resources study for the Northern California Power Agency (NCPA) Solar Project 1 – Healdsburg Wastewater Reclamation Facility (project) located at 340 Foreman Lane the City of Healdsburg, Sonoma County, California (Figure 1). This study has been prepared in accordance with the California Environmental Quality Act (CEQA) statutes and guidelines (Section 1.2). This cultural resources study includes a cultural resources records search, a summary of Native American scoping for the project, pedestrian survey, and the preparation of this report following the *Archaeological Resources Management Report (ARMR): Recommended Content and Format* guidelines (California Office of Historic Preservation 1990).

1.1 PROJECT DESCRIPTION

The objective of the NCPA Solar Project 1 – Healdsburg Wastewater Reclamation Facility is to develop a photovoltaic (PV) solar power plant within the 36-acre existing wastewater reclamation facility ("WRF") owned by the City of Healdsburg. The WRF is situated between Foreman Lane to the north and Cohn Road to the south. The proposed project will be located on two ponds, each roughly seven acres. The north pond will contain Array A and Array B, and the south pond will contain Array C. Currently, the pond that encompasses Array C is separated into two ponds by an embankment. However, the embankment will be removed prior to project construction. The project entails the construction of floating PV solar generation arrays atop the ponds that can operate when the ponds are full, empty, or any level in between. The City of Healdsburg will be responsible for the utility tie-in from the point of interconnection, located on the northeast corner of the embankment of the south pond.

1.2 REGULATORY SETTING

1.2.1 State

CEQA requires a lead agency determine whether a project may have a significant effect on historical resources (Public Resources Code [PRC], Section 21084.1). A historical resource is a resource listed in, or determined to be eligible for listing, in the California Register of Historical Resources (CRHR), a resource included in a local register of historical resources or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (State CEQA Guidelines, Section 15064.5[a][1-3]).

A resource shall be considered historically significant if it meets any of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

In addition, if it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed,

mitigation measures are required (PRC, Section 21083.2[a], [b], and PRC, Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, the probability is high that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

California Assembly Bill 52 of 2014 (AB 52) took effect July 1, 2015, and expanded CEQA by establishing a formal consultation process for California tribes within the CEQA process. The bill specifies that any project that may affect or cause a substantial adverse change in the significance of a tribal cultural resource would require a lead agency to "begin consultation with a California Native American tribe that is traditional and culturally affiliated with the geographic area of the proposed project." According to the legislative intent for AB 52, "tribes may have knowledge about land and cultural resources that should be included in the environmental analysis for projects that may have a significant impact on those resources." Section 21074 of AB 52 also defines a new category of resources under CEQA called "tribal cultural resources." Tribal cultural resources are defined as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and is either listed on or eligible for the California Register of Historical Resources or a local historic register, or if the lead agency chooses to treat the resource as a tribal cultural resource. See also PRC 21074 (a)(1)(A)-(B).

1.2.2 Sonoma County

The Open Space & Resource Conservation Element of the Sonoma County General Plan 2020 presents a goal (Goal OSRC-19) supported by objectives and policies to:

> Protect and preserve significant archaeological and historical sites that represent the ethnic, cultural, and economic groups that have lived and worked in Sonoma County, including Native American populations. Preserve unique or historically significant heritage or landmark trees (Sonoma County Permit and Resource Management Department 2008).

This goal and its objectives and policies encourage the identification and protection of significant Native American and historic cultural resources.

1.2.3 City of Healdsburg

The Healdsburg 2030 General Plan Update Revised Draft Environmental Impact Report includes policies and policy implementation measures for the identification and protection of significant Native American and historic cultural resources (City of Healdsburg 2009a). These policies include recommendations for project specific records searches at the Northwest Information Center (Policy Implementation Measure HCR-8) and Sacred Lands File searches with the Native American Heritage Commission (Policy Implementation Measure HCR-9).

1.3 PERSONNEL

Anza Principal and Senior Cultural Resources Specialist Kevin Hunt requested the Sacred Lands File search, conducted the survey, and was the primary author of this report. Principal Investigator Katherine Collins, M.A., Registered Professional Archaeologist (RPA), coauthored this report and served as principal investigator for the study. Ms. Collins meets the Secretary of the Interior's Professional Qualifications Standards for prehistoric and historic archaeology (National Park Service 1983). GIS Specialist Spencer Bietz prepared all maps and figures.

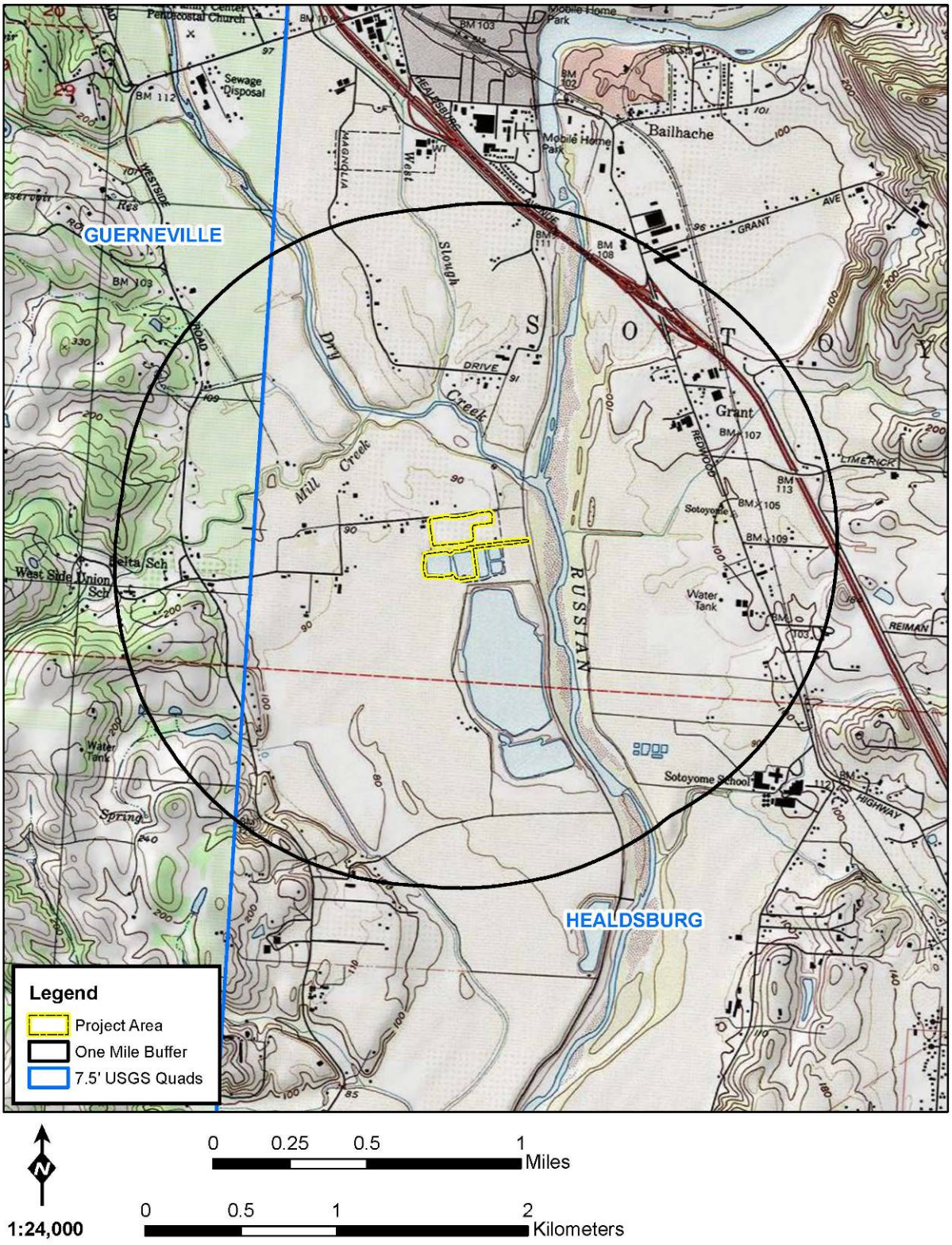


Figure 1. Project Location Map

2. ENVIRONMENTAL SETTING

The Healdsburg WRF is located in the floodplain of the Russian River Valley, on the west side of the river at an elevation of approximately 90 feet (27.4 meters) above mean sea level. The facility has oak trees along the perimeter and is surrounded by vineyards on adjacent properties. Healdsburg is the northern edge of the Russian River American Viticultural Area (i.e., wine-grape growing region) and is noted for a cool climate heavily affected by fog because of its proximity to the Pacific Ocean. As noted by the Water Education Foundation (n.d.), "The Russian River is one of the most flood-prone rivers in California, routinely overflowing during wet years." This fact was illustrated in February 2019 when the Russian River swelled to its highest level in more than 20 years and flooded the Healdsburg WRF. The City of Healdsburg is located at the nexus of three agricultural valleys: the Russian River Valley, Dry Creek Valley and Alexander Valley (City of Healdsburg 2009b). The agricultural lands are circumscribed by subsystems of the Coastal Mountain Range. The Healdsburg region has an inland Mediterranean-type climate with wet winters and dry summers. Rainfall totals vary widely, with mountain areas west of the city sometimes receiving more than 60 inches of rain annually, while the rain-shadowed valleys typically receive approximately 40 inches (City of Healdsburg 2009b).

The project site is underlain by Quaternary Holocene stream terrace deposits (Delattre 2011). These deposits are generally defined as sand, gravel, silt, and minor clay deposited in overbank and point-bar settings along streams. These deposits occupy a relatively flat surface with little or no dissecting, generally less than 35 feet above the active channel. The project site is currently surrounded by agricultural uses; however, the nearby Russian River and Dry Creek host riparian habitats and in prehistoric times, the project site likely had seasonal wetlands, based on its location within the floodplain of the Russian River. Historically, the Healdsburg region possessed a broad range of fauna including deer, bear, squirrel, rodents, snakes, pond turtle, lizards, birds – including many raptors, fish – such as Coho salmon and Russian River tule perch, and insects.

3. CULTURAL SETTING

The project site is within the Northwest Coast region of California. This region is generally defined as the coastal zone and inland valleys north of the San Francisco Bay to the Oregon border.

3.1 PREHISTORIC OVERVIEW

Northwest Coast prehistory is divided into four chronological periods: Pleistocene/Holocene Transition (11,500 to 8000 cal B.C.), Early Holocene (8000 to 5000 cal B.C.), Middle Holocene (5000 to 2000 cal B.C.), and Late Holocene (Post-2000 cal B.C.) (Hildebrandt 2007). This chronological framework is used by researchers to understand how prehistoric cultures adapted and coped with environmental and social change. Within this framework researchers recognized certain sets of cultural and technological traits that appeared to span long periods of time and covered large areas. These sets of traits were referred to as either "horizons" or "patterns" in the literature. Smaller (local) units of patterns were referred to as "aspects" and "phases" (Fredrickson 1973, 1974, Moratto 1984, Hildebrandt 2007). Below is a brief overview of prehistoric occupation history in the project vicinity.

During the **Pleistocene-Holocene Transition** (11500 to 8000 cal B.C.) a set of cultural traits known as the Post Pattern emerged on the Northwest Coast. This pattern is exemplified by the presence of fluted, clovis-like, projectile points and chipped stone crescents. These type artifacts were initially recovered from the Borax Lake site near Clear Lake (CA-LAK-36). Fluted points have also been found near the coast in Mendocino County and crescents found Bodega Head and near Santa Rosa. Other than these artifact types, very little else has been found in association with the Post Pattern culture (Hildebrandt 2007, Moratto 1984).

In the **Early Holocene** (8000 to 5000 cal B.C.), the Borax Lake Pattern emerges in the Clear Lake basin, the mountains of Mendocino County, and the Santa Rosa plain, as well as other places along the Northwest Coast (Hildebrandt 2007). Sites associated with this pattern contain manos and metates (grinding stones) along with mortars and pestles, indicating that various seeds and/or acorns formed an important part of the diet. Characteristic tools also include wide-stem, non-stem, and concave base projectile points, which typically were manufactured from local raw material (e.g., obsidian and chert) (Fredrickson 1974, Morratto 1984). Archaeological sites associated with the Borax Lake Pattern include the archetype Borax Lake site (CA-LAK-36) in Lake County, CA-MEN-1711 in Mendocino County, and CA-SON-20 in Sonoma County (Moratto 1984, Hildebrandt 2007).

During the **Middle Holocene** (5000 to 2000 cal B.C.), around 3000 cal B.C., a new set of cultural traits known as the Mendocino Pattern emerged in a variety of places in the Northwest Coast. Typical Mendocino Pattern artifacts include side-notched, corner-noched, and concave base dart points, mano and metates, various types of flake tools and cobble tools such as cobble mortar and pestles. Excavations at several sites (CA-MEN-1704, CA-SON-458, CA-SON-299 and CA-SON-867) along the Mendocino and Sonoma coast indicate the Mendocino Pattern persisted in this region until cal A.D. 500. Mendocino Pattern sites likely represented temporary hunting camps or short-term forager bases (Hildebrandt 2007).

The **Late Holocene** (Post-2000 cal B.C.) saw the re-emergence of Berkeley Pattern cultural traits in the Northwest Coast after a hiatus from the archeological record. Berkeley Pattern traits re-emerged around 1200 cal B.C. and lasted until cal A.D. 800. The Berkeley Pattern is characterized by the intensive use of acorns, in addition to game hunting and fishing resulting in a higher degree of sedentism. Berkeley Pattern artifact assemblages include leaf-shaped (Excelsior) and stemmed projectile points, a highly developed bone tool industry, several types of fishing implements including spears, harpoons, hooks, and net sinkers, baked clay objects, and a high frequency of mortar and pestles. Intensive analysis of Berkeley and Mendocino Pattern sites indicate both cultures likely overlapped in time. At about 500 cal A.D. there

appears to be a migration of Berkeley Pattern peoples into the Santa Rosa Plain and Warm Springs areas, ultimately reaching the coast. This migration is attributed to the expansion of Pomo speaking peoples from their homeland in the Clear Lake area, who presumably replaced the earlier Yukian-speaking peoples that occupied the region (Hildebrandt 2007). Subsequent to cal A.D. 500 Augustine Pattern sites appeared in the Northwest Coast but appear to be ephemeral, seasonal occupation sites.

3.2 ETHNOGRAPHIC OVERVIEW

The project site is located within the traditional tribal territory of the Southern Pomo people. The Southern Pomo spoke one of seven distinct, mutually unintelligible Pomo languages which are part of the Hokan language family. Other Pomo-speaking groups include the Northern Pomo, Central Pomo, Eastern Pomo, Southeastern Pomo, Northeastern Pomo, and Southwestern Pomo (Kashaya). Collectively, the seven Pomo-speaking culture groups occupied an area from just south of the present-day City of Santa Rosa northward approximately 90 miles, and from the Pacific coast inland to the Sacramento Valley (Mithun 1999). Within this area, the Southern Pomo occupied area just south of the City of Santa Rosa to approximately 40 miles north, and from the eastern drainage of the Russian River to the border of Kashaya and Central Pomo territory, with a small extension between these two territories to the Pacific Ocean (McLendon and Oswalt 1978). Although linguistically divergent, the various Pomo culture groups shared numerous social and cultural characteristics.

Sociopolitical organization among the Pomo was based on the kin group. Typically, the nuclear family consisting of about five to seven persons and comprised the basic social unit of any extended kin group. These groups lived in multi-family dwellings for much of the year, dividing into separate dwellings to conduct seasonal fishing and collecting activities. These extended kin groups would come together to form a triblet, which would range between 100 and 2,000 people. The tribelets functioned as independent political units and were led by a chief. The nature of the chieftainship among the Pomo was unique among California native groups as there appears to be at least two levels of leadership. There was the tribelet chief whose primary function included serving as an advisor, meeting visitors, making peace, and presiding over ceremonies. The position of tribelet chief could be hereditary or an elected office. The second level of chieftainship was that of leader of individual kin groups. If a tribelet consisted of multiple kin groups then a tribelet chief could be selected from one the hereditary chiefs that led each kin group (Kroeber 1925, Bean and Theodoratus 1978).

The basic subsistence strategy of the Pomo was seasonally mobile hunting and gathering. Acorn gathering, of which seven species were collected, was the primary staple. Other plant foods included Buckeye nuts, seeds from various grass species and various types of berries, roots, and bulbs. Salt was obtained individually or through trade. Hunting was conducted individually or as a communal affair. Important big-game animals included deer, elk, and antelope with smaller game such as rabbit and squirrel also an important source of food. The primary hunting weapon was the bow and arrow, although a club or heavy spear was also used to hunt bear. Along the coast seals and sea lions were hunted using a club. Fish were obtained in lakes, streams, and the ocean using traps, weirs, or fishhooks (Bean and Theodoratus 1978).

Pomo material culture consisted of a variety of implements such as the mortar and pestle used for processing animal and plant material. Many times mortars were used with a bottomless basket hopper. Cutting implements were made from obsidian and chert and often attached to wooden handles or shafts to made arrows and axes. Bone was primarily used to make awls and fishhooks. The Pomo were especially known for their basketry skills which included a wide variety of forms. Coiled ware was made in two forms (single or three-rod), twined ware came in seven forms. Pomo baskets ranged from very flat plate-

like styles to almost perfect spheres and were decorated with horizontal and banded patterns with some incorporating feathers and beads in their design (Bean and Theodoratus 1978).

The arrival of European explorers along the California coast and subsequent colonization of California by the Spanish greatly impacted Pomo lifeways. Beginning in 1821, with the establishment of Mission San Rafael Arcangel at what today is the city of San Rafael in Marin County, the Spanish began the work of missionizing the local native population. Priests from Mission San Rafael Arcangel began recruiting natives from as far north as the present-day city of Santa Rosa in Southern Pomo territory. In 1823 Mission San Francisco Solano was established in Sonoma County, closer to Pomo territory. During this time some 600 Pomo were baptized at the missions. At the same time Russians were exploring and settling in Pomo territory. The Russian established trade agreements with the Pomo and the settlement of Fort Ross in Kashaya territory. Many Pomo learned to speak Russian and adopted some aspects of Russian culture and religion. Drastic changes occurred for the Pomo beginning in 1822 when California became part of the Mexican Republic. Between 1834 and 1847 thousands of Pomo were captured as part of the slave trade or died from military campaigns. In addition, outbreaks of smallpox and cholera during this period killed thousands more. The formal annexation of California to the United States in 1850 brought additional hardships as many Pomo were ushered onto reservations and their land taken (Bean and Theodoratus 1978). Nonetheless, the Pomo have survived and today there are an estimated 5,000 people of Pomo descent, with many living on or near several rancherias and the Coyote Valley and Round Valley reservations (White 2019).

3.3 HISTORIC OVERVIEW

The historic period for the State of California generally begins with the establishment of the first Spanish mission and presidio in San Diego in 1769. This marks the beginning of the Spanish period of California history which lasted until 1822, when news of Mexico's independence from Spain in 1821 finally reached California. The Spanish period saw the establishment of a permanent European presence in California in the form of 21 missions located along the coast between San Diego and Sonoma, four military presidios located in San Diego, Monterey, San Francisco and Santa Barbara, and three pueblos (towns) that later became the cities of Los Angeles, San Jose and Santa Cruz (Robinson 1948). The Spanish period ended with Mexican independence from the Spanish crown in 1822. The Mexican period of California history saw the seizure of lands once held by the missions through the Mexican Secularization Act of 1833 and the redistribution of those lands to individuals in the form of land grants known as "ranchos" (Robinson 1948). During this period the Mexican government in California issued approximately 700 land grants to Mexican citizens and foreign immigrants (Shumway 1988). The outbreak of war between the United States and Mexico and the ultimate signing of the Treaty of Guadalupe Hidalgo in 1848 ended the Mexican period and signaled the beginning of the American period of California history. The early American period is marked by the discovery of gold at Sutter's Mill in 1848, which resulted in a gold rush that saw a massive influx of settlers from other parts of the United States and around the world, greatly impacting California's native population. In 1869 the transcontinental railroad was completed linking California with the rest of the United States. The gold rush and the establishment of the railroad played major roles in the development of California into a national and worldwide leader in agricultural and industrial production. These early developments also resulted in making California one of the most racially and ethnically diverse states in the Union.

3.3.1 Sonoma County

The history of Sonoma County began in 1850 as one of the original 27 counties of the State of California. Early European exploration of what would become Sonoma County included a 1602 expedition along the California coast by Sebastian Vizcaino that reached Bodega Bay. Vizcaino did not name Bodega Bay

during his journey that was left to a subsequent exploration by Juan Francisco Bodega y Cuadra, who entered the bay in 1775. Bodega Bay was the site of a landing by naturalist Archibald Menzies in 1793. Menzies and his party traveled the region collecting botanical samples and meeting the local native tribes. In 1741 Russians began exploring the North American west coast between Alaska and California. In 1811 the Russians established a permanent settlement in Sonoma County at Kuskov in the Salmon Creek Valley, and at Fort Ross twelve miles north of the mouth of the Russian River in 1812. In order to check continued Russian settlement in California, the Mexican government instituted a program of occupation and settlement in the Sonoma County area. This resulted in the establishment of Mission San Francisco Solano in 1823, the only mission established during the Mexican period. In 1835 Mexican General Mariano Guadalupe Vallejo established Pueblo de Sonoma next to Mission San Francisco Solano, which later became the City of Sonoma. During this same period the Mexican government issued some 24 land-grants in Sonoma County, encompassing most of the County's land (Shumay 1988, Hoover 2002). Economic development in Sonoma County continued during the early American Period with the establishment of logging along the coast, wheat and potato farming, and the nascent wine industry. As with previous periods, cattle ranching remained a primary occupation in the county. The coming of the railroads facilitated the movement of goods and the establishment of processing plants and factories along the rail lines. These initial industries still comprise a major component of the counties' economy today with the addition of tourism primarily related to the wine making industry (County of Sonoma 2019).

3.3.2 City of Healdsburg

Healdsburg was established in 1851 when Ohio-born Harmon Heald built a log cabin along what is today the 300 block of Healdsburg Avenue. A year later he added a store and a post office in 1854. All the while Mr. Heald bought up as much land in the area as he could and in 1857 subdivided his landholdings and laid out the town of Healdsburg. The town was incorporated in 1867, eight years after his death. In 1867 the Northwestern Pacific Railroad entered Healdsburg and marked the beginning of its economic development as a center for agricultural production and winemaking. Today agriculture and winemaking dominate the local economy and promote wine-based tourism (Hoover et al. 2002).

4. BACKGROUND RESEARCH

4.1 CALIFORNIA HISTORICAL RESOURCE INFORMATION SYSTEM

Anza requested a search of cultural resource records housed at the California Historical Resources Information System (CHRIS), Northwest Information Center (NWIC) located at Sonoma State University. The search was conducted by NWIC on April 22, 2019, to identify all previous cultural resources work and previously recorded cultural resources within a 0.5-mile radius of the project site (Appendix A). The CHRIS search included a review of the NRHP, CRHR, the California Points of Historical Interest list, the California Historical Landmarks list, the Archaeological Determinations of Eligibility list, and the California State Historic Resources Inventory list. The records search also included a review of all available historic USGS 7.5-, 15-, and 30-minute quadrangle maps.

4.1.1 Previous Studies

The NWIC records search identified ten cultural resources studies that were conducted within a 0.5-mile radius of the project site, one of which is mapped adjacent to the project site (S-007109) and another mapped within the project site but noted as a survey with approximated mapping (S-016018; Table 1).

Table 1. Previous Cultural Resource Studies within a 0.5-Mile Radius of the Project Site

Report Number	Author	Year	Title	Proximity to Project Site
S-007109	David Chavez	1985	Archaeological Resources Evaluation for the Basalt Rock Company Reclamation Project, Russian River, Sonoma County, California (letter report)	Adjacent to southwest corner of project site
S-013728	Janine M. Loyd	1992	An Archaeological Survey for the Lot Line Adjustment of the Schmidt Property, 774/788 Magnolia Drive, Healdsburg, Sonoma County, California	Outside
S-015260	Peggy Shannon	1993	An Archaeological Reconnaissance for Syar Industries' Healdsburg Mining and Reclamation Plan, Sonoma County, California	Outside
S-016018	Scott Patterson, Pamela Roberts, Robert Orlins, and Nancy Whitney	n.d.	Warm Springs Dam, Lake Sonoma Project, Archaeological Survey, Downstream Area, Lower Dry Creek Valley	Within (but noted by NWIC as approximate location; not to current standards)
S-021438	Jay M. Flaherty	1999	Cultural Resource Reconnaissance, Obsidian Winery (APN 110-08-11) near Healdsburg, Sonoma County, California	Outside
S-021706	Miley Paul Holman and Randy Wiberg	1999	Results of an Archaeological Field Inspection of the Phase 5 Mining Site (APN-110-080-06 and 07) Healdsburg, Sonoma County, California (letter report)	Outside

Report Number	Author	Year	Title	Proximity to Project Site
S-026998	Katherine Flynn	2003	A Cultural Resources Evaluation of the Bank Stabilization Project on the Schwab Property at 1320 Magnolia Drive, Healdsburg, Sonoma County, California	Outside
S-027189	Miley Paul Holman	2002	Archaeological Field Inspection of the Phase 6 Mining Site, APN 110-09-20, Healdsburg, Sonoma County, California	Outside
S-037605	Vicki Beard	2010	A Cultural Resources Survey for the City of Healdsburg's Recycled Water System Project, Sonoma County, California	Outside
S-038938	Jessica Tudor	2011	A Cultural Resources Study of the City of Healdsburg Geysers Pipeline Connection, Healdsburg, Sonoma County, California	Outside

Source: NWIC, April 2019

4.1.2 Previously Recorded Resources

One prehistoric archaeological site (P-49-00598) and three historic built resources were identified within 0.5 mile of the project site (Table 2). None of these resources is closer than 0.4 mile to the project site.

Table 2. Previously Recorded Cultural Resources within 0.5-Mile of the Project Site

Primary Number	Trinomial	Description	NRHP/CRHR Eligibility Status	Recorded Year (By Whom)	Relationship to Project Site
P-49-000598	CA-SON-000633	“Johnson's Big Oak Site;” prehistoric lithic artifact deposit	Insufficient information	1975 (P. Roberts)	Approximately 0.4 mile west
-	-	581 Foreman Lane – Johnson’s Vineyards or the Chester Von Grafen House. A 1921 Mediterranean style residence	Code 3S: Appears eligible for NRHP as an individual property through survey evaluation	1983 (Langhart Museum)	Approximately 0.4 mile west
-	-	1320 Magnolia Drive – Riverdale Orchard (constructed 1865)	Code 3S: Appears eligible for NRHP as an individual property through survey evaluation	1983 (Langhart Museum)	Approximately 0.4 mile north
-	-	1385 Magnolia – G.W. Harmon Nursery (constructed 1895)	Code 3S: Appears eligible for NRHP as an individual property through survey evaluation.	1983 (Langhart Museum)	Approximately 0.5 mile north

Source: NWIC, April 2019

4.2 NATIVE AMERICAN SCOPING

K.S. Dunbar & Associates, Inc. requested a review of the Sacred Lands File (SLF) by the Native American Heritage Commission. The NAHC sent a response on April 15, 2019, stating that a search of the SLF was completed with positive results (Appendix B). The NAHC provided a list of eight Native American contacts that may have knowledge regarding Native American cultural resources within or near the project site.

K.S. Dunbar & Associates, Inc. mailed letters dated April 16, 2019, to the eight Native American contacts asking if they had knowledge regarding cultural resources of Native American origin within or near the project site (Appendix B). As of April 30, 2019, no responses have been received.

5. FIELDWORK

5.1 SURVEY METHODS

Anza Principal and Senior Cultural Resources Specialist Kevin Hunt conducted a pedestrian survey of the project site on April 26, 2019. Mr. Hunt surveyed the project site using transects spaced 5 to 10 meters apart and oriented north-south within unpaved portions of the site. The entire project site was surveyed.

Mr. Hunt examined all exposed ground surface for artifacts (e.g., flaked stone tools and tool-manufacture debris, ground stone tools, ceramic sherds, fire-affected rock), ecofacts (marine shell, bone), soil discoloration that could indicate the presence of a cultural midden, soil depressions, and features indicative of the former presence of structures or buildings (e.g., standing exterior walls, postholes, foundations) or historic debris (e.g., metal, glass, ceramic sherds, cut bone). Ground disturbances such as burrows and drainages were visually inspected. Photographs documenting the project site and survey are maintained by Anza in cloud storage online.

5.2 RESULTS

The project site is intensively developed as a wastewater treatment facility. The northern pod is entirely lined with heavy plastic sheeting and ground visibility was zero percent (Photograph 1). The two southern ponds (to be merged prior to project development) had mixed grasses present with poor ground visibility (10 to 15 percent) and very wet conditions in the southeastern pond (Photographs 2 and 3). In the southwestern pond, grasses obscured most ground visibility, but rodent burrow spoil piles provided some sediment to examine (Photograph 2). The southeastern pond also had two fences oriented north-south within it (Photograph 3). The gen-tie line corridor is within a completely paved access road between the ponds with zero ground visibility. The survey was negative; that is, no cultural (i.e., archaeological, historic built, or tribal cultural) resources were identified within the project site.

Photograph 1. View of northern pond, facing northeast.

Photograph 2. View of southwestern pond, facing east-southeast.

Photograph 3. View of southeastern pond facing west.

6. MANAGEMENT RECOMMENDATIONS

The cultural resource records search, Native American scoping, and pedestrian survey identified no cultural resources within or adjacent to the project site. No further cultural resources study is recommended; however, the following standard measures are recommended to avoid potential impacts from the unanticipated discovery of cultural resources during project related ground disturbing activities.

6.1 CULTURAL RESOURCES WORKER SENSITIVITY TRAINING

Prior to the start of construction, NCPA shall hold a pre-grading meeting. The Project Archaeologist shall attend the pre-grading meeting with NCPA's Project Administrator, Field Engineering Inspector and any contractors to conduct a Cultural Resources Worker Sensitivity Training for all construction personnel working on the proposed project. The training shall include an overview of potential cultural resources that could be encountered during ground disturbing activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated, and any other appropriate protocols.

6.2 UNANTICIPATED DISCOVERY OF CULTURAL RESOURCES

If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) must be contacted immediately to evaluate the find. If the discovery proves to be significant under CEQA, additional work such as data recovery excavation may be warranted.

6.3 UNANTICIPATED DISCOVERY OF HUMAN REMAINS

The discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the county coroner must be notified immediately. If the human remains are determined to be prehistoric, the coroner will notify the Native American Heritage Commission, which will determine and notify a Most Likely Descendant. The Most Likely Descendant shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

7. REFERENCES

Bean, Lowell and Dorothea Theodoratus
1978 "Western Pomo and Northeastern Pomo." In *Handbook of North American Indians, California*, edited by Robert F. Heizer, 289–305, vol. 8, William G. Sturtevant, general editor. Washington D.C: Smithsonian Institution.

California Office of Historic Preservation
1990 *Archaeological Resource Management Reports (ARMR): Recommended Contents and Format.* Department of Parks and Recreation. Office of Historic Preservation: Sacramento, California.

County of Sonoma
2019 "Sonoma County Historic Overview." *County of Sonoma* website. Accessed April 22, 2019. https://sonomacounty.ca.gov/PRMD/Planning/Historic-Resources/Sonoma-County-History/.

Delattre, Marc P.
2011 Preliminary Geologic Map of the Healdsburg 7.5' Quadrangle, California. Electronic document accessed April 29, 2019: ftp://ftp.consrv.ca.gov/pub/dmg/rgmp/Prelim_geo_pdf/Healdsburg24k_preliminary.pdf .

Fredrickson, David A.
1973 Early Cultures of the North Coast Ranges, California. Unpublished Ph.D. dissertation, Department of Anthropology, University of California, Davis.

1974 "Cultural Diversity in Early California: A View from the North Coast Ranges." *Journal of California Anthropology* 1(1):41–53.

Healdsburg, City of
2009a Revised Draft Environmental Impact Report, IV. Environmental Impact Analysis F. Cultural Resources. Online at: https://www.ci.healdsburg.ca.us/DocumentCenter/View/679/Cultural-Resources-PDF, accessed April 29, 2019.

2009b Revised Draft Environmental Impact Report, IV. Environmental Impact Analysis E. Biological Resources. Online at: https://www.ci.healdsburg.ca.us/DocumentCenter/View/678/Biological-Resources-PDF, accessed April 29, 2019.

Hildebrandt, William R.
2007 "Northwest California: Ancient Lifeways among Forested Mountains, Flowing Rivers, Rocky Ocean Shores." In *California Prehistory: Colonization, Culture, and Complexity*, edited by Terry L. Jones and Kathryn A. Klar, 83-97. Lanham, MD: Altimira Press.

Hoover, Mildred, Hero Eugene Rensch, Ethel Grace Rensch, and William N. Abeloe
2002 *Historic Spots in California*. Fifth Edition. Stanford, CA: Stanford University Press.

Kroeber, A.L.
1925 *Handbook of the Indians of California*. Bureau of American Ethnology Bulletin 78. New York, NY: Dover Publications, Inc.

McLendon, Sally and Robert L. Oswalt
1978 "Pomo: Introduction." In *Handbook of North American Indians, California*, edited by Robert F. Heizer, 274–288, vol. 8, William G. Sturtevant, general editor. Washington D.C: Smithsonian Institution.

Mithun, Marianne
1999 *The Languages of Native North America*. Cambridge, MA: Cambridge University Press.

Moratto, Michael J., with David A. Fredrickson, Christopher Raven and Claude A. Warren
1984 *California Archaeology*. Orlando, FL: Academic Press.

Shumway, Burgess McK
1988 *California Ranchos*. Second Edition. The Borgo Press.

Sonoma County Permit and Resource Management Department
2008 Sonoma County General Plan 2020 Open Space and Resource Conservation Element. Online at: http://sonomacounty.ca.gov/WorkArea/DownloadAsset.aspx?id=2147542566, accessed April 29, 2019.

Water Education Foundation
n.d. Russian River. Online at https://www.watereducation.org/topic-russian-river, accessed April 29, 2019.

White, Phillip
2019 "California Indians and Their Reservations: An Online Dictionary." *San Diego State University American Indian Studies* website. Accessed April 25, 2019. https://libguides.sdsu.edu/c.php?g=494769&p=3385637.

Appendix A:
Records Search Summary

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM

ALAMEDA
COLUSA
CONTRA COSTA
DEL NORTE
HUMBOLDT
LAKE
MARIN
MENDOCINO
MONTEREY
NAPA
SAN BENITO
SAN FRANCISCO
SAN MATEO
SANTA CLATA
SANTA CRUZ
SOLANO
SONOMA
YOLO

Northwest Information Center
Sonoma State University
150 Professional Center Drive, Suite E
Rohnert Park, California 94928-3609
Tel: 707.588.8455
nwic@sonoma.edu
http://www.sonoma.edu/nwic

4/22/2019 NWIC File No.: 18-1988

Kevin Hunt
Anza Resource Consultants
603 Seagaze Drive #1018
Oceanside, CA 92054

re: NCPA Healdsburg Water Reclamation Solar PV Project

The Northwest Information Center received your record search request for the project area referenced above, located on the Healdsburg & Guerneville USGS 7.5' quads. The following reflects the results of the records search for the project area and a 0.5 mile radius:

Resources within project area:	None
Resources within 0.5 mile radius:	P-49-000598
Reports within project area:	S-16018 & 7109.
Reports within 0.5 mile radius:	S-37605, 26998, 38938, 13728, 15260, 21706, 27189, & 21438,

Resource Database Printout (list):	☒ enclosed	☐ not requested	☐ nothing listed
Resource Database Printout (details):	☐ enclosed	☒ not requested	☐ nothing listed
Resource Digital Database Records:	☒ enclosed	☐ not requested	☐ nothing listed
Report Database Printout (list):	☒ enclosed	☐ not requested	☐ nothing listed
Report Database Printout (details):	☐ enclosed	☒ not requested	☐ nothing listed
Report Digital Database Records:	☒ enclosed	☐ not requested	☐ nothing listed
Resource Record Copies:	☒ enclosed	☐ not requested	☐ nothing listed
Report Copies:	☒ enclosed	☐ not requested	☐ nothing listed
OHP Historic Properties Directory:	☒ enclosed	☐ not requested	☐ nothing listed
Archaeological Determinations of Eligibility:	☐ enclosed	☐ not requested	☒ nothing listed
CA Inventory of Historic Resources (1976):	☐ enclosed	☐ not requested	☒ nothing listed
Caltrans Bridge Survey:	☐ enclosed	☒ not requested	☐ nothing listed
Ethnographic Information:	☐ enclosed	☒ not requested	☐ nothing listed
Historical Literature:	☐ enclosed	☒ not requested	☐ nothing listed
Historical Maps:	☒ enclosed	☐ not requested	☐ nothing listed
Local Inventories:	☒ enclosed	☐ not requested	☐ nothing listed
GLO and/or Rancho Plat Maps:	☒ enclosed	☐ not requested	☐ nothing listed

Shipwreck Inventory: ☐ enclosed ☒ not requested ☐ nothing listed

*Notes:
** Current versions of these resources are available on-line:
Caltrans Bridge Survey: http://www.dot.ca.gov/hq/structur/strmaint/historic.htm
Soil Survey: http://www.nrcs.usda.gov/wps/portal/nrcs/surveylist/soils/survey/state/?stateId=CA
Shipwreck Inventory: http://www.slc.ca.gov/Info/Shipwrecks.html

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Thank you for using the California Historical Resources Information System (CHRIS).

Sincerely,

Lisa C. Hagel
Researcher

Appendix B:
Native American Scoping

K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, CA 92590-4314
(951) 699-2082
Cell: (949) 412-2634
ksdpe67@gmail.com

Erica D. Dunbar, President
Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE
Chief Executive Officer

March 26, 2019

Christina Snider, Executive Secretary
California Native American Heritage Commission
1550 Harbor Boulevard, Room 100
West Sacramento, California 95691

Request for a Sacred Lands File Search
NCPA Solar Project 1 – Healdsburg Wastewater Reclamation Facility
Northern California Power Agency

Dear Christina:

The Northern California Power Agency (NCPA) intends to implement its NCPA Solar Project 1 – Healdsburg Wastewater Reclamation Facility Project. The project is described in the attachments to this letter.

We respectfully request that you complete a search of your Sacred Lands files for this Project. A completed request form as well as maps showing the project elements are attached for your use in the search.

We also respectfully request that you provide us with a list of tribes and individuals that you believe might have cultural resources information regarding the project area.

It would be greatly appreciated if you could email your response to ksdpe67@gmail.com.

If you have any questions concerning this request, please contact me.

Sincerely,

K. S. Dunbar

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE

Attachments

pc: Ron Yuen
Director of Engineering, Generation Services
Northern California Power Agency
651 Commerce Drive,
Roseville California 95678

Sacred Lands File & Native American Contacts List Request

Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
916-373-3710
FAX: 916-373-5471
nahc@nahc.ca.gov

Information Below is Required for a Sacred Lands File Search

Project: NCPA Solar Project 1 – Healdsburg Wastewater Reclamation Facility

County: Sonoma

USGS Quadrangle Name: Healdsburg, California

See attachment for detailed project location.

Company/Firm/Agency: K.S. Dunbar & Associates, Inc.

Street Address: 45375 Vista Del Mar

City: Temecula **Zip: 92590-4314**

Phone: 951-699-2082

Email: ksdpe67@gmail.com

Project Description: The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. Burns & McDonnell was retained by NCPA to complete Phase 2 Site Screening, Plan Development, and Procurement services for each site selected by the member agencies. The City of Healdsburg selected a site at its Wastewater Reclamation Facility (Figure 1). That site is the subject of this Notification.

Figure 1 Healdsburg Wastewater Reclamation Plant Project Location

The Project site is located within a 36-acre wastewater reclamation facility site that is situated between Foreman Lane to the north and Cohn Road to the south. The proposed technology type for the solar project is floating arrays, whereby the panels would be mounted to pontoons that are anchored to ballasts located outside the ponds. As shown on Figure 2, the site would accommodate three arrays totaling 8.13 acres. The total installed capacity would be approximately 3.62 MW_{dc}.

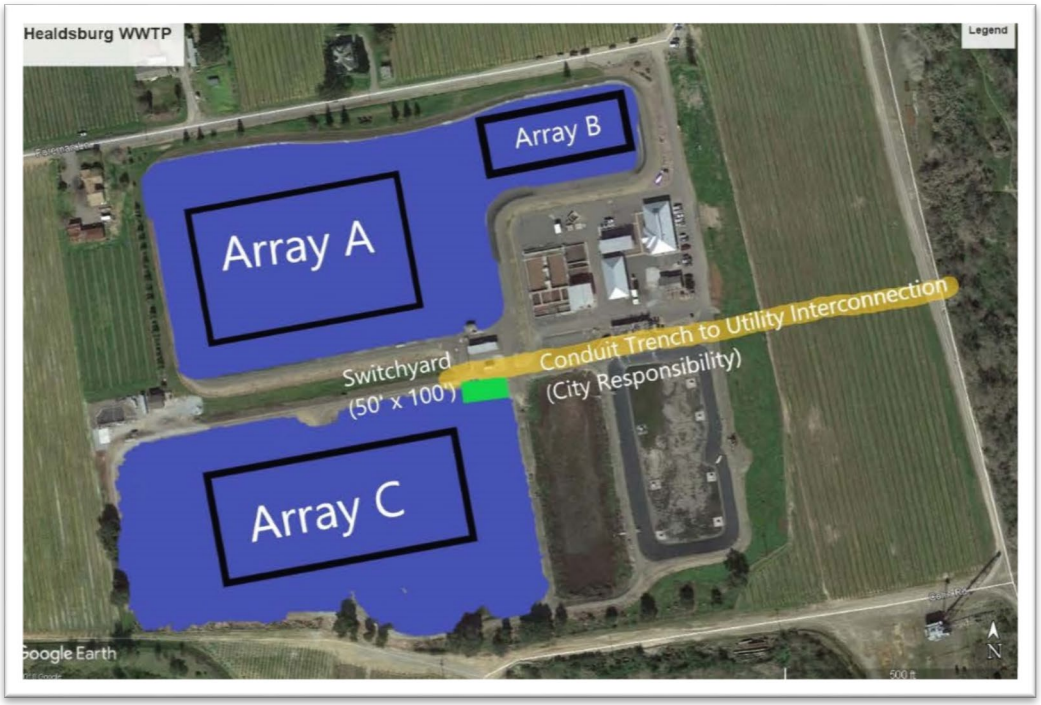


Figure 2 Proposed Solar Array Locations

Figure 3 Proposed Solar Site shown on Healdsburg Quadrangle.

NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone: (916) 373-3710
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov
Twitter: @CA_NAHC

April 15, 2019

Keith S. Dunbar
K.S. Dunbar & Associates, Inc.

VIA Email to: ksdpe67@gmail.com

RE: NCPA Solar Project I-Healdsburg Wastewater Reclamation Facility, Sonoma County.

Dear Mr. Dunbar: :

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were positive. Please contact the Mishewal Wappo Tribe of Alexander Valley on the attached list for more information. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our lists contain current information. If you have any questions or need additional information, please contact me at my email address: katy.sanchez@nahc.ca.gov.

Sincerely,

Katy Sanchez

KATY SANCHEZ
Associate Environmental Planner

Native American Heritage Commission
Native American Contacts List
4/11/2019

Cloverdale Rancheria of Pomo Indians
Patricia Hermosillo, Chairperson
555 S. Cloverdale Blvd., Suite A — Pomo
Cloverdale ,CA 95425
info@cloverdalerancheria.com
(707) 894-5775
(707) 894-5727

Dry Creek Rancheria Band of Pomo Indians
Chris Wright, Chairperson
P.O. Box 607 — Pomo
Geyserville ,CA 95441
lynnl@drycreekrancheria.com
(707) 522-4233
(707) 522-4286

Lytton Rancheria
Marjorie Mejia, Chairperson
437 Aviation Blvd. — Pomo
Santa Rosa ,CA 95403
margiemejia@aol.com
(707) 575-5917
(707) 575-6974 - Fax

Middletown Rancheria
Jose Simon III, Chairperson
P.O. Box 1035 — Pomo
Middletown ,CA 95461 — Lake Miwok
sshope@middletownrancheria.com
(707) 987-3670 Office
(707) 987-9091 Fax

Kashia Band of Pomo Indians of the Stewarts Point Rancheri
Dino Franklin Jr.,Chairperson
1420 Guerneville Rd. Ste 1 — Pomo
Santa Rosa ,CA 95403
dino@stewartspoint.org
(707) 591-0580 Office
(707) 591-0583 Fax

Mishewal-Wappo Tribe of Alexander Valley
Scott Gabaldon, Chairperson
2275 Silk Road — Wappo
Windsor ,CA 95492
scottg@mishewalwappotribe.com
(707) 494-9159

Federated Indians of Graton Rancheria
Gene Buvelot
6400 Redwood Drive, Ste 300 — Coast Miwok
Rohnert Park ,CA 94928 — Southern Pomo
gbuvelot@gratonrancheria.com
(415) 279-4844 Cell
(707) 566-2288 ext 103

Federated Indians of Graton Rancheria
Greg Sarris, Chairperson
6400 Redwood Drive, Ste 300 — Coast Miwok
Rohnert Park ,CA 94928 — Southern Pomo
gbuvelot@gratonrancheria.com
(707) 566-2288 Office
(707) 566-2291 Fax

This list is current as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code,Section 5097.94 of the Public Resources Code, or Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native American Tribes for the proposed: NCPA Solar Project 1-Healdsburg Wastewater Reclamation Facility, Sonoma County.

K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, CA 92590-4314
(951) 699-2082
Cell: (949) 412-2634
ksdpe67@gmail.com

Erica D. Dunbar, President
Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE
Chief Executive Officer

March 26, 2019

Christina Snider, Executive Secretary
California Native American Heritage Commission
1550 Harbor Boulevard, Room 100
West Sacramento, California 95691

Request for a Sacred Lands File Search
NCPA Solar Project 1 – Healdsburg Wastewater Reclamation Facility
Northern California Power Agency

Dear Christina:

The Northern California Power Agency (NCPA) intends to implement its NCPA Solar Project 1 – Healdsburg Wastewater Reclamation Facility Project. The project is described in the attachments to this letter.

We respectfully request that you complete a search of your Sacred Lands files for this Project. A completed request form as well as maps showing the project elements are attached for your use in the search.

We also respectfully request that you provide us with a list of tribes and individuals that you believe might have cultural resources information regarding the project area.

It would be greatly appreciated if you could email your response to ksdpe67@gmail.com.

If you have any questions concerning this request, please contact me.

Sincerely,

K. S. Dunbar

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE

Attachments

pc: Ron Yuen
Director of Engineering, Generation Services
Northern California Power Agency
651 Commerce Drive,
Roseville California 95678

Sacred Lands File & Native American Contacts List Request

Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
916-373-3710
FAX: 916-373-5471
nahc@nahc.ca.gov

Information Below is Required for a Sacred Lands File Search

Project: NCPA Solar Project 1 – Healdsburg Wastewater Reclamation Facility

County: Sonoma

USGS Quadrangle Name: Healdsburg, California

See attachment for detailed project location.

Company/Firm/Agency: K.S. Dunbar & Associates, Inc.

Street Address: 45375 Vista Del Mar

City: Temecula **Zip: 92590-4314**

Phone: 951-699-2082

Email: ksdpe67@gmail.com

Project Description: The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. Burns & McDonnell was retained by NCPA to complete Phase 2 Site Screening, Plan Development, and Procurement services for each site selected by the member agencies. The City of Healdsburg selected a site at its Wastewater Reclamation Facility (Figure 1). That site is the subject of this Notification.

Figure 1 Healdsburg Wastewater Reclamation Plant Project Location

The Project site is located within a 36-acre wastewater reclamation facility site that is situated between Foreman Lane to the north and Cohn Road to the south. The proposed technology type for the solar project is floating arrays, whereby the panels would be mounted to pontoons that are anchored to ballasts located outside the ponds. As shown on Figure 2, the site would accommodate three arrays totaling 8.13 acres. The total installed capacity would be approximately 3.62 MW_{dc}.

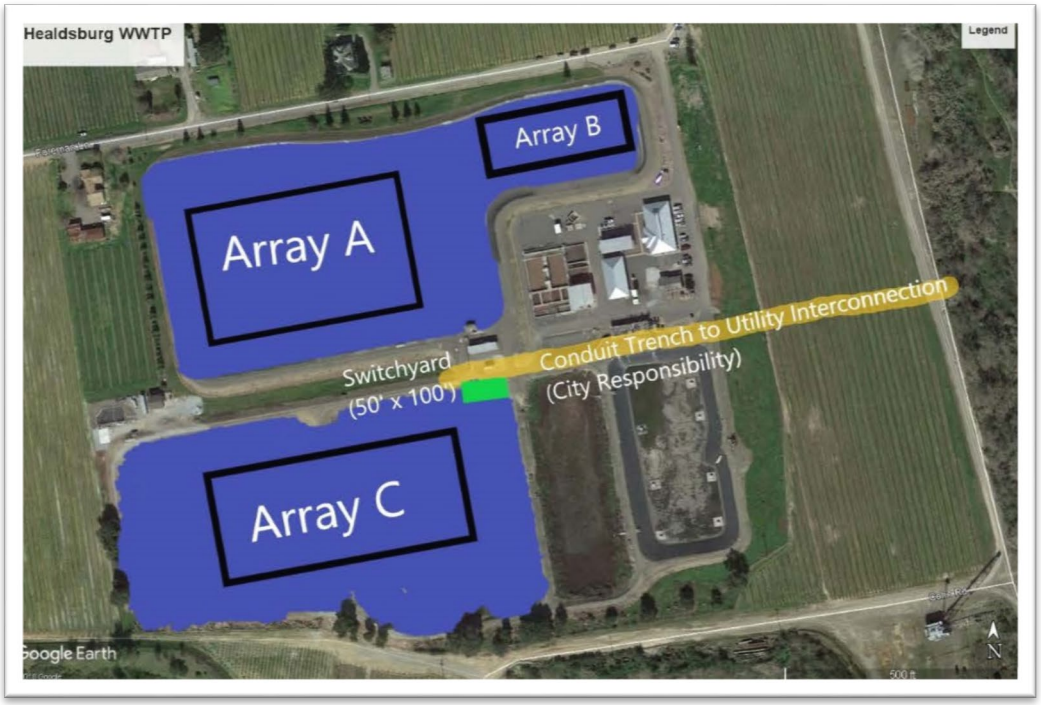


Figure 2 Proposed Solar Array Locations

Figure 3 Proposed Solar Site shown on Healdsburg Quadrangle.

NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone: (916) 373-3710
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov
Twitter: @CA_NAHC

April 15, 2019

Keith S. Dunbar
K.S. Dunbar & Associates, Inc.

VIA Email to: ksdpe67@gmail.com

RE: NCPA Solar Project I-Healdsburg Wastewater Reclamation Facility, Sonoma County.

Dear Mr. Dunbar: :

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were positive. Please contact the Mishewal Wappo Tribe of Alexander Valley on the attached list for more information. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our lists contain current information. If you have any questions or need additional information, please contact me at my email address: katy.sanchez@nahc.ca.gov.

Sincerely,

Katy Sanchez

KATY SANCHEZ
Associate Environmental Planner

Native American Heritage Commission
Native American Contacts List
4/11/2019

Cloverdale Rancheria of Pomo Indians
Patricia Hermosillo, Chairperson
555 S. Cloverdale Blvd., Suite A — Pomo
Cloverdale ,CA 95425
info@cloverdalerancheria.com
(707) 894-5775
(707) 894-5727

Dry Creek Rancheria Band of Pomo Indians
Chris Wright, Chairperson
P.O. Box 607 — Pomo
Geyserville ,CA 95441
lynnl@drycreekrancheria.com
(707) 522-4233
(707) 522-4286

Lytton Rancheria
Marjorie Mejia, Chairperson
437 Aviation Blvd. — Pomo
Santa Rosa ,CA 95403
margiemejia@aol.com
(707) 575-5917
(707) 575-6974 - Fax

Middletown Rancheria
Jose Simon III, Chairperson
P.O. Box 1035 — Pomo
Middletown ,CA 95461 — Lake Miwok
sshope@middletownrancheria.com
(707) 987-3670 Office
(707) 987-9091 Fax

Kashia Band of Pomo Indians of the Stewarts Point Rancheri
Dino Franklin Jr.,Chairperson
1420 Guerneville Rd. Ste 1 — Pomo
Santa Rosa ,CA 95403
dino@stewartspoint.org
(707) 591-0580 Office
(707) 591-0583 Fax

Mishewal-Wappo Tribe of Alexander Valley
Scott Gabaldon, Chairperson
2275 Silk Road — Wappo
Windsor ,CA 95492
scottg@mishewalwappotribe.com
(707) 494-9159

Federated Indians of Graton Rancheria
Gene Buvelot
6400 Redwood Drive, Ste 300 — Coast Miwok
Rohnert Park ,CA 94928 — Southern Pomo
gbuvelot@gratonrancheria.com
(415) 279-4844 Cell
(707) 566-2288 ext 103

Federated Indians of Graton Rancheria
Greg Sarris, Chairperson
6400 Redwood Drive, Ste 300 — Coast Miwok
Rohnert Park ,CA 94928 — Southern Pomo
gbuvelot@gratonrancheria.com
(707) 566-2288 Office
(707) 566-2291 Fax

This list is current as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code,Section 5097.94 of the Public Resources Code, or Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native American Tribes for the proposed: NCPA Solar Project 1-Healdsburg Wastewater Reclamation Facility, Sonoma County.

NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone: (916) 373-3710
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov
Twitter: @CA_NAHC

April 15, 2019

Keith S. Dunbar
K.S. Dunbar & Associates, Inc.

VIA Email to: ksdpe67@gmail.com

RE: NCPA Solar Project I-Healdsburg Wastewater Reclamation Facility, Sonoma County.

Dear Mr. Dunbar: :

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were positive. Please contact the Mishewal Wappo Tribe of Alexander Valley on the attached list for more information. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our lists contain current information. If you have any questions or need additional information, please contact me at my email address: katy.sanchez@nahc.ca.gov.

Sincerely,

Katy Sanchez

KATY SANCHEZ
Associate Environmental Planner

Native American Heritage Commission
Native American Contacts List
4/11/2019

Cloverdale Rancheria of Pomo Indians
Patricia Hermosillo, Chairperson
555 S. Cloverdale Blvd., Suite A — Pomo
Cloverdale ,CA 95425
info@cloverdalerancheria.com
(707) 894-5775
(707) 894-5727

Dry Creek Rancheria Band of Pomo Indians
Chris Wright, Chairperson
P.O. Box 607 — Pomo
Geyserville ,CA 95441
lynnl@drycreekrancheria.com
(707) 522-4233
(707) 522-4286

Lytton Rancheria
Marjorie Mejia, Chairperson
437 Aviation Blvd. — Pomo
Santa Rosa ,CA 95403
margiemejia@aol.com
(707) 575-5917
(707) 575-6974 - Fax

Middletown Rancheria
Jose Simon III, Chairperson
P.O. Box 1035 — Pomo
Middletown ,CA 95461 — Lake Miwok
sshope@middletownrancheria.com
(707) 987-3670 Office
(707) 987-9091 Fax

Kashia Band of Pomo Indians of the Stewarts Point Rancheri
Dino Franklin Jr.,Chairperson
1420 Guerneville Rd. Ste 1 — Pomo
Santa Rosa ,CA 95403
dino@stewartspoint.org
(707) 591-0580 Office
(707) 591-0583 Fax

Mishewal-Wappo Tribe of Alexander Valley
Scott Gabaldon, Chairperson
2275 Silk Road — Wappo
Windsor ,CA 95492
scottg@mishewalwappotribe.com
(707) 494-9159

Federated Indians of Graton Rancheria
Gene Buvelot
6400 Redwood Drive, Ste 300 — Coast Miwok
Rohnert Park ,CA 94928 — Southern Pomo
gbuvelot@gratonrancheria.com
(415) 279-4844 Cell
(707) 566-2288 ext 103

Federated Indians of Graton Rancheria
Greg Sarris, Chairperson
6400 Redwood Drive, Ste 300 — Coast Miwok
Rohnert Park ,CA 94928 — Southern Pomo
gbuvelot@gratonrancheria.com
(707) 566-2288 Office
(707) 566-2291 Fax

This list is current as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code,Section 5097.94 of the Public Resources Code, or Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native American Tribes for the proposed: NCPA Solar Project 1-Healdsburg Wastewater Reclamation Facility, Sonoma County.

Appendix E

AB 52 Consultation

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678

AB 52 Tribal Consultation Notification

Date:	March 27, 2019
To:	Chris Wright, Chairperson
Tribe:	Dry Creek Rancheria of Pomo Indians
Subject:	Notification for Tribal Consultation
Project Name:	NCPA Solar Project 1 – Healdsburg Wastewater Reclamation Facility
Lead Agency:	Northern California Power Agency

Introduction:

The Northern California Power Agency (NCPA) is proposing the NCPA Solar Project 1 – Healdsburg Wastewater Reclamation Facility Project which may be located in a geographical area that is traditionally and culturally affiliated with the Dry Creek Rancheria of Pomo Indians.

Request for Consultation:

California law under Assembly Bill 52 (Public Resources Code §21080.3.1) now allows California Native American tribes 30 days to request consultation regarding possible significant effects that implementation of the proposed project may have on tribal cultural resources. This request must be in writing to NCPA and identify a lead contact person. NCPA will begin the consultation process within 30 days of receiving the tribes request for consultation. The consultation may include discussion concerning the type of environmental review necessary for the project, the significance of tribal cultural resources discovered, the significance of the project's impacts on tribal cultural resources, and, if necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend.

The consultation does not limit the ability of the tribe to submit information to NCPA regarding the significance of the tribal resources, the significance of the project's impact on tribal cultural resources, or any measures the tribe feels are appropriate to mitigate the potential impacts. If you wish to informally submit information, written comments may be sent to:

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE
K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
(951) 699-2082
E-Mail: ksddpe67@gmail.com

Confidential information transmitted electronically cannot be ensured. NCPA recommends that transmittal of confidential information, such as the specific location of a cultural resource, is done by formal letter, in person, or over the telephone, the tribes request to consult on the above-named project must be received no later than 30 days from the date of this notification.

Overview of the Proposed Project

The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. Burns & McDonnell was retained by NCPA to complete Phase 2 Site Screening, Plan Development, and Procurement services for each site selected by the member agencies. The City of Healdsburg selected a site at its Wastewater Reclamation Facility (Figure 1). That site is the subject of this Notification.

Figure 1 Healdsburg Wastewater Reclamation Plant Project Location

The Project site is located within a 36-acre wastewater reclamation facility site that is situated between Foreman Lane to the north and Cohn Road to the south. The proposed technology type for the solar project is floating arrays, whereby the panels would be mounted to pontoons that are anchored to ballasts located outside the ponds. As shown on Figure 2, the site would accommodate three arrays totaling 8.13 acres. The total installed capacity would be approximately 3.62 MW_{dc}.

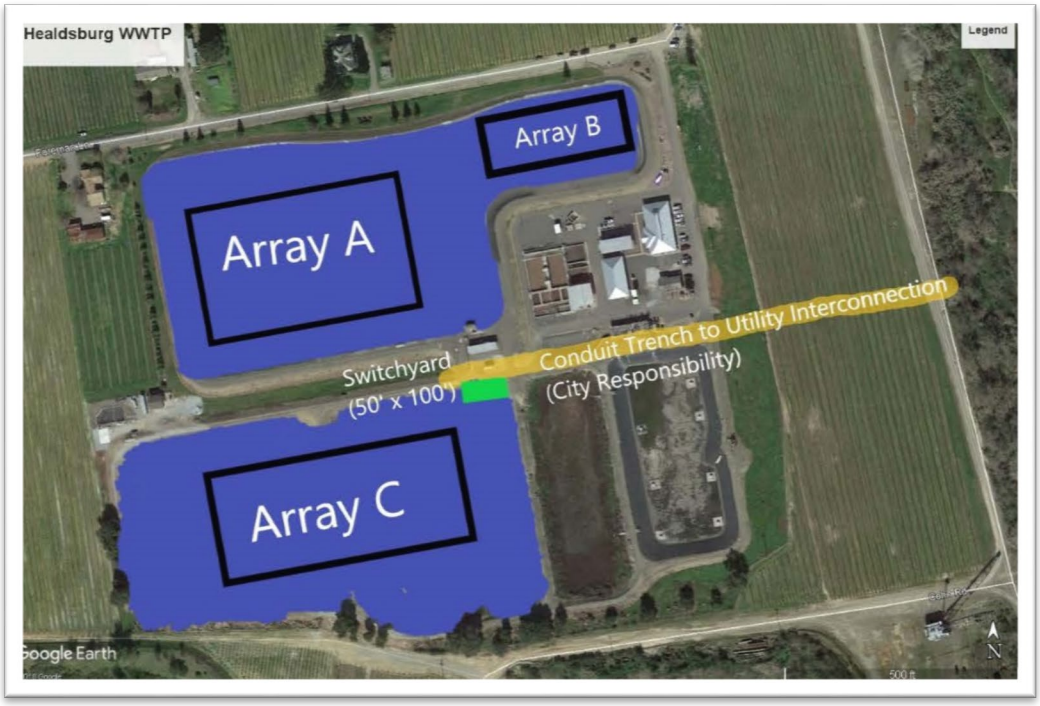


Figure 2 Proposed Solar Array Locations

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678

AB 52 Tribal Consultation Notification

Date:	March 27, 2019
To:	Loren Smith, Tribal Historic Preservation Officer
Tribe:	Kashia Band of Pomo Indians of the Stewarts Point
Subject:	Notification for Tribal Consultation
Project Name:	NCPA Solar Project 1 – Healdsburg Wastewater Reclamation Facility
Lead Agency:	Northern California Power Agency

Introduction:

The Northern California Power Agency (NCPA) is proposing the NCPA Solar Project 1 – Healdsburg Wastewater Reclamation Facility Project which may be located in a geographical area that is traditionally and culturally affiliated with the Kashia Band of Pomo Indians of the Stewarts Point.

Request for Consultation:

California law under Assembly Bill 52 (Public Resources Code §21080.3.1) now allows California Native American tribes 30 days to request consultation regarding possible significant effects that implementation of the proposed project may have on tribal cultural resources. This request must be in writing to NCPA and identify a lead contact person. NCPA will begin the consultation process within 30 days of receiving the tribes request for consultation. The consultation may include discussion concerning the type of environmental review necessary for the project, the significance of tribal cultural resources discovered, the significance of the project's impacts on tribal cultural resources, and, if necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend.

The consultation does not limit the ability of the tribe to submit information to NCPA regarding the significance of the tribal resources, the significance of the project's impact on tribal cultural resources, or any measures the tribe feels are appropriate to mitigate the potential impacts. If you wish to informally submit information, written comments may be sent to:

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE
K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
(951) 699-2082
E-Mail: ksddpe67@gmail.com

Confidential information transmitted electronically cannot be ensured. NCPA recommends that transmittal of confidential information, such as the specific location of a cultural resource, is done by formal letter, in person, or over the telephone, the tribes request to consult on the above-named project must be received no later than 30 days from the date of this notification.

Overview of the Proposed Project

The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. Burns & McDonnell was retained by NCPA to complete Phase 2 Site Screening, Plan Development, and Procurement services for each site selected by the member agencies. The City of Healdsburg selected a site at its Wastewater Reclamation Facility (Figure 1). That site is the subject of this Notification.

Figure 1 Healdsburg Wastewater Reclamation Plant Project Location

The Project site is located within a 36-acre wastewater reclamation facility site that is situated between Foreman Lane to the north and Cohn Road to the south. The proposed technology type for the solar project is floating arrays, whereby the panels would be mounted to pontoons that are anchored to ballasts located outside the ponds. As shown on Figure 2, the site would accommodate three arrays totaling 8.13 acres. The total installed capacity would be approximately 3.62 MW_{dc}.

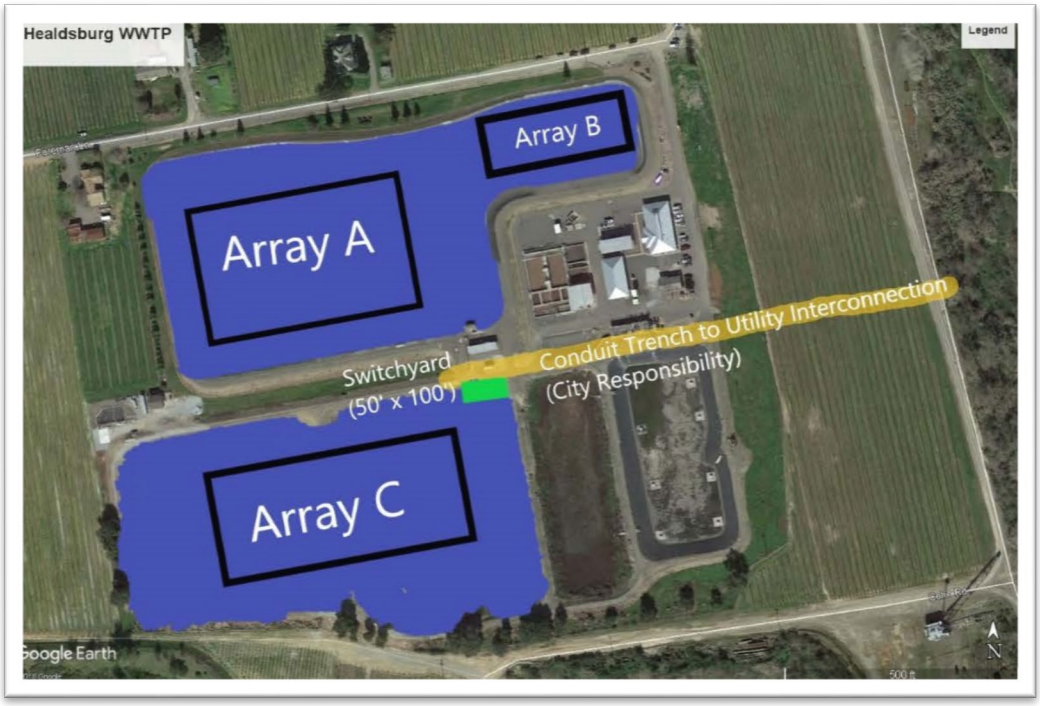


Figure 2 Proposed Solar Array Locations

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678

AB 52 Tribal Consultation Notification

Date:	March 27, 2019
To:	Marjorie Mejia, Chairperson
Tribe:	Lytton Rancheria of California
Subject:	Notification for Tribal Consultation
Project Name:	NCPA Solar Project 1 – Healdsburg Wastewater Reclamation Facility
Lead Agency:	Northern California Power Agency

Introduction:

The Northern California Power Agency (NCPA) is proposing the NCPA Solar Project 1 – Healdsburg Wastewater Reclamation Facility Project which may be located in a geographical area that is traditionally and culturally affiliated with the Lytton Rancheria of California.

Request for Consultation:

California law under Assembly Bill 52 (Public Resources Code §21080.3.1) now allows California Native American tribes 30 days to request consultation regarding possible significant effects that implementation of the proposed project may have on tribal cultural resources. This request must be in writing to NCPA and identify a lead contact person. NCPA will begin the consultation process within 30 days of receiving the tribes request for consultation. The consultation may include discussion concerning the type of environmental review necessary for the project, the significance of tribal cultural resources discovered, the significance of the project's impacts on tribal cultural resources, and, if necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend.

The consultation does not limit the ability of the tribe to submit information to NCPA regarding the significance of the tribal resources, the significance of the project's impact on tribal cultural resources, or any measures the tribe feels are appropriate to mitigate the potential impacts. If you wish to informally submit information, written comments may be sent to:

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE
K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
(951) 699-2082
E-Mail: ksddpe67@gmail.com

Confidential information transmitted electronically cannot be ensured. NCPA recommends that transmittal of confidential information, such as the specific location of a cultural resource, is done by formal letter, in person, or over the telephone, the tribes request to consult on the above-named project must be received no later than 30 days from the date of this notification.

Overview of the Proposed Project

The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. Burns & McDonnell was retained by NCPA to complete Phase 2 Site Screening, Plan Development, and Procurement services for each site selected by the member agencies. The City of Healdsburg selected a site at its Wastewater Reclamation Facility (Figure 1). That site is the subject of this Notification.

Figure 1 Healdsburg Wastewater Reclamation Plant Project Location

The Project site is located within a 36-acre wastewater reclamation facility site that is situated between Foreman Lane to the north and Cohn Road to the south. The proposed technology type for the solar project is floating arrays, whereby the panels would be mounted to pontoons that are anchored to ballasts located outside the ponds. As shown on Figure 2, the site would accommodate three arrays totaling 8.13 acres. The total installed capacity would be approximately 3.62 MW_{dc}.

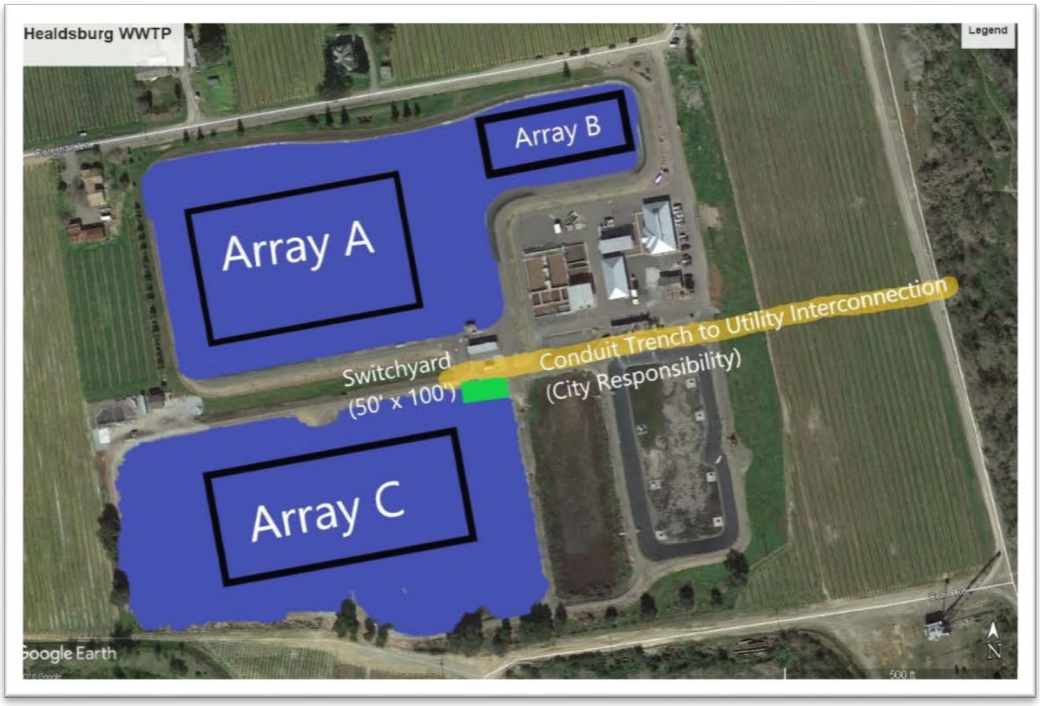


Figure 2 Proposed Solar Array Locations

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678

AB 52 Tribal Consultation Notification

Date:	March 27, 2019
To:	Scott Gabaldon, Chairman
Tribe:	Mishewal-Wappo Tribe of Alexander Valley
Subject:	Notification for Tribal Consultation
Project Name:	NCPA Solar Project 1 – Healdsburg Wastewater Reclamation Facility
Lead Agency:	Northern California Power Agency

Introduction:

The Northern California Power Agency (NCPA) is proposing the NCPA Solar Project 1 – Healdsburg Wastewater Reclamation Facility Project which may be located in a geographical area that is traditionally and culturally affiliated with the Mishewal-Wappo Tribe of Alexander Valley.

Request for Consultation:

California law under Assembly Bill 52 (Public Resources Code §21080.3.1) now allows California Native American tribes 30 days to request consultation regarding possible significant effects that implementation of the proposed project may have on tribal cultural resources. This request must be in writing to NCPA and identify a lead contact person. NCPA will begin the consultation process within 30 days of receiving the tribes request for consultation. The consultation may include discussion concerning the type of environmental review necessary for the project, the significance of tribal cultural resources discovered, the significance of the project's impacts on tribal cultural resources, and, if necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend.

The consultation does not limit the ability of the tribe to submit information to NCPA regarding the significance of the tribal resources, the significance of the project's impact on tribal cultural resources, or any measures the tribe feels are appropriate to mitigate the potential impacts. If you wish to informally submit information, written comments may be sent to:

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE
K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
(951) 699-2082
E-Mail: ksddpe67@gmail.com

Confidential information transmitted electronically cannot be ensured. NCPA recommends that transmittal of confidential information, such as the specific location of a cultural resource, is done by formal letter, in person, or over the telephone, the tribes request to consult on the above-named project must be received no later than 30 days from the date of this notification.

Overview of the Proposed Project

The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. Burns & McDonnell was retained by NCPA to complete Phase 2 Site Screening, Plan Development, and Procurement services for each site selected by the member agencies. The City of Healdsburg selected a site at its Wastewater Reclamation Facility (Figure 1). That site is the subject of this Notification.

Figure 1 Healdsburg Wastewater Reclamation Plant Project Location

The Project site is located within a 36-acre wastewater reclamation facility site that is situated between Foreman Lane to the north and Cohn Road to the south. The proposed technology type for the solar project is floating arrays, whereby the panels would be mounted to pontoons that are anchored to ballasts located outside the ponds. As shown on Figure 2, the site would accommodate three arrays totaling 8.13 acres. The total installed capacity would be approximately 3.62 MW_{dc}.

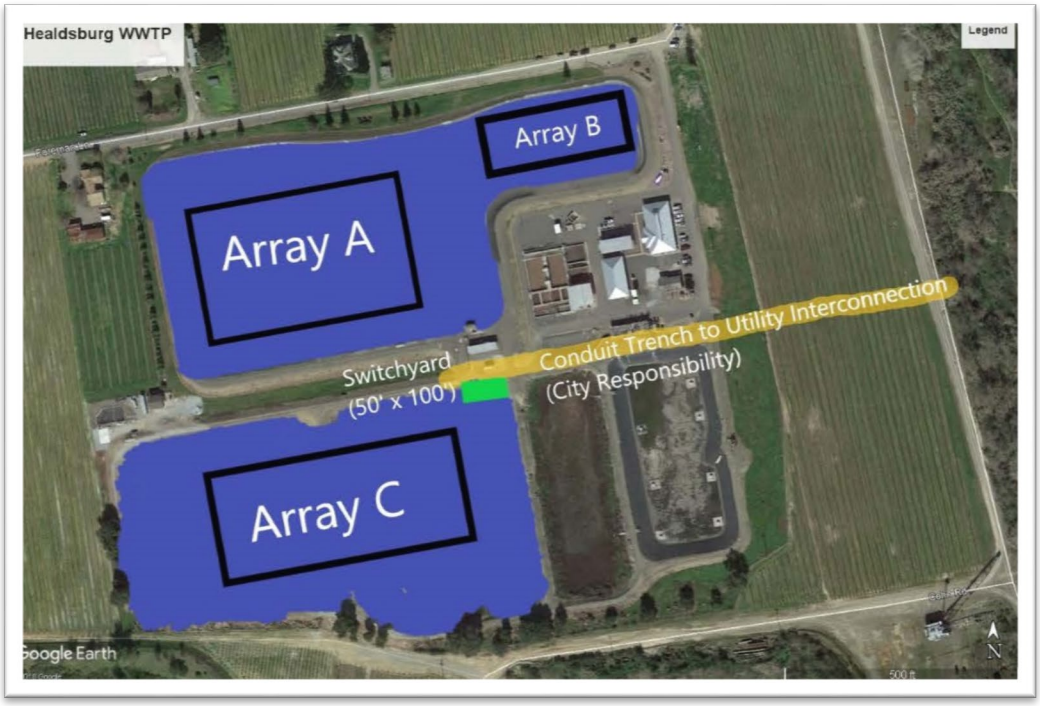


Figure 2 Proposed Solar Array Locations

Appendix F

MMRP

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678-6420

Mitigation Monitoring & Reporting Program

NCPA Solar Project 1 – Healdsburg WRF Site

Photo Courtesy of SunPower Corporation

Prepared by:

K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
951-699-2082
Email: ksdpe67@gmail.com

April 2019

Mitigation Monitoring and Reporting Program

NCPA Solar Project 1 - Healdsburg Wastewater Reclamation Facility Site

The California Environmental Quality Act (CEQA) requires that when a public agency completes an environmental document which includes measures to mitigate or avoid significant environmental effects, the public agency must adopt a reporting or monitoring program. This requirement ensures that environmental impacts found to be significant will be mitigated. The reporting or monitoring program must be designed to ensure compliance during project implementation (Public Resources Code Section 21081.6).

In compliance with Public Resources Code Section 21081.6, the following MITIGATION MONITORING AND REPORTING CHECKLIST has been prepared for the NCPA Solar Project 1 – Healdsburg Wastewater Reclamation Facility Site. This Mitigation Monitoring and Reporting Checklist is intended to provide verification that all applicable Conditions of Approval relative to significant environmental impacts are monitored and reported. Monitoring will include: 1) verification that each mitigation measure has been implemented, 2) recordation of the actions taken to implement each mitigation, and 3) retention of records in the NCPA Solar Project 1 – Healdsburg Wastewater Reclamation Facility Site project file.

This Mitigation Monitoring and Reporting Program delineates responsibilities for monitoring the Project, but also allows the Northern California Power Agency (NCPA) flexibility and discretion in determining how best to monitor implementation. Monitoring procedures will vary according to the type of mitigation measure. Adequate monitoring consists of demonstrating that monitoring procedures took place and that mitigation measures were implemented.

Reporting consists of establishing a record that a mitigation measure is being implemented and generally involves the following steps:

- NCPA distributes reporting forms to the appropriate persons for verification of compliance.
- Departments/agencies with reporting responsibilities will review the Environmental Impact Report or Initial Study and Mitigated Negative Declaration, which provides general background information on the reasons for including specified mitigation measures.
- Problems or exceptions to compliance will be addressed to NCPA as appropriate.
- Periodic meetings may be held during project implementation to report on compliance of mitigation measures.
- Responsible parties provide NCPA with verification that monitoring has been conducted and ensure, as applicable, that mitigation measures have been implemented. Monitoring compliance may be documented through existing review and approval programs such as field inspection reports and plan review.
- NCPA or Applicant prepares a reporting form periodically during the construction phase and an annual reporting summarizing all project mitigation monitoring efforts.
- Appropriate mitigation measures will be included in construction documents and/or conditions of permits/approvals.

Minor changes to the Mitigation Monitoring and Reporting Program, if required, would be made in accordance with CEQA and would be permitted after further review and approval by NCPA. Such changes could include reassignment of monitoring and reporting responsibilities, program redesign to make any appropriate improvements, and/or modification, substitution or deletion of mitigation measures subject to conditions described in CEQA Guidelines Section 15162. No change will be permitted unless the Mitigation Monitoring and Reporting Program continues to satisfy the requirements of Public Resources Code Section 21081.6.

Mitigation Monitoring and Reporting Program Checklist

NCPA Solar Project 1 – Healdsburg Wastewater Reclamation Facility Site

Mitigation Measure	Monitoring Process	Monitoring Timing	Responsible Person(s)	Date Completed
Air Quality				
NCPA shall appoint a construction relations officer to act as a community liaison concerning on-site construction activities including resolution of issues related to PM_{10} generation. Additionally, best management practices shall be included in contract documents for this project.	Project Records.	Prior To Construction.	Project Manager.	By: Date:
Standard Construction Practices/Design Features NCPA's contract documents for this project will include the following: The contractor shall: ❖ Utilize electricity from power poles instead of from temporary diesel or gasoline power generators, when feasible. ❖ Require the use of 2010 and newer diesel haul trucks (e.g., material delivery trucks and soil import/export) and if the lead agency determines that 2010 model year or newer diesel trucks cannot be obtained the contractor shall use trucks that meet EPA 2007 model year NO_x emissions requirements. ❖ Require that all on-site construction equipment meet EPA Tier 3 or higher emissions standards according to the following: ➢ All off-road diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards, where available. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. ➢ A copy of each unit's certified tier specification, BACT documentation, and CARB or Northern Sonoma County APCD operating permit shall be provided at the time of mobilization of each applicable unit of equipment. ❖ Maintain construction equipment engines by keeping them properly tuned and maintained according to manufacturer's specifications. ❖ Use alternative fuels or clean and low-sulfur fuel for equipment. ❖ Idle trucks in accordance with the Airborne Toxic Control Measure (ACTM) to Limit Diesel	Project Records.	Prior To Construction.	Project Manager.	By: Date:

Mitigation Measure	Monitoring Process	Monitoring Timing	Responsible Person(s)	Date Completed
Fueled Commercial Motor Vehicle Idling and other applicable laws. ❖ Spread soil binders on site, where appropriate, unpaved roads and staging areas. ❖ Water active construction sites at least twice daily. ❖ Sweep all streets at the end of the day if visible soil materials are carried onto adjacent public paved roads (recommend water sweeper with reclaimed water). ❖ If necessary, wash off trucks leaving the site. ❖ Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least two feet of freeboard in accordance with the requirements of California Vehicle Code (CVC) Section 23114.				
Biological Resources				
Standard Construction Practices/Design Features NCPA's contract documents for this project will include the following: ❖ If construction occurs between February 1st and August 31st, a pre-construction clearance survey for nesting birds shall be conducted within three (3) days of the start of any vegetation removal or ground disturbing activities to ensure that no nesting birds will be disturbed during construction. The biologist conducting the clearance survey should document a negative survey with a brief letter report indicating that no impacts to active avian nests will occur. If an active avian nest is discovered during the pre-construction clearance survey, construction activities shall stay outside of a no-disturbance buffer. The size of the no-disturbance buffer (generally 300 feet for migratory and non-migratory song birds and 500 feet for raptors and special-status species) will be determined by the wildlife biologist, in coordination with the CDFW, and will depend on the level of noise and/or surrounding disturbances, line of sight between the nest and the construction activity, ambient noise, and topographical barriers. These factors will be evaluated on a case-by-case basis when developing buffer distances. Limits of construction to avoid an active nest will be established in the field with flagging, fencing, or other appropriate barriers; and construction personnel will be instructed on the sensitivity of nest areas. A biological monitor should be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, construction activities within the buffer area can occur.	Project Records.	Prior To Construction.	Project Manager.	By: Date:

Mitigation Measure	Monitoring Process	Monitoring Timing	Responsible Person(s)	Date Completed
Cultural Resources				
Prior to the start of construction, NCPA shall hold a pre-grading meeting. The Project Archaeologist shall attend the pre-grading meeting with NCPA's Project Administrator, Field Engineering Inspector and any contractors to conduct a Cultural Resources Worker Sensitivity Training for all construction personnel working on the proposed Project. The training shall include an overview of potential cultural resources that could be encountered during ground disturbing activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated, and any other appropriate protocols.	Project Records.	Prior To Construction.	Project Manager.	By: Date:
Standard Construction Practices/Design Features NCPA's contract documents for this project will include the following: ❖ In the unlikely event that potentially significant archaeological materials are encountered during construction activities, all work shall be halted in the vicinity of the archaeological discovery until a qualified archaeologist can visit the site of discovery, access the significance of the archaeological resource, and provide proper management recommendations. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted. The treatment and disposition of cultural material that might be discovered during excavation shall be in accordance with applicable laws and regulations.	Project Records.	Prior To Construction.	Project Manager.	By: Date:
❖ All sacred items, should they be encountered within the Project sites, shall be avoided and preserved as the preferred mitigation, if feasible. All cultural materials that are collected during excavation and other earth disturbing activities on the Project sites, with the exception of sacred items, burial goods and human remains which will be addressed in any required Treatment Agreement, shall be tribally curated according to the current repository standards. The collections and associated records shall be transferred, including title, to the closet tribe to the Project site.				
❖ In the event of an accidental discovery or recognition of any human remains, the County Coroner shall be notified and construction activities at the affected work site shall be halted. If the coroner determines the remains to be Native American: (1) the coroner shall contact the Native American Heritage Commission (NAHC) within 24-hours, and (2) the NAHC shall identify the person or persons it believes to be the most likely descended from the deceased Native American. The treatment and disposition of human remains that might be discovered during excavation shall be in accordance with applicable laws and regulations.				

Mitigation Measure	Monitoring Process	Monitoring Timing	Responsible Person(s)	Date Completed
Geology and Soils				
Standard Construction Practices/Design Features NCPA's contract documents for this project will include the following: ❖ In the unlikely event that potentially significant paleontological materials (e.g., fossils) are encountered during construction of the project, all work shall be halted in the vicinity of the paleontological discovery until a qualified paleontologist can visit the site of discovery, assess the significance of the paleontological resource, and provide proper management recommendations. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted. The treatment and disposition of paleontological material that might be discovered during excavation shall be in accordance with applicable laws and regulations.	Project Records	Prior to Construction	Project Manager	By: Date:
Hazards and Hazardous Materials				
Standard Construction Practices/Design Features NCPA's contract documents for this project will include the following: ❖ During project construction, the construction contractor shall implement the following measures to address the potential environmental constraints associated with the presence of hazardous materials at the project sites to the satisfaction of NCPA: ✓ The contractor shall prepare a Health and Safety Plan in compliance with the requirements of Chapter 6.95, Division 20 of the Health and Safety Code (§25500 – 25532). The plan shall include measures to be taken in the event of an accidental spill. ✓ The contractor shall enforce strict on-site handling rules to keep construction and maintenance materials out of receiving waters and storm drains. In addition, the contractor shall store all reserve fuel supplies only within the confines of designated construction staging areas; refuel equipment only with the designated construction staging areas; and regularly inspect all construction equipment for leaks. ✓ The construction staging area shall be designed to contain contaminants such as oil, grease, and fuel products to ensure that they do not drain towards receiving waters or storm drain inlets.	Project Records.	Prior To Construction.	Project Manager.	By: Date:
Hydrology and Water Quality				
Standard Construction Practices/Design Features All site grading and excavation activities associated with the construction of the Project facilities would be subject to the provisions of the National Pollutant Discharge Elimination System (NPDES) Construction Permit for Storm Water Discharges Associated with Construction	Project Records.	Prior To Construction.	Project Manager.	By: Date:

and Land Disturbance Activities [NPDES No. CAS000002 (State Water Resources Control Board Order No. 2009-0009-DWQ)]. Compliance with the provisions of that Order would require NCPA to obtain coverage before the onset of construction activities. Construction activities would comply with the conditions of these permits that include preparation of storm water pollution prevention plans (SWPPP), implementation of BMP's, and monitoring to insure impacts to water quality are minimized. As part of this process, multiple BMP's should be implemented to provide effective erosion and sediment control. These BMP's should be selected to achieve maximum sediment removal and represent the best available technology that is economically achievable. BMP's to be implemented may include, but not be limited to, the following: ✓ Temporary erosion control measures such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other groundcover shall be employed for disturbed areas. ✓ Storm drain inlets on the site and in downstream offsite areas shall be protected from sediment with the use of BMP's acceptable to NCPA, local jurisdictions and the California Regional Water Quality Control Board, Central Valley Region. ✓ Dirt and debris shall be swept from paved streets in the construction zone on a regular basis, particularly before predicted rainfall events. ✓ No disturbed surfaces shall be left without erosion control measures in place. NCPA, or its Construction Contractor, shall file a Notice of Intent with the Regional Board and require the preparation of a pollution prevention plan prior to commencement of construction. NCPA shall routinely inspect the construction site to verify that the BMP's specified in the pollution prevention plan are properly installed and maintained. NCPA shall immediately notify the contractor if there were a noncompliance issue and require immediate compliance. The SWPPP will also identify the method of final stabilization of the site to ensure no post-construction erosion and impacts to water quality will occur. The Notice of Termination (NOT) and release of the Project from the provisions of the Construction General Permit coverage will be granted by the California Regional Water Quality Control Board, North Coast Region once it is satisfied that no impacts to water quality will occur.				
Noise				
NCPA shall appoint a construction relations officer to act as a community liaison concerning on-site construction activities. Prior to ground disturbing activities NCPA shall notify adjoining property owners of the potential for ground vibration impacts.	Project Records.	Prior to Construction.	Project Manager.	By: Date

Commission Staff Report – *DRAFT*

Date: September 4, 2019

COMMISSION MEETING DATE: September 27, 2019

SUBJECT: NCPA Solar Project 1: Redding Airport Site; Initial Study, Mitigated Negative Declaration, and Mitigation Monitoring Program

AGENDA CATEGORY: Discussion/Action

FROM:	Joel Ledesma	**METHOD OF SELECTION:**
	Assistant General Manager	*N/A*
Division:	Generation Services	*If other, please describe:*
Department:	Generation Services	

IMPACTED MEMBERS:

All Members	☒	**City of Lodi**	☐	**City of Shasta Lake**	☐
Alameda Municipal Power	☐	**City of Lompoc**	☐	**City of Ukiah**	☐
San Francisco Bay Area Rapid Transit	☐	**City of Palo Alto**	☐	**Plumas-Sierra REC**	☐
City of Biggs	☐	**City of Redding**	☐	**Port of Oakland**	☐
City of Gridley	☐	**City of Roseville**	☐	**Truckee Donner PUD**	☐
City of Healdsburg	☐	**City of Santa Clara**	☐	**Other**	☐

If other, please specify _____

_____

RECOMMENDATION:

Approval of Resolution 19-XX adopting the Mitigated Negative Declaration and Mitigation Monitoring Program (IS&MND) for the Lodi Pixley Basin, Century East/West, and Parking Garage Sites, and directing staff to file a notice of Determination with the State Clearinghouse and San Joaquin County.

It is recommended that this item be listed as a Discussion/Action Item on the Commission agenda.

BACKGROUND:

The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories with construction of most sites to start by the end of 2019. The fleet will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The City of Lodi has selected three sites for development: the Century Park East/West, Pixley Basin, and Parking Garage sites.

The Century Park East site is located on a City easement bordered by an industrial park to the north, recreational fields to the south, residences to the east, and the Union Pacific railroad to the west. The Century Park West site is directly across the railroad tracks from the Century Park East site, and is bordered on the north, south, and west by residential development. This site is under control of the City's Department of Parks and Recreation. The combined size of the two sites is 2.5 acres, which would accommodate a Project size of 0.63 megawatts-direct current (MW_{dc}).

Figure 1 - Lodi Century Park East/West Sites

The Pixley Basin site is located on an undeveloped park that serves as a storm water detention and flood control basin. Both the Departments of Parks and Recreation and Public Works have interests in this property. The site is surrounded by industrial and commercial, with residential areas located approximately 0.25 miles west of the site, however, Highway 99 separates the commercial areas from the residential areas, and the project site is out of the view shed of residences. The size of the site is approximately 27 acres, however, Burns & McDonnell estimated the developable portion of the site to be approximately 15 acres, which would accommodate a Project size of 3.51 MW_{dc}.

Figure 2- Lodi Pixley Basin Site

The Parking Garage site is located at the northwest corner of the intersection of E. Pine and N. Sacramento Streets in a mixed commercial and industrial area. The parking garage is a federally funded transit station garage (U.S. Department of Transportation's Federal Transit Administration) which is administered by the City's Public Works Department's Transit Division. This site contains a developable area of 0.9 acres, which would accommodate a Project size of 0.18 MW_{dc}.

Figure 3 - Lodi Parking Garage Site

ENVIRONMENTAL ANALYSIS:

For purposes of the California Environmental Quality Act (CEQA), NCPA is the Lead Agency and the City of Lodi is the Responsible Agency. NCPA had an Initial Study prepared for the project and, together with a proposed Mitigated Negative Declaration and Mitigation Monitoring Program, was circulated for public review on June 19, 2019. The public review period ended on July 19, 2019. Comments were received from the following individuals and agencies: Scott Morgan (Director, State Clearinghouse, Governor's Office of Planning and Research), Tom Dumas (Chief, California Department of Transportation), Jordan Hensley (Environmental Scientist, California Regional Water Quality Control Board, Central Valley Region), Arnaud Marjollet (Director of Permit Services, San Joaquin Valley Air Pollution Control District), Laurel Sears (Associate Planner, San Joaquin County Department of Public Works), and Katherine Erolinda Perez (Chairwoman, North Valley Yokuts Tribe). Copies of the comments were compiled and responded to in the Consultation Summary located on NCPA's website (www.NCPA.com) under "Requests for Bidding and Public Notifications", or at NCPA's Headquarters under the custody of the Commission.

A Notice of Intent to Adopt a Mitigated Negative Declaration and Mitigation Monitoring Program was published on June 22, 2019 in the Lodi News-Sentinel, a newspaper of general circulation in the Project area, and on June 21, 2019 in the Roseville Press-Tribune, a newspaper of general circulation in the area of the Lead Agency. NCPA prepared and circulated for public review the document to 21 Federal, State, City and County agencies, and interested agencies. In addition, the State Clearinghouse circulated it to 15 selected State agencies.

The Initial Study found no substantial evidence that the proposal, as mitigated, may result in a significant adverse impact on the environment. The project includes mitigation measures in regards to Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, and Hydrology and Water Quality that will reduce any potential significant impacts to less than significant level.

The Mitigated Negative Declaration is a finding to that effect. A copy of the Initial Study accompanying studies, and the proposed Mitigated Negative Declaration are attached to this Staff Report. A copy of a draft Mitigation Monitoring Program is also attached.

After considering the entire record, Staff recommends that the Commission adopt the Mitigated Negative Declaration prior to acting on the proposal. Staff further recommends that the Commission adopt the Mitigation Monitoring Program.

FISCAL IMPACT:

The recommended actions have no direct budgetary impact at this time. Adopting Resolution 19-XX defines, for CEQA purposes, “NCPA Solar Project 1: Lodi Sites” as a project and directs that specific actions be carried out to comply with CEQA. Implementation of the mitigation plan will be the responsibility of the project developer under the direction of NCPA.

COMMITTEE REVIEW:

Pending Committee review.

Respectfully submitted,

RANDY S. HOWARD
General Manager

Attachments (2):

- Resolution
- July 2019 Initial Study & Mitigated Negative Declaration

RESOLUTION 19-xx

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING THE MITIGATED NEGATIVE DECLARATION PREPARED FOR THE NCPA SOLAR PROJECT 1: LODI SITES, ADOPTING THE MITIGATION MONITORING AND REPORTING PROGRAM, AND DIRECTING THE STAFF TO FILE THE NOTICE OF DETERMINATION WITH THE STATE CLEARINGHOUSE AND CLERK OF THE COUNTY OF SAN JOAQUIN

(reference Staff Report #xxx:19)

WHEREAS, the Northern California Power Agency (NCPA) anticipates the implementation of its Mitigated Negative Declaration and Mitigation Monitoring Program for its NCPA Solar Project 1: Lodi Sites (Project); and

WHEREAS, NCPA is developing a Renewable Energy Supply on behalf of the Participating Member Agencies; and

WHEREAS, the Solar Project 1: Lodi Sites (Project), consists of three separate sites: Century East/West, Pixley Basin, and Parking Garage; and

WHEREAS, the Century Park East/West sites are located on a City easement, which are under control of the City's Department of Parks and Recreation, and which have a combined size of 2.5 acres, which would accommodate a photovoltaic facility capable of producing approximately 0.63 MWdc on two parcels; and

WHEREAS, the Pixley Basin site is located on undeveloped park land currently serving as a storm water detention and flood control basin space, with approximately 15 developable acres, which would accommodate a photovoltaic facility capable of producing approximately 3.51 MWdc; and

WHEREAS, the Parking Garage site is located on top of a federally funded transit station garage which is administered by the City's Public Works Department's Transit Division, containing a developable are of 0.9 acres, which would accommodate a photovoltaic facility capable of producing approximately 0.18MWdc; and

WHEREAS, NCPA is the Lead Agency for the Project as the public agency with the principal responsibility for approving the Project; the City of Lodi is the Responsible Agency, as the public agency with the responsibility to approve the Project for which the Lead Agency has prepared the Initial Study, Mitigated Negative Declaration and Mitigation Monitoring Program; and

WHEREAS, after completing the Initial Study, Mitigated Negative Declaration and Mitigation Monitoring Program, NCPA circulated the documents for public review beginning on June 19, 2019 and ending on July 19, 2019; and

WHEREAS, NCPA also provided a Notice of Intent to Adopt a Mitigated Negative Declaration and Mitigation Monitoring Program to all organizations and individuals who had previously

requested such notice, all affected public agencies, and published the Notice of Intent on June 22, 2019 in the Lodi News-Sentinel, a newspaper of general circulation in the Project area, and on June 21, 2019 in the Roseville Press-Tribune, a newspaper of general circulation of the Lead Agency. In addition, NCPA made copies of the Initial Study, Mitigated Negative Declaration and Mitigation Monitoring Program available at its Roseville Headquarters Office (651 Commerce Drive, Roseville, CA 95678) and at Lodi City Hall (221 W. Pine Street, Lodi, CA 95240). The document was also submitted to 15 select State agencies by the State Clearinghouse; and

WHEREAS, any comments received during the review period have been considered and acknowledged in the Consultation Summary. NCPA consulted with and requested comments from all responsible and trustee agencies, other regulatory agencies, and others pursuant to State CEQA Guidelines section 15086; and

WHEREAS, all the requirements of the California Environmental Quality Act (CEQA), the State CEQA Guidelines, and any of NCPA's local guidelines have been satisfied by NCPA in the Initial Study, Mitigated Negative Declaration and Mitigation Monitoring Program, which is sufficiently detailed so that all of the potentially significant environmental effects of the Project have been adequately evaluated; and

WHEREAS, all of the findings and conclusions made by NCPA pursuant to this Resolution, including the Consultation Summary, Initial Study, Mitigated Negative Declaration and Mitigation Monitoring Program, are located on NCPA's website (www.NCPA.com) under the "Requests for Bidding and Public Notifications", or at NCPA's Headquarters under the Custody of the Commission; and

NOW, THEREFORE BE IT RESOLVED, that the Commission of NCPA has reviewed and considered the Initial Study, Mitigated Negative Declaration and Mitigation Monitoring Program in evaluating the impacts of the proposed NCPA Solar Project 1: Lodi Sites, in respect to the Comments made during the Review Period, find that the Initial Study, Mitigated Negative Declaration and Mitigation Monitoring Program were finalized in compliance with the CEQA, the State CEQA Guidelines, and NCPA's California Environmental Quality Act Manual; and finds that the Initial Study, Mitigated Negative Declaration and Mitigation Monitoring Program reflect NCPA's independent judgment and analysis.

1. The Commission finds that the Initial study was prepared for the Project and, together with a proposed Mitigated Negative Declaration, was circulated for public review on June 19, 2019. The public review period ended on July 19, 2019.

2. The Initial Study, Mitigated Negative Declaration and Mitigation Monitoring Program found no substantial evidence that the Project, as mitigated, may result in a significant adverse impact on the environment. The Project includes mitigation measures in regards to: Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, and Hydrology and Water Quality that will reduce any potential significant impacts to less than significant. The Mitigated Negative Declaration is a finding to that effect.

3. The NCPA Commission hereby adopts the Mitigated Negative Declaration prior to acting on the Project and adopts the Mitigation Monitoring Program, a copy of which is attached to the Staff Report referenced above. The Commission is directed to file a Notice of Determination with the State Clearinghouse and San Joaquin County as required by the CEQA.

PASSED, ADOPTED and APPROVED this ____ day of _____, 2019, by the following vote on roll call:

	Vote	Abstained	Absent
Alameda			
San Francisco BART			
Biggs			
Gridley			
Healdsburg			
Lodi			
Lompoc			
Palo Alto			
Port of Oakland			
Redding			
Roseville			
Santa Clara			
Shasta Lake			
Truckee Donner			
Ukiah			
Plumas-Sierra			

ROGER FRITH
CHAIR

ATTEST: CARY A. PADGETT
ASSISTANT SECRETARY

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678-6420

Initial Study and Mitigated Negative Declaration

NCPA Solar Project 1 – Lodi Sites

Photo Courtesy of SunPower Corporation

Prepared by:

K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
951-699-2082
Email: ksdpe67@gmail.com

July 2019

Table of Contents

List of Tables

Page

List of Figures

Page

Acronyms and Abbreviations

AADT	annual average daily traffic
AAM	annual arithmetic mean
ADOE	Archaeological Determinations of Eligibility
AGM	annual geometric mean
AQMP	Air Quality Management Plan
ARB	Air Resources Board
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CDFW	California Department of Fish and Wildlife
CARB	California Air Resources Board
Caltrans	California Department of Transportation
CCAA	California Clean Air Act
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
cfs	cubic feet per second
CH_4	methane
CMP	congestion management program
CNDDB	California Natural Diversity Data Base
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CRWQCB, CVR	California Regional Water Quality Control Board, Central Valley Region
dB(A)	decibels on the A-scale
DEIR	Draft Environmental Impact Report

DTSC	Department of Toxic Substances Control
DWR	Department of Water Resources
EA	Environmental Assessment
EIR	Environmental Impact Report
EMP	Energy Management Plan
EPA	U.S. Environmental Protection Agency
EPDC	expected peak day concentration
ESA	Endangered Species Act
g	acceleration due to gravity
GHG	greenhouse gases
GIS	Geographic Information System
gpm	gallons per minute
ISA	Integrated Science Assessment
GWP	global warming potential
HPD	Historic Property Directory
kW	kilowatts
KSD&A	K.S. Dunbar & Associates, Inc.
Ldn	day-night average sound level
Leq	noise equivalent
LUSTIS	Leaking Underground Storage Tank Information System
MBTA	Migratory Bird Treaty Act
mg	million gallons
mgd	million gallons per day
MMRP	Mitigation Monitoring and Reporting Program
MT	metric tons
MW	megawatts
MWh	megawatt hours
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCPA	Northern California Power Agency

NDDB	Natural Diversity Data Base
NO	nitrogen oxide
NO_2	nitrogen dioxide
NO_x	oxides of nitrogen
NPL	National Priorities List
NRCS	Natural Resources Conservation Service
O_3	ozone
OES	Office of Emergency Services
OHP	Office of Historic Preservation
Pb	lead
PM	particulate matter
PM_{10}	particulate matter (less than 10 microns in diameter)
$PM_{2.5}$	particulate matter (less than 2.5 microns in diameter)
ppb	parts per billion
ppm	parts per million
PRC	Public Resources Code
PV	photovoltaic
RCRA	Resource Conservation and Recovery Act
ROG	reactive organic gases also called VOC (volatile organic compounds)
SAAQS	State Ambient Air Quality Standards
SCAQMD	South Coast Air Quality Management District
SIP	State Implementation Plan
SJVAPCD	San Joaquin Valley Air Pollution Control District
SO_2	sulfur dioxide
SO_x	oxides of sulfur
State Water Board	State Water Resources Control Board
SWIS	Solid Waste Information System
SWPPP	Storm Water Pollution Prevention Plan
TOG	total organic gases
USDA	U.S. Department of Agriculture

USF&WS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Service
µg/m^3	micrograms per cubic meter

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678-6420

Executive Summary

Initial Study and Mitigated Negative Declaration

NCPA Solar Project 1 – Lodi Sites

Photo Courtesy of SunPower Corporation

Prepared by:

K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
951-699-2082
Email: ksdpe67@gmail.com

July 2019

Executive Summary

Overview of the Proposed Project

The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. Burns & McDonnell was retained by NCPA to complete Phase 2 Site Screening, Plan Development, and Procurement services for each site selected by the member agencies. The City of Lodi selected three sites for development: Century Park East/West, Pixley Basin and Parking Garage sites. Those three sites are the subject of this Initial Study and Mitigated Negative Declaration (IS&MND).

The Century Park East site is located on a City easement bordered by an industrial park to the north, recreational fields to the south, residences to the east and the Union Pacific railroad to the west. The Century Park West site is directly across the railroad tracks from the Century Park East site. It is bordered on the north, south and west by residential development. The combined size of these sites is 2.5 acres which would accommodate a project size of 0.63 megawatts=direct current (MW_{dc}).

The Pixley Basin site contains approximately 27 acres and is located in an undeveloped park that serves as a stormwater detention and flood control basin. The site is surrounded by industrial and commercial uses. Residential areas do exist approximately 0.25 miles west of the site; however, Highway 99 separates the commercial areas from the residential areas and the project site is out of the viewshed of the residences. In its October 5, 2018 report, Burns & McDonnell estimated the developable portion of the site to be approximately 15 acres which would accommodate a project size of 3.51 MW_{dc}.

The parking garage is located at the northeast corner of the intersection of E. Pine and N. Sacramento Streets in a mixed commercial and industrial area. This site contains a developable area of 0.9 acres which would accommodate a project size of 0.18 MW_{dc}.

Location of the Proposed Project

All three proposed sites are within the City of Lodi, San Joaquin County, California. Exact locations are shown below as well as on Figure ES-1. Individual sites are shown on Figures ES-2, ES-3 and ES-4.

Site	Location		Developable Area (acres)	Estimated Capacity (MW_{dc})
	Latitude, Longitude	Section, Township, Range		
Lodi – Pixley Basin	38°07'18.06"N, 121°15'12.14"W	Sec 7, T 3 N, R 7 E, MDB&M	15.0	3.51
Lodi – Century Park East/West	38°06'26.66"N, 121°16'21.63"W	Sec 13, T 3 N, R 6 E, MDB&M	2.5	0.63
Lodi – Parking Structure	38°08'05.25"N, 121°16'18.58"W	Sec 1, T 3 N, R 6 E, MDB&M	0.9	0.18

Figure ES-1 NCPA Solar Project 1 – Proposed Sites in the City of Lodi

Figure ES-2 Century Park East/West Site

Figure ES-3 Pixley Basin Site

Figure ES-4 Parking Garage Site

Impacts and Mitigation Measures

Table ES-1 identifies each potential significant effect, Standard Construction Practices/Design Features, and proposed mitigation measures that would reduce or avoid that effect. Proposed mitigation measures are NCPA Staff's and its consultant's recommendations to reduce potential impacts associated with implementation of the proposed Project. Should NCPA's Commission adopt the Mitigation Monitoring and Reporting Program (Appendix F in the IS&MND) these mitigation measures would become mandatory and part of the Project.

Table ES-1
Impacts and Mitigation Measures

Environmental Factor:	**Air Quality**
Impact:	The total estimated emissions from installation of the solar equipment at all three Lodi sites simultaneously would not exceed the construction-related threshold limits for significance established by the San Joaquin Valley Air Pollution Control District. However, the ARB has designated the San Joaquin Valley Air Basin as non-attainment for the State ozone, PM_{10} and $PM_{2.5}$ standards. In addition, the U.S. Environmental Protection Agency has designated the San Joaquin Valley Air Basin as non-attainment for the federal ozone and $PM_{2.5}$ standards. Therefore, every effort should be made to minimize emissions within the San Joaquin Valley Air Basin. Consequently, to reduce the emissions as much as possible,
Standard Construction Practices/Design Features	NCPA will add the following best management practices in its contract documents for this project:
Mitigation Measures	The contractor shall: ❖ Utilize electricity from power poles instead of from temporary diesel or gasoline power generators, when feasible. ❖ Require the use of 2010 and newer diesel haul trucks (e.g., material delivery trucks and soil import/export) and if the lead agency determines that 2010 model year or newer diesel trucks cannot be obtained the contractor shall use trucks that meet EPA 2007 model year NO_x emissions requirements. ❖ Require that all on-site construction equipment meet EPA Tier 3 or higher emissions standards according to the following: ➢ All off-road diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards, where available. In addition, all construction equipment shall be outfitted with *BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. ➢ A copy of each unit's certified tier specification, BACT documentation, and CARB or SJVAPCD operating permit shall be provided at the time of mobilization of each applicable unit of equipment. ❖ Maintain construction equipment engines by keeping them properly tuned and maintained according to manufacturer's specifications. ❖ Use alternative fuels or clean and low-sulfur fuel for equipment. ❖ Idle trucks in accordance with the Airborne Toxic Control Measure (ACTM) to Limit Diesel Fueled Commercial Motor Vehicle Idling and other applicable laws. ❖ Spread soil binders on site, where appropriate, unpaved roads and staging areas. ❖ Water site and equipment as necessary to control dust. ❖ Sweep all streets at least once per day in accordance with SJVAPCD Rule 8041. ❖ Conduct operations in accordance with SJVAPCD Rule 8021 requirements. ❖ If necessary, wash off trucks leaving the site. ❖ Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least two feet of freeboard in accordance with the requirements of California Vehicle Code (CVC) Section 23114.
Impact After Mitigation:	Less than significant impact.

Mitigation Measures:	NCPA shall appoint a construction relations officer to act as a community liaison concerning on-site construction activities including resolution of issues related to PM_{10} generation. Additionally, best management practices shall be included in contract documents for this project.
Impact After Mitigation:	Less than significant impact.
Environmental Factor:	**Biological Resources**
Impact:	Potential impacts to nesting birds.
Standard Construction Practices/Design Features	NCPA will include the following mitigation measures in its contract documents for this project.
Mitigation Measures:	If construction occurs between February 1st and August 31st, a pre-construction clearance survey for nesting birds shall be conducted within three (3) days of the start of any vegetation removal or ground disturbing activities to ensure that no nesting birds will be disturbed during construction. The biologist conducting the clearance survey should document a negative survey with a brief letter report indicating that no impacts to active avian nests will occur. If an active avian nest is discovered during the pre-construction clearance survey, construction activities shall stay outside of a no-disturbance buffer. The size of the no-disturbance buffer (generally 300 feet for migratory and non-migratory song birds and 500 feet for raptors and special-status species) will be determined by the wildlife biologist, in coordination with the CDFW, and will depend on the level of noise and/or surrounding disturbances, line of sight between the nest and the construction activity, ambient noise, and topographical barriers. These factors will be evaluated on a case-by-case basis when developing buffer distances. Limits of construction to avoid an active nest will be established in the field with flagging, fencing, or other appropriate barriers; and construction personnel will be instructed on the sensitivity of nest areas. A biological monitor should be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, construction activities within the buffer area can occur.
Impact After Mitigation:	Less than significant impact
Environmental Factor:	**Cultural Resources**
Potential Impact:	Possible inadvertent discoveries of cultural resources or human remains during excavation activities.
Standard Construction Practices/Design Features	Prior to the start of construction, NCPA shall hold a pre-grading meeting. The Project Archaeologist shall attend the pre-grading meeting with NCPA's Project Administrator, Field Engineering Inspector and any contractors to conduct a Cultural Resources Worker Sensitivity Training for all construction personnel working on the proposed Project. The training shall include an overview of potential cultural resources that could be encountered during ground disturbing activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated, and any other appropriate protocols. In addition, NCPA will include the following mitigation measures in its contract documents for this project.
Mitigation Measures:	❖ In the unlikely event that potentially significant archaeological materials are encountered during construction activities, all work shall be halted in the vicinity of the archaeological discovery until a qualified archaeologist can visit the site of discovery, access the significance of the archaeological resource, and provide proper management recommendations. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted. The treatment and disposition of cultural material that might be discovered during excavation shall be in accordance with applicable laws and regulations. ❖ All sacred items, should they be encountered within the Project sites, shall be avoided and preserved as the preferred mitigation, if feasible. All cultural materials that are collected during excavation and other earth disturbing activities on the Project sites, with the exception of sacred items, burial goods and human remains which will be addressed in any required Treatment Agreement, shall be tribally curated according to the current repository standards. The collections and associated records shall be transferred, including title, to the closet tribe to the Project site. ❖ In the event of an accidental discovery or recognition of any human remains, the County Coroner shall be notified and construction activities at the affected work site shall be halted. If the coroner determines the remains to be Native American: (1) the coroner shall contact the Native American Heritage Commission (NAHC) within 24-hours, and (2) the NAHC shall identify the person or persons it believes to be the most likely descended from the deceased Native American. The treatment and disposition of human remains that might be discovered during excavation shall be in accordance with applicable laws and regulations.
Impact After Mitigation:	Less than significant impact
Environmental Factor	**Geology and Soils**
Potential Impact	Possible inadvertent discoveries of paleontological resources during excavation activities.

Standard Construction Practices/Design Features	NCPA will include the following mitigation measures in its contract documents for this project.
Mitigation Measures	❖ In the unlikely event that potentially significant paleontological materials (e.g., fossils) are encountered during construction of the project, all work shall be halted in the vicinity of the paleontological discovery until a qualified paleontologist can visit the site of discovery, assess the significance of the paleontological resource, and provide proper management recommendations. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted. The treatment and disposition of paleontological material that might be discovered during excavation shall be in accordance with applicable laws and regulations.
Environmental Factor	**Hazards and Hazardous Materials**
Potential Impact	During construction, the contractor would utilize equipment that uses petroleum-based fuels and lubricants, which are subject to both leakage from engine blocks and containers, or spillage during refueling and lubrication operations
Standard Construction Practices/Design Features	NCPA's contract documents for this project will include the following: During project construction, the construction contractor shall implement the following measures to address the potential environmental constraints associated with the presence of hazardous materials at the project sites to the satisfaction of EMWD: ❖ The contractor shall prepare a Health and Safety Plan in compliance with the requirements of Chapter 6.95, Division 20 of the Health and Safety Code (§25500 – 25532). The plan shall include measures to be taken in the event of an accidental spill. ❖ The contractor shall enforce strict on-site handling rules to keep construction and maintenance materials out of receiving waters and storm drains. In addition, the contractor shall store all reserve fuel supplies only within the confines of designated construction staging areas; refuel equipment only with the designated construction staging areas; and regularly inspect all construction equipment for leaks. ❖ The construction staging area shall be designed to contain contaminants such as oil, grease, and fuel products to ensure that they do not drain towards receiving waters or storm drain inlets.
Mitigation Measures	No additional mitigation is required.
Impact After Mitigation	Less than significant impact.
Environmental Factor	**Hydrology and Water Quality**
Potential Impact	During project construction, there is the potential for sediment-laden runoff to enter downstream drainages.
Standard Construction Practices/Design Features	All site grading and excavation activities associated with the construction of the Project facilities would be subject to the provisions of the National Pollutant Discharge Elimination System (NPDES) Construction Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities [NPDES No. CAS000002 (State Water Resources Control Board Order No. 2009-0009-DWQ)]. Compliance with the provisions of that Order would require NCPA to obtain coverage before the onset of construction activities. Construction activities would comply with the conditions of these permits that include preparation of storm water pollution prevention plans (SWPPP), implementation of BMP's, and monitoring to insure impacts to water quality are minimized. As part of this process, multiple BMP's should be implemented to provide effective erosion and sediment control. These BMP's should be selected to achieve maximum sediment removal and represent the best available technology that is economically achievable. BMP's to be implemented may include, but not be limited to, the following: ✓ Temporary erosion control measures such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other groundcover shall be employed for disturbed areas. ✓ Storm drain inlets on the site and in downstream offsite areas shall be protected from sediment with the use of BMP's acceptable to NCPA, local jurisdictions and the California Regional Water Quality Control Board, Central Valley Region. ✓ Dirt and debris shall be swept from paved streets in the construction zone on a regular basis, particularly before predicted rainfall events. ✓ No disturbed surfaces shall be left without erosion control measures in place. NCPA, or its Construction Contractor, shall file a Notice of Intent with the Regional Board and require the preparation of a pollution prevention plan prior to commencement of construction. NCPA shall routinely inspect the construction site to verify that the BMP's specified in the pollution prevention plan are properly installed and

	maintained. NCPA shall immediately notify the contractor if there were a noncompliance issue and require immediate compliance. The SWPPP will also identify the method of final stabilization of the site to ensure no post-construction erosion and impacts to water quality will occur. The Notice of Termination (NOT) and release of the Project from the provisions of the Construction General Permit coverage will be granted by the California Regional Water Quality Control Board, Central Valley Region once it is satisfied that no impacts to water quality will occur.
Mitigation Measures	No additional mitigation is required.
Impact After Mitigation	Less than significant impact.

Areas of Controversy

There are no areas of controversy associated with the NCPA Solar Project 1 – Lodi Sites Project.

Issues to be Resolved

There are no issues to be resolved associated with the NCPA Solar Project 1 – Lodi Sites Project.

Document Availability and Contact Personnel

The Initial Study and Mitigated Negative Declaration is available for review at the following locations:

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678

Lodi Electric Utility
1331 S Ham Lane
Lodi, California 95242

and can be downloaded at:

https://www.ncpa.com

All comments regarding the Project or environmental documents should be mailed or emailed to:

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE
K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
(951) 699-2082
Email: ksdpe67@gmail.com

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678-6420

Initial Study and Mitigated Negative Declaration

NCPA Solar Project 1 – Lodi Sites

Photo Courtesy of SunPower Corporation

Prepared by:

K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
951-699-2082
Email: ksdpe67@gmail.com

July 2019

1 Introduction

1.1 Introduction

The following Initial Study addresses the environmental impacts associated with the NCPA Solar 1 Project – Lodi Century Park East/West, Pixley Basin and Parking Garage sites (Project) being implemented by the Northern California Power Agency (NCPA) (Figure 1.1-1). This Initial Study has been prepared in accordance with the *California Environmental Quality Act of 1970,* as amended, (CEQA), the *State CEQA Guidelines,* and NCPA's *Local Guidelines for Implementing the California Environmental Quality Act*, as amended. NCPA is the Lead Agency and the City of Lodi is a Responsible Agency for the purposes of CEQA for this project.

1.2 Project Summary

The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by NCPA as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. The City of Lodi selected three potential sites for further analysis as shown below:

Site	Location		Developable Area (acres)	Estimated Capacity (MW_{dc})
	Latitude, Longitude	Section, Township, Range		
Lodi – Pixley Basin	38°07'18.06"N, 121°15'12.14"W	Sec 7, T 3 N, R 7 E, MDB&M	15.0	3.62
Lodi – Century Park East/West	38°06'26.66"N, 121°16'21.63"W	Sec 13, T 3 N, R 6 E, MDB&M	2.5	0.63
Lodi – Parking Structure	38°08'05.25"N, 121°16'18.58"W	Sec 1, T 3 N, R 6 E, MDB&M	0.9	0.18

The Century Park East site is located on a City easement bordered by an industrial park to the north, recreational fields to the south, residences to the east and the Union Pacific railroad to the west. The Century Park West site is directly across the railroad tracks from the Century Park East site. It is bordered on the north, south and west by residential development. The combined size of these sites is 2.5 acres in size which would accommodate a project size of 0.63 megawatts (MW_{dc}).

The Pixley Basin site contains approximately 27 acres and is located in an undeveloped park that serves as a stormwater detention and flood control basin. The site is surrounded by industrial and commercial uses. Residential areas do exist approximately 0.25 miles west of the site; however, Highway 99 separates the commercial areas from the residential areas and the project site is out of the viewshed of the residences. In its October 5, 2018 report, Burns & McDonnell estimated the developable portion of the site to be approximately 15 acres which would accommodate a project size of 3.62 MW_{dc}.

The parking garage is located at the northeast corner of the intersection of E. Pine and N. Sacramento Streets in a mixed commercial and industrial area. This site contains a developable area of 0.9 acres which would accommodate a project size of 0.18 MW_{dc}.

1.3 California Environmental Quality Act Compliance

The California Environmental Quality Act (California Public Resources Code §21000 et seq.: "CEQA"), requires that the environmental impacts of proposed projects be evaluated and that feasible methods to reduce, avoid or eliminate significant adverse impacts of these projects be identified and eliminated. Therefore, to fulfill the purpose and intent of CEQA, NCPA, as the lead agency, has caused this Initial Study/Mitigated Negative Declaration (IS/MND) to be prepared to address the potentially significant adverse environmental impacts associated with implementation of the Project.

1.3.1 Purposes of an Initial Study

The purposes of an Initial Study, as outlined in §15063(c) of the State CEQA Guidelines, are:

1) *Provide the Lead Agency with information to use as the basis for deciding whether to prepare an EIR or a Negative Declaration;*

2) *Enable an applicant or Lead Agency to modify a project, mitigating adverse impacts before an EIR is prepared, thereby enabling the project to qualify for a Negative Declaration;*

3) *Assist the preparation of an EIR, if one is required, by:*

   a. *Focusing the EIR on the effects determined to be significant,*
   b. *Identifying the effects determined not to be significant,*
   c. *Explaining the reasons for determining that potentially significant effects would not be significant, and*
   d. *Identifying whether a program EIR, tiering, or another appropriate process can be used for analysis of the project's environmental effects.*

4) *Facilitate environmental assessment early in the design of a project;*

5) *Provide documentation of the factual basis for the finding in a Negative Declaration that a project will not have a significant effect on the environment;*

6) *Eliminate unnecessary EIR's; and*

7) *Determine whether a previously prepared EIR could be used with the project.*

1.3.2 Contents of an Initial Study

The contents of an Initial Study are defined in §15063(d) of the CEQA Guidelines as follows:

1) *A description of the project including the location of the project;*

2) *An identification of the environmental setting;*

3) *An identification of environmental effects by use of a checklist, matrix, or other method, provided that entries on a checklist or other form are briefly explained to indicate that there is some evidence to support the entries. The brief explanation may be either through a narrative or a reference to another information source such as an attached map,*

photographs, or an earlier EIR or negative declaration. A reference to another document should include, where appropriate, a citation to the page or pages where the information is found;

4) *A discussion of ways to mitigate the significant effects identified, if any;*

5) *An examination of whether the project would be consistent with existing zoning, plans, and other applicable land use controls;*

6) *The name of the person or persons who prepared or participated in the Initial Study.*

1.3.3 Intended Uses of the Initial Study

The Initial Study will be presented to NCPA's Commission for its use in implementing the California Environmental Quality Act (CEQA). The basic purposes of CEQA as outlined in §15002(a) of the CEQA Guidelines are to:

1) *Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities.*

2) *Identify the ways that environmental damage can be avoided or significantly reduced.*

3) *Prevent significant avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.*

4) *Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.*

As pointed out above, one purpose of an Initial Study is:

> Provide the Lead Agency with information to use as the basis for deciding whether to prepare an Environmental Impact Report (EIR) or Negative Declaration.

1.3.4 Lead Agency Decision-Making Process

The Lead Agency (i.e., NCPA) would base its decision on the Project on the findings contained within this Initial Study plus the professional knowledge and judgment of its staff and consultants. During the review process, mitigation measures contained in this document should be evaluated with respect to their effectiveness in reducing impacts to a level of insignificance. Public input, including responsible and trustee agencies, should also be requested and evaluated during the review process.

The approval process for the proposed Project will begin with NCPA's Commission making a decision to prepare a Negative Declaration or an Environmental Impact Report for the Project. Should NCPA decide to prepare a Negative Declaration, based on this Initial Study, it would also determine whether or not it would approve of the Project in accordance with §15074 of the State CEQA Guidelines. Should NCPA decide to prepare an Environmental Impact Report for the Project, it would also have to make findings in accordance with §15091 of the State CEQA Guidelines and to certify the Final Environmental Impact Report in accordance with §15090 of the CEQA Guidelines.

1.3.5 Approvals for which this Initial Study will be Used

The following agencies would also utilize this document in their decision-making process regarding the Proposed Project:

California Regional Water Quality Control Board, Central Valley Region

General Permit for Storm Water Discharges Associated with Construction Activity

City of Lodi

Project Approval

2 Project Background and Description

2.1 Introduction

The Northern California Power Agency (NCPA), a California Joint Action Agency, was established in 1968 by a consortium of locally owned electric utilities to make joint investments in energy resources that would ensure an affordable, reliable and clean supply of electricity for customers in its member communities. Today those members include the Cities of Alameda, Biggs, Gridley, Healdsburg, Lodi, Lompoc, Palo Alto, Redding, Roseville, Santa Clara, Shasta Lake, and Ukiah as well as the Bay Area Rapid Transit District, Port of Oakland, Plumas-Sierra Rural Electric Cooperative, and Tahoe Donner Public Utility District.

Over the past four decades, NCPA has constructed and today operates and maintains a fleet of power plants that is among the cleanest in the nation and that provides reliable and affordable electricity to more than 600,000 Californians. NCPA made major investments in renewable energy in the early 1980s when it developed two geothermal power plants and financed and built a 259 MW hydroelectric facility. Thirty years later those resources continue to generate reliable, emission-free electricity for its member communities.

NCPA's 775-megawatt portfolio of power plants is approximately 50% greenhouse gas emission free. Its mix of geothermal, hydroelectric and natural gas resources is well positioned to help its members achieve California's goal of a 50% Renewable Portfolio Standard (RPS) by 2030. NCPA member utilities also have invested heavily in the most environmentally friendly form of electricity – the megawatts that are not used. The Agency members have collectively spent more than $100 million on energy efficiency since 2006 reducing demand for electricity by more than 350 gigawatt hours during that time.

NCPA's commitment to the environment reflects its status as a not-for-profit public entity whose policies and values are set not by investors but by locally elected or appointed officials who serve as the energy regulators in the cities, towns and districts that are members of the Agency.

2.2 Project Background

Now NCPA intends to implement the NCPA Solar Project 1. The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. Four of the member agencies have decided to participate in this project. They are the Cities of Healdsburg, Lodi, and Redding as well as the Plumas-Sierra Rural Electric Cooperative. Six potential sites have been selected for further analysis as shown below:

Site	Location	Developable Area (acres)	Estimated Capacity (MW_{dc})
Healdsburg – Wastewater Plant	38°35'00.03N, 122°51'45.37"W	8.13	3.62
Lodi – Pixley Basin	38°07'18.06"N, 121°15'12.14"W	15.0	3.51
Lodi – Century Park East/West	38°06'26.66"N, 121°16'21.63"W	2.5	0.63
Lodi – Parking Structure	38°08'05.25"N, 121°16'18.58"W	0.9	0.18
Plumas Sierra – Chilcoot	39°47'56.66"N, 120°09'49.99"W	28.2	6.11
Redding – Airport	40°29'41.73"N, 122°16'46.41"W	58	12.61

Due to the timing of implementation and the great distance between the member agencies, it was determined that the most logical approach to satisfying the requirements of CEQA for this project was to issue separate CEQA documents for each member agencies projects. Therefore, this document focuses on the three projects proposed by the City of Lodi.

2.3 Project Description

As shown above, The City of Lodi selected three potential sites for further analysis. The locations of these sites are shown on Figure 2.3-1.

Figure 2.3-1 Proposed Photovoltaic Sites in the City of Lodi

2.3.1 Century Park East/West

The Century Park East site is located on a City easement bordered by an industrial park to the north, recreational fields to the south, residences to the east and the Union Pacific railroad to the west. The Century Park West site is directly across the railroad tracks from the Century Park East site. It is bordered on the north, south and west by residential development. The combined size of these sites is 2.5 acres which would accommodate a project size of 0.63 megawatts-direct current (MW_{dc}). An aerial photograph of these sites is shown on Figure 2.3-2.

Figure 2.3-2 Century Park East/West Site

Design parameters for this site are shown in Table 2.3-1.

Table 2.3-1
Century Park East/West Design Parameters

Parameter	Content	
	Century Park Esst	Century Park West
Project Buildable Area	1.5 acres	2.9 acres
Approximate Photovoltaic Project Area	0.8 acres	1.7 acres
Estimated Project Capacity	0.225 MW_{dc}	0.402 MW_{dc}
Point of Interconnection Voltage	12.0 kV	12.0 V
Setback from Northern Project Boundary	10 feet	10 feet
Setback from Southern Project Boundary	20 feet	20 feet
Fence to Array Buffer	7 feet	7 feet
Security and Fencing	Construct Chain Link Fence	Construct Chain Link Fence
Module Size	Minimum 360 watts	Minimum 360 watts
Racking System	Fixed Tilt	Fixed Tilt
Inverters	String Inverters	String Inverters

Source: Burns & McDonnell, 2/08/2019

A typical fixed tilt solar array is shown on Figure 2.3.3.

Figure 2.3-3 Typical Fixed Tilt Solar Array

Century Park East and Century Park West would contain standalone equipment as each site would have a point of interconnection (POI) as shown on Figure 2.3-4. The solar developer would install a concrete pad to accommodate the electrical equipment at each site. The solar developer would also install new inverter(s), step-up transformer to 12.0 kV, and primary switchgear equipment including relays and protection compliant with the City requirements. The developer will also install a custody transfer meter to track the Project's output and transmit the data to the City. The meter would meet the requirements to develop Renewable Energy Credits and would be owned/maintained by the solar developer. The solar developer would also provide a junction box within the Project boundary and a conduit in an underground trench from the junction box to the POI. The solar developer would perform all interconnection work up to the distribution system. The City would terminate the conductors at the city-owned 12.0 kV electrical system. The trench and installed conduit would be owned by the City.

Figure 2.3-4 Century Park East and Century Park West Points of Interconnection

2.3.2 Pixley Basin

The Pixley Basin site contains approximately 27 acres and is located in an undeveloped park that serves as a stormwater detention and flood control basin. The site is surrounded by industrial and commercial uses. Residential areas do exist approximately 0.25 miles west of the site; however, Highway 99 separates the commercial areas from the residential areas and the project site is out of the viewshed of the residences. In its October 5, 2018 report, Burns & McDonnell estimated the developable portion of the site to be approximately 15 acres which would accommodate a project size of 3.51 MW_{dc}. It will be necessary to grade this site to develop the 15 acres.

An aerial photograph of this site is shown on Figure 2.3-5.

Figure 2.3-5 Pixley Basin Site

Design parameters for this site are shown in Table 2.3-2.

Table 2.3-2
Pixley Basin Design Parameters

Parameter	Pixley Basin
Project Buildable Area	36 acres
Approximate Photovoltaic Project Area	15 acres
Estimated Project Capacity	3.51 MW_{dc}
Point of Interconnection Voltage	12.0 kV
Setback from Northern Project Boundary	10 feet
Setback from Southern Project Boundary	20 feet
Fence to Array Buffer	7 feet
Security and Fencing	Chain Link Fence
Module Size	Canadian Solar CS6U-340P
Racking System	Horizontal Single Axis Tracker 10° tilt, 180° azimuth; 60° tracker limitation
Inverters	Solectria Renewables SGI 500XTM

Source: Burns & McDonnell, 10/05/2018

As shown on Figure 2.3-6, the POI for this site is directly south of the site on Auto Center Drive. In its October 5, 2018 letter report, Burns & McDonnell concluded that the existing electrical infrastructure should be able to support the full output of the Project without requiring any significant upgrades.

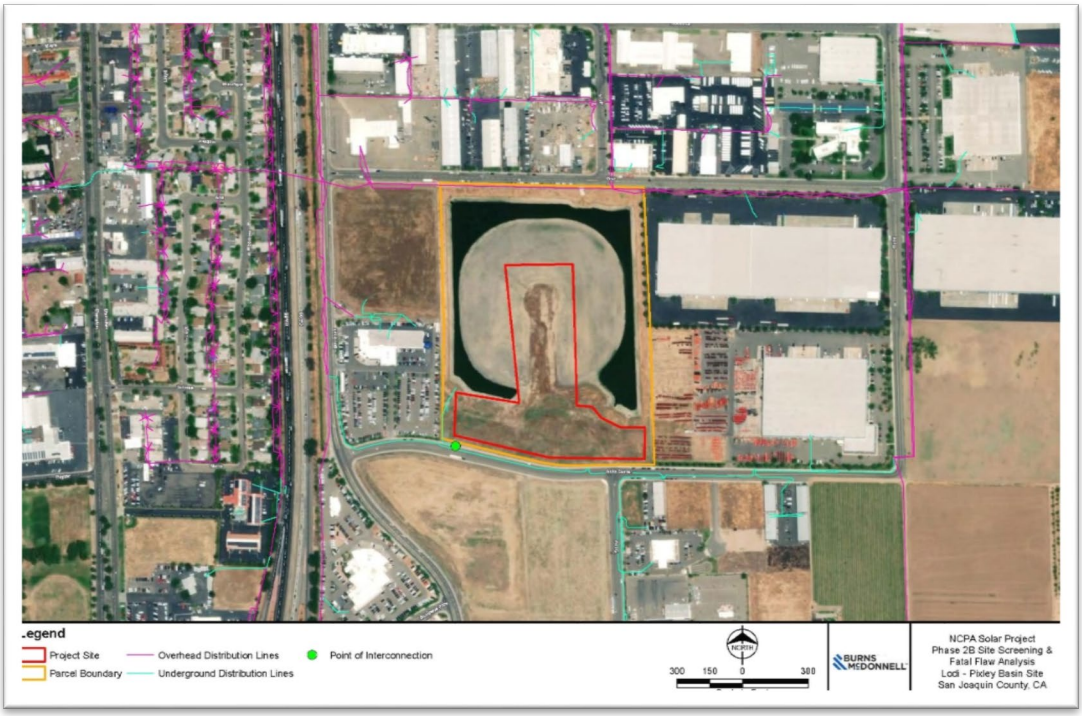


Figure 2.3-6 Pixley Basin Point of Interconnection

In order to develop this site to its full potential, it will be necessary to do a considerable amount of earthwork within the basin to enlarge the pad for the solar arrays from 13.5 acres to 15.0 acres. This would be accomplished while meeting the following objectives and design constraints of the stormwater basin:

- Maintain the 5,572,692 cubic feet of stormwater storage capacity.
- Maintain the design maximum water elevation of 47.0 feet.
- Excavate the basin floor to the minimum floor elevation of 33.0 feet.

As shown on Figure 2.3-7, it will be necessary to cut approximately 88,750 cubic yards of earthen materials and fill approximately 118,150 cubic yards of earthen materials. Therefore, it would be necessary to import approximately 29,400 cubic yards of material to the site to balance the cut and fill.

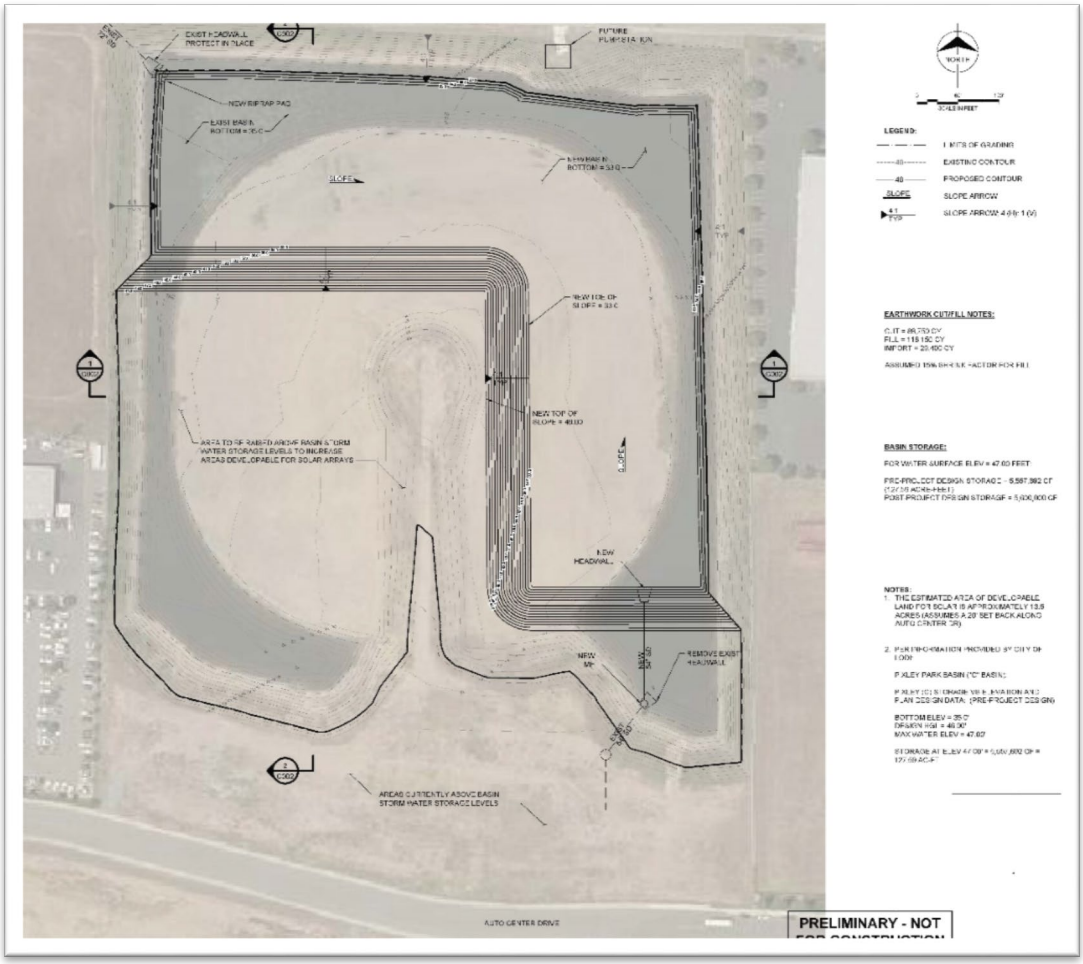


Figure 2.3-7 Proposed Earthwork at Pixley Basin

2.3.3 Parking Garage

The parking garage solar photovoltaic site is located on the third-floor rooftop of a City-owned parking garage. The site is bound by E. Elm Street on the north, Union Pacific Railroad tracks on the east, E. Pine Street on the south and N. Sacramento Street on the west in a mixed commercial and industrial area. This site contains a project area of 0.2 acres which would accommodate a project size of 0.185 MW_{dc}. An aerial photograph of this site is shown on Figure 2.3-8.

Figure 2.3-8 Parking Garage

Design parameters for this site are shown in Table 2.3-3.

Table 2.3-3
Parking Garage Design Parameters

Parameter	Parking Structure
Project Buildable Area	0.9 acres
Approximate Photovoltaic Project Area	0.2 acres
Estimated Project Capacity	0.185 MW_{dc}
Point of Interconnection Voltage	12.0 kV
Project Boundaries	Racking structure must fully cover the upper level of the parking structure
Security and Fencing	N/A
Module Size	Minimum 350 W
Racking System	Horizontal Single Axis Tracker Rooftop
Inverters	String Inverters

Source: Burns & McDonnell, 3/06/2019

A typical horizontal single axis tracker rooftop installation is provided on Figure 2.3-9 *(Burns & McDonnell 3/06/2019).*

Figure 2.3-9 Typical HSAT Installation on Rooftop

The Point of Interconnection for this facility is shown as the green dot on Figure 2.3-10.

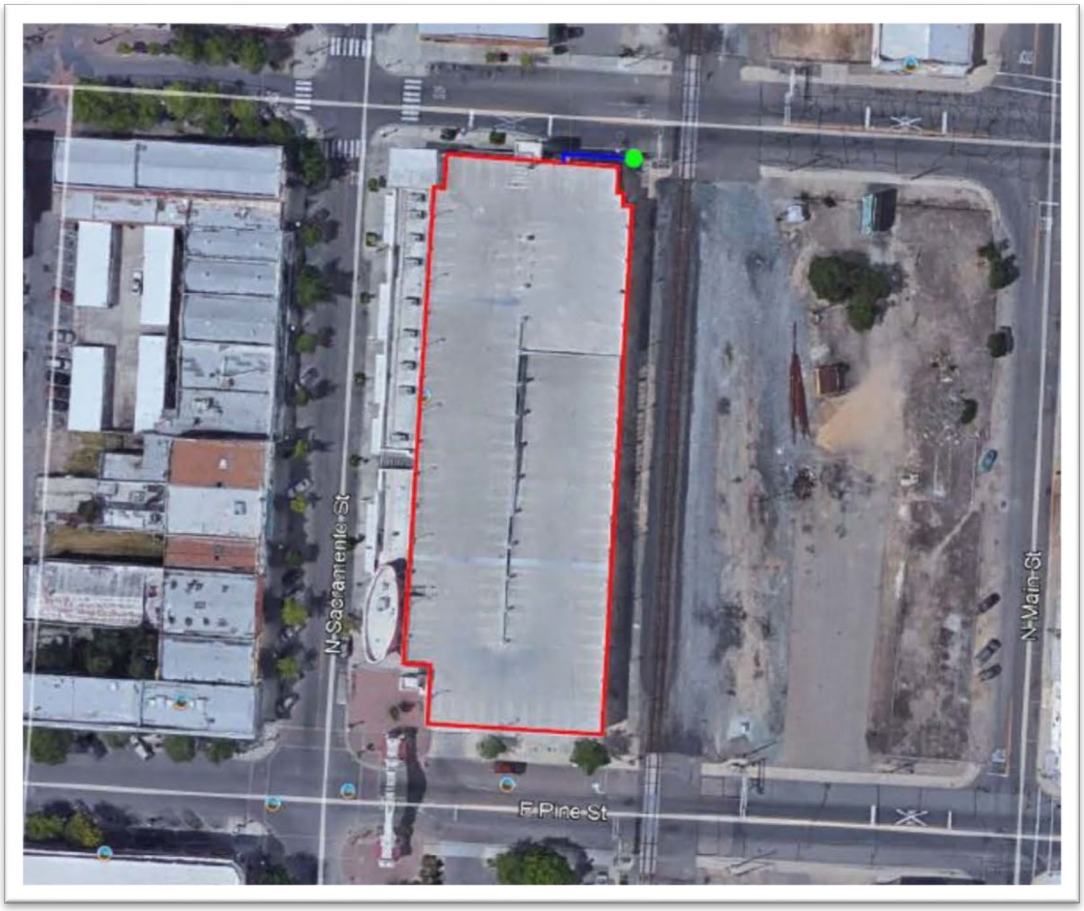


Figure 2.3-10 Point of Interconnection at Parking Structure

3 Environmental Checklist, Analysis and Mitigation Measures

3.1 Introduction

1.	Project Title:	**NCPA Solar Project 1 – Lodi Sites**
2.	Lead Agency Name and Address:	Northern California Power Agency 651 Commerce Drive Roseville, California 95678-6420
3.	Contact Person, Phone Number and Email:	Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE K.S. Dunbar & Associates, Inc. Environmental Engineering 45375 Vista Del Mar Temecula, California 92590-4314 (951) 699-2082 ksdpe67@gmail.com
4.	Project Location:	Within the City of Lodi, San Joaquin County Century Park Site: 38º06'26.66"N, -121º16'21.63"W Pixley Basin Site: 38º0718.06"N, -121º15'12.14"N Parking Garage Site: 38º08'05.25"N, -121º16'18.58"W
5.	Project Sponsor's Name and Address:	Northern California Power Agency 651 Commerce Drive Roseville, California 95678 Lodi Electric Utility 1331 South Ham Lane Lodi, California 92542
6.	General Plan Designations:	Century Park Site: Open Space and Low Density Residential Pixley Basin Site: Public/Quasi Public Parking Garage Site: Public/Quasi Public
7.	Zoning:	Century Park Site: Industrial and Planned Development Pixley Basin Site: Public/Quasi Public Parking Garage Site: Public/Quasi Public
8.	Project Description (Describe the whole action involved, including, but not limited to, later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets, if necessary):	NCPA intends to install solar photovoltaic generation systems within the City of Lodi. The installed capacity at the Century Park East/West sites would be 0.63 megawatts-direct current (MW_{dc}), at the Pixley Basin site it would be 3.51 MW_{dc} and at the Parking Gragee it would be 0.18 MW_{dc}.
9.	Surrounding Land Uses and Setting:	Mixture of industrial, commercial and residential uses.

10. Other Public Agencies whose Approval is Required (e.g., permits, financing approval, or participation agreement):	California Regional Water Quality Control Board, Central Valley Region City of Lodi
11. Have California Native American Tribes traditionally and culturally affiliated with the project area requested information pursuant to Public Resources Code Section 21080.3.1? If so, has consultation begun?	Yes.

3.2 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by the Project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐	Aesthetics	☐	Agriculture and Forestry Resources	☐	Air Quality
☐	Biological Resources	☐	Cultural Resources	☐	Energy
☐	Geology/Soils	☐	Greenhouse Gas Emissions	☐	Hazards & Hazardous Materials
☐	Hydrology/Water Quality	☐	Land Use/Planning	☐	Mineral Resources
☐	Noise	☐	Population and Housing	☐	Public Services
☐	Recreation	☐	Transportation	☐	Tribal Cultural Resources
☐	Utilities/Service Systems	☐	Wildfire	☐	Mandatory Findings of Significance

3.3 Determination

On the basis of this initial evaluation:

☐	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 project proponent. 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" impact 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 in 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 or NEGATIVE DECLARATION pursuant to applicable legal standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Ron Yuen
Director of Engineering, Generation Services

Date

3.4 Chapter Organization

This section describes how this chapter of the Draft Initial Study and Mitigated Negative Declaration is organized. In this analysis, potential reasonably foreseeable impacts are evaluated with respect to aesthetics, agriculture and forestry resources, air quality, biological resources, cultural resources, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation, tribal cultural resources, utilities and service systems, and wildfire. Additionally, mandatory findings of significance regarding short-term, long-term, and cumulative impacts are evaluated. Each topic area begins with a listing of the factors identified by the State CEQA Guidelines for analysis, followed by a discussion of the environmental setting, the analysis for each factor, and an overall conclusion.

3.4.1 Environmental Setting

Throughout this document and according to the State CEQA Guidelines, the environmental setting is intended to mean the environmental conditions as they exist at the time the environmental analysis is commenced. The environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant. The description of the environmental setting shall be no longer than is necessary to gain an understanding of the significant effects of the proposed Project and its alternatives.

3.4.2 Discussion and Mitigation Measures

The Initial Study includes an analysis of direct and reasonably foreseeable physical changes in the environment from the proposed Project and feasible mitigation measures that would reduce such impacts to a less than significant level. Thresholds of significance for each potential impact are provided as appropriate.

A "significant effect on the environment" is defined in the State CEQA Guidelines Section 15382 as a "substantial or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. A social or economic change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant."

"Environment" is defined in the State CEQA Guidelines Section 15360 as "the physical conditions which exist within the area which will be affected by a proposed project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance."

A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a Lead Agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

The following requirements for evaluating environmental impacts are cited directly from the State CEQA Guidelines Appendix G.

1) All answers must take into account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

2) Once the Lead Agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation incorporated, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect is significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

3) "Negative Declaration: Less Than Significant with Mitigation Incorporated" applies when the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact". The Lead Agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant.

4) Earlier analyses may be used where pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. [§15063(c)(3)(D)]. In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.

   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) Mitigation Measures. For effects that are "Less Than Significant with Mitigation Incorporated", describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

5) Lead Agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

6) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

7) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

8) The explanation of each issue should identify:

   a) The significance criteria or threshold, if any, used to evaluate each question; and

   b) The mitigation measures identified, if any, to reduce the impact to less than significance.

3.5 Aesthetics

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
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. Substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	◙
d. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☐	☐	◙	☐

3.5.1 Environmental Setting

The City of Lodi is a distinctive Central Valley community located along the Mokelumne River, adjacent to the Sacramento-San Joaquin Delta. Lodi has a compact form, with visible history and a human scale. The urban form is further defined by the contrast to the surrounding agricultural land, which compliments the urban form and provides a special identity as well as a visual and function to the City's outer edge. Rural and agricultural lands surrounding Lodi are an important visual resource. (*Lodi, November 2009).*

The Century Park East and West sites are located on a City easement that was previously reserved for connecting East Century Boulevard and West Century Boulevard to make the street contiguous. The Century Park East site is bordered by an industrial park to the north, recreational fields to the south, residences to the east and the Union Pacific railroad tracks to the west. The Century Parl West site is bordered to the north, south and west sides by residences and to the east by the Union Pacific railroad tracks. Photographs of these two sites are shown on Figures 3.5-1 and 3.5-2.

Figure 3.5-1 Century Park East Site Looking West from the end of E. Century Boulevard

Figure 3.5-2 Century Park West Site Looking East from the end of W. Century Boulevard

The Pixley Basin site consists of approximately 27 acres within an undeveloped park that currently serves as a storm water and flood control basin. The site is surrounded by commercial and industrial development. Residential areas do exist approximately one-quarter mile to the west; however, Highway 99 separates the commercial/industrial areas from the residential areas. The site is not within the viewshed of the residences. A photograph of the site looking north from Auto Center Parkway is shown on Figure 3.5-3.

Figure 3.5-3 Pixley Basin Site Looking North from Auto Center Drive

The Parking Garage site is in downtown Lodi on the rooftop of the World of Wonders Science Museum. As shown on Figure 3.5-4, this site is immediately adjacent to the Lodi Arch which is an historic structure listed on the National Register of Historic Places.

Figure 3.5-4 Parking Garage Adjacent to Lodi Arch

3.5.2 Discussion and Mitigation Measures

Aesthetics a. *Would the project have a substantial adverse effect on a scenic vista?*

Answer: No Impact.

Discussion:

As shown in the above photographs, there are no scenic vistas associated with any of the proposed solar photovoltaic sites. Therefore, there would be no adverse effects on a scenic vista caused by implementation of the Project. Consequently, no further analysis or mitigation is required.

Aesthetics b. *Would the project* substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Answer: No Impact.

Discussion:

There are no State scenic highways within the Project area. Therefore, no further analysis or mitigation is required.

Aesthetics c. Would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Answer: No Impact.

Discussion:

According to the City of Lodi's General Plan Map, the Century Park East site is designated open space and the Century Park West site is designated low density residential. The other two sites (i.e., Pixley Basin and Parking Garage) are designated as public/quasi-public). Installation of solar facilities is a permitted use in these designations. Therefore, there would be no conflicts with applicable zoning and therefore no further analysis or mitigation is required.

Aesthetics d. *Would the project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?*

Answer: Less than Significant Impact.

Discussion:

According to the June 2014 Meister Consultants Group Solar and Glare Fact Sheet prepared for the U.S. Department of Energy, a common misconception about solar photovoltaic (PV) panels is that they intently cause or create "too much" glare, posing a nuisance to neighbors and a safety risk for pilots. While in certain situations the glass surfaces of solar PV systems can produce a glint (a momentarily flash of bright light) and glare (a reflection of bright light for a longer duration), light adsorption, rather than reflection is central to the function of a solar PV panel – to absorb solar radiation and convert it to electricity. Solar PV panels are constructed of dark-colored (usually blue or black) materials and are covered with anti-reflective coatings. Modern PV panels reflect as little as two percent of incoming sunlight, about the same as water and less than soil or even wood shingles.

Based on the above discussion, the potential for substantial glare from the solar PV panels would be considered less than significant and therefore no further analysis or mitigation is required.

3.5.3 Conclusion

No significant impacts were identified; therefore, no further analysis or mitigation is required.

3.6 Agriculture and Forestry Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project, and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. *Would the Project:*				
a. Convert Prime 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?	☐	☐	☐	◙
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	◙
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 511104(g))?	☐	☐	☐	◙
d. Result in the loss of forest land or conversion of forest land to non-forest uses.	☐	☐	☐	◙
e. Involve other changes in the existing environment that, 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?	☐	☐	☐	◙

3.6.1 Environmental Setting

As previously stated, the Century Park East and West sites are both vacant land that was acquired by the City of Lodi to allow the completion of Century Boulevard. The Pixley Basin site is utilized as a storm water and flood control basin and the Parking Garage site is the roof of an existing building. Therefore, no agricultural lands or forest lands occur at any of the sites.

3.6.2 Discussion and Mitigation Measures

Agriculture and Forestry Resources. a. *Would the project 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?*

Answer: No Impact.

Discussion:

As stated above, there are no Farmlands at the Project sites. Therefore, there would be no impacts and no further analysis or mitigation is required.

Agriculture and Forestry Resources. b. *Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?*

Answer: No Impact.

Discussion:

None of the sites are zoned for agricultural use or are under a Williamson Act contract. Therefore, there would be no impacts and no further analysis or mitigation is required.

Agriculture and Forestry Resources. c. *Would the project 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))?*

Answer: No Impact.

Discussion:

None of the sites are zoned for forest land or timber land use. Therefore, there would be no impacts and no further analysis or mitigation is required.

Agriculture and Forestry Resources. d. *Would the project result in the loss of forest land or conversion of forest land to non-forest use?*

Answer: No Impact.

Discussion:

There is no forest land within the Project area. Therefore, there would be no impacts and no further analysis or mitigation is required.

Agriculture and Forestry Resources. e. *Would the project 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?*

Answer: No Impact.

Discussion:

There is no farmland or forest land at the Project sites. Therefore, there would be no impacts and no further analysis or mitigation is required.

3.6.3 Conclusion

No significant impacts were identified; therefore, no further analysis or mitigation is required.

3.7 Air Quality

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. *Would the Project:*				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	◙
b. Result in cumulatively considerable net increase of any criteria pollutant under an applicable federal or state ambient air quality standard?	☐	☐	◙	☐
c. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	◙
d. Result in other emissions (such as those leading to odors or dust) adversely affecting a substantial number of people?	☐	☐	◙	☐

3.7.1 Environmental Setting

Ambient air quality is affected by both the rate and location of pollutant emissions and by meteorological conditions that influence the local and regional dispersal of pollutants. Atmospheric conditions such as wind speed and direction and air temperature gradients combined with local topography provide the link between air pollutant emissions and air quality.

The proposed Project is within the San Joaquin Valley Air Basin which includes all of San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings and Tulare Counties as well as the northern portion of Kern County.

Planning for the attainment and maintenance of both federal and State air quality standards in the Project area is the responsibility of the San Joaquin Valley Air Pollution Control District (SJVAPCD).

The California Air Resources Board (ARB) provides ambient air quality data for most air basins in the State. A summary of the data available for the nearest monitoring station to the Project area (i.e., Stockton - Hazleton Street) is provided in Tables 3.7-1 through 3.7-4.

Table 3.7-1
Ozone Trends Summary: Stockton - Hazelton Street
National Standards

	Days > Standard			1-hr Observations				8-hr Observations				
	8-hr			EENED[1]				0.070 Std.		0.075 Std.		
Year	0.070	0.075	0.08	Max.	1-Yr	3-Yr	D.V.[2]	Max.	D.V.[2]	Max.	D.V.[2]	Coverage
2017	2	1	0	*0.085*	*0*	*0*	*0.090*	0.079	0.066	0.079	0.066	84
2016	2	2	0	*0.102*	*0*	*0*	*0.090*	0.078	0.068	0.078	0.068	94
2015	2	1	0	*0.094*	*0*	*0*	*0.089*	0.078	0.068	0.078	0.068	99
2014	4	1	0	*0.090*	*0*	*0*	*0.087*	0.077	0.069	0.077	0.069	97
2013	0	0	0	*0.080*	*0*	*0*	*0.086*	0.067	0.067	0.067	0.067	81
2012	5	2	0	*0.097*	*0*	*0*	*0.092*	0.083	0.069	0.083	0.069	99
2011	0	0	0	*0.089*	*0*	*0*	*0.095*	0.068	0.068	0.068	0.068	99
2010	3	2	1	*0.120*	*0*	*0*	*0.105*	0.095	0.072	0.095	0.072	100
2009	3	2	1	*0.116*	*0*	*0*	*0.095*	0.096	0.074	0.096	0.074	96
2008	6	4	1	*0.105*	*0*	*0*	*0.102*	0.090	0.078	0.090	0.078	98

Notes: All concentrations expressed in parts per million.

The national 1-hour ozone standard was revoked in June 2005. Statistics related to the revoked standard are shown in *italics* or ***italics***.

National exceedances shown in **orange**.

An exceedance is not necessarily a violation.

Daily maximum 8-hour averages associated with the National 0.070 ppm standard exclude those 8-hour averages that have first hours between midnight and 6:00 am, Pacific Standard Time.

Daily maximum 8-hour averages associated with the National 0.070 ppm standard include only those 8-hour averages from days that have sufficient data for the day to be considered valid.

Daily maximum 8-hour averages associated with the National 0.075 ppm standard may come from days that don't have sufficient data for the day to be considered valid, provided the daily maximum 8-hour average itself includes sufficient data to be considered valid.

[1] EENED = Estimated Expected Number of Exceedance Days

[2] D.V. = National Design Value

* There was insufficient (or no) data available to determine the value.

Source: arb.ca.gov, 02/10/2019

Table 3.7-2
Ozone Trends Summary: Stockton - Hazelton Street
State Standards

Year	Days > Standard 1-Hour	Days > Standard 8-Hour	1-Hour Observations Max.	1-Hour Observations EPDC[1]	1-Hour Observations D.V.[2]	8-Hour Averages Max.	8-Hour Averages EPDC[1]	8-Hour Averages D.V.[2]	Year Coverage
2017	0	2	0.085	0.0855	0.09	0.080	0.0772	0.077	80
2016	2	2	0.102	0.0913	0.09	0.079	0.0775	0.077	94
2015	0	3	0.094	0.0894	0.09	0.079	0.0782	0.078	97
2014	0	5	0.090	0.0905	0.09	0.078	0.0772	0.075	97
2013	0	0	0.080	0.0872	0.09	0.067	0.0771	0.075	82
2012	1	6	0.097	0.0914	0.09	0.083	0.0797	0.080	98
2011	0	0	0.089	0.0932	0.09	0.068	0.0813	0.081	98
2010	2	3	0.120	0.0991	0.10	0.095	0.0852	0.082	100
2009	2	4	0.116	0.0970	0.10	0.096	0.0855	0.082	95
2008	2	7	0.105	0.1052	0.11	0.091	0.0924	0.082	98

Notes: All concentrations expressed in parts per million.
National exceedances shown in **green**.
An exceedance is not necessarily a violation.
[1] EPDC = Expected Peak Day Concentration
[2] D.V. = State Designation Value
*There was insufficient (or no) data available to determine the value.

Source: arb.ca.gov, 02/10/2019

Table 3.7-3
PM_{10} Trends Summary: Stockton - Hazelton Street

Year	Est. Days > Std. Nat'l	Est. Days > Std. State	Annual Average *Nat'l*	Annual Average State	3-yr Average *Nat'l*	3-yr Average State	High 24-hr Average Nat'l	High 24-hr Average State	Year Coverage
2017	0.0	42.9	*28.2*	28.8	*27*	29	89.9	92.6	97
2016	0.0	30.6	*26.0*	26.5	*26*	28	65.9	66.5	96
2015	0.0	24.5	*27.4*	28.0	*28*	32	54.1	55.3	100
2014	0.0	18.0	*24.1*	24.5	*26*	32	90.0	94.0	100
2013	0.0	58.2	*31.3*	32.0	*26*	32	90.1	95.5	99
2012	0.0	17.9	*22.4*	22.8	*22*	24	69.4	70.0	100
2011	0.0	24.4	*23.3*	24.1	*22*	24	66.1	70.1	99
2010	0.0	6.1	*19.4*	19.9	*24*	31	54.3	55.4	100
2009	0.0	18.2	*23.0*	23.6	*27*	31	58.7	58.8	100
2008	0.0	48.6	*29.9*	31.1	*30*	33	104.5	105.0	93
Ambient Standard			--	20			150	50	

Notes: All concentrations expressed in micrograms per cubic meter (µg/m^3).
All values listed above represent midnight-to-midnight 24-hour averages and may be related to an exceptional event.
The national annual average PM_{10} standard was revoked in December 2006 and is no longer in effect. Statistics related to the revoked standard are shown in *italics* or **italics**.
State exceedances shown in **green**. National exceedances shown in **orange**.
An exceedance is not necessarily a violation.
Statistics may include data that are related to an exceptional event.
State and national statistics may differ for the following reasons:
State statistics are based on California approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods.
State statistics for 2002 and later are based on *local* conditions.
National statistics are based on *standard conditions.*
State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.
*There was insufficient (or no) data available to determine the value.

Source: arb.ca.gov, 02/10/2019

Table 3.7-4
$PM_{2.5}$ Trends Summary: Stockton – Hazelton Street

Year	Est. Days > Nat'l '06 Std.	Annual Average Nat'l	Annual Average State	Nat'l Ann. Std. D.V.[1]	State Ann. Std D.V.[2]	Nat'l '06 Std. 98th Percentile	Nat'l '06 24-Hr Std. D.V.[1]	High 24-Hour Average Nat'l	High 24-Hour Average State	Year Coverage
2017	16.9	12.1	*	12.2	12	44.2	39	53.7	53.7	94
2016	4.0	11.8	*	12.2	12	32.4	39	43.7	43.7	100
2015	12.2	12.8	12.3	14.2	12	39.1	47	58.8	58.8	98
2014	16.0	12.1	12.2	14.0	12	44.5	45	56.8	56.8	100
2013	27.6	17.7	*	13.8	14	56.3	45	66.5	66.5	96
2012	6.0	12.4	12.4	11.5	14	33.9	36	60.4	60.4	100
2011	11.0	11.3	14.0	11.2	14	44.8	38	60.0	65.5	100
2010	5.3	10.9	*	12.2	14	29.7	44	41.0	44.6	98
2009	15.9	11.3	13.4	12.9	14	40.4	50	48.4	56.0	91
2008	27.7	14.4	14.4	13.5	14	61.6	51	81.2	91.0	97

Notes: All concentrations expressed in micrograms per cubic meter.
State exceedances shown in **green**. National exceedances shown in **orange**. An exceedance is not necessarily a violation.
State and national statistics may differ for the following reasons:
State statistics are based on California approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods.
State and national statistics may therefore be based on different samplers.
State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.
[1] D.V. = National Design Value
[2] D.V. = State Designation Value
* There was insufficient (or no) data available to determine the value.

Source: arb.ca.gov, 02/10/2019

The ARB has designated the San Joaquin Valley Air Basin as non-attainment for the State ozone, PM_{10} and $PM_{2.5}$ standards. In addition, the U.S. Environmental Protection Agency has designated the San Joaquin Valley Air Basin as non-attainment for the federal ozone and $PM_{2.5}$ standards.

3.7.2 Discussion and Mitigation Measures

Air Quality. a. *Would the project conflict with or obstruct implementation of the applicable air quality plan?*

Answer: No Impact.

Discussion:

The SJVAPCD has established thresholds of significance for criteria pollutant emissions which are based on District New Source Review (NSR) offset requirements for stationary sources. Stationary sources in the District are subject to some of the toughest regulatory requirements in the nation. Emission reductions achieved through implementation of District offset requirements are a major component of the District's air quality plans. Thus, projects with emissions below the threshold significance for criteria pollutants would be determined to not conflict or obstruct implementation of the District's air quality plan (SJVAPCD, March 19, 2015). Those threshold criteria are shown in Table 3.7-5.

Table 3.7-5
SJVAPCD Air Quality Thresholds of Significance

Pollutant/Precursor	Construction Emissions	Operational Emissions	
		Permitted Equipment and Activities	Non-Permitted Activities and Activities
	Emissions (tons per year)	*Emissions (tons per year)*	*Emissions (tons per year)*
Carbon Monoxide (CO)	100	100	100
Oxides of Nitrogen (NO_x)	10	10	10
Reactive Organic Gases (ROG)	10	10	10
Oxides of Sulfur (SO_x)	27	27	27
Respirable Particulate Matter (PM_{10})	15	15	15
Fine Particulate Matter ($PM_{2.5}$)	15	15	15
Toxic Air Contaminants (TACs)			
Carcinogens	Maximally Exposed Individual risk equals or exceeds 20 in one million.		
Non-Carcinogens	Acute: Hazard Index equals or exceeds 1 for the Maximally Exposed Individual		
	Chronic: Hazard Index equals or exceeds 1 for the Maximally Exposed Individual		

As shown under "b." below, the projected emissions would be below the threshold significance for criteria pollutants and, therefore, the project would be determined to not conflict or obstruct implementation of the District's air quality plan.

Air Quality. b. *Would the project result in cumulatively considerable net increase of any criteria pollutant under an applicable federal or state ambient air quality standard)?*

Answer: Less than Significant Impact.

Discussion:

As stated above in Section 3.7.1, the ARB has designated the San Joaquin Valley Air Basin as non-attainment for the State ozone, PM_{10} and $PM_{2.5}$ standards. In addition, the U.S. Environmental Protection Agency has designated the San Joaquin Valley Air Basin as non-attainment for the federal ozone and $PM_{2.5}$ standards.

Criteria Pollutants

It is anticipated that NCPA would install solar equipment at three sites in the City of Lodi. A typical construction equipment list for this activity at each site follows:

Equipment	Number	Horsepower	Load Factor[1]	Hours per Day
Compressor	1	106	0.48	4
Crane	1	399	0.43	4
Drill Rig	1	291	0.75	6
Sweeper	1	250	0.68	2
Tractor/Backhoe/Loader	1	108	0.55	4
Trencher	1	63	0.75	4
Utility Trucks	1	479	0.57	2
Water Truck	1	189	0.50	2

Notes:
[1] Percentage of the engines' maximum horsepower rating that the equipment actually operates.

These additional assumptions are also utilized in the air quality analyses for installation of the solar equipment:

- The disturbed area is estimated at 3.0 acres at the Century Park East/West site, 15 acres at the Pixley Basin site and zero at the Parking Garage as equipment would be installed on an existing roof.
- There would be two heavy-duty trucks delivering supplies to the site. Mileage for each truck is assumed at 100 miles per day.
- There would be approximately 2 pickup trucks traveling to and from the site by inspectors. Mileage for each pickup would be approximately 100 miles per day.
- Approximately 10 construction workers would be involved at the site on the peak day of activities. Mileage for worker commuters would be approximately 50 per day.

- Construction activities would occur for about 90 days during equipment installation and 30 days during pad construction at the Pixley Basin site.
- It would be necessary to import 29,400 cubic yards of earthen material to the Pixley Basin site to balance the cut and fill.
- Approximately 10 trucks would be utilized to import the fill. Each truck would travel approximately 200 miles per day.

K.S. Dunbar & Associates, Inc., developed an Excel Spreadsheet model, based on the California Air Resources Board's 2011 OFFROAD emission factors, that calculates estimated emissions from construction activities. That model was used to estimate construction related emissions from off-road heavy construction equipment. Based on construction occurring in 2019, the model generated estimated construction emissions as shown in Table 3.7-6 (detailed model results are contained in Appendix C)[1].

Table 3.7-6
Estimated Emissions from Off-Road Heavy Construction Equipment
Solar Equipment Installation

	Pollutant (tons per year)[a]							
	ROG	CO	NO_x	SO_x	PM_{10}	$PM_{2.5}$	CO_2	CH_4
Solar Equipment Installation	0.17	1.17	1.53	0.00	0.01	0.01	300	0.09
Threshold Limits[b]	10	100	10	27	15	15	N/A	N/A

[a] Use of particulate traps reduces PM_{10} and $PM_{2.5}$ by 85% and oxidation catalysts reduces NO_x by 15%.
[b] Construction-related threshold limits developed by SJVAPCD to determine significance.

As can be seen by the data in Table 3.7-6, emissions from heavy construction equipment during solar equipment installation would not exceed SJVAPCD's construction-related threshold limits.

There would also be 2 heavy-duty trucks transporting equipment to the site as well as two pickup trucks utilized by inspectors at the job site. Based on the assumption that each heavy-duty truck and each pickup travel 100 miles per day, exhaust emissions would be as shown in Table 3.7-7.

Table 3.7-7
Estimated Emissions from On-Road Vehicles
Solar Equipment Installation

Equipment	Pollutant (tons per year)							
	ROG	CO	NOx	SOx	PM10	PM2.5	CO2	CH4
On-Road Trucks	0.01	0.05	0.13	0.00	0.01	0.01	38	0.00
Pickups	0.01	0.05	0.01	0.00	0.00	0.00	10	0.00
Totals	0.02	0.10	0.14	0.00	0.01	0.01	48	0.00

Vehicles owned by construction workers would be an additional source of air pollutants. An estimate of emissions based on 10 worker vehicles per day of which 100 percent are pickup trucks (gross vehicle weight of 8,500 pounds or less) with an average round trip of 50 miles is presented in Table 3.7-8.

Table 3.7-8
Construction Worker Commute Vehicle Emissions
Solar Equipment Installation

Pollutant (tons per year)							
ROG	CO	NO_x	SO_x	PM_{10}	$PM_{2.5}$	CO_2	CH_4
0.01	0.11	0.01	0.00	0.00	0.00	25	0.00

Earthmoving activities would create fugitive dust emissions. It is estimated that fugitive dust emissions from construction activities on disturbed soil approximate 5 pounds per acre per day (PM_{10}) with no mitigation. However, the application of water as required

[1] Should the construction period be delayed, the emissions from heavy construction equipment would be less due to technology improvements and phasing out of older equipment. Therefore, the emissions shown are considered the worst-case scenario.

would reduce the emissions by 61 percent *(SCAQMD, October 2016)*. As stated above, it is anticipated that approximately 3.0 acres would be disturbed each day at the Century Park East/West site and 15 acres would be disturbed at the Pixley Basin site each day. Therefore, the resulting PM_{10} emissions would be estimated at 5.85 and 29.25 pounds per day, respectively. SCAQMD also estimates that the $PM_{2.5}$ emissions in fugitive dust are equal to 21 percent of the PM_{10} emissions in fugitive dust *(SCAQMD, October 2006)*. Therefore, the $PM_{2.5}$ emissions would equal 1.23 and 6.14 pounds per day, respectively.

At the Pixley Basin site it would also be necessary to do some earthwork to create a pad for the solar equipment. Based on a construction period of 30 days, emissions from off-road heavy-duty equipment would be as shown in Table 3.7-9. Full model results are included in Appendix B.

Table 3.7-9
Estimated Emissions from Grading Activities at Pixley Basin

	Pollutant (tons per year)[a]							
	ROG	CO	NO_x	SO_x	PM_{10}	$PM_{2.5}$	CO_2	CH_4
Heavy Construction Equipment	0.22	1.47	2.60	0.00	0.02	0.01	403	0.13
Fugitive Dust	0.00	0.00	0.00	0.00	0.39	0.08	0.00	0.00
Haul Trucks	0.01	0.04	0.34	0.00	0.00	0.00	105	0.00
Totals	0.23	1.51	2.94	0.00	0.41	0.09	508	0.13
Threshold Limits[b]	10	100	10	27	15	15	N/A	N/A

[a] Use of particulate traps reduces PM_{10} and $PM_{2.5}$ by 85% and oxidation catalysts reduces NO_x by 15%.
[b] Construction-related threshold limits developed by SJVAPCD to determine significance.

The total estimated from the installation of the solar equipment at the three Lodi sites are shown in Table 3.7-10

Table 3.7-10
Total Estimated Construction Emissions[a]
Solar Equipment Installation

Source	Pollutant (tons per year)							
	ROG	CO	NO_x	SO_x	PM_{10}	$PM_{2.5}$	CO_2	CH_4
Century East/West								
Construction Equipment	0.17	1.17	1.53	0.00	0.01	0.01	300	0.09
On-Road Vehicles	0.02	0.10	0.14	0.00	0.01	0.01	48	0.00
Worker Commutes	0.01	0.11	0.01	0.00	0.00	0.00	25	0.00
Fugitive Dust	0.00	0.00	0.00	0.00	0.26	0.06	0	0.00
Subtotal	0.20	1.38	1.68	0.00	0.28	0.08	373	0.09
Pixley Basin								
Construction Equipment	0.17	1.17	1.53	0.00	0.01	0.01	300	0.09
On-Road Vehicles	0.02	0.10	0.14	0.00	0.01	0.01	48	0.00
Worker Commutes	0.01	0.11	0.01	0.00	0.00	0.00	25	0.00
Fugitive Dust	0.00	0.00	0.00	0.00	0.73	0.15	0	0.00
Pad Construction	0.23	1.51	2.94	0.00	0.41	0.09	508	0.13
Subtotal	0.43	2.89	4.62	0.00	1.16	0.26	881	0.22
Parking Structure								
Construction Equipment	0.17	1.17	1.53	0.00	0.01	0.01	300	0.09
On-Road Vehicles	0.02	0.10	0.14	0.00	0.01	0.01	48	0.00
Worker Commutes	0.01	0.11	0.01	0.00	0.00	0.00	25	0.00
Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00
Subtotal	0.20	1.38	1.68	0.00	0.02	0.02	373	0.09
Total Construction Emissions	**0.83**	**5.65**	**7.98**	**0.00**	**1.46**	**0.36**	**1,627**	**0.40**
Threshold Limits[b]	10	100	10	27	15	15	N/A	N/A

[a] Use of particulate traps reduces PM_{10} and $PM_{2.5}$ by 85% and oxidation catalysts reduces NO_x by 15%.
[b] Construction-related threshold limits developed by SJVAPCD to determine significance.

As shown in Table 3.7-10, the total estimated emissions from installation of the solar equipment at all three Lodi sites simultaneously would not exceed the construction-related threshold limits for significance. However, the ARB has designated the

San Joaquin Valley Air Basin as non-attainment for the State ozone, PM_{10} and $PM_{2.5}$ standards. In addition, the U.S. Environmental Protection Agency has designated the San Joaquin Valley Air Basin as non-attainment for the federal ozone and $PM_{2.5}$ standards. Therefore, every effort should be made to minimize emissions within the San Joaquin Valley Air Basin. Consequently, to reduce the emissions as much as possible, NCPA will:

- Appoint a construction relations officer to act as a community liaison concerning on-site construction activities including resolution of issues related to PM_{10} generation.

- In addition, NCPA will add the following best management practices in its contract documents for this project:

  The contractor shall:

  - Utilize electricity from power poles instead of from temporary diesel or gasoline power generators, when feasible.

  - Require the use of 2010 and newer diesel haul trucks (e.g., material delivery trucks and soil import/export) and if the lead agency determines that 2010 model year or newer diesel trucks cannot be obtained the contractor shall use trucks that meet EPA 2007 model year NO_x emissions requirements.

  - Require that all on-site construction equipment meet EPA Tier 3 or higher emissions standards according to the following:

    - ✓ All off-road diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards, where available. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.

    - ✓ A copy of each unit's certified tier specification, BACT documentation, and CARB or SJVAPCD operating permit shall be provided at the time of mobilization of each applicable unit of equipment.

  - Maintain construction equipment engines by keeping them properly tuned and maintained according to manufacturer's specifications.

  - Use alternative fuels or clean and low-sulfur fuel for equipment.

  - Idle trucks in accordance with the Airborne Toxic Control Measure (ACTM) to Limit Diesel Fueled Commercial Motor Vehicle Idling and other applicable laws.

  - Spread soil binders on site, where appropriate, unpaved roads and staging areas.

  - Water site and equipment as necessary to control dust.

  - Sweep all streets at least once per day in accordance with SJVAPCD Rule 8041.

  - Conduct operations in accordance with SJVAPCD Rule 8021 requirements.

  - If necessary, wash off trucks leaving the site.

  - Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least two feet of freeboard in accordance with the requirements of California Vehicle Code (CVC) Section 23114.

Operation and maintenance personnel might make two or three trips per week to the Project site. Consequently, there would be essentially no emissions associated with vehicle travel to and from the site during operation and maintenance of the new facilities. Operation of the actual facilities would produce essentially no emissions.

Toxic Air Contaminants (TACs)

The combustion of diesel fuel produces diesel particulate matter as a byproduct. Diesel particulate matter has been identified by the California Air Resources Board (ARB) as a toxic air contaminant (TAC). While TACs can have long-term and/or short-term effects, diesel TAC has been shown by the ARB to have little or no short-term impact.

The ARB determined that the chronic impact of diesel particulate matter was of more concern than the acute impact in the Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines *(ARB 2000)*. In that document, ARB noted that "Our analysis shows that the potential cancer risk from inhalation is the critical path when comparing cancer and non-cancer risk. In other words, a cancer risk of 10 cases per million from the inhalation of diesel particulate matter (PM) will result from diesel PM concentrations that are much less than the diesel PM or TAC concentrations that would result in chronic or acute non-cancer hazard index values of 1 or greater." Consequently, any analysis of diesel TAC should focus on the long-term, chronic cancer risk posed by diesel emissions. Chronic cancer risk is normally measured by assessing what the risk to an exposed individual from a source of TACs would be if the exposure occurred over 70 years. Diesel emissions related to construction of the proposed Project would only occur for less than a one-year period. Therefore, the impact would be considered less than significant and no further analysis is required.

Air Quality. c. *Would the project expose sensitive receptors to substantial pollutant concentrations?*

Answer: No Impact.

Discussion:

As shown above, all emissions from construction of the project would be less than significant based on threshold limits established by the SJVAPCD. Therefore, implementation of the project would not expose sensitive receptors to substantial pollutant concentrations. Consequently, no further analysis or mitigation is required.

Air Quality. d. *Would the project result in other emissions (such as those leading to odors or dust) adversely affecting a substantial number of people?*

Answer: Less than Significant Impact.

Discussion:

As shown above in Table 3.7-10, the fugitive dust emissions would be less than significant based on threshold criteria established by the SJVAPCD. In addition, implementation of the Project would not result in the generation of odors. Consequently, no further analysis or mitigation is required.

3.7.3 Conclusions

No significant impacts were identified; therefore, no further analysis or mitigation is required.

3.8 Biological Resources

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

3.8.1 Environmental Setting

K.S. Dunbar & Associates, Inc., retained ELMT Consulting (ELMT) to conduct a habitat and jurisdictional assessment for the three sites in the City of Lodi, San Joaquin County, California. The field work associated with the habitat and jurisdictional assessment was conducted by biologist Travis J. McGill on March 27, 2019 to document baseline conditions and assess the potential for special-status[2] plant and wildlife species to occur within the Century Park, Parking Garage and Pixley Basin Project sites that could pose a constraint to implementation of the proposed Project. Special attention was given to the suitability of the Project sites to support special-status plant and wildlife species identified by the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB), and other electronic databases as potentially occurring in the general vicinity of the Project sites. EMLT's full report is contained in Appendix C and is the source of the following discussion.

Existing Site Conditions

Century Park

The Century Park East site is located on a City easement and is comprised of approximately 3.1 acres. The site is bordered by an industrial park to the north, recreational fields (Salas Park) to the south, residences to the east and the Union Pacific railroad to

[2] As used in this report, "special-status" refers to plant and wildlife species that are federally and State listed, proposed, or candidates; plant species that have been designated with a California Native Plant Society Rare Plant Rank; wildlife species that are designated by the CDFW as fully protected, species of special concern, or watch list species; and specially protected natural vegetation communities as designated by the CDFW.

the west. The Century Park West site is situated immediately across the railroad tracks from the Century Park East site and is bordered by residential developments to the north, south, and west, and the Union Pacific Railroad to the east.

The Century Park sites are relatively flat at an approximate elevation of 50 feet above mean sea level with no areas of significant topographic relief. Based on the NRCS USDA Web Soil Survey, the Century Park sites are underlain by the following soil unit: Tokay-Urban land complex (0 to 2 percent slopes. Refer to Exhibit 7, *Century Park Soils*, in Attachment A in ELMT's report in Appendix C. Soils on-site have been mechanically disturbed and heavily compacted from historic land uses (i.e., agricultural activities, and development).

Parking Garage

The Parking Garage site is located on the third-floor rooftop of an existing parking garage for the World of Wonders Science Museum in downtown Lodi, west of the Union Pacific railroad. Due to the fact that the Parking Garage site is located on the rooftop of an existing parking garage, no soils occur onsite because the site is completely developed. The Project site is located within a heavily developed area in the City of Lodi in an area surrounded by land commercial and industrial land uses. The Project site is bordered by commercial developments to the north, south, and west, and the Union Pacific Railroad to the east.

Pixley Basin

The Pixley Basin site is comprised of approximately 27 acres and is located on an undeveloped park (Pixley Park) that serves as a stormwater retention and flood control basin. The Pixley Basin site is surrounded by industrial and commercial uses. Residential areas exist approximately 0.25 miles west of the site, however Highway 99 separates the commercial areas from the residential areas.

The proposed Project footprint for the Pixley Basin site is located at an approximate elevation of 58 feet above mean sea level. The Pixley Basin Project site is relatively flat with no areas of significant topographic relief, except for the areas that have been dug out to create the water retention basin. Based on the NRCS USDA Web Soil Survey, the Pixley Basin site is underlain by the following soil units: Tokay fine sandy loam (0 to 2 percent slopes), and Tokay-Urban land complex (0 to 2 percent slopes. Refer to Exhibit 6, *Pixley Basin Soils*, in Attachment A in ELMT's report in Appendix C. Soils on-site have been mechanically disturbed and heavily compacted from historic land uses (i.e., agricultural activities, grading activities, development of the retention basin, and surrounding development).

Vegetation

Due to existing land uses, no native plant communities or natural communities of special concern were observed on or adjacent to the Project sites. The Project sites primarily consist of either vacant, undeveloped, or developed lands that have been subject to a variety of anthropogenic disturbances. Disturbances have eliminated the natural plant communities that once occurred within the boundaries of the Project sites. Refer to Attachment B in ELMT's report in Appendix C, *Site Photographs*, for representative site photographs. No native plant communities will be impacted from implementation of the proposed Projects.

Century Park

The Century Park sites contain land cover types that would be classified as disturbed and developed. Refer to Exhibit 9, Century Park Vegetation in Attachment A in ELMT's report in Appendix C. Early successional and non-native weedy plant species comprise the western half of the Century Park East site, while the eastern portion of the Century Park East site is developed, with asphalt, loose gravel, and dirt stockpiles. The Century Park West site is comprised of an existing recreational park and does not support any native plant species. Plant species observed onsite include telegraph weed (*Heterotheca grandiflora*), filaree (*Erodium sp.*), winter vetch (*Vicia villosa*), cheeseweed *(Malva parviflora)*, Russian thistle *(Salsola tragus)*, short-podded mustard *(Hirschfeldia incana)*, sow thistle *(Sonchus* sp.*)*, wild radish *(Raphanus raphanistrum)*, milk thistle *(Silybum maranum)*, cocklebur *(Xanthium strumarium)*, pineapple weed *(Matricaria discoidea)*, coyote melon *(Cucurbita palmata)*, yellow sweet clover *(Mililotus officinalis)*, and horseweed *(Erigeron canadensis)*.

Parking Garage

The Parking Garage site supports a land cover type that would be classified as developed. Developed areas generally encompass paved, impervious surfaces. The entire Parking Garage is paved with concrete and no plant species were observed onsite.

Pixley Basin

The Project site primarily supports a land cover type that would be classified as disturbed. Refer to Exhibit 8, *Pixley Basin Vegetation* in Attachment A in ELMT's report in Appendix C. Early successional and non-native weedy plant species compose a majority of the Project site as a result of the weed abatement activities, surrounding development, and construction of the water retention basin. Plant species observed on-site include telegraph weed, filaree, winter vetch, bicolor lupine (*Lupinus bicolor*), ripgut (*Bromus diandrus*), fiddleneck (*Amsinckia sp.*), and mouse barley (*Hordeum murinum*).

Wildlife

Plant communities provide foraging habitat, nesting/denning sites, and shelter from adverse weather or predation. This section provides a discussion of those wildlife species that were observed or are expected to occur within the Project sites. The discussion is to be used a general reference and is limited by the season, time of day, and weather conditions in which the field investigation was conducted. Wildlife detections were based on calls, songs, scat, tracks, burrows, and direct observation. The Project sites provide limited habitat for wildlife species except those adapted to a high degree of anthropogenic disturbances and development.

Fish

No fish were observed in the Pixley Basin Project site during the field investigation. The water retention basin only supports water for portions of the year and does not provide a perennial water source or connect to a natural water feature that would provide suitable habitat for fish species. The only fish species that have the potential to occur in the Pixley Basin Project site are fish that are exotic or introduced such as mosquitofish (*Gambusia affinis*) and bluegill (*Lepomis macrochirus*). No special-status fish species are expected to occur within the Pixley Basin Project site.

No hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would provide suitable habitat for fish were observed on or within the vicinity of the Parking Garage or Century Park Project sites. No fish are expected to occur and are presumed absent from the Parking Garage or Century Park Project sites.

Amphibians

No amphibians were observed within the Pixley Basin Project site during the field investigation. The water retention basin only supports water for portions of the year and does not provide a perennial water source or connect to a natural water feature that would provide long term habitat for amphibian species. The only amphibian species that have the potential to occur in the Pixley Basin Project site are tree frog (*Pseudacris regilla*). No special-status amphibian species are expected to occur within the Pixley Basin Project site.

No amphibians or hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would provide suitable habitat for amphibian species were observed on or within the vicinity of the Parking Garage or Century Park Project sites. No amphibians are expected to occur and are presumed absent from the Parking Garage or Century Park Project sites.

Reptiles

During the field investigation, no reptilian species were observed on the Project sites. Common reptilian species adapted to a high degree of anthropogenic disturbances that have the potential to occur on the Project sites include western side-blotched lizard (*Uta stansburiana elegans*), and alligator lizard (*Elgaria multicarinata*). Due to the high level of anthropogenic disturbances on-site, and surrounding development, no special-status reptilian species are expected to occur within Project sites.

Birds

The Project sites provide foraging habitat for bird species adapted to a high degree of human disturbance. In particular, the Pixley Basin site provides suitable nesting opportunities for geese and ducks, and birds that nest on the open ground, such as killdeer (*Charadrius vociferus*). Bird species detected during the field investigation included lesser goldfinch (*Spinus psaltria*), northern mockingbird (*Mimus polyglottos*), mourning dove (*Zenaida macroura*), European starling (*Sturnus vulgaris*), house finch (*Haemorhouse mexicanus*), American crow (*Corvus brachyrhynchos*), Anna's hummingbird (*Calypte anna*), killdeer, California scrub-jay (*Aphelocoma californica*), Nuttal's woodpecker (*Picoides nuttalii*), barn swallow (*Hirundo rustica*), Canada goose (*Branta canadensis*), ruddy duck (*Oxyura jamaicensis*), black-necked stilt (*Himantopus mexicanus*), American coot (*Fulica americana*), bufflehead (*Bucephala albeola*), and western meadowlark (*Sturnella neglecta*).

Mammals

During the field investigation, cottontail (*Sylvilagus audubonii*) was the only mammalian species observed on the Project sites. Common mammalian species adapted to a high degree of anthropogenic disturbances that have the potential to occur within the Project sites include California ground squirrel (*Otospermophilus beecheyi*), Botta's pocket gopher (*Thomomys bottae*), opossum (*Didelphis virginiana*), and raccoon (*Procyon lotor*).

Nesting Birds

During the field investigation, two active Canada goose nests was observed within the Pixley Basin Project footprint. The Project sites provide suitable nesting habitat for year-round and seasonal avian residents, as well as migrating songbirds that could occur in the area. Most of the nesting habitat associated with the Parking Garage and Century Park Sites are associated with the ornamental trees adjacent to the Project sites. Additionally, the Pixley Basin site provides suitable nesting opportunities for geese and ducks, and birds that nest on the open ground, such as killdeer.

Prior to site development, a pre-construction nesting bird clearance survey should be conducted to ensure no impacts to nesting birds will occur.

Migratory Corridors and Linkages

Habitat linkages provide connections between larger habitat areas that are separated by development. Wildlife corridors are similar to linkages but provide specific opportunities for animals to disperse or migrate between areas. A corridor can be defined as a linear landscape feature of sufficient width to allow animal movement between two comparatively undisturbed habitat fragments. Adequate cover is essential for a corridor to function as a wildlife movement area. It is possible for a habitat corridor to be adequate for one species yet still inadequate for others. Wildlife corridors are features that allow for the dispersal, seasonal migration, breeding, and foraging of a variety of wildlife species. Additionally, open space can provide a buffer against both human disturbance and natural fluctuations in resources.

The proposed Projects will be confined to existing disturbed and/or developed areas that are surrounded by development, which has removed natural plant communities from the surrounding areas. The Project sites are isolated from regional wildlife corridors and linkages, and there are no riparian corridors, creeks, or useful patches of stepping stone habitat (natural areas) within or connecting the Project sites to any identified wildlife corridors or linkages. As a result, implementation of the proposed Projects will not disrupt or have any adverse effects on any migratory corridors or linkages in the surrounding area.

Jurisdictional Areas

There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The Corps Regulatory Branch regulates discharge of dredge or fill materials into "waters of the United States" pursuant to Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the CDFW regulates alterations to

streambed and bank under Fish and Game Code Sections 1600 et seq., and the Regional Board regulates discharges into surface waters pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act.

The Pixley Basin site supports a stormwater retention and flood control basin that was excavated wholly in the uplands between 2006 and 2014. It does not have a surface hydrologic connection to any downstream waters of the United States or waters of the State. Further, the Pixley Basin does not support riparian vegetation, and therefore would not fall under the jurisdictional authority of the Corps, Regional Board, or CDFW. Therefore, project related activities within the Pixley Basin will not result in impacts to Corps, Regional Board, or CDFW jurisdictional areas and regulatory approvals will not be required.

It should be noted that the vacant property west of the northwestern portion of the Pixley Basin property has been mapped as having two freshwater emergent wetland habitats by the NWI. This area, outside of the Pixley Basin Project footprint supports disturbed, vacant land that is subject to routine disking activities. As a result, no existing freshwater wetland habitats were observed in the area mapped by the NWI.

The Parking Garage and Century Park Project sites do not support any discernible drainage courses, inundated areas, wetland features, or hydric soils that would be considered jurisdictional by the Corps, Regional Board, or CDFW. Therefore, Project activities will not result in impacts to Corps, Regional Board, or CDFW jurisdictional areas and regulatory approvals will not be required.

Special-Status Biological Resources

The CNDDB Rarefind 5 and the CNPS Electronic Inventory of Rare and Endangered Vascular Plants of California were queried for reported locations of special-status plant and wildlife species as well as special-status natural plant communities in the Lodi North, Lodi South, Lockeford, and Waterloo USGS 7.5-minute quadrangles. The habitat assessment evaluated the conditions of the habitat(s) within the boundaries of the Project sites to determine if the existing plant communities, at the time of the survey, have the potential to provide suitable habitat(s) for special-status plant and wildlife species.

The literature search identified six (6) special-status plant species, thirty-five (35) special-status wildlife species, and two (2) special-status plant communities as having potential to occur within the Lodi North, Lodi South, Lockeford, and Waterloo USGS 7.5-minute quadrangles. Special-status plant and wildlife species were evaluated for their potential to occur within the Project sites based on habitat requirements, availability and quality of suitable habitat, and known distributions. Species determined to have the potential to occur within the general vicinity of the project sites are presented in *Table C-1: Potentially Occurring Special-Status Biological Resources*, provided in Attachment C in ELMT's report in Appendix C.

Special-Status Plants

According to the CNDDB and CNPS, six (6) special-status plant species have been recorded in the Lodi North, Lodi South, Lockeford, and Waterloo quadrangles (refer to Attachment C). No special-status plant species were observed onsite during the habitat assessment. The Project sites consist of vacant, undeveloped land, or developed land that has been subject to a variety of anthropogenic disturbances. These disturbances have eliminated the natural plant communities that once occurred on the Project sites, which has removed suitable habitat for special-status plant species known to occur in the general vicinity of the Project sites. Based on habitat requirements for specific special-status plant species and the availability and quality of habitats needed by each species, it was determined that the Project sites do not provide suitable habitat for any of the special-status plant species known to occur in the area and are presumed to be absent from the Project sites. No focused surveys are recommended.

Special-Status Wildlife

According to the CNDDB, thirty-five (35) special-status wildlife species have been reported in the Lodi North, Lodi South, Lockeford, and Waterloo quadrangles (refer to Attachment C in Appendix C). No special-status wildlife species were observed onsite during the habitat assessment. The Project sites consist of vacant, undeveloped land, or developed land that has been subject to a variety of anthropogenic disturbances. These disturbances have eliminated the natural plant communities that once occurred on-site which have greatly reduced potential foraging opportunities for wildlife species.

Based on habitat requirements for specific species and the availability and quality of on-site habitats, it was determined that the proposed Project sites, in particular the Pixley Basin site, have a moderate to high potential to support great egret (*Ardea alba*), and great blue heron (*Ardea herodias*). Both of these species are not federally, or state listed. All remaining special-status wildlife species were determined to have a low potential to occur or are presumed to be absent from the Project sites due to the fact that the Project sites have been heavily disturbed from onsite disturbances and surrounding development.

In order to ensure impacts to the aforementioned species do not occur from implementation of the proposed project, a pre-construction nesting bird clearance survey should be conducted prior to ground disturbance. With implementation of mitigation through the pre-construction clearance survey, impacts to the aforementioned species will be less than significant.

Special-Status Plant Communities

According to the CNDDB, two (2) special-status plant community has been reported in the Lodi North, Lodi South, Lockeford, and Waterloo USGS 7.5-minute quadrangles: Northern Hardpan Vernal Pool, and Valley Oak Woodland. Based on the results of the field investigation, no special-status plant communities were observed on the Project sites.

Critical Habitat

Under the federal Endangered Species Act, "Critical Habitat" is designated at the time of listing of a species or within one year of listing. Critical Habitat refers to specific areas within the geographical range of a species at the time it is listed that include the physical or biological features that are essential to the survival and eventual recovery of that species. Maintenance of these physical and biological features requires special management considerations or protection, regardless of whether individuals or the species are present or not. All federal agencies are required to consult with the United States Fish and Wildlife Service (USFWS) regarding activities they authorize, fund, or permit which may affect a federally listed species or its designated Critical Habitat. The purpose of the consultation is to ensure that projects will not jeopardize the continued existence of the listed species or adversely modify or destroy its designated Critical Habitat. The designation of Critical Habitat does not affect private landowners, unless a project they are proposing is on federal lands, uses federal funds, or requires federal authorization or permits (e.g., funding from the Federal Highways Administration or a CWA Permit from the Corps). If a there is a federal nexus, then the federal agency that is responsible for providing the funding or permit would consult with the USFWS.

The Project sites are not located within federally designated Critical Habitat. Refer to Exhibit 10, *Critical Habitat* in Attachment A in Appendix C. The nearest designated Critical Habitat is located approximately 1 mile north of the Parking Garage site within the Mokelumne River for steelhead (*Oncorhynchus mykiss*), and approximately 4 miles west of the City of Lodi for delta smelt (*Hypomesus transpacificus*).Therefore, the loss or adverse modification of Critical Habitat from site development will not occur and consultation with the USFWS for impacts to Critical Habitat will not be required for implementation of the proposed Project.

3.8.2 Discussion and Mitigation Measures

Biological Resources. a. *Would the project 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?*

Answer: Less than Significant with Mitigation Incorporated.

Discussion:

As stated above, the literature search identified six (6) special-status plant species, thirty-five (35) special-status wildlife species, and two (2) special-status plant communities as having potential to occur within the Lodi North, Lodi South, Lockeford, and Waterloo USGS 7.5-minute quadrangles. However, none of these were observed on-site during the habitat assessment and none are expected to occur on the Project sites due to the lack of suitable habitat.

Also as stated above, during the field investigation, two active Canada goose nests was observed within the Pixley Basin Project footprint. The Project sites provide suitable nesting habitat for year-round and seasonal avian residents, as well as migrating

songbirds that could occur in the area. Most of the nesting habitat associated with the Parking Garage and Century Park Sites are associated with the ornamental trees adjacent to the Project sites. Additionally, the Pixley Basin site provides suitable nesting opportunities for geese and ducks, and birds that nest on the open ground, such as killdeer. A pre-construction nesting bird clearance survey shoul be conducted within three (3) days prior to ground disturbance to ensure no nesting birds will be impacted from site development.

Therefore, NCPA will include the following in its contract documents for this Project:

- If construction occurs between February 1st and August 31st, a pre-construction clearance survey for nesting birds shall be conducted within three (3) days of the start of any vegetation removal or ground disturbing activities to ensure that no nesting birds will be disturbed during construction. The biologist conducting the clearance survey should document a negative survey with a brief letter report indicating that no impacts to active avian nests will occur. If an active avian nest is discovered during the pre-construction clearance survey, construction activities shall stay outside of a no-disturbance buffer. The size of the no-disturbance buffer (generally 300 feet for migratory and non-migratory song birds and 500 feet for raptors and special-status species) will be determined by the wildlife biologist, in coordination with the CDFW, and will depend on the level of noise and/or surrounding disturbances, line of sight between the nest and the construction activity, ambient noise, and topographical barriers. These factors will be evaluated on a case-by-case basis when developing buffer distances. Limits of construction to avoid an active nest will be established in the field with flagging, fencing, or other appropriate barriers; and construction personnel will be instructed on the sensitivity of nest areas. A biological monitor should be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, construction activities within the buffer area can occur.

Implementation of the above mitigation measure will ensure that the impacts to nesting birds are less than significant.

Biological Resources. b. *Would the project 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 U.S. Fish and Wildlife Service?*

Answer: No Impact.

Discussion:

As stated above, the Pixley Basin site supports a stormwater retention and flood control basin that was excavated wholly in the uplands between 2006 and 2014. It does not have a surface hydrologic connection to any downstream waters of the United States or waters of the State. Further, the Pixley Basin does not support riparian vegetation, and therefore would not fall under the jurisdictional authority of the Corps, Regional Board, or CDFW. Therefore, project related activities within the Pixley Basin will not result in impacts to Corps, Regional Board, or CDFW jurisdictional areas and regulatory approvals will not be required.

It should be noted that the vacant property west of the northwestern portion of the Pixley Basin property has been mapped as having two freshwater emergent wetland habitats by the NWI. This area, outside of the Pixley Basin Project footprint supports disturbed, vacant land that is subject to routine disking activities. As a result, no existing freshwater wetland habitats were observed in the area mapped by the NWI.

The Parking Garage and Century Park Project sites do not support any discernible drainage courses, inundated areas, wetland features, or hydric soils that would be considered jurisdictional by the Corps, Regional Board, or CDFW. Therefore, Project activities will not result in impacts to Corps, Regional Board, or CDFW jurisdictional areas and regulatory approvals will not be required. Therefore, no further analysis or mitigation is required.

Biological Resources. c. *Would the project 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?*

Answer: No Impact

Discussion:

As discussed under *Biological Resources. b.* above, there are no federally protected wetlands on any of the Project sites. Therefore, no further analysis or mitigation is required. Therefore, no further analysis or mitigation is required.

Biological Resources. d. *Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

Answer: No Impact.

Discussion:

The proposed Projects will be confined to existing disturbed and/or developed areas that are surrounded by development, which has removed natural plant communities from the surrounding areas. The Project sites are isolated from regional wildlife corridors and linkages, and there are no riparian corridors, creeks, or useful patches of stepping stone habitat (natural areas) within or connecting the Project sites to any identified wildlife corridors or linkages. As a result, implementation of the proposed Projects will not disrupt or have any adverse effects on any migratory corridors or linkages in the surrounding area. Therefore, no further analysis or mitigation is required.

Biological Resources. e. *Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

Answer: No Impact.

Discussion:

There are no local polices or ordinances protecting biological resources that would be applicable to the Project. Therefore, no further analysis or mitigation is required.

Biological Resources. f. *Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?*

Answer: No Impact.

Discussion:

The proposed Project sites were reviewed against the San Joaquin Multiple Species Conservation Plan and Open Space Plan (SJMSCP) to determine if the sites are located within any SJMSCP designated Preserves, core habitat areas, or wildlife movement corridors. A preliminary review of the SJMSCP determined that the Project sites are located within the Central Zone of the SJMSCP, which encompasses the lands surrounding each of the County's seven incorporated cities (including the City of Lodi). The Central Zone is composed primarily of agricultural lands on the floor of the Central Valley including those that are bisected by riparian corridors including the Mokelumne River, the Calaveras River, the Stanislaus River, Old River and the San Joaquin River. The Project sites are not located within and SJMSCP designated Preserves, core habitat areas, or wildlife movement corridors. Therefore, no further analysis or mitigation is required.

3.8.3 Conclusion

Implementation of the above mitigation measures will insure that all impacts to biological resources are reduced to a level of less than significant.

3.9 Cultural Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☐	◙
b. Cause a substantial adverse change in the significance of an archeological resource pursuant to §15064.5?	☐	◙	☐	☐
c. Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	◙	☐	☐

3.9.1 Environmental Setting

Anza Resource Consultants (Anza) was retained by K.S. Dunbar & Associates, Inc. to conduct Phase I cultural resources studies for the NCPA Solar Project 1 – Lodi Sites (i.e., Century Park East/West, Pixley Basin and Parking Garage. The Phase 1 studies include a cultural resources records search, Sacred Lands File search and Native American scoping, a pedestrian survey of the project site, and preparation of a technical report in compliance with the cultural resources requirements of CEQA. Complete copies of Anza's three reports are included in Appendix D of this report.

The cultural resource records search, Native American scoping, and pedestrian survey identified no cultural resources within or adjacent to the project sites. Anza recommends a finding of ***no impact to historical resources*** under CEQA. No further cultural resources study is recommended; however, standard mitigation measures are recommended to avoid potential impacts from the unanticipated discovery of cultural resources during project-related ground disturbing activities.

3.9.2 Discussion and Mitigation Measures

Cultural Resources. a. *Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?*

Answer: No Impact.

Discussion:

Century Park East/West

The Central California Information Center records search identified three cultural resources previously recorded within a 0.5-mile radius of the Project site (Table 2 in Anza's report in Appendix D). One of the resources (P-39-000002) is an unrecorded segment of the historic period Southern Pacific San Joaquin Valley Mainline – now the Union Pacific Railroad – which is adjacent and between the Century East and West Project site loci. The other two resources are historic period buildings at least 0.25 mile from the Project site.

Pixley Basin

No historical resources have been recorded within one-half mile of the Project site.

Parking Garage

NCPA intends to place PV solar panels atop a rack system above the roof of a modern three-story parking garage. The parking garage is at the former location of the Southern Pacific Passenger Depot. One NRHP-listed resource – the Mission Arch or Lodi Arch (P-39-000491) – is located adjacent to the south of the project site spanning East Pine Avenue. The modern parking garage was constructed adjacent to the Mission Arch and is taller than the arch. It is unlikely the solar panels would be visible to viewers of the arch from street level, and even if visible, their placement atop a modern parking structure would not further reduce the

integrity of setting for the Mission Arch. Based on this analysis, installation of the proposed project atop the parking garage would not create a direct or indirect impact to the Mission Arch (P-39-000491).

Therefore, there would be impacts to historical resources due to implementation of the Project. Consequently, no further analysis or mitigation is required.

Cultural Resources. b. *Would the project cause a substantial adverse change in the significance of an archeological resource pursuant to §15064.5?*

Answer: Less than Significant with Mitigation Incorporated.

Discussion:

Although there were no archaeological sites discovered on the Project sites, there is always the possibility of an inadvertent discovery of an unknown site during excavation. Therefore, NCPA will:

- Prior to the start of construction, NCPA shall hold a pre-grading meeting. The Project Archaeologist shall attend the pre-grading meeting with NCPA's Project Administrator, Field Engineering Inspector and any contractors to conduct a Cultural Resources Worker Sensitivity Training for all construction personnel working on the proposed Project. The training shall include an overview of potential cultural resources that could be encountered during ground disturbing activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated, and any other appropriate protocols.

- In addition, NCPA will include the following mitigation measures in its contract documents for this project.

  - ✓ In the unlikely event that potentially significant archaeological materials are encountered during construction activities, all work shall be halted in the vicinity of the archaeological discovery until a qualified archaeologist can visit the site of discovery, access the significance of the archaeological resource, and provide proper management recommendations. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted. The treatment and disposition of cultural material that might be discovered during excavation shall be in accordance with applicable laws and regulations.

  - All sacred items, should they be encountered within the Project sites, shall be avoided and preserved as the preferred mitigation, if feasible. All cultural materials that are collected during excavation and other earth disturbing activities on the Project sites, with the exception of sacred items, burial goods and human remains which will be addressed in any required Treatment Agreement, shall be tribally curated according to the current repository standards. The collections and associated records shall be transferred, including title, to the closet tribe to the Project site.

Cultural Resources. d. *Would the project disturb any human remains, including those interred outside of formal cemeteries?*

Answer: Less than Significant with Mitigation Incorporated.

Discussion:

No human remains were discovered on-site. However, there is always the potential to inadvertently discover human remains during excavation. Therefore, NCPA will include the following in its standard contract documents for this Project.

- In the event of an accidental discovery or recognition of any human remains, the County Coroner shall be notified and construction activities at the affected work site shall be halted. If the coroner determines the remains to be Native American: (1) the coroner shall contact the Native American Heritage Commission (NAHC) within 24-hours, and (2) the NAHC shall identify the person or persons it believes to be the most likely descended from the deceased Native American. The treatment and disposition of human remains that might be discovered during excavation shall be in accordance with applicable laws and regulations.

3.9.3 Conclusion

Implementation of the above mitigation measures would insure that any impact to cultural resources would be reduced to a level of less than significant.

3.10 Energy

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☐	◙
b. Conflict or obstruct a state of local plan for renewable energy or energy efficiency?	☐	☐	☐	◙

3.10.1 Environmental Setting

The City of Lodi's Electric Utility provides the residents of Lodi with reliable electric service at competitive prices. It has been a member of the Northern California Power Agency for over 30 years.

3.10.2 Discussion and Mitigation Measures

Energy. a. *Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*

Answer: No Impact.

Discussion:

During construction, it would be necessary to use diesel-powered equipment to grade the Pixley Basin site and to install the actual equipment at all sites. This would not be considered a wasteful, inefficient or unnecessary consumption of energy resources.

It is proposed to install solar photovoltaic electric generation systems at three sites within the City of Lodi. The installed capacity of these systems would be 0.63 MW_{dc} at Century Park, 3.51 MW_{dc} at Pixley Basin and 0.18 MW_{dc} at the Parking Garage. It is anticipated that these three systems would generate a total of approximately 3,200 MWhr per year. This generation of electrical energy would far outweigh the minor amount of resources used to construct the facilities.

Therefore, there would be no impacts to energy caused by implementation of the Project. Consequently, there would be no further analysis or mitigation required.

Energy. b. Would the project conflict or obstruct a state of local plan for renewable energy or energy efficiency?

Answer: No Impact.

Discussion:

The addition of approximately 4.3 MW_{dc} of renewable energy generation would assist NCPA and the City of Lodi in meeting its goals of a 50 percent Renewable Portfolio Standard (RPS) by 2030. Therefore, implementation of the Project would not conflict or obstruct implementation of that plan. Consequently, no further analysis or mitigation is required.

3.10.3 Conclusion

No adverse impacts were identified; therefore, no further analysis or mitigation is required.

3.11 Geology and Soils

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
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 or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	◙	☐
i. Strong seismic ground shaking?	☐	☐	◙	☐
ii. Seismic-related ground failure, including liquefaction?	☐	☐	☐	◙
iii. Landslides?	☐	☐	☐	◙
b. Result in substantial soil erosion or the loss of topsoil?	☐	◙	☐	☐
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?	☐	☐	☐	◙
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	◙
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?	☐	☐	☐	◙
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	◙	☐	☐

3.11.1 Environmental Setting

Geologic Setting

The Central Valley is filled with a thick sequence of sediments eroded from the Sierra Nevada range to the east. The sediments are so thick on the western edge of the Sacramento Valley that the rocks underlying the sediments have not been penetrated by borings. Sixty thousand feet or more of these sediments, known as the Great Valley Sequence, may have been deposited in this region from about 60 million years ago. Most of the sediments deposited in the area were deposited on land rather than in the sea. Prior to that time, the sediments were mostly marine. The continental deposits include increasing amounts of sediments derived from Sierra Nevada bedrock and volcanic activity in the Sierras toward the end of the Tertiary period. Middle to late Tertiary sediments form the principal groundwater aquifers of the Central Valley. In this region, these sediments are estimated to be about 3,000 feet thick. During the last 1.6 million years, (the Quaternary period), large amounts of lake and marsh deposits have accumulated in parts of the Central Valley. The most recent deposits in the region are flood plain deposits, consisting of clay, silt and some sand. *(Lodi, November 2009).*

Seismicity

The Project area is located 65 miles east of the San Francisco Bay Area and lies within Seismic Risk Zone 3. The Project area may be affected by regionally occurring earthquakes; however, impacts resulting from such an event are not likely to be severe. Figure 3.11-1 (Figure 8-4 in Lodi General Plan) identifies active and potentially active faults in and around the Lodi area.

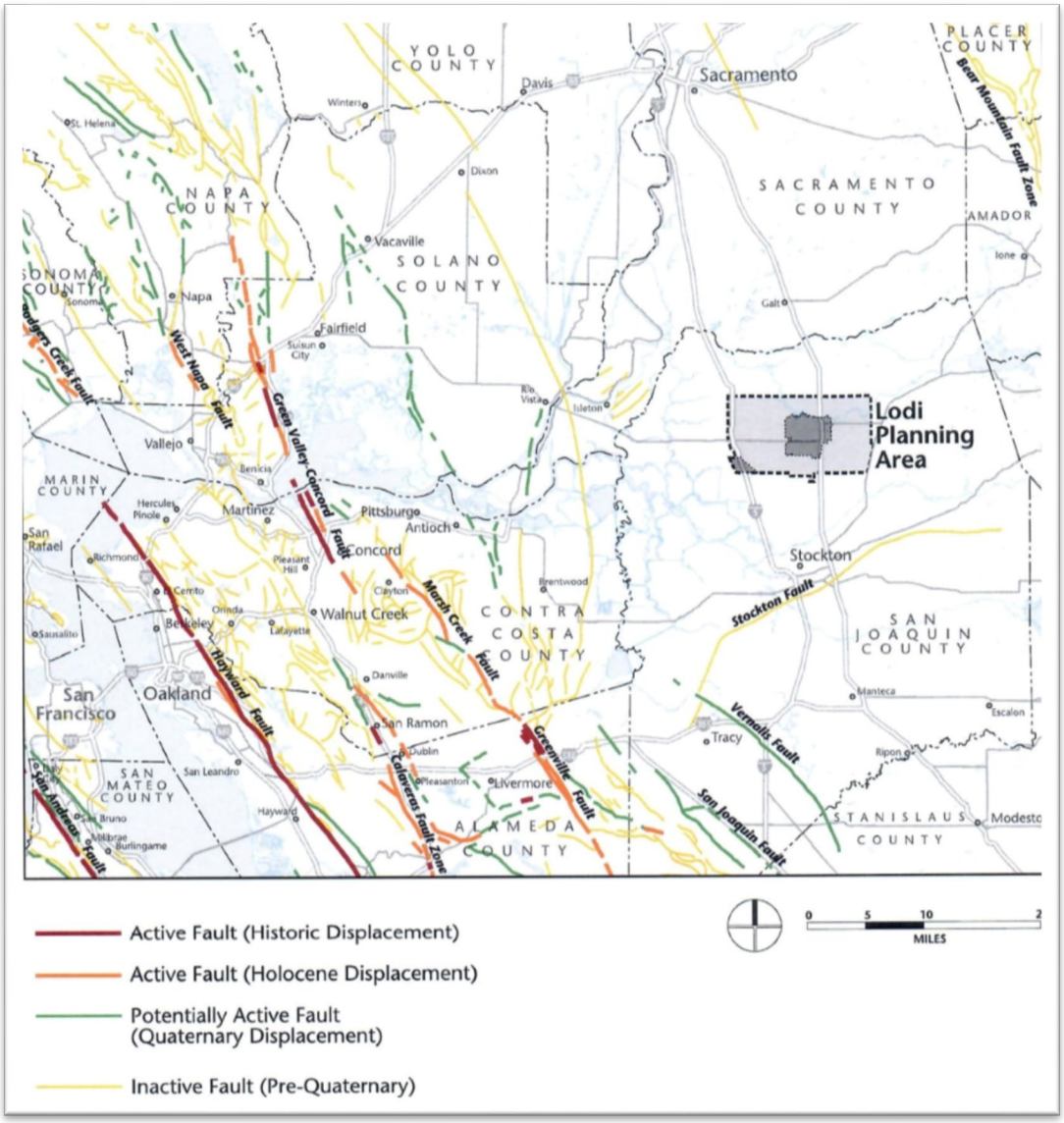


Figure 3.11-1 Regional Faults

As shown on Figure 3.11-1, the nearest active fault to the Project area is the Greenville Fault which is located approximately 34 miles to the south. The Maximum Moment Magnitude on the Greenville Fault is estimated to be 6.9. Other faults close to the Project area exhibiting historic displacement (activity within the last 200 years) are the Concord-Green Valley and Hayward Faults located approximately 45 miles west-northwest and 56 miles west of the Project area, respectively. Portions of the Calaveras Fault zone have also been rated as being active within the last 200 years; those portions are located approximately 46 miles southwest of the Project area. The nearest Quaternary fault (2 million years ago to present) to the Project area showing activity within the past 1.6 million years is the San Joaquin Fault located approximately 24 miles southwest of the Project area. The nearest mapped fault tract, the Stockton Fault, is not considered an active fault. *(Lodi, April 2010).*

Soils

According to the U.S. Department of Agriculture's National Conservation Service's Web Soils Survey for San Joaquin County, soils at the Century Park East/West site are composed of Tokay-Urban land complex with 0 to 2% slopes. Soils at the Pixley Basin site

are composed of Tokay-Urban land complex with 0 to 2% slopes and Tokay fine sandy loam with 0 to 2% slopes. Soils at the Parking Garage site are classified as Urban land.

3.11.2 Discussion and Mitigation Measures

Geology and Soils. a. i. *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving 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 or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*

Answer: No impact.

Discussion:

The Alquist-Priolo Earthquake Fault Zoning Act identifies special study zones for areas where existing known faults are located. The main purpose of the Act is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The Act also required the State Geologist to establish regulatory zones (known as Earthquake Fault Zones) around the surface traces of active faults and to issue appropriate maps. The Proposed Project site is not shown on any State of California Special Studies Zones Quadrangles. Therefore, no further analysis or mitigation is required.

Geology and Soils. a. ii. *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?*

Answer: Less than Significant.

Discussion:

The potential for strong seismic ground shaking in the Project area is similar to that in surrounding areas. Because the Proposed Project consists of facilities that are not intended for human habitation, the Proposed Project will not expose people or critical structures to adverse effects resulting from seismic-related ground failure, including liquefaction. In addition, the Proposed Project facilities are specifically designed to withstand seismic conditions anticipated to occur at the Proposed Project sites. Seismic conditions expected to occur in the Proposed Project area can be mitigated by special design using reasonable construction and/or maintenance practices common to the San Joaquin County area. Any potential impacts would be considered less than significant and further analysis or mitigation is required.

Geology and Soils. a. iii. *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?*

Answer: Less than Significant.

Discussion:

According to the City of Lodi's Safety Element, the risk of surface rupture is considered low. In addition, the probability of soil liquefaction taking place in the Project area is considered to be low to moderate due to the substantial distance from the active Hayward and Calaveras Fault zones and the type of ground shaking expected from those faults. Any potential impacts would be considered less than significant and no further analysis or mitigation is required.

Geology and Soils. a. 4. *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?*

Answer: No Impact.

Discussion:

The Project area is primarily flat and thus the risk of unstable soils or landslides is considered relatively low. Therefore, no further analysis or mitigation is required.

Geology and Soils. b. *Would the project result in substantial soil erosion or the loss of topsoil?*

Answer: Less than Significant with Mitigation Incorporated.

Discussion:

The Tokay soil types in the Project area have a moderate potential for wind erosion. Up to 15 acres of these soils could be exposed during the grading required at the Pixley Basin site. However, strict adherence to NCPA's best management practices for air quality control would insure that these potential impacts were less than significant.

Geology and Soils. c. *Would the project 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?*

Answer: No Impact.

Discussion:

As stated above, the Project area is not located on a geologic unit or soil that would become unstable. Therefore, no further analysis or mitigation is required.

Geology and Soils. d. *Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?*

Answer: No Impact.

Discussion:

Expansive soils are largely composed of clay which expand in volume when water is absorbed and shrink when dried. The soils at the Project sites are fine sandy loams which are not susceptible to expansion and shrinking. Therefore, there would be no impacts and no further analysis or mitigation is required.

Geology and Soils. e. *Would the project have soils incapble of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?*

Answer: No Impact.

Discussion:

The Project does not include the use of septic tanks or alternative wastewater disposal systems. Therefore, there are no impacts associated with the use of septic tanks or alternative wastewater disposal systems and no mitigation is required.

Geology and Soils. f. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Answer: Less than Significant with Mitigation Incorporated.

Discussion:

There is always the possibility of an inadvertent discovery of paleontological resources during construction. However, NCPA's construction documents for the Project will include the following best management practices:

- In the unlikely event that potentially significant paleontological materials (e.g., fossils) are encountered during construction of the project, all work shall be halted in the vicinity of the paleontological discovery until a qualified paleontologist can visit the site of discovery, assess the significance of the paleontological resource, and provide proper management recommendations. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted. The treatment and disposition of paleontological material that might be discovered during excavation shall be in accordance with applicable laws and regulations.

3.11.3 Conclusion

Strict adherence to NCPA's best management practices outlined above would insure that no significant impacts to geology and soils would occur; therefore, no further analysis or additional mitigation is required.

3.12 Greenhouse Gas Emissions

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance?	☐	☐	◙	☐
b. Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emission of greenhouse gases?	☐	☐	☐	◙

3.12.1 Environmental Setting

Under Assembly Bill 32 (AB 32) greenhouse gases (GHGs) are defined as carbon dioxide 9CO_2), methane (CH_4), nitrous oxide (NO_2), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF_6),

GWP is a measure of how much a given mass of greenhouse gas is estimated to contribute to global warming. It is a relative scale that compares the gas in question to the same mass of carbon dioxide (whose GWP by definition is 1). A GWP is calculated over a specific time interval and the value of this must be stated whenever a GWP is quoted or else the value is meaningless. A substance's GWP depends on the time span over which the potential is calculated. A gas which is quickly removed from the atmosphere may initially have a large effect but for longer time periods as it has been removed becomes less important. For the purposes of a CEQA analysis, especially an analysis of operating emissions, the maximum GWP is typically used, regardless of the actual atmospheric lifetime. This approach simplifies the analysis and provides a very conservative analysis, especially for the fluorinated gases. The GWP of the six Kyoto GHGs is shown in Table 3.12-1 [U.S. EPA (www.epa.gov)].

Table 3.12-1
Global Warming Potential of Kyoto GHGs

Gas	Atmospheric Lifetime	GWP
Carbon Dioxide (CO_2)	50 – 200	1
Methane (CH_4)	12 ± 3	21
Nitrous Oxide (NO_2)	120	310
HFC-23 (Hydrofluorocarbons)	264	11,700
HFC-32	5.6	650
HFC-125	32.6	2,800
HFC-134a	14.6	1,300
HFC-143a	48.3	3,800
HFC-152a	1.5	140
HFC-227ea	36.5	2,900
HFC-236fa	209	6,300
HFC-4310mee	17.1	1,300
CF_4 (Perfluorocarbons)	50,000	6,500
C_2F_6	10,000	9,200
C_4F_{10}	2,600	7,000
C_6F_{14}	3,200	7,400
Sulfur Hexafluoride (SF_6)	3,200	23,900

Source: U.S. EPA (www.epa.gov)

According to the California Air Resources Board's *California Greenhouse Gas Emission for 2000 to 2016 Trends of Emissions and Other Indicators,* California uses the annual statewide greenhouse gas (GHG) emission inventory to track progress toward meeting statewide GHG targets. The inventory for 2016 shows that California's GHG emissions continue to decrease, a trend observed since 2007. In 2016, emissions from routine GHG emitting activities statewide were 429 million

metric tons of CO_2 equivalent ($MMTCO_2e$), 12 $MMTCO_2e$ lower than 2015 levels. This puts total emissions just below the 2020 target of 431 million metric tons. Emissions vary from year-to-year depending on the weather and other factors, but California will continue to implement its greenhouse gas reductions program to ensure the state remains on track to meet its climate targets in 2020 and beyond. These reductions come while California's economy grows and continues to generate jobs. Compared to 2015, California's GDP grew 3% while the carbon intensity of its economy declined by 6%.

- The largest reductions came from the electricity sector which continues to see decreases as a result of the state's climate policies, which led to growth in wind generation and solar power, including growth in both rooftop and large solar array generation.
- The abundant precipitation in 2016 provided higher hydropower to the state.
- The industrial sector shows a slight decrease in emissions in the past two years.
- The transportation sector remains the largest source of GHG emissions in the state and saw a 2% increase in emissions in 2016.
- Emissions from the remaining sectors are relatively constant in recent years, although emissions from high Global Warming Potential (GWP) gases also continued to increase as they replace Ozone Depleting Substances (ODS) banned under the 1987 Montreal Protocol.

3.12.2 Discussion and Mitigation Measures

Greenhouse Gas Emissions. a. *Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance?*

Answer: No Impact.

Discussion:

As shown in the Air Quality section, construction of the Project would generate exhaust emissions, including GHGs. from the construction equipment and on-road vehicles. The carbon dioxide equivalent of those emissions (CO_2 and CH_4) are estimated at 1,480 metric tons during 2019. The SJVAPCD has not established threshold limits for GHGs. However, the South Coast Air Quality Management District (SCAQMD) has suggested a threshold limit of 10,000 metric tons per year. Based on SCAQMD's threshold limit, emissions of GHGs during construction of the project would be less than significant. Therefore, no further analysis or mitigation is required.

Operation of the project has the potential to lower GHG emissions as the production of solar power does not produce GHGs as opposed to fossil fuel or gas-fired generation facilities.

Greenhouse Gas Emissions. b. *Would the project conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emission of greenhouse gases?*

Answer: No Impact.

Discussion:

As previously stated in the Energy section, the addition of approximately 4.4 MW_{dc} of renewable energy generation would assist NCPA and the City of Lodi in meeting its goals of a 50 percent Renewable Portfolio Standard (RPS) by 2030. Therefore, implementation of the Project would not conflict or obstruct implementation of that plan. Consequently, no further analysis or mitigation is required.

3.12.3 Conclusion

No significant impacts were identified; therefore, no further analysis or mitigation is required.

3.13 Hazards and Hazardous Materials

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?	☐	◙	☐	☐
b. Create a significant hazard to the public or the environment through reasonably upset accident conditions involving the release of hazardous materials into the environment?	☐	◙	☐	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	◙
d. Be located on a site that 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?	☐	☐	☐	◙
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, and if so, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	◙
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	◙
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	◙

3.13.1 Environmental Setting

Hazards

Seismic and Geologic Hazards

Seismic and geologic hazards were discussed in Section 3.11.

Fire

The Project sites are not within a high fire hazard area or within a fire responsibility area.

Flooding

Both the Century Park East/West and Pixley Basin sites are within the 500-year flood plain. Based on Burns & McDonnell's report, it appears that the risk of flooding at the Century Park East/West site is low. Burns & McDonnell made this same observation at the Pixley Basin site; however, it is designed to be a storm water detention and flood control basin. The Parking Garage site is on a roof and not subject to flooding.

Hazardous Materials

Several standard environmental record services are available to determine the potential for recognized environmental conditions in an area. Those databases are briefly described in the following paragraphs.

Superfund Enterprise Management System (SEMS)

In 2014, the Superfund Program implemented a new information system, the Superfund Enterprise Management System (SEMS). SEMS integrates multiple legacy systems (e.g., CERCLIS, ICTS, SDMS) into a comprehensive tracking and reporting tool, providing data on the inventory of active and archived hazardous waste sites evaluated by the Superfund program. It contains sites that are either proposed to be, or are on, the National Priority List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. SEMS also includes information from the California Department of Toxic Substances Control's Envirostor database. The SEMS search did not reveal any sites in the City of Lodi.

Envirostor

Envirostor is a database maintained and primarily used by the California Department of Toxic Substances Control (DTSC) to determine the location of all hazardous waste sites. The Envirostor search revealed an ongoing hazardous waste cleanup program in the City of Lodi. The Lodi Central Plume Area (LCPA) Site is located within the Lodi Area of Contamination (LAC) which occupies approximately 600 acres centered on the intersection of School Street and Lodi Avenue in the City of Lodi. Contaminated groundwater was identified by the City in 1989 when it detected tetrachloroethene (PCE) and trichloroethene (TCE) at concentrations above the California Maximum Contaminant Levels (MCLs) in two of the City's municipal water supply wells. The groundwater contamination is thought to have been due to on-site releases and wastewater discharges to the sanitary sewer system from up to 43 locations throughout the City. DTSC's current Lodi Groundwater Project (Envirostor Project ID 39990001) began in May of 1997 when it executed the Comprehensive Agreement with the City of Lodi for investigation and abatement of the volatile organic compound (VOC) contamination. Through the Agreement, DTSC allowed the City of begin pursuing judicial action against Potentially Responsible Parties to fully characterize and remediate the site. The California Regional Water Quality Control Board, Central Valley Region became the Lead Agency for the site during May 2005.

Geotracker

Geotracker is the State Water Resources Control Board's data management system for managing sites that impact groundwater, especially those that require groundwater cleanup (Underground Storage Tanks, Department of Defense Site Cleanup Program) as well as permitted facilities such as operating USTs and land disposal sites. The Lodi Central Plume Area site is also listed in the Geotracker database.

Leaking Underground Storage Tank Information System (LUSTIS)

The State Water Resources Control Board (State Water Board) administers the Leaking Underground Storage Tank Information System (LUSTIS). The LUSTIS database includes all reported leaks from underground storage tanks. The LUSTIS database is now reported in the Geotracker results.

Site Mitigation Program Property Database (formerly CalSites)

The California Environmental Protection Agency's Department of Toxic Substances Control (DTSC) administers the CalSites program. Information in the CalSites database is preliminary in nature; therefore, most sites listed in the database need additional work to determine if contamination exists. There are no sites in the CalSites database within the Project area.

Hazardous Waste and Substances Sites List (Cortese)

California's Government Code §65962.5 requires the California Department of Toxic Substances Control to develop, at least annually, an updated list of Hazardous Waste and Substances Sites. This list, known as the Cortese List, is a planning document used by the State, local agencies and developers to comply with the California Environmental Quality Act requirements in providing information about the location of hazardous materials release sites. DTSC is responsible for a portion of the information contained in the Cortese List. Other State and local agencies are required to provide additional hazardous materials release information for

the Cortese List. The Cortese List is to be submitted to the Secretary of the California Environmental Protection Agency. There are no sites on the Cortese List within the Project area.

Solid Waste Information System (SWIS)

The Solid Waste Information System (SWIS) is a database provided by the California Department of Resources Recycling and Recovery (CalRecycle) which consists of both open as well as closed and inactive solid waste disposal facilities and transfer stations. There are no active sites in the SWIS database within the Project area.

3.13.2 Discussion and Mitigation Measures

Hazards and Hazardous Materials. a. *Would the project create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?*

Answer: Less than Significant with Mitigation Incorporated.

Discussion:

Implementation of the proposed Project would not create any significant hazards as a result of the routine transport, use, storage, or disposal of hazardous materials. However, construction would include the temporary use and transport of fuels, lubricating fluids, solvents and other hazardous materials. The contractor would be required to adhere to the requirements of a *Health and Safety Plan* that it would develop for the Project pursuant to Chapter 6.95, Division 20 of the Health and Safety Code (§§ 25500—25532) as shown in the following mitigation measures.

During project construction, the construction contractor shall implement the following measures to address the potential environmental constraints associated with the presence of hazardous materials associated construction of the Project to the satisfaction of NCPA:

- The contractor shall prepare a Health and Safety Plan in compliance with the requirements of Chapter 6.95, Division 20 of the Health and Safety Code (§25500 – 25532). The plan shall include measures to be taken in the event of an accidental spill.

- The contractor shall enforce strict on-site handling rules to keep construction and maintenance materials out of receiving waters and storm drains. In addition, the contractor shall store all reserve fuel supplies only within the confines of designated construction staging areas; refuel equipment only with the designated construction staging areas; and regularly inspect all construction equipment for leaks.

- The construction staging area shall be designed to contain contaminants such as oil, grease, and fuel products to ensure that they do not drain towards receiving waters or storm drain inlets.

Hazards and Hazardous Materials. b. *Would the project create a significant hazard to the public or the environment through reasonably upset accident conditions involving the release of hazardous materials into the environment?*

Answer: Less than Significant with Mitigation Incorporated.

Discussion:

Construction equipment used to construct the Project facilities would have the potential to release oils, grease, solvents and other finishing products through accidental spills. However, adherence to the above mitigation measures would result in less-than-significant impacts. Therefore, no further analysis or additional mitigation is required.

Hazards and Hazardous Materials. c. *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

Answer: No Impact.

Discussion:

There are no known schools, existing or proposed, within one-quarter mile of the Project sites. Therefore, no further analysis or mitigation is required.

Hazards and Hazardous Materials. d. *Would the project be located on a site that 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?*

Answer: No Impact.

Discussion:

Several standard environmental record services are available to determine the potential for recognized environmental conditions in an area. Those databases include:

- Superfund Enterprise Management System (SEMS)
- Envirostor
- Geotracker
- Site Mitigation Program Property Database (formerly CalSites)
- Hazardous Waste and Substances Sites List (Cortese)
- Solid Waste Information System (SWIS)

These databases were searched for the presence of hazardous materials sites within the Project area. According to those databases, there is one active cleanup site in the Project area. However, as explained above this is a groundwater cleanup project and would have no effect on the Project. Therefore, no further analysis or mitigation is required.

Hazards and Hazardous Materials. e. *Would the project be 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, and if so, would the project result in a safety hazard or excessive noise for people residing or working in the project area?*

Answer: No Impact.

Discussion:

The Project sites are not within an airport land use plan or within two miles of a public airport or public use airport. Therefore, there would be no impacts and no further analysis or mitigation is required.

Hazards and Hazardous Materials. f. *Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

Answer: No Impact.

Discussion:

Implementation of the Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan as it would not be constructed within public rights-of-way. Therefore, there would be no impacts and no further analysis or mitigation is required.

Hazards and Hazardous Materials. h. *Would the project expose people or structures, either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?*

Answer: No Impact.

Discussion:

The Project area is not within a high fire hazard area or a fire responsibility area. Therefore, there would be no impacts and no further analysis or mitigation is required.

3.13.3 Conclusion

Implementation of the above mitigation measures will ensure that the impacts associated with hazards and hazardous materials are reduced to a less than significant level and no further environmental review or mitigation is required.

3.14 Hydrology and Water Quality

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	◙	☐	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable ground management of the basin?	☐	☐	☐	◙
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;	☐	☐	☐	◙
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	☐	◙
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	☐	☐	☐	◙
iv. Impede or redirect flood flows?	☐	☐	☐	◙
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	◙
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	◙

3.14.1 Environmental Setting

The Project area lies within the San Joaquin River Basin which covers 15,860 square miles and includes the entire area drained by the San Joaquin River. The principal streams in the Basin are the San Joaquin River and its larger tributaries: the Cosumnes, Mokelumne, Calaveras, Stanislaus, Merced, Chowchilla, and Fresno Rivers. Major reservoirs and lakes include Pardee, New Hogan, Millerton, McClure, Don Pedro and New Melones.

The San Joaquin River Watershed falls under the jurisdiction of the California Regional Water Quality Control Board, Central Valley Region. The Regional Board has established beneficial uses and water quality objectives for the San Joaquin River in its Water Quality Control Plan for the Sacramento River Basin and the San Joaquin River Basin.

3.14.2 Discussion and Mitigation Measures

Hydrology and Water Quality. a. *Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*

Answer: Less than Significant with Mitigation Incorporated..

Discussion:

Generally, during site grading and excavation activities, bare soil would be exposed to wind and water erosion. If precautions are not taken to contain sediments, construction activities could produce sediment laden storm runoff. In addition to increased erosion potential, hazardous materials associated with construction equipment could adversely affect water quality if spilled or stored improperly. (See Section 3.13.2 for a full discussion and mitigation measures associated with hazardous materials.) Implementation of the following mitigation measures would insure that all impacts to water quality were less than significant.

- All site grading and excavation activities associated with the construction of the Project facilities would be subject to the provisions of the National Pollutant Discharge Elimination System (NPDES) Construction Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities [NPDES No. CAS000002 (State Water Resources Control Board Order No. 2009-0009-DWQ)]. Compliance with the provisions of that Order would require NCPA to obtain coverage before the onset of construction activities. Construction activities would comply with the conditions of these permits that include preparation of storm water pollution prevention plans (SWPPP), implementation of BMP's, and monitoring to insure impacts to water quality are minimized. As part of this process, multiple BMP's should be implemented to provide effective erosion and sediment control. These BMP's should be selected to achieve maximum sediment removal and represent the best available technology that is economically achievable. BMP's to be implemented may include, but not be limited to, the following:

  - ✓ Temporary erosion control measures such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other groundcover shall be employed for disturbed areas.

  - ✓ Storm drain inlets on the site and in downstream offsite areas shall be protected from sediment with the use of BMP's acceptable to NCPA, local jurisdictions and the California Regional Water Quality Control Board, Central Valley Region.

  - ✓ Dirt and debris shall be swept from paved streets in the construction zone on a regular basis, particularly before predicted rainfall events.

  - ✓ No disturbed surfaces shall be left without erosion control measures in place. NCPA, or its Construction Contractor, shall file a Notice of Intent with the Regional Board and require the preparation of a pollution prevention plan prior to commencement of construction. NCPA shall routinely inspect the construction site to verify that the BMP's specified in the pollution prevention plan are properly installed and maintained. NCPA shall immediately notify the contractor if there were a noncompliance issue and require immediate compliance.

- The SWPPP will also identify the method of final stabilization of the site to ensure no post-construction erosion and impacts to water quality will occur. The Notice of Termination (NOT) and release of the Project from the provisions of the Construction General Permit coverage will be granted by the California Regional Water Quality Control Board, Central Valley Region once it is satisfied that no impacts to water quality will occur.

Hydrology and Water Quality. b. *Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable ground management of the basin?*

Answer: No Impact.

Discussion:

The proposed project includes the installation of solar photovoltaic facilities at three sites and does not include any facilities to extract groundwater. It will not result in the use of groundwater and thus will not substantially deplete groundwater supplies or interfere with groundwater recharge. Therefore, no further analysis or mitigation is required.

Hydrology and Water Quality. c.i. *Would the project 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 result in substantial erosion or siltation on- or off-site?*

Answer: No Impact.

Discussion:

The Century Park East/West site is essentially level and will require only a minimum amount of grading. The panels will be installed on penetrating piers that would have a negligible effect on runoff from the site. Grading will be required at the Pixley Basin site; however, the finished contours will insure that the Basin maintains the same volume of storage before and after grading. The panels would also be installed on penetrating piers. At the parking garage, the panels would be installed on the roof of the building.

Therefore, no impacts to the existing drainage pattern of any of the sites would occur. Consequently, no further analysis or mitigation is required.

Hydrology and Water Quality. c.ii. *Would the project 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 result in flooding on- or off-site?*

Answer: No Impact.

Discussion:

As discussed above, no impacts to the existing drainage pattern of any of the sites would occur. Consequently, no further analysis or mitigation is required.

Hydrology and Water Quality. c.iii. *Would the project create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?*

Answer: No Impact.

Discussion:

As discussed above, no impacts to the existing drainage pattern of any of the sites would occur. Consequently, no further analysis or mitigation is required.

Hydrology and Water Quality. c.iv. *Would the project impede or redirect flood flows?*

Answer: No Impact.

Discussion:

As discussed above, no impacts to the existing drainage pattern of any of the sites would occur. Consequently, no further analysis or mitigation is required.

Hydrology and Water Quality. d. *Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?*

Answer: No Impact.

Discussion:

The Century Park East/West site and the Pixley Basin site are within the 500-year flood hazard zone. However, based on field observations by Burns & McDonnell, it appears that the risk of flooding is very low. In addition, the actual panels would be installed on piers above the flood hazard elevation. Therefore, there would be no impacts and no further analysis or mitigation is required.

Hydrology and Water Quality. e. *Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

Answer: No Impact.

Discussion:

As shown above, the Project would have no effect on water quality and therefore would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Consequently, no further analysis or mitigation is required.

3.14.3 Conclusion

Implementation of the above mitigation measures would insure that the impacts to water quality would be less than significant.

3.15 Land Use and Planning

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?	☐	☐	☐	◙
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?	☐	☐	☐	◙

3.15.1 Environmental Setting

All three sites are with the City of Lodi. According to the City's General Plan, the eastern portion of the Century Park site is designated as open space and the western portion is designated as low-density residential. Both the Pixley Basin site and the Parking Garage site are designated as public/quasi-public. Solar installations are permitted uses in these land use areas.

3.15.2 Discussion and Mitigation Measures

Land Use and Planning. a. *Would the project physically divide an established community?*

Answer: No Impact.

Discussion:

The Century Park East/West site was acquired by the City of Lodi to allow the completion of Century Boulevard. The other two sites are already public use sites (i.e., storm water and flood control basin and parking garage. Therefore, the installation of solar arrays at these sites would not physically divide an established community. Consequently, no further analysis or mitigation is required.

Land Use and Planning. b. *Would the project 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?*

Answer: No Impact.

Discussion:

As stated above, solar installations are permitted uses in the designated land uses. Therefore, no further analysis or mitigation is required.

3.15.3 Conclusions

No significant effects were identified; therefore, no further analysis or mitigation is required.

3.16 Mineral Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Result in the loss of availability of a known resource that would be of value to the region and the residents of the state?	☐	☐	☐	◙
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?	☐	☐	☐	◙

3.16.1 Environmental Setting

According to the City of Lodi's Land Use Map, there are no mineral resources sites within the Project area.

3.16.2 Discussion and Mitigation Measures

Mineral Resources. a. *Would the project result in the loss of availability of a known resource that would be of value to the region and the residents of the state?*

Answer: No Impact.

Discussion:

There are no known mineral resources in the Project area that would be of value to the region and the residents of the State. Therefore, there would be no impacts anticipated and no mitigation is required.

Mineral Resources. b. *Would the project 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?*

Answer: No Impact.

Discussion:

There are no locally-important mineral resource recovery sites delineated on the applicable local general plans, specific plan or other land use plan in the Project area. Therefore, there would be no impacts anticipated and no mitigation is required.

3.16.3 Conclusion

No impacts are anticipated; therefore, no further analysis or mitigation is required.

3.17 Noise

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
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?	☐	☐	☐	◙
b. Generation of excessive groundbourne vibration or groundbourne noise levels?	☐	☐	☐	◙

3.17.1 Environmental Setting

The ambient noise level of a region is the total noise generated within the specific environment and is usually composed of sounds emanating from natural and manmade sources. Noise levels monitored in a region tend to have wide spatial and temporal variation due to the great diversity of contributing sources. This is especially true for the greater project area with its blend of rural land uses adjacent to a mix of residential and agricultural uses.

Characterization of the Project area noise levels is difficult due to the lack of actual field measurements. Very little noise measurement data are available for the Project area in general. However, typical noise levels for areas like the Project area are in the range of 45 to 55 dB(A).

Generally, the noise levels in the Project area are affected by natural and manmade sources. However, the sound levels are more strongly influenced by human rather than natural sound sources. Within the Project area, the major sources of noise include vehicular traffic, including trains, and aircraft flyovers.

3.17.2 Discussion and Mitigation Measures

Noise. a. *Would the project result in 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?*

Answer: No Impact.

Discussion:

Section 9.24.030 C of the Lodi Municipal Code states:

> *It is unlawful for any person, firm or corporation to cause, permit or generate any noise or sound as described herein between the hours of ten p.m. and seven a.m. which exceeds the ambient noise level at the property line of any residential property (or, if a condominium or apartment house within any adjoining apartment) as determined at the time of such reading by more than five decibels. This section shall be applicable whether such noise or sound is of a commercial or noncommercial nature.*

Construction would not occur during the hours of ten p.m. to seven a.m.; therefore, the above would not apply to the proposed Project. Consequently, no further analysis or mitigation is required.

Mineral Resources. b. *Would the project result in generation of excessive groundbourne vibration or groundbourne noise levels?*

Answer: No Impact.

Discussion:

Construction activities associated with the Project could result in some minor amount of ground vibration. The California Department of Transportation (Caltrans) has developed a vibration manual. According to that manual, the use of large bulldozers, vibratory rollers, and loaded trucks during grading activities could produce vibration. Depending on the level of vibration, the vibration could cause annoyance or damage structures within the project vicinity. Caltrans has developed a screening tool to determine if vibration from construction equipment is substantial enough to impact surrounding uses. Those thresholds are presented in Tables 3.17-1 and 3.17-2.

Table 3.17-1
Vibration Damage Potential Threshold Criteria

Structural Integrety	Maximum PPV (in/sec)	
	Transient	Continuous
Historic and some older buildings	0.50	0.25
Older residential structures	0.50	0.30
New residential structures	1.00	0.50
Modern industrial and commercial structures	2.00	0.50

Table 3.17-2
Vibration Annoyance Potential Threshold Criteria

Human Response	Maximum PPV (in/sec)	
	Transient	Continuous
Barely perceptible	0.035	0.012
Distinctly perceptible	0.24	0.035
Strongly perceptible	0.90	0.10
Severely perceptible	2.00	0.40

Construction equipment, such as vibratory rollers and bulldozers, are repetitive sources of vibration; therefore, the continuous threshold should be used in the vibration analysis for this project. The nearest residences to any of the the project sites is approximately 500 feet from the Century Park East/West site. As shown in Table 3.17-3, the ground vibration from construction equipment would not be perceptible.

Table 3.17-3
Construction Vibration Impacts

Small Bulldozer	0.003	500	0.00014
Loaded Truck	0.076	500	0.00355

3.17.3 Conclusion

No impacts were identified; therefore, no further analysis or mitigation is required.

3.18 Population and Housing

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	◙
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	◙

3.18.1 Environmental Setting

The 2010 Census indicated a population of 63,158 and a housing stock of 23,557 units in the City of Lodi *(www.usa.com, 02/21/2019).*

3.18.2 Discussion and Mitigation Measures

Population and Housing. a. *Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*

Answer*: No Impact.*

Discussion:

The Project includes the installation of solar photovoltaic systems at three sites in the City of Lodi. It does not include construction of homes, businesses or other infrastructure that would induce unplanned population growth. Therefore, no further analysis or mitigation is required.

Population and Housing. b. *Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

Answer: No Impact.

Discussion:

The Project facilities would be constructed on City-controlled land that does not include housing and therefore would not displace people or housing. Consequently, no further analysis or mitigation is required.

3.18.3 Conclusion

No impacts were identified; therefore, no further analysis or mitigation is required.

3.19 Public Services

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. 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:				
1. Fire Protection?	☐	☐	☐	◙
2. Police Protection?	☐	☐	☐	◙
3. Schools?	☐	☐	☐	◙
4. Parks?	☐	☐	☐	◙
5. Other Public Facilities?	☐	☐	☐	◙

3.19.1 Environmental Setting

Several entities provide public services to residents in the Project area. They include:

- Police Protection: City of Lodi Police Department
San Joaquin County Sheriff's Department
- Fire Protection: City of Lodi Fire Department
- Schools: Lodi Unified School District

3.19.2 Discussion and Mitigation Measures

Public Services. a.1. *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* ***fire protection services****?*

Answer: No Impact.

Discussion:

Implementation of the Project would not result in the need for additional fire protection services because the Project involves a negligible expansion of operations for which fire protection services would be required. Therefore, there would be no impacts anticipated and no mitigation is required.

Public Services. a.2. *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* ***police protection services****?*

Answer: No Impact.

Discussion:

Implementation of the Project would not result in the need for additional police protection services because the Project involves a negligible expansion of operations for which police services would be required. Additional police protection services (e.g., equipment, sworn officers) would not be required. Therefore, there would be no impacts anticipated and no mitigation is required.

Public Services. a.3. *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 schools****?*

Answer: No Impact.

Discussion:

Implementation of the Project would not result in a need for additional schools because the Project does not include the development of residential uses for which school services would be required. Therefore, there would be no impacts anticipated and no mitigation is required.

Public Services. a.4. *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 parks****?*

Answer: No Impact.

Discussion:

Implementation of the Project would not result in a need for additional park facilities because the Project does not include the development of uses for which public parks would be required. Therefore, there would be no impacts anticipated and no mitigation is required.

Public Services. a.5. *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* ***other public services****?*

Answer: No Impact.

Discussion:

Implementation of the Project would not result in a need for expansions to other public services. Therefore, there would be no impacts anticipated and no mitigation is required.

3.19.3 Conclusion

There were no significant impacts identified; therefore, no further analysis or mitigation is required.

3.20 Recreation

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. 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?	☐	☐	☐	◙
b. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	◙

3.20.1 Environmental Setting

There are several parks, golf courses and water-oriented recreational facilities in the greater project area.

3.20.2 Discussion and Mitigation Measures

Recreation. 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?*

Answer: No Impact.

Discussion:

The proposed Project would not increase the use or demand for park or recreational facilities because the Project does not include the development of uses that would place demands on these facilities, such as residential dwellings or office employment. Therefore, there would be no impacts anticipated and no further analysis or mitigation is required.

Recreation. b. *Would the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?*

Answer: No Impact.

Discussion:

The Project does not include recreational facilities. Therefore, there would be no impacts anticipated and no further analysis or mitigation is required.

3.20.3 Conclusion

No significant impacts were identified; therefore, no further analysis or mitigation is required.

3.21 Transportation

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Conflict with a plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle lanes and pedestrian paths?	☐	☐	☐	◙
b. For a land use project, would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)(1)?	☐	☐	☐	◙
c. For a transportation project, would the project conflict with CEQA Guidelines section 15064.3, subdivision (b)(3)?	☐	☐	☐	◙
d. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	◙
e. Result in inadequate emergency access?	☐	☐	☐	◙

3.23.1 Environmental Setting

Regional access to the Project sites is via Interstate 5 and Highways 99 and 12.

The California Department of Transportation's (Caltrans) latest traffic counts (2017) for these highways near the Project area are shown in Table 3.23-1.

Table 3.23-1
Selected Traffic Counts by Caltrans
(2017)

	Peak Hour	Peak Month	AADT[1]	Peak Hour	Peak Month	AADT[1]
Highway 5						
Junction Highway 12	6,700	80,000	63,000	4,250	65,000	58,100
Highway 12						
Junction Highway 5	2,000	17,000	16,400	1,600	16,700	15,000
South Ham	3,450	25,000	23,600	,450	27,000	23,100
Central Avenue	2,250	25,000	19,900	1,900	23,000	18,700
Junction Highway 99	2,450	26,500	24,000	1,100	12,500	10,100
Highway 99						
South Lodi	6,500	85,000	79,000	7,200	74,000	71,000
Junction Highway 12 West	4,850	79,000	75,000	6,100	78,000	76,000
Junction Highway 12 East	6,100	78,000	76,000	5,100	79,000	75,000
Turner Road	5,100	79,000	75,000	6,100	81,000	67,000

[1] AADT = Average Annual Daily Traffic
Source: Caltrans 2019, www.dot.ca.gov (2/22/2019)

The City of Lodi also collects traffic data for streets within the City. The latest average daily traffic volumes for streets near the Project sites were for 2017. Those are: Century Boulevard near Church Street, 5,170; Pine Street near Sacramento, 5,360; Sacramento near Pine Street, 2,240; and Beckham near Auto Center Drive, 7,920.

3.23.2 Discussion and Mitigation Measures

Transportation. a. *Would the project conflict with a plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle lanes and pedestrian paths?*

Answer: No Impact.

Discussion:

The Project consists of solar photovoltaic installation at three sites within the City of Lodi. The Century Park East/West site is on public lands acquired by the City of Lodi for the completion of Century Boulevard. However, the City later determined that this was not a priority. The Parking Garage site is on the roof of an existing parking garage and the Pixley Basin site is within a storm water and flood control basin. Therefore, the Project would not conflict with a plan, ordinance or policy addressing the circulation system. Consequently, no further analysis or mitigation is required.

Transportation. b. *For a land use project, would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)(1)?*

Answer: No Impact.

Discussion:

The project is not a land use project; therefore, this potential impact category would not apply to the project. Consequently, there would be no impacts anticipated and no further analysis or mitigation is required.

Transportation. c. *For a transportation project, would the project conflict with CEQA Guidelines section 15064.3, subdivision (b)(3)??*

Answer: No Impact.

Discussion:

The project is not a transportation project; therefore, this potential impact category would not apply to the project. Consequently, there would be no impacts anticipated and no further analysis or mitigation is required.

Transportation. d. *Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

Answer: No Impact.

Discussion:

Implementation of the Project would not substantially increase other hazards due to a geometric design feature or incompatible uses. Therefore, there would be no impacts anticipated and no further analysis or mitigation is required.

Transportation. e. *Would the project result in inadequate emergency access?*

Answer: No Impact.

Discussion:

Implementation of the Project would not result in inadequate emergency access. Therefore, there would be no impacts anticipated and no further analysis or mitigation is required.

3.23.3 Conclusion

No impacts were identified; therefore, no further analysis or mitigation is required.

3.24 Tribal Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code §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:				
1) Listed or eligible for listing on the California Register of Historical Resources, or on a local register of historical resources as defined in Public Resources Code §5020.1(k), or	☐	☐	☐	◙
2) A resource determined by a 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 §5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code § 5024.1, the lead agency shall consider the significance of the resources to a California Native American tribe.	☐	☐	☐	◙

3.24.1 Environmental Setting

AB 52 Consultation

On March 12, 2019, K.S. Dunbar & Associates, Inc., sent AB 52 Notifications to the following (copies of all correspondence are contained in Appendix E):

Rhonda Morningstar Pipe, Chairperson
Buena Vista Rancheria of Me-Wuk Indians
1418 20th Street
Sacramento, California 95871

Silvia Burley, Chairperson
California Valley Miwok Tribe
4620 Shippee Lane
Stockton, California 95212

California Valley Miwok Tribe
AKA Sheep Rancheria of Me-Wuk Indians of CA
2140 Shattuck Avenue, #602
Berkeley, California 94704

Sara Dutschke Setshwaelo, Chairperson
Ione Band of Mi-Wok Indians
Post Office Box 699
Plymouth, California 95699

Katherine Erolinda Perez, Chairperson
North Valley Yokut Tribe
Post Office Box 717
Linden, California 95236

Gene Whitehouse, Chairman
United Auburn Indian Community
10720 Indian Hill Road
Auburn, California 95603

Antonio Ruiz, Cultural Resources Officer
Wilton Rancheria
9728 Kent Street
Elk Grove, California 95684

Northern Valley Yokut

On April 2, 2019, Katherine Perez, Nototomne Cultural Preservation, Northern Valley Yokut, responded by email to Keith Dunbar. In that email, Ms. Perez stated:

The tribe has reviewed the information. The tribe is requesting that the NCPA request a record search from the Native American Heritage Commission and the information center as the area of the proposed project is in an area of sensitivity.

Response:

On February 26, 2019, K.S. Dunbar & Associates, Inc., did request the Native American Heritage Commission to perform a search of its Sacred Lands file. Subsequently, on March 11, 2019, Katy Sanchez, Associate Environmental Planner, responded in an email to Keith S. Dunbar in which she stated:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands file (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

During the preparation of its cultural resources assessment for the Project, Anza Resource Consultants performed a records search at the Central California Information Center at the Department of Anthropology, California State University, Stanislaus. Based on that search, no historic or cultural resources have been previously identified on the Project sites. Anza's complete report is contained in Appendix D.

United Auburn Indian Community

On April 24, 2019, Cherilyn Neider, Tribal Historic Preservation of the United Auburn Indian Community responded by email to Keith S. Dunbar. In that email, she stated:

Thank you for your letter received notifying us of the NCPA Solar Project 1. I am contacting you in order to request:

- *Consultation for this project.*
- *All existing cultural resources assessments.*
- *Requests for and results of record searches.*

Attached you will find mitigation measures recommended for this project. These measures address inadvertent discoveries and a tribal cultural resources awareness training as part of the Worker Environmental Awareness and Protection training. Please confirm that the attached mitigation measures will be included in the environmental document and the adopted mitigation, monitoring and reporting program. Thank you for involving UAIC in the planning process at an early stage. We ask

that you make this correspondence a part of the project record and that you provide UAIC with a copy of the final environmental document and adopted mitigation, monitoring and reporting program.

Response:

Also, on April 24, 2019, K.S. Dunbar & Associates, Inc., emailed Ms. Neider an AB 52 Initiation of Consultation letter (Appendix E).

The requested documents were submitted to Ms. Neider on May 2, 2019..

The recommended mitigation measures were considered during the development of the Initial Study and Mitigated Negative Declaration as well as the Mitigation Monitoring and Reporting Program (Appendix F). Although the recommended language was not included verbatim, the intent of the mitigation measures included are similar in nature.

On May 2, 2019, K.S. Dunbar & Associates, Inc., received a letter dated April 15, 2019 from Gene Whitehouse, Chairman of the United Auburn Indian Community also requesting AB 52 consultation on this Project. In addition, Chairman Whiteman Whitehouse stated:

This letter is also a formal request to allow UAIC tribal representatives to observe and participate in all cultural resource surveys, including initial pedestrian surveys for the project. Please send us all existing cultural resource assessments, as well as requests for, and the results of, any records searches that may have been conducted prior to our first consultation meeting. If tribal cultural resources are identified within the project area, it is UAIC's policy that tribal monitors must be present for all ground disturbing activities. Finally, please be advised that UAIC's strong preference is to preserve tribal cultural resources in place and avoid them whenever possible.

Subsurface testing and data recovery must not occur without first consulting with UAIC and receiving UAIC's written consent.

Response:

On May 2, 2019, Keith S. Dunbar, P.E., emailed a response to Chairman Whitehouse which contained the following:

"We have now completed the cultural resources assessments at each of the three proposed solar sites in Lodi (i.e., Century Park East/West, Pixley Basin and Parking Garage). You will be pleased to know that, based on those studies, we are recommending a finding of ***no impact to historical resources*** under CEQA. In addition, no further cultural resources work is recommended. You will also be pleased to know that we are recommending that the Mitigation Monitoring and Reporting Program for this Project include cultural resources mitigation measures as outlined in the attached reports prepared by Anza Resources Consultants.

"In accordance with the terms of §21080.3.2. (b) of the Public Resources Code, consultation on this Project is concluded as the Northern California Power Agency has included the intent of the recommended mitigation measures submitted by Ms. Neider."

3.24.2 Discussion and Mitigation Measures

Tribal Cultural Resources. 1). *Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code §21074 as 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, that is listed or eligible for listing on the California Register of Historical Resources, or on a local register of historical resources as defined in Public Resources Code §5020.1(k),*

Answer: No Impact.

Discussion:

Based on record searches at the Native American Heritage Commission and the California Historic Resources Information System, field surveys and Native American consultation, there are no tribal cultural resources within the Proposed Project area. Therefore, no further analysis or mitigation is required.

Tribal Cultural Resources. 2). *Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code §21074 as a resource determined by a lead agency, in its discretion and supported by substantial evidence, to be significant according to the historical register criteria in Public Resources Code §5023.1(c), and considering the significance of the resource to a California Native American tribe.*

Answer: No Impact.

Discussion:

Based on record searches at the Native American Heritage Commission and the California Historic Resources Information System, field surveys and Native American consultation, there are no tribal cultural resources within the Proposed Project area. Therefore, no further analysis or mitigation is required.

3.24.3 Conclusion

No impacts were identified; therefore, no further analysis or mitigation is required.

3.25 Utilities and Service Systems

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
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 telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	◙
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	◙
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?	☐	☐	☐	◙
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?	☐	☐	☐	◙
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	◙

3.25.1 Environmental Setting

Several entities provide utilities and service systems within the Project area including:

- Water — City of Lodi
- Wastewater — City of Lodi
- Electricity — Lodi Electric Utility
- Natural Gas — Pacific Gas & Electric
- Trash — Waste Management

3.25.2 Discussion and Mitigation Measures

Utilities and Service Systems. a. *Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?*

Answer: No Impact.

Discussion:

The Project includes the construction and operation of solar photovoltaic systems at three sites in the City of Lodi. It will not result in the relocation or construction of new or expanded services. The connections to the local electrical grid are immediately adjacent to the Project sites. The local grid has the capacity to accept the additional electricity generated by the Project. Therefore, there would be no impacts and no further analysis or mitigation is required.

Utilities and Service Systems. b. *Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?*

Answer: No Impact.

Discussion:

The Project will require a minimal amount of water to periodically clean the solar panels. However, the City's existing water supplies are adequate to provide this service. Therefore, there would be no impacts and no further analysis or mitigation is required.

Utilities and Service Systems. c. *Would the project 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?*

Answer: No Impact.

Discussion:

The Project will not require wastewater service. Therefore, there would be no impacts and no further analysis or mitigation is required.

Utilities and Service Systems. d. *Would the project 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?*

Answer: No Impact.

Discussion:

The Project will not generate solid waste. Therefore, there would be no impacts and no further analysis or mitigation is required.

Utilities and Service Systems. e. *Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?*

Answer: No Impact.

Discussion:

The Project would comply with all federal, state and local regulations related to solid waste. Therefore, there would be no impacts and no further analysis or mitigation is required.

3.25.3 Conclusion

No impacts were identified; therefore, no further analysis or mitigation is required.

3.26 Wildfire

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a. Impair and adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	◙
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?	☐	☐	☐	◙
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 risks or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	◙
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?	☐	☐	☐	◙

3.26.1 Environmental Setting

According to the City of Lodi's Safety Element, the Planning area is not characterized by substantial areas of wildlands. The topography of the area is relatively homogeneous and steep slopes that could contribute to wildland fires are not common. Data provided by the California Department of Conservation Fire and Resource Assessment Program in 2007 indicate that less than one percent of the Planning area has "Moderate" fire hazard potential. The remaining areas are classified as urban or non-wildland. No portions of the Planning area are classified as having a "High" or "Very High" risk.

3.26.2 Discussion and Mitigation Measures

Wildlife. a. *Would the project impair an adopted emergency response plan or emergency evacuation plan?*

Answer: No Impact.

Discussion:

As discussed in the Transportation section, the Project would not impair an adopted emergency response plan. Therefore, no further analysis or mitigation is required;

Wildlife. b. *Would the project 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?*

Answer: No Impact.

Discussion:

The Project sites are relatively flat with no risk of wildland fires. Implementation of the Project would not change this. Therefore, there would be no impacts and no further analysis or mitigation is required.

Wildlife. c. *Would the project 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 risks or that may result in temporary or ongoing impacts to the environment?*

Answer: No Impact.

Discussion:

The Project would be connected to the local electrical grid. However, the connections would be made immediately adjacent to the Project sites and be underground. Therefore, there would be no impacts and no further analysis or mitigation is required.

Wildlife. d. *Would the project 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?*

Answer: No Impact.

Discussion:

The Project area is not subject to wildland fires. Therefore, there would be no impacts and no further analysis or mitigation is required.

3.26.3 Conclusion

No impacts were identified; therefore, no further analysis or mitigation is required.

3.27 Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. 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?	☐	◙	☐	☐
b. 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.)	☐	◙	☐	☐
c. Have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	◙	☐	☐

3.27.1 Discussion and Mitigation Measures

Mandatory Findings of Significance. a. *Would 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?*

Answer: Less than Significant with Mitigation Incorporated.

Discussion:

Compliance with the mitigation measures included in Sections 3.5 through 3.26 above will ensure that implementation of the proposed Project does not have the potential to significantly 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.

Mandatory Findings of Significance. b. *Would 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.)*

Answer: Less than Significant with Mitigation Incorporated.

Discussion:

Compliance with the mitigation measures included in Sections 3.5 through 3.26 above will ensure that implementation of the proposed Project does not have impacts that are individually limited, but cumulatively considerable. Central Basin is not aware of any other projects in the area that could result in cumulative construction impacts.

Mandatory Findings of Significance. c. *Would the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?*

Answer: Less than Significant with Mitigation Incorporated.

Discussion:

Compliance with the mitigation measures included in Sections 3.5 through 3.26 above will ensure that implementation of the proposed Project does not have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly.

3.27.2 Conclusion

All potential significant impacts associated with the proposed Project can be mitigated to a less than significant level. Therefore, no further environmental review or mitigation is required.

4 Persons and Organizations Consulted

On July 1, 2019, K.S. Dunbar & Associates, Inc., the Northern California Power Agency's environmental consultant, mailed copies of the Notice of Intent to Adopt a Mitigated Negative Declaration with a link to the Northern California Power Agency's website where the Initial Study and Mitigated Negative Declaration could be electronically downloaded to the following;

4.1 Federal Agencies

Jennifer Norris, Field Supervisor
Sacramento Fish & Wildlife Office
U.S. Fish & Wildlife Service
2800 Cottage Way, Room W-2605
Sacramento, California 95825-1888

Michael S. Jewell, Chief
Regulatory Division
U.S. Army Corps of Engineers – Sacramento District
1325 J Street, Room 1350
Sacramento, California 95814-2922

Amy Dutschke, Regional Director
Pacific Region Regional Office
Bureau of Indian Affairs
U.S. Department of the Interior
2800 Cottage Way, Room W-2820
Sacramento, California 94825-1885

4.2 State Agencies

Scott Morgan, Director
State Clearinghouse
Governor's Office of Planning and Research
Post Office Box 3044
Sacramento, California 95812-3044

Tina Bartlett, Regional Manager
North Central Region (Region 2)
California Department of Fish and Wildlife
1701 Nimbus Road
Rancho Cordova, California 95670

Patrick Palupa, Executive Officer
California Regional Water Quality Control Board, Central Valley Region
11020 Sun Center Drive, Suite 200
Rancho Cordova, California 95670-6114

Julianne Polanco
State Historic Preservation Officer
Office of Historic Preservation
California Department of Parks and Recreation
1725 23rd Street, Suite 100
Sacramento, California 95816-7100

Wade Crowfoot, Secretary
California Natural Resources Agency
1416 Ninth Street, Suite 1311
Sacramento, California 95814

Christina Snider, Executive Secretary
California Native American Heritage Commission
1550 Harbor Boulevard, Suite 100
West Sacramento, California 95691-3830

4.3 County Agencies

Kris Balaji, Director
Department of Public Works
San Joaquin County
1810 East Hazelton Avenue
Stockton, California 95205

John Cadrett, Manager, Compliance
Northern Region
San Joaquin Valley Air Pollution Control District
4800 Enterprise Way
Modesto, California 95356

4.4 City Agencies

Melissa Price, Interim Utility Director
Lodi Electric Utility
1331 S Ham Lane
Lodi, California 95242

Craig Hoffman, Director
Community Development Department
City of Lodi
221 W Pine Street
Lodi, California 95240

Charles E. Swimley, Jr.
Director of Public Works
City of Lodi
221 W Pine Street
Lodi, California 95240

4.5 Interested Entities

Rhonda Morningstar Pipe, Chairperson
Buena Vista Rancheria of Me-Wuk Indians
1418 20th Street
Sacramento, California 95871

Silvia Burley, Chairperson
California Valley Miwok Tribe
4620 Shippee Lane
Stockton, California 95212

California Valley Miwok Tribe
AKA Sheep Rancheria of Me-Wuk Indians of CA
2140 Shattuck Avenue, #602
Berkeley, California 94704

Sara Dutschke Setshwaelo, Chairperson
Ione Band of Mi-Wok Indians
Post Office Box 699
Plymouth, California 95699

Katherine Erolinda Perez, Chairperson
North Valley Yokuts Tribe
Post Office Box 717
Linden, California 95236

Gene Whitehouse, Chairman
United Auburn Indian Community
10720 Indian Hill Road
Auburn, California 95603

Antonio Ruiz, Cultural Resources Officer
Wilton Rancheria
9728 Kent Street
Elk Grove, California 95684

5 Report Authors/Contributors

5.1 Report Authors

This Initial Study and Mitigated Negative Declaration was prepared under contract to the Northern California Power Agency by:

K.S. Dunbar & Associates, Inc.

Environmental Engineering

45375 Vista Del Mar
Temecula, California 92590-4314
(951) 699-2082
Cell: (949) 412-2634
Email: ksdpe67@gmail.com

Erica D. Dunbar, President
Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE, Project Manager

Anza Resource Consultants

(Cultural Resources)
Kevin Hunt, President
Katherine Collins, M.A., RPS, Principal Investigator
Spencer Bietz, GIS Specialist

ELMT Consulting

(Biological Resources)
Thomas J. McGill, Managing Director
Travis J. McGill, Director/Biologist

5.2 Report Contributors

Northern California Power Agency

Ron Yuen, Director of Engineering, Generation Services

6 References

Air Resources Board. 2000. Risk *Guidance for the Permitting of New Stationary Diesel-Fueled Engines.*

Air Resources Board. 2019. www.arb.ca.gov, 2/10/2019

Air Resources Board. 2018. *California Greenhouse Gas Emissions for 2000 to 2016 Trends of Emissions and Other Indicators. 2018 Edition.*

Anza Resource Consultants. 2019. *Cultural Resources Survey for the Northern California Power Agency Solar Project 1 – Lodi Century Park Site, San Joaquin County, California.* K.S. Dunbar & Associates, Inc., May.

Anza Resource Consultants. 2019. *Cultural Resources Survey for the Northern California Power Agency Solar Project 1 – Lodi Parking Garage Site, San Joaquin County, California.* K.S. Dunbar & Associates, Inc., May.

Anza Resource Consultants. 2019. *Cultural Resources Survey for the Northern California Power Agency Solar Project 1 – Lodi Pixley Basin Site, San Joaquin County, California.* K.S. Dunbar & Associates, Inc., May.

Association of Environmental Professionals. 2019. *2019 California Environmental Quality Act (CEQA) Statutes and Guidelines.*

Burns and McDonnell. 2018. *NCPA Solar Project 1, Lodi Century Site, Phase 2B Report*. Northern California Power Agency. October 5.

Burns and McDonnell. 2018. *NCPA Solar Project 1, Lodi Parking Garage Site, Phase 2B Report*. Northern California Power Agency. September 20.

Burns and McDonnell. 2018. *NCPA Solar Project 1, Lodi Pixley Basin Site, Phase 2B Report*. Northern California Power Agency. October 5.

Burns & McDonnel. 2019. *Lodi Century Park Site Plan Development, Northern California Power Agency. Lodi Century Park Project No. 107642, Revision 0.* 2/08.

Burns & McDonnel. 2019. *Lodi Parking Garage Site Plan Development, Northern California Power Agency. Lodi Century Park Project No. 107642, Revision 0. 3/06.*

California Department of Transportation. 2019. *List of Scenic Highways in California*. www.dot.ca.gov, 2/22/2019.

California Department of Transportation. 2019. Traffic Counts. www.dot.ca.gov, 2/22/2019.

California Department of Transportation. 2017. *California Manual on Uniform Traffic Control Devices. 2014 Edition, Revision 2.* April 7, 2017.

California Department of Transportation. 2013. *Transportation and Construction Vibration Guidance Manual.* September

California Department of Toxic Substances Control. 2019. www.dtsc.ca.gov. 2/22/2019.

California Department of Water Resources. 2010. *Guidelines, Proposition 84 & Proposition 1E, Integrated Regional Water Management.* August.

California Natural Resources Agency. 2019. Proposed Regulatory Text for the State CEQA Guidelines.

California Regional Water Quality Control Board. 2018. *The Water Quality Control Plan for the Sacramento River Basin and the San Joaquin River Basin. Fifth Edition.* May.

City of Lodi. 2010. Lodi *General Plan.* April 7.

City of Lodi. 2009. *Lodi General Plan Draft Environmental Impact Report (State Clearinghouse No. 2009022075).* November

ELMT Consulting. 2019. Habitat and Jurisdictional Assessment for the Northern California Power Agency Solar Project 1 Located in the City of Lodi, San Joaquin County, California. K.S. Dunbar & Associates, Inc. May 2.

K.S. Dunbar & Associates, Inc., 2014. *Initial Study and Mitigated Negative Declaration, Solar Photovoltaic Renewable Energy Initiative – Phase II.* Eastern Municipal Water District. July.

K.S. Dunbar & Associates, Inc., 2018. *Initial Study, Solar Photovoltaic Renewable Energy Initiative – Phase III,* Eastern Municipal Water District. August.

Meister Consultants Group. 2014. *Solar and Glare.* Prepared for the U.S. Department of Energy. June.

SCAQMD. 2006. *Final Methodology to Calculate Particulate Matter ($PM_{2.5}$) and $PM_{2.5}$ Significance Thresholds.* October.

SCAQMD. 2016. *Draft Final 2016 Air Quality Management Plan.* December.

SCAQMD. 2016. *Appendix I, Health Effects. Draft Final 2016 Air Quality Management Plan.* December.

SCAQMD. 1999. *CEQA Air Quality Handbook.* Revised March 2011. www.aqmd.gov. 5/24/2014

SCAGMD. 2008. Localized Significance Thresholds. July. www.aqmd.gov. 5/24/2014

SCAQMD. 2008. *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold.* October 2008.

San Joaquin Valley Air Pollution Control District. 2009. *Final Staff Report Addressing Greenhouse Gas Emissions Impacts under the California Environmental Quality Act.* December 17.

San Joaquin Valley Air Pollution Control District. 2019. Current District Rules and Regulations.

www.usa.com, 02/21/2019

Appendix A

Mitigated Negative Declaration

Mitigated Negative Declaration
NCPA Solar Project 1 – Lodi Sites

1. Name of project:	**NCPA Solar Project 1 – Lodi Sites**		
2. Project location – Identify street address and cross streets or attach a map showing the project site (preferably a USGS 7½' or 15' topographical map identified by quadrangle name):	See attachment.		
3. Entity or Person undertaking project:			
A. Entity			
(1) Name:	Northern California Power Agency		
(2) Address:	651 Commerce Drive, Roseville, California 95678-6420		
B. Other (Private)			
(1) Name:			
(2) Address:			

Northern California Power Agency, having reviewed the Initial Study of this proposed project, having reviewed the written comments received prior to the public meeting of the Northern California Power Agency, having reviewed the recommendations of the Northern California Power Agency's Staff, does hereby find and declare that the proposed project will not have a significant effect on the environment. A brief statement of the reasons supporting the Northern California Power Agency's findings are as follows:

The Initial Study concluded that all significant impacts can be reduced to a level of less than significant by implementation of the Mitigation Monitoring and Reporting Program developed for this Project.

The Northern California Power Agency finds that the Mitigated Negative Declaration reflects its independent judgment. A copy of the Initial Study and Mitigation Monitoring and Reporting Program are attached.

The location and custodian of the documents and any other materials which constitute the record of proceedings upon which the Northern California Power Agency based its decision to adopt this Mitigated Negative Declaration are as follows:

Custodian:	Ron Yuen Director of Engineering, Generation Services	Location:	Northern California Power Agency 651 Commerce Driver Roseville, California 95678-6420
Phone:	(916) 781-4258		

Date:	Signature

Overview of the Proposed Project:

The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories to be completed and placed in service before the end of 2019. The plants will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. Burns & McDonnell was retained by NCPA to complete Phase 2 Site Screening, Plan Development, and Procurement services for each site selected by the member agencies. The City of Lodi selected three sites for development: Century Park East/West, Pixley Basin and Parking Garage sites. Those three sites are the subject of this Initial Study and Mitigated Negative Declaration (IS&MND).

The Century Park East site is located on a City easement bordered by an industrial park to the north, recreational fields to the south, residences to the east and the Union Pacific railroad to the west. The Century Park West site is directly across the railroad tracks from the Century Park East site. It is bordered on the north, south and west by residential development. The combined size of these sites is 2.5 acres which would accommodate a project size of 0.63 megawatts-direct current (MW_{dc}).

The Pixley Basin site contains approximately 27 acres and is located in an undeveloped park that serves as a stormwater detention and flood control basin. The site is surrounded by industrial and commercial uses. Residential areas do exist approximately 0.25 miles west of the site; however, Highway 99 separates the commercial areas from the residential areas and the project site is out of the viewshed of the residences. In its October 5, 2018 report, Burns & McDonnell estimated the developable portion of the site to be approximately 15 acres which would accommodate a project size of 3.51 MW_{dc}.

The parking garage is located at the northeast corner of the intersection of E. Pine and N. Sacramento Streets in a mixed commercial and industrial area. This site contains a developable area of 0.9 acres which would accommodate a project size of 0.18 MW_{dc}.

Location of the Proposed Project

All three proposed sites are within the City of Lodi, San Joaquin County, California. Exact locations are shown below as well as on Figure 1. Individual sites are shown on Figures 2, 3 and 4.

Site	Location	Developable Area (acres)	Estimated Capacity (MW_{dc})
Lodi – Pixley Basin	38º07'18.06"N, 121º15'12.14"W	15.0	3.51
Lodi – Century Park East/West	38º06'26.66"N, 121º16'21.63"W	2.5	0.63
Lodi – Parking Garage	38º08'05.25"N, 121º16'18.58"W	0.9	0.18

Figure 1 NCPA Solar Project 1 – Proposed Sites in the City of Lodi

Figure 2 Century Park East/West Site

Figure 3 Pixley Basin Site

Figure 4 Parking Garage Site

Appendix B

Air Quality Modeling Results

NCPA Solar Project 1
Northern California Power Agency
Estimated Construction Emissions from Off-Road Heacy Duty Contstuction Equipment During Solar Equipment Installation

2019 Construction Year

Equipment	Emission Factor gr/hp-hr	Emission Factor lb/hp-hr	Number	horsepower	load factor	hours/day	Emissions pounds per day	Mitigated Emissions pounds per day
			Reactive Organic Gases (ROG)					
Compressor	0.538	0.00118502	1	106	0.48	8	0.48	
Crane	0.3491	0.00076894	1	399	0.43	8	1.06	
Drill Rig	0.1292	0.00028458	1	291	0.75	8	0.50	
Sweeper	0.2347	0.00051696	1	500	0.68	2	0.35	
Tractors/Backhoes/Loaders	0.3678	0.00139075	1	108	0.55	4	0.33	
Trencher	0.6314	0.00058040	1	63	0.75	4	0.11	
Utility Trucks	0.2635	0.00058040	1	479	0.57	4	0.63	
Water Trucks	0.2635	0.00058040	1	500	0.5	2	0.29	
Totals							3.75	

Equipment	Emission Factor gr/hp-hr	Emission Factor lb/hp-hr	Number	horsepower	load factor	hours/day	Emissions pounds per day	Mitigated Emissions pounds per day
			Carbon Monoxide (CO)					
Compressor	3.718	0.00818943	1	106	0.48	8	3.33	
Crane	2.96983	0.00654148	1	399	0.43	8	8.98	
Drill Rig	1.03449	0.00227861	1	291	0.75	8	3.98	
Sweeper	1.23013	0.00270954	1	500	0.68	2	1.84	
Tractors/Backhoes/Loaders	3.63777	0.00845104	1	108	0.55	4	2.01	
Trencher	3.83677	0.00326753	1	63	0.75	4	0.62	
Utility Trucks	1.48346	0.00326753	1	479	0.57	4	3.57	
Water Trucks	1.48346	0.00326753	1	500	0.5	2	1.63	
Totals							25.96	

Equipment	Emission Factor gr/hp-hr	Emission Factor lb/hp-hr	Number	horsepower	load factor	hours/day	Emissions pounds per day	Mitigated Emissions pounds per day
			Oxides of Nitrogen (NO_x)					
Compressor	3.706	0.00816300	1	106	0.48	8	3.32	2.82
Crane	4.29654	0.00946374	1	399	0.43	8	12.99	11.04
Drill Rig	1.55098	0.00341626	1	291	0.75	8	5.96	5.07
Sweeper	2.86598	0.00631273	1	500	0.68	2	4.29	3.65
Tractors/Backhoes/Loaders	3.69287	0.01254423	1	108	0.55	4	2.98	2.53
Trencher	5.69508	0.00587778	1	63	0.75	4	1.11	0.94
Utility Trucks	2.66851	0.00587778	1	479	0.57	4	6.42	5.46
Water Trucks	2.66851	0.00587778	1	500	0.5	2	2.94	2.50
Totals							40.02	34.02

Equipment	Emission Factor gr/hp-hr	Emission Factor lb/hp-hr	Number	horsepower	load factor	hours/day	Emissions pounds per day	Mitigated Emissions pounds per day
			Oxides of Sulfur (SO_x)					
Compressor	0.007	0.00001542	1	106	0.48	8	0.01	
Crane	0.0049	0.00001079	1	399	0.43	8	0.01	
Drill Rig	0.0048	0.00001057	1	291	0.75	8	0.02	
Sweeper	0.0049	0.00001079	1	500	0.68	2	0.01	
Tractors/Backhoes/Loaders	0.0049	0.00001079	1	108	0.55	4	0.00	
Trencher	0.0049	0.00001079	1	63	0.75	4	0.00	
Utility Trucks	0.0049	0.00001079	1	479	0.57	4	0.01	
Water Trucks	0.0049	0.00001079	1	500	0.5	2	0.01	
Totals							0.07	

Equipment	Emission Factor gr/hp-hr	Emission Factor lb/hp-hr	Number	horsepower	load factor	hours/day	Emissions pounds per day	Mitigated Emissions pounds per day
			Respirable Particlulate Matter (PM_{10})					
Compressor	0.287	0.00063216	1	106	0.48	8	0.26	0.04
Crane	0.173	0.00038106	1	399	0.43	8	0.52	0.08
Drill Rig	0.0479	0.00010551	1	291	0.75	8	0.18	0.03
Sweeper	0.0989	0.00021784	1	500	0.68	2	0.15	0.02
Tractors/Backhoes/Loaders	0.2465	0.00094846	1	108	0.55	4	0.23	0.03
Trencher	0.4306	0.00021366	1	63	0.75	4	0.04	0.01
Utility Trucks	0.097	0.00021366	1	479	0.57	4	0.23	0.04
Water Trucks	0.097	0.00021366	1	500	0.5	2	0.11	0.02
Totals							1.72	0.26

Equipment	Emission Factor gr/hp-hr	Emission Factor lb/hp-hr	Number	horsepower	load factor	hours/day	Emissions pounds per day	Mitigated Emissions pounds per day
			Fine Particulate Matter ($PM_{2.5}$)					
Compressor	0.287	0.00063216	1	106	0.48	8	0.26	0.04
Crane	0.1592	0.00035066	1	399	0.43	8	0.48	0.07
Drill Rig	0.0441	0.00009714	1	291	0.75	8	0.17	0.03
Sweeper	0.091	0.00020044	1	500	0.68	2	0.14	0.02
Tractors/Backhoes/Loaders	0.2268	0.00087247	1	108	0.55	4	0.21	0.03
Trencher	0.3961	0.00019670	1	63	0.75	4	0.04	0.01
Utility Trucks	0.0893	0.00019670	1	479	0.57	4	0.21	0.03
Water Trucks	0.0893	0.00019670	1	500	0.5	2	0.10	0.01
Totals							1.60	0.24

Equipment	Emission Factor gr/hp-hr	Emission Factor lb/hp-hr	Number	horsepower	load factor	hours/day	Emissions pounds per day	Mitigated Emissions pounds per day
			Carbon Dioxide (CO_2)					
Compressor	568.299	1.25175991	1	106	0.48	8	510	
Crane	483.1422	1.06418987	1	399	0.43	8	1,461	
Drill Rig	477.0462	1.05076256	1	291	0.75	8	1,835	
Sweeper	480.5735	1.05853194	1	500	0.68	2	720	
Tractors/Backhoes/Loaders	486.8508	1.06897247	1	108	0.55	4	254	
Trencher	485.3135	1.06912599	1	63	0.75	4	202	
Utility Trucks	485.3832	1.06912599	1	479	0.57	4	1,168	
Water Trucks	485.3832	1.06912599	1	500	0.5	2	535	
Totals							6,683	

Equipment	Emission Factor gr/hp-hr	Emission Factor lb/hp-hr	Number	horsepower	load factor	hours/day	Emissions pounds per day	Mitigated Emissions pounds per day
			Methane (CH_4)					
Compressor	0.101	0.00022247	1	106	0.48	8	0.09	
Crane	0.1529	0.00033678	1	399	0.43	8	0.46	
Drill Rig	0.1505	0.00033150	1	291	0.75	8	0.58	
Sweeper	0.152	0.00033480	1	500	0.68	2	0.23	
Tractors/Backhoes/Loaders	0.1537	0.00033833	1	108	0.55	4	0.08	
Trencher	0.1536	0.00033833	1	63	0.75	4	0.06	
Utility Trucks	0.1536	0.00033833	1	479	0.57	4	0.37	
Water Trucks	0.1536	0.00033833	1	500	0.5	2	0.17	
Totals							2.04	

NCPA Solar Project 1
Northern Califonria Power Agency
Estimated Construction Emissions from Off-Road Heacy Duty Contstuction Equipment During Grading at Pixley Basin

2019 Construction Year

Equipment	Emission Factor gr/hp-hr	Emission Factor lb/hp-hr	Number	horsepower	load factor	hours/day	Emissions pounds per day	Mitigated Emissions pounds per day
			Reactive Organic Gases (ROG)					
Dozers	0.2633	0.00057996	2	550	0.64	8	3.27	
Graders	0.3227	0.00071079	2	259	0.61	8	1.80	
Rollers	0.2341	0.00051564	1	904	0.56	8	2.09	
Scrapers	0.3429	0.00051696	2	500	0.72	8	2.98	
Sweeper	0.2347	0.00058040	1	500	0.68	2	0.39	
Utility Trucks	0.2635	0.00058040	1	479	0.57	4	0.63	
Water Trucks	0.2635	0.00058040	1	500	0.5	8	1.16	
Wheel Loader	0.3234	0.00071233	1	801	0.54	8	2.46	
Totals							14.78	

Equipment	Emission Factor gr/hp-hr	Emission Factor lb/hp-hr	Number	horsepower	load factor	hours/day	Emissions pounds per day	Mitigated Emissions pounds per day
			Carbon Monoxide (CO)					
Dozers	1.35585	0.00298645	2	550	0.64	8	16.82	
Graders	1.52849	0.00336672	2	259	0.61	8	8.51	
Rollers	2.10102	0.00462780	1	904	0.56	8	18.74	
Scrapers	2.59466	0.00571511	2	500	0.72	8	32.92	
Sweeper	1.23013	0.00270954	1	500	0.68	2	1.84	
Utility Trucks	1.48346	0.00326753	1	479	0.57	4	3.57	
Water Trucks	1.48346	0.00326753	1	500	0.5	8	6.54	
Wheel Loader	1.20834	0.00266154	1	801	0.54	8	9.21	
Totals							98.15	

Equipment	Emission Factor gr/hp-hr	Emission Factor lb/hp-hr	Number	horsepower	load factor	hours/day	Emissions pounds per day	Mitigated Emissions pounds per day
			Oxides of Nitrogen (NO_x)					
Dozers	3.34253	0.00736240	2	550	0.64	8	41.47	35.25
Graders	3.21794	0.00708797	2	259	0.61	8	17.92	15.23
Rollers	2.90839	0.00640615	1	904	0.56	8	25.94	22.05
Scrapers	4.15646	0.00915520	2	500	0.72	8	52.73	
Sweeper	4.15646	0.00915520	1	500	0.68	2	6.23	5.29
Utility Trucks	2.66851	0.00587778	1	479	0.57	4	6.42	5.46
Water Trucks	2.66851	0.00587778	1	500	0.5	8	11.76	9.99
Wheel Loader	5.45926	0.01202480	1	801	0.54	8	41.61	35.37
Totals							204.07	173.46

Equipment	Emission Factor gr/hp-hr	Emission Factor lb/hp-hr	Number	horsepower	load factor	hours/day	Emissions pounds per day	Mitigated Emissions pounds per day
			Oxides of Sulfur (SO_x)					
Dozers	0.0049	0.00001079	2	550	0.64	8	0.06	
Graders	0.0049	0.00001079	2	259	0.61	8	0.03	
Rollers	0.005	0.00001101	1	904	0.56	8	0.04	
Scrapers	0.0049	0.00001079	2	500	0.72	8	0.06	
Sweeper	0.0049	0.00001079	1	500	0.68	2	0.01	
Utility Trucks	0.0049	0.00001079	1	479	0.57	4	0.01	
Water Trucks	0.0049	0.00001079	1	500	0.5	8	0.02	
Wheel Loader	0.0049	0.00001079	1	801	0.54	8	0.04	
Totals							0.27	

Equipment	Emission Factor gr/hp-hr	Emission Factor lb/hp-hr	Number	horsepower	load factor	hours/day	Emissions pounds per day	Mitigated Emissions pounds per day
			Respirable Particlulate Matter (PM_{10})					
Dozers	0.123	0.00027093	2	550	0.64	8	1.53	0.23
Graders	0.1244	0.00027401	2	259	0.61	8	0.69	0.10
Rollers	0.1109	0.00024427	1	904	0.56	8	0.99	0.15
Scrapers	0.1629	0.00035881	2	500	0.72	8	2.07	0.31
Sweeper	0.0989	0.00021784	1	500	0.68	2	0.15	0.02
Utility Trucks	0.097	0.00021366	1	479	0.57	4	0.23	0.04
Water Trucks	0.097	0.00021366	1	500	0.5	8	0.43	0.06
Wheel Loader	0.1462	0.00032203	1	801	0.54	8	1.11	0.17
Totals							7.20	1.08

Equipment	Emission Factor gr/hp-hr	Emission Factor lb/hp-hr	Number	horsepower	load factor	hours/day	Emissions pounds per day	Mitigated Emissions pounds per day
			Fine Particulate Matter ($PM_{2.5}$)					
Dozers	0.1132	0.00024934	2	550	0.64	8	1.40	0.21
Graders	0.1145	0.00025220	2	259	0.61	8	0.64	0.10
Rollers	0.102	0.00022467	1	904	0.56	8	0.91	0.14
Scrapers	0.1498	0.00032996	2	500	0.72	8	1.90	0.29
Sweeper	0.091	0.00020044	1	500	0.68	2	0.14	0.02
Utility Trucks	0.0893	0.00019670	1	479	0.57	4	0.21	0.03
Water Trucks	0.0893	0.00019670	1	500	0.5	8	0.39	0.06
Wheel Loader	0.1345	0.00029626	1	801	0.54	8	1.03	0.15
Totals							6.62	0.99

Equipment	Emission Factor gr/hp-hr	Emission Factor lb/hp-hr	Number	horsepower	load factor	hours/day	Emissions pounds per day	Mitigated Emissions pounds per day
			Carbon Dioxide (CO_2)					
Dozers	483.3879	1.06473106	2	550	0.64	8	5,997	
Graders	482.5879	1.06296894	2	259	0.61	8	2,687	
Rollers	489.9774	1.07924537	1	904	0.56	8	4,371	
Scrapers	482.7319	1.06328612	2	500	0.72	8	6,125	
Sweeper	480.5735	1.05853194	1	500	0.68	2	720	
Utility Trucks	485.3832	1.06912599	1	479	0.57	4	1,168	
Water Trucks	485.3632	1.06908194	1	500	0.5	8	2,138	
Wheel Loader	480.523	1.05842070	1	801	0.54	8	3,662	
Totals							26,867	

Equipment	Emission Factor gr/hp-hr	Emission Factor lb/hp-hr	Number	horsepower	load factor	hours/day	Emissions pounds per day	Mitigated Emissions pounds per day
			Methane (CH_4)					
Dozers	0.1529	0.00033678	2	550	0.64	8	1.90	
Graders	0.1527	0.00033634	2	259	0.61	8	0.85	
Rollers	0.155	0.00034141	1	904	0.56	8	1.38	
Scrapers	0.1527	0.00033634	2	500	0.72	8	1.94	
Sweeper	0.152	0.00033480	1	500	0.68	2	0.23	
Utility Trucks	0.1556	0.00034273	1	479	0.57	4	0.37	
Water Trucks	0.1556	0.00034273	1	500	0.5	8	0.69	
Wheel Loader	0.152	0.00033480	1	801	0.54	8	1.16	
Totals							8.51	

Appendix C

Biological Resources Technical Report

May 2, 2019

K.S. DUNBAR & ASSOCIATES
Contact: Keith S. Dunbar, P.E., BCEE, Hon.D.WRE, F.ASCE
45375 Vista Del Mar
Temecula, California 92590

SUBJECT: Habitat and Jurisdictional Assessment for the Northern California Power Agency Solar Project 1 Located in the City of Lodi, San Joaquin County, California

Introduction

This report contains the findings of ELMT Consulting's (ELMT) habitat and jurisdictional assessment for the Northern California Power Agency (NCPA) Solar Project 1 located in the City of Lodi, San Joaquin County, California. Within the City of Lodi, the NCPA Solar Project 1 consists of three separate project sites: the Lodi Parking Garage Site (Parking Garage), the Lodi Pixley Basin Site (Pixley Basin), and the Lodi Century Park Site (Century Park). The habitat and jurisdictional assessment were conducted by biologist Travis J. McGill on March 27, 2019 to document baseline conditions and assess the potential for special-status[1] plant and wildlife species to occur within the Parking Garage, Century Park, and Pixley Basin project sites that could pose a constraint to implementation of the proposed project. Special attention was given to the suitability of the project sites to support special-status plant and wildlife species identified by the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB), and other electronic databases as potentially occurring in the general vicinity of the project sites.

Project Location

Parking Garage

The Parking Garage site is generally located west of State Route 99, north of State Route 12 (Kettleman Lane), east of Interstate 5, and south of the Mokelumne River in the City of Lodi, San Joaquin County, California. The Parking Garage site is depicted on the Lodi North quadrangle of the United States Geological Survey's (USGS) 7.5-minute topographic map series within Section 1 of Township 3 North, Range 6 East. Specifically, the Parking Garage site is located on the third-floor rooftop of an existing parking garage in downtown Lodi and is bordered by East Elm Street to the north, East Pine Street to the south, the Union Pacific railroad to the east, and North Sacramento Street to the west.

1 As used in this report, "special-status" refers to plant and wildlife species that are federally and State listed, proposed, or candidates; plant species that have been designated with a California Native Plant Society Rare Plant Rank; wildlife species that are designated by the CDFW as fully protected, species of special concern, or watch list species; and specially protected natural vegetation communities as designated by the CDFW.

Pixley Basin

The Pixley Basin Site is generally located east of State Route 99, north of State Route 12 (Kettleman Lane), west of State Route 88, and south of the Mokelumne River in the City of Lodi, San Joaquin County, California. The Pixley Basin site is depicted on the Lodi North quadrangle of the United States Geological Survey's (USGS) 7.5-minute topographic map series within Section 7 of Township 3 North, Range 7 East. Specifically, the Pixley Basin site is located on an undeveloped park that serves as a stormwater retention and flood control basin north of Auto Center Drive, west of S. Guild Avenue, south of E. Vine Street, and east of Beckman Road.

Century Park

The Century Park Site is generally located west of State Route 99, south of State Route 12 (Kettleman Lane), east of Interstate 5, and south of the Mokelumne River in the City of Lodi, San Joaquin County, California. The Century Park site is depicted on the Lodi South quadrangle of the United States Geological Survey's (USGS) 7.5-minute topographic map series within Section 13 of Township 3 North, Range 6 East. Specifically, the Century Park site is made up of two land parcels, Century Park East and Century Park West. The Century Park East site is located at the western terminus of E. Century Boulevard, north of Salas Park, south of Century Self Storage, and west of the Union Pacific Railroad. The Century Park West site is located at the eastern terminus of W. Century Boulevard, south of Swain Drive, north of Hemlock Drive, and west of the Union Pacific Railroad.

Refer to Exhibits 1 thru 5 in Attachment A for a depiction of the three project site locations.

Project Description

Parking Garage

Burns & McDonnell estimated the developable area of the Parking Garage site to be approximately 0.85 acres, or enough land to potentially yield a project size of 0.15 MW (based on an estimate of 6 acres of land needed per MW developed). The proposed technology type for the project is fixed tilt supported on a structural canopy system attached to the existing parking garage rooftop. The intent of the canopy is that it will serve as the mounting system for the solar array while also creating a shaded carport.

Pixley Basin

Burns & McDonnell estimated the developable area of the Pixley Basin site to be approximately 8.3 acres, or enough land to potentially yield a project size of 1.4 MW (based on an estimate of 6 acres of land needed per MW developed). It is assumed that onsite cut and fill can occur to deepen some areas of the basin and raise other areas for the project while maintaining the same water volume that can be stored in the basin at a given time. The proposed technology type for the solar project is horizontal single axis tracker (HSAT).

Century Park

Burns & McDonnell estimated the developable area of the Century Park site to be approximately 1.7 acres, or enough land to potentially yield a project size of 0.30 MW (based on an estimate of 6 acres of land needed per MW developed). The Century Park East site was positioned in an area to provide reasonable setbacks from the railroad west of the site and the fencing north and south of the site. The proposed

technology type for the solar project is HSAT.

The parcel to the west (Century Park West) was also considered for development. However, due to the existing playground and proximity to several residences, the project team assumed the parcel to the east (Century Park East) would only be developed. Should the parcel to the west also be developed in a manner that preserves the existing playground and provides reasonable setback from the playground and residences, Burns & McDonnell estimates an additional 1.5 acres of land could be developed for an additional 0.25 MW of output. This revised estimate also assumes that the parcel to the east could be extended east another 300-400 feet to be directly adjacent to the existing parking lot.

Methodology

A literature review and records search were conducted to determine which special-status biological resources have the potential to occur on or within the general vicinity of the project sites. In addition to the literature review, a general habitat assessment or field investigation of the project sites was conducted to document existing conditions and assess the potential for special-status biological resources to occur within the project sites.

Literature Review

Prior to conducting the field investigation, a literature review and records search was conducted for special-status biological resources potentially occurring on or within the vicinity of the project sites. Previously recorded occurrences of special-status plant and wildlife species and their proximity to the project sites were determined through a query of the CDFW's QuickView Tool in the Biogeographic Information and Observation System (BIOS), CNDDB Rarefind 5, the California Native Plant Society's (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants of California, Calflora Database, compendia of special-status species published by CDFW, and the United States Fish and Wildlife Service (USFWS) species listings.

All available reports, survey results, and literature detailing the biological resources previously observed on or within the vicinity of the project sites were reviewed to understand existing site conditions and note the extent of any disturbances that have occurred within the project sites that would otherwise limit the distribution of special-status biological resources. Standard field guides and texts were reviewed for specific habitat requirements of special-status and non-special-status biological resources, as well as the following resources:

- Google Earth Pro historic aerial imagery (1993-2018);
- San Joaquin County Multi-Species Habitat Conservation Plan and Open Space Plan (SJMSCP);
- United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS), Soil Survey2;
- USFWS Critical Habitat designations for Threatened and Endangered Species; and
- USFWS Endangered Species Profiles.

2 A soil series is defined as a group of soils with similar profiles developed from similar parent materials under comparable climatic and vegetation conditions. These profiles include major horizons with similar thickness, arrangement, and other important characteristics, which may promote favorable conditions for certain biological resources.

The literature review provided a baseline from which to inventory the biological resources potentially occurring within the project sites. The CNDDB database was used, in conjunction with ArcGIS software, to locate the nearest recorded occurrences of special-status species and determine the distance from the project sites.

Habitat Assessment/Field Investigation

Following the literature review, biologist Travis J. McGill inventoried and evaluated the condition of the habitat within the project sites on March 27, 2019. Plant communities and land cover types identified on aerial photographs during the literature review were verified by walking meandering transects throughout the project sites. In addition, aerial photography was reviewed prior to the site investigation to locate potential natural corridors and linkages that may support the movement of wildlife through the area. These areas identified on aerial photography were then walked during the field investigation.

All plant and wildlife species observed, as well as dominant plant species within each plant community, were recorded. Plant species observed during the field investigation were identified by visual characteristics and morphology in the field. Unusual and less familiar plant species were photographed during the field investigation and identified in the laboratory using taxonomical guides. Wildlife detections were made through observation of scat, trails, tracks, burrows, nests, and/or visual and aural observation. In addition, site characteristics such as soil condition, topography, hydrology, anthropogenic disturbances, indicator species, condition of on-site plant communities and land cover types, and presence of potential jurisdictional drainage and/or wetland features were noted.

Soil Series Assessment

On-site and adjoining soils were researched prior to the field investigation using the USDA NRCS Soil Survey for San Joaquin County, California. In addition, a review of the local geological conditions and historical aerial photographs was conducted to assess the ecological changes that the project sites have undergone.

Plant Communities

Plant communities were mapped using 7.5-minute USGS topographic base maps and aerial photography. The plant communities were classified in accordance with Sawyer, Keeler-Wolf and Evens (2009), delineated on an aerial photograph, and then digitized into GIS Arcview. The Arcview application was used to compute the area of each plant community and/or land cover type in acres.

Plants

Common plant species observed during the field investigation were identified by visual characteristics and morphology in the field and recorded in a field notebook. Unusual and less familiar plants were photographed in the field and identified in the laboratory using taxonomic guides. Taxonomic nomenclature used in this study follows the 2012 Jepson Manual (Hickman 2012). In this report, scientific names are provided immediately following common names of plant species (first reference only).

Wildlife

Wildlife species detected during the field investigation by sight, calls, tracks, scat, or other sign were recorded during surveys in a field notebook. Field guides were used to assist with identification of wildlife species during the survey included The Sibley Field Guide to the Birds of Western North America (Sibley 2003), A Field Guide to Western Reptiles and Amphibians (Stebbins 2003), and A Field Guide to Mammals of North America (Reid 2006). Although common names of wildlife species are well standardized, scientific names are provided immediately following common names in this report (first reference only).

Jurisdictional Drainages and Wetlands

Aerial photography was reviewed prior to conducting a field investigation in order to locate and inspect any potential natural drainage features, ponded areas, or water bodies that may fall under the jurisdiction of the United States Army Corps of Engineers (Corps), Regional Water Quality Control Board (Regional Board), or CDFW. In general, surface drainage features indicated as blue-line streams on USGS maps that are observed or expected to exhibit evidence of flow are considered potential riparian/riverine habitat and are also subject to state and federal regulatory jurisdiction. In addition, ELMT reviewed jurisdictional waters information through examining historical aerial photographs to gain an understanding of the impact of land-use on natural drainage patterns in the area. The USFWS National Wetland Inventory (NWI) and Environmental Protection Agency (EPA) Water Program "My Waters" data layers were also reviewed to determine whether any hydrologic features and wetland areas have been documented on or within the vicinity of the project sites.

SJMSCP

The proposed project sites were reviewed against the SJMSCP to determine if the sites are located within any SJMSCP designated Preserves, core habitat areas, or wildlife movement corridors. A preliminary review of the SJMSCP determined that the project sites are located within the Central Zone of the SJMSCP, which encompasses the lands surrounding each of the County's seven incorporated cities (including the City of Lodi). The Central Zone is composed primarily of agricultural lands on the floor of the Central Valley including that are bisected by riparian corridors including the Mokelumne River, the Calaveras River, the Stanislaus River, Old River and the San Joaquin River. The project sites are not located within and SJMSCP designated Preserves, core habitat areas, or wildlife movement corridors.

Existing Site Condition

Parking Garage

The Parking Garage site is located on the third-floor rooftop of an existing parking garage for the World of Wonders Science Museum in downtown Lodi, west of the Union Pacific railroad. Since the Parking Garage site is located on the rooftop of an existing parking garage, no soils occur onsite since the site is completely developed. The project site is located within a heavily developed area in the City of Lodi in an area surrounded by land commercial and industrial land uses. The project site is bordered by commercial developments to the north, south, and west, and the Union Pacific Railroad to the east.

Pixley Basin

The Pixley Basin site is comprised of approximately 27 acres and is located on an undeveloped park (Pixley Park) that serves as a stormwater retention and flood control basin. The Pixley Basin site is surrounded by industrial and commercial uses. Residential areas exist approximately 0.25 miles west of the site, however Highway 99 separates the commercial areas from the residential areas.

The proposed project footprint for the Pixley Basin site is located at an approximate elevation of 58 feet above mean sea level. The Pixley Basin project site is relatively with no areas of significant topographic relief, except for the areas that have been dug out to create the water retention basin. Based on the NRCS USDA Web Soil Survey, the Pixley Basin site is underlain by the following soil units: Tokay fine sandy loam (0 to 2 percent slopes), and Tokay-Urban land complex (0 to 2 percent slopes. Refer to Exhibit 6, *Pixley Basin Soils*, in Attachment A. Soils on-site have been mechanically disturbed and heavily compacted from historic land uses (i.e., agricultural activities, grading activities, development of the retention basin, and surrounding development).

Century Park

The Century Park East site is located on a City easement and is comprised of approximately 3.1 acres. The site is bordered by an industrial park to the north, recreational fields (Salas Park) the south, residences to the east and the Union Pacific railroad to the west. The Century Park West site is bordered by residential developments to the north, south, and west, and the Union Pacific Railroad to the east.

The Century Park sites are relatively flat at an approximate elevation of 50 feet above mean sea level with no areas of significant topographic relief. Based on the NRCS USDA Web Soil Survey, the Century Park sites are underlain by the following soil unit: Tokay-Urban land complex (0 to 2 percent slopes. Refer to Exhibit 7, *Century Park Soils*, in Attachment A. Soils on-site have been mechanically disturbed and heavily compacted from historic land uses (i.e., agricultural activities, and development).

Vegetation

Due to existing land uses, no native plant communities or natural communities of special concern were observed on or adjacent to the project sites. The project sites primarily consist of either vacant, undeveloped land, or developed land that have been subject to a variety of anthropogenic disturbances. Disturbances have eliminated the natural plant communities that once occurred within the boundaries of the project sites. Refer to Attachment B, *Site Photographs*, for representative site photographs. No native plant communities will be impacted from implementation of the proposed projects.

Parking Garage

The Parking Garage supports a land cover type that would be classified as developed. Developed areas generally encompass paved, impervious surfaces. The entire Parking Garage is paved with concrete and no plant species were observed onsite.

Pixley Basin

The project site primarily supports a land cover type that would be classified as disturbed. Refer to Exhibit

8, *Pixley Basin Vegetation* in Attachment A. Early successional and non-native weedy plant species compose a majority of the project site as a result of the weed abatement activities, surrounding development, and construction of the water retention basin. Plant species observed on-site include telegraph weed (*Heterotheca grandiflora*), filaree (*Erodium sp.*), winter vetch (*Vicia villosa*), bicolor lupine (*Lupinus bicolor*), ripgut (*Bromus diandrus*), fiddleneck (*Amsinckia sp.*), and mouse barley (*Hordeum murinum*).

Century Park

The Century Park sites contain land cover types that would be classified as disturbed and developed. Refer to Exhibit 9, *Century Park Vegetation* in Attachment A. Early successional and non-native weedy plant species comprise the western half of the Century Park East site, while the eastern portion of the Century Park East site is developed, with asphalt, loose gravel, and dirt stockpiles. The Century Park West site is comprised of an existing recreational park and does not support any native plant species. Plant species observed onsite include telegraph weed, filaree, fiddleneck, winter vetch, cheeseweed (*Malva parviflora*), Russian thistle (*Salsola tragus*), short-podded mustard (*Hirschfeldia incana*), sow thistle (*Sonchus sp.*), wild radish (*Raphanus raphanistrum*), milk thistle (*Silybum maranum*), cocklebur (*Xanthium strumarium*), pineapple weed (*Matricaria discoidea*), coyote melon (*Cucurbita palmata*), yellow sweet clover (*Mililotus officinalis*), and horseweed (*Erigeron canadensis*).

Wildlife

Plant communities provide foraging habitat, nesting/denning sites, and shelter from adverse weather or predation. This section provides a discussion of those wildlife species that were observed or are expected to occur within the project sites. The discussion is to be used a general reference and is limited by the season, time of day, and weather conditions in which the field investigation was conducted. Wildlife detections were based on calls, songs, scat, tracks, burrows, and direct observation. The project sites provide limited habitat for wildlife species except those adapted to a high degree of anthropogenic disturbances and development.

Fish

No fish were observed in the Pixley Basin project site during the field investigation. The water retention basin only supports water for portions of the year and does not provide a perennial water source or connect to a natural water feature that would provide suitable habitat for fish species. The only fish species that have the potential to occur in the Pixley Basin project site are fish that are exotic or introduced such as mosquitofish (*Gambusia affinis*) and bluegill (*Lepomis macrochirus*). No special-status fish species are expected to occur within the Pixley Basin project site.

No hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would provide suitable habitat for fish were observed on or within the vicinity of the Parking Garage or Century Park project sites. No fish are expected to occur and are presumed absent from the Parking Garage or Century Park project sites.

Amphibians

No amphibians were observed within the Pixley Basin project site during the field investigation. The water retention basin only supports water for portions of the year and does not provide a perennial water source

or connect to a natural water feature that would provide long term habitat for amphibian species. The only amphibian species that have the potential to occur in the Pixley Basin project site are tree frog (*Pseudacris regilla*). No special-status amphibian species are expected to occur within the Pixley Basin project site.

No amphibians or hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would provide suitable habitat for amphibian species were observed on or within the vicinity of the Parking Garage or Century Park project sites. No amphibians are expected to occur and are presumed absent from the Parking Garage or Century Park project sites.

Reptiles

During the field investigation no reptilian species were observed on the project sites. Common reptilian species adapted to a high degree of anthropogenic disturbances that have the potential to occur on the project sites include western side-blotched lizard (*Uta stansburiana elegans*), and alligator lizard (*Elgaria multicarinata*). Due to the high level of anthropogenic disturbances on-site, and surrounding development, no special-status reptilian species are expected to occur within project sites.

Birds

The project sites provide foraging habitat for bird species adapted to a high degree of human disturbance. In particular, the Pixley Basin site provides suitable nesting opportunities for geese and ducks, and birds that nest on the open ground, such as killdeer (*Charadrius vociferus*). Bird species detected during the field investigation included lesser goldfinch (*Spinus psaltria*), northern mockingbird (*Mimus polyglottos*), mourning dove (*Zenaida macroura*), European starling (*Sturnus vulgaris*), house finch (*Haemorhouse mexicanus*), American crow (*Corvus brachyrhynchos*), Anna's hummingbird (*Calypte anna*), killdeer, California scrub-jay (*Aphelocoma californica*), Nuttal's woodpecker (*Picoides nuttalii*), barn swallow (*Hirundo rustica*), Canada goose (*Branta canadensis*), ruddy duck (*Oxyura jamaicensis*), black-necked stilt (*Himantopus mexicanus*), American coot (*Fulica americana*), bufflehead (*Bucephala albeola*), and western meadowlark (*Sturnella neglecta*).

Mammals

During the field investigation cottontail (*Sylvilagus audubonii*) was the only mammalian species observed on the project sites. Common mammalian species adapted to a high degree of anthropogenic disturbances that have the potential to occur within the project sites include California ground squirrel (*Otospermophilus beecheyi*), Botta's pocket gopher (*Thomomys bottae*), opossum (*Didelphis virginiana*), and raccoon (*Procyon lotor*).

Nesting Birds

During the field investigation two active Canada goose nests was observed within the Pixley Basin project footprint. The project sites provide suitable nesting habitat for year-round and seasonal avian residents, as well as migrating songbirds that could occur in the area. Most of the nesting habitat associated with the Parking Garage and Century Park Sites are associated with the ornamental trees adjacent to the project sites. Additionally, the Pixley Basin site provides suitable nesting opportunities for geese and ducks, and birds that nest on the open ground, such as killdeer.

Prior to site development, a pre-construction nesting bird clearance survey should be conducted to ensure no impacts to nesting birds will occur.

Migratory Corridors and Linkages

Habitat linkages provide connections between larger habitat areas that are separated by development. Wildlife corridors are similar to linkages but provide specific opportunities for animals to disperse or migrate between areas. A corridor can be defined as a linear landscape feature of sufficient width to allow animal movement between two comparatively undisturbed habitat fragments. Adequate cover is essential for a corridor to function as a wildlife movement area. It is possible for a habitat corridor to be adequate for one species yet still inadequate for others. Wildlife corridors are features that allow for the dispersal, seasonal migration, breeding, and foraging of a variety of wildlife species. Additionally, open space can provide a buffer against both human disturbance and natural fluctuations in resources.

The proposed projects will be confined to existing disturbed and/or developed areas and is surrounded by development, which have removed natural plant communities from the surrounding areas. The project sites are isolated from regional wildlife corridors and linkages, and there are no riparian corridors, creeks, or useful patches of stepping stone habitat (natural areas) within or connecting the project sites to any identified wildlife corridors or linkages. As a result, implementation of the proposed projects will not disrupt or have any adverse effects on any migratory corridors or linkages in the surrounding area.

Jurisdictional Areas

There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The Corps Regulatory Branch regulates discharge of dredge or fill materials into "waters of the United States" pursuant to Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the CDFW regulates alterations to streambed and bank under Fish and Wildlife Code Sections 1600 et seq., and the Regional Board regulates discharges into surface waters pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act.

The Pixley Basin site supports a stormwater retention and flood control basin that was excavated wholly in the uplands between 2006 and 2014, and does not have a surface hydrologic connection to any downstream waters of the United States or waters of the State. Further, the Pixley Basin does not support riparian vegetation, and therefore would not fall under the jurisdictional authority of the Corps, Regional Board, or CDFW. Therefore, project related activities within the Pixley Basin will not result in impacts to Corps, Regional Board, or CDFW jurisdictional areas and regulatory approvals will not be required.

It should be noted that the vacant property west of the northwestern portion of the Pixley Basin property has been mapped as having two freshwater emergent wetland habitats by the NWI. This area, outside of the Pixley Basin project footprint supports heaving disturbed, vacant land that is subject to routine disking activities. As a result, not freshwater wetland habitats were observed were these two features have been mapped by the NWI.

The Parking Garage and Century Park project sites do not support any discernible drainage courses, inundated areas, wetland features, or hydric soils that would be considered jurisdictional by the Corps,

Regional Board, or CDFW. Therefore, project activities will not result in impacts to Corps, Regional Board, or CDFW jurisdictional areas and regulatory approvals will not be required.

Special-Status Biological Resources

The CNDDB Rarefind 5 and the CNPS Electronic Inventory of Rare and Endangered Vascular Plants of California were queried for reported locations of special-status plant and wildlife species as well as special-status natural plant communities in the Lodi North, Lodi South, Lockeford, and Waterloo USGS 7.5-minute quadrangles. The habitat assessment evaluated the conditions of the habitat(s) within the boundaries of the project sites to determine if the existing plant communities, at the time of the survey, have the potential to provide suitable habitat(s) for special-status plant and wildlife species.

The literature search identified six (6) special-status plant species, thirty-five (35) special-status wildlife species, and two (2) special-status plant communities as having potential to occur within the Lodi North, Lodi South, Lockeford, and Waterloo USGS 7.5-minute quadrangles. Special-status plant and wildlife species were evaluated for their potential to occur within the project site based on habitat requirements, availability and quality of suitable habitat, and known distributions. Species determined to have the potential to occur within the general vicinity of the project sites are presented in *Table C-1: Potentially Occurring Special-Status Biological Resources*, provided in Attachment C.

Special-Status Plants

According to the CNDDB and CNPS, six (6) special-status plant species have been recorded in the Lodi North, Lodi South, Lockeford, and Waterloo quadrangles (refer to Attachment C). No special-status plant species were observed onsite during the habitat assessment. The project sites consist of vacant, undeveloped land, or developed land that has been subject to a variety of anthropogenic disturbances. These disturbances have eliminated the natural plant communities that once occurred on the project sites, which has removed suitable habitat for special-status plant species known to occur in the general vicinity of the project sites. Based on habitat requirements for specific special-status plant species and the availability and quality of habitats needed by each species, it was determined that the project sites do not provide suitable habitat for any of the special-status plant species known to occur in the area and are presumed to be absent from the project sites. No focused surveys are recommended.

Special-Status Wildlife

According to the CNDDB, thirty-five (35) special-status wildlife species have been reported in the Lodi North, Lodi South, Lockeford, and Waterloo quadrangles (refer to Attachment C). No special-status wildlife species were observed onsite during the habitat assessment. The project sites consist of vacant, undeveloped land, or developed land that has been subject to a variety of anthropogenic disturbances. These disturbances have eliminated the natural plant communities that once occurred on-site which have greatly reduced potential foraging opportunities for wildlife species.

Based on habitat requirements for specific species and the availability and quality of on-site habitats, it was determined that the proposed project sites, in particular the Pixley Basin site, have a moderate to high potential to support great egret (*Ardea alba*), and great blue heron (*Ardea herodias*). Both of these species are not federally, or state listed. All remaining special-status wildlife species were determined to have a low

potential to occur or are presumed to be absent from the project sites since the project sites have been heavily disturbed from onsite disturbances and surrounding development.

In order to ensure impacts to the aforementioned species do not occur from implementation of the proposed project, a pre-construction nesting bird clearance survey should be conducted prior to ground disturbance. With implementation of mitigation through the pre-construction clearance survey, impacts to the aforementioned species will be less than significant.

Special-Status Plant Communities

According to the CNDDB, two (2) special-status plant community has been reported in the Lodi North, Lodi South, Lockeford, and Waterloo USGS 7.5-minute quadrangles: Northern Hardpan Vernal Pool, and Valley Oak Woodland. Based on the results of the field investigation, no special-status plant communities were observed on the project sites.

Critical Habitat

Under the federal Endangered Species Act, "Critical Habitat" is designated at the time of listing of a species or within one year of listing. Critical Habitat refers to specific areas within the geographical range of a species at the time it is listed that include the physical or biological features that are essential to the survival and eventual recovery of that species. Maintenance of these physical and biological features requires special management considerations or protection, regardless of whether individuals or the species are present or not. All federal agencies are required to consult with the United States Fish and Wildlife Service (USFWS) regarding activities they authorize, fund, or permit which may affect a federally listed species or its designated Critical Habitat. The purpose of the consultation is to ensure that projects will not jeopardize the continued existence of the listed species or adversely modify or destroy its designated Critical Habitat. The designation of Critical Habitat does not affect private landowners, unless a project they are proposing is on federal lands, uses federal funds, or requires federal authorization or permits (e.g., funding from the Federal Highways Administration or a CWA Permit from the Corps). If a there is a federal nexus, then the federal agency that is responsible for providing the funding or permit would consult with the USFWS.

The project sites are not located with federally designated Critical Habitat. Refer to Exhibit 10, *Critical Habitat* in Attachment A. The nearest designated Critical Habitat is located approximately 1 mile north of the Parking Garage site within the Mokelumne River for steelhead (*Oncorhynchus mykiss*), and approximately 4 miles west of the City of Lodi for delta smelt (*Hypomesus transpacificus*).Therefore, the loss or adverse modification of Critical Habitat from site development will not occur and consultation with the USFWS for impacts to Critical Habitat will not be required for implementation of the proposed project.

Recommendations

Migratory Bird Treaty Act and Fish and Game Code

Nesting birds are protected pursuant to the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (Sections 3503, 3503.5, 3511, and 3513 prohibit the take, possession, or destruction of birds, their nests or eggs). In order to protect migratory bird species, a nesting bird clearance survey should be conducted prior to any ground disturbance or vegetation removal activities that may disrupt the birds during the nesting season.

If construction occurs between February 1st and August 31st, a pre-construction clearance survey for nesting birds should be conducted within three (3) days of the start of any vegetation removal or ground disturbing activities to ensure that no nesting birds will be disturbed during construction. The biologist conducting the clearance survey should document a negative survey with a brief letter report indicating that no impacts to active avian nests will occur. If an active avian nest is discovered during the pre-construction clearance survey, construction activities should stay outside of a no-disturbance buffer. The size of the no-disturbance buffer (generally 300 feet for migratory and non-migratory song birds and 500 feet raptors and special-status species) will be determined by the wildlife biologist, in coordination with the CDFW, and will depend on the level of noise and/or surrounding disturbances, line of sight between the nest and the construction activity, ambient noise, and topographical barriers. These factors will be evaluated on a case-by-case basis when developing buffer distances. Limits of construction to avoid an active nest will be established in the field with flagging, fencing, or other appropriate barriers; and construction personnel will be instructed on the sensitivity of nest areas. A biological monitor should be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, construction activities within the buffer area can occur.

Conclusion

Based on the proposed project footprints and existing site conditions discussed in this report, none of the special-status plant or wildlife species known to occur in the general vicinity of the project sites are expected to be directly or indirectly impacted from implementation of the proposed projects. With completion of the recommendations provided above, no impacts to year-round, seasonal, or special-status avian residents will occur from implementation of the proposed projects. Therefore, it was determined that implementation of the projects will have "no effect" on federally or State listed species known to occur in the general vicinity of the project sites. Additionally, the development of the projects will not impact designated Critical Habitats or regional wildlife movement corridors/linkages.

Please do not hesitate to contact Tom McGill at (951) 285-6014 or tmcgill@elmtconsulting.com or Travis McGill at (909) 816-1646 or travismcgill@elmtconsulting.com should you have any questions this report.

Sincerely,

Thomas J. McGill, Ph.D.
Managing Director

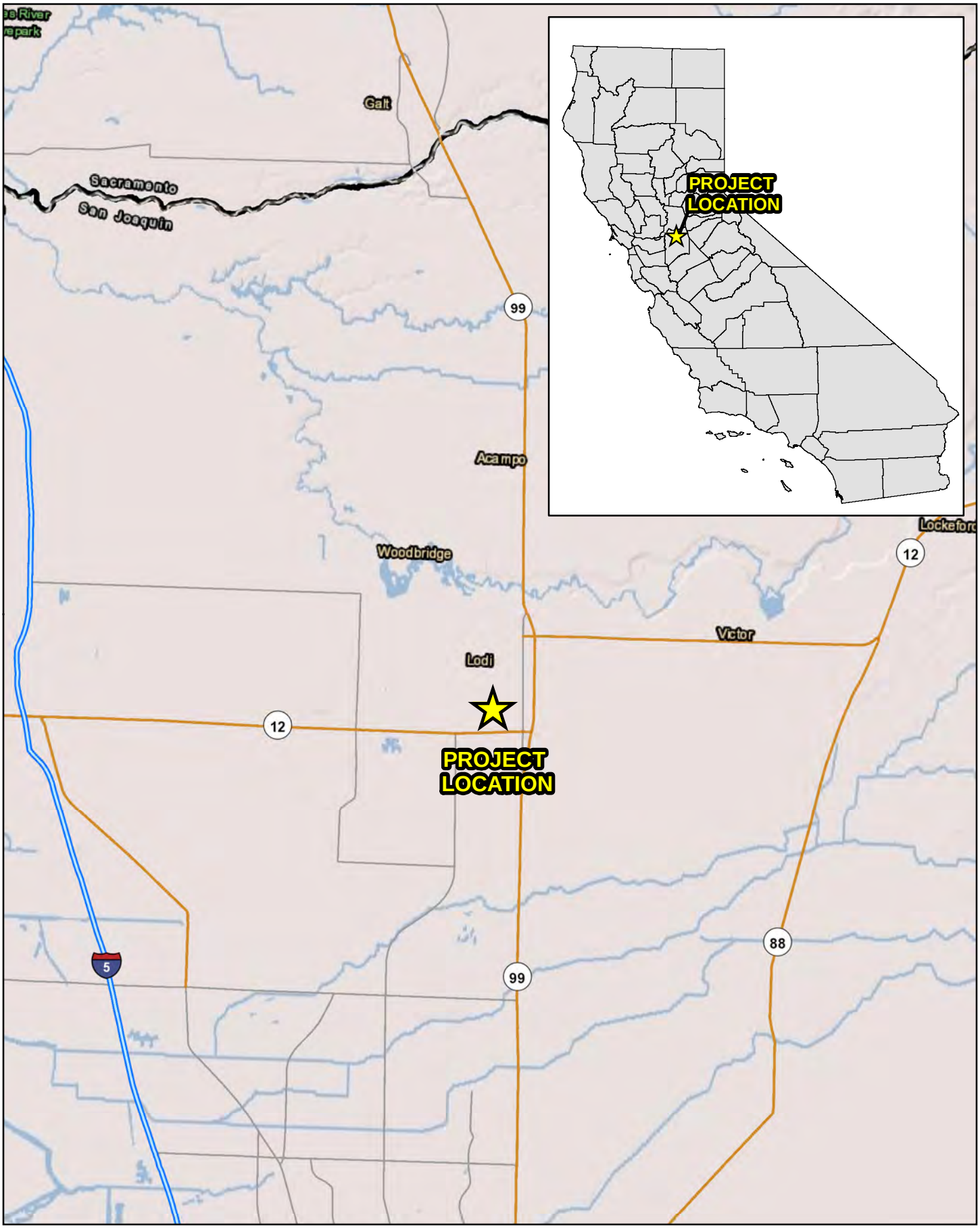
Travis J. McGill
Director

Attachments:

A. *Project Exhibits*
B. *Site Photographs*
C. *Potentially Occurring Special-Status Biological Resources*
D. *Regulations*

Attachment A

Project Exhibits



NCPA SOLAR PROJECT 1 - LODI SITES
HABITAT AND JURISDICTIONAL ASSESSMENT

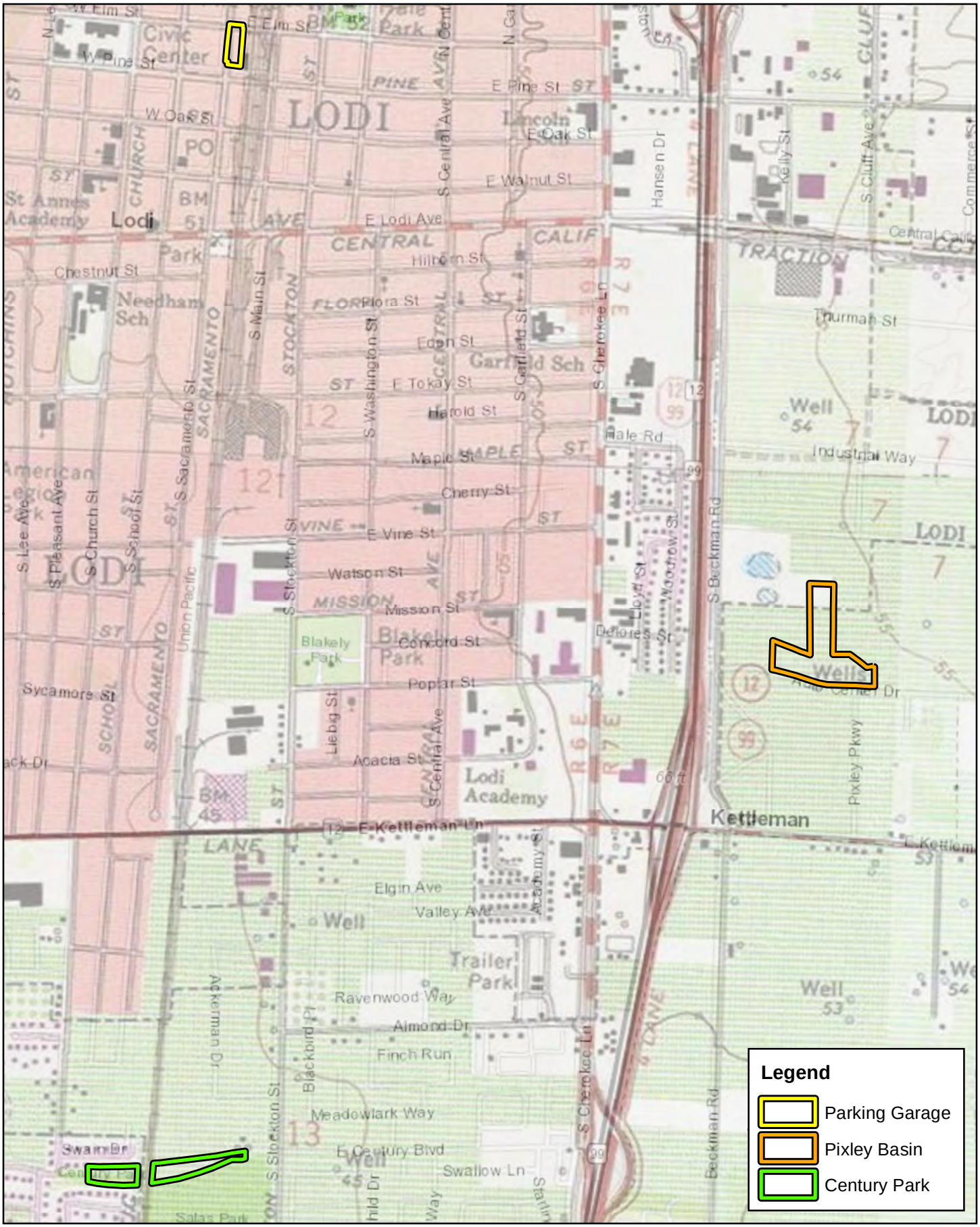
Regional Vicinity

ELMT CONSULTING

0 1.25 2.5 5 Miles

Source: World Transportation, World Shaded Relief, San Joaquin County

Exhibit 1



Source: USA Topographic Map, San Joaquin County

NCPA SOLAR PROJECT 1 - LODI SITES
HABITAT AND JURISDICTIONAL ASSESSMENT

Site Vicinity

Exhibit 2

NCPA SOLAR PROJECT 1 - LODI SITES
HABITAT AND JURISDICTIONAL ASSESSMENT

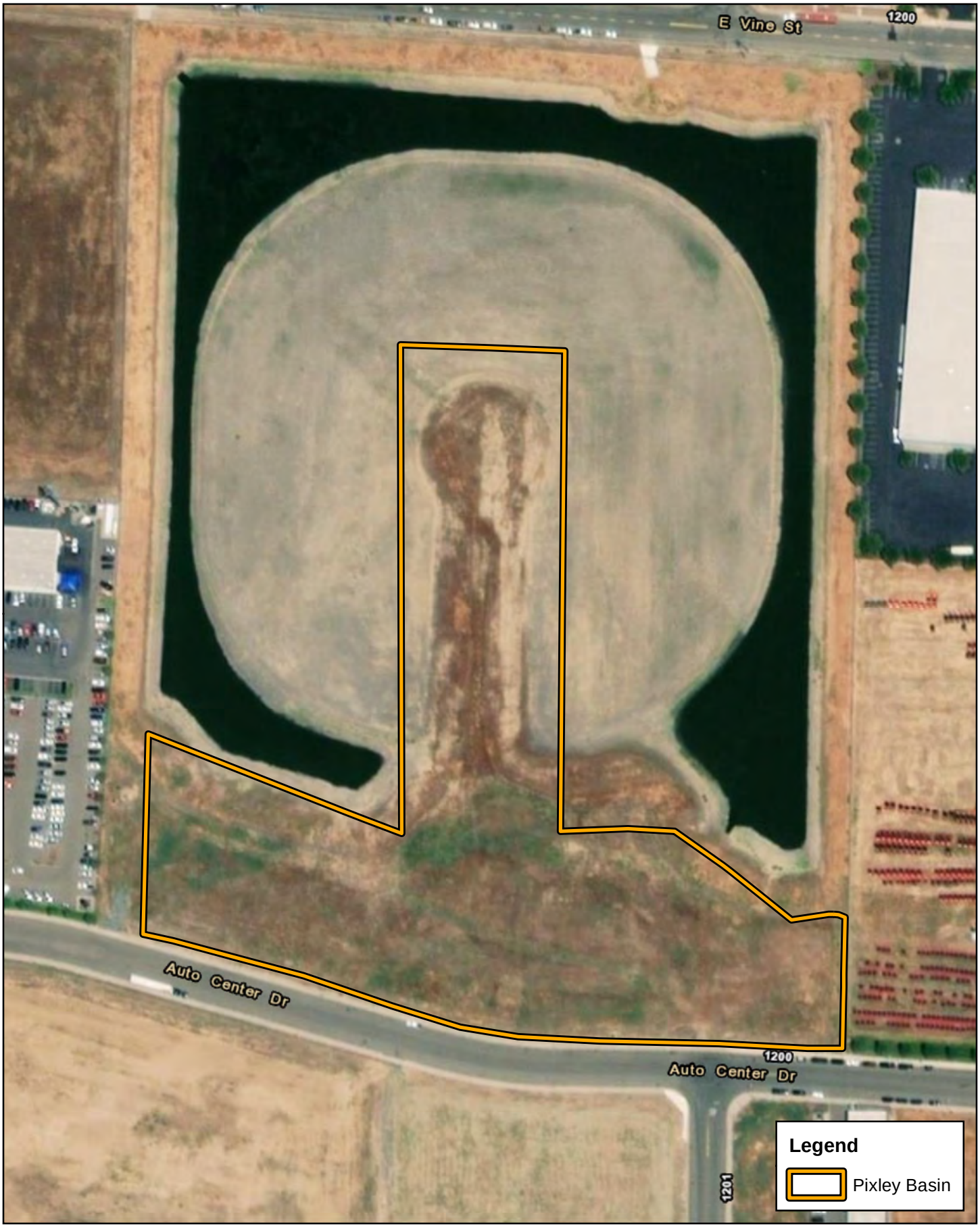
Project Site - Parking Garage

ELMT CONSULTING

0 25 50 100 Feet

Source: ESRI Aerial Imagery, San Joaquin County

Exhibit 3



NCPA SOLAR PROJECT 1 - LODI SITES
HABITAT AND JURISDICTIONAL ASSESSMENT

Project Site - Pixley Basin

ELMT CONSULTING

0 50 100 200 Feet

Source: ESRI Aerial Imagery, San Joaquin County

Exhibit 4

NCPA SOLAR PROJECT 1 - LODI SITES
HABITAT AND JURISDICTIONAL ASSESSMENT

Project Site - Century Park

ELMT CONSULTING

0 125 250 500 Feet

Source: ESRI Aerial Imagery, San Joaquin County

Exhibit 5

NCPA SOLAR PROJECT 1 - LODI SITES
HABITAT AND JURISDICTIONAL ASSESSMENT

Project Site - Pixley Basin Soils

ELMT CONSULTING

0 50 100 200 Feet

Source: ESRI Aerial Imagery, NRCS Soil Survey Geographic Database, San Joaquin County

Exhibit 6

NCPA SOLAR PROJECT 1 - LODI SITES
HABITAT AND JURISDICTIONAL ASSESSMENT

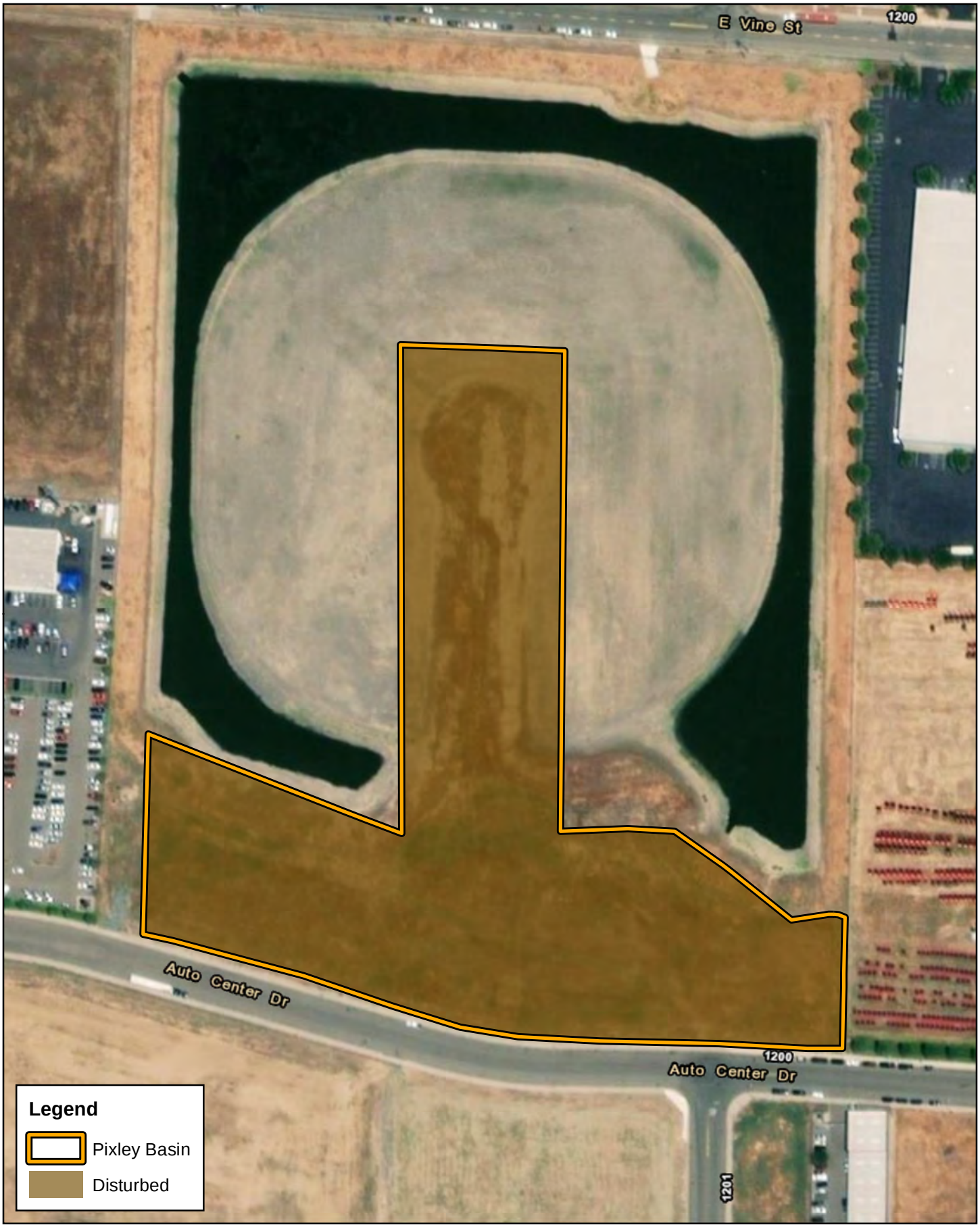
Project Site - Century Park Soils

ELMT CONSULTING

0 125 250 500 Feet

Source: ESRI Aerial Imagery, NRCS Soil Survey Geographic Database, San Joaquin County

Exhibit 7



NCPA SOLAR PROJECT 1 - LODI SITES
HABITAT AND JURISDICTIONAL ASSESSMENT

Project Site - Pixley Basin Vegetation

ELMT CONSULTING

0 50 100 200 Feet

Source: ESRI Aerial Imagery, San Joaquin County

Exhibit 8

NCPA SOLAR PROJECT 1 - LODI SITES
HABITAT AND JURISDICTIONAL ASSESSMENT

Project Site - Century Park Vegetation

ELMT CONSULTING

0 62.5 125 250 Feet

Source: ESRI Aerial Imagery, San Joaquin County

Exhibit 9

NCPA SOLAR PROJECT 1 - LODI SITES
HABITAT AND JURISDICTIONAL ASSESSMENT

Site Vicinity

Source: USA Topographic Map, USFWS Critical Habitat, San Joaquin County

Exhibit 10

Attachment B

Site Photographs

Photograph 1: From the southwest corner of the Parking Garage site looking north.

Photograph 2: From the southwest corner of the Parking Garage site looking east.

Photograph 3: From the southeast corner of the Parking Garage Site looking northwest.

Photograph 4: From the northwest corner of the Parking Garage site looking south.

Photograph 5: From southeast corner of the Pixley Basin site looking west along the southern boundary.

Photograph 6: From the southeast corner of the Pixley Basin site looking northwest.

Photograph 7: From the northwest corner of the Pixley Basin site looking west.

Photograph 8: Looking at the land extension on the northern portion of the Pixley Basin site that extend into the middle of the water retention basin.

Photograph 9: From the northwest corner of the Pixley Basin site looking east.

Photograph 10: From the southwest corner of the Pixley Basin site looking northeast.

Photograph 11: From the eastern boundary of the Century Park East site looking west.

Photograph 12: View of the paved/asphalt area on the eastern half of the Century Park East site.

Photograph 13: From the northwest corner of the Century Park East site looking southwest.

Photograph 14: Looking at the heavily disturbed western half of the Century Park East site.

Photograph 15: From the southwest corner of the Century Park West site looking east.

Photograph 16: From the southeast corner of the Century Park West site looking west.

Photograph 17: From the northeast corner of the Century Park West site looking west.

Photograph 18: From the northwest corner of the Century Park West site looking southeast.

Attachment C

Potentially Occurring Special-Status Biological Resources

Scientific Name	Common Name	Federal Status	State Status	CDFW Listing	CNPS Rare Plant Rank	Potential to Occur
Special-Status Wildlife Species						
Acipenser transmontanus	white sturgeon	None	None	SSC	-	Presumed Absent
Agelaius tricolor	tricolored blackbird	None	Candidate Endangered	SSC	-	Presumed Absent
Ambystoma californiense	California tiger salamander	Threatened	Threatened	WL	-	Presumed Absent
Ardea alba	great egret	None	None	-	-	High
Ardea herodias	great blue heron	None	None	-	-	High
Asio flammeus	short-eared owl	None	None	SSC	-	Presumed Absent
Athene cunicularia	burrowing owl	None	None	SSC	-	low
Branchinecta lynchi	vernal pool fairy shrimp	Threatened	None	-	-	Presumed Absent
Branchinecta mesovallensis	midvalley fairy shrimp	None	None	-	-	Presumed Absent
Buteo swainsoni	Swainson's hawk	None	Threatened	-	-	Presumed Absent
Cardinalis cardinalis	northern cardinal	None	None	WL	-	Presumed Absent
Charadrius montanus	mountain plover	None	None	SSC	-	Presumed Absent
Desmocerus californicus dimorphus	valley elderberry longhorn beetle	Threatened	None	-	-	Presumed Absent
Elanus leucurus	white-tailed kite	None	None	FP	-	Presumed Absent
Emys marmorata	western pond turtle	None	None	SSC	-	Low
Entosphenus tridentatus	Pacific lamprey	None	None	SSC	-	Presumed Absent
Hypomesus transpacificus	Delta smelt	Threatened	Endangered	-	-	Presumed Absent
Hysterocarpus traskii traskii	Sacramento-San Joaquin tule perch	None	None	-	-	Presumed Absent
Icteria virens	yellow-breasted chat	None	None	SSC	-	Presumed Absent
Lavinia exilicauda exilicauda	Sacramento hitch	None	None	SSC	-	Presumed Absent
Lavinia symmetricus ssp. 1	San Joaquin roach	None	None	SSC	-	Presumed Absent
Lepidurus packardi	vernal pool tadpole shrimp	Endangered	None	-	-	Presumed Absent
Linderiella occidentalis	California linderiella	None	None	-	-	Presumed Absent
Melospiza melodia	song sparrow (-inModesto-in population)	None	None	SSC	-	Presumed Absent
Mylopharodon conocephalus	hardhead	None	None	SSC	-	Presumed Absent
Oncorhynchus keta	chum salmon	None	None	-	-	Presumed Absent
Oncorhynchus mykiss irideus pop. 11	steelhead - Central Valley DPS	Threatened	None	-	-	Presumed Absent
Oncorhynchus tshawytscha pop. 13	chinook salmon - Central Valley fall / late fall-run ESU	None	None	SSC	-	Presumed Absent
Pica nuttalli	yellow-billed magpie	None	None	-	-	Presumed Absent
Pogonichthys macrolepidotus	Sacramento splittail	None	None	SSC	-	Presumed Absent
Progne subis	purple martin	None	None	SSC	-	Presumed Absent
Rana boylii	foothill yellow-legged frog	None	Candidate Threatened	SSC	-	Presumed Absent
Rana draytonii	California red-legged frog	Threatened	None	SSC	-	Presumed Absent
Setophaga petechia	yellow warbler	None	None	SSC	-	Presumed Absent
Thamnophis gigas	giant gartersnake	Threatened	Threatened	-	-	Presumed Absent
Special-Status Plant Species						
Castilleja campestris var. succulenta	succulent owl's-clover	Threatened	Endangered	-	1B.2	Presumed Absent
Legenere limosa	legenere	None	None	-	1B.1	Presumed Absent
Juglans hindsii	Northern California black walnut	None	None	-	1B.1	Presumed Absent
Lilaeopsis masonii	Mason's lilaeopsis	None	Rare	-	1B.1	Presumed Absent
Symphyotrichum lentum	Suisun Marsh aster	None	None	-	1B.2	Presumed Absent
Sagittaria sanfordii	Sanford's arrowhead	None	None	-	1B.2	Presumed Absent
Special-Status Plant Communities						
Northern Hardpan Vernal Pool		-	-	Sensitive Habitat	-	Absent

Valley Oak Woodland			-	-	Sensitive Habitat	-	Absent

U.S. Fish and Wildlife Service (Fed) - Federal

END- Federal Endangered
THR- Federal Threatened

California Department of Fish and Wildlife (CA) - California

END- California Endangered
THR- California Threatened
Candidate- Candidate for listing under the California Endangered Species Act
FP- California Fully Protected
SSC- Species of Special Concern
WL- Watch List

California Native Plant Society (CNPS)

California Rare Plant Rank

1B Plants Rare, Threatened, or Endangered in California and Elsewhere
2B Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
3 Plants About Which More Information is Needed – A Review List

CNPS Threat Ranks

0.1- Seriously threatened in California
0.2- Moderately threatened in California
0.3- Not very threatened in California

Attachment D

Regulations

Special status species are native species that have been afforded special legal or management protection because of concern for their continued existence. There are several categories of protection at both federal and state levels, depending on the magnitude of threat to continued existence and existing knowledge of population levels.

Federal Regulations

Endangered Species Act of 1973

As defined within the Federal Endangered Species Act (FESA) of 1973, an endangered species is any animal or plant listed by regulation as being in danger of extinction throughout all or a significant portion of its geographical range. A threatened species is any animal or plant that is likely to become endangered within the foreseeable future throughout all or a significant portion of its geographical range. Without a special permit, federal law prohibits the "take" of any individuals or habitat of federally listed species. Under Section 9 of the FESA, take is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct." The term "harm" has been clarified to include "any act which actually kills or injures fish or wildlife, and emphasizes that such acts may include significant habitat modification or degradation that significantly impairs essential behavioral patterns of fish or wildlife." The presence of any federally threatened or endangered species within a project area generally imposes severe constraints on development, particularly if development would result in "take" of the species or its habitat. Under the regulations of the FESA, the United States Fish and Wildlife Service (USFWS) may authorize "take" when it is incidental to, but not the purpose of, an otherwise lawful act.

Critical Habitat is designated for the survival and recovery of species listed as threatened or endangered under the ESA. Critical Habitat includes those areas occupied by the species, in which are found physical and biological features that are essential to the conservation of an FESA listed species and which may require special management considerations or protection. Critical Habitat may also include unoccupied habitat if it is determined that the unoccupied habitat is essential for the conservation of the species.

Whenever federal agencies authorize, fund, or carry out actions that may adversely modify or destroy Critical Habitat, they must consult with USFWS under Section 7 of the ESA. The designation of Critical Habitat does not affect private landowners, unless a project they are proposing uses federal funds, or requires federal authorization or permits (e.g., funding from the Federal Highway Administration or a permit from the U.S. Army Corps of Engineers (Corps)).

If the USFWS determines that Critical Habitat will be adversely modified or destroyed from a proposed action, the USFWS will develop reasonable and prudent alternatives in cooperation with the federal institution to ensure the purpose of the proposed action can be achieved without loss of Critical Habitat. If the action is not likely to adversely modify or destroy Critical Habitat, USFWS will include a statement in its biological opinion concerning any incidental take that may be authorized and specify terms and conditions to ensure the agency is in compliance with the opinion.

Migratory Bird Treaty Act

Pursuant to the Migratory Bird Treaty Act (MBTA) (16 U.S. Government Code [USC] 703) of 1918, as amended in 1972, federal law prohibits the taking of migratory birds or their nests or eggs (16 USC 703; 50 CFR 10, 21). The statute states:

> *Unless and except as permitted by regulations made as hereinafter provided in this subchapter, it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill...any migratory bird, any part, nest, or egg of any such bird...included in the terms of the [Migratory Bird] conventions…*

The MBTA covers the taking of any nests or eggs of migratory birds, except as allowed by permit pursuant to 50 CFR, Part 21. Disturbances causing nest abandonment and/or loss of reproductive effort (i.e., killing or abandonment of eggs or young) may also be considered "take." This regulation seeks to protect migratory birds and active nests.

In 1972, the MBTA was amended to include protection for migratory birds of prey (e.g., raptors). Six families of raptors occurring in North America were included in the amendment: Accipitridae (kites, hawks, and eagles); Cathartidae (New World vultures); Falconidae (falcons and caracaras); Pandionidae (ospreys); Strigidae (typical owls); and Tytonidae (barn owls). The provisions of the 1972 amendment to the MBTA protects all species and subspecies of the families listed above. The MBTA protects over 800 species including geese, ducks, shorebirds, raptors, songbirds and many relatively common species.

State Regulations

California Environmental Quality Act (CEQA)

The California Environmental Quality Act (CEQA) provides for the protection of the environment within the State of California by establishing State policy to prevent significant, avoidable damage to the environment through the use of alternatives or mitigation measures for projects. It applies to actions directly undertaken, financed, or permitted by State lead agencies. If a project is determined to be subject to CEQA, the lead agency will be required to conduct an Initial Study (IS); if the IS determines that the project may have significant impacts on the environment, the lead agency will subsequently be required to write an Environmental Impact Report (EIR). A finding of non-significant effects will require either a Negative Declaration or a Mitigated Negative Declaration instead of an EIR. Section 15380 of the CEQA Guidelines independently defines "endangered" and "rare" species separately from the definitions of the California Endangered Species Act (CESA). Under CEQA, "endangered" species of plants or animals are defined as those whose survival and reproduction in the wild are in immediate jeopardy, while "rare" species are defined as those who are in such low numbers that they could become endangered if their environment worsens.

California Endangered Species Act (CESA)

In addition to federal laws, the state of California implements the CESA which is enforced by CDFW. The CESA program maintains a separate listing of species beyond the FESA, although the provisions of each act are similar.

State-listed threatened and endangered species are protected under provisions of the CESA. Activities that may result in "take" of individuals (defined in CESA as; "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill") are regulated by CDFW. Habitat degradation or modification is not included in the definition of "take" under CESA. Nonetheless, CDFW has interpreted "take" to include the destruction of nesting, denning, or foraging habitat necessary to maintain a viable breeding population of protected species.

The State of California considers an endangered species as one whose prospects of survival and reproduction are in immediate jeopardy. A threatened species is considered as one present in such small numbers throughout its range that it is likely to become an endangered species in the near future in the absence of special protection or management. A rare species is one that is considered present in such small numbers throughout its range that it may become endangered if its present environment worsens. State threatened and endangered species are fully protected against take, as defined above.

CDFW has also produced a species of special concern list to serve as a species watch list. Species on this list are either of limited distribution or their habitats have been reduced substantially, such that a threat to their populations may be imminent. Species of special concern may receive special attention during environmental review, but they do not have formal statutory protection. At the federal level, USFWS also uses the label species of concern, as an informal term that refers to species which might be in need of concentrated conservation actions. As the Species of Concern designated by USFWS do not receive formal legal protection, the use of the term does not necessarily ensure that the species will be proposed for listing as a threatened or endangered species.

Fish and Game Code

Fish and Game Code Sections 3503, 3503.5, 3511, and 3513 are applicable to natural resource management. For example, Section 3503 of the Code makes it unlawful to destroy any birds' nest or any birds' eggs that are protected under the MBTA. Further, any birds in the orders Falconiformes or Strigiformes (Birds of Prey, such as hawks, eagles, and owls) are protected under Section 3503.5 of the Fish and Game Code which makes it unlawful to take, possess, or destroy their nest or eggs. A consultation with CDFW may be required prior to the removal of any bird of prey nest that may occur on a project site. Section 3511 of the Fish and Game Code lists fully protected bird species, where the CDFW is unable to authorize the issuance of permits or licenses to take these species. Pertinent species that are State fully protected by the State include golden eagle (*Aquila chrysaetos*) and white-tailed kite (*Elanus leucurus*). Section 3513 of the Fish and Game Code makes it unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

Native Plant Protection Act

Sections 1900–1913 of the Fish and Game Code were developed to preserve, protect, and enhance Rare and Endangered plants in the state of California. The act requires all state agencies to use their authority to carry out programs to conserve Endangered and Rare native plants. Provisions of the Native Plant Protection Act prohibit the taking of listed plants from the wild and require notification of the CDFW at

least ten days in advance of any change in land use which would adversely impact listed plants. This allows the CDFW to salvage listed plant species that would otherwise be destroyed.

California Native Plant Society Rare and Endangered Plant Species

Vascular plants listed as rare or endangered by the CNPS, but which have no designated status under FESA or CESA are defined as follows:

California Rare Plant Rank

1A- Plants Presumed Extirpated in California and either Rare or Extinct Elsewhere

1B- Plants Rare, Threatened, or Endangered in California and Elsewhere

2A- Plants Presumed Extirpated in California, But More Common Elsewhere

2B- Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere

3- Plants about Which More Information is Needed - A Review List

4- Plants of Limited Distribution - A Watch List

Threat Ranks

.1- Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)

.2- Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

.3- Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known).

There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The Corps Regulatory Branch regulates activities pursuant to Section 404 of the Federal Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the CDFG regulates activities under the Fish and Game Code Section 1600-1616, and the Regional Board regulates activities pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act.

Federal Regulations

Section 404 of the Clean Water Act

Since 1972, the Corps and U.S. Environmental Protection Agency (EPA) have jointly regulated the filling of "waters of the U.S.," including wetlands, pursuant to Section 404 of the Clean Water Act (CWA). The Corps has regulatory authority over the discharge of dredged or fill material into the waters of the United States under Section 404 of the CWA. The Corps and EPA define "fill material" to include any "material placed in waters of the United States where the material has the effect of: (i) replacing any portion of a water of the United States with dry land; or (ii) changing the bottom elevation of any portion of the waters of the United States." Examples include, but are not limited to, sand, rock, clay, construction debris, wood chips, and "materials used to create any structure or infrastructure in the waters of the United States." In order to further define the scope of waters protected under the CWA, the Corps and EPA published the Clean Water Rule on June 29, 2015. Pursuant to the Clean Water Rule, the term "*waters of the United States*" is defined as follows:

(i) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.

(ii) All interstate waters, including interstate wetlands[1].

(iii) The territorial seas.

(iv) All impoundments of waters otherwise defined as waters of the United States under the definition.

(v) All tributaries[2] of waters identified in paragraphs (i) through (iii) mentioned above.

(vi) All waters adjacent[3] to a water identified in paragraphs (i) through (v) mentioned above, including wetlands, ponds, lakes, oxbows, impoundments, and similar waters.

---

1 The term *wetlands* means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

2 The terms *tributary* and *tributaries* each mean a water that contributes flow, either directly or through another water (including an impoundment identified in paragraph (iv) mentioned above), to a water identified in paragraphs (i) through (iii) mentioned above, that is characterized by the presence of the physical indicators of a bed and banks and an ordinary high water mark.

3 The term *adjacent* means bordering, contiguous, or neighboring a water identified in paragraphs (i) through (v) mentioned above, including waters separated by constructed dikes or barriers, natural river berms, beach dunes, and the like.

(vii) All prairie potholes, Carolina bays and Delmarva bays, Pocosins, western vernals pools, Texas coastal prairie wetlands, where they are determined, on a case-specific basis, to have a significant nexus to a water identified in paragraphs (i) through (iii) meantioned above.

(viii) All waters located within the 100-year floodplain of a water identified in paragraphs (i) through (iii) mentioned above and all waters located within 4,000 feet of the high tide line or ordinary high water mark of a water identified in paragraphs (i) through (v) mentioned above, where they are determined on a case-specific basis to have a significant nexus to a waters identified in paragraphs (i) through (iii) mentioned above.

The following features are not defined as "waters of the United States" even when they meet the terms of paragraphs (iv) through (viii) mentioned above:

(i) Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the Clean Water Act.

(ii) Prior converted cropland.

(iii) The following ditches:

- (A) Ditches with ephemeral flow that are not a relocated tributary or excavated in a tributary.
- (B) Ditches with intermittent flow that are not a relocated tributary, excavated in a tributary, or drain wetlands.
- (C) Ditches that do not flow, either directly or through another water, into a water of the United States as identified in paragraphs (i) through (iii) of the previous section.

(iv) The following features:

- (A) Artificially irrigated areas that would revert to dry land should application of water to that area cease;
- (B) Artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, or cooling ponds;
- (C) Artificial reflecting pools or swimming pools created in dry land;
- (D) Small ornamental waters created in dry land;
- (E) Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand, or gravel that fill with water;
- (F) Erosional features, including gullies, rills, and other ephemeral features that do not meet the definition of a tributary, non-wetland swales, and lawfully constructed grassed waterways; and
- (G) Puddles.

(v) Groundwater, including groundwater drained through subsurface drainage systems.

(vi) Stormwater control features constructed to convey, treat, or store stormwater that are created in dry land.

(vii) Wastewater recycling structures constructed in dry land; detention and retention basins built for wastewater recycling; groundwater recharge basins; percolation ponds built for wastewater recycling; and water distributary structures built for wastewater recycling.

Section 401 of the Clean Water Act

Pursuant to Section 401 of the CWA, any applicant for a federal license or permit to conduct any activity which may result in any discharge to waters of the United States must provide certification from the State or Indian tribe in which the discharge originates. This certification provides for the protection of the physical, chemical, and biological integrity of waters, addresses impacts to water quality that may result from issuance of federal permits, and helps insure that federal actions will not violate water quality standards of the State or Indian tribe. In California, there are nine Regional Water Quality Control Boards (Regional Board) that issue or deny certification for discharges to waters of the United States and waters of the State, including wetlands, within their geographical jurisdiction. The State Water Resources Control Board assumed this responsibility when a project has the potential to result in the discharge to waters within multiple Regional Boards.

State Regulations

Fish and Game Code

Fish and Game Code Sections 1600 et. seq. establishes a fee-based process to ensure that projects conducted in and around lakes, rivers, or streams do not adversely impact fish and wildlife resources, or, when adverse impacts cannot be avoided, ensures that adequate mitigation and/or compensation is provided.

Fish and Game Code Section 1602 requires any person, state, or local governmental agency or public utility to notify the CDFW before beginning any activity that will do one or more of the following:

(1) substantially obstruct or divert the natural flow of a river, stream, or lake;
(2) substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or
(3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake.

Fish and Game Code Section 1602 applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the State. CDFW's regulatory authority extends to include riparian habitat (including wetlands) supported by a river, stream, or lake regardless of the presence or absence of hydric soils and saturated soil conditions. Generally, the CDFW takes jurisdiction to the top of bank of the stream or to the outer limit of the adjacent riparian vegetation (outer drip line), whichever is greater. Notification is generally required for any project that will take place in or in the vicinity of a river, stream, lake, or their tributaries. This includes rivers or streams that flow at least periodically or permanently through a bed or channel with banks that support fish or other aquatic life and watercourses having a surface or subsurface flow that support or have supported riparian vegetation. A Section 1602 Streambed Alteration Agreement would be required if impacts to identified CDFW jurisdictional areas occur.

Porter Cologne Act

The California *Porter-Cologne Water Quality Control Act* gives the State very broad authority to regulate waters of the State, which are defined as any surface water or groundwater, including saline waters. The Porter-Cologne Act has become an important tool in the post SWANCC and Rapanos regulatory environment, with respect to the state's authority over isolated and insignificant waters. Generally, any person proposing to discharge waste into a water body that could affect its water quality must file a Report of Waste Discharge in the event that there is no Section 404/401 nexus. Although "waste" is partially defined as any waste substance associated with human habitation, the Regional Board also interprets this to include fill discharged into water bodies.

Appendix D

Cultural Resources Technical Report

CULTURAL RESOURCES SURVEY
FOR THE
NORTHERN CALIFORNIA POWER AGENCY
SOLAR PROJECT 1 – LODI CENTURY PARK SITE
SAN JOAQUIN COUNTY, CALIFORNIA

Prepared for
K.S. Dunbar and Associates, Inc.
45375 Vista Del Mar
Temecula, CA 92590-4314

Prepared by
Anza Resource Consultants
603 Seagaze Drive, #1018
Oceanside, CA 92054
www.anzaresourceconsultants.com

USGS Quadrangle
Lodi South, California
Anza Project No. 19-0005

April 2019

EXECUTIVE SUMMARY

Anza Resource Consultants (Anza) was retained by K.S. Dunbar & Associates, Inc. to conduct a Phase I cultural resources study for the Northern California Power Agency (NCPA) Solar Project 1 – Lodi Sites in the City of Lodi, San Joaquin County, California. This study regards the Lodi Century Park Project, which is made up of two land parcels with two separate points of interconnection. Century Park East is located on approximately 2.9 acres of City of Lodi property. Century Park East is bordered by an industrial park to the north, recreational fields to the south, East Century Boulevard to the east, and the Union Pacific Railroad to the west. Century Park West is located on approximately 1.7 acres of City of Lodi property. Century Park West is bordered by residences to the north and south, the Union Pacific Railroad to the east, and West Century Boulevard to the west. The project (both Century Park East and Century Park West combined) was modeled with a total photovoltaic output of 300 kilowatts (kW) alternating current. The proposed project is subject to the California Environmental Quality Act (CEQA) with NCPA serving as lead agency.

The cultural resource records search, Native American scoping, and pedestrian survey identified no cultural resources within or adjacent to the project site. Anza recommends a finding of ***no impact to historical resources*** under CEQA. No further cultural resources study is recommended; however, the following standard measures are recommended to avoid potential impacts from the unanticipated discovery of cultural resources during project related ground disturbing activities.

CULTURAL RESOURCES WORKER SENSITIVITY TRAINING

Prior to the start of construction, NCPA shall hold a pre-grading meeting. The Project Archaeologist shall attend the pre-grading meeting with NCPA's Project Administrator, Field Engineering Inspector and any contractors to conduct a Cultural Resources Worker Sensitivity Training for all construction personnel working on the proposed Project. The training shall include an overview of potential cultural resources that could be encountered during ground disturbing activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated, and any other appropriate protocols.

UNANTICIPATED DISCOVERY OF CULTURAL RESOURCES

If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) must be contacted immediately to evaluate the find. If the discovery proves to be significant under CEQA, additional work such as data recovery excavation may be warranted.

UNANTICIPATED DISCOVERY OF HUMAN REMAINS

The discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the county coroner must be notified immediately. If the human remains are determined to be prehistoric, the coroner will notify the Native American Heritage Commission, which will determine and notify a Most Likely Descendant. The Most Likely Descendant shall complete the inspection of the site

within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF PHOTOGRAPHS

APPENDICES

1. INTRODUCTION

Anza Resource Consultants (Anza) was retained by K.S. Dunbar & Associates, Inc. to conduct a Phase I cultural resources study for the Northern California Power Agency (NCPA) Solar Project 1 – Lodi Sites in the City of Lodi, San Joaquin County, California (Figure 1). The NCPA Solar Project 1 includes the following projects: Century Park East/West, Pixley Basin, and Parking Structure, and is described below (Section 1.1). This study has been prepared in accordance with the California Environmental Quality Act (CEQA) statutes and guidelines (Section 1.2). This cultural resources study includes a cultural resources records search, a summary of Native American scoping for the project, pedestrian survey, and the preparation of this report following the *Archaeological Resources Management Report (ARMR): Recommended Content and Format* guidelines (California Office of Historic Preservation 1990).

1.1 PROJECT DESCRIPTION

The objective of the NCPA Solar Project 1 is to develop a fleet of photovoltaic (PV) solar power plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by NCPA as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial five to seven years of operation, NCPA plans to purchase the plants.

NCPA has completed the site selection and screening portion of the project and the City of Lodi selected three sites for development: Century East/West, Pixley Basin, and Parking Structure sites. The Century Park Project is made up of two land parcels with two separate points of interconnection. Century Park East is located on approximately 2.9 acres of City of Lodi property. Century Park East is bordered by an industrial park to the north, recreational fields to the south, East Century Boulevard to the east, and the Union Pacific Railroad to the west. Century Park West is located on approximately 1.7 acres of City of Lodi property. Century Park West is bordered by residences to the north and south, the Union Pacific Railroad to the east, and West Century Boulevard to the west. The project (both Century Park East and Century Park West combined) was modeled with a total PV output of 300 kW alternating current.

1.2 REGULATORY SETTING

1.2.1 State

CEQA requires a lead agency determine whether a project may have a significant effect on historical resources (Public Resources Code [PRC], Section 21084.1). A historical resource is a resource listed in, or determined to be eligible for listing, in the California Register of Historical Resources (CRHR), a resource included in a local register of historical resources or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (State CEQA Guidelines, Section 15064.5[a][1-3]).

A resource shall be considered historically significant if it meets any of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

4. Has yielded, or may be likely to yield, information important in prehistory or history.

In addition, if it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC, Section 21083.2[a], [b], and PRC, Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, the probability is high that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

California Assembly Bill 52 of 2014 (AB 52) took effect July 1, 2015, and expanded CEQA by establishing a formal consultation process for California tribes within the CEQA process. The bill specifies that any project that may affect or cause a substantial adverse change in the significance of a tribal cultural resource would require a lead agency to "begin consultation with a California Native American tribe that is traditional and culturally affiliated with the geographic area of the proposed project." According to the legislative intent for AB 52, "tribes may have knowledge about land and cultural resources that should be included in the environmental analysis for projects that may have a significant impact on those resources." Section 21074 of AB 52 also defines a new category of resources under CEQA called "tribal cultural resources." Tribal cultural resources are defined as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and is either listed on or eligible for the California Register of Historical Resources or a local historic register, or if the lead agency chooses to treat the resource as a tribal cultural resource. See also PRC 21074 (a)(1)(A)-(B).

1.3 PERSONNEL

Anza Principal and Senior Cultural Resources Specialist Kevin Hunt requested the Sacred Lands File search, conducted the survey, and was the primary author of this report. Principal Investigator Katherine Collins, M.A., Registered Professional Archaeologist (RPA), coauthored this report and served as principal investigator for the study. Ms. Collins meets the Secretary of the Interior's Professional Qualifications Standards for prehistoric and historic archaeology (National Park Service 1983). GIS Specialist Spencer Bietz prepared all maps and figures.

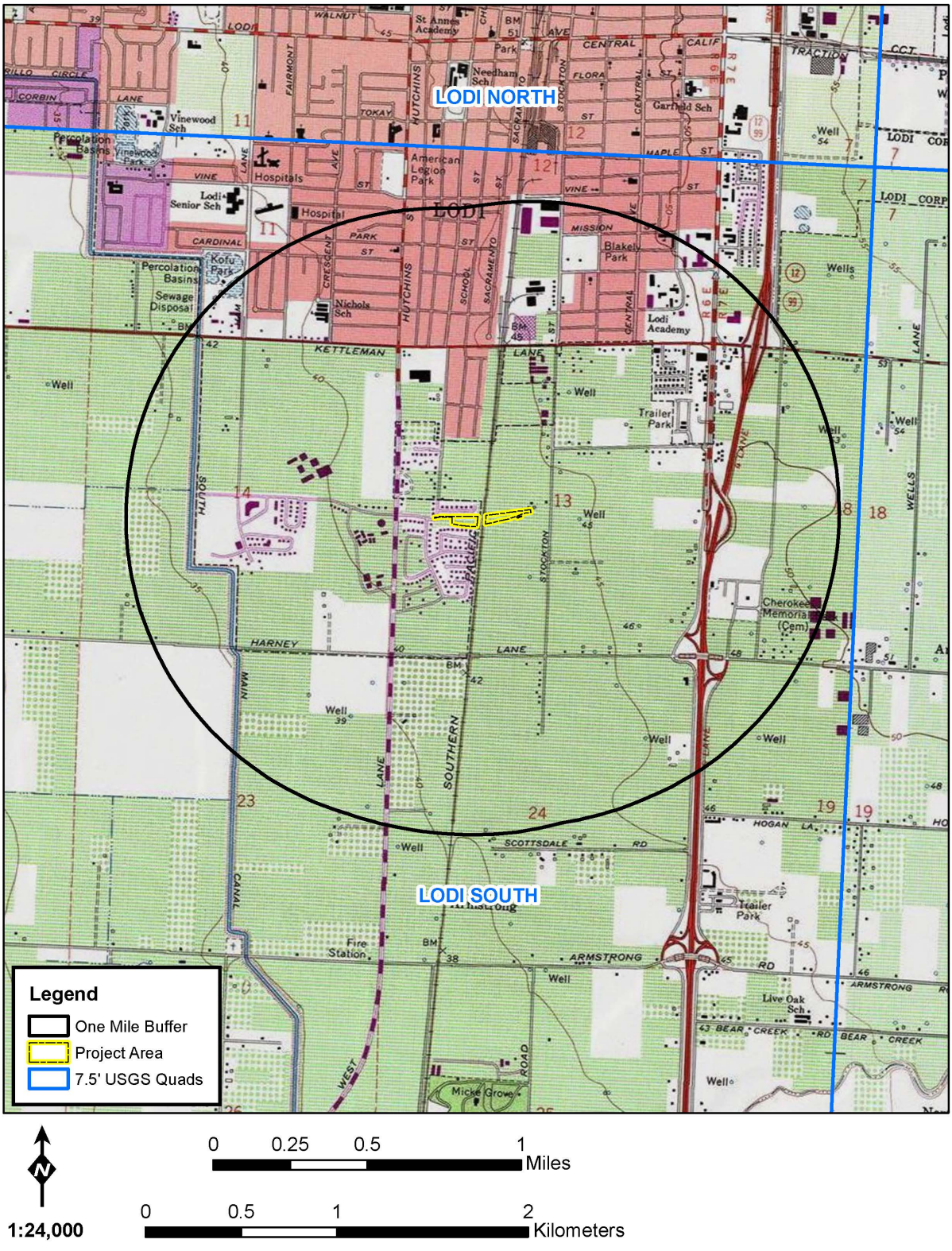


Figure 1. Project Location Map

2. ENVIRONMENTAL SETTING

The Lodi Century Park Project Site is located the northern San Joaquin Valley, famed for its agriculture. Characteristic vegetation communities in the region include agricultural habitats and annual grassland, with much smaller amounts of freshwater emergent wetland, lacustrine, water, and valley foothill riparian habitats (City of Lodi 2009:3.4-2). Agricultural lands support a broad variety of fauna including California ground squirrel, California vole, red-winged blackbird, northern harrier, white-tailed kite, and yellow-billed magpie. Urban areas support fauna such as American crow, rock dove, American robin, Brewer's blackbird, house finch, house sparrow, northern mockingbird, mourning dove, raccoon, Virginia opossum, and striped skunk. Prior to agricultural and urban development the San Joaquin Valley hosted a broad variety of additional species.

Lodi averages 19 inches of rain annually. Lodi has a hot-summer Mediterranean climate including cool, wet winters, often with dense ground fog, and hot, dry summers. The project site is underlain by the upper member of the Pleistocene Quarternary Modesto formation, composed of undivided alluvium (Dawson 2009).

3. CULTURAL SETTING

3.1 PREHISTORIC OVERVIEW

The prehistory of the Central Valley is generally divided into three main periods: Paleoindian, Archaic, and Emergent. The Archaic is further divided into the Lower, Middle, and Upper (Fredrickson 1973, 1974). This chronological framework is used by researchers to understand how prehistoric cultures adapted and coped with environmental and social change. Within this framework researchers recognized certain sets of cultural and technological traits that appeared to span long periods of time and covered large areas. These sets of traits were referred to as either "horizons" or "patterns" in the literature. With smaller (local) units of patterns referred to as "aspects" and "phases" (Fredrickson 1974, Moratto 1984, Rosenthal et al. 2007). Below is a brief overview of prehistoric occupation history in the San Joaquin Valley portion of the Central Valley.

The **Paleoindian Period** (11,550 to 8550 cal B.C.) was characterized by the arrival of small, high-mobile hunter-gathered groups. A characteristic element of this period is the use of fluted points to bring down large game animals. Evidence of Paleoindian occupation in the San Joaquin Valley have been found at Tracy Lake, Wolfson mound (CA-MER-215) in Merced County, and the Tulare Lake basin (Moratto 1984, Rosenthal et al. 2007).

During the **Archaic Period** (8550 cal B.C. to A.D. 1100) climatic changes preceiptated the drying of pluvial lakes resulting in changes in substance strategies employed by the native populations. By the Middle Archaic (5550 to 550 cal B.C.) a set of cultural traits known as the Windmiller Pattern emerged at several sites in the San Joaquin Valley (Rosethal et al. 2007). The presence of milling stones such as manos and metates often characterize Windmiller sites, although mortar and pestles have also been found, indicating that acorns and/or various seeds formed an important part of the diet (Moratto 1984, Rosenthal et al 2007). A variety of faunal remains have been documented at Windmiller Pattern sites including Tule elk, mule deer, and pronghorn, as well as smaller game such as rabbit, water birds, raptors, and rodents (Rosenthal et al. 2007). Also, the presence of angling hooks and baked clay artifacts possibly used as net or line sinkers, along with the remains of sturgeon, salmon, and smaller fishes, indicate that fishing was an additional source of food (Fredrickson 1973; Heizer 1949; Ragir 1972). Items such as net sinkers, pipes, and discoids, as well as cooking "stones" were made of baked clay. Ground and polished charmstones, impressions of twined basketry, shell beads, and bone tools also have been found at Windmiller Pattern sites. Some items, such as shell beads, obsidian tools, and quartz crystals, were obtained by trade.

The archaeological record at Windmiller Pattern sites indicates people practiced a mixed procurement strategy of both game and wild plants, with the addition of acorns and/or seeds. The mixed exploitation of a wide range of natural resources ties into a seasonal foraging strategy. Populations likely occupied the lower elevations of the Sacramento Valley in the winter months and shifted to higher elevations during the summer (Moratto 1984:206). Characteristic Windmiller mortuary practices included ventrally and dorsally extended burials, accompanied by grave goods, in cemeteries that were separate from the habitation sites (Ragir 1972, Rosenthal et al. 2007). Recent research suggests the Windmiller culture persisted into the Upper Archaic (550 cal B.C. to A.D. 1100) in the San Joaquin Valley and was not replaced by the Berkeley Pattern, as it had in other places. Several sites in San Joaquin and Merced Counties (CA-SJO-17, SJO-87, SJO-106, SJO-154, SJO-246, MER-3, MER-215, and MER-323) continued the characteristic Windmiller mortuary practice of extended burials until sometime between 800 and 1,000 years ago (Rosenthal el al. 2007:156).

During the **Emergent Period** (cal A.D. 1100 to Historic) a new set of cultural traits emerged in the Central Valley known as the Augustine Pattern, although there is sporadic evidence of this cultural pattern in the San Joaquin Valley (Moratto 1984, Rosenthal et al. 2007:157). The Pacheco Complex on the western edge of the valley is the only well-defined example in this region. The Augustine Pattern is evidenced by a substantial increase in the intensity of subsistence exploitation, including fishing, hunting, and gathering (particularly the acorn (Moratto 1984:211–214). These changes begin to reflect the cultural pattern known from historic period Native American groups in the area. Augustine Pattern tools and cooking implements included shaped mortars and pestles, hopper mortars, bone awls used for producing coiled baskets, and the bow and arrow. Pottery vessels, known as Cosumnes brownware, are found in some parts of the Central Valley and most likely developed during this period from the prior baked clay industry.

During this period, an increase in sedentism led to the development of social stratification, accompanied by a shift to elaborate ceremonial and social organization. Exchange networks, with the use of clamshell disk beads as currency, also developed during the Augustine Pattern. Mortuary practices during this period included flexed burials and pre-interment burning of offerings in a grave pit, as well as cremation of high-status individuals (Fredrickson 1973:127–129; Moratto 1984:211). In the San Joaquin Valley villages and smaller communities developed along side-streams of the foothills, and river channels and sloughs in the valley. The introduction of the bow and arrow occurred during this time and one of California's most unique point types, the Stockton serrated edge, was developed in the region (Rosenthal el al. 2007).

3.2 ETHNOGRAPHIC OVERVIEW

The project site is located in the traditional territory of the Plains Miwok people. The Plains Miwok were one of six culture groups that spoke a Miwokan language in California. Other Miwok-speaking groups included the Bay Miwok (Saclan), Northern Sierra Miwok, Central Sierra Miwok, Southern Sierra Miwok, and Coast Miwok. Plains Miwok territory was centered in the Central Valley occupying an area between the lower reaches of the Mokelumne and Cosumnes Rivers and the banks of the Sacramento River, from Rio Vista to Freeport (Levy 1978). The word Miwok (miw·yk) generally means "people" in the Miwok language, which is a member of the Penutian language family (Kroeber 1925, Mithun 1999).

The primary sociopolitical unit among the Plains Miwok was the tribelet, comprising the residents of several base settlements and their associated seasonal camps. Each tribelet had a population of about 300 to 500 people and controlled specific territory and resources within it. Each settlement within a tribelet appeared to be the home of localized patrilineage. The tribelet as whole was led by a chieftain which was a hereditary position passed down from father to son. If there was no male heir, the position could be passed to the chief's daughter. The chief acted as an advisor, had the final say in interpersonal disputes, and determined the best time to gather resources (Levy 1978). Settlements typically contained a semi-subterranean earth lodge used for community ritual or social gatherings. Other structures include a semi-subterranean sweathouse, a menstrual hut, and a granary for storing acorns. Families lived in small earth-covered structures (Kroeber 1925, Levy 1978). Ethnohistoric research indicates a Miwok settlement called *Muquelemne* was located on the south bank of Mokelumne River near Lodi (Levy 1978).

The basic subsistence strategy of the Plains Miwok was seasonally mobile hunting and gathering. However, tobacco was cultivated and they also possessed domesticated dogs. Plant foods included acorns, buckeyes, laurel nuts, hazelnuts, seeds, roots, greens, and berries. Acorns, the primary staple, were gathered in the fall and stored through the winter. Seeds were gathered from May through August. Intentional, periodic burning in August ensured an ample supply of seed-bearing annuals and forage for game. The Miwok ate more meat in the winter, when the only plant resources available were those that

had been stored. Hunting was accomplished with the aid of the bow and arrow, traps, and snares. Animal foods consisted of deer; elk; antelope; rodents; waterfowl; quail, pigeons, flickers, and other birds; freshwater mussels and clams; land snails; fish; and insects. Salt was obtained from springs or through trade with people from the Mono Lake area (Bennyhoff 1977; Levy 1978).

The Plains Miwok used a variety of tools made from bone, stone, antler, wood, and textile. Bows were made of wood from a variety of tree species such as oak, ash, willow, pepperwood, maple, or hazel. Arrow heads were fashioned from stone materials such as obsidian obtained through trade, as well as local materials. Typical basketry items were seed beaters; cradles; sifters; rackets used in ball games; and baskets for storing, winnowing, parching, and carrying burdens. Other textiles included mats and cordage (Levy 1978).

Many Miwok groups were subject to missionization efforts during the late eighteenth and early nineteenth centuries. Christian baptisms of Plains Miwok occurred as early as 1811 and did not stop until 1833. During this time over 2,100 Plains Miwok were baptized. As a result of the missionization effort many Plains Miwok were removed from their traditional territory and sent to Mission San Jose located in the present-day city of Fremont. By the beginning of the nineteenth century the Miwok numbered some 19,500 people but by the early twentieth century this number was below one thousand people. Today there are about 3,500 people of Miwok descent, with many living on several reservations in California (White 2019).

3.3 HISTORIC OVERVIEW

The historic period for the state of California generally begins with the establishment of the first Spanish mission and presidio in San Diego in 1769. This marks the beginning of the Spanish period of California history which lasted until 1822 when news of Mexico's independence from Spain in 1821 finally reached California. The Spanish period saw the establishment of a permanent European presence in California in the form of 21 missions located along the coast between San Diego and Sonoma, four military presidios located in San Diego, Monterey, San Francisco and Santa Barbara, and three pueblos (towns) that later became the cities of Los Angeles, San Jose and Santa Cruz (Robinson 1948). The Spanish period ended with Mexican independence from the Spanish crown in 1822. The Mexican period of California history saw the seizure of lands once held by the missions through the Mexican Secularization Act of 1833 and the redistribution of those lands to individuals in the form of land grants known as "ranchos" (Robinson 1948). During this period the Mexican government in California issued about 700 land grants to Mexican citizens and foreign immigrants (Shumway 1988). The outbreak of war between the United States and Mexico and the signing of the Treaty of Guadalupe Hidalgo in 1848 ended the Mexican period and signaled the beginning of the American period of California history. The early American period is marked by the discovery of gold at Sutter's Mill in 1848, resulting in a gold rush that saw a massive influx of settlers from other parts of the United States and around the world, greatly impacting California's native population. In 1869 the transcontinental railroad was completed linking California with the rest of the United States. The gold rush and the establishment of the railroad played major roles in the development of California into a national and worldwide leader in agricultural and industrial production. These early developments also resulted in making California one of the most racially and ethnically diverse states in the Union.

3.3.1 San Joaquin County

The history of San Joaquin County begins in 1850 as one of the original 27 counties of the state of California. The county derives its name from the San Joaquin River, a major river that flows through the region from southern Sierra Nevada Mountains. Early European exploration through the region included

an expedition led by Gabriel Moraga, a Spanish army officer who named the San Joaquin River as well as other natural features as he made his way through the Central Valley. Between 1840 and 1846 the Mexican government in California issued five land grants – Arroyo Seco, Campo de Los Franceses, El Pescadero, Sanjon de los Moquelumnes, and Rancho del Estanislao (also known as Thompson's Rancho) – that encompassed major portions of San Joaquin County (Shumway 1988). The County's generally flat terrain made it a desirable location for building a railroad and in 1866 Congress authorized the Southern Pacific Railroad to build a transcontinental rail route between San Francisco and the Colorado River. By 1870 the Southern Pacific line made its way through San Joaquin County to the City of Modesto (Burns 2007). The establishment of the Southern Pacific and other rail lines through San Joaquin County provided the transportation backbone to move local agricultural produce to markets across the country. Today, agriculture remains an important component of the County's economy.

3.3.2 City of Lodi

The City of Lodi was established in 1869 along the southern banks of Mokelumne River. It was originally named Mokelunme but was changed to Lodi by an act of the California legislature in 1874. Two of Lodi's early residents, Charles Ivory and John Burt established a general store on the corner of Pine and Sacramento Streets. Their store became a magnet for attracting homesteaders and other businesses to the area. Since its inception, agriculture was the backbone of Lodi's economy growing such crops as wheat, watermelon, and grapes. In 1880 some 3.4 million bushels of wheat were grown in San Joaquin County, much of it grown in the Lodi area. Grape vineyards also dominated the area with over two million plants in production in 1899. By the early twentieth century grapes were so important to Lodi that in 1907 residents held the Tokay Carnival to "advertise the beauty and value of the Tokay grape." During the same year a mission-style arch was built at Pine and Sacramento Streets, in the historic core of Lodi, at a cost of $500. The arch still exists today and is a local landmark (Hoover et al. 2002, Lodi Historical Society 2016).

4. BACKGROUND RESEARCH

4.1 CALIFORNIA HISTORICAL RESOURCE INFORMATION SYSTEM

Anza conducted a search of cultural resource records housed at the California Historical Resources Information System (CHRIS), Central California Information Center (CCIC) located at California State University, Stanislaus. The search was conducted by CCIC on April 16, 2019, to identify all previous cultural resources work and previously recorded cultural resources within a 0.5-mile radius of the project site (Appendix A). The CHRIS search included a review of the NRHP, CRHR, the California Points of Historical Interest list, the California Historical Landmarks list, the Archaeological Determinations of Eligibility list, and the California State Historic Resources Inventory list. The records search also included a review of all available historic USGS 7.5-, 15-, and 30-minute quadrangle maps.

4.1.1 Previous Studies

The CCIC records search identified 13 cultural resources studies that were conducted within a 0.5-mile radius of the project site, two of which are mapped adjacent between the two project site loci within the Union Pacific Railroad corridor (Table 1).

Table 1. Previous Cultural Resource Studies within a 0.5-Mile Radius of the Project Site

Report Number	Author	Year	Title	Proximity to Project Site
SJ-03995	Nelson, W. J.	2000	Cultural Resource Survey for the Level (3) Communications Long Haul Fiber Optics Project; Segment WS04: Sacramento to Bakersfield	Adjacent (between East and West sites)
SJ-04094	Davis-King, Shelley	2000	Department of Transportation Negative Archaeological Survey Report: 10-San Joaquin, Southbound West Lane Harney Lane to Armstrong Road.	Outside
SJ-04508	Jones and Stokes Associates, Inc.	2001	Historic Property Survey Report, 10-SJO-12, P.M. 15.2/18.0, Charge Unit 173, E.A. OG5700: Kettleman Lane, Route 12 Widening Project. (Also includes Historic Archaeological Survey Report and Negative Archaeological Survey Report).	Outside
SJ-06005	Billat, L.	2006	New Tower ("NT") Submission Packet, FCC Form 620 Earth Touch, Inc., Maggio Cir. SC-13353A, San Joaquin County, CA	Outside
SJ-06123	Jackson, R. and P. Welsh	2006	Cultural Resources Inventory, Reynolds Ranch / Blue Shield Development Plan, City of Lodi, San Joaquin County, California.	Outside
SJ-06345	SWCA Environmental Consultants	2006	Cultural Resources Final Report of Monitoring and Findings for the QWest Network Construction Project, State of California. SWCA Project No. 10715-180.	Adjacent (between East and West sites)
SJ-07719	Jordan, Nichole	2012	Historic Property Survey Report, Harney Lane/ Union Pacific Railroad Grade Separation Lodi, San Joaquin County, California, Federal Aid Project No. STPL-5154 (041).	Outside

Report Number	Author	Year	Title	Proximity to Project Site
SJ-07719	Jordan, N.	2012	Archaeological Survey Report for the Harney Lane/Union Pacific Railroad Grade Separation Project, Lodi, San Joaquin County, California.	Outside
SJ-07719	Hibma, M.	2012	Historical Resources Evaluation Report for the Harney Lane/Union Pacific Grade Separation Project, Lodi, San Joaquin County, California Federal Project No. STPL 5154 (041).	Outside
SJ-08111	Jordan, N., and K. Smith	2015	Supplemental Historic Property Survey Report for the Harney Lane/Union Pacific Railroad Grade Separation Project, City of Lodi, San Joaquin County; California Federal Project No. STPL 554 (041), Caltrans District 10.	Outside
SJ-08111	Jordan, N. and Smith, K.	2015	Supplemental Archaeological Survey Report for the Harney Lane/Union Pacific Railroad Grade Separation Project, City of Lodi, San Joaquin County, California; Federal Aid Project No. STPL 5154 (041), Caltrans District 10.	Outside
SJ-08642	Vallaire, K.	2016	Supplemental Historic Property Survey Report, 10-SJ-STPL 5154(040). City of Lodi Department of Public Works, New Fur-Lane Bridge Structure for Harney Lane over the Union Pacific Railroad Tracks. San Joaquin County, California	Outside
SJ-08642	Vallaire, K., and M. Falke	2015	Second Supplemental Archaeological Survey Report, Harney Lane/Union Pacific Railroad Grade Separation Project, City of Lodi, San Joaquin County, California, Federal Aid Project STPL 5154(040), Caltrans District 10	Outside

Source: CCIC, April 2019

4.1.2 Previously Recorded Resources

The CCIC records search identified three cultural resources previously recorded within a 0.5-mile radius of the project site (Table 2). One of the resources (P-39-000002) is an unrecorded segment of the historic period Southern Pacific San Joaquin Valley Mainline – now the Union Pacific Railroad – which is adjacent and between the Century East and West project site loci. The other two resources are historic period buildings at least 0.25 mile from the project site.

Table 2. Previously Recorded Cultural Resources within 0.5-Mile of the Project Site

Primary Number	Trinomial	Description	NRHP/CRHR Eligibility Status	Recorded Year (By Whom)	Relationship to Project Site
P-39-000002	CA-SJO-000250H	Southern Pacific Railroad in San Joaquin County	Found ineligible for NR, CR or Local designation through survey evaluation (Code 6Z)	25 instances between 1993 and 2012	Adjacent between two loci
P-39-005072	n/a	Barron (Mable) and Beckman Schools	Insufficient information	1991 (San Joaquin County Superintendent of Schools)	Approximately 0.25 mile northwest

Primary Number	Trinomial	Description	NRHP/CRHR Eligibility Status	Recorded Year (By Whom)	Relationship to Project Site
P-39-005144	n/a	Agricultural Shop/ Garage	Found ineligible for NR, CR or Local designation through survey evaluation (Code 6Z)	2012 (Hibma, Michael, LSA Associates, Inc.)	Approximately 0.5 mile south

Source: CCIC, April 2019

4.2 NATIVE AMERICAN SCOPING

K.S. Dunbar & Associates, Inc. requested a review of the Sacred Lands File (SLF) by the Native American Heritage Commission. The NAHC sent a response on March 11, 2019, stating that a search of the SLF was completed with negative results (i.e., no sacred lands or resources important to Native Americans identified in the search; Appendix B). The NAHC provided a list of seven Native American contacts that may have knowledge regarding Native American cultural resources within or near the project site.

K.S. Dunbar & Associates, Inc. mailed letters and sent emails dated March 12, 2019, to the seven Native American contacts describing the Lodi projects and asking if they had knowledge regarding cultural resources of Native American origin within or near the project sites (Appendix B). The Northern Valley Yokut responded via email on April 2, 2019, requesting that NCPA conduct a SLF search and CCIC records search. The United Auburn Indian Community responded via email on April 24, 2019 and requested formal AB 52 consultation for this project and provided recommended mitigation measures. Consultation between NCPA and United Auburn Indian Community was formally initiated in a letter dated April 24, 2019. No additional responses have been received as of April 30, 2019.

5. FIELDWORK

5.1 SURVEY METHODS

Anza Principal and Senior Cultural Resources Specialist Kevin Hunt conducted a pedestrian survey of the project site on April 25, 2019. Mr. Hunt surveyed the project site using transects spaced 5 to 10 meters apart and oriented north-south. The entire project site was surveyed.

Mr. Hunt examined all exposed ground surface for artifacts (e.g., flaked stone tools and tool-manufacture debris, ground stone tools, ceramic sherds, fire-affected rock), ecofacts (marine shell, bone), soil discoloration that could indicate the presence of a cultural midden, soil depressions, and features indicative of the former presence of structures or buildings (e.g., standing exterior walls, postholes, foundations) or historic debris (e.g., metal, glass, ceramic sherds, cut bone). Ground disturbances such as burrows and drainages were visually inspected. Photographs documenting the project site and survey are maintained in cloud storage online.

5.2 RESULTS

The project site is highly disturbed with gravel and unkept grasses on the eastern portion (Photographs 1-2) and dense grass and an asphalt basketball court on the western portion (Photograph 3). The project site is bisected by the railroad with discrete fenced portions to the east and west. Ground visibility in the eastern site was poor to fair (approximately 20-50 percent) and spoil piles present indicate previous ground disturbance. The western site has well maintained grass and decomposing asphalt resulting in poor ground visibility (approximately 0 to 15 percent) The survey was negative; that is, no cultural (i.e., archaeological, historic built, or tribal cultural) resources were identified within the project site.

Photograph 1. Overview of Century East project site, facing west.

Photograph 2. View of middle of Century East project site, facing south.

Photograph 3. View of Century West project site, facing west.

6. MANAGEMENT RECOMMENDATIONS

The cultural resource records search, Native American scoping, and pedestrian survey identified no cultural resources within or adjacent to the project site. No further cultural resources study is recommended; however, the following standard measures are recommended to avoid potential impacts from the unanticipated discovery of cultural resources during project related ground disturbing activities.

6.1 CULTURAL RESOURCES WORKER SENSITIVITY TRAINING

Prior to the start of construction, NCPA shall hold a pre-grading meeting. The Project Archaeologist shall attend the pre-grading meeting with NCPA's Project Administrator, Field Engineering Inspector and any contractors to conduct a Cultural Resources Worker Sensitivity Training for all construction personnel working on the proposed project. The training shall include an overview of potential cultural resources that could be encountered during ground disturbing activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated, and any other appropriate protocols.

6.2 UNANTICIPATED DISCOVERY OF CULTURAL RESOURCES

If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) must be contacted immediately to evaluate the find. If the discovery proves to be significant under CEQA, additional work such as data recovery excavation may be warranted.

6.3 UNANTICIPATED DISCOVERY OF HUMAN REMAINS

The discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the county coroner must be notified immediately. If the human remains are determined to be prehistoric, the coroner will notify the Native American Heritage Commission, which will determine and notify a Most Likely Descendant. The Most Likely Descendant shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

7. REFERENCES

Bennyhoff, James A.
1977 "Ethnogeography of the Plains Miwok." *Center for Archaeological Research at Davis Publication 5*. Davis, CA: University of California, Davis.

Burns, Adam
2007 "Southern Pacific Railroad." *American-Rails.com* website. Accessed April 22, 2019. https://www.american-rails.com/southern-pacific.html

California Office of Historic Preservation
1990 *Archaeological Resource Management Reports (ARMR): Recommended Contents and Format.* Department of Parks and Recreation. Office of Historic Preservation: Sacramento, California.

City of Lodi
2009 Lodi General Plan Draft Environmental Impact Report. Electronic document accessed April 30, 2019. http://www.lodi.gov/DocumentCenter/View/202/Draft-Environmental-Impact-Report-PDF?bidId=.

Dawson, Timothy E.
2009 Preliminary Geologic Map of the Lodi 30' X 60' Quadrangle, California. Electronic figure accessed online April 30, 2019. ftp://ftp.consrv.ca.gov/pub/dmg/rgmp/Prelim_geo_pdf/Lodi_100K_prelim.pdf.

Fredrickson, David A.
1973 Early Cultures of the North Coast Ranges, California. Unpublished Ph.D. dissertation, Department of Anthropology, University of California, Davis.

Heizer, Robert F.
1949 *The Archaeology of Central California: The Early Horizon*. University of California Anthropological Records Vol. 12, No. 1. Berkeley, CA: University of California Press.

Hoover, Mildred, Hero Eugene Rensch, Ethel Grace Rensch, and William N. Abeloe
2002 *Historic Spots in California*. Fifth Edition. Stanford, CA: Stanford University Press.

Kroeber, A.L.
1925 *Handbook of the Indians of California*. Bureau of American Ethnology Bulletin 78. New York, NY: Dover Publications, Inc.

Levy, Richard
1978 "Eastern Miwok." In *Handbook of North American Indians, Volume 8: California,* edited by R. F. Heizer, 398–413. W.C. Sturtevant, general editor. Washington D.C.: Smithsonian Institution.

Lodi Historical Society
2016 "City of Lodi." *Lodi Historical Society* website. Accessed April 22, 2019. http://www.lodihistory.org/

Mithun, Marianne
1999 *The Languages of Native North America*. Cambridge MA: Cambridge University Press.

Moratto, Michael J., with David A. Fredrickson, Christopher Raven, and Claude A. Warren
1984 *California Archaeology*. Orlando, FL: Academic Press.

Ragir, Sonia
1972 *The Early Horizon in Central California Prehistory*. Contributions of the University of California Archaeological Research Facility, No. 15. Berkeley,CA: University of California Press.

Robinson, W.W.
1948 *Land in California: The Story of Mission Lands, Ranchos, Squatters, Mining Claims, Railroad Grants, Land Scrip, Homesteads*. Berkeley, CA: University of California Press.

Rosenthal, Jeffrey S., Gregory G. White, and Mark Q. Sutton
2007 "The Central Valley: A View from the Catbird's Seat." In *California Prehistory: Colonization, Culture, and Complexity*, edited by Terry L. Jones and Kathryn A. Klar. Lanham, MD: Altamira Press

Shumway, Burgess McK
1988 *California Ranchos*. Second Edition. The Borgo Press.

White, Phillip
2019 "California Indians and Their Reservations: An Online Dictionary." *San Diego State University American Indian Studies* website. Accessed April 25, 2019. https://libguides.sdsu.edu/c.php?g=494769&p=3385637.

Appendix A:
Records Search Summary

CENTRAL CALIFORNIA INFORMATION CENTER

California Historical Resources Information System
Department of Anthropology – California State University, Stanislaus
One University Circle, Turlock, California 95382
(209) 667-3307

Alpine, Calaveras, Mariposa, Merced, San Joaquin, Stanislaus & Tuolumne Counties

Date: 4/16/2018

Records Search File No.: 11043L
Access Agreement: #540
Project: NCPA Lodi Century Solar PV Project; W. Century Blvd., east of Church St. and E. Century Blvd., west of S. Stockton Street

Kevin Hunt
Anza Resource Consultants
603 Seagaze Drive #1018
Oceanside, CA 92054

kevin@anzaresourceconsultants.com

Dear Mr. Hunt:

The Central California Information Center received your Priority Response record search request for the project area/radius referenced above, located on the Lodi South 7.5' quadrangle in San Joaquin County. The following reflects the results of the records search for the project study area and radius:

As per data currently available at the CCaIC, the locations of resources/reports are provided in the following format: ☒ custom GIS maps ☐ shapefiles ☐ hand-drawn maps

Summary Data:

Resources within project area:	1 immediately on/adjacent: Unrecorded segment of P-39-000002, Southern Pacific RR
Resources within 1/2 mi radius:	2: P-39-005072 and P-39-005144 Please note: The historic building inventory for the City of Lodi has not been mapped in GIS; please refer to the attached OHP Historic Property Data File address list provided your for use in determining if any of the properties listed fall within the ½-mile radius.
Reports within project area:	2 immediately on/adjacent: SJ-03995 and SJ-06345
Reports within 1/2 mi radius:	7: SJ-04094, 4508, 6005, 6123, 7719, 8111, 8642

Resource Database Printout (list): ☒ enclosed ☐ not requested ☐ nothing listed

Resource Database Printout (details): ☒ enclosed ☐ not requested ☐ nothing listed

Resource Digital Database Records: ☒ enclosed ☐ not requested ☐ nothing listed

Report Database Printout (list): ☒ enclosed ☐ not requested ☐ nothing listed

Report Database Printout (details): ☐ enclosed ☒ not requested ☐ nothing listed

Report Digital Database Records: ☒ enclosed ☐ not requested ☐ nothing listed

Resource Record Copies: ☒ enclosed ☐ not requested ☐ nothing listed

Report Copies: ☒ enclosed ☐ not requested ☐ nothing listed

OHP Historic Properties Directory: ☒ enclosed ☐ not requested ☐ nothing listed

City of Lodi listing (see CCaIC 11042L file)

Archaeological Determinations of Eligibility: ☐ enclosed ☐ not requested ☒ nothing listed

CA Inventory of Historic Resources (1976): ☐ enclosed ☐ not requested ☒ nothing listed

Caltrans Bridge Survey: ☐ enclosed ☒ not requested ☐ nothing listed

Ethnographic Information: ☐ enclosed ☒ not requested ☐ nothing listed

Historical Literature: ☐ enclosed ☒ not requested ☐ nothing listed

Historical Maps: (see CCaIC 11042L file) ☒ enclosed ☐ not requested ☐ nothing listed

Map Number One, *History of San Joaquin County, California, with Illustrations* (1889; 1968 reprint)
Map of the County of San Joaquin, California (1883)
Lodi 1:62500-scale (1939)
Lodi South 7.5' (1953)

Local Inventories: ☐ enclosed ☐ not requested ☒ nothing listed

GLO and/or Rancho Plat Maps: ☒ enclosed ☐ not requested ☐ nothing listed

T3N R6E, Sheet 41-202 (1853-1865)

Shipwreck Inventory: ☒ not available at CCIC; please go to

http://shipwrecks.slc.ca.gov/ShipwrecksDatabase/Shipwrecks_Database.asp

Soil Survey Maps: ☒ not available at CCIC; please go to

http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Thank you for using the California Historical Resources Information System (CHRIS).

Note: Billing will be transmitted separately via email by our Financial Services office *($594.23), payable within 60 days of receipt of the invoice.

Sincerely,

E. A. Greathouse

E. A. Greathouse, Coordinator
Central California Information Center
California Historical Resources Information System

* Invoice Request sent to: Laurie Marroquin CSU Stanislaus Financial Services
lamarroquin@csustan.edu

Appendix B:
Native American Scoping

STATE OF CALIFORNIA — Gavin Newsom, Governor

NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone: (916) 373-3710
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov
Twitter: @CA_NAHC

March 11, 2019

Keith S. Dunbar
K.S. Dunbar & Associates, Inc.

VIA Email to: ksdpe67@gmail.com

RE: NCPA Solar Project 1 – Lodi Sites, San Joaquin County

Dear Mr. Dunbar:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our lists contain current information. If you have any questions or need additional information, please contact me at my email address: Katy.Sanchez@nahc.ca.gov.

Sincerely,

Nancy Gonzalez
for

Katy Sanchez
Associate Environmental Planner

Attachment

Native American Heritage Commission
Native American Contacts List
3/11/2019

Buena Vista Rancheria of Me-Wuk Indians
Rhonda Morningstar Pope, Chairperson
1418 20th Street, Suite 200 — Me-Wuk / Miwok
Sacramento ,CA 95811
rhonda@buenavistatribe.com
(916) 491-0011 Office
(916) 491-0012 Fax

California Valley Miwok Tribe
4620 Shippee Lane — Miwok
Stockton ,CA 95212
(209) 931-4567 Office
(209) 931-4333 Fax

California Valley Miwok Tribe
AKA Sheep Rancheria of Me-Wuk Indians of Ca
P.O. Box 395 — Miwok
West Point ,CA 95255
l.ewilson@yahoo.com
(209) 293-4179 Office

Ione Band of Miwok Indians
Sara Dutschke Setchwaelo, Chairperson
P.O. Box 699 — Miwok
Plymouth ,CA 95669
sara@ionemiwok.org
(209) 245-5800 Office
(209) 245-6377 Fax

North Valley Yokuts Tribe
Katherine Erolinda Perez, Chairperson
P.O. Box 717 — Ohlone/Costanoan
Linden ,CA 95236 — Northern Valley Yokuts
canutes@verizon.net — Bay Miwok
(209) 887-3415

United Auburn Indian Community of the Auburn Rancheria
Gene Whitehouse, Chairperson
10720 Indian Hill Road — Maidu
Auburn ,CA 95603 — Miwok
bguth@auburnrancheria.com
(530) 883-2390 Office
(530) 883-2380 Fax

Wilton Rancheria
Raymond Hitchcock, Chairperson
9728 Kent Street — Miwok
Elk Grove ,CA 95624
rhitchcock@wiltonrancheria-nsn.gov
(916) 683-6000 Office
(916) 683-6015 Fax

This list is current as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code,Section 5097.94 of the Public Resources Code, or Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native American Tribes for the proposed:
NCPA Solar Project 1 – Lodi Sites, San Joaquin County.

Fwd: AB 52 Notification - NCPA Solar Project 1 - Lodi Sites

Keith Dunbar <ksdpe67@gmail.com>
Tue 4/2/2019 9:56 AM
To: Kevin Hunt <kevin@anzaresourceconsultants.com>

Kevin,

Good morning!

FYI!

Have a great day,

Keith

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE, F. ASCE

K.S.Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, CA 92590-4314
(951) 699-2082
Cell: (949) 412-2634
ksdpe67@gmail.com

---------- Forwarded message ---------
From: **canutes** <canutes@verizon.net>
Date: Tue, Apr 2, 2019 at 9:41 AM
Subject: Re: AB 52 Notification - NCPA Solar Project 1 - Lodi Sites
To: Keith Dunbar <ksdpe67@gmail.com>

Mr. Dunbar,
The tribe has reviewed the information. The tribe is requesting that the NCPA request a record search from the Native American Heritage Commission and the information center as the area of the proposed project is in an area of sensitivity.

Nototomne Cultural Preservation
Northern Valley Yokut
Katherine
Perez
P.O Box 717
Linden, CA 95236
Cell: 209.649.8972
Email: canutes@verizon.net

Sent from my iPad

On Mar 12, 2019, at 11:54 AM, Keith Dunbar <ksdpe67@gmail.com> wrote:

Katherine Erolinda Perez, Chairperson,

An AB 52 Notification of the Northern California Power Agency's NCPA Solar Project 1 - Lodi Sites is attached in accordance with recommendations of the Native American Heritage Commission.

Thank you,

Keith

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE, F. ASCE

K.S.Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, CA 92590-4314
(951) 699-2082
Cell: (949) 412-2634
ksdpe67@gmail.com

<AB 52 Tribal Consultation Notification N Valley Yokuts.pdf>

Gmail Keith Dunbar <ksdpe67@gmail.com>

AB 52 Consultation for the NCPA Solar Project 1 - Lodi Sites

1 message

Cherilyn Neider <cneider@auburnrancheria.com> Wed, Apr 24, 2019 at 9:25 AM
To: "ksdpe67@gmail.com" <ksdpe67@gmail.com>

Dear Keith S. Dunbar,

Thank you for your letter received notifying us of the NCPA Solar Project 1. I am contacting you in order to request:

- Consultation for this project;
- All existing cultural resource assessments;
- Requests for and results of records searches.

Attached you will find mitigation measures recommended for this project. These measures address inadvertent discoveries and a tribal cultural resources awareness training as part of the Worker Environmental Awareness and Protection training. Please confirm that the attached mitigation measures will be included in the environmental document and the adopted mitigation, monitoring and reporting program. Thank you for involving UAIC in the planning process at an early stage. We ask that you make this correspondence a part of the project record and that you provide UAIC with a copy of the final environmental document and adopted mitigation, monitoring and reporting program.

Thank you,
Cherilyn

Cherilyn Neider
Tribal Historic Preservation
United Auburn Indian Community
530.883.2394

3 attachments

5_Mitigation_Measures_CEQA_Construction_Worker_Awareness_Training.docx
22K

Worker Awareness Brochure.pdf
858K

3_Mitigation_Measures_CEQA_Discoveries.docx
24K

If Human Remains are Found

The protocols for human remains discoveries are similar for other discoveries. **It is important to treat any human remains and the situation in which they are discovered with sensitivity, dignity, and respect.**

1. All work within 100 feet of the find will immediately stop. Work will also stop in areas where there is reason to believe additional human remains could be located (generally determined by a tribal monitor or qualified archaeologist).
2. UAIC and the on-site project/construction will be notified immediately.
3. **The location of any Native American Human remains must stay confidential.**

The United Auburn Indian Community

The United Auburn Indian Community is comprised of Miwok and Southern Maidu (Nisenan) people who are traditionally and culturally affiliated with this geographic area. The Tribe's area of geographic traditional and cultural affiliation encompasses all of Amador, El Dorado, Nevada, Placer, Sacramento, Sutter and Yuba counties, as well as portions of Butte, Plumas, San Joaquin, Sierra, Solano and Yolo counties; which includes the project area.

Contact us at

530-883-2394

https://www.auburnrancheria.com/

United Auburn Indian Community
of the Auburn Rancheria
10720 Indian Hill Road
Auburn CA, 95603

Respect on the Project for Native American Culture

Prepared by:
The United Auburn Indian Community
Preservation Department

Protection Measures and Protocols

The United Auburn Indian Community has developed the measures listed below to protect any unanticipated finds of tribal cultural resources and achieve compliance with federal and state cultural and environmental laws.

1. All work must stop IMMEDIATELY at that location and within 100 feet of the find. Work may be stopped by the tribal monitor or a qualified archaeologist. Work can continue on the rest of the project, as long as project activities stay at least 100 feet away.

2. The on-site project/construction manager will immediately be informed of the possible find and contact a qualified archeologist or tribal monitor of the find.

3. Under NO circumstances will any contractor or employee collect the archaeological material.

4. Over the next days or weeks following the discovery, a number of visitors may be present in order to investigate and evaluate the find. These may include: agency officials, the County Coroner, professional archaeologists, members of the tribe or the California Native American Heritage Commission, the California Office of Historic Preservation, and local representatives of the historical society (if the find is historic in nature). It is important for the integrity of the find and for culturally-appropriate treatment, and so that there is no violation issued, that reasonable methods be taken to ensure that there is no disturbance or damage (including theft) to the find and its context and surrounding areas.

5. It is important to respect the direction of the tribal monitor or other authorized tribal representative regarding identification and treatment of finds and to have some flexibility regarding where work might be able recommence outside of the find location area.

6. The location and nature of the discovery will be strictly confidential, shared only with individuals that need to know.

Cultural Resource Examples

There are many types of archaeological resources. The most common kind of artifacts, or markers of human activity that are found include stone tools, shell, beads, plant remains, animal bones, and a type of dark soil called midden. Archaeology from the historic era can also be found: these kinds of artifacts and features can include bottles, cans, ceramics, building foundations, bricks, and many more.

Tribal Cultural Resource – Awareness Training - Mitigation Measure

A consultant and construction worker tribal cultural resources awareness brochure and training program for all personnel involved in project implementation will be developed in coordination with interested Native American Tribes. The brochure will be distributed and the training will be conducted in coordination with qualified cultural resources specialists and Native American Representatives and Monitors from culturally affiliated Native American Tribes before any stages of project implementation and construction activities begin on the project site. The program will include relevant information regarding sensitive tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The worker cultural resources awareness program will also describe appropriate avoidance and minimization measures for resources that have the potential to be located on the project site and will outline what to do and whom to contact if any potential archaeological resources or artifacts are encountered. The program will also underscore the requirement for confidentiality and culturally-appropriate treatment of any find of significance to Native Americans and behaviors, consistent with Native American Tribal values.

Inadvertent Discoveries Mitigation Measure

If potential tribal cultural resources (TCRs), archaeological resources, other cultural resources, articulated, or disarticulated human remains are discovered by Native American Representatives or Monitors from interested Native American Tribes, qualified cultural resources specialists or other Project personnel during construction activities, work will cease within 100 feet of the find (based on the apparent distribution of cultural resources), whether or not a Native American Monitor from a traditionally and culturally affiliated Native American Tribe is present. A qualified cultural resources specialist and Native American Representatives and Monitors from traditionally and culturally affiliated Native American Tribes will assess the significance of the find and make recommendations for further evaluation and treatment as necessary. Culturally appropriate treatment may be, but is not limited to, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, returning objects to a location within the project area where they will not be subject to future impacts. The Tribe does not consider curation of TCR's to be appropriate or respectful and request that materials not be permanently curated, unless requested by the Tribe.

Treatment that preserves or restores the cultural character and integrity of a Tribal Cultural Resource may include Tribal Monitoring, culturally appropriate recovery of cultural objects, and reburial of cultural objects or cultural soil. These recommendations will be documented in the project record. For any recommendations made by traditionally and culturally affiliated Native American Tribes that are not implemented, a justification for why the recommendation was not followed will be provided in the project record.

If adverse impacts to tribal cultural resources, unique archeology, or other cultural resources occurs, then consultation with UAIC and other traditionally and culturally affiliated Native American Tribes regarding mitigation contained in the Public Resources Code sections 21084.3(a) and (b) and CEQA Guidelines section 15370 should occur, in order to coordinate for compensation for the impact by replacing or providing substitute resources or environments.

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678

Initiation of AB 52 Tribal Consultation

Initiation Date:	April 24, 2019
Project Name:	NCPA Solar Project 1 – Lodi Sites
Lead Agency:	Northern California Power Agency
Consultation Coordinator:	Keith S. Dunbar, P.E., BCEE. Hon.D.WRE., F.ASCE
Tribe:	United Auburn Indian Community
Designated Contact:	Cherilyn Neider, Tribal Historic Preservation
Request Received:	April 24, 2019

Introduction:

The Northern California Power Agency (NCPA) is proposing the NCPA Solar Project 1 – Lodi Sites Project which may be located in a geographical area that is traditionally and culturally affiliated with the United Auburn Indian Community.

In response to the AB 52 Tribal Consultation Notification sent to the tribe on February 26, 2019, the Northern California Power Agency (NCPA) has received your formal written request for tribal consultation pursuant to AB 52 for the above-named project.

Initiation of Consultation:

State law under Assembly Bill 52 (Public Resources Code Section 21080.3.1) requires the lead agency to begin the consultation process within 30 days of receiving a California Native American tribe's request for consultation. **Please consider this notice as the official initiation of the AB 52 Tribal Consultation process between the Northern California Power Agency and Tribe.** As information becomes available on the proposed project, NCPA's consultation coordinator will schedule a face to face meeting with the tribe's designated contact if so requested

The consultation may include discussion concerning the type of environmental review necessary for the project, the significance of tribal cultural resources discovered, the significance of the project's impacts on tribal cultural resources, and, if necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend.

The consultation does not limit the ability of the tribe to submit information to NCPA regarding the significance of the tribal cultural resources, the significance of the project's impact on tribal cultural resources, or any measures the tribe feels are appropriate to mitigate the potential impact. The consultation coordinator may be reached by phone (951) 699-2082, or by email at ksdpe67@gmail.com. General comments may be submitted electronically, however, confidential information transmitted electronically cannot be ensured. NCPA recommends that transmittal of confidential information, such as the specific location of a cultural resource, be done by formal letter, in person, or over the telephone. If you wish to submit information in writing, correspondence may be sent to:

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE
K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
(951) 699-2082
E-Mail: ksddpe67@gmail.com

Overview of the Proposed Project:

The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. Burns & McDonnell was retained by NCPA to complete Phase 2 Site Screening, Plan Development, and Procurement services for each site selected by the member agencies. The City of Lodi selected three sites for development: Century East/West, Pixley Basin and Parking Structure sites. Those three sites are the subject of this Notification.

The Century East site is located on a City easement bordered by an industrial park to the north, recreational fields to the south, residences to the east and the Union Pacific railroad to the west. The Century West site is directly across the railroad tracks from the Century East site. It is bordered on the north, south and west by residential development. The combined developable area of these sites is 2.5 acres which would accommodate a project size of 0.63 megawatts-direct current (MW_{dc}).

The Pixley Basin site contains approximately 27 acres and is located in an undeveloped park that serves as a stormwater detention and flood control basin. The site is surrounded by industrial and commercial uses. Residential areas do exist approximately 0.25 miles west of the site; however, Highway 99 separates the commercial areas from the residential areas and the project site is out of the viewshed of the residences. In its October 5, 2018 report, Burns & McDonnell estimated the developable portion of the site to be approximately 15 acres which would accommodate a project size of 3.51 MW_{dc}.

The parking structure is located at the northeast corner of the intersection of E. Pine and N. Sacramento Streets in a mixed commercial and industrial area. This site contains a developable area of 0.9 acres which would accommodate a project size of 0.18 MW_{dc}.

Location of the Proposed Project

All three proposed sites are within the City of Lodi, San Joaquin County, California. Exact locations are shown below as well as on Figure 1. Individual sites are shown on Figures 2, 3 and 4.

Site	Location		Developable Area (acres)	Estimated Capacity (MW_{dc})
	Latitude, Longitude	Section, Township, Range		
Lodi – Pixley Basin	38°07'18.06"N, 121°15'12.14"W	Sec 7, T 3 N, R 7 E, MDB&M	15.0	3.51
Lodi – Century Park East/West	38°06'26.66"N, 121°16'21.63"W	Sec 13, T 3 N, R 6 E, MDB&M	2.5	0.63
Lodi – Parking Structure	38°08'05.25"N, 121°16'18.58"W	Sec 1, T 3 N, R 6 E, MDB&M	0.9	0.18

Figure 1 NCPA Solar Project 1 – Proposed Sites in the City of Lodi

Figure 2 Century Park East/West Site

Figure 3 Pixley Basin Site

Figure 4 Parking Garage Site

CULTURAL RESOURCES SURVEY
FOR THE
NORTHERN CALIFORNIA POWER AGENCY
SOLAR PROJECT 1 – LODI PARKING GARAGE
SAN JOAQUIN COUNTY, CALIFORNIA

Prepared for
K.S. Dunbar and Associates, Inc.
45375 Vista Del Mar
Temecula, CA 92590-4314

Prepared by
Anza Resource Consultants
603 Seagaze Drive, #1018
Oceanside, CA 92054
www.anzaresourceconsultants.com

USGS Quadrangle
Lodi North, California
Anza Project No. 19-0005

May 2019

EXECUTIVE SUMMARY

Anza Resource Consultants (Anza) was retained by K.S. Dunbar & Associates, Inc. to conduct a Phase I cultural resources study for the Northern California Power Agency (NCPA) Solar Project 1 – Lodi Sites in the City of Lodi, San Joaquin County, California. This study regards the Lodi Parking Garage project site, which is located on the third-floor rooftop of an existing parking garage in downtown Lodi. The design intent for this project is to build a canopy racking structure across the total area of the garage rooftop to house solar photovoltaic (PV) modules with a total PV output of 150 kilowatt alternating current. The proposed project is subject to the California Environmental Quality Act (CEQA) with NCPA serving as lead agency. This study includes a cultural resources records search, incorporation of Native American scoping, survey of the project site, and preparation of this technical report in compliance with the cultural resources requirements of CEQA.

The cultural resource records search, Native American scoping, and pedestrian survey identified no cultural resources within the project site; however, the NRHP-listed Mission Arch is located adjacent to the south of the project straddling East Pine Street. Construction of the project would not directly or indirectly impact the adjacent NRHP-listed Mission Arch. Anza recommends a finding of ***no impact to historical resources*** under CEQA. No further cultural resources work is recommended. The following standard measures are recommended in the case of the unanticipated discovery of cultural resources during project related ground disturbing activities, though little if any ground disturbance is anticipated.

UNANTICIPATED DISCOVERY OF CULTURAL RESOURCES

If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) must be contacted immediately to evaluate the find. If the discovery proves to be significant under CEQA, additional work such as data recovery excavation may be warranted.

UNANTICIPATED DISCOVERY OF HUMAN REMAINS

The discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the county coroner must be notified immediately. If the human remains are determined to be prehistoric, the coroner will notify the Native American Heritage Commission, which will determine and notify a Most Likely Descendant. The Most Likely Descendant shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF PHOTOGRAPHS

APPENDICES

1. INTRODUCTION

Anza Resource Consultants (Anza) was retained by K.S. Dunbar & Associates, Inc. to conduct a Phase I cultural resources study for the Northern California Power Agency (NCPA) Solar Project 1 – Lodi Sites in the City of Lodi, San Joaquin County, California (Figure 1). The NCPA Solar Project 1 includes the following projects: Century East/West, Pixley Basin, and Parking Structure, and is described below (Section 1.1). This study has been prepared in accordance with the California Environmental Quality Act (CEQA) statutes and guidelines (Section 1.2). This cultural resources study includes a cultural resources records search, a summary of Native American scoping for the project, pedestrian survey, and the preparation of this report following the *Archaeological Resources Management Report (ARMR): Recommended Content and Format* guidelines (California Office of Historic Preservation 1990).

1.1 PROJECT DESCRIPTION

The objective of the NCPA Solar Project 1 is to develop a fleet of photovoltaic (PV) solar power plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by NCPA as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial five to seven years of operation, NCPA plans to purchase the plants.

NCPA has completed the site selection and screening portion of the project and the City of Lodi selected three sites for development: Century East/West, Pixley Basin, and Parking Garage sites. The Parking Garage project site is located on the third-floor rooftop of an existing parking garage in downtown Lodi. The project is bordered by East Elm Street to the north, East Pine Street to the south, the Union Pacific railroad to the east, and North Sacramento Street to the west. The design intent for this project is to build a canopy racking structure across the total area of the garage rooftop to house solar PV modules with a total PV output of 150 kilowatt alternating current.

1.2 REGULATORY SETTING

1.2.1 State

CEQA requires a lead agency determine whether a project may have a significant effect on historical resources (Public Resources Code [PRC], Section 21084.1). A historical resource is a resource listed in, or determined to be eligible for listing, in the California Register of Historical Resources (CRHR), a resource included in a local register of historical resources or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (State CEQA Guidelines, Section 15064.5[a][1-3]).

A resource shall be considered historically significant if it meets any of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

In addition, if it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC, Section 21083.2[a], [b], and PRC, Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, the probability is high that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

California Assembly Bill 52 of 2014 (AB 52) took effect July 1, 2015, and expanded CEQA by establishing a formal consultation process for California tribes within the CEQA process. The bill specifies that any project that may affect or cause a substantial adverse change in the significance of a tribal cultural resource would require a lead agency to "begin consultation with a California Native American tribe that is traditional and culturally affiliated with the geographic area of the proposed project." According to the legislative intent for AB 52, "tribes may have knowledge about land and cultural resources that should be included in the environmental analysis for projects that may have a significant impact on those resources." Section 21074 of AB 52 also defines a new category of resources under CEQA called "tribal cultural resources." Tribal cultural resources are defined as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and is either listed on or eligible for the California Register of Historical Resources or a local historic register, or if the lead agency chooses to treat the resource as a tribal cultural resource. See also PRC 21074 (a)(1)(A)-(B).

1.3 PERSONNEL

Anza Principal and Senior Cultural Resources Specialist Kevin Hunt requested the records search, conducted the survey, and was the primary author of this report. Principal Investigator Katherine Collins, M.A., Registered Professional Archaeologist (RPA), coauthored this report and served as principal investigator for the study. Ms. Collins meets the Secretary of the Interior's Professional Qualifications Standards for prehistoric and historic archaeology (National Park Service 1983). GIS Specialist Spencer Bietz prepared all maps and figures.

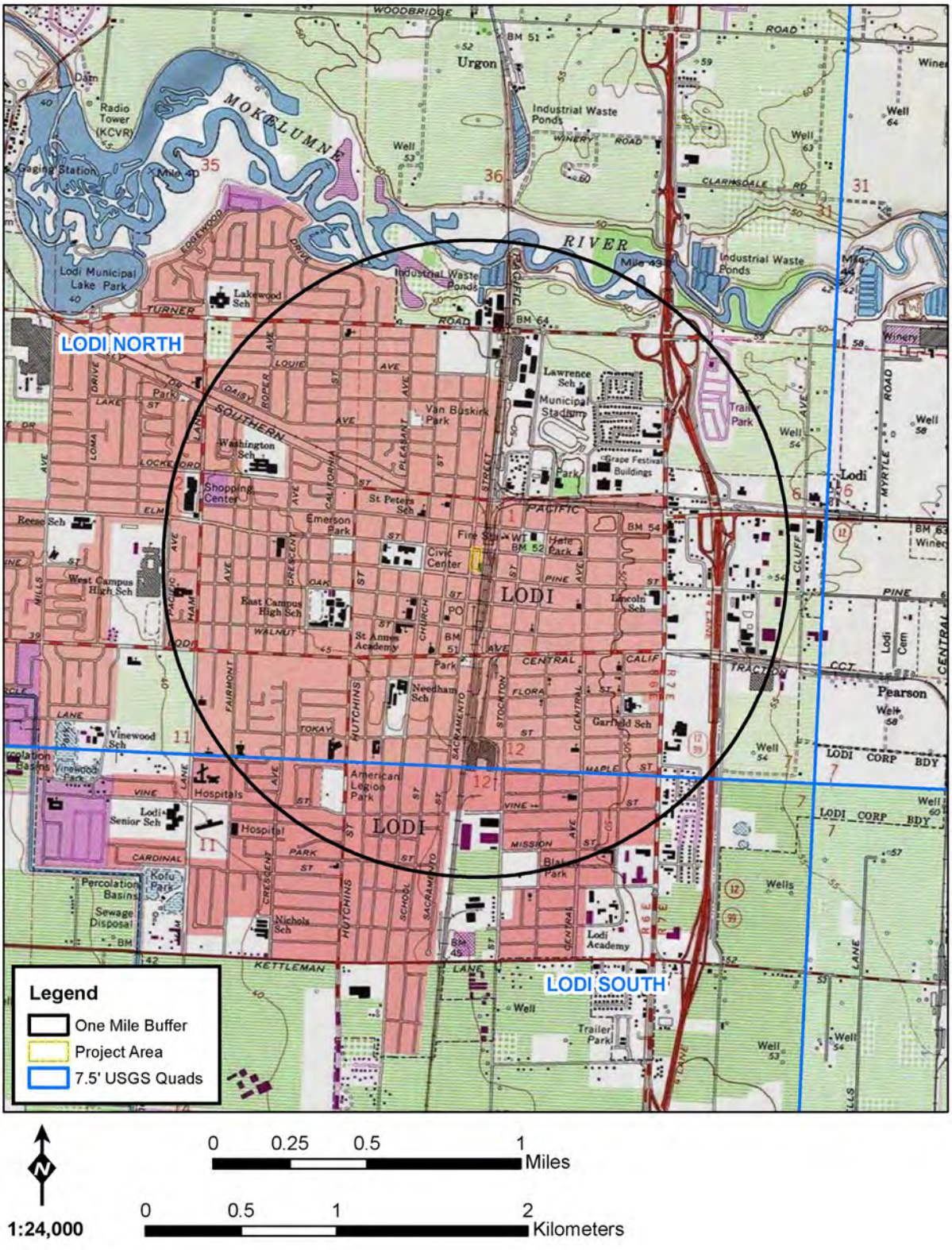


Figure 1. Project Location Map

2. ENVIRONMENTAL SETTING

The Lodi Parking Garage is located the northern San Joaquin Valley, famed for its agriculture. The project site is specifically located in an area that has been urbanized since the late-1800s and the immediate area around the site possesses only ornamental vegetation and faunal species adapted to urban environments. Characteristic vegetation communities in the region include agricultural habitats and annual grassland, with much smaller amounts of freshwater emergent wetland, lacustrine, water, and valley foothill riparian habitats (City of Lodi 2009:3.4-2). Agricultural lands support a broad variety of fauna including California ground squirrel, California vole, red-winged blackbird, northern harrier, white-tailed kite, and yellow-billed magpie. Urban areas support fauna such as American crow, rock dove, American robin, Brewer's blackbird, house finch, house sparrow, northern mockingbird, mourning dove, raccoon, Virginia opossum, and striped skunk.

Lodi averages 19 inches of rain annually. Lodi has a hot-summer Mediterranean climate including cool, wet winters, often with dense ground fog, and hot, dry summers. The project site is underlain by the upper member of the Pleistocene Quarternary Modesto formation, composed of undivided alluvium (Dawson 2009).

3. CULTURAL SETTING

3.1 PREHISTORIC OVERVIEW

The prehistory of the Central Valley is generally divided into three main periods: Paleoindian, Archaic, and Emergent. The Archaic is further divided into the Lower, Middle, and Upper (Fredrickson 1973, 1974). This chronological framework is used by researchers to understand how prehistoric cultures adapted and coped with environmental and social change. Within this framework researchers recognized certain sets of cultural and technological traits that appeared to span long periods of time and covered large areas. These sets of traits were referred to as either "horizons" or "patterns" in the literature. With smaller (local) units of patterns referred to as "aspects" and "phases" (Fredrickson 1974, Moratto 1984, Rosenthal et al. 2007). Below is a brief overview of prehistoric occupation history in the San Joaquin Valley portion of the Central Valley.

The **Paleoindian Period** (11,550 to 8550 cal B.C.) was characterized by the arrival of small, high-mobile hunter-gathered groups. A characteristic element of this period is the use of fluted points to bring down large game animals. Evidence of Paleoindian occupation in the San Joaquin Valley have been found at Tracy Lake, Wolfson mound (CA-MER-215) in Merced County, and the Tulare Lake basin (Moratto 1984, Rosenthal et al. 2007).

During the **Archaic Period** (8550 cal B.C. to A.D. 1100) climatic changes preceiptated the drying of pluvial lakes resulting in changes in substance strategies employed by the native populations. By the Middle Archaic (5550 to 550 cal B.C.) a set of cultural traits known as the Windmiller Pattern emerged at several sites in the San Joaquin Valley (Rosenthal et al. 2007). The presence of milling stones such as manos and metates often characterize Windmiller sites, although mortar and pestles have also been found, indicating that acorns and/or various seeds formed an important part of the diet (Moratto 1984, Rosenthal et al 2007). A variety of faunal remains have been documented at Windmiller Pattern sites including Tule elk, mule deer, and pronghorn, as well as smaller game such as rabbit, water birds, raptors, and rodents (Rosenthal et al. 2007). Also, the presence of angling hooks and baked clay artifacts possibly used as net or line sinkers, along with the remains of sturgeon, salmon, and smaller fishes, indicate that fishing was an additional source of food (Fredrickson 1973; Heizer 1949; Ragir 1972). Items such as net sinkers, pipes, and discoids, as well as cooking "stones" were made of baked clay. Ground and polished charmstones, impressions of twined basketry, shell beads, and bone tools also have been found at Windmiller Pattern sites. Some items, such as shell beads, obsidian tools, and quartz crystals, were obtained by trade.

The archaeological record at Windmiller Pattern sites indicates people practiced a mixed procurement strategy of both game and wild plants, with the addition of acorns and/or seeds. The mixed exploitation of a wide range of natural resources ties into a seasonal foraging strategy. Populations likely occupied the lower elevations of the Sacramento Valley in the winter months and shifted to higher elevations during the summer (Moratto 1984:206). Characteristic Windmiller mortuary practices included ventrally and dorsally extended burials, accompanied by grave goods, in cemeteries that were separate from the habitation sites (Ragir 1972, Rosenthal et al. 2007). Recent research suggests the Windmiller culture persisted into the Upper Archaic (550 cal B.C. to A.D. 1100) in the San Joaquin Valley and was not replaced by the Berkeley Pattern, as it had in other places. Several sites in San Joaquin and Merced Counties (CA-SJO-17, SJO-87, SJO-106, SJO-154, SJO-246, MER-3, MER-215, and MER-323) continued the characteristic Windmiller mortuary practice of extended burials until sometime between 800 and 1,000 years ago (Rosenthal el al. 2007:156).

During the **Emergent Period** (cal A.D. 1100 to Historic) a new set of cultural traits emerged in the Central Valley known as the Augustine Pattern, although there is sporadic evidence of this cultural pattern in the San Joaquin Valley (Moratto 1984, Rosenthal et al. 2007:157). The Pacheco Complex on the western edge of the valley is the only well-defined example in this region. The Augustine Pattern is evidenced by a substantial increase in the intensity of subsistence exploitation, including fishing, hunting, and gathering (particularly the acorn (Moratto 1984:211–214). These changes begin to reflect the cultural pattern known from historic period Native American groups in the area. Augustine Pattern tools and cooking implements included shaped mortars and pestles, hopper mortars, bone awls used for producing coiled baskets, and the bow and arrow. Pottery vessels, known as Cosumnes brownware, are found in some parts of the Central Valley and most likely developed during this period from the prior baked clay industry.

During this period, an increase in sedentism led to the development of social stratification, accompanied by a shift to elaborate ceremonial and social organization. Exchange networks, with the use of clamshell disk beads as currency, also developed during the Augustine Pattern. Mortuary practices during this period included flexed burials and pre-interment burning of offerings in a grave pit, as well as cremation of high-status individuals (Fredrickson 1973:127–129; Moratto 1984:211). In the San Joaquin Valley villages and smaller communities developed along side-streams of the foothills, and river channels and sloughs in the valley. The introduction of the bow and arrow occurred during this time and one of California's most unique point types, the Stockton serrated edge, was developed in the region (Rosenthal el al. 2007).

3.2 ETHNOGRAPHIC OVERVIEW

The project site is located in the traditional territory of the Plains Miwok people. The Plains Miwok were one of six culture groups that spoke a Miwokan language in California. Other Miwok-speaking groups included the Bay Miwok (Saclan), Northern Sierra Miwok, Central Sierra Miwok, Southern Sierra Miwok, and Coast Miwok. Plains Miwok territory was centered in the Central Valley occupying an area between the lower reaches of the Mokelumne and Cosumnes Rivers and the banks of the Sacramento River, from Rio Vista to Freeport (Levy 1978). The word Miwok (miw·yk) generally means "people" in the Miwok language, which is a member of the Penutian language family (Kroeber 1925, Mithun 1999).

The primary sociopolitical unit among the Plains Miwok was the tribelet, comprising the residents of several base settlements and their associated seasonal camps. Each tribelet had a population of about 300 to 500 people and controlled specific territory and resources within it. Each settlement within a tribelet appeared to be the home of localized patrilineage. The tribelet as whole was led by a chieftain which was a hereditary position passed down from father to son. If there was no male heir, the position could be passed to the chief's daughter. The chief acted as an advisor, had the final say in interpersonal disputes, and determined the best time to gather resources (Levy 1978). Settlements typically contained a semi-subterranean earth lodge used for community ritual or social gatherings. Other structures include a semi-subterranean sweathouse, a menstrual hut, and a granary for storing acorns. Families lived in small earth-covered structures (Kroeber 1925, Levy 1978). Ethnohistoric research indicates a Miwok settlement called *Muquelemne* was located on the south bank of Mokelumne River near Lodi (Levy 1978).

The basic subsistence strategy of the Plains Miwok was seasonally mobile hunting and gathering. However, tobacco was cultivated and they also possessed domesticated dogs. Plant foods included acorns, buckeyes, laurel nuts, hazelnuts, seeds, roots, greens, and berries. Acorns, the primary staple, were gathered in the fall and stored through the winter. Seeds were gathered from May through August. Intentional, periodic burning in August ensured an ample supply of seed-bearing annuals and forage for game. The Miwok ate more meat in the winter, when the only plant resources available were those that

had been stored. Hunting was accomplished with the aid of the bow and arrow, traps, and snares. Animal foods consisted of deer; elk; antelope; rodents; waterfowl; quail, pigeons, flickers, and other birds; freshwater mussels and clams; land snails; fish; and insects. Salt was obtained from springs or through trade with people from the Mono Lake area (Bennyhoff 1977; Levy 1978).

The Plains Miwok used a variety of tools made from bone, stone, antler, wood, and textile. Bows were made of wood from a variety of tree species such as oak, ash, willow, pepperwood, maple, or hazel. Arrow heads were fashioned from stone materials such as obsidian obtained through trade, as well as local materials. Typical basketry items were seed beaters; cradles; sifters; rackets used in ball games; and baskets for storing, winnowing, parching, and carrying burdens. Other textiles included mats and cordage (Levy 1978).

Many Miwok groups were subject to missionization efforts during the late eighteenth and early nineteenth centuries. Christian baptisms of Plains Miwok occurred as early as 1811 and did not stop until 1833. During this time over 2,100 Plains Miwok were baptized. As a result of the missionization effort many Plains Miwok were removed from their traditional territory and sent to Mission San Jose located in the present-day city of Fremont. By the beginning of the nineteenth century the Miwok numbered some 19,500 people but by the early twentieth century this number was below one thousand people. Today there are about 3,500 people of Miwok descent, with many living on several reservations in California (White 2019).

3.3 HISTORIC OVERVIEW

The historic period for the state of California generally begins with the establishment of the first Spanish mission and presidio in San Diego in 1769. This marks the beginning of the Spanish period of California history which lasted until 1822 when news of Mexico's independence from Spain in 1821 finally reached California. The Spanish period saw the establishment of a permanent European presence in California in the form of 21 missions located along the coast between San Diego and Sonoma, four military presidios located in San Diego, Monterey, San Francisco and Santa Barbara, and three pueblos (towns) that later became the cities of Los Angeles, San Jose and Santa Cruz (Robinson 1948). The Spanish period ended with Mexican independence from the Spanish crown in 1822. The Mexican period of California history saw the seizure of lands once held by the missions through the Mexican Secularization Act of 1833 and the redistribution of those lands to individuals in the form of land grants known as "ranchos" (Robinson 1948). During this period the Mexican government in California issued about 700 land grants to Mexican citizens and foreign immigrants (Shumway 1988). The outbreak of war between the United States and Mexico and the signing of the Treaty of Guadalupe Hidalgo in 1848 ended the Mexican period and signaled the beginning of the American period of California history. The early American period is marked by the discovery of gold at Sutter's Mill in 1848, resulting in a gold rush that saw a massive influx of settlers from other parts of the United States and around the world, greatly impacting California's native population. In 1869 the transcontinental railroad was completed linking California with the rest of the United States. The gold rush and the establishment of the railroad played major roles in the development of California into a national and worldwide leader in agricultural and industrial production. These early developments also resulted in making California one of the most racially and ethnically diverse states in the Union.

3.3.1 San Joaquin County

The history of San Joaquin County begins in 1850 as one of the original 27 counties of the state of California. The county derives its name from the San Joaquin River, a major river that flows through the region from southern Sierra Nevada Mountains. Early European exploration through the region included

an expedition led by Gabriel Moraga, a Spanish army officer who named the San Joaquin River as well as other natural features as he made his way through the Central Valley. Between 1840 and 1846 the Mexican government in California issued five land grants – Arroyo Seco, Campo de Los Franceses, El Pescadero, Sanjon de los Moquelumnes, and Rancho del Estanislao (also known as Thompson's Rancho) – that encompassed major portions of San Joaquin County (Shumway 1988). The County's generally flat terrain made it a desirable location for building a railroad and in 1866 Congress authorized the Southern Pacific Railroad to build a transcontinental rail route between San Francisco and the Colorado River. By 1870 the Southern Pacific line made its way through San Joaquin County to the City of Modesto (Burns 2007). The establishment of the Southern Pacific and other rail lines through San Joaquin County provided the transportation backbone to move local agricultural produce to markets across the country. Today, agriculture remains an important component of the County's economy.

3.3.2 City of Lodi

The City of Lodi was established in 1869 along the southern banks of Mokelumne River. It was originally named Mokelunme but was changed to Lodi by an act of the California legislature in 1874. Two of Lodi's early residents, Charles Ivory and John Burt established a general store on the corner of Pine and Sacramento Streets. Their store became a magnet for attracting homesteaders and other businesses to the area. Since its inception, agriculture was the backbone of Lodi's economy growing such crops as wheat, watermelon, and grapes. In 1880 some 3.4 million bushels of wheat were grown in San Joaquin County, much of it grown in the Lodi area. Grape vineyards also dominated the area with over two million plants in production in 1899. By the early twentieth century grapes were so important to Lodi that in 1907 residents held the Tokay Carnival to "advertise the beauty and value of the Tokay grape." During the same year a mission-style arch was built at Pine and Sacramento Streets, in the historic core of Lodi, at a cost of $500. The arch still exists today and is a local landmark (Hoover et al. 2002, Lodi Historical Society 2016).

4. BACKGROUND RESEARCH

4.1 CALIFORNIA HISTORICAL RESOURCE INFORMATION SYSTEM

Anza conducted a search of cultural resource records housed at the California Historical Resources Information System (CHRIS), Central California Information Center (CCIC) located at California State University, Stanislaus. The search was conducted by CCIC on April 17, 2019, to identify all previous cultural resources work and previously recorded cultural resources within a 0.5-mile radius of the project site (Appendix A). The CHRIS search included a review of the NRHP, CRHR, the California Points of Historical Interest list, the California Historical Landmarks list, the Archaeological Determinations of Eligibility list, and the California State Historic Resources Inventory list. The records search also included a review of all available historic USGS 7.5-, 15-, and 30-minute quadrangle maps.

4.1.1 Previous Studies

The CCIC records search identified 19 cultural resources studies that were conducted within a 0.5-mile radius of the project site, three of which are mapped within the project site, and one (SJ-02756) that had two sub-reports (Table 1).

Table 1. Previous Cultural Resource Studies within a 0.5-Mile Radius of the Project Site

Report Number	Author	Year	Title	Proximity to Project Site
SJ-02756	Dougherty, John W.	1995	Historic Properties Survey Report Lodi Multimodal Station Study Project Number STPLE-5929 (15)	**Within**
SJ-02756	Harris, D.	1995	Historical Architectural Survey Report for a Proposed Multimodal Transportation Facility in the City of Lodi	**Within**
SJ-02756	Dougherty, J.	1995	Negative Archaeological Survey Report	**Within**
SJ-03379	Southern Pacific Transportation Co.	1994	Historic Report (49 C.F.R. 1105.8) Southern Pacific Transportation Company Proposed Abandonment In San Joaquin and Calaveras Counties, California ICC Docket No. AB-12 (Sub-No. 155X).	Outside
SJ-03995	Nelson, W. J.	2000	Cultural Resource Survey for the Level (3) Communications Long Haul Fiber Optics Project; Segment WS04: Sacramento to Bakersfield	Outside
SJ-04378	Dougherty, John	1999	Archaeological Monitoring of the Lodi Mulitmodal Project, Lodi, California.	**Within**
SJ-04379	Bakic, Tracy D.	1999	Reevaluation Report, Lodi Southern Pacific Passenger Depot, City of Lodi, San Joaquin County, California.	**Within**
SJ-04456	Brown, R. Keith	2000	Review of Environmental Screening: Proposed Mobile Radio Facility Downtown Lodi, Site No. CA-1572D, 401 North Stockton Street, Lodi, California.	Outside

Report Number	Author	Year	Title	Proximity to Project Site
SJ-04506	Egherman, Rachael	2001	Lodi Energy Center Cultural Resources (Archaeological and Historic Built Environment Resources) Technical Report.	Outside
SJ-04596	Jones & Stokes Associates	2000	Draft: Inventory and Evaluation of NRHP Eligibility of California Army National Guard Armories.	Outside
SJ-04977	Boda, J.	1989	Henderson Brothers Company, Incorporated, Ninety-Three Going on One Hundred.	Outside
SJ-05011	Leary, C. M.	1990	A Brief Review of Medicine in Lodi for the Past 80 Years.	Outside
SJ-05342	Wagers, J. C.	1975	The San Joaquin and Sierra Nevada Railroad. [journal article]	Outside
SJ-05910	Bonner, W.	2005	New Tower ("NT") Submission Packet FCC Form 620: Mountain Union Telecommunications, MUT-Downtown Lodi, San Joaquin County, CA	Outside
SJ-06023	Supernowicz, D.	2005	New Tower ("NT") Submission Packet, FCC Form 620 T-Mobile USA, Inc., Sacramento Street, SC-13338A, San Joaquin County, CA	Outside
SJ-06117	Jones, K.	2006	Letter Report: Archaeological Survey of the Proposed W. Lockeford Cingular Wireless Cell Site (CN-1235-02), San Joaquin County, California PL #1735-09	Outside
SJ-06345	SWCA Environmental Consultants	2006	Cultural Resources Final Report of Monitoring and Findings for the QWest Network Construction Project, State of California. SWCA Project No. 10715-180.	Outside
SJ-06546	Jones & Stokes	2007	Cultural Resources Sensitivity Assessment for Five Alternative Water Treatment Plant Sites and Associated Pipeline Routes, City of Lodi, San Joaquin County, California	Outside
SJ-07879	Cox, B., and E. Hammerle	2013	GPRP S. Sacramento and W. Locust, Lodi, San Joaquin County; PG&E Cultural Resources Constraints Report PM 30966786	Outside
SJ-07880	Russell, M.	2013	Archaeological Monitoring Summary Report for 30966786 GPRP S. Sacramento Street and W. Locust Street, San Joaquin County	Outside
SJ-08896	Peak, M.	2018	Historic Property Survey Report 10 San Joaquin CML-5154(043) Lockeford Street, Lodi, CA	Outside
SJ-08896	Peak, M.	2017	Historical Resources Evaluation Report for the Lockeford Street Improvement Project City of Lodi, California	Outside
SJ-08896	Peak, M.	2017	Archaeological Survey Report for the Lockeford Street Improvement Project City of Lodi, California	Outside

Source: CCIC, April 2019

4.1.1.1 SJ-02756

The 1995 Historic Properties Survey Report Lodi Multimodal Station Study Project Number STPLE-5929 (15) is a Caltrans-format report prepared in 1995 that's attachments include an archaeological report and historical architecture survey report (Table 1). This report identified and discussed the historic Southern Pacific [Railroad] Passenger Depot (P-39-00073 in Table 2) and was negative for archaeological resources. This report recommended the Southern Pacific Passenger Depot (P-39-00073) eligible for the NRHP under Criterion A (association with important events in history).

4.1.1.2 SJ-04378

This report describes archaeological monitoring conducted during the construction of the Lodi Multimodal Station Project in 1999. One post-1915 historic refuse deposit was noted in the report but not formally mapped or recorded as a resource. The report noted the deposit appeared to be smeared layers lacking stratification and not significant.

4.1.1.3 SJ-04379

The 1999 Reevaluation Report, Lodi Southern Pacific Passenger Depot, City of Lodi, San Joaquin County, California, reevaluated the Southern Pacific Passenger Depot (P-39-00073) and recommended that the depot was no longer eligible for NRHP listing under Criteria A or C due to its move to the multimodal facility resulting in significant changes in integrity to the resource.

4.1.2 Previously Recorded Resources

The CCIC records search identified 16 cultural resources previously recorded within a 0.5-mile radius of the project site, three of which are located adjacent to the project (Table 2). The Southern Pacific Passenger Depot (P-39-000073) was moved from the project site to south of East Pine Street but is still considered adjacent to the project. This historic railroad depot was moved from its original location and subsequently recommended ineligible for NRHP listing through survey re-evaluation (Report SJ-04379). The Southern Pacific San Joaquin Valley Mainline (P-39-000002) – now the Union Pacific Railroad – is adjacent to the project site to the east but has been found ineligible for NRHP, CRHR, or local register listing. The Mission Arch (P-39-000491) is adjacent to the south of the project site spanning East Pine Street and is listed on the NRHP and CRHR.

Table 2. Previously Recorded Cultural Resources within 0.5-Mile of the Project Site

Primary Number	Trinomial	Description	NRHP/CRHR Eligibility Status	Recorded Year (By Whom)	Relationship to Project Site
P-39-000002	CA-SJO-000250H	Southern Pacific Railroad in San Joaquin County	Found ineligible for NR, CR or Local designation through survey evaluation (Code 6Z)	25 instances between 1993 and 2012	**Adjacent to the east**
P-39-000069		Hotel Lodi	Individual property listed in NR by the Keeper. Listed in the CR. (Code 1S)	1994 (Eric W. Veerkamp)	Approximately 0.25 mile west

Primary Number	Trinomial	Description	NRHP/CRHR Eligibility Status	Recorded Year (By Whom)	Relationship to Project Site
P-39-000073		Southern Pacific Passenger Depot	Recommended ineligible for NR designation through survey re-evaluation (Report SJ-04379)	1995 (Dennis E. Harris)	**Adjacent to south. Formerly at project site**
P-39-000491		Mission Arch	Individual property listed in NR by the Keeper. Listed in the CR. (Code 1S)	1980 (Paul Roddy)	**Adjacent to the south**
P-39-000506		Woman's Club of Lodi	Individual property listed in NR by the Keeper. Listed in the CR. (Code 1S)	1981 (J. Arbuckle)	Approximately 0.4 mile west
P-39-000666		Miyajima Hotel	Identified in reconnaissance level survey: Not evaluated. (Code 7R)	1988 (Maryln Bourne Lortie)	Approximately 0.1 mile east
P-39-004277		217 N. Central, Lodi; HUD000803G	Determined ineligible for NR by consensus through Section 106 process – Not evaluated for CR or Local Listing (Code 6Y)	1980 (Kay Fujita)	Approximately 0.4 mile southeast
P-39-004317		California Army National Guard Armory, Lodi	Individual property determined eligible for NR by a consensus through Section 106 process. Listed in the CR. (Code 2S2)	2000 (Ove Juul)	Approximately 0.4 mile north
P-39-004926		Needham (Clyde) School	Insufficient information	2000 (Douglas A. Bryoccson)	Approximately 0.5 mile southwest
P-39-004931		Lodi High School	Insufficient information	1991 (San Joaquin County Superintendent of Schools)	Approximately 0.5 mile west
P-39-005076		Elmwood & Emerson Schools	Insufficient information	1991 (San Joaquin County Superintendent of Schools)	Approximately 0.5 mile west
P-39-005324		121 E. Lockeford Street - Site 3	Insufficient information	1991 (San Joaquin County Superintendent of Schools)	Approximately 0.3 mile north
P-39-005325		Lawrence Park - Site 5	Found ineligible for NR, CR or Local designation through survey evaluation (Code 6Z)	2017 (Gerry, R., M. Peak)	Approximately 0.5 mile northeast

Primary Number	Trinomial	Description	NRHP/CRHR Eligibility Status	Recorded Year (By Whom)	Relationship to Project Site
P-39-005326		Lodi Grape Festival Grounds - Site 6	Found ineligible for NR, CR or Local designation through survey evaluation (Code 6Z)	2017 (Gerry, R., M. Peak)	Approximately 0.5 mile northeast
P-39-005328		322, 326, 334 E. Lockeford Street - Site 8A, 8B, 8C	Recommended not eligible for CRHR listing	2017 (Gerry, R., M. Peak)	Approximately 0.25 mile northeast
P-39-005329		224 N. Main Street - Site 9	Recommended not eligible for CRHR listing	2017 (Gerry, R., M. Peak)	Approximately 0.25 mile northeast

Source: CCIC, April 2019

4.2 NATIVE AMERICAN SCOPING

K.S. Dunbar & Associates, Inc. requested a review of the Sacred Lands File (SLF) by the Native American Heritage Commission. The NAHC sent a response on March 11, 2019, stating that a search of the SLF was completed with negative results (i.e., no sacred lands or resources important to Native Americans identified in the search; Appendix B). The NAHC provided a list of seven Native American contacts that may have knowledge regarding Native American cultural resources within or near the project site.

K.S. Dunbar & Associates, Inc. mailed letters and sent emails dated March 12, 2019, to the seven Native American contacts describing the Lodi projects and asking if they had knowledge regarding cultural resources of Native American origin within or near the project sites (Appendix B). The Northern Valley Yokut responded via email on April 2, 2019, requesting that NCPA conduct a SLF search and CCIC records search. The United Auburn Indian Community responded via email on April 24, 2019 and requested formal AB 52 consultation for this project and provided recommended mitigation measures. Consultation between NCPA and United Auburn Indian Community was formally initiated in a letter dated April 24, 2019. No additional responses have been received as of April 30, 2019.

5. FIELDWORK

5.1 SURVEY METHODS

Anza Principal and Senior Cultural Resources Specialist Kevin Hunt conducted a windshield survey of the project site on April 25, 2019. Because the project site is atop an existing structure, pedestrian survey was not warranted. Only the ground near the project point-of-interconnection with the electrical utility was inspected on-foot.

Mr. Hunt examined all exposed ground surface for artifacts (e.g., flaked stone tools and tool-manufacture debris, ground stone tools, ceramic sherds, fire-affected rock), ecofacts (marine shell, bone), soil discoloration that could indicate the presence of a cultural midden, soil depressions, and features indicative of the former presence of structures or buildings (e.g., standing exterior walls, postholes, foundations) or historic debris (e.g., metal, glass, ceramic sherds, cut bone). Ground disturbances such as burrows and drainages were visually inspected. Photographs documenting the project site and survey are maintained by Anza in cloud storage online.

5.2 RESULTS

The project site is an extant modern three-story parking garage (Photographs 1-3). The NRHP-listed Mission Arch is located adjacent to the south of the project site (Photograph 2). The survey was negative; that is, no cultural (i.e., archaeological, historic built, or tribal cultural) resources were identified within the project site.

Photograph 1. Overview of east side of project site, facing northwest.

Photograph 2. View of south elevation of parking garage and Mission Arch, facing northwest.

Photograph 3. North elevation of parking garage, facing south-southeast.

6. DISCUSSION

The NCPA Solar Project 1 – Lodi Parking Garage project site intends to place PV solar panels atop a rack system above the roof of a modern three-story parking garage. The parking garage is at the former location of the Southern Pacific Passenger Depot. One NRHP-listed resource – the Mission Arch or Lodi Arch (P-39-000491) – is located adjacent to the south of the project site spanning East Pine Avenue. The modern parking garage was constructed adjacent to the Mission Arch and is taller than the arch. It is unlikely the solar panels would be visible to viewers of the arch from street level, and even if visible, their placement atop a modern parking structure would not further reduce the integrity of setting for the Mission Arch. Based on this analysis, installation of the proposed project atop the parking garage would not create a direct or indirect impact to the Mission Arch (P-39-000491). No archaeological resources were identified within the project site.

7. MANAGEMENT RECOMMENDATIONS

The cultural resource records search, Native American scoping, and pedestrian survey identified no cultural resources within the project site. Construction of the project would not directly or indirectly impact the adjacent NRHP-listed Mission Arch. No further cultural resources work is recommended. The following standard measures are recommended in the case of the unanticipated discovery of cultural resources during project related ground disturbing activities, though little if any ground disturbance is anticipated.

7.1 UNANTICIPATED DISCOVERY OF CULTURAL RESOURCES

If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) must be contacted immediately to evaluate the find. If the discovery proves to be significant under CEQA, additional work such as data recovery excavation may be warranted.

7.2 UNANTICIPATED DISCOVERY OF HUMAN REMAINS

The discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the county coroner must be notified immediately. If the human remains are determined to be prehistoric, the coroner will notify the Native American Heritage Commission, which will determine and notify a Most Likely Descendant. The Most Likely Descendant shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

8. REFERENCES

Bennyhoff, James A.
1977 "Ethnogeography of the Plains Miwok." *Center for Archaeological Research at Davis Publication 5*. Davis, CA: University of California, Davis.

Burns, Adam
2007 "Southern Pacific Railroad." *American-Rails.com* website. Accessed April 22, 2019. https://www.american-rails.com/southern-pacific.html

California Office of Historic Preservation
1990 *Archaeological Resource Management Reports (ARMR): Recommended Contents and Format.* Department of Parks and Recreation. Office of Historic Preservation: Sacramento, California.

City of Lodi
2009 Lodi General Plan Draft Environmental Impact Report. Electronic document accessed April 30, 2019. http://www.lodi.gov/DocumentCenter/View/202/Draft-Environmental-Impact-Report-PDF?bidId=.

Dawson, Timothy E.
2009 Preliminary Geologic Map of the Lodi 30' X 60' Quadrangle, California. Electronic figure accessed online April 30, 2019. ftp://ftp.consrv.ca.gov/pub/dmg/rgmp/Prelim_geo_pdf/Lodi_100K_prelim.pdf.

Fredrickson, David A.
1973 Early Cultures of the North Coast Ranges, California. Unpublished Ph.D. dissertation, Department of Anthropology, University of California, Davis.

Heizer, Robert F.
1949 *The Archaeology of Central California: The Early Horizon*. University of California Anthropological Records Vol. 12, No. 1. Berkeley, CA: University of California Press.

Hoover, Mildred, Hero Eugene Rensch, Ethel Grace Rensch, and William N. Abeloe
2002 *Historic Spots in California*. Fifth Edition. Stanford, CA: Stanford University Press.

Kroeber, A.L.
1925 *Handbook of the Indians of California*. Bureau of American Ethnology Bulletin 78. New York, NY: Dover Publications, Inc.

Levy, Richard
1978 "Eastern Miwok." In *Handbook of North American Indians, Volume 8: California,* edited by R. F. Heizer, 398–413. W.C. Sturtevant, general editor. Washington D.C.: Smithsonian Institution.

Lodi Historical Society
2016 "City of Lodi." *Lodi Historical Society* website. Accessed April 22, 2019. http://www.lodihistory.org/

Mithun, Marianne
1999 *The Languages of Native North America*. Cambridge MA: Cambridge University Press.

Moratto, Michael J., with David A. Fredrickson, Christopher Raven, and Claude A. Warren
1984 *California Archaeology*. Orlando, FL: Academic Press.

Ragir, Sonia
1972 *The Early Horizon in Central California Prehistory*. Contributions of the University of California Archaeological Research Facility, No. 15. Berkeley,CA: University of California Press.

Robinson, W.W.
1948 *Land in California: The Story of Mission Lands, Ranchos, Squatters, Mining Claims, Railroad Grants, Land Scrip, Homesteads*. Berkeley, CA: University of California Press.

Rosenthal, Jeffrey S., Gregory G. White, and Mark Q. Sutton
2007 "The Central Valley: A View from the Catbird's Seat." In *California Prehistory: Colonization, Culture, and Complexity*, edited by Terry L. Jones and Kathryn A. Klar. Lanham, MD: Altamira Press

Shumway, Burgess McK
1988 *California Ranchos*. Second Edition. The Borgo Press.

White, Phillip
2019 "California Indians and Their Reservations: An Online Dictionary." *San Diego State University American Indian Studies* website. Accessed April 25, 2019. https://libguides.sdsu.edu/c.php?g=494769&p=3385637.

Appendix A:
Records Search Summary

CENTRAL CALIFORNIA INFORMATION CENTER

California Historical Resources Information System
Department of Anthropology – California State University, Stanislaus
One University Circle, Turlock, California 95382
(209) 667-3307

Alpine, Calaveras, Mariposa, Merced, San Joaquin, Stanislaus & Tuolumne Counties

Date: 4/17/2018

Records Search File No.: 11044L
Access Agreement: #540
Project: NCPA Lodi Parking Garage Solar PV Project; NE corner of N. Sacramento Street at E. Pine

Kevin Hunt
Anza Resource Consultants
603 Seagaze Drive #1018
Oceanside, CA 92054

kevin@anzaresourceconsultants.com

Dear Mr. Hunt:

The Central California Information Center received your Priority Response record search request for the project area/radius referenced above, located on the Lodi North 7.5' quadrangle in San Joaquin County. The following reflects the results of the records search for the project study area and radius:

As per data currently available at the CCaIC, the locations of resources/reports are provided in the following format: ☒ custom GIS maps ☐ shapefiles ☐ hand-drawn maps

Summary Data:

Resources within project area:	1 immediately adjacent: P-39-000073, Southern Pacific RR Depot
Resources within 1/2 mi radius:	15: P-39-000002*, 69, 491, 506, 666, 4277, 4317, 4926, 4931, 5076, 5324, 5325. 5326, 5328, 5329 *for copy see CCaIC 11043L file Please note: The historic building inventory for the City of Lodi has not been mapped in GIS; please refer to the attached OHP Historic Property Data File address list provided your for use in determining if any of the properties listed fall within the ½-mile radius.
Reports within project area:	3: SJ-02756, 4378, 4379
Reports within 1/2 mi radius:	16: SJ-03379, 3995, 4456, 4506, 4596, 4977, 5011, 5342, 5910, 6023, 6117, 6345, 6546, 7879, 7880, 8896

Resource Database Printout (list): ☒ enclosed ☐ not requested ☐ nothing listed

Resource Database Printout (details): ☒ enclosed ☐ not requested ☐ nothing listed

Resource Digital Database Records: ☒ enclosed ☐ not requested ☐ nothing listed

Report Database Printout (list): ☒ enclosed ☐ not requested ☐ nothing listed

Report Database Printout (details): ☐ enclosed ☒ not requested ☐ nothing listed

Report Digital Database Records: ☒ enclosed ☐ not requested ☐ nothing listed

Resource Record Copies: ☒ enclosed ☐ not requested ☐ nothing listed

Report Copies: ☒ enclosed ☐ not requested ☐ nothing listed

OHP Historic Properties Directory: ☒ enclosed ☐ not requested ☐ nothing listed

See City of Lodi listing
Note: 7 resources listed that are in the radius are mapped in GIS:
P-39-000069, listed on the NRHP and California Register of Historical Resources (CRHR)
P-39-000073, NRS S 2S2, listed on the CRHR
P-39-000491, listed on the NRHP & CRHR
P-39-000506, listed on the NRHP & CRHR
P-39-000666, NRS 7R
P-39-004277, NRS 6Y
P-39-004317, NRS S 2S2, listed on the CRHR

Archaeological Determinations of Eligibility: ☐ enclosed ☐ not requested ☒ nothing listed

CA Inventory of Historic Resources (1976): ☐ enclosed ☐ not requested ☒ nothing listed

Caltrans Bridge Survey: ☐ enclosed ☒ not requested ☐ nothing listed

Ethnographic Information: ☐ enclosed ☒ not requested ☐ nothing listed

Historical Literature: ☐ enclosed ☒ not requested ☐ nothing listed

Historical Maps: (see also CCaIC 11042L file*) ☒ enclosed ☐ not requested ☐ nothing listed

Map Number One, *History of San Joaquin County, California, with Illustrations* (1889; 1968 reprint)*
Map of the County of San Joaquin, California (1883)*
Lodi 1:62,500-scale (1939)*
Woodbridge 1:31,680-scale (1910; 1939 reprint)

Local Inventories: ☐ enclosed ☐ not requested ☒ nothing listed

GLO and/or Rancho Plat Maps: ☒ enclosed ☐ not requested ☐ nothing listed

T3N R6E, Sheet 41-202 (1853-1865)

Shipwreck Inventory: ☒ not available at CCIC; please go to

http://shipwrecks.slc.ca.gov/ShipwrecksDatabase/Shipwrecks_Database.asp

Soil Survey Maps: ☒ not available at CCIC; please go to

http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Thank you for using the California Historical Resources Information System (CHRIS).

Note: Billing will be transmitted separately via email by our Financial Services office *($989.63), payable within 60 days of receipt of the invoice.

Sincerely,

E. A. Greathouse

E. A. Greathouse, Coordinator
Central California Information Center
California Historical Resources Information System

* Invoice Request sent to: Laurie Marroquin CSU Stanislaus Financial Services
lamarroquin@csustan.edu

Appendix B:
Native American Scoping

STATE OF CALIFORNIA Gavin Newsom, Governor

NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone: (916) 373-3710
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov
Twitter: @CA_NAHC

March 11, 2019

Keith S. Dunbar
K.S. Dunbar & Associates, Inc.

VIA Email to: ksdpe67@gmail.com

RE: NCPA Solar Project 1 – Lodi Sites, San Joaquin County

Dear Mr. Dunbar:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our lists contain current information. If you have any questions or need additional information, please contact me at my email address: Katy.Sanchez@nahc.ca.gov.

Sincerely,

for

Katy Sanchez
Associate Environmental Planner

Attachment

Native American Heritage Commission
Native American Contacts List
3/11/2019

Buena Vista Rancheria of Me-Wuk Indians
Rhonda Morningstar Pope, Chairperson
1418 20th Street, Suite 200 — Me-Wuk / Miwok
Sacramento ,CA 95811
rhonda@buenavistatribe.com
(916) 491-0011 Office
(916) 491-0012 Fax

California Valley Miwok Tribe
4620 Shippee Lane — Miwok
Stockton ,CA 95212
(209) 931-4567 Office
(209) 931-4333 Fax

California Valley Miwok Tribe
AKA Sheep Rancheria of Me-Wuk Indians of Ca
P.O. Box 395 — Miwok
West Point ,CA 95255
l.ewilson@yahoo.com
(209) 293-4179 Office

Ione Band of Miwok Indians
Sara Dutschke Setchwaelo, Chairperson
P.O. Box 699 — Miwok
Plymouth ,CA 95669
sara@ionemiwok.org
(209) 245-5800 Office
(209) 245-6377 Fax

North Valley Yokuts Tribe
Katherine Erolinda Perez, Chairperson
P.O. Box 717 — Ohlone/Costanoan
Linden ,CA 95236 — Northern Valley Yokuts
canutes@verizon.net — Bay Miwok
(209) 887-3415

United Auburn Indian Community of the Auburn Rancheria
Gene Whitehouse, Chairperson
10720 Indian Hill Road — Maidu
Auburn ,CA 95603 — Miwok
bguth@auburnrancheria.com
(530) 883-2390 Office
(530) 883-2380 Fax

Wilton Rancheria
Raymond Hitchcock, Chairperson
9728 Kent Street — Miwok
Elk Grove ,CA 95624
rhitchcock@wiltonrancheria-nsn.gov
(916) 683-6000 Office
(916) 683-6015 Fax

This list is current as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code,Section 5097.94 of the Public Resources Code, or Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native American Tribes for the proposed:
NCPA Solar Project 1 – Lodi Sites, San Joaquin County.

Fwd: AB 52 Notification - NCPA Solar Project 1 - Lodi Sites

Keith Dunbar <ksdpe67@gmail.com>
Tue 4/2/2019 9:56 AM
To: Kevin Hunt <kevin@anzaresourceconsultants.com>

Kevin,

Good morning!

FYI!

Have a great day,

Keith

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE, F. ASCE

K.S.Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, CA 92590-4314
(951) 699-2082
Cell: (949) 412-2634
ksdpe67@gmail.com

---------- Forwarded message ---------
From: **canutes** <canutes@verizon.net>
Date: Tue, Apr 2, 2019 at 9:41 AM
Subject: Re: AB 52 Notification - NCPA Solar Project 1 - Lodi Sites
To: Keith Dunbar <ksdpe67@gmail.com>

Mr. Dunbar,
The tribe has reviewed the information. The tribe is requesting that the NCPA request a record search from the Native American Heritage Commission and the information center as the area of the proposed project is in an area of sensitivity.

Nototomne Cultural Preservation
Northern Valley Yokut
Katherine
Perez
P.O Box 717
Linden, CA 95236
Cell: 209.649.8972
Email: canutes@verizon.net

Sent from my iPad

On Mar 12, 2019, at 11:54 AM, Keith Dunbar <ksdpe67@gmail.com> wrote:

Katherine Erolinda Perez, Chairperson,

An AB 52 Notification of the Northern California Power Agency's NCPA Solar Project 1 - Lodi Sites is attached in accordance with recommendations of the Native American Heritage Commission.

Thank you,

Keith

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE, F. ASCE

K.S.Dunbar & Associates, Inc.

Environmental Engineering

45375 Vista Del Mar

Temecula, CA 92590-4314

(951) 699-2082

Cell: (949) 412-2634

ksdpe67@gmail.com

<AB 52 Tribal Consultation Notification N Valley Yokuts.pdf>

Gmail Keith Dunbar <ksdpe67@gmail.com>

AB 52 Consultation for the NCPA Solar Project 1 - Lodi Sites

1 message

Cherilyn Neider <cneider@auburnrancheria.com> Wed, Apr 24, 2019 at 9:25 AM
To: "ksdpe67@gmail.com" <ksdpe67@gmail.com>

Dear Keith S. Dunbar,

Thank you for your letter received notifying us of the NCPA Solar Project 1. I am contacting you in order to request:

- Consultation for this project;
- All existing cultural resource assessments;
- Requests for and results of records searches.

Attached you will find mitigation measures recommended for this project. These measures address inadvertent discoveries and a tribal cultural resources awareness training as part of the Worker Environmental Awareness and Protection training. Please confirm that the attached mitigation measures will be included in the environmental document and the adopted mitigation, monitoring and reporting program. Thank you for involving UAIC in the planning process at an early stage. We ask that you make this correspondence a part of the project record and that you provide UAIC with a copy of the final environmental document and adopted mitigation, monitoring and reporting program.

Thank you,
Cherilyn

Cherilyn Neider
Tribal Historic Preservation
United Auburn Indian Community
530.883.2394

3 attachments

5_Mitigation_Measures_CEQA_Construction_Worker_Awareness_Training.docx
22K

Worker Awareness Brochure.pdf
858K

3_Mitigation_Measures_CEQA_Discoveries.docx
24K

If Human Remains are Found

The protocols for human remains discoveries are similar for other discoveries. **It is important to treat any human remains and the situation in which they are discovered with sensitivity, dignity, and respect.**

1. All work within 100 feet of the find will immediately stop. Work will also stop in areas where there is reason to believe additional human remains could be located (generally determined by a tribal monitor or qualified archaeologist).
2. UAIC and the on-site project/construction will be notified immediately.
3. **The location of any Native American Human remains must stay confidential.**

The United Auburn Indian Community

The United Auburn Indian Community is comprised of Miwok and Southern Maidu (Nisenan) people who are traditionally and culturally affiliated with this geographic area. The Tribe's area of geographic traditional and cultural affiliation encompasses all of Amador, El Dorado, Nevada, Placer, Sacramento, Sutter and Yuba counties, as well as portions of Butte, Plumas, San Joaquin, Sierra, Solano and Yolo counties; which includes the project area.

Contact us at

530-883-2394

https://www.auburnrancheria.com/

United Auburn Indian Community
of the Auburn Rancheria
10720 Indian Hill Road
Auburn CA, 95603

Respect on the Project for Native American Culture

Prepared by:
The United Auburn Indian Community
Preservation Department

Protection Measures and Protocols

The United Auburn Indian Community has developed the measures listed below to protect any unanticipated finds of tribal cultural resources and achieve compliance with federal and state cultural and environmental laws.

1. All work must stop IMMEDIATELY at that location and within 100 feet of the find. Work may be stopped by the tribal monitor or a qualified archaeologist. Work can continue on the rest of the project, as long as project activities stay at least 100 feet away.

2. The on-site project/construction manager will immediately be informed of the possible find and contact a qualified archeologist or tribal monitor of the find.

3. Under NO circumstances will any contractor or employee collect the archaeological material.

4. Over the next days or weeks following the discovery, a number of visitors may be present in order to investigate and evaluate the find. These may include: agency officials, the County Coroner, professional archaeologists, members of the tribe or the California Native American Heritage Commission, the California Office of Historic Preservation, and local representatives of the historical society (if the find is historic in nature). It is important for the integrity of the find and for culturally-appropriate treatment, and so that there is no violation issued, that reasonable methods be taken to ensure that there is no disturbance or damage (including theft) to the find and its context and surrounding areas.

5. It is important to respect the direction of the tribal monitor or other authorized tribal representative regarding identification and treatment of finds and to have some flexibility regarding where work might be able recommence outside of the find location area.

6. The location and nature of the discovery will be strictly confidential, shared only with individuals that need to know.

Cultural Resource Examples

There are many types of archaeological resources. The most common kind of artifacts, or markers of human activity that are found include stone tools, shell, beads, plant remains, animal bones, and a type of dark soil called midden. Archaeology from the historic era can also be found: these kinds of artifacts and features can include bottles, cans, ceramics, building foundations, bricks, and many more.

Tribal Cultural Resource – Awareness Training - Mitigation Measure

A consultant and construction worker tribal cultural resources awareness brochure and training program for all personnel involved in project implementation will be developed in coordination with interested Native American Tribes. The brochure will be distributed and the training will be conducted in coordination with qualified cultural resources specialists and Native American Representatives and Monitors from culturally affiliated Native American Tribes before any stages of project implementation and construction activities begin on the project site. The program will include relevant information regarding sensitive tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The worker cultural resources awareness program will also describe appropriate avoidance and minimization measures for resources that have the potential to be located on the project site and will outline what to do and whom to contact if any potential archaeological resources or artifacts are encountered. The program will also underscore the requirement for confidentiality and culturally-appropriate treatment of any find of significance to Native Americans and behaviors, consistent with Native American Tribal values.

Inadvertent Discoveries Mitigation Measure

If potential tribal cultural resources (TCRs), archaeological resources, other cultural resources, articulated, or disarticulated human remains are discovered by Native American Representatives or Monitors from interested Native American Tribes, qualified cultural resources specialists or other Project personnel during construction activities, work will cease within 100 feet of the find (based on the apparent distribution of cultural resources), whether or not a Native American Monitor from a traditionally and culturally affiliated Native American Tribe is present. A qualified cultural resources specialist and Native American Representatives and Monitors from traditionally and culturally affiliated Native American Tribes will assess the significance of the find and make recommendations for further evaluation and treatment as necessary. Culturally appropriate treatment may be, but is not limited to, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, returning objects to a location within the project area where they will not be subject to future impacts. The Tribe does not consider curation of TCR's to be appropriate or respectful and request that materials not be permanently curated, unless requested by the Tribe.

Treatment that preserves or restores the cultural character and integrity of a Tribal Cultural Resource may include Tribal Monitoring, culturally appropriate recovery of cultural objects, and reburial of cultural objects or cultural soil. These recommendations will be documented in the project record. For any recommendations made by traditionally and culturally affiliated Native American Tribes that are not implemented, a justification for why the recommendation was not followed will be provided in the project record.

If adverse impacts to tribal cultural resources, unique archeology, or other cultural resources occurs, then consultation with UAIC and other traditionally and culturally affiliated Native American Tribes regarding mitigation contained in the Public Resources Code sections 21084.3(a) and (b) and CEQA Guidelines section 15370 should occur, in order to coordinate for compensation for the impact by replacing or providing substitute resources or environments.

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678

Initiation of AB 52 Tribal Consultation

Initiation Date:	April 24, 2019
Project Name:	NCPA Solar Project 1 – Lodi Sites
Lead Agency:	Northern California Power Agency
Consultation Coordinator:	Keith S. Dunbar, P.E., BCEE. Hon.D.WRE., F.ASCE
Tribe:	United Auburn Indian Community
Designated Contact:	Cherilyn Neider, Tribal Historic Preservation
Request Received:	April 24, 2019

Introduction:

The Northern California Power Agency (NCPA) is proposing the NCPA Solar Project 1 – Lodi Sites Project which may be located in a geographical area that is traditionally and culturally affiliated with the United Auburn Indian Community.

In response to the AB 52 Tribal Consultation Notification sent to the tribe on February 26, 2019, the Northern California Power Agency (NCPA) has received your formal written request for tribal consultation pursuant to AB 52 for the above-named project.

Initiation of Consultation:

State law under Assembly Bill 52 (Public Resources Code Section 21080.3.1) requires the lead agency to begin the consultation process within 30 days of receiving a California Native American tribe's request for consultation. Please consider this notice as the official initiation of the AB 52 Tribal Consultation process between the Northern California Power Agency and Tribe. As information becomes available on the proposed project, NCPA's consultation coordinator will schedule a face to face meeting with the tribe's designated contact if so requested

The consultation may include discussion concerning the type of environmental review necessary for the project, the significance of tribal cultural resources discovered, the significance of the project's impacts on tribal cultural resources, and, if necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend.

The consultation does not limit the ability of the tribe to submit information to NCPA regarding the significance of the tribal cultural resources, the significance of the project's impact on tribal cultural resources, or any measures the tribe feels are appropriate to mitigate the potential impact. The consultation coordinator may be reached by phone (951) 699-2082, or by email at ksdpe67@gmail.com. General comments may be submitted electronically, however, confidential information transmitted electronically cannot be ensured. NCPA recommends that transmittal of confidential information, such as the specific location of a cultural resource, be done by formal letter, in person, or over the telephone. If you wish to submit information in writing, correspondence may be sent to:

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE
K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
(951) 699-2082
E-Mail: ksddpe67@gmail.com

Overview of the Proposed Project:

The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. Burns & McDonnell was retained by NCPA to complete Phase 2 Site Screening, Plan Development, and Procurement services for each site selected by the member agencies. The City of Lodi selected three sites for development: Century East/West, Pixley Basin and Parking Structure sites. Those three sites are the subject of this Notification.

The Century East site is located on a City easement bordered by an industrial park to the north, recreational fields to the south, residences to the east and the Union Pacific railroad to the west. The Century West site is directly across the railroad tracks from the Century East site. It is bordered on the north, south and west by residential development. The combined developable area of these sites is 2.5 acres which would accommodate a project size of 0.63 megawatts-direct current (MW_{dc}).

The Pixley Basin site contains approximately 27 acres and is located in an undeveloped park that serves as a stormwater detention and flood control basin. The site is surrounded by industrial and commercial uses. Residential areas do exist approximately 0.25 miles west of the site; however, Highway 99 separates the commercial areas from the residential areas and the project site is out of the viewshed of the residences. In its October 5, 2018 report, Burns & McDonnell estimated the developable portion of the site to be approximately 15 acres which would accommodate a project size of 3.51 MW_{dc}.

The parking structure is located at the northeast corner of the intersection of E. Pine and N. Sacramento Streets in a mixed commercial and industrial area. This site contains a developable area of 0.9 acres which would accommodate a project size of 0.18 MW_{dc}.

Location of the Proposed Project

All three proposed sites are within the City of Lodi, San Joaquin County, California. Exact locations are shown below as well as on Figure 1. Individual sites are shown on Figures 2, 3 and 4.

Site	Location		Developable Area (acres)	Estimated Capacity (MW_{dc})
	Latitude, Longitude	Section, Township, Range		
Lodi – Pixley Basin	38º07'18.06"N, 121º15'12.14"W	Sec 7, T 3 N, R 7 E, MDB&M	15.0	3.51
Lodi – Century Park East/West	38º06'26.66"N, 121º16'21.63"W	Sec 13, T 3 N, R 6 E, MDB&M	2.5	0.63
Lodi – Parking Structure	38º08'05.25"N, 121º16'18.58"W	Sec 1, T 3 N, R 6 E, MDB&M	0.9	0.18

Figure 1 NCPA Solar Project 1 – Proposed Sites in the City of Lodi

Figure 2 Century Park East/West Site

Figure 3 Pixley Basin Site

Figure 4 Parking Garage Site

CULTURAL RESOURCES SURVEY
FOR THE
NORTHERN CALIFORNIA POWER AGENCY
SOLAR PROJECT 1 – LODI PIXLEY SITE
SAN JOAQUIN COUNTY, CALIFORNIA

Prepared for
K.S. Dunbar and Associates, Inc.
45375 Vista Del Mar
Temecula, CA 92590-4314

Prepared by
Anza Resource Consultants
603 Seagaze Drive, #1018
Oceanside, CA 92054
www.anzaresourceconsultants.com

USGS Quadrangle
Lodi South, California
Anza Project No. 19-0005

April 2019

EXECUTIVE SUMMARY

Anza Resource Consultants (Anza) was retained by K.S. Dunbar & Associates, Inc. to conduct a Phase I cultural resources study for the Northern California Power Agency (NCPA) Solar Project 1 – Lodi Sites in the City of Lodi, San Joaquin County, California. This study regards the Lodi Pixley project site, which occupies approximately 27 acres located in an undeveloped park that serves as a stormwater detention and flood control basin. The Lodi Pixley project site is located north of Auto Center Drive at the intersection of Pixley Parkway. The proposed project is subject to the California Environmental Quality Act (CEQA) with NCPA serving as lead agency. This study includes a cultural resources records search, Sacred Lands File search and Native American scoping, a pedestrian survey of the project site, and preparation of this technical report in compliance with the cultural resources requirements of CEQA.

The cultural resource records search, Native American scoping, and pedestrian survey identified no cultural resources within or adjacent to the project site. Anza recommends a finding of ***no impact to historical resources*** under CEQA. No further cultural resources study is recommended; however, the following standard measures are recommended to avoid potential impacts from the unanticipated discovery of cultural resources during project related ground disturbing activities.

CULTURAL RESOURCES WORKER SENSITIVITY TRAINING

Prior to the start of construction, NCPA shall hold a pre-grading meeting. The Project Archaeologist shall attend the pre-grading meeting with NCPA's Project Administrator, Field Engineering Inspector and any contractors to conduct a Cultural Resources Worker Sensitivity Training for all construction personnel working on the proposed Project. The training shall include an overview of potential cultural resources that could be encountered during ground disturbing activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated, and any other appropriate protocols.

UNANTICIPATED DISCOVERY OF CULTURAL RESOURCES

If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) must be contacted immediately to evaluate the find. If the discovery proves to be significant under CEQA, additional work such as data recovery excavation may be warranted.

UNANTICIPATED DISCOVERY OF HUMAN REMAINS

The discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the county coroner must be notified immediately. If the human remains are determined to be prehistoric, the coroner will notify the Native American Heritage Commission, which will determine and notify a Most Likely Descendant. The Most Likely Descendant shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF PHOTOGRAPHS

APPENDICES

1. INTRODUCTION

Anza Resource Consultants (Anza) was retained by K.S. Dunbar & Associates, Inc. to conduct a Phase I cultural resources study for the Northern California Power Agency (NCPA) Solar Project 1 – Lodi Sites in the City of Lodi, San Joaquin County, California (Figure 1). The NCPA Solar Project 1 includes the following projects: Century East/West, Pixley Basin, and Parking Structure, and is described below (Section 1.1). This study has been prepared in accordance with the California Environmental Quality Act (CEQA) statutes and guidelines (Section 1.2). This cultural resources study includes a cultural resources records search, a summary of Native American scoping for the project, pedestrian survey, and the preparation of this report following the *Archaeological Resources Management Report (ARMR): Recommended Content and Format* guidelines (California Office of Historic Preservation 1990).

1.1 PROJECT DESCRIPTION

The objective of the NCPA Solar Project 1 is to develop a fleet of photovoltaic (PV) solar power plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by NCPA as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial five to seven years of operation, NCPA plans to purchase the plants.

NCPA has completed the site selection and screening portion of the project and the City of Lodi selected three sites for development: Century East/West, Pixley Basin, and Parking Structure sites. The Pixley Basin site contains approximately 27 acres and is located in an undeveloped park that serves as a stormwater detention and flood control basin. The site is surrounded by industrial and commercial uses. Residential areas exist approximately 0.25 miles west of the site; however, Highway 99 separates the commercial areas from the residential areas and the project site is out of the viewshed of the residences. It is estimated that approximately 8.3 acres of the site are developable, which would accommodate a project size of 1.4 megawatts.

1.2 REGULATORY SETTING

1.2.1 State

CEQA requires a lead agency determine whether a project may have a significant effect on historical resources (Public Resources Code [PRC], Section 21084.1). A historical resource is a resource listed in, or determined to be eligible for listing, in the California Register of Historical Resources (CRHR), a resource included in a local register of historical resources or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (State CEQA Guidelines, Section 15064.5[a][1-3]).

A resource shall be considered historically significant if it meets any of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

4. Has yielded, or may be likely to yield, information important in prehistory or history.

In addition, if it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC, Section 21083.2[a], [b], and PRC, Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, the probability is high that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

California Assembly Bill 52 of 2014 (AB 52) took effect July 1, 2015, and expanded CEQA by establishing a formal consultation process for California tribes within the CEQA process. The bill specifies that any project that may affect or cause a substantial adverse change in the significance of a tribal cultural resource would require a lead agency to "begin consultation with a California Native American tribe that is traditional and culturally affiliated with the geographic area of the proposed project." According to the legislative intent for AB 52, "tribes may have knowledge about land and cultural resources that should be included in the environmental analysis for projects that may have a significant impact on those resources." Section 21074 of AB 52 also defines a new category of resources under CEQA called "tribal cultural resources." Tribal cultural resources are defined as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and is either listed on or eligible for the California Register of Historical Resources or a local historic register, or if the lead agency chooses to treat the resource as a tribal cultural resource. See also PRC 21074 (a)(1)(A)-(B).

1.3 PERSONNEL

Anza Principal and Senior Cultural Resources Specialist Kevin Hunt requested the Sacred Lands File search, conducted the survey, and was the primary author of this report. Principal Investigator Katherine Collins, M.A., Registered Professional Archaeologist (RPA), coauthored this report and served as principal investigator for the study. Ms. Collins meets the Secretary of the Interior's Professional Qualifications Standards for prehistoric and historic archaeology (National Park Service 1983). GIS Specialist Spencer Bietz prepared all maps and figures.

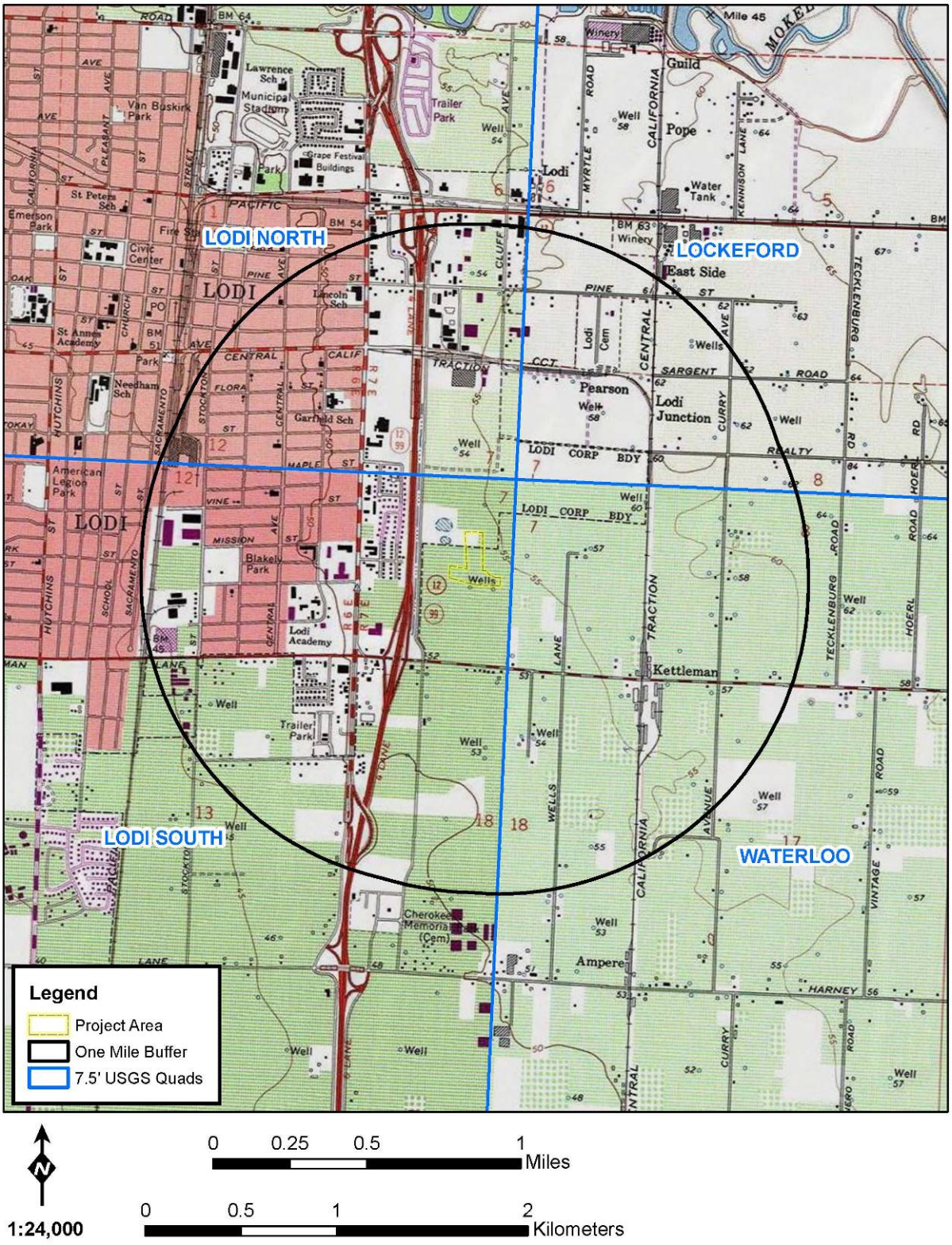


Figure 1. Project Location Map

2. ENVIRONMENTAL SETTING

The Lodi Pixley Site is located the northern San Joaquin Valley, famed for its agriculture. Characteristic vegetation communities in the region include agricultural habitats and annual grassland, with much smaller amounts of freshwater emergent wetland, lacustrine, water, and valley foothill riparian habitats (City of Lodi 2009:3.4-2). Agricultural lands support a broad variety of fauna including California ground squirrel, California vole, red-winged blackbird, northern harrier, white-tailed kite, and yellow-billed magpie. Urban areas support fauna such as American crow, rock dove, American robin, Brewer's blackbird, house finch, house sparrow, northern mockingbird, mourning dove, raccoon, Virginia opossum, and striped skunk. Prior to agricultural and urban development the San Joaquin Valley hosted a broad variety of additional species.

Lodi averages 19 inches of rain annually. Lodi has a hot-summer Mediterranean climate including cool, wet winters, often with dense ground fog, and hot, dry summers. The project site is underlain by the upper member of the Pleistocene Quarternary Modesto formation, composed of undivided alluvium (Dawson 2009).

3. CULTURAL SETTING

3.1 PREHISTORIC OVERVIEW

The prehistory of the Central Valley is generally divided into three main periods: Paleoindian, Archaic, and Emergent. The Archaic is further divided into the Lower, Middle, and Upper (Fredrickson 1973, 1974). This chronological framework is used by researchers to understand how prehistoric cultures adapted and coped with environmental and social change. Within this framework researchers recognized certain sets of cultural and technological traits that appeared to span long periods of time and covered large areas. These sets of traits were referred to as either "horizons" or "patterns" in the literature. With smaller (local) units of patterns referred to as "aspects" and "phases" (Fredrickson 1974, Moratto 1984, Rosenthal et al. 2007). Below is a brief overview of prehistoric occupation history in the San Joaquin Valley portion of the Central Valley.

The **Paleoindian Period** (11,550 to 8550 cal B.C.) was characterized by the arrival of small, high-mobile hunter-gathered groups. A characteristic element of this period is the use of fluted points to bring down large game animals. Evidence of Paleoindian occupation in the San Joaquin Valley have been found at Tracy Lake, Wolfson mound (CA-MER-215) in Merced County, and the Tulare Lake basin (Moratto 1984, Rosenthal et al. 2007).

During the **Archaic Period** (8550 cal B.C. to A.D. 1100) climatic changes preceiptated the drying of pluvial lakes resulting in changes in substance strategies employed by the native populations. By the Middle Archaic (5550 to 550 cal B.C.) a set of cultural traits known as the Windmiller Pattern emerged at several sites in the San Joaquin Valley (Rosethal et al. 2007). The presence of milling stones such as manos and metates often characterize Windmiller sites, although mortar and pestles have also been found, indicating that acorns and/or various seeds formed an important part of the diet (Moratto 1984, Rosenthal et al 2007). A variety of faunal remains have been documented at Windmiller Pattern sites including Tule elk, mule deer, and pronghorn, as well as smaller game such as rabbit, water birds, raptors, and rodents (Rosenthal et al. 2007). Also, the presence of angling hooks and baked clay artifacts possibly used as net or line sinkers, along with the remains of sturgeon, salmon, and smaller fishes, indicate that fishing was an additional source of food (Fredrickson 1973; Heizer 1949; Ragir 1972). Items such as net sinkers, pipes, and discoids, as well as cooking "stones" were made of baked clay. Ground and polished charmstones, impressions of twined basketry, shell beads, and bone tools also have been found at Windmiller Pattern sites. Some items, such as shell beads, obsidian tools, and quartz crystals, were obtained by trade.

The archaeological record at Windmiller Pattern sites indicates people practiced a mixed procurement strategy of both game and wild plants, with the addition of acorns and/or seeds. The mixed exploitation of a wide range of natural resources ties into a seasonal foraging strategy. Populations likely occupied the lower elevations of the Sacramento Valley in the winter months and shifted to higher elevations during the summer (Moratto 1984:206). Characteristic Windmiller mortuary practices included ventrally and dorsally extended burials, accompanied by grave goods, in cemeteries that were separate from the habitation sites (Ragir 1972, Rosenthal et al. 2007). Recent research suggests the Windmiller culture persisted into the Upper Archaic (550 cal B.C. to A.D. 1100) in the San Joaquin Valley and was not replaced by the Berkeley Pattern, as it had in other places. Several sites in San Joaquin and Merced Counties (CA-SJO-17, SJO-87, SJO-106, SJO-154, SJO-246, MER-3, MER-215, and MER-323) continued the characteristic Windmiller mortuary practice of extended burials until sometime between 800 and 1,000 years ago (Rosenthal el al. 2007:156).

During the **Emergent Period** (cal A.D. 1100 to Historic) a new set of cultural traits emerged in the Central Valley known as the Augustine Pattern, although there is sporadic evidence of this cultural pattern in the San Joaquin Valley (Moratto 1984, Rosenthal et al. 2007:157). The Pacheco Complex on the western edge of the valley is the only well-defined example in this region. The Augustine Pattern is evidenced by a substantial increase in the intensity of subsistence exploitation, including fishing, hunting, and gathering (particularly the acorn (Moratto 1984:211–214). These changes begin to reflect the cultural pattern known from historic period Native American groups in the area. Augustine Pattern tools and cooking implements included shaped mortars and pestles, hopper mortars, bone awls used for producing coiled baskets, and the bow and arrow. Pottery vessels, known as Cosumnes brownware, are found in some parts of the Central Valley and most likely developed during this period from the prior baked clay industry.

During this period, an increase in sedentism led to the development of social stratification, accompanied by a shift to elaborate ceremonial and social organization. Exchange networks, with the use of clamshell disk beads as currency, also developed during the Augustine Pattern. Mortuary practices during this period included flexed burials and pre-interment burning of offerings in a grave pit, as well as cremation of high-status individuals (Fredrickson 1973:127–129; Moratto 1984:211). In the San Joaquin Valley villages and smaller communities developed along side-streams of the foothills, and river channels and sloughs in the valley. The introduction of the bow and arrow occurred during this time and one of California's most unique point types, the Stockton serrated edge, was developed in the region (Rosenthal el al. 2007).

3.2 ETHNOGRAPHIC OVERVIEW

The project site is located in the traditional territory of the Plains Miwok people. The Plains Miwok were one of six culture groups that spoke a Miwokan language in California. Other Miwok-speaking groups included the Bay Miwok (Saclan), Northern Sierra Miwok, Central Sierra Miwok, Southern Sierra Miwok, and Coast Miwok. Plains Miwok territory was centered in the Central Valley occupying an area between the lower reaches of the Mokelumne and Cosumnes Rivers and the banks of the Sacramento River, from Rio Vista to Freeport (Levy 1978). The word Miwok (miw·yk) generally means "people" in the Miwok language, which is a member of the Penutian language family (Kroeber 1925, Mithun 1999).

The primary sociopolitical unit among the Plains Miwok was the tribelet, comprising the residents of several base settlements and their associated seasonal camps. Each tribelet had a population of about 300 to 500 people and controlled specific territory and resources within it. Each settlement within a tribelet appeared to be the home of localized patrilineage. The tribelet as whole was led by a chieftain which was a hereditary position passed down from father to son. If there was no male heir, the position could be passed to the chief's daughter. The chief acted as an advisor, had the final say in interpersonal disputes, and determined the best time to gather resources (Levy 1978). Settlements typically contained a semi-subterranean earth lodge used for community ritual or social gatherings. Other structures include a semi-subterranean sweathouse, a menstrual hut, and a granary for storing acorns. Families lived in small earth-covered structures (Kroeber 1925, Levy 1978). Ethnohistoric research indicates a Miwok settlement called *Muquelemne* was located on the south bank of Mokelumne River near Lodi (Levy 1978).

The basic subsistence strategy of the Plains Miwok was seasonally mobile hunting and gathering. However, tobacco was cultivated and they also possessed domesticated dogs. Plant foods included acorns, buckeyes, laurel nuts, hazelnuts, seeds, roots, greens, and berries. Acorns, the primary staple, were gathered in the fall and stored through the winter. Seeds were gathered from May through August. Intentional, periodic burning in August ensured an ample supply of seed-bearing annuals and forage for game. The Miwok ate more meat in the winter, when the only plant resources available were those that

had been stored. Hunting was accomplished with the aid of the bow and arrow, traps, and snares. Animal foods consisted of deer; elk; antelope; rodents; waterfowl; quail, pigeons, flickers, and other birds; freshwater mussels and clams; land snails; fish; and insects. Salt was obtained from springs or through trade with people from the Mono Lake area (Bennyhoff 1977; Levy 1978).

The Plains Miwok used a variety of tools made from bone, stone, antler, wood, and textile. Bows were made of wood from a variety of tree species such as oak, ash, willow, pepperwood, maple, or hazel. Arrow heads were fashioned from stone materials such as obsidian obtained through trade, as well as local materials. Typical basketry items were seed beaters; cradles; sifters; rackets used in ball games; and baskets for storing, winnowing, parching, and carrying burdens. Other textiles included mats and cordage (Levy 1978).

Many Miwok groups were subject to missionization efforts during the late eighteenth and early nineteenth centuries. Christian baptisms of Plains Miwok occurred as early as 1811 and did not stop until 1833. During this time over 2,100 Plains Miwok were baptized. As a result of the missionization effort many Plains Miwok were removed from their traditional territory and sent to Mission San Jose located in the present-day city of Fremont. By the beginning of the nineteenth century the Miwok numbered some 19,500 people but by the early twentieth century this number was below one thousand people. Today there are about 3,500 people of Miwok descent, with many living on several reservations in California (White 2019).

3.3 HISTORIC OVERVIEW

The historic period for the state of California generally begins with the establishment of the first Spanish mission and presidio in San Diego in 1769. This marks the beginning of the Spanish period of California history which lasted until 1822 when news of Mexico's independence from Spain in 1821 finally reached California. The Spanish period saw the establishment of a permanent European presence in California in the form of 21 missions located along the coast between San Diego and Sonoma, four military presidios located in San Diego, Monterey, San Francisco and Santa Barbara, and three pueblos (towns) that later became the cities of Los Angeles, San Jose and Santa Cruz (Robinson 1948). The Spanish period ended with Mexican independence from the Spanish crown in 1822. The Mexican period of California history saw the seizure of lands once held by the missions through the Mexican Secularization Act of 1833 and the redistribution of those lands to individuals in the form of land grants known as "ranchos" (Robinson 1948). During this period the Mexican government in California issued about 700 land grants to Mexican citizens and foreign immigrants (Shumway 1988). The outbreak of war between the United States and Mexico and the signing of the Treaty of Guadalupe Hidalgo in 1848 ended the Mexican period and signaled the beginning of the American period of California history. The early American period is marked by the discovery of gold at Sutter's Mill in 1848, resulting in a gold rush that saw a massive influx of settlers from other parts of the United States and around the world, greatly impacting California's native population. In 1869 the transcontinental railroad was completed linking California with the rest of the United States. The gold rush and the establishment of the railroad played major roles in the development of California into a national and worldwide leader in agricultural and industrial production. These early developments also resulted in making California one of the most racially and ethnically diverse states in the Union.

3.3.1 San Joaquin County

The history of San Joaquin County begins in 1850 as one of the original 27 counties of the state of California. The county derives its name from the San Joaquin River, a major river that flows through the region from southern Sierra Nevada Mountains. Early European exploration through the region included

an expedition led by Gabriel Moraga, a Spanish army officer who named the San Joaquin River as well as other natural features as he made his way through the Central Valley. Between 1840 and 1846 the Mexican government in California issued five land grants – Arroyo Seco, Campo de Los Franceses, El Pescadero, Sanjon de los Moquelumnes, and Rancho del Estanislao (also known as Thompson's Rancho) – that encompassed major portions of San Joaquin County (Shumway 1988). The County's generally flat terrain made it a desirable location for building a railroad and in 1866 Congress authorized the Southern Pacific Railroad to build a transcontinental rail route between San Francisco and the Colorado River. By 1870 the Southern Pacific line made its way through San Joaquin County to the City of Modesto (Burns 2007). The establishment of the Southern Pacific and other rail lines through San Joaquin County provided the transportation backbone to move local agricultural produce to markets across the country. Today, agriculture remains an important component of the County's economy.

3.3.2 City of Lodi

The City of Lodi was established in 1869 along the southern banks of Mokelumne River. It was originally named Mokelunme but was changed to Lodi by an act of the California legislature in 1874. Two of Lodi's early residents, Charles Ivory and John Burt established a general store on the corner of Pine and Sacramento Streets. Their store became a magnet for attracting homesteaders and other businesses to the area. Since its inception, agriculture was the backbone of Lodi's economy growing such crops as wheat, watermelon, and grapes. In 1880 some 3.4 million bushels of wheat were grown in San Joaquin County, much of it grown in the Lodi area. Grape vineyards also dominated the area with over two million plants in production in 1899. By the early twentieth century grapes were so important to Lodi that in 1907 residents held the Tokay Carnival to "advertise the beauty and value of the Tokay grape." During the same year a mission-style arch was built at Pine and Sacramento Streets, in the historic core of Lodi, at a cost of $500. The arch still exists today and is a local landmark (Hoover et al. 2002, Lodi Historical Society 2016).

4. BACKGROUND RESEARCH

4.1 CALIFORNIA HISTORICAL RESOURCE INFORMATION SYSTEM

Anza conducted a search of cultural resource records housed at the California Historical Resources Information System (CHRIS), Central California Information Center (CCIC) located at California State University, Stanislaus. The search was conducted by CCIC on April 16, 2019, to identify all previous cultural resources work and previously recorded cultural resources within a 0.5-mile radius of the project site (Appendix A). The CHRIS search included a review of the NRHP, CRHR, the California Points of Historical Interest list, the California Historical Landmarks list, the Archaeological Determinations of Eligibility list, and the California State Historic Resources Inventory list. The records search also included a review of all available historic USGS 7.5-, 15-, and 30-minute quadrangle maps.

4.1.1 Previous Studies

The CCIC records search identified two cultural resources studies that were conducted within a 0.5-mile radius of the project site, neither of which are mapped within the project site (Table 1).

Table 1. Previous Cultural Resource Studies within a 0.5-Mile Radius of the Project Site

Report Number	Author	Year	Title	Proximity to Project Site
SJ-00821	Peak, A.	1978	Cultural Resource Assessment of the Proposed City of Lodi C-2 Basin Project San Joaquin County, California	Outside
SJ-04508	Jones and Stokes Associates, Inc.	2001	Historic Property Survey Report, 10-SJO-12, P.M. 15.2/18.0, Charge Unit 173, E.A. OG5700: Kettleman Lane, Route 12 Widening Project	Outside

Source: CCIC, April 2019

4.1.2 Previously Recorded Resources

No cultural resources were recorded within 0.5 mile of the project site (Appendix A).

4.2 NATIVE AMERICAN SCOPING

K.S. Dunbar & Associates, Inc. requested a review of the Sacred Lands File (SLF) by the Native American Heritage Commission. The NAHC sent a response on March 11, 2019, stating that a search of the SLF was completed with negative results (i.e., no sacred lands or resources important to Native Americans identified in the search; Appendix B). The NAHC provided a list of seven Native American contacts that may have knowledge regarding Native American cultural resources within or near the project site.

K.S. Dunbar & Associates, Inc. mailed letters and sent emails dated March 12, 2019, to the seven Native American contacts describing the Lodi projects and asking if they had knowledge regarding cultural resources of Native American origin within or near the project sites (Appendix B). The Northern Valley Yokut responded via email on April 2, 2019, requesting that NCPA conduct a SLF search and CCIC records search. The United Auburn Indian Community responded via email on April 24, 2019 and requested formal AB 52 consultation for this project and provided recommended mitigation measures.

Consultation between NCPA and United Auburn Indian Community was formally initiated in a letter dated April 24, 2019. No additional responses have been received as of April 30, 2019.

5. FIELDWORK

5.1 SURVEY METHODS

Anza Principal and Senior Cultural Resources Specialist Kevin Hunt conducted a pedestrian survey of the project site on April 25, 2019. Mr. Hunt surveyed the project site using transects spaced 5 to 10 meters apart and oriented north-south. The entire project site was surveyed.

Mr. Hunt examined all exposed ground surface for artifacts (e.g., flaked stone tools and tool-manufacture debris, ground stone tools, ceramic sherds, fire-affected rock), ecofacts (marine shell, bone), soil discoloration that could indicate the presence of a cultural midden, soil depressions, and features indicative of the former presence of structures or buildings (e.g., standing exterior walls, postholes, foundations) or historic debris (e.g., metal, glass, ceramic sherds, cut bone). Ground disturbances such as burrows and drainages were visually inspected. Photographs documenting the project site and survey are maintained by Anza in cloud storage online.

5.2 RESULTS

The project site is highly disturbed with a water retention basin, contoured embankments, and berms near the project margins (Photographs 1-3). The water retention basin was full and provided zero ground visibility (Photograph 2). The remainder of the project site was covered by dense mixed grasses and occasional plants with odd bare patches resulting in poor ground visibility (approximately 5-15 percent). The survey was negative; that is, no cultural (i.e., archaeological, historic built, or tribal cultural) resources were identified within the project site.

Photograph 1. Overview of project site towards water retention basin, facing northeast.

Photograph 2. View of west side of water retention basin, facing northeast.

Photograph 3. Overview of project site, facing south.

6. MANAGEMENT RECOMMENDATIONS

The cultural resource records search, Native American scoping, and pedestrian survey identified no cultural resources within or adjacent to the project site. No further cultural resources work is recommended. The following measures are recommended in the case of the unanticipated discovery of cultural resources during project related ground disturbing activities.

6.1 UNANTICIPATED DISCOVERY OF CULTURAL RESOURCES

If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) must be contacted immediately to evaluate the find. If the discovery proves to be significant under CEQA, additional work such as data recovery excavation may be warranted.

6.2 UNANTICIPATED DISCOVERY OF HUMAN REMAINS

The discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the county coroner must be notified immediately. If the human remains are determined to be prehistoric, the coroner will notify the Native American Heritage Commission, which will determine and notify a Most Likely Descendant. The Most Likely Descendant shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

7. REFERENCES

Bennyhoff, James A.
1977 "Ethnogeography of the Plains Miwok." *Center for Archaeological Research at Davis Publication 5*. Davis, CA: University of California, Davis.

Burns, Adam
2007 "Southern Pacific Railroad." *American-Rails.com* website. Accessed April 22, 2019. https://www.american-rails.com/southern-pacific.html

California Office of Historic Preservation
1990 *Archaeological Resource Management Reports (ARMR): Recommended Contents and Format.* Department of Parks and Recreation. Office of Historic Preservation: Sacramento, California.

City of Lodi
2009 Lodi General Plan Draft Environmental Impact Report. Electronic document accessed April 30, 2019. http://www.lodi.gov/DocumentCenter/View/202/Draft-Environmental-Impact-Report-PDF?bidId=.

Dawson, Timothy E.
2009 Preliminary Geologic Map of the Lodi 30' X 60' Quadrangle, California. Electronic figure accessed online April 30, 2019. ftp://ftp.consrv.ca.gov/pub/dmg/rgmp/Prelim_geo_pdf/Lodi_100K_prelim.pdf.

Fredrickson, David A.
1973 Early Cultures of the North Coast Ranges, California. Unpublished Ph.D. dissertation, Department of Anthropology, University of California, Davis.

Heizer, Robert F.
1949 *The Archaeology of Central California: The Early Horizon*. University of California Anthropological Records Vol. 12, No. 1. Berkeley, CA: University of California Press.

Hoover, Mildred, Hero Eugene Rensch, Ethel Grace Rensch, and William N. Abeloe
2002 *Historic Spots in California*. Fifth Edition. Stanford, CA: Stanford University Press.

Kroeber, A.L.
1925 *Handbook of the Indians of California*. Bureau of American Ethnology Bulletin 78. New York, NY: Dover Publications, Inc.

Levy, Richard
1978 "Eastern Miwok." In *Handbook of North American Indians, Volume 8: California,* edited by R. F. Heizer, 398–413. W.C. Sturtevant, general editor. Washington D.C.: Smithsonian Institution.

Lodi Historical Society
2016 "City of Lodi." *Lodi Historical Society* website. Accessed April 22, 2019. http://www.lodihistory.org/

Mithun, Marianne
1999 *The Languages of Native North America*. Cambridge MA: Cambridge University Press.

Moratto, Michael J., with David A. Fredrickson, Christopher Raven, and Claude A. Warren
1984 *California Archaeology*. Orlando, FL: Academic Press.

Ragir, Sonia
1972 *The Early Horizon in Central California Prehistory*. Contributions of the University of California Archaeological Research Facility, No. 15. Berkeley,CA: University of California Press.

Robinson, W.W.
1948 *Land in California: The Story of Mission Lands, Ranchos, Squatters, Mining Claims, Railroad Grants, Land Scrip, Homesteads*. Berkeley, CA: University of California Press.

Rosenthal, Jeffrey S., Gregory G. White, and Mark Q. Sutton
2007 "The Central Valley: A View from the Catbird's Seat." In *California Prehistory: Colonization, Culture, and Complexity*, edited by Terry L. Jones and Kathryn A. Klar. Lanham, MD: Altamira Press

Shumway, Burgess McK
1988 *California Ranchos*. Second Edition. The Borgo Press.

White, Phillip
2019 "California Indians and Their Reservations: An Online Dictionary." *San Diego State University American Indian Studies* website. Accessed April 25, 2019. https://libguides.sdsu.edu/c.php?g=494769&p=3385637.

Appendix A:
Records Search Summary

CENTRAL CALIFORNIA INFORMATION CENTER

California Historical Resources Information System
Department of Anthropology – California State University, Stanislaus
One University Circle, Turlock, California 95382
(209) 667-3307

Alpine, Calaveras, Mariposa, Merced, San Joaquin, Stanislaus & Tuolumne Counties

Date: 4/16/2018

Records Search File No.: 11042L
Access Agreement: #540
Project: NCPA Lodi Pixley Solar PV
Project; north side of Auto Center Drive at Pixley Way

Kevin Hunt
Anza Resource
Consultants
603 Seagaze Drive #1018
Oceanside, CA 92054

kevin@anzaresourceconsultants.com

Dear Mr. Hunt:

The Central California Information Center received your Priority Response record search request for the project area/radius referenced above, located on the Lockeford, Lodi North, Lodi South and Waterloo 7.5' quadrangles in San Joaquin County. The following reflects the results of the records search for the project study area and radius:

As per data currently available at the CCaIC, the locations of resources/reports are provided in the following format: ☒ custom GIS maps ☐ shapefiles ☐ hand-drawn maps

Summary Data:

Resources within project area:	None formally reported to the Information Center.
Resources within 1/2 mi radius:	None formally reported to the Information Center. Please note: The historic building inventory for the City of Lodi has not been mapped in GIS; please refer to the attached OHP Historic Property Data File address list provided your for use in determining if any of the properties listed fall within the ½-mile radius.
Reports within project area:	None formally reported to the Information Center.
Reports within 1/2 mi radius:	2: SJ-00821 and SJ-04508

Resource Database Printout (list): ☐ enclosed ☐ not requested ☐ nothing listed

Resource Database Printout (details): ☐ enclosed ☐ not requested ☒ nothing listed

Resource Digital Database Records: ☐ enclosed ☐ not requested ☒ nothing listed

Report Database Printout (list): ☒ enclosed ☐ not requested ☐ nothing listed

Report Database Printout (details): ☐ enclosed ☒ not requested ☐ nothing listed

Report Digital Database Records: ☒ enclosed ☐ not requested ☐ nothing listed

Resource Record Copies: ☐ enclosed ☐ not requested ☒ nothing listed

Report Copies: ☐ enclosed ☒ not requested ☐ nothing listed

OHP Historic Properties Directory: ☒ enclosed ☐ not requested ☐ nothing listed

City of Lodi listing

Archaeological Determinations of Eligibility: ☐ enclosed ☐ not requested ☒ nothing listed

CA Inventory of Historic Resources (1976): ☐ enclosed ☐ not requested ☒ nothing listed

Caltrans Bridge Survey: ☐ enclosed ☒ not requested ☐ nothing listed

Ethnographic Information: ☐ enclosed ☒ not requested ☐ nothing listed

Historical Literature: ☐ enclosed ☒ not requested ☐ nothing listed

Historical Maps: ☒ enclosed ☐ not requested ☐ nothing listed

Map Number One, *History of San Joaquin County, California, with Illustrations* (1889; 1968 reprint)
Map of the County of San Joaquin, California (1883)
Lodi 1:62500-scale (1939)
Lodi South 7.5' (1953)

Local Inventories: ☐ enclosed ☐ not requested ☒ nothing listed

GLO and/or Rancho Plat Maps: ☒ enclosed ☐ not requested ☐ nothing listed

T3N R7E, Sheet 41-203 (1953-1865)

Shipwreck Inventory: ☒ not available at CCIC; please go to

http://shipwrecks.slc.ca.gov/ShipwrecksDatabase/Shipwrecks_Database.asp

Soil Survey Maps: ☒ not available at CCIC; please go to

http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Thank you for using the California Historical Resources Information System (CHRIS).

Note: Billing will be transmitted separately via email by our Financial Services office *($978.45), payable within 60 days of receipt of the invoice.

Sincerely,

E. A. Greathouse

E. A. Greathouse, Coordinator
Central California Information Center
California Historical Resources Information System

* Invoice Request sent to: Laurie Marroquin CSU Stanislaus Financial Services
lamarroquin@csustan.edu

Appendix B:
Native American Scoping

STATE OF CALIFORNIA — Gavin Newsom, Governor

NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone: (916) 373-3710
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov
Twitter: @CA_NAHC

March 11, 2019

Keith S. Dunbar
K.S. Dunbar & Associates, Inc.

VIA Email to: ksdpe67@gmail.com

RE: NCPA Solar Project 1 – Lodi Sites, San Joaquin County

Dear Mr. Dunbar:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our lists contain current information. If you have any questions or need additional information, please contact me at my email address: Katy.Sanchez@nahc.ca.gov.

Sincerely,

Nancy Gonzalez
for

Katy Sanchez
Associate Environmental Planner

Attachment

Native American Heritage Commission
Native American Contacts List
3/11/2019

Buena Vista Rancheria of Me-Wuk Indians
Rhonda Morningstar Pope, Chairperson
1418 20th Street, Suite 200 — Me-Wuk / Miwok
Sacramento ,CA 95811
rhonda@buenavistatribe.com
(916) 491-0011 Office
(916) 491-0012 Fax

California Valley Miwok Tribe
4620 Shippee Lane — Miwok
Stockton ,CA 95212
(209) 931-4567 Office
(209) 931-4333 Fax

California Valley Miwok Tribe
AKA Sheep Rancheria of Me-Wuk Indians of Ca
P.O. Box 395 — Miwok
West Point ,CA 95255
l.ewilson@yahoo.com
(209) 293-4179 Office

Ione Band of Miwok Indians
Sara Dutschke Setchwaelo, Chairperson
P.O. Box 699 — Miwok
Plymouth ,CA 95669
sara@ionemiwok.org
(209) 245-5800 Office
(209) 245-6377 Fax

North Valley Yokuts Tribe
Katherine Erolinda Perez, Chairperson
P.O. Box 717 — Ohlone/Costanoan
Linden ,CA 95236 — Northern Valley Yokuts
canutes@verizon.net — Bay Miwok
(209) 887-3415

United Auburn Indian Community of the Auburn Rancheria
Gene Whitehouse, Chairperson
10720 Indian Hill Road — Maidu
Auburn ,CA 95603 — Miwok
bguth@auburnrancheria.com
(530) 883-2390 Office
(530) 883-2380 Fax

Wilton Rancheria
Raymond Hitchcock, Chairperson
9728 Kent Street — Miwok
Elk Grove ,CA 95624
rhitchcock@wiltonrancheria-nsn.gov
(916) 683-6000 Office
(916) 683-6015 Fax

This list is current as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code,Section 5097.94 of the Public Resources Code, or Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native American Tribes for the proposed:
NCPA Solar Project 1 – Lodi Sites, San Joaquin County.

Fwd: AB 52 Notification - NCPA Solar Project 1 - Lodi Sites

Keith Dunbar <ksdpe67@gmail.com>
Tue 4/2/2019 9:56 AM
To: Kevin Hunt <kevin@anzaresourceconsultants.com>

Kevin,

Good morning!

FYI!

Have a great day,

Keith

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE, F. ASCE

K.S.Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, CA 92590-4314
(951) 699-2082
Cell: (949) 412-2634
ksdpe67@gmail.com

---------- Forwarded message ---------
From: **canutes** <canutes@verizon.net>
Date: Tue, Apr 2, 2019 at 9:41 AM
Subject: Re: AB 52 Notification - NCPA Solar Project 1 - Lodi Sites
To: Keith Dunbar <ksdpe67@gmail.com>

Mr. Dunbar,
The tribe has reviewed the information. The tribe is requesting that the NCPA request a record search from the Native American Heritage Commission and the information center as the area of the proposed project is in an area of sensitivity.

Nototomne Cultural Preservation
Northern Valley Yokut
Katherine
Perez
P.O Box 717
Linden, CA 95236
Cell: 209.649.8972
Email: canutes@verizon.net

Sent from my iPad

On Mar 12, 2019, at 11:54 AM, Keith Dunbar <ksdpe67@gmail.com> wrote:

Katherine Erolinda Perez, Chairperson,

An AB 52 Notification of the Northern California Power Agency's NCPA Solar Project 1 - Lodi Sites is attached in accordance with recommendations of the Native American Heritage Commission.

Thank you,

Keith

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE, F. ASCE

K.S.Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, CA 92590-4314
(951) 699-2082
Cell: (949) 412-2634
ksdpe67@gmail.com

<AB 52 Tribal Consultation Notification N Valley Yokuts.pdf>

Gmail Keith Dunbar <ksdpe67@gmail.com>

AB 52 Consultation for the NCPA Solar Project 1 - Lodi Sites

1 message

Cherilyn Neider <cneider@auburnrancheria.com> Wed, Apr 24, 2019 at 9:25 AM
To: "ksdpe67@gmail.com" <ksdpe67@gmail.com>

Dear Keith S. Dunbar,

Thank you for your letter received notifying us of the NCPA Solar Project 1. I am contacting you in order to request:

- Consultation for this project;
- All existing cultural resource assessments;
- Requests for and results of records searches.

Attached you will find mitigation measures recommended for this project. These measures address inadvertent discoveries and a tribal cultural resources awareness training as part of the Worker Environmental Awareness and Protection training. Please confirm that the attached mitigation measures will be included in the environmental document and the adopted mitigation, monitoring and reporting program. Thank you for involving UAIC in the planning process at an early stage. We ask that you make this correspondence a part of the project record and that you provide UAIC with a copy of the final environmental document and adopted mitigation, monitoring and reporting program.

Thank you,
Cherilyn

Cherilyn Neider
Tribal Historic Preservation
United Auburn Indian Community
530.883.2394

3 attachments

5_Mitigation_Measures_CEQA_Construction_Worker_Awareness_Training.docx
22K

Worker Awareness Brochure.pdf
858K

3_Mitigation_Measures_CEQA_Discoveries.docx
24K

If Human Remains are Found

The protocols for human remains discoveries are similar for other discoveries. **It is important to treat any human remains and the situation in which they are discovered with sensitivity, dignity, and respect.**

1. All work within 100 feet of the find will immediately stop. Work will also stop in areas where there is reason to believe additional human remains could be located (generally determined by a tribal monitor or qualified archaeologist).
2. UAIC and the on-site project/construction will be notified immediately.
3. **The location of any Native American Human remains must stay confidential.**

The United Auburn Indian Community

The United Auburn Indian Community is comprised of Miwok and Southern Maidu (Nisenan) people who are traditionally and culturally affiliated with this geographic area. The Tribe's area of geographic traditional and cultural affiliation encompasses all of Amador, El Dorado, Nevada, Placer, Sacramento, Sutter and Yuba counties, as well as portions of Butte, Plumas, San Joaquin, Sierra, Solano and Yolo counties; which includes the project area.

Contact us at

530-883-2394

https://www.auburnrancheria.com/

United Auburn Indian Community
of the Auburn Rancheria
10720 Indian Hill Road
Auburn CA, 95603

Respect on the Project for Native American Culture

Prepared by:
The United Auburn Indian Community
Preservation Department

Protection Measures and Protocols

The United Auburn Indian Community has developed the measures listed below to protect any unanticipated finds of tribal cultural resources and achieve compliance with federal and state cultural and environmental laws.

1. All work must stop IMMEDIATELY at that location and within 100 feet of the find. Work may be stopped by the tribal monitor or a qualified archaeologist. Work can continue on the rest of the project, as long as project activities stay at least 100 feet away.

2. The on-site project/construction manager will immediately be informed of the possible find and contact a qualified archeologist or tribal monitor of the find.

3. Under NO circumstances will any contractor or employee collect the archaeological material.

4. Over the next days or weeks following the discovery, a number of visitors may be present in order to investigate and evaluate the find. These may include: agency officials, the County Coroner, professional archaeologists, members of the tribe or the California Native American Heritage Commission, the California Office of Historic Preservation, and local representatives of the historical society (if the find is historic in nature). It is important for the integrity of the find and for culturally-appropriate treatment, and so that there is no violation issued, that reasonable methods be taken to ensure that there is no disturbance or damage (including theft) to the find and its context and surrounding areas.

5. It is important to respect the direction of the tribal monitor or other authorized tribal representative regarding identification and treatment of finds and to have some flexibility regarding where work might be able recommence outside of the find location area.

6. The location and nature of the discovery will be strictly confidential, shared only with individuals that need to know.

Cultural Resource Examples

There are many types of archaeological resources. The most common kind of artifacts, or markers of human activity that are found include stone tools, shell, beads, plant remains, animal bones, and a type of dark soil called midden. Archaeology from the historic era can also be found: these kinds of artifacts and features can include bottles, cans, ceramics, building foundations, bricks, and many more.

Tribal Cultural Resource – Awareness Training - Mitigation Measure

A consultant and construction worker tribal cultural resources awareness brochure and training program for all personnel involved in project implementation will be developed in coordination with interested Native American Tribes. The brochure will be distributed and the training will be conducted in coordination with qualified cultural resources specialists and Native American Representatives and Monitors from culturally affiliated Native American Tribes before any stages of project implementation and construction activities begin on the project site. The program will include relevant information regarding sensitive tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The worker cultural resources awareness program will also describe appropriate avoidance and minimization measures for resources that have the potential to be located on the project site and will outline what to do and whom to contact if any potential archaeological resources or artifacts are encountered. The program will also underscore the requirement for confidentiality and culturally-appropriate treatment of any find of significance to Native Americans and behaviors, consistent with Native American Tribal values.

Inadvertent Discoveries Mitigation Measure

If potential tribal cultural resources (TCRs), archaeological resources, other cultural resources, articulated, or disarticulated human remains are discovered by Native American Representatives or Monitors from interested Native American Tribes, qualified cultural resources specialists or other Project personnel during construction activities, work will cease within 100 feet of the find (based on the apparent distribution of cultural resources), whether or not a Native American Monitor from a traditionally and culturally affiliated Native American Tribe is present. A qualified cultural resources specialist and Native American Representatives and Monitors from traditionally and culturally affiliated Native American Tribes will assess the significance of the find and make recommendations for further evaluation and treatment as necessary. Culturally appropriate treatment may be, but is not limited to, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, returning objects to a location within the project area where they will not be subject to future impacts. The Tribe does not consider curation of TCR's to be appropriate or respectful and request that materials not be permanently curated, unless requested by the Tribe.

Treatment that preserves or restores the cultural character and integrity of a Tribal Cultural Resource may include Tribal Monitoring, culturally appropriate recovery of cultural objects, and reburial of cultural objects or cultural soil. These recommendations will be documented in the project record. For any recommendations made by traditionally and culturally affiliated Native American Tribes that are not implemented, a justification for why the recommendation was not followed will be provided in the project record.

If adverse impacts to tribal cultural resources, unique archeology, or other cultural resources occurs, then consultation with UAIC and other traditionally and culturally affiliated Native American Tribes regarding mitigation contained in the Public Resources Code sections 21084.3(a) and (b) and CEQA Guidelines section 15370 should occur, in order to coordinate for compensation for the impact by replacing or providing substitute resources or environments.

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678

Initiation of AB 52 Tribal Consultation

Initiation Date:	April 24, 2019
Project Name:	NCPA Solar Project 1 – Lodi Sites
Lead Agency:	Northern California Power Agency
Consultation Coordinator:	Keith S. Dunbar, P.E., BCEE. Hon.D.WRE., F.ASCE
Tribe:	United Auburn Indian Community
Designated Contact:	Cherilyn Neider, Tribal Historic Preservation
Request Received:	April 24, 2019

Introduction:

The Northern California Power Agency (NCPA) is proposing the NCPA Solar Project 1 – Lodi Sites Project which may be located in a geographical area that is traditionally and culturally affiliated with the United Auburn Indian Community.

In response to the AB 52 Tribal Consultation Notification sent to the tribe on February 26, 2019, the Northern California Power Agency (NCPA) has received your formal written request for tribal consultation pursuant to AB 52 for the above-named project.

Initiation of Consultation:

State law under Assembly Bill 52 (Public Resources Code Section 21080.3.1) requires the lead agency to begin the consultation process within 30 days of receiving a California Native American tribe's request for consultation. **Please consider this notice as the official initiation of the AB 52 Tribal Consultation process between the Northern California Power Agency and Tribe.** As information becomes available on the proposed project, NCPA's consultation coordinator will schedule a face to face meeting with the tribe's designated contact if so requested

The consultation may include discussion concerning the type of environmental review necessary for the project, the significance of tribal cultural resources discovered, the significance of the project's impacts on tribal cultural resources, and, if necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend.

The consultation does not limit the ability of the tribe to submit information to NCPA regarding the significance of the tribal cultural resources, the significance of the project's impact on tribal cultural resources, or any measures the tribe feels are appropriate to mitigate the potential impact. The consultation coordinator may be reached by phone (951) 699-2082, or by email at ksdpe67@gmail.com. General comments may be submitted electronically, however, confidential information transmitted electronically cannot be ensured. NCPA recommends that transmittal of confidential information, such as the specific location of a cultural resource, be done by formal letter, in person, or over the telephone. If you wish to submit information in writing, correspondence may be sent to:

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE
K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
(951) 699-2082
E-Mail: ksddpe67@gmail.com

Overview of the Proposed Project:

The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. Burns & McDonnell was retained by NCPA to complete Phase 2 Site Screening, Plan Development, and Procurement services for each site selected by the member agencies. The City of Lodi selected three sites for development: Century East/West, Pixley Basin and Parking Structure sites. Those three sites are the subject of this Notification.

The Century East site is located on a City easement bordered by an industrial park to the north, recreational fields to the south, residences to the east and the Union Pacific railroad to the west. The Century West site is directly across the railroad tracks from the Century East site. It is bordered on the north, south and west by residential development. The combined developable area of these sites is 2.5 acres which would accommodate a project size of 0.63 megawatts-direct current (MW_{dc}).

The Pixley Basin site contains approximately 27 acres and is located in an undeveloped park that serves as a stormwater detention and flood control basin. The site is surrounded by industrial and commercial uses. Residential areas do exist approximately 0.25 miles west of the site; however, Highway 99 separates the commercial areas from the residential areas and the project site is out of the viewshed of the residences. In its October 5, 2018 report, Burns & McDonnell estimated the developable portion of the site to be approximately 15 acres which would accommodate a project size of 3.51 MW_{dc}.

The parking structure is located at the northeast corner of the intersection of E. Pine and N. Sacramento Streets in a mixed commercial and industrial area. This site contains a developable area of 0.9 acres which would accommodate a project size of 0.18 MW_{dc}.

Location of the Proposed Project

All three proposed sites are within the City of Lodi, San Joaquin County, California. Exact locations are shown below as well as on Figure 1. Individual sites are shown on Figures 2, 3 and 4.

Site	Location		Developable Area (acres)	Estimated Capacity (MW_{dc})
	Latitude, Longitude	Section, Township, Range		
Lodi – Pixley Basin	38°07'18.06"N, 121°15'12.14"W	Sec 7, T 3 N, R 7 E, MDB&M	15.0	3.51
Lodi – Century Park East/West	38°06'26.66"N, 121°16'21.63"W	Sec 13, T 3 N, R 6 E, MDB&M	2.5	0.63
Lodi – Parking Structure	38°08'05.25"N, 121°16'18.58"W	Sec 1, T 3 N, R 6 E, MDB&M	0.9	0.18

Figure 1 NCPA Solar Project 1 – Proposed Sites in the City of Lodi

Figure 2 Century Park East/West Site

Figure 3 Pixley Basin Site

Figure 4 Parking Garage Site

Appendix E

AB 52 Consultation

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678

AB 52 Tribal Consultation Notification

Date:	March 12, 2019
To:	Silvia Burley, Chairperson
Tribe:	California Valley Miwok Tribe
Subject:	Notification for Tribal Consultation
Project Name:	NCPA Solar Project 1 – Lodi Sites
Lead Agency:	Northern California Power Agency

Introduction:

The Northern California Power Agency (NCPA) is proposing the NCPA Solar Project 1 – Lodi Sites Project which may be located in a geographical area that is traditionally and culturally affiliated with the California Valley Miwok Tribe.

Request for Consultation:

California law under Assembly Bill 52 (Public Resources Code §21080.3.1) now allows California Native American tribes 30 days to request consultation regarding possible significant effects that implementation of the proposed project may have on tribal cultural resources. This request must be in writing to NCPA and identify a lead contact person. NCPA will begin the consultation process within 30 days of receiving the tribes request for consultation. The consultation may include discussion concerning the type of environmental review necessary for the project, the significance of tribal cultural resources discovered, the significance of the project's impacts on tribal cultural resources, and, if necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend.

The consultation does not limit the ability of the tribe to submit information to NCPA regarding the significance of the tribal resources, the significance of the project's impact on tribal cultural resources, or any measures the tribe feels are appropriate to mitigate the potential impacts. If you wish to informally submit information, written comments may be sent to:

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE
K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
(951) 699-2082
E-Mail: ksddpe67@gmail.com

Confidential information transmitted electronically cannot be ensured. NCPA recommends that transmittal of confidential information, such as the specific location of a cultural resource, is done by formal letter, in person, or over the telephone, the tribes request to consult on the above-named project must be received no later than 30 days from the date of this notification.

Overview of the Proposed Project:

The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. Burns & McDonnell was retained by NCPA to complete Phase 2 Site Screening, Plan Development, and Procurement services for each site selected by the member agencies. The City of Lodi selected three sites for development: Century East/West, Pixley Basin and Parking Structure sites. Those three sites are the subject of this Notification.

The Century East site is located on a City easement bordered by an industrial park to the north, recreational fields to the south, residences to the east and the Union Pacific railroad to the west. The Century West site is directly across the railroad tracks from the Century East site. It is bordered on the north, south and west by residential development. The combined size of these sites is 3 acres which would accommodate a project size of 0.5 megawatts (MW).

The Pixley Basin site contains approximately 27 acres and is located in an undeveloped park that serves as a stormwater detention and flood control basin. The site is surrounded by industrial and commercial uses. Residential areas do exist approximately 0.25 miles west of the site; however, Highway 99 separates the commercial areas from the residential areas and the project site is out of the viewshed of the residences. In its October 5, 2018 report, Burns & McDonnell estimated the developable portion of the site to be approximately 8.3 acres which would accommodate a project size of 1.4 MW.

The parking structure is located at the northeast corner of the intersection of E. Pine and N. Sacramento Streets in a mixed commercial and industrial area. This site contains a developable area of 0.9 acres which would accommodate a project size of 0.15 MW.

Location of the Proposed Project

All three proposed sites are within the City of Lodi, San Joaquin County, California. Exact locations are shown below as well as on Figure 1. Individual sites are shown on Figures 2, 3 and 4.

Site	Location	Developable Area (acres)	Estimated Capacity (MW)
Lodi – Pixley Basin	38°07'18.06"N, 121°15'12.14"W	13.5	2.25
Lodi – Century East/West	38°06'26.66"N, 121°16'21.63"W	3.0	0.5
Lodi – Parking Structure	38°08'05.25"N, 121°16'18.58"W	0.9	0.15

Figure 1 NCPA Solar Project 1 – Proposed Sites in the City of Lodi

Figure 2 Century East/West Site

Figure 3 Pixley Basin Site

Figure 4 Parking Garage Site

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678

AB 52 Tribal Consultation Notification

Date:	February 26, 2019
To:	Sara Dutschke Setshwaelo, Chairperson
Tribe:	Ione Band of Mi-wok Indians
Subject:	Notification for Tribal Consultation
Project Name:	NCPA Solar Project 1 – Lodi Sites
Lead Agency:	Northern California Power Agency

Introduction:

The Northern California Power Agency (NCPA) is proposing the NCPA Solar Project 1 – Lodi Sites Project which may be located in a geographical area that is traditionally and culturally affiliated with the Ione Band of Mi-Wok Indians.

Request for Consultation:

California law under Assembly Bill 52 (Public Resources Code §21080.3.1) now allows California Native American tribes 30 days to request consultation regarding possible significant effects that implementation of the proposed project may have on tribal cultural resources. This request must be in writing to NCPA and identify a lead contact person. NCPA will begin the consultation process within 30 days of receiving the tribes request for consultation. The consultation may include discussion concerning the type of environmental review necessary for the project, the significance of tribal cultural resources discovered, the significance of the project's impacts on tribal cultural resources, and, if necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend.

The consultation does not limit the ability of the tribe to submit information to NCPA regarding the significance of the tribal resources, the significance of the project's impact on tribal cultural resources, or any measures the tribe feels are appropriate to mitigate the potential impacts. If you wish to informally submit information, written comments may be sent to:

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE
K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
(951) 699-2082
E-Mail: ksddpe67@gmail.com

Confidential information transmitted electronically cannot be ensured. NCPA recommends that transmittal of confidential information, such as the specific location of a cultural resource, is done by formal letter, in person, or over the telephone, the tribes request to consult on the above-named project must be received no later than 30 days from the date of this notification.

Overview of the Proposed Project:

The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. Burns & McDonnell was retained by NCPA to complete Phase 2 Site Screening, Plan Development, and Procurement services for each site selected by the member agencies. The City of Lodi selected three sites for development: Century East/West, Pixley Basin and Parking Structure sites. Those three sites are the subject of this Notification.

The Century East site is located on a City easement bordered by an industrial park to the north, recreational fields to the south, residences to the east and the Union Pacific railroad to the west. The Century West site is directly across the railroad tracks from the Century East site. It is bordered on the north, south and west by residential development. The combined size of these sites is 3 acres which would accommodate a project size of 0.5 megawatts (MW).

The Pixley Basin site contains approximately 27 acres and is located in an undeveloped park that serves as a stormwater detention and flood control basin. The site is surrounded by industrial and commercial uses. Residential areas do exist approximately 0.25 miles west of the site; however, Highway 99 separates the commercial areas from the residential areas and the project site is out of the viewshed of the residences. In its October 5, 2018 report, Burns & McDonnell estimated the developable portion of the site to be approximately 8.3 acres which would accommodate a project size of 1.4 MW.

The parking structure is located at the northeast corner of the intersection of E. Pine and N. Sacramento Streets in a mixed commercial and industrial area. This site contains a developable area of 0.9 acres which would accommodate a project size of 0.15 MW.

Location of the Proposed Project

All three proposed sites are within the City of Lodi, San Joaquin County, California. Exact locations are shown below as well as on Figure 1. Individual sites are shown on Figures 2, 3 and 4.

Site	Location	Developable Area (acres)	Estimated Capacity (MW)
Lodi – Pixley Basin	38°07'18.06"N, 121°15'12.14"W	8.3	1.4
Lodi – Century East/West	38°06'26.66"N, 121°16'21.63"W	1.7	0.3
Lodi – Parking Structure	38°08'05.25"N, 121°16'18.58"W	0.9	0.15

Figure 1 NCPA Solar Project 1 – Proposed Sites in the City of Lodi

Figure 2 Century East/West Site

Figure 3 Pixley Basin Site

Figure 4 Parking Garage Site

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678

AB 52 Tribal Consultation Notification

Date:	March 12, 2019
To:	Katherine Erolinda Perez, Chairperson
Tribe:	Northern Valley Yokuts Tribe
Subject:	Notification for Tribal Consultation
Project Name:	NCPA Solar Project 1 – Lodi Sites
Lead Agency:	Northern California Power Agency

Introduction:

The Northern California Power Agency (NCPA) is proposing the NCPA Solar Project 1 – Lodi Sites Project which may be located in a geographical area that is traditionally and culturally affiliated with the Northern Valley Yokuts Tribe.

Request for Consultation:

California law under Assembly Bill 52 (Public Resources Code §21080.3.1) now allows California Native American tribes 30 days to request consultation regarding possible significant effects that implementation of the proposed project may have on tribal cultural resources. This request must be in writing to NCPA and identify a lead contact person. NCPA will begin the consultation process within 30 days of receiving the tribes request for consultation. The consultation may include discussion concerning the type of environmental review necessary for the project, the significance of tribal cultural resources discovered, the significance of the project's impacts on tribal cultural resources, and, if necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend.

The consultation does not limit the ability of the tribe to submit information to NCPA regarding the significance of the tribal resources, the significance of the project's impact on tribal cultural resources, or any measures the tribe feels are appropriate to mitigate the potential impacts. If you wish to informally submit information, written comments may be sent to:

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE
K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
(951) 699-2082
E-Mail: ksddpe67@gmail.com

Confidential information transmitted electronically cannot be ensured. NCPA recommends that transmittal of confidential information, such as the specific location of a cultural resource, is done by formal letter, in person, or over the telephone, the tribes request to consult on the above-named project must be received no later than 30 days from the date of this notification.

Overview of the Proposed Project:

The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. Burns & McDonnell was retained by NCPA to complete Phase 2 Site Screening, Plan Development, and Procurement services for each site selected by the member agencies. The City of Lodi selected three sites for development: Century East/West, Pixley Basin and Parking Structure sites. Those three sites are the subject of this Notification.

The Century East site is located on a City easement bordered by an industrial park to the north, recreational fields to the south, residences to the east and the Union Pacific railroad to the west. The Century West site is directly across the railroad tracks from the Century East site. It is bordered on the north, south and west by residential development. The combined size of these sites is 3 acres which would accommodate a project size of 0.5 megawatts (MW).

The Pixley Basin site contains approximately 27 acres and is located in an undeveloped park that serves as a stormwater detention and flood control basin. The site is surrounded by industrial and commercial uses. Residential areas do exist approximately 0.25 miles west of the site; however, Highway 99 separates the commercial areas from the residential areas and the project site is out of the viewshed of the residences. In its October 5, 2018 report, Burns & McDonnell estimated the developable portion of the site to be approximately 8.3 acres which would accommodate a project size of 1.4 MW.

The parking structure is located at the northeast corner of the intersection of E. Pine and N. Sacramento Streets in a mixed commercial and industrial area. This site contains a developable area of 0.9 acres which would accommodate a project size of 0.15 MW.

Location of the Proposed Project

All three proposed sites are within the City of Lodi, San Joaquin County, California. Exact locations are shown below as well as on Figure 1. Individual sites are shown on Figures 2, 3 and 4.

Site	Location	Developable Area (acres)	Estimated Capacity (MW)
Lodi – Pixley Basin	38°07'18.06"N, 121°15'12.14"W	13.5	2.25
Lodi – Century East/West	38°06'26.66"N, 121°16'21.63"W	3.0	0.5
Lodi – Parking Structure	38°08'05.25"N, 121°16'18.58"W	0.9	0.15

Figure 1 NCPA Solar Project 1 – Proposed Sites in the City of Lodi

Figure 2 Century East/West Site

Figure 3 Pixley Basin Site

Figure 4 Parking Garage Site

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678

AB 52 Tribal Consultation Notification

Date:	March 12, 2019
To:	Administration
Tribe:	California Valley Miwok Tribe AKA Sheep Rancheria of Me-Wuk Indians of CA
Subject:	Notification for Tribal Consultation
Project Name:	NCPA Solar Project 1 – Lodi Sites
Lead Agency:	Northern California Power Agency

Introduction:

The Northern California Power Agency (NCPA) is proposing the NCPA Solar Project 1 – Lodi Sites Project which may be located in a geographical area that is traditionally and culturally affiliated with the California Valley Miwok Tribe AKA Sheep Rancheria of Me-Wuk Indians of CA.

Request for Consultation:

California law under Assembly Bill 52 (Public Resources Code §21080.3.1) now allows California Native American tribes 30 days to request consultation regarding possible significant effects that implementation of the proposed project may have on tribal cultural resources. This request must be in writing to NCPA and identify a lead contact person. NCPA will begin the consultation process within 30 days of receiving the tribes request for consultation. The consultation may include discussion concerning the type of environmental review necessary for the project, the significance of tribal cultural resources discovered, the significance of the project's impacts on tribal cultural resources, and, if necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend.

The consultation does not limit the ability of the tribe to submit information to NCPA regarding the significance of the tribal resources, the significance of the project's impact on tribal cultural resources, or any measures the tribe feels are appropriate to mitigate the potential impacts. If you wish to informally submit information, written comments may be sent to:

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE
K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
(951) 699-2082
E-Mail: ksddpe67@gmail.com

Confidential information transmitted electronically cannot be ensured. NCPA recommends that transmittal of confidential information, such as the specific location of a cultural resource, is done by formal letter, in person, or over the telephone, the tribes request to consult on the above-named project must be received no later than 30 days from the date of this notification.

Overview of the Proposed Project:

The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. Burns & McDonnell was retained by NCPA to complete Phase 2 Site Screening, Plan Development, and Procurement services for each site selected by the member agencies. The City of Lodi selected three sites for development: Century East/West, Pixley Basin and Parking Structure sites. Those three sites are the subject of this Notification.

The Century East site is located on a City easement bordered by an industrial park to the north, recreational fields to the south, residences to the east and the Union Pacific railroad to the west. The Century West site is directly across the railroad tracks from the Century East site. It is bordered on the north, south and west by residential development. The combined size of these sites is 3 acres which would accommodate a project size of 0.5 megawatts (MW).

The Pixley Basin site contains approximately 27 acres and is located in an undeveloped park that serves as a stormwater detention and flood control basin. The site is surrounded by industrial and commercial uses. Residential areas do exist approximately 0.25 miles west of the site; however, Highway 99 separates the commercial areas from the residential areas and the project site is out of the viewshed of the residences. In its October 5, 2018 report, Burns & McDonnell estimated the developable portion of the site to be approximately 8.3 acres which would accommodate a project size of 1.4 MW.

The parking structure is located at the northeast corner of the intersection of E. Pine and N. Sacramento Streets in a mixed commercial and industrial area. This site contains a developable area of 0.9 acres which would accommodate a project size of 0.15 MW.

Location of the Proposed Project

All three proposed sites are within the City of Lodi, San Joaquin County, California. Exact locations are shown below as well as on Figure 1. Individual sites are shown on Figures 2, 3 and 4.

Site	Location	Developable Area (acres)	Estimated Capacity (MW)
Lodi – Pixley Basin	38°07'18.06"N, 121°15'12.14"W	13.5	2.25
Lodi – Century East/West	38°06'26.66"N, 121°16'21.63"W	3.0	0.5
Lodi – Parking Structure	38°08'05.25"N, 121°16'18.58"W	0.9	0.15

Figure 1 NCPA Solar Project 1 – Proposed Sites in the City of Lodi

Figure 2 Century East/West Site

Figure 3 Pixley Basin Site

Figure 4 Parking Garage Site

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678

AB 52 Tribal Consultation Notification

Date:	February 26, 2019
To:	Thomas Tortez, Tribal Chairman
Tribe:	Torres Martinez Desert Cahuilla Indians
Subject:	Notification for Tribal Consultation
Project Name:	NCPA Solar Project 1 – Lodi Sites
Lead Agency:	Northern California Power Agency

Introduction:

The Northern California Power Agency (NCPA) is proposing the NCPA Solar Project 1 – Lodi Sites Project which may be located in a geographical area that is traditionally and culturally affiliated with the Torres Martinez Desert Cahuilla Indians.

Request for Consultation:

California law under Assembly Bill 52 (Public Resources Code §21080.3.1) now allows California Native American tribes 30 days to request consultation regarding possible significant effects that implementation of the proposed project may have on tribal cultural resources. This request must be in writing to NCPA and identify a lead contact person. NCPA will begin the consultation process within 30 days of receiving the tribes request for consultation. The consultation may include discussion concerning the type of environmental review necessary for the project, the significance of tribal cultural resources discovered, the significance of the project's impacts on tribal cultural resources, and, if necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend.

The consultation does not limit the ability of the tribe to submit information to NCPA regarding the significance of the tribal resources, the significance of the project's impact on tribal cultural resources, or any measures the tribe feels are appropriate to mitigate the potential impacts. If you wish to informally submit information, written comments may be sent to:

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE
K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
(951) 699-2082
E-Mail: ksddpe67@gmail.com

Confidential information transmitted electronically cannot be ensured. NCPA recommends that transmittal of confidential information, such as the specific location of a cultural resource, is done by formal letter, in person, or over the telephone, the tribes request to consult on the above-named project must be received no later than 30 days from the date of this notification.

Overview of the Proposed Project:

The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. Burns & McDonnell was retained by NCPA to complete Phase 2 Site Screening, Plan Development, and Procurement services for each site selected by the member agencies. The City of Lodi selected three sites for development: Century East/West, Pixley Basin and Parking Structure sites. Those three sites are the subject of this Notification.

The Century East site is located on a City easement bordered by an industrial park to the north, recreational fields to the south, residences to the east and the Union Pacific railroad to the west. The Century West site is directly across the railroad tracks from the Century East site. It is bordered on the north, south and west by residential development. The combined size of these sites is 3 acres which would accommodate a project size of 0.5 megawatts (MW).

The Pixley Basin site contains approximately 27 acres and is located in an undeveloped park that serves as a stormwater detention and flood control basin. The site is surrounded by industrial and commercial uses. Residential areas do exist approximately 0.25 miles west of the site; however, Highway 99 separates the commercial areas from the residential areas and the project site is out of the viewshed of the residences. In its October 5, 2018 report, Burns & McDonnell estimated the developable portion of the site to be approximately 8.3 acres which would accommodate a project size of 1.4 MW.

The parking structure is located at the northeast corner of the intersection of E. Pine and N. Sacramento Streets in a mixed commercial and industrial area. This site contains a developable area of 0.9 acres which would accommodate a project size of 0.15 MW.

Location of the Proposed Project

All three proposed sites are within the City of Lodi, San Joaquin County, California. Exact locations are shown below as well as on Figure 1. Individual sites are shown on Figures 2, 3 and 4.

Site	Location	Developable Area (acres)	Estimated Capacity (MW)
Lodi – Pixley Basin	38°07'18.06"N, 121°15'12.14"W	8.3	1.4
Lodi – Century East/West	38°06'26.66"N, 121°16'21.63"W	1.7	0.3
Lodi – Parking Structure	38°08'05.25"N, 121°16'18.58"W	0.9	0.15

Figure 1 NCPA Solar Project 1 – Proposed Sites in the City of Lodi

Figure 2 Century East/West Site

Figure 3 Pixley Basin Site

Figure 4 Parking Garage Site

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678

AB 52 Tribal Consultation Notification

Date:	February 26, 2019
To:	Gene Whitehouse, Chairman
Tribe:	United Auburn Indian Community
Subject:	Notification for Tribal Consultation
Project Name:	NCPA Solar Project 1 – Lodi Sites
Lead Agency:	Northern California Power Agency

Introduction:

The Northern California Power Agency (NCPA) is proposing the NCPA Solar Project 1 – Lodi Sites Project which may be located in a geographical area that is traditionally and culturally affiliated with the United Auburn Indian Community.

Request for Consultation:

California law under Assembly Bill 52 (Public Resources Code §21080.3.1) now allows California Native American tribes 30 days to request consultation regarding possible significant effects that implementation of the proposed project may have on tribal cultural resources. This request must be in writing to NCPA and identify a lead contact person. NCPA will begin the consultation process within 30 days of receiving the tribes request for consultation. The consultation may include discussion concerning the type of environmental review necessary for the project, the significance of tribal cultural resources discovered, the significance of the project's impacts on tribal cultural resources, and, if necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend.

The consultation does not limit the ability of the tribe to submit information to NCPA regarding the significance of the tribal resources, the significance of the project's impact on tribal cultural resources, or any measures the tribe feels are appropriate to mitigate the potential impacts. If you wish to informally submit information, written comments may be sent to:

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE
K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
(951) 699-2082
E-Mail: ksddpe67@gmail.com

Confidential information transmitted electronically cannot be ensured. NCPA recommends that transmittal of confidential information, such as the specific location of a cultural resource, is done by formal letter, in person, or over the telephone, the tribes request to consult on the above-named project must be received no later than 30 days from the date of this notification.

Overview of the Proposed Project:

The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. Burns & McDonnell was retained by NCPA to complete Phase 2 Site Screening, Plan Development, and Procurement services for each site selected by the member agencies. The City of Lodi selected three sites for development: Century East/West, Pixley Basin and Parking Structure sites. Those three sites are the subject of this Notification.

The Century East site is located on a City easement bordered by an industrial park to the north, recreational fields to the south, residences to the east and the Union Pacific railroad to the west. The Century West site is directly across the railroad tracks from the Century East site. It is bordered on the north, south and west by residential development. The combined size of these sites is 3 acres which would accommodate a project size of 0.5 megawatts (MW).

The Pixley Basin site contains approximately 27 acres and is located in an undeveloped park that serves as a stormwater detention and flood control basin. The site is surrounded by industrial and commercial uses. Residential areas do exist approximately 0.25 miles west of the site; however, Highway 99 separates the commercial areas from the residential areas and the project site is out of the viewshed of the residences. In its October 5, 2018 report, Burns & McDonnell estimated the developable portion of the site to be approximately 8.3 acres which would accommodate a project size of 1.4 MW.

The parking structure is located at the northeast corner of the intersection of E. Pine and N. Sacramento Streets in a mixed commercial and industrial area. This site contains a developable area of 0.9 acres which would accommodate a project size of 0.15 MW.

Location of the Proposed Project

All three proposed sites are within the City of Lodi, San Joaquin County, California. Exact locations are shown below as well as on Figure 1. Individual sites are shown on Figures 2, 3 and 4.

Site	Location	Developable Area (acres)	Estimated Capacity (MW)
Lodi – Pixley Basin	38°07'18.06"N, 121°15'12.14"W	8.3	1.4
Lodi – Century East/West	38°06'26.66"N, 121°16'21.63"W	1.7	0.3
Lodi – Parking Structure	38°08'05.25"N, 121°16'18.58"W	0.9	0.15

Figure 1 NCPA Solar Project 1 – Proposed Sites in the City of Lodi

Figure 2 Century East/West Site

Figure 3 Pixley Basin Site

Figure 4 Parking Garage Site

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678

AB 52 Tribal Consultation Notification

Date:	February 26, 2019
To:	Antonio Ruiz, Cultural Resources Officer
Tribe:	Wilton Rancheria
Subject:	Notification for Tribal Consultation
Project Name:	NCPA Solar Project 1 – Lodi Sites
Lead Agency:	Northern California Power Agency

Introduction:

The Northern California Power Agency (NCPA) is proposing the NCPA Solar Project 1 – Lodi Sites Project which may be located in a geographical area that is traditionally and culturally affiliated with the Wilton Rancheria.

Request for Consultation:

California law under Assembly Bill 52 (Public Resources Code §21080.3.1) now allows California Native American tribes 30 days to request consultation regarding possible significant effects that implementation of the proposed project may have on tribal cultural resources. This request must be in writing to NCPA and identify a lead contact person. NCPA will begin the consultation process within 30 days of receiving the tribes request for consultation. The consultation may include discussion concerning the type of environmental review necessary for the project, the significance of tribal cultural resources discovered, the significance of the project's impacts on tribal cultural resources, and, if necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend.

The consultation does not limit the ability of the tribe to submit information to NCPA regarding the significance of the tribal resources, the significance of the project's impact on tribal cultural resources, or any measures the tribe feels are appropriate to mitigate the potential impacts. If you wish to informally submit information, written comments may be sent to:

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE
K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
(951) 699-2082
E-Mail: ksddpe67@gmail.com

Confidential information transmitted electronically cannot be ensured. NCPA recommends that transmittal of confidential information, such as the specific location of a cultural resource, is done by formal letter, in person, or over the telephone, the tribes request to consult on the above-named project must be received no later than 30 days from the date of this notification.

Overview of the Proposed Project:

The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. Burns & McDonnell was retained by NCPA to complete Phase 2 Site Screening, Plan Development, and Procurement services for each site selected by the member agencies. The City of Lodi selected three sites for development: Century East/West, Pixley Basin and Parking Structure sites. Those three sites are the subject of this Notification.

The Century East site is located on a City easement bordered by an industrial park to the north, recreational fields to the south, residences to the east and the Union Pacific railroad to the west. The Century West site is directly across the railroad tracks from the Century East site. It is bordered on the north, south and west by residential development. The combined size of these sites is 3 acres which would accommodate a project size of 0.5 megawatts (MW).

The Pixley Basin site contains approximately 27 acres and is located in an undeveloped park that serves as a stormwater detention and flood control basin. The site is surrounded by industrial and commercial uses. Residential areas do exist approximately 0.25 miles west of the site; however, Highway 99 separates the commercial areas from the residential areas and the project site is out of the viewshed of the residences. In its October 5, 2018 report, Burns & McDonnell estimated the developable portion of the site to be approximately 8.3 acres which would accommodate a project size of 1.4 MW.

The parking structure is located at the northeast corner of the intersection of E. Pine and N. Sacramento Streets in a mixed commercial and industrial area. This site contains a developable area of 0.9 acres which would accommodate a project size of 0.15 MW.

Location of the Proposed Project

All three proposed sites are within the City of Lodi, San Joaquin County, California. Exact locations are shown below as well as on Figure 1. Individual sites are shown on Figures 2, 3 and 4.

Site	Location	Developable Area (acres)	Estimated Capacity (MW)
Lodi – Pixley Basin	38°07'18.06"N, 121°15'12.14"W	8.3	1.4
Lodi – Century East/West	38°06'26.66"N, 121°16'21.63"W	1.7	0.3
Lodi – Parking Structure	38°08'05.25"N, 121°16'18.58"W	0.9	0.15

Figure 1 NCPA Solar Project 1 – Proposed Sites in the City of Lodi

Figure 2 Century East/West Site

Figure 3 Pixley Basin Site

Figure 4 Parking Garage Site

Gmail Keith Dunbar <ksdpe67@gmail.com>

AB 52 Notification - NCPA Solar Project 1 - Lodi Sites

2 messages

Keith Dunbar <ksdpe67@gmail.com> Tue, Mar 12, 2019 at 11:54 AM
To: canutes@verizon.net
Cc: Aaron Werner <Aaron.Werner@ncpa.com>

Katherine Erolinda Perez, Chairperson,

An AB 52 Notification of the Northern California Power Agency's NCPA Solar Project 1 - Lodi Sites is attached in accordance with recommendations of the Native American Heritage Commission.

Thank you,

Keith

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE, F. ASCE

K.S.Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, CA 92590-4314
(951) 699-2082
Cell: (949) 412-2634
ksdpe67@gmail.com

AB 52 Tribal Consultation Notification N Valley Yokuts.pdf
1026K

canutes <canutes@verizon.net> Tue, Apr 2, 2019 at 9:41 AM
To: Keith Dunbar <ksdpe67@gmail.com>

Mr. Dunbar,
The tribe has reviewed the information. The tribe is requesting that the NCPA request a record search from the Native American Heritage Commission and the information center as the area of the proposed project is in an area of sensitivity.

Nototomne Cultural Preservation
Northern Valley Yokut
Katherine
Perez
P.O Box 717
Linden, CA 95236
Cell: 209.649.8972
Email: canutes@verizon.net

Sent from my iPad
[Quoted text hidden]

<AB 52 Tribal Consultation Notification N Valley Yokuts.pdf>

Gmail Keith Dunbar <ksdpe67@gmail.com>

AB 52 Consultation for the NCPA Solar Project 1 - Lodi Sites

1 message

Cherilyn Neider <cneider@auburnrancheria.com> Wed, Apr 24, 2019 at 9:25 AM
To: "ksdpe67@gmail.com" <ksdpe67@gmail.com>

Dear Keith S. Dunbar,

Thank you for your letter received notifying us of the NCPA Solar Project 1. I am contacting you in order to request:

- Consultation for this project;
- All existing cultural resource assessments;
- Requests for and results of records searches.

Attached you will find mitigation measures recommended for this project. These measures address inadvertent discoveries and a tribal cultural resources awareness training as part of the Worker Environmental Awareness and Protection training. Please confirm that the attached mitigation measures will be included in the environmental document and the adopted mitigation, monitoring and reporting program. Thank you for involving UAIC in the planning process at an early stage. We ask that you make this correspondence a part of the project record and that you provide UAIC with a copy of the final environmental document and adopted mitigation, monitoring and reporting program.

Thank you,
Cherilyn

Cherilyn Neider
Tribal Historic Preservation
United Auburn Indian Community
530.883.2394

3 attachments

5_Mitigation_Measures_CEQA_Construction_Worker_Awareness_Training.docx
22K

Worker Awareness Brochure.pdf
858K

3_Mitigation_Measures_CEQA_Discoveries.docx
24K

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678

Initiation of AB 52 Tribal Consultation

Initiation Date:	April 24, 2019
Project Name:	NCPA Solar Project 1 – Lodi Sites
Lead Agency:	Northern California Power Agency
Consultation Coordinator:	Keith S. Dunbar, P.E., BCEE. Hon.D.WRE., F.ASCE
Tribe:	United Auburn Indian Community
Designated Contact:	Cherilyn Neider, Tribal Historic Preservation
Request Received:	April 24, 2019

Introduction:

The Northern California Power Agency (NCPA) is proposing the NCPA Solar Project 1 – Lodi Sites Project which may be located in a geographical area that is traditionally and culturally affiliated with the United Auburn Indian Community.

In response to the AB 52 Tribal Consultation Notification sent to the tribe on February 26, 2019, the Northern California Power Agency (NCPA) has received your formal written request for tribal consultation pursuant to AB 52 for the above-named project.

Initiation of Consultation:

State law under Assembly Bill 52 (Public Resources Code Section 21080.3.1) requires the lead agency to begin the consultation process within 30 days of receiving a California Native American tribe's request for consultation. **Please consider this notice as the official initiation of the AB 52 Tribal Consultation process between the Northern California Power Agency and Tribe.** As information becomes available on the proposed project, NCPA's consultation coordinator will schedule a face to face meeting with the tribe's designated contact if so requested

The consultation may include discussion concerning the type of environmental review necessary for the project, the significance of tribal cultural resources discovered, the significance of the project's impacts on tribal cultural resources, and, if necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend.

The consultation does not limit the ability of the tribe to submit information to NCPA regarding the significance of the tribal cultural resources, the significance of the project's impact on tribal cultural resources, or any measures the tribe feels are appropriate to mitigate the potential impact. The consultation coordinator may be reached by phone (951) 699-2082, or by email at ksdpe67@gmail.com. General comments may be submitted electronically, however, confidential information transmitted electronically cannot be ensured. NCPA recommends that transmittal of confidential information, such as the specific location of a cultural resource, be done by formal letter, in person, or over the telephone. If you wish to submit information in writing, correspondence may be sent to:

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE
K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
(951) 699-2082
E-Mail: ksddpe67@gmail.com

Overview of the Proposed Project:

The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. Burns & McDonnell was retained by NCPA to complete Phase 2 Site Screening, Plan Development, and Procurement services for each site selected by the member agencies. The City of Lodi selected three sites for development: Century East/West, Pixley Basin and Parking Structure sites. Those three sites are the subject of this Notification.

The Century East site is located on a City easement bordered by an industrial park to the north, recreational fields to the south, residences to the east and the Union Pacific railroad to the west. The Century West site is directly across the railroad tracks from the Century East site. It is bordered on the north, south and west by residential development. The combined developable area of these sites is 2.5 acres which would accommodate a project size of 0.63 megawatts-direct current (MW_{dc}).

The Pixley Basin site contains approximately 27 acres and is located in an undeveloped park that serves as a stormwater detention and flood control basin. The site is surrounded by industrial and commercial uses. Residential areas do exist approximately 0.25 miles west of the site; however, Highway 99 separates the commercial areas from the residential areas and the project site is out of the viewshed of the residences. In its October 5, 2018 report, Burns & McDonnell estimated the developable portion of the site to be approximately 15 acres which would accommodate a project size of 3.51 MW_{dc}.

The parking structure is located at the northeast corner of the intersection of E. Pine and N. Sacramento Streets in a mixed commercial and industrial area. This site contains a developable area of 0.9 acres which would accommodate a project size of 0.18 MW_{dc}.

Location of the Proposed Project

All three proposed sites are within the City of Lodi, San Joaquin County, California. Exact locations are shown below as well as on Figure 1. Individual sites are shown on Figures 2, 3 and 4.

Site	Location		Developable Area (acres)	Estimated Capacity (MW_{dc})
	Latitude, Longitude	Section, Township, Range		
Lodi – Pixley Basin	38°07'18.06"N, 121°15'12.14"W	Sec 7, T 3 N, R 7 E, MDB&M	15.0	3.51
Lodi – Century Park East/West	38°06'26.66"N, 121°16'21.63"W	Sec 13, T 3 N, R 6 E, MDB&M	2.5	0.63
Lodi – Parking Structure	38°08'05.25"N, 121°16'18.58"W	Sec 1, T 3 N, R 6 E, MDB&M	0.9	0.18

Figure 1 NCPA Solar Project 1 – Proposed Sites in the City of Lodi

Figure 2 Century Park East/West Site

Figure 3 Pixley Basin Site

Figure 4 Parking Garage Site

MIWOK MAIDU United Auburn Indian Community of the Auburn Rancheria

Gene Whitehouse, Chairman
John L. Williams, Vice Chairman
Calvin Moman, Secretary
Jason Camp, Treasurer
Gabe Cayton, Council Member

April 15, 2019

Keith S. Dunbar
Environmental Engineer
K.S. Dunbar & Associates, Inc.
45375 Vista Del Mar
Temecula, CA 92590-4314

RE: AB 52 Consultation Request for the NCPA Solar Project 1 - Lodi Sites Project, Lodi, CA

Dear Environmental Engineer Keith S. Dunbar,

The United Auburn Indian Community (UAIC) received a letter from K.S. Dunbar & Associates, Inc. dated 3/1/2019, formally notifying us of a proposed project, the NCPA Solar Project 1 - Lodi Sites Project in Lodi, and an opportunity to consult under AB 52. This letter is notice that UAIC would like to initiate consultation under AB 52.

This letter is also a formal request to allow UAIC tribal representatives to observe and participate in all cultural resource surveys, including initial pedestrian surveys for the project. Please send us all existing cultural resource assessments, as well as requests for, and the results of, any records searches that may have been conducted prior to our first consultation meeting. If tribal cultural resources are identified within the project area, it is UAIC's policy that tribal monitors must be present for all ground disturbing activities. Finally, please be advised that UAIC's strong preference is to preserve tribal cultural resources in place and avoid them whenever possible. Subsurface testing and data recovery must not occur without first consulting with UAIC and receiving UAIC's written consent.

In the letter, Environmental Engineer Keith S. Dunbar is identified as the lead contact person for consultation on the proposed project. Melodi McAdams, our Cultural Resources Supervisor, will be UAIC's point of contact for this consultation. Please contact Ms. McAdams, Cultural Resources Supervisor, at (530) 328-1109 or email at mmcadams@auburnrancheria.com if you have any questions.

Thank you for involving UAIC in the planning process at an early stage. We ask that you make this letter a part of the project record and we look forward to working with you to ensure that tribal cultural resources are protected.

Sincerely,

Gene Whitehouse
Chairman

CC: Matthew Moore, UAIC Tribal Historic Preservation Officer

K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, CA 92590-4314
(951) 699-2082
Cell: (949) 412-2634
ksdpe67@gmail.com

Erica D. Dunbar, President
Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE
Chief Executive Officer

May 2, 2019

Gene Whitehouse, Chairman
United Auburn Indian Community
10720 Indian Hill Road
Auburn, California 95603

AB 52 Consultation Request
NCPA Solar Project 1 – Lodi Sites

Chairman Whitehouse:

Thank you for your April 15, 2019 letter in which you requested the initiation of consultation under the provisions of AB 52 on the subject project. (Note: Your letter was just received in today's mail.)

As you may be aware, on April 24, 2019, we received an email from Cherilyn Neider of your Tribal Historic Preservation Department also requesting the initiation of consultation. A formal notification of the initiation of consultation was emailed to her on the same day.

We have now completed the cultural resources assessments at each of the three proposed solar sites in Lodi (i.e., Century Park East/West, Pixley Basin and Parking Garage). You will be pleased to know that, based on those studies, we are recommending a finding of ***no impact to historical resources*** under CEQA. In addition, no further cultural resources work is recommended. You will also be pleased to know that we are recommending that the Mitigation Monitoring and Reporting Program for this Project include cultural resources mitigation measures as outlined in the attached reports prepared by Anza Resources Consultants.

In accordance with the terms of §21080.3.2. (b) of the Public Resources Code, consultation on this Project is concluded as the Northern California Power Agency has included the intent of the recommended mitigation measures submitted by Ms. Neider.

If you have any questions on this, please contact me.

Sincerely,

K. S. Dunbar

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE

Attachments

cc: Melodi McAdams, Cultural Resources Supervisor
Cherilyn Neider, Tribal Historic Preservation
Ron Yuen, Director of Engineering, Generation Services, NCPA

CULTURAL RESOURCES SURVEY
FOR THE
NORTHERN CALIFORNIA POWER AGENCY
SOLAR PROJECT 1 – LODI CENTURY PARK SITE
SAN JOAQUIN COUNTY, CALIFORNIA

Prepared for
K.S. Dunbar and Associates, Inc.
45375 Vista Del Mar
Temecula, CA 92590-4314

Prepared by
Anza Resource Consultants
603 Seagaze Drive, #1018
Oceanside, CA 92054
www.anzaresourceconsultants.com

USGS Quadrangle
Lodi South, California
Anza Project No. 19-0005

April 2019

EXECUTIVE SUMMARY

Anza Resource Consultants (Anza) was retained by K.S. Dunbar & Associates, Inc. to conduct a Phase I cultural resources study for the Northern California Power Agency (NCPA) Solar Project 1 – Lodi Sites in the City of Lodi, San Joaquin County, California. This study regards the Lodi Century Park Project, which is made up of two land parcels with two separate points of interconnection. Century Park East is located on approximately 2.9 acres of City of Lodi property. Century Park East is bordered by an industrial park to the north, recreational fields to the south, East Century Boulevard to the east, and the Union Pacific Railroad to the west. Century Park West is located on approximately 1.7 acres of City of Lodi property. Century Park West is bordered by residences to the north and south, the Union Pacific Railroad to the east, and West Century Boulevard to the west. The project (both Century Park East and Century Park West combined) was modeled with a total photovoltaic output of 300 kilowatts (kW) alternating current. The proposed project is subject to the California Environmental Quality Act (CEQA) with NCPA serving as lead agency.

The cultural resource records search, Native American scoping, and pedestrian survey identified no cultural resources within or adjacent to the project site. Anza recommends a finding of ***no impact to historical resources*** under CEQA. No further cultural resources study is recommended; however, the following standard measures are recommended to avoid potential impacts from the unanticipated discovery of cultural resources during project related ground disturbing activities.

CULTURAL RESOURCES WORKER SENSITIVITY TRAINING

Prior to the start of construction, NCPA shall hold a pre-grading meeting. The Project Archaeologist shall attend the pre-grading meeting with NCPA's Project Administrator, Field Engineering Inspector and any contractors to conduct a Cultural Resources Worker Sensitivity Training for all construction personnel working on the proposed Project. The training shall include an overview of potential cultural resources that could be encountered during ground disturbing activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated, and any other appropriate protocols.

UNANTICIPATED DISCOVERY OF CULTURAL RESOURCES

If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) must be contacted immediately to evaluate the find. If the discovery proves to be significant under CEQA, additional work such as data recovery excavation may be warranted.

UNANTICIPATED DISCOVERY OF HUMAN REMAINS

The discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the county coroner must be notified immediately. If the human remains are determined to be prehistoric, the coroner will notify the Native American Heritage Commission, which will determine and notify a Most Likely Descendant. The Most Likely Descendant shall complete the inspection of the site

within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF PHOTOGRAPHS

APPENDICES

1. INTRODUCTION

Anza Resource Consultants (Anza) was retained by K.S. Dunbar & Associates, Inc. to conduct a Phase I cultural resources study for the Northern California Power Agency (NCPA) Solar Project 1 – Lodi Sites in the City of Lodi, San Joaquin County, California (Figure 1). The NCPA Solar Project 1 includes the following projects: Century Park East/West, Pixley Basin, and Parking Structure, and is described below (Section 1.1). This study has been prepared in accordance with the California Environmental Quality Act (CEQA) statutes and guidelines (Section 1.2). This cultural resources study includes a cultural resources records search, a summary of Native American scoping for the project, pedestrian survey, and the preparation of this report following the *Archaeological Resources Management Report (ARMR): Recommended Content and Format* guidelines (California Office of Historic Preservation 1990).

1.1 PROJECT DESCRIPTION

The objective of the NCPA Solar Project 1 is to develop a fleet of photovoltaic (PV) solar power plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by NCPA as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial five to seven years of operation, NCPA plans to purchase the plants.

NCPA has completed the site selection and screening portion of the project and the City of Lodi selected three sites for development: Century East/West, Pixley Basin, and Parking Structure sites. The Century Park Project is made up of two land parcels with two separate points of interconnection. Century Park East is located on approximately 2.9 acres of City of Lodi property. Century Park East is bordered by an industrial park to the north, recreational fields to the south, East Century Boulevard to the east, and the Union Pacific Railroad to the west. Century Park West is located on approximately 1.7 acres of City of Lodi property. Century Park West is bordered by residences to the north and south, the Union Pacific Railroad to the east, and West Century Boulevard to the west. The project (both Century Park East and Century Park West combined) was modeled with a total PV output of 300 kW alternating current.

1.2 REGULATORY SETTING

1.2.1 State

CEQA requires a lead agency determine whether a project may have a significant effect on historical resources (Public Resources Code [PRC], Section 21084.1). A historical resource is a resource listed in, or determined to be eligible for listing, in the California Register of Historical Resources (CRHR), a resource included in a local register of historical resources or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (State CEQA Guidelines, Section 15064.5[a][1-3]).

A resource shall be considered historically significant if it meets any of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

4. Has yielded, or may be likely to yield, information important in prehistory or history.

In addition, if it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC, Section 21083.2[a], [b], and PRC, Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, the probability is high that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

California Assembly Bill 52 of 2014 (AB 52) took effect July 1, 2015, and expanded CEQA by establishing a formal consultation process for California tribes within the CEQA process. The bill specifies that any project that may affect or cause a substantial adverse change in the significance of a tribal cultural resource would require a lead agency to "begin consultation with a California Native American tribe that is traditional and culturally affiliated with the geographic area of the proposed project." According to the legislative intent for AB 52, "tribes may have knowledge about land and cultural resources that should be included in the environmental analysis for projects that may have a significant impact on those resources." Section 21074 of AB 52 also defines a new category of resources under CEQA called "tribal cultural resources." Tribal cultural resources are defined as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and is either listed on or eligible for the California Register of Historical Resources or a local historic register, or if the lead agency chooses to treat the resource as a tribal cultural resource. See also PRC 21074 (a)(1)(A)-(B).

1.3 PERSONNEL

Anza Principal and Senior Cultural Resources Specialist Kevin Hunt requested the Sacred Lands File search, conducted the survey, and was the primary author of this report. Principal Investigator Katherine Collins, M.A., Registered Professional Archaeologist (RPA), coauthored this report and served as principal investigator for the study. Ms. Collins meets the Secretary of the Interior's Professional Qualifications Standards for prehistoric and historic archaeology (National Park Service 1983). GIS Specialist Spencer Bietz prepared all maps and figures.

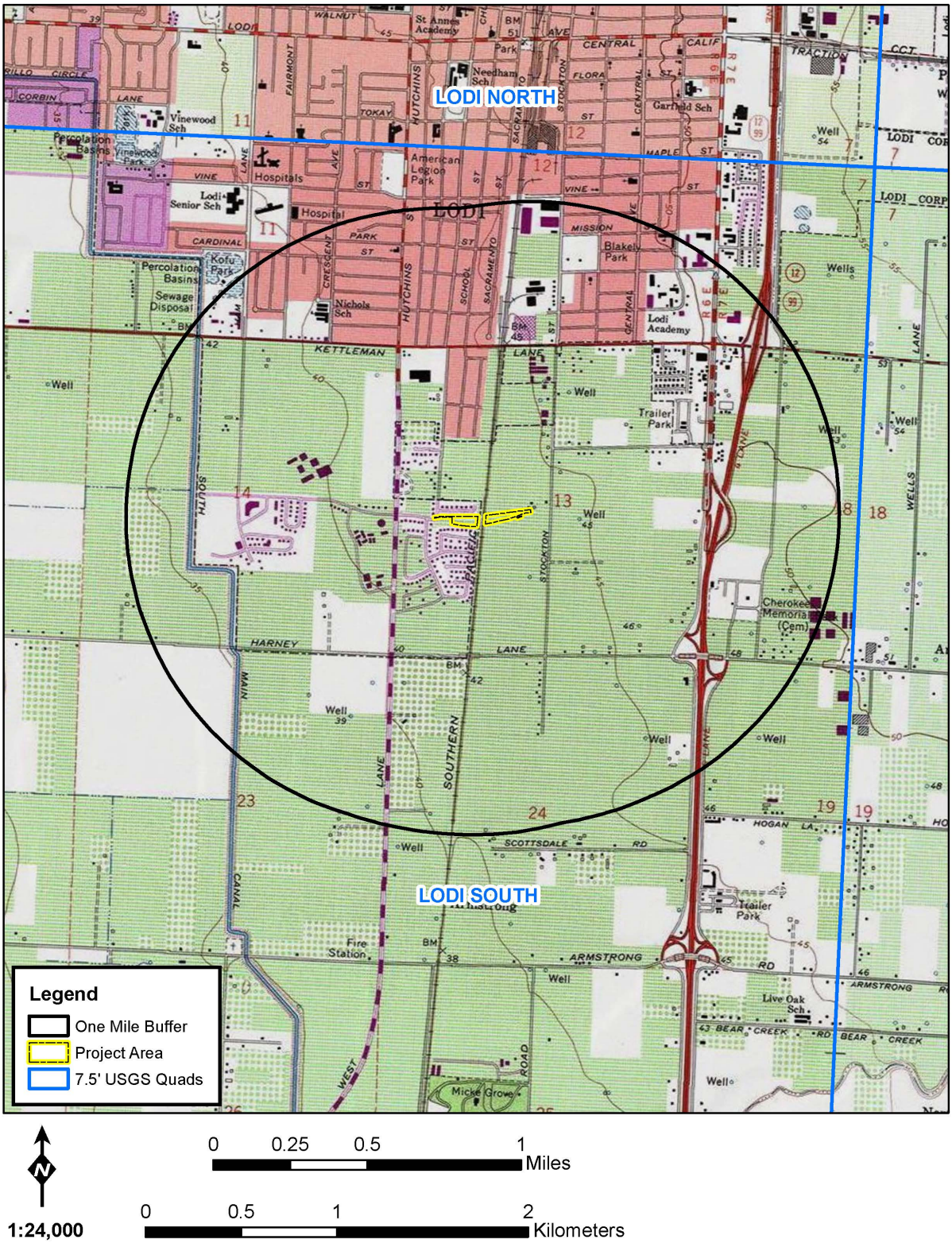


Figure 1. Project Location Map

2. ENVIRONMENTAL SETTING

The Lodi Century Park Project Site is located the northern San Joaquin Valley, famed for its agriculture. Characteristic vegetation communities in the region include agricultural habitats and annual grassland, with much smaller amounts of freshwater emergent wetland, lacustrine, water, and valley foothill riparian habitats (City of Lodi 2009:3.4-2). Agricultural lands support a broad variety of fauna including California ground squirrel, California vole, red-winged blackbird, northern harrier, white-tailed kite, and yellow-billed magpie. Urban areas support fauna such as American crow, rock dove, American robin, Brewer's blackbird, house finch, house sparrow, northern mockingbird, mourning dove, raccoon, Virginia opossum, and striped skunk. Prior to agricultural and urban development the San Joaquin Valley hosted a broad variety of additional species.

Lodi averages 19 inches of rain annually. Lodi has a hot-summer Mediterranean climate including cool, wet winters, often with dense ground fog, and hot, dry summers. The project site is underlain by the upper member of the Pleistocene Quarternary Modesto formation, composed of undivided alluvium (Dawson 2009).

3. CULTURAL SETTING

3.1 PREHISTORIC OVERVIEW

The prehistory of the Central Valley is generally divided into three main periods: Paleoindian, Archaic, and Emergent. The Archaic is further divided into the Lower, Middle, and Upper (Fredrickson 1973, 1974). This chronological framework is used by researchers to understand how prehistoric cultures adapted and coped with environmental and social change. Within this framework researchers recognized certain sets of cultural and technological traits that appeared to span long periods of time and covered large areas. These sets of traits were referred to as either "horizons" or "patterns" in the literature. With smaller (local) units of patterns referred to as "aspects" and "phases" (Fredrickson 1974, Moratto 1984, Rosenthal et al. 2007). Below is a brief overview of prehistoric occupation history in the San Joaquin Valley portion of the Central Valley.

The **Paleoindian Period** (11,550 to 8550 cal B.C.) was characterized by the arrival of small, high-mobile hunter-gathered groups. A characteristic element of this period is the use of fluted points to bring down large game animals. Evidence of Paleoindian occupation in the San Joaquin Valley have been found at Tracy Lake, Wolfson mound (CA-MER-215) in Merced County, and the Tulare Lake basin (Moratto 1984, Rosenthal et al. 2007).

During the **Archaic Period** (8550 cal B.C. to A.D. 1100) climatic changes preceiptated the drying of pluvial lakes resulting in changes in substance strategies employed by the native populations. By the Middle Archaic (5550 to 550 cal B.C.) a set of cultural traits known as the Windmiller Pattern emerged at several sites in the San Joaquin Valley (Rosethal et al. 2007). The presence of milling stones such as manos and metates often characterize Windmiller sites, although mortar and pestles have also been found, indicating that acorns and/or various seeds formed an important part of the diet (Moratto 1984, Rosenthal et al 2007). A variety of faunal remains have been documented at Windmiller Pattern sites including Tule elk, mule deer, and pronghorn, as well as smaller game such as rabbit, water birds, raptors, and rodents (Rosenthal et al. 2007). Also, the presence of angling hooks and baked clay artifacts possibly used as net or line sinkers, along with the remains of sturgeon, salmon, and smaller fishes, indicate that fishing was an additional source of food (Fredrickson 1973; Heizer 1949; Ragir 1972). Items such as net sinkers, pipes, and discoids, as well as cooking "stones" were made of baked clay. Ground and polished charmstones, impressions of twined basketry, shell beads, and bone tools also have been found at Windmiller Pattern sites. Some items, such as shell beads, obsidian tools, and quartz crystals, were obtained by trade.

The archaeological record at Windmiller Pattern sites indicates people practiced a mixed procurement strategy of both game and wild plants, with the addition of acorns and/or seeds. The mixed exploitation of a wide range of natural resources ties into a seasonal foraging strategy. Populations likely occupied the lower elevations of the Sacramento Valley in the winter months and shifted to higher elevations during the summer (Moratto 1984:206). Characteristic Windmiller mortuary practices included ventrally and dorsally extended burials, accompanied by grave goods, in cemeteries that were separate from the habitation sites (Ragir 1972, Rosenthal et al. 2007). Recent research suggests the Windmiller culture persisted into the Upper Archaic (550 cal B.C. to A.D. 1100) in the San Joaquin Valley and was not replaced by the Berkeley Pattern, as it had in other places. Several sites in San Joaquin and Merced Counties (CA-SJO-17, SJO-87, SJO-106, SJO-154, SJO-246, MER-3, MER-215, and MER-323) continued the characteristic Windmiller mortuary practice of extended burials until sometime between 800 and 1,000 years ago (Rosenthal el al. 2007:156).

During the **Emergent Period** (cal A.D. 1100 to Historic) a new set of cultural traits emerged in the Central Valley known as the Augustine Pattern, although there is sporadic evidence of this cultural pattern in the San Joaquin Valley (Moratto 1984, Rosenthal et al. 2007:157). The Pacheco Complex on the western edge of the valley is the only well-defined example in this region. The Augustine Pattern is evidenced by a substantial increase in the intensity of subsistence exploitation, including fishing, hunting, and gathering (particularly the acorn (Moratto 1984:211–214). These changes begin to reflect the cultural pattern known from historic period Native American groups in the area. Augustine Pattern tools and cooking implements included shaped mortars and pestles, hopper mortars, bone awls used for producing coiled baskets, and the bow and arrow. Pottery vessels, known as Cosumnes brownware, are found in some parts of the Central Valley and most likely developed during this period from the prior baked clay industry.

During this period, an increase in sedentism led to the development of social stratification, accompanied by a shift to elaborate ceremonial and social organization. Exchange networks, with the use of clamshell disk beads as currency, also developed during the Augustine Pattern. Mortuary practices during this period included flexed burials and pre-interment burning of offerings in a grave pit, as well as cremation of high-status individuals (Fredrickson 1973:127–129; Moratto 1984:211). In the San Joaquin Valley villages and smaller communities developed along side-streams of the foothills, and river channels and sloughs in the valley. The introduction of the bow and arrow occurred during this time and one of California's most unique point types, the Stockton serrated edge, was developed in the region (Rosenthal el al. 2007).

3.2 ETHNOGRAPHIC OVERVIEW

The project site is located in the traditional territory of the Plains Miwok people. The Plains Miwok were one of six culture groups that spoke a Miwokan language in California. Other Miwok-speaking groups included the Bay Miwok (Saclan), Northern Sierra Miwok, Central Sierra Miwok, Southern Sierra Miwok, and Coast Miwok. Plains Miwok territory was centered in the Central Valley occupying an area between the lower reaches of the Mokelumne and Cosumnes Rivers and the banks of the Sacramento River, from Rio Vista to Freeport (Levy 1978). The word Miwok (miw·yk) generally means "people" in the Miwok language, which is a member of the Penutian language family (Kroeber 1925, Mithun 1999).

The primary sociopolitical unit among the Plains Miwok was the tribelet, comprising the residents of several base settlements and their associated seasonal camps. Each tribelet had a population of about 300 to 500 people and controlled specific territory and resources within it. Each settlement within a tribelet appeared to be the home of localized patrilineage. The tribelet as whole was led by a chieftain which was a hereditary position passed down from father to son. If there was no male heir, the position could be passed to the chief's daughter. The chief acted as an advisor, had the final say in interpersonal disputes, and determined the best time to gather resources (Levy 1978). Settlements typically contained a semi-subterranean earth lodge used for community ritual or social gatherings. Other structures include a semi-subterranean sweathouse, a menstrual hut, and a granary for storing acorns. Families lived in small earth-covered structures (Kroeber 1925, Levy 1978). Ethnohistoric research indicates a Miwok settlement called *Muquelemne* was located on the south bank of Mokelumne River near Lodi (Levy 1978).

The basic subsistence strategy of the Plains Miwok was seasonally mobile hunting and gathering. However, tobacco was cultivated and they also possessed domesticated dogs. Plant foods included acorns, buckeyes, laurel nuts, hazelnuts, seeds, roots, greens, and berries. Acorns, the primary staple, were gathered in the fall and stored through the winter. Seeds were gathered from May through August. Intentional, periodic burning in August ensured an ample supply of seed-bearing annuals and forage for game. The Miwok ate more meat in the winter, when the only plant resources available were those that

had been stored. Hunting was accomplished with the aid of the bow and arrow, traps, and snares. Animal foods consisted of deer; elk; antelope; rodents; waterfowl; quail, pigeons, flickers, and other birds; freshwater mussels and clams; land snails; fish; and insects. Salt was obtained from springs or through trade with people from the Mono Lake area (Bennyhoff 1977; Levy 1978).

The Plains Miwok used a variety of tools made from bone, stone, antler, wood, and textile. Bows were made of wood from a variety of tree species such as oak, ash, willow, pepperwood, maple, or hazel. Arrow heads were fashioned from stone materials such as obsidian obtained through trade, as well as local materials. Typical basketry items were seed beaters; cradles; sifters; rackets used in ball games; and baskets for storing, winnowing, parching, and carrying burdens. Other textiles included mats and cordage (Levy 1978).

Many Miwok groups were subject to missionization efforts during the late eighteenth and early nineteenth centuries. Christian baptisms of Plains Miwok occurred as early as 1811 and did not stop until 1833. During this time over 2,100 Plains Miwok were baptized. As a result of the missionization effort many Plains Miwok were removed from their traditional territory and sent to Mission San Jose located in the present-day city of Fremont. By the beginning of the nineteenth century the Miwok numbered some 19,500 people but by the early twentieth century this number was below one thousand people. Today there are about 3,500 people of Miwok descent, with many living on several reservations in California (White 2019).

3.3 HISTORIC OVERVIEW

The historic period for the state of California generally begins with the establishment of the first Spanish mission and presidio in San Diego in 1769. This marks the beginning of the Spanish period of California history which lasted until 1822 when news of Mexico's independence from Spain in 1821 finally reached California. The Spanish period saw the establishment of a permanent European presence in California in the form of 21 missions located along the coast between San Diego and Sonoma, four military presidios located in San Diego, Monterey, San Francisco and Santa Barbara, and three pueblos (towns) that later became the cities of Los Angeles, San Jose and Santa Cruz (Robinson 1948). The Spanish period ended with Mexican independence from the Spanish crown in 1822. The Mexican period of California history saw the seizure of lands once held by the missions through the Mexican Secularization Act of 1833 and the redistribution of those lands to individuals in the form of land grants known as "ranchos" (Robinson 1948). During this period the Mexican government in California issued about 700 land grants to Mexican citizens and foreign immigrants (Shumway 1988). The outbreak of war between the United States and Mexico and the signing of the Treaty of Guadalupe Hidalgo in 1848 ended the Mexican period and signaled the beginning of the American period of California history. The early American period is marked by the discovery of gold at Sutter's Mill in 1848, resulting in a gold rush that saw a massive influx of settlers from other parts of the United States and around the world, greatly impacting California's native population. In 1869 the transcontinental railroad was completed linking California with the rest of the United States. The gold rush and the establishment of the railroad played major roles in the development of California into a national and worldwide leader in agricultural and industrial production. These early developments also resulted in making California one of the most racially and ethnically diverse states in the Union.

3.3.1 San Joaquin County

The history of San Joaquin County begins in 1850 as one of the original 27 counties of the state of California. The county derives its name from the San Joaquin River, a major river that flows through the region from southern Sierra Nevada Mountains. Early European exploration through the region included

an expedition led by Gabriel Moraga, a Spanish army officer who named the San Joaquin River as well as other natural features as he made his way through the Central Valley. Between 1840 and 1846 the Mexican government in California issued five land grants – Arroyo Seco, Campo de Los Franceses, El Pescadero, Sanjon de los Moquelumnes, and Rancho del Estanislao (also known as Thompson's Rancho) – that encompassed major portions of San Joaquin County (Shumway 1988). The County's generally flat terrain made it a desirable location for building a railroad and in 1866 Congress authorized the Southern Pacific Railroad to build a transcontinental rail route between San Francisco and the Colorado River. By 1870 the Southern Pacific line made its way through San Joaquin County to the City of Modesto (Burns 2007). The establishment of the Southern Pacific and other rail lines through San Joaquin County provided the transportation backbone to move local agricultural produce to markets across the country. Today, agriculture remains an important component of the County's economy.

3.3.2 City of Lodi

The City of Lodi was established in 1869 along the southern banks of Mokelumne River. It was originally named Mokelunme but was changed to Lodi by an act of the California legislature in 1874. Two of Lodi's early residents, Charles Ivory and John Burt established a general store on the corner of Pine and Sacramento Streets. Their store became a magnet for attracting homesteaders and other businesses to the area. Since its inception, agriculture was the backbone of Lodi's economy growing such crops as wheat, watermelon, and grapes. In 1880 some 3.4 million bushels of wheat were grown in San Joaquin County, much of it grown in the Lodi area. Grape vineyards also dominated the area with over two million plants in production in 1899. By the early twentieth century grapes were so important to Lodi that in 1907 residents held the Tokay Carnival to "advertise the beauty and value of the Tokay grape." During the same year a mission-style arch was built at Pine and Sacramento Streets, in the historic core of Lodi, at a cost of $500. The arch still exists today and is a local landmark (Hoover et al. 2002, Lodi Historical Society 2016).

4. BACKGROUND RESEARCH

4.1 CALIFORNIA HISTORICAL RESOURCE INFORMATION SYSTEM

Anza conducted a search of cultural resource records housed at the California Historical Resources Information System (CHRIS), Central California Information Center (CCIC) located at California State University, Stanislaus. The search was conducted by CCIC on April 16, 2019, to identify all previous cultural resources work and previously recorded cultural resources within a 0.5-mile radius of the project site (Appendix A). The CHRIS search included a review of the NRHP, CRHR, the California Points of Historical Interest list, the California Historical Landmarks list, the Archaeological Determinations of Eligibility list, and the California State Historic Resources Inventory list. The records search also included a review of all available historic USGS 7.5-, 15-, and 30-minute quadrangle maps.

4.1.1 Previous Studies

The CCIC records search identified 13 cultural resources studies that were conducted within a 0.5-mile radius of the project site, two of which are mapped adjacent between the two project site loci within the Union Pacific Railroad corridor (Table 1).

Table 1. Previous Cultural Resource Studies within a 0.5-Mile Radius of the Project Site

Report Number	Author	Year	Title	Proximity to Project Site
SJ-03995	Nelson, W. J.	2000	Cultural Resource Survey for the Level (3) Communications Long Haul Fiber Optics Project; Segment WS04: Sacramento to Bakersfield	Adjacent (between East and West sites)
SJ-04094	Davis-King, Shelley	2000	Department of Transportation Negative Archaeological Survey Report: 10-San Joaquin, Southbound West Lane Harney Lane to Armstrong Road.	Outside
SJ-04508	Jones and Stokes Associates, Inc.	2001	Historic Property Survey Report, 10-SJO-12, P.M. 15.2/18.0, Charge Unit 173, E.A. OG5700: Kettleman Lane, Route 12 Widening Project. (Also includes Historic Archaeological Survey Report and Negative Archaeological Survey Report).	Outside
SJ-06005	Billat, L.	2006	New Tower ("NT") Submission Packet, FCC Form 620 Earth Touch, Inc., Maggio Cir. SC-13353A, San Joaquin County, CA	Outside
SJ-06123	Jackson, R. and P. Welsh	2006	Cultural Resources Inventory, Reynolds Ranch / Blue Shield Development Plan, City of Lodi, San Joaquin County, California.	Outside
SJ-06345	SWCA Environmental Consultants	2006	Cultural Resources Final Report of Monitoring and Findings for the QWest Network Construction Project, State of California. SWCA Project No. 10715-180.	Adjacent (between East and West sites)
SJ-07719	Jordan, Nichole	2012	Historic Property Survey Report, Harney Lane/ Union Pacific Railroad Grade Separation Lodi, San Joaquin County, California, Federal Aid Project No. STPL-5154 (041).	Outside

Report Number	Author	Year	Title	Proximity to Project Site
SJ-07719	Jordan, N.	2012	Archaeological Survey Report for the Harney Lane/Union Pacific Railroad Grade Separation Project, Lodi, San Joaquin County, California.	Outside
SJ-07719	Hibma, M.	2012	Historical Resources Evaluation Report for the Harney Lane/Union Pacific Grade Separation Project, Lodi, San Joaquin County, California Federal Project No. STPL 5154 (041).	Outside
SJ-08111	Jordan, N., and K. Smith	2015	Supplemental Historic Property Survey Report for the Harney Lane/Union Pacific Railroad Grade Separation Project, City of Lodi, San Joaquin County; California Federal Project No. STPL 554 (041), Caltrans District 10.	Outside
SJ-08111	Jordan, N. and Smith, K.	2015	Supplemental Archaeological Survey Report for the Harney Lane/Union Pacific Railroad Grade Separation Project, City of Lodi, San Joaquin County, California; Federal Aid Project No. STPL 5154 (041), Caltrans District 10.	Outside
SJ-08642	Vallaire, K.	2016	Supplemental Historic Property Survey Report, 10-SJ-STPL 5154(040). City of Lodi Department of Public Works, New Fur-Lane Bridge Structure for Harney Lane over the Union Pacific Railroad Tracks. San Joaquin County, California	Outside
SJ-08642	Vallaire, K., and M. Falke	2015	Second Supplemental Archaeological Survey Report, Harney Lane/Union Pacific Railroad Grade Separation Project, City of Lodi, San Joaquin County, California, Federal Aid Project STPL 5154(040), Caltrans District 10	Outside

Source: CCIC, April 2019

4.1.2 Previously Recorded Resources

The CCIC records search identified three cultural resources previously recorded within a 0.5-mile radius of the project site (Table 2). One of the resources (P-39-000002) is an unrecorded segment of the historic period Southern Pacific San Joaquin Valley Mainline – now the Union Pacific Railroad – which is adjacent and between the Century East and West project site loci. The other two resources are historic period buildings at least 0.25 mile from the project site.

Table 2. Previously Recorded Cultural Resources within 0.5-Mile of the Project Site

Primary Number	Trinomial	Description	NRHP/CRHR Eligibility Status	Recorded Year (By Whom)	Relationship to Project Site
P-39-000002	CA-SJO-000250H	Southern Pacific Railroad in San Joaquin County	Found ineligible for NR, CR or Local designation through survey evaluation (Code 6Z)	25 instances between 1993 and 2012	Adjacent between two loci
P-39-005072	n/a	Barron (Mable) and Beckman Schools	Insufficient information	1991 (San Joaquin County Superintendent of Schools)	Approximately 0.25 mile northwest

Primary Number	Trinomial	Description	NRHP/CRHR Eligibility Status	Recorded Year (By Whom)	Relationship to Project Site
P-39-005144	n/a	Agricultural Shop/ Garage	Found ineligible for NR, CR or Local designation through survey evaluation (Code 6Z)	2012 (Hibma, Michael, LSA Associates, Inc.)	Approximately 0.5 mile south

Source: CCIC, April 2019

4.2 NATIVE AMERICAN SCOPING

K.S. Dunbar & Associates, Inc. requested a review of the Sacred Lands File (SLF) by the Native American Heritage Commission. The NAHC sent a response on March 11, 2019, stating that a search of the SLF was completed with negative results (i.e., no sacred lands or resources important to Native Americans identified in the search; Appendix B). The NAHC provided a list of seven Native American contacts that may have knowledge regarding Native American cultural resources within or near the project site.

K.S. Dunbar & Associates, Inc. mailed letters and sent emails dated March 12, 2019, to the seven Native American contacts describing the Lodi projects and asking if they had knowledge regarding cultural resources of Native American origin within or near the project sites (Appendix B). The Northern Valley Yokut responded via email on April 2, 2019, requesting that NCPA conduct a SLF search and CCIC records search. The United Auburn Indian Community responded via email on April 24, 2019 and requested formal AB 52 consultation for this project and provided recommended mitigation measures. Consultation between NCPA and United Auburn Indian Community was formally initiated in a letter dated April 24, 2019. No additional responses have been received as of April 30, 2019.

5. FIELDWORK

5.1 SURVEY METHODS

Anza Principal and Senior Cultural Resources Specialist Kevin Hunt conducted a pedestrian survey of the project site on April 25, 2019. Mr. Hunt surveyed the project site using transects spaced 5 to 10 meters apart and oriented north-south. The entire project site was surveyed.

Mr. Hunt examined all exposed ground surface for artifacts (e.g., flaked stone tools and tool-manufacture debris, ground stone tools, ceramic sherds, fire-affected rock), ecofacts (marine shell, bone), soil discoloration that could indicate the presence of a cultural midden, soil depressions, and features indicative of the former presence of structures or buildings (e.g., standing exterior walls, postholes, foundations) or historic debris (e.g., metal, glass, ceramic sherds, cut bone). Ground disturbances such as burrows and drainages were visually inspected. Photographs documenting the project site and survey are maintained in cloud storage online.

5.2 RESULTS

The project site is highly disturbed with gravel and unkept grasses on the eastern portion (Photographs 1-2) and dense grass and an asphalt basketball court on the western portion (Photograph 3). The project site is bisected by the railroad with discrete fenced portions to the east and west. Ground visibility in the eastern site was poor to fair (approximately 20-50 percent) and spoil piles present indicate previous ground disturbance. The western site has well maintained grass and decomposing asphalt resulting in poor ground visibility (approximately 0 to 15 percent) The survey was negative; that is, no cultural (i.e., archaeological, historic built, or tribal cultural) resources were identified within the project site.

Photograph 1. Overview of Century East project site, facing west.

Photograph 2. View of middle of Century East project site, facing south.

Photograph 3. View of Century West project site, facing west.

6. MANAGEMENT RECOMMENDATIONS

The cultural resource records search, Native American scoping, and pedestrian survey identified no cultural resources within or adjacent to the project site. No further cultural resources study is recommended; however, the following standard measures are recommended to avoid potential impacts from the unanticipated discovery of cultural resources during project related ground disturbing activities.

6.1 CULTURAL RESOURCES WORKER SENSITIVITY TRAINING

Prior to the start of construction, NCPA shall hold a pre-grading meeting. The Project Archaeologist shall attend the pre-grading meeting with NCPA's Project Administrator, Field Engineering Inspector and any contractors to conduct a Cultural Resources Worker Sensitivity Training for all construction personnel working on the proposed project. The training shall include an overview of potential cultural resources that could be encountered during ground disturbing activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated, and any other appropriate protocols.

6.2 UNANTICIPATED DISCOVERY OF CULTURAL RESOURCES

If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) must be contacted immediately to evaluate the find. If the discovery proves to be significant under CEQA, additional work such as data recovery excavation may be warranted.

6.3 UNANTICIPATED DISCOVERY OF HUMAN REMAINS

The discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the county coroner must be notified immediately. If the human remains are determined to be prehistoric, the coroner will notify the Native American Heritage Commission, which will determine and notify a Most Likely Descendant. The Most Likely Descendant shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

7. REFERENCES

Bennyhoff, James A.
1977 "Ethnogeography of the Plains Miwok." *Center for Archaeological Research at Davis Publication 5*. Davis, CA: University of California, Davis.

Burns, Adam
2007 "Southern Pacific Railroad." *American-Rails.com* website. Accessed April 22, 2019. https://www.american-rails.com/southern-pacific.html

California Office of Historic Preservation
1990 *Archaeological Resource Management Reports (ARMR): Recommended Contents and Format.* Department of Parks and Recreation. Office of Historic Preservation: Sacramento, California.

City of Lodi
2009 Lodi General Plan Draft Environmental Impact Report. Electronic document accessed April 30, 2019. http://www.lodi.gov/DocumentCenter/View/202/Draft-Environmental-Impact-Report-PDF?bidId=.

Dawson, Timothy E.
2009 Preliminary Geologic Map of the Lodi 30' X 60' Quadrangle, California. Electronic figure accessed online April 30, 2019. ftp://ftp.consrv.ca.gov/pub/dmg/rgmp/Prelim_geo_pdf/Lodi_100K_prelim.pdf.

Fredrickson, David A.
1973 Early Cultures of the North Coast Ranges, California. Unpublished Ph.D. dissertation, Department of Anthropology, University of California, Davis.

Heizer, Robert F.
1949 *The Archaeology of Central California: The Early Horizon*. University of California Anthropological Records Vol. 12, No. 1. Berkeley, CA: University of California Press.

Hoover, Mildred, Hero Eugene Rensch, Ethel Grace Rensch, and William N. Abeloe
2002 *Historic Spots in California*. Fifth Edition. Stanford, CA: Stanford University Press.

Kroeber, A.L.
1925 *Handbook of the Indians of California*. Bureau of American Ethnology Bulletin 78. New York, NY: Dover Publications, Inc.

Levy, Richard
1978 "Eastern Miwok." In *Handbook of North American Indians, Volume 8: California,* edited by R. F. Heizer, 398–413. W.C. Sturtevant, general editor. Washington D.C.: Smithsonian Institution.

Lodi Historical Society
2016 "City of Lodi." *Lodi Historical Society* website. Accessed April 22, 2019. http://www.lodihistory.org/

Mithun, Marianne
1999 *The Languages of Native North America*. Cambridge MA: Cambridge University Press.

Moratto, Michael J., with David A. Fredrickson, Christopher Raven, and Claude A. Warren
1984 *California Archaeology*. Orlando, FL: Academic Press.

Ragir, Sonia
1972 *The Early Horizon in Central California Prehistory*. Contributions of the University of California Archaeological Research Facility, No. 15. Berkeley,CA: University of California Press.

Robinson, W.W.
1948 *Land in California: The Story of Mission Lands, Ranchos, Squatters, Mining Claims, Railroad Grants, Land Scrip, Homesteads*. Berkeley, CA: University of California Press.

Rosenthal, Jeffrey S., Gregory G. White, and Mark Q. Sutton
2007 "The Central Valley: A View from the Catbird's Seat." In *California Prehistory: Colonization, Culture, and Complexity*, edited by Terry L. Jones and Kathryn A. Klar. Lanham, MD: Altamira Press

Shumway, Burgess McK
1988 *California Ranchos*. Second Edition. The Borgo Press.

White, Phillip
2019 "California Indians and Their Reservations: An Online Dictionary." *San Diego State University American Indian Studies* website. Accessed April 25, 2019. https://libguides.sdsu.edu/c.php?g=494769&p=3385637.

Appendix A:
Records Search Summary

CENTRAL CALIFORNIA INFORMATION CENTER

California Historical Resources Information System
Department of Anthropology – California State University, Stanislaus
One University Circle, Turlock, California 95382
(209) 667-3307

Alpine, Calaveras, Mariposa, Merced, San Joaquin, Stanislaus & Tuolumne Counties

Date: 4/16/2018

Records Search File No.: 11043L
Access Agreement: #540
Project: NCPA Lodi Century Solar PV Project; W. Century Blvd., east of Church St. and E. Century Blvd., west of S. Stockton Street

Kevin Hunt
Anza Resource Consultants
603 Seagaze Drive #1018
Oceanside, CA 92054

kevin@anzaresourceconsultants.com

Dear Mr. Hunt:

The Central California Information Center received your Priority Response record search request for the project area/radius referenced above, located on the Lodi South 7.5' quadrangle in San Joaquin County. The following reflects the results of the records search for the project study area and radius:

As per data currently available at the CCaIC, the locations of resources/reports are provided in the following format: ☒ custom GIS maps ☐ shapefiles ☐ hand-drawn maps

Summary Data:

Resources within project area:	1 immediately on/adjacent: Unrecorded segment of P-39-000002, Southern Pacific RR
Resources within 1/2 mi radius:	2: P-39-005072 and P-39-005144 Please note: The historic building inventory for the City of Lodi has not been mapped in GIS; please refer to the attached OHP Historic Property Data File address list provided your for use in determining if any of the properties listed fall within the ½-mile radius.
Reports within project area:	2 immediately on/adjacent: SJ-03995 and SJ-06345
Reports within 1/2 mi radius:	7: SJ-04094, 4508, 6005, 6123, 7719, 8111, 8642

Resource Database Printout (list): ☒ enclosed ☐ not requested ☐ nothing listed

Resource Database Printout (details): ☒ enclosed ☐ not requested ☐ nothing listed

Resource Digital Database Records: ☒ enclosed ☐ not requested ☐ nothing listed

Report Database Printout (list): ☒ enclosed ☐ not requested ☐ nothing listed

Report Database Printout (details): ☐ enclosed ☒ not requested ☐ nothing listed

Report Digital Database Records: ☒ enclosed ☐ not requested ☐ nothing listed

Resource Record Copies: ☒ enclosed ☐ not requested ☐ nothing listed

Report Copies: ☒ enclosed ☐ not requested ☐ nothing listed

OHP Historic Properties Directory: ☒ enclosed ☐ not requested ☐ nothing listed

City of Lodi listing (see CCaIC 11042L file)

Archaeological Determinations of Eligibility: ☐ enclosed ☐ not requested ☒ nothing listed

CA Inventory of Historic Resources (1976): ☐ enclosed ☐ not requested ☒ nothing listed

Caltrans Bridge Survey: ☐ enclosed ☒ not requested ☐ nothing listed

Ethnographic Information: ☐ enclosed ☒ not requested ☐ nothing listed

Historical Literature: ☐ enclosed ☒ not requested ☐ nothing listed

Historical Maps: (see CCaIC 11042L file) ☒ enclosed ☐ not requested ☐ nothing listed

Map Number One, *History of San Joaquin County, California, with Illustrations* (1889; 1968 reprint)
Map of the County of San Joaquin, California (1883)
Lodi 1:62500-scale (1939)
Lodi South 7.5' (1953)

Local Inventories: ☐ enclosed ☐ not requested ☒ nothing listed

GLO and/or Rancho Plat Maps: ☒ enclosed ☐ not requested ☐ nothing listed

T3N R6E, Sheet 41-202 (1853-1865)

Shipwreck Inventory: ☒ not available at CCIC; please go to

http://shipwrecks.slc.ca.gov/ShipwrecksDatabase/Shipwrecks_Database.asp

Soil Survey Maps: ☒ not available at CCIC; please go to

http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Thank you for using the California Historical Resources Information System (CHRIS).

Note: Billing will be transmitted separately via email by our Financial Services office *($594.23), payable within 60 days of receipt of the invoice.

Sincerely,

E. A. Greathouse

E. A. Greathouse, Coordinator
Central California Information Center
California Historical Resources Information System

* Invoice Request sent to: Laurie Marroquin CSU Stanislaus Financial Services
lamarroquin@csustan.edu

Appendix B:
Native American Scoping

STATE OF CALIFORNIA — Gavin Newsom, Governor

NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone: (916) 373-3710
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov
Twitter: @CA_NAHC

March 11, 2019

Keith S. Dunbar
K.S. Dunbar & Associates, Inc.

VIA Email to: ksdpe67@gmail.com

RE: NCPA Solar Project 1 – Lodi Sites, San Joaquin County

Dear Mr. Dunbar:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our lists contain current information. If you have any questions or need additional information, please contact me at my email address: Katy.Sanchez@nahc.ca.gov.

Sincerely,

Nancy Gonzalez
for

Katy Sanchez
Associate Environmental Planner

Attachment

Native American Heritage Commission
Native American Contacts List
3/11/2019

Buena Vista Rancheria of Me-Wuk Indians
Rhonda Morningstar Pope, Chairperson
1418 20th Street, Suite 200 — Me-Wuk / Miwok
Sacramento ,CA 95811
rhonda@buenavistatribe.com
(916) 491-0011 Office
(916) 491-0012 Fax

California Valley Miwok Tribe
4620 Shippee Lane — Miwok
Stockton ,CA 95212
(209) 931-4567 Office
(209) 931-4333 Fax

California Valley Miwok Tribe
AKA Sheep Rancheria of Me-Wuk Indians of Ca
P.O. Box 395 — Miwok
West Point ,CA 95255
l.ewilson@yahoo.com
(209) 293-4179 Office

Ione Band of Miwok Indians
Sara Dutschke Setchwaelo, Chairperson
P.O. Box 699 — Miwok
Plymouth ,CA 95669
sara@ionemiwok.org
(209) 245-5800 Office
(209) 245-6377 Fax

North Valley Yokuts Tribe
Katherine Erolinda Perez, Chairperson
P.O. Box 717 — Ohlone/Costanoan
Linden ,CA 95236 — Northern Valley Yokuts
canutes@verizon.net — Bay Miwok
(209) 887-3415

United Auburn Indian Community of the Auburn Rancheria
Gene Whitehouse, Chairperson
10720 Indian Hill Road — Maidu
Auburn ,CA 95603 — Miwok
bguth@auburnrancheria.com
(530) 883-2390 Office
(530) 883-2380 Fax

Wilton Rancheria
Raymond Hitchcock, Chairperson
9728 Kent Street — Miwok
Elk Grove ,CA 95624
rhitchcock@wiltonrancheria-nsn.gov
(916) 683-6000 Office
(916) 683-6015 Fax

This list is current as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code,Section 5097.94 of the Public Resources Code, or Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native American Tribes for the proposed:
NCPA Solar Project 1 – Lodi Sites, San Joaquin County.

Fwd: AB 52 Notification - NCPA Solar Project 1 - Lodi Sites

Keith Dunbar <ksdpe67@gmail.com>
Tue 4/2/2019 9:56 AM
To: Kevin Hunt <kevin@anzaresourceconsultants.com>

Kevin,

Good morning!

FYI!

Have a great day,

Keith

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE, F. ASCE

K.S.Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, CA 92590-4314
(951) 699-2082
Cell: (949) 412-2634
ksdpe67@gmail.com

---------- Forwarded message ---------
From: **canutes** <canutes@verizon.net>
Date: Tue, Apr 2, 2019 at 9:41 AM
Subject: Re: AB 52 Notification - NCPA Solar Project 1 - Lodi Sites
To: Keith Dunbar <ksdpe67@gmail.com>

Mr. Dunbar,
The tribe has reviewed the information. The tribe is requesting that the NCPA request a record search from the Native American Heritage Commission and the information center as the area of the proposed project is in an area of sensitivity.

Nototomne Cultural Preservation
Northern Valley Yokut
Katherine
Perez
P.O Box 717
Linden, CA 95236
Cell: 209.649.8972
Email: canutes@verizon.net

Sent from my iPad

On Mar 12, 2019, at 11:54 AM, Keith Dunbar <ksdpe67@gmail.com> wrote:

Katherine Erolinda Perez, Chairperson,

An AB 52 Notification of the Northern California Power Agency's NCPA Solar Project 1 - Lodi Sites is attached in accordance with recommendations of the Native American Heritage Commission.

Thank you,

Keith

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE, F. ASCE

K.S.Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, CA 92590-4314
(951) 699-2082
Cell: (949) 412-2634
ksdpe67@gmail.com

<AB 52 Tribal Consultation Notification N Valley Yokuts.pdf>

Gmail Keith Dunbar <ksdpe67@gmail.com>

AB 52 Consultation for the NCPA Solar Project 1 - Lodi Sites

1 message

Cherilyn Neider <cneider@auburnrancheria.com> Wed, Apr 24, 2019 at 9:25 AM
To: "ksdpe67@gmail.com" <ksdpe67@gmail.com>

Dear Keith S. Dunbar,

Thank you for your letter received notifying us of the NCPA Solar Project 1. I am contacting you in order to request:

- Consultation for this project;
- All existing cultural resource assessments;
- Requests for and results of records searches.

Attached you will find mitigation measures recommended for this project. These measures address inadvertent discoveries and a tribal cultural resources awareness training as part of the Worker Environmental Awareness and Protection training. Please confirm that the attached mitigation measures will be included in the environmental document and the adopted mitigation, monitoring and reporting program. Thank you for involving UAIC in the planning process at an early stage. We ask that you make this correspondence a part of the project record and that you provide UAIC with a copy of the final environmental document and adopted mitigation, monitoring and reporting program.

Thank you,
Cherilyn

Cherilyn Neider
Tribal Historic Preservation
United Auburn Indian Community
530.883.2394

3 attachments

5_Mitigation_Measures_CEQA_Construction_Worker_Awareness_Training.docx
22K

Worker Awareness Brochure.pdf
858K

3_Mitigation_Measures_CEQA_Discoveries.docx
24K

If Human Remains are Found

The protocols for human remains discoveries are similar for other discoveries. **It is important to treat any human remains and the situation in which they are discovered with sensitivity, dignity, and respect.**

1. All work within 100 feet of the find will immediately stop. Work will also stop in areas where there is reason to believe additional human remains could be located (generally determined by a tribal monitor or qualified archaeologist).
2. UAIC and the on-site project/construction will be notified immediately.
3. **The location of any Native American Human remains must stay confidential.**

The United Auburn Indian Community

The United Auburn Indian Community is comprised of Miwok and Southern Maidu (Nisenan) people who are traditionally and culturally affiliated with this geographic area. The Tribe's area of geographic traditional and cultural affiliation encompasses all of Amador, El Dorado, Nevada, Placer, Sacramento, Sutter and Yuba counties, as well as portions of Butte, Plumas, San Joaquin, Sierra, Solano and Yolo counties; which includes the project area.

Contact us at

530-883-2394

https://www.auburnrancheria.com/

United Auburn Indian Community
of the Auburn Rancheria
10720 Indian Hill Road
Auburn CA, 95603

Respect on the Project for Native American Culture

Prepared by:
The United Auburn Indian Community
Preservation Department

Protection Measures and Protocols

The United Auburn Indian Community has developed the measures listed below to protect any unanticipated finds of tribal cultural resources and achieve compliance with federal and state cultural and environmental laws.

1. All work must stop IMMEDIATELY at that location and within 100 feet of the find. Work may be stopped by the tribal monitor or a qualified archaeologist. Work can continue on the rest of the project, as long as project activities stay at least 100 feet away.

2. The on-site project/construction manager will immediately be informed of the possible find and contact a qualified archeologist or tribal monitor of the find.

3. Under NO circumstances will any contractor or employee collect the archaeological material.

4. Over the next days or weeks following the discovery, a number of visitors may be present in order to investigate and evaluate the find. These may include: agency officials, the County Coroner, professional archaeologists, members of the tribe or the California Native American Heritage Commission, the California Office of Historic Preservation, and local representatives of the historical society (if the find is historic in nature). It is important for the integrity of the find and for culturally-appropriate treatment, and so that there is no violation issued, that reasonable methods be taken to ensure that there is no disturbance or damage (including theft) to the find and its context and surrounding areas.

5. It is important to respect the direction of the tribal monitor or other authorized tribal representative regarding identification and treatment of finds and to have some flexibility regarding where work might be able recommence outside of the find location area.

6. The location and nature of the discovery will be strictly confidential, shared only with individuals that need to know.

Cultural Resource Examples

There are many types of archaeological resources. The most common kind of artifacts, or markers of human activity that are found include stone tools, shell, beads, plant remains, animal bones, and a type of dark soil called midden. Archaeology from the historic era can also be found: these kinds of artifacts and features can include bottles, cans, ceramics, building foundations, bricks, and many more.

Tribal Cultural Resource – Awareness Training - Mitigation Measure

A consultant and construction worker tribal cultural resources awareness brochure and training program for all personnel involved in project implementation will be developed in coordination with interested Native American Tribes. The brochure will be distributed and the training will be conducted in coordination with qualified cultural resources specialists and Native American Representatives and Monitors from culturally affiliated Native American Tribes before any stages of project implementation and construction activities begin on the project site. The program will include relevant information regarding sensitive tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The worker cultural resources awareness program will also describe appropriate avoidance and minimization measures for resources that have the potential to be located on the project site and will outline what to do and whom to contact if any potential archaeological resources or artifacts are encountered. The program will also underscore the requirement for confidentiality and culturally-appropriate treatment of any find of significance to Native Americans and behaviors, consistent with Native American Tribal values.

Inadvertent Discoveries Mitigation Measure

If potential tribal cultural resources (TCRs), archaeological resources, other cultural resources, articulated, or disarticulated human remains are discovered by Native American Representatives or Monitors from interested Native American Tribes, qualified cultural resources specialists or other Project personnel during construction activities, work will cease within 100 feet of the find (based on the apparent distribution of cultural resources), whether or not a Native American Monitor from a traditionally and culturally affiliated Native American Tribe is present. A qualified cultural resources specialist and Native American Representatives and Monitors from traditionally and culturally affiliated Native American Tribes will assess the significance of the find and make recommendations for further evaluation and treatment as necessary. Culturally appropriate treatment may be, but is not limited to, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, returning objects to a location within the project area where they will not be subject to future impacts. The Tribe does not consider curation of TCR's to be appropriate or respectful and request that materials not be permanently curated, unless requested by the Tribe.

Treatment that preserves or restores the cultural character and integrity of a Tribal Cultural Resource may include Tribal Monitoring, culturally appropriate recovery of cultural objects, and reburial of cultural objects or cultural soil. These recommendations will be documented in the project record. For any recommendations made by traditionally and culturally affiliated Native American Tribes that are not implemented, a justification for why the recommendation was not followed will be provided in the project record.

If adverse impacts to tribal cultural resources, unique archeology, or other cultural resources occurs, then consultation with UAIC and other traditionally and culturally affiliated Native American Tribes regarding mitigation contained in the Public Resources Code sections 21084.3(a) and (b) and CEQA Guidelines section 15370 should occur, in order to coordinate for compensation for the impact by replacing or providing substitute resources or environments.

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678

Initiation of AB 52 Tribal Consultation

Initiation Date:	April 24, 2019
Project Name:	NCPA Solar Project 1 – Lodi Sites
Lead Agency:	Northern California Power Agency
Consultation Coordinator:	Keith S. Dunbar, P.E., BCEE. Hon.D.WRE., F.ASCE
Tribe:	United Auburn Indian Community
Designated Contact:	Cherilyn Neider, Tribal Historic Preservation
Request Received:	April 24, 2019

Introduction:

The Northern California Power Agency (NCPA) is proposing the NCPA Solar Project 1 – Lodi Sites Project which may be located in a geographical area that is traditionally and culturally affiliated with the United Auburn Indian Community.

In response to the AB 52 Tribal Consultation Notification sent to the tribe on February 26, 2019, the Northern California Power Agency (NCPA) has received your formal written request for tribal consultation pursuant to AB 52 for the above-named project.

Initiation of Consultation:

State law under Assembly Bill 52 (Public Resources Code Section 21080.3.1) requires the lead agency to begin the consultation process within 30 days of receiving a California Native American tribe's request for consultation. **Please consider this notice as the official initiation of the AB 52 Tribal Consultation process between the Northern California Power Agency and Tribe.** As information becomes available on the proposed project, NCPA's consultation coordinator will schedule a face to face meeting with the tribe's designated contact if so requested

The consultation may include discussion concerning the type of environmental review necessary for the project, the significance of tribal cultural resources discovered, the significance of the project's impacts on tribal cultural resources, and, if necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend.

The consultation does not limit the ability of the tribe to submit information to NCPA regarding the significance of the tribal cultural resources, the significance of the project's impact on tribal cultural resources, or any measures the tribe feels are appropriate to mitigate the potential impact. The consultation coordinator may be reached by phone (951) 699-2082, or by email at ksdpe67@gmail.com. General comments may be submitted electronically, however, confidential information transmitted electronically cannot be ensured. NCPA recommends that transmittal of confidential information, such as the specific location of a cultural resource, be done by formal letter, in person, or over the telephone. If you wish to submit information in writing, correspondence may be sent to:

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE
K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
(951) 699-2082
E-Mail: ksddpe67@gmail.com

Overview of the Proposed Project:

The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. Burns & McDonnell was retained by NCPA to complete Phase 2 Site Screening, Plan Development, and Procurement services for each site selected by the member agencies. The City of Lodi selected three sites for development: Century East/West, Pixley Basin and Parking Structure sites. Those three sites are the subject of this Notification.

The Century East site is located on a City easement bordered by an industrial park to the north, recreational fields to the south, residences to the east and the Union Pacific railroad to the west. The Century West site is directly across the railroad tracks from the Century East site. It is bordered on the north, south and west by residential development. The combined developable area of these sites is 2.5 acres which would accommodate a project size of 0.63 megawatts-direct current (MW_{dc}).

The Pixley Basin site contains approximately 27 acres and is located in an undeveloped park that serves as a stormwater detention and flood control basin. The site is surrounded by industrial and commercial uses. Residential areas do exist approximately 0.25 miles west of the site; however, Highway 99 separates the commercial areas from the residential areas and the project site is out of the viewshed of the residences. In its October 5, 2018 report, Burns & McDonnell estimated the developable portion of the site to be approximately 15 acres which would accommodate a project size of 3.51 MW_{dc}.

The parking structure is located at the northeast corner of the intersection of E. Pine and N. Sacramento Streets in a mixed commercial and industrial area. This site contains a developable area of 0.9 acres which would accommodate a project size of 0.18 MW_{dc}.

Location of the Proposed Project

All three proposed sites are within the City of Lodi, San Joaquin County, California. Exact locations are shown below as well as on Figure 1. Individual sites are shown on Figures 2, 3 and 4.

Site	Location		Developable Area (acres)	Estimated Capacity (MW_{dc})
	Latitude, Longitude	Section, Township, Range		
Lodi – Pixley Basin	38°07'18.06"N, 121°15'12.14"W	Sec 7, T 3 N, R 7 E, MDB&M	15.0	3.51
Lodi – Century Park East/West	38°06'26.66"N, 121°16'21.63"W	Sec 13, T 3 N, R 6 E, MDB&M	2.5	0.63
Lodi – Parking Structure	38°08'05.25"N, 121°16'18.58"W	Sec 1, T 3 N, R 6 E, MDB&M	0.9	0.18

Figure 1 NCPA Solar Project 1 – Proposed Sites in the City of Lodi

Figure 2 Century Park East/West Site

Figure 3 Pixley Basin Site

Figure 4 Parking Garage Site

CULTURAL RESOURCES SURVEY
FOR THE
NORTHERN CALIFORNIA POWER AGENCY
SOLAR PROJECT 1 – LODI PARKING GARAGE
SAN JOAQUIN COUNTY, CALIFORNIA

Prepared for
K.S. Dunbar and Associates, Inc.
45375 Vista Del Mar
Temecula, CA 92590-4314

Prepared by
Anza Resource Consultants
603 Seagaze Drive, #1018
Oceanside, CA 92054
www.anzaresourceconsultants.com

USGS Quadrangle
Lodi North, California
Anza Project No. 19-0005

May 2019

EXECUTIVE SUMMARY

Anza Resource Consultants (Anza) was retained by K.S. Dunbar & Associates, Inc. to conduct a Phase I cultural resources study for the Northern California Power Agency (NCPA) Solar Project 1 – Lodi Sites in the City of Lodi, San Joaquin County, California. This study regards the Lodi Parking Garage project site, which is located on the third-floor rooftop of an existing parking garage in downtown Lodi. The design intent for this project is to build a canopy racking structure across the total area of the garage rooftop to house solar photovoltaic (PV) modules with a total PV output of 150 kilowatt alternating current. The proposed project is subject to the California Environmental Quality Act (CEQA) with NCPA serving as lead agency. This study includes a cultural resources records search, incorporation of Native American scoping, survey of the project site, and preparation of this technical report in compliance with the cultural resources requirements of CEQA.

The cultural resource records search, Native American scoping, and pedestrian survey identified no cultural resources within the project site; however, the NRHP-listed Mission Arch is located adjacent to the south of the project straddling East Pine Street. Construction of the project would not directly or indirectly impact the adjacent NRHP-listed Mission Arch. Anza recommends a finding of ***no impact to historical resources*** under CEQA. No further cultural resources work is recommended. The following standard measures are recommended in the case of the unanticipated discovery of cultural resources during project related ground disturbing activities, though little if any ground disturbance is anticipated.

UNANTICIPATED DISCOVERY OF CULTURAL RESOURCES

If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) must be contacted immediately to evaluate the find. If the discovery proves to be significant under CEQA, additional work such as data recovery excavation may be warranted.

UNANTICIPATED DISCOVERY OF HUMAN REMAINS

The discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the county coroner must be notified immediately. If the human remains are determined to be prehistoric, the coroner will notify the Native American Heritage Commission, which will determine and notify a Most Likely Descendant. The Most Likely Descendant shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF PHOTOGRAPHS

APPENDICES

1. INTRODUCTION

Anza Resource Consultants (Anza) was retained by K.S. Dunbar & Associates, Inc. to conduct a Phase I cultural resources study for the Northern California Power Agency (NCPA) Solar Project 1 – Lodi Sites in the City of Lodi, San Joaquin County, California (Figure 1). The NCPA Solar Project 1 includes the following projects: Century East/West, Pixley Basin, and Parking Structure, and is described below (Section 1.1). This study has been prepared in accordance with the California Environmental Quality Act (CEQA) statutes and guidelines (Section 1.2). This cultural resources study includes a cultural resources records search, a summary of Native American scoping for the project, pedestrian survey, and the preparation of this report following the *Archaeological Resources Management Report (ARMR): Recommended Content and Format* guidelines (California Office of Historic Preservation 1990).

1.1 PROJECT DESCRIPTION

The objective of the NCPA Solar Project 1 is to develop a fleet of photovoltaic (PV) solar power plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by NCPA as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial five to seven years of operation, NCPA plans to purchase the plants.

NCPA has completed the site selection and screening portion of the project and the City of Lodi selected three sites for development: Century East/West, Pixley Basin, and Parking Garage sites. The Parking Garage project site is located on the third-floor rooftop of an existing parking garage in downtown Lodi. The project is bordered by East Elm Street to the north, East Pine Street to the south, the Union Pacific railroad to the east, and North Sacramento Street to the west. The design intent for this project is to build a canopy racking structure across the total area of the garage rooftop to house solar PV modules with a total PV output of 150 kilowatt alternating current.

1.2 REGULATORY SETTING

1.2.1 State

CEQA requires a lead agency determine whether a project may have a significant effect on historical resources (Public Resources Code [PRC], Section 21084.1). A historical resource is a resource listed in, or determined to be eligible for listing, in the California Register of Historical Resources (CRHR), a resource included in a local register of historical resources or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (State CEQA Guidelines, Section 15064.5[a][1-3]).

A resource shall be considered historically significant if it meets any of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

In addition, if it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC, Section 21083.2[a], [b], and PRC, Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, the probability is high that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

California Assembly Bill 52 of 2014 (AB 52) took effect July 1, 2015, and expanded CEQA by establishing a formal consultation process for California tribes within the CEQA process. The bill specifies that any project that may affect or cause a substantial adverse change in the significance of a tribal cultural resource would require a lead agency to "begin consultation with a California Native American tribe that is traditional and culturally affiliated with the geographic area of the proposed project." According to the legislative intent for AB 52, "tribes may have knowledge about land and cultural resources that should be included in the environmental analysis for projects that may have a significant impact on those resources." Section 21074 of AB 52 also defines a new category of resources under CEQA called "tribal cultural resources." Tribal cultural resources are defined as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and is either listed on or eligible for the California Register of Historical Resources or a local historic register, or if the lead agency chooses to treat the resource as a tribal cultural resource. See also PRC 21074 (a)(1)(A)-(B).

1.3 PERSONNEL

Anza Principal and Senior Cultural Resources Specialist Kevin Hunt requested the records search, conducted the survey, and was the primary author of this report. Principal Investigator Katherine Collins, M.A., Registered Professional Archaeologist (RPA), coauthored this report and served as principal investigator for the study. Ms. Collins meets the Secretary of the Interior's Professional Qualifications Standards for prehistoric and historic archaeology (National Park Service 1983). GIS Specialist Spencer Bietz prepared all maps and figures.

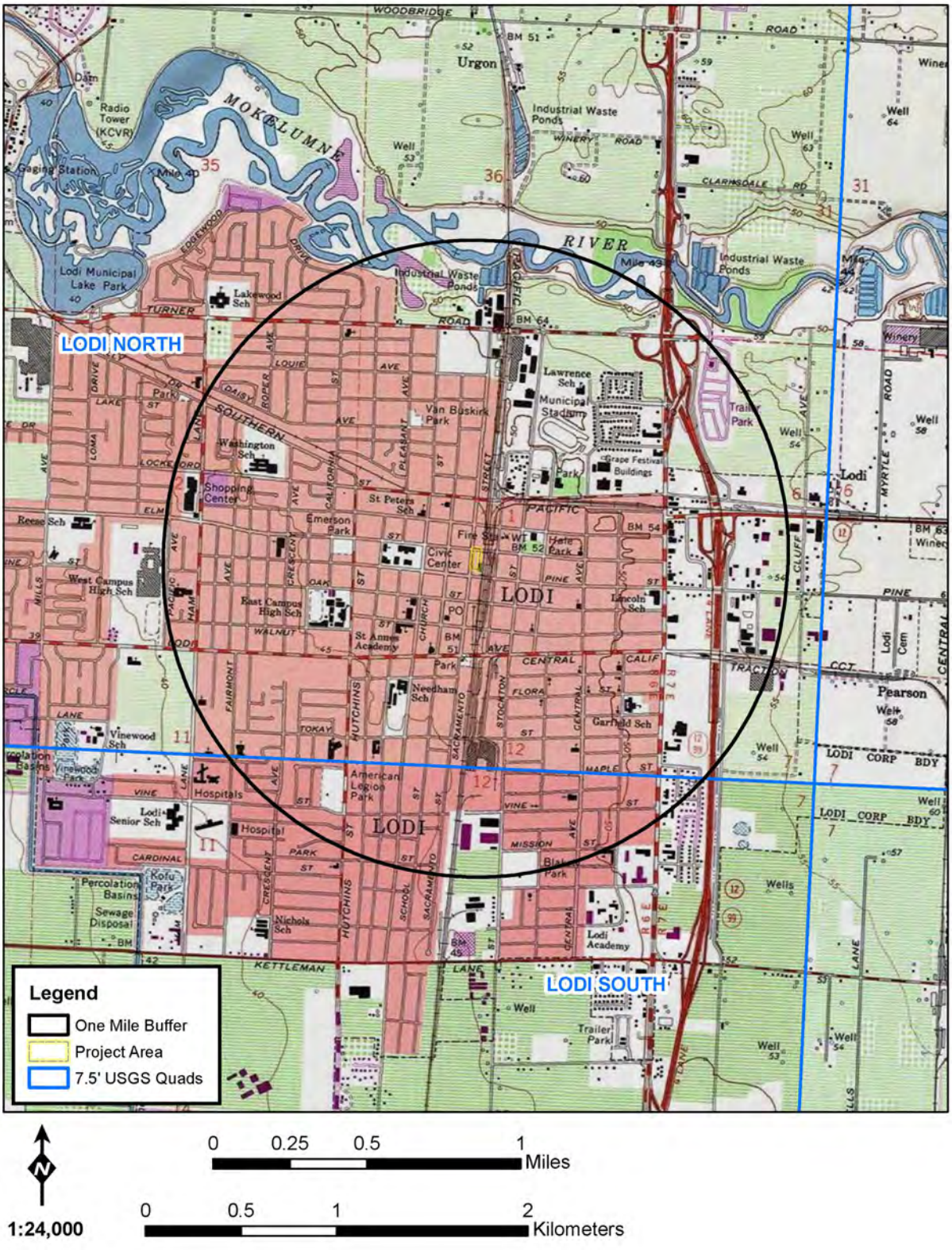


Figure 1. Project Location Map

2. ENVIRONMENTAL SETTING

The Lodi Parking Garage is located the northern San Joaquin Valley, famed for its agriculture. The project site is specifically located in an area that has been urbanized since the late-1800s and the immediate area around the site possesses only ornamental vegetation and faunal species adapted to urban environments. Characteristic vegetation communities in the region include agricultural habitats and annual grassland, with much smaller amounts of freshwater emergent wetland, lacustrine, water, and valley foothill riparian habitats (City of Lodi 2009:3.4-2). Agricultural lands support a broad variety of fauna including California ground squirrel, California vole, red-winged blackbird, northern harrier, white-tailed kite, and yellow-billed magpie. Urban areas support fauna such as American crow, rock dove, American robin, Brewer's blackbird, house finch, house sparrow, northern mockingbird, mourning dove, raccoon, Virginia opossum, and striped skunk.

Lodi averages 19 inches of rain annually. Lodi has a hot-summer Mediterranean climate including cool, wet winters, often with dense ground fog, and hot, dry summers. The project site is underlain by the upper member of the Pleistocene Quarternary Modesto formation, composed of undivided alluvium (Dawson 2009).

3. CULTURAL SETTING

3.1 PREHISTORIC OVERVIEW

The prehistory of the Central Valley is generally divided into three main periods: Paleoindian, Archaic, and Emergent. The Archaic is further divided into the Lower, Middle, and Upper (Fredrickson 1973, 1974). This chronological framework is used by researchers to understand how prehistoric cultures adapted and coped with environmental and social change. Within this framework researchers recognized certain sets of cultural and technological traits that appeared to span long periods of time and covered large areas. These sets of traits were referred to as either "horizons" or "patterns" in the literature. With smaller (local) units of patterns referred to as "aspects" and "phases" (Fredrickson 1974, Moratto 1984, Rosenthal et al. 2007). Below is a brief overview of prehistoric occupation history in the San Joaquin Valley portion of the Central Valley.

The **Paleoindian Period** (11,550 to 8550 cal B.C.) was characterized by the arrival of small, high-mobile hunter-gathered groups. A characteristic element of this period is the use of fluted points to bring down large game animals. Evidence of Paleoindian occupation in the San Joaquin Valley have been found at Tracy Lake, Wolfson mound (CA-MER-215) in Merced County, and the Tulare Lake basin (Moratto 1984, Rosenthal et al. 2007).

During the **Archaic Period** (8550 cal B.C. to A.D. 1100) climatic changes preceiptated the drying of pluvial lakes resulting in changes in substance strategies employed by the native populations. By the Middle Archaic (5550 to 550 cal B.C.) a set of cultural traits known as the Windmiller Pattern emerged at several sites in the San Joaquin Valley (Rosenthal et al. 2007). The presence of milling stones such as manos and metates often characterize Windmiller sites, although mortar and pestles have also been found, indicating that acorns and/or various seeds formed an important part of the diet (Moratto 1984, Rosenthal et al 2007). A variety of faunal remains have been documented at Windmiller Pattern sites including Tule elk, mule deer, and pronghorn, as well as smaller game such as rabbit, water birds, raptors, and rodents (Rosenthal et al. 2007). Also, the presence of angling hooks and baked clay artifacts possibly used as net or line sinkers, along with the remains of sturgeon, salmon, and smaller fishes, indicate that fishing was an additional source of food (Fredrickson 1973; Heizer 1949; Ragir 1972). Items such as net sinkers, pipes, and discoids, as well as cooking "stones" were made of baked clay. Ground and polished charmstones, impressions of twined basketry, shell beads, and bone tools also have been found at Windmiller Pattern sites. Some items, such as shell beads, obsidian tools, and quartz crystals, were obtained by trade.

The archaeological record at Windmiller Pattern sites indicates people practiced a mixed procurement strategy of both game and wild plants, with the addition of acorns and/or seeds. The mixed exploitation of a wide range of natural resources ties into a seasonal foraging strategy. Populations likely occupied the lower elevations of the Sacramento Valley in the winter months and shifted to higher elevations during the summer (Moratto 1984:206). Characteristic Windmiller mortuary practices included ventrally and dorsally extended burials, accompanied by grave goods, in cemeteries that were separate from the habitation sites (Ragir 1972, Rosenthal et al. 2007). Recent research suggests the Windmiller culture persisted into the Upper Archaic (550 cal B.C. to A.D. 1100) in the San Joaquin Valley and was not replaced by the Berkeley Pattern, as it had in other places. Several sites in San Joaquin and Merced Counties (CA-SJO-17, SJO-87, SJO-106, SJO-154, SJO-246, MER-3, MER-215, and MER-323) continued the characteristic Windmiller mortuary practice of extended burials until sometime between 800 and 1,000 years ago (Rosenthal el al. 2007:156).

During the **Emergent Period** (cal A.D. 1100 to Historic) a new set of cultural traits emerged in the Central Valley known as the Augustine Pattern, although there is sporadic evidence of this cultural pattern in the San Joaquin Valley (Moratto 1984, Rosenthal et al. 2007:157). The Pacheco Complex on the western edge of the valley is the only well-defined example in this region. The Augustine Pattern is evidenced by a substantial increase in the intensity of subsistence exploitation, including fishing, hunting, and gathering (particularly the acorn (Moratto 1984:211–214). These changes begin to reflect the cultural pattern known from historic period Native American groups in the area. Augustine Pattern tools and cooking implements included shaped mortars and pestles, hopper mortars, bone awls used for producing coiled baskets, and the bow and arrow. Pottery vessels, known as Cosumnes brownware, are found in some parts of the Central Valley and most likely developed during this period from the prior baked clay industry.

During this period, an increase in sedentism led to the development of social stratification, accompanied by a shift to elaborate ceremonial and social organization. Exchange networks, with the use of clamshell disk beads as currency, also developed during the Augustine Pattern. Mortuary practices during this period included flexed burials and pre-interment burning of offerings in a grave pit, as well as cremation of high-status individuals (Fredrickson 1973:127–129; Moratto 1984:211). In the San Joaquin Valley villages and smaller communities developed along side-streams of the foothills, and river channels and sloughs in the valley. The introduction of the bow and arrow occurred during this time and one of California's most unique point types, the Stockton serrated edge, was developed in the region (Rosenthal el al. 2007).

3.2 ETHNOGRAPHIC OVERVIEW

The project site is located in the traditional territory of the Plains Miwok people. The Plains Miwok were one of six culture groups that spoke a Miwokan language in California. Other Miwok-speaking groups included the Bay Miwok (Saclan), Northern Sierra Miwok, Central Sierra Miwok, Southern Sierra Miwok, and Coast Miwok. Plains Miwok territory was centered in the Central Valley occupying an area between the lower reaches of the Mokelumne and Cosumnes Rivers and the banks of the Sacramento River, from Rio Vista to Freeport (Levy 1978). The word Miwok (miw·yk) generally means "people" in the Miwok language, which is a member of the Penutian language family (Kroeber 1925, Mithun 1999).

The primary sociopolitical unit among the Plains Miwok was the tribelet, comprising the residents of several base settlements and their associated seasonal camps. Each tribelet had a population of about 300 to 500 people and controlled specific territory and resources within it. Each settlement within a tribelet appeared to be the home of localized patrilineage. The tribelet as whole was led by a chieftain which was a hereditary position passed down from father to son. If there was no male heir, the position could be passed to the chief's daughter. The chief acted as an advisor, had the final say in interpersonal disputes, and determined the best time to gather resources (Levy 1978). Settlements typically contained a semi-subterranean earth lodge used for community ritual or social gatherings. Other structures include a semi-subterranean sweathouse, a menstrual hut, and a granary for storing acorns. Families lived in small earth-covered structures (Kroeber 1925, Levy 1978). Ethnohistoric research indicates a Miwok settlement called *Muquelemne* was located on the south bank of Mokelumne River near Lodi (Levy 1978).

The basic subsistence strategy of the Plains Miwok was seasonally mobile hunting and gathering. However, tobacco was cultivated and they also possessed domesticated dogs. Plant foods included acorns, buckeyes, laurel nuts, hazelnuts, seeds, roots, greens, and berries. Acorns, the primary staple, were gathered in the fall and stored through the winter. Seeds were gathered from May through August. Intentional, periodic burning in August ensured an ample supply of seed-bearing annuals and forage for game. The Miwok ate more meat in the winter, when the only plant resources available were those that

had been stored. Hunting was accomplished with the aid of the bow and arrow, traps, and snares. Animal foods consisted of deer; elk; antelope; rodents; waterfowl; quail, pigeons, flickers, and other birds; freshwater mussels and clams; land snails; fish; and insects. Salt was obtained from springs or through trade with people from the Mono Lake area (Bennyhoff 1977; Levy 1978).

The Plains Miwok used a variety of tools made from bone, stone, antler, wood, and textile. Bows were made of wood from a variety of tree species such as oak, ash, willow, pepperwood, maple, or hazel. Arrow heads were fashioned from stone materials such as obsidian obtained through trade, as well as local materials. Typical basketry items were seed beaters; cradles; sifters; rackets used in ball games; and baskets for storing, winnowing, parching, and carrying burdens. Other textiles included mats and cordage (Levy 1978).

Many Miwok groups were subject to missionization efforts during the late eighteenth and early nineteenth centuries. Christian baptisms of Plains Miwok occurred as early as 1811 and did not stop until 1833. During this time over 2,100 Plains Miwok were baptized. As a result of the missionization effort many Plains Miwok were removed from their traditional territory and sent to Mission San Jose located in the present-day city of Fremont. By the beginning of the nineteenth century the Miwok numbered some 19,500 people but by the early twentieth century this number was below one thousand people. Today there are about 3,500 people of Miwok descent, with many living on several reservations in California (White 2019).

3.3 HISTORIC OVERVIEW

The historic period for the state of California generally begins with the establishment of the first Spanish mission and presidio in San Diego in 1769. This marks the beginning of the Spanish period of California history which lasted until 1822 when news of Mexico's independence from Spain in 1821 finally reached California. The Spanish period saw the establishment of a permanent European presence in California in the form of 21 missions located along the coast between San Diego and Sonoma, four military presidios located in San Diego, Monterey, San Francisco and Santa Barbara, and three pueblos (towns) that later became the cities of Los Angeles, San Jose and Santa Cruz (Robinson 1948). The Spanish period ended with Mexican independence from the Spanish crown in 1822. The Mexican period of California history saw the seizure of lands once held by the missions through the Mexican Secularization Act of 1833 and the redistribution of those lands to individuals in the form of land grants known as "ranchos" (Robinson 1948). During this period the Mexican government in California issued about 700 land grants to Mexican citizens and foreign immigrants (Shumway 1988). The outbreak of war between the United States and Mexico and the signing of the Treaty of Guadalupe Hidalgo in 1848 ended the Mexican period and signaled the beginning of the American period of California history. The early American period is marked by the discovery of gold at Sutter's Mill in 1848, resulting in a gold rush that saw a massive influx of settlers from other parts of the United States and around the world, greatly impacting California's native population. In 1869 the transcontinental railroad was completed linking California with the rest of the United States. The gold rush and the establishment of the railroad played major roles in the development of California into a national and worldwide leader in agricultural and industrial production. These early developments also resulted in making California one of the most racially and ethnically diverse states in the Union.

3.3.1 San Joaquin County

The history of San Joaquin County begins in 1850 as one of the original 27 counties of the state of California. The county derives its name from the San Joaquin River, a major river that flows through the region from southern Sierra Nevada Mountains. Early European exploration through the region included

an expedition led by Gabriel Moraga, a Spanish army officer who named the San Joaquin River as well as other natural features as he made his way through the Central Valley. Between 1840 and 1846 the Mexican government in California issued five land grants – Arroyo Seco, Campo de Los Franceses, El Pescadero, Sanjon de los Moquelumnes, and Rancho del Estanislao (also known as Thompson's Rancho) – that encompassed major portions of San Joaquin County (Shumway 1988). The County's generally flat terrain made it a desirable location for building a railroad and in 1866 Congress authorized the Southern Pacific Railroad to build a transcontinental rail route between San Francisco and the Colorado River. By 1870 the Southern Pacific line made its way through San Joaquin County to the City of Modesto (Burns 2007). The establishment of the Southern Pacific and other rail lines through San Joaquin County provided the transportation backbone to move local agricultural produce to markets across the country. Today, agriculture remains an important component of the County's economy.

3.3.2 City of Lodi

The City of Lodi was established in 1869 along the southern banks of Mokelumne River. It was originally named Mokelunme but was changed to Lodi by an act of the California legislature in 1874. Two of Lodi's early residents, Charles Ivory and John Burt established a general store on the corner of Pine and Sacramento Streets. Their store became a magnet for attracting homesteaders and other businesses to the area. Since its inception, agriculture was the backbone of Lodi's economy growing such crops as wheat, watermelon, and grapes. In 1880 some 3.4 million bushels of wheat were grown in San Joaquin County, much of it grown in the Lodi area. Grape vineyards also dominated the area with over two million plants in production in 1899. By the early twentieth century grapes were so important to Lodi that in 1907 residents held the Tokay Carnival to "advertise the beauty and value of the Tokay grape." During the same year a mission-style arch was built at Pine and Sacramento Streets, in the historic core of Lodi, at a cost of $500. The arch still exists today and is a local landmark (Hoover et al. 2002, Lodi Historical Society 2016).

4. BACKGROUND RESEARCH

4.1 CALIFORNIA HISTORICAL RESOURCE INFORMATION SYSTEM

Anza conducted a search of cultural resource records housed at the California Historical Resources Information System (CHRIS), Central California Information Center (CCIC) located at California State University, Stanislaus. The search was conducted by CCIC on April 17, 2019, to identify all previous cultural resources work and previously recorded cultural resources within a 0.5-mile radius of the project site (Appendix A). The CHRIS search included a review of the NRHP, CRHR, the California Points of Historical Interest list, the California Historical Landmarks list, the Archaeological Determinations of Eligibility list, and the California State Historic Resources Inventory list. The records search also included a review of all available historic USGS 7.5-, 15-, and 30-minute quadrangle maps.

4.1.1 Previous Studies

The CCIC records search identified 19 cultural resources studies that were conducted within a 0.5-mile radius of the project site, three of which are mapped within the project site, and one (SJ-02756) that had two sub-reports (Table 1).

Table 1. Previous Cultural Resource Studies within a 0.5-Mile Radius of the Project Site

Report Number	Author	Year	Title	Proximity to Project Site
SJ-02756	Dougherty, John W.	1995	Historic Properties Survey Report Lodi Multimodal Station Study Project Number STPLE-5929 (15)	**Within**
SJ-02756	Harris, D.	1995	Historical Architectural Survey Report for a Proposed Multimodal Transportation Facility in the City of Lodi	**Within**
SJ-02756	Dougherty, J.	1995	Negative Archaeological Survey Report	**Within**
SJ-03379	Southern Pacific Transportation Co.	1994	Historic Report (49 C.F.R. 1105.8) Southern Pacific Transportation Company Proposed Abandonment In San Joaquin and Calaveras Counties, California ICC Docket No. AB-12 (Sub-No. 155X).	Outside
SJ-03995	Nelson, W. J.	2000	Cultural Resource Survey for the Level (3) Communications Long Haul Fiber Optics Project; Segment WS04: Sacramento to Bakersfield	Outside
SJ-04378	Dougherty, John	1999	Archaeological Monitoring of the Lodi Mulitmodal Project, Lodi, California.	**Within**
SJ-04379	Bakic, Tracy D.	1999	Reevaluation Report, Lodi Southern Pacific Passenger Depot, City of Lodi, San Joaquin County, California.	**Within**
SJ-04456	Brown, R. Keith	2000	Review of Environmental Screening: Proposed Mobile Radio Facility Downtown Lodi, Site No. CA-1572D, 401 North Stockton Street, Lodi, California.	Outside

Report Number	Author	Year	Title	Proximity to Project Site
SJ-04506	Egherman, Rachael	2001	Lodi Energy Center Cultural Resources (Archaeological and Historic Built Environment Resources) Technical Report.	Outside
SJ-04596	Jones & Stokes Associates	2000	Draft: Inventory and Evaluation of NRHP Eligibility of California Army National Guard Armories.	Outside
SJ-04977	Boda, J.	1989	Henderson Brothers Company, Incorporated, Ninety-Three Going on One Hundred.	Outside
SJ-05011	Leary, C. M.	1990	A Brief Review of Medicine in Lodi for the Past 80 Years.	Outside
SJ-05342	Wagers, J. C.	1975	The San Joaquin and Sierra Nevada Railroad. [journal article]	Outside
SJ-05910	Bonner, W.	2005	New Tower ("NT") Submission Packet FCC Form 620: Mountain Union Telecommunications, MUT-Downtown Lodi, San Joaquin County, CA	Outside
SJ-06023	Supernowicz, D.	2005	New Tower ("NT") Submission Packet, FCC Form 620 T-Mobile USA, Inc., Sacramento Street, SC-13338A, San Joaquin County, CA	Outside
SJ-06117	Jones, K.	2006	Letter Report: Archaeological Survey of the Proposed W. Lockeford Cingular Wireless Cell Site (CN-1235-02), San Joaquin County, California PL #1735-09	Outside
SJ-06345	SWCA Environmental Consultants	2006	Cultural Resources Final Report of Monitoring and Findings for the QWest Network Construction Project, State of California. SWCA Project No. 10715-180.	Outside
SJ-06546	Jones & Stokes	2007	Cultural Resources Sensitivity Assessment for Five Alternative Water Treatment Plant Sites and Associated Pipeline Routes, City of Lodi, San Joaquin County, California	Outside
SJ-07879	Cox, B., and E. Hammerle	2013	GPRP S. Sacramento and W. Locust, Lodi, San Joaquin County; PG&E Cultural Resources Constraints Report PM 30966786	Outside
SJ-07880	Russell, M.	2013	Archaeological Monitoring Summary Report for 30966786 GPRP S. Sacramento Street and W. Locust Street, San Joaquin County	Outside
SJ-08896	Peak, M.	2018	Historic Property Survey Report 10 San Joaquin CML-5154(043) Lockeford Street, Lodi, CA	Outside
SJ-08896	Peak, M.	2017	Historical Resources Evaluation Report for the Lockeford Street Improvement Project City of Lodi, California	Outside
SJ-08896	Peak, M.	2017	Archaeological Survey Report for the Lockeford Street Improvement Project City of Lodi, California	Outside

Source: CCIC, April 2019

4.1.1.1 SJ-02756

The 1995 Historic Properties Survey Report Lodi Multimodal Station Study Project Number STPLE-5929 (15) is a Caltrans-format report prepared in 1995 that's attachments include an archaeological report and historical architecture survey report (Table 1). This report identified and discussed the historic Southern Pacific [Railroad] Passenger Depot (P-39-00073 in Table 2) and was negative for archaeological resources. This report recommended the Southern Pacific Passenger Depot (P-39-00073) eligible for the NRHP under Criterion A (association with important events in history).

4.1.1.2 SJ-04378

This report describes archaeological monitoring conducted during the construction of the Lodi Multimodal Station Project in 1999. One post-1915 historic refuse deposit was noted in the report but not formally mapped or recorded as a resource. The report noted the deposit appeared to be smeared layers lacking stratification and not significant.

4.1.1.3 SJ-04379

The 1999 Reevaluation Report, Lodi Southern Pacific Passenger Depot, City of Lodi, San Joaquin County, California, reevaluated the Southern Pacific Passenger Depot (P-39-00073) and recommended that the depot was no longer eligible for NRHP listing under Criteria A or C due to its move to the multimodal facility resulting in significant changes in integrity to the resource.

4.1.2 Previously Recorded Resources

The CCIC records search identified 16 cultural resources previously recorded within a 0.5-mile radius of the project site, three of which are located adjacent to the project (Table 2). The Southern Pacific Passenger Depot (P-39-000073) was moved from the project site to south of East Pine Street but is still considered adjacent to the project. This historic railroad depot was moved from its original location and subsequently recommended ineligible for NRHP listing through survey re-evaluation (Report SJ-04379). The Southern Pacific San Joaquin Valley Mainline (P-39-000002) – now the Union Pacific Railroad – is adjacent to the project site to the east but has been found ineligible for NRHP, CRHR, or local register listing. The Mission Arch (P-39-000491) is adjacent to the south of the project site spanning East Pine Street and is listed on the NRHP and CRHR.

Table 2. Previously Recorded Cultural Resources within 0.5-Mile of the Project Site

Primary Number	Trinomial	Description	NRHP/CRHR Eligibility Status	Recorded Year (By Whom)	Relationship to Project Site
P-39-000002	CA-SJO-000250H	Southern Pacific Railroad in San Joaquin County	Found ineligible for NR, CR or Local designation through survey evaluation (Code 6Z)	25 instances between 1993 and 2012	**Adjacent to the east**
P-39-000069		Hotel Lodi	Individual property listed in NR by the Keeper. Listed in the CR. (Code 1S)	1994 (Eric W. Veerkamp)	Approximately 0.25 mile west

Primary Number	Trinomial	Description	NRHP/CRHR Eligibility Status	Recorded Year (By Whom)	Relationship to Project Site
P-39-000073		Southern Pacific Passenger Depot	Recommended ineligible for NR designation through survey re-evaluation (Report SJ-04379)	1995 (Dennis E. Harris)	**Adjacent to south. Formerly at project site**
P-39-000491		Mission Arch	Individual property listed in NR by the Keeper. Listed in the CR. (Code 1S)	1980 (Paul Roddy)	**Adjacent to the south**
P-39-000506		Woman's Club of Lodi	Individual property listed in NR by the Keeper. Listed in the CR. (Code 1S)	1981 (J. Arbuckle)	Approximately 0.4 mile west
P-39-000666		Miyajima Hotel	Identified in reconnaissance level survey: Not evaluated. (Code 7R)	1988 (Maryln Bourne Lortie)	Approximately 0.1 mile east
P-39-004277		217 N. Central, Lodi; HUD000803G	Determined ineligible for NR by consensus through Section 106 process – Not evaluated for CR or Local Listing (Code 6Y)	1980 (Kay Fujita)	Approximately 0.4 mile southeast
P-39-004317		California Army National Guard Armory, Lodi	Individual property determined eligible for NR by a consensus through Section 106 process. Listed in the CR. (Code 2S2)	2000 (Ove Juul)	Approximately 0.4 mile north
P-39-004926		Needham (Clyde) School	Insufficient information	2000 (Douglas A. Bryoccson)	Approximately 0.5 mile southwest
P-39-004931		Lodi High School	Insufficient information	1991 (San Joaquin County Superintendent of Schools)	Approximately 0.5 mile west
P-39-005076		Elmwood & Emerson Schools	Insufficient information	1991 (San Joaquin County Superintendent of Schools)	Approximately 0.5 mile west
P-39-005324		121 E. Lockeford Street - Site 3	Insufficient information	1991 (San Joaquin County Superintendent of Schools)	Approximately 0.3 mile north
P-39-005325		Lawrence Park - Site 5	Found ineligible for NR, CR or Local designation through survey evaluation (Code 6Z)	2017 (Gerry, R., M. Peak)	Approximately 0.5 mile northeast

Primary Number	Trinomial	Description	NRHP/CRHR Eligibility Status	Recorded Year (By Whom)	Relationship to Project Site
P-39-005326		Lodi Grape Festival Grounds - Site 6	Found ineligible for NR, CR or Local designation through survey evaluation (Code 6Z)	2017 (Gerry, R., M. Peak)	Approximately 0.5 mile northeast
P-39-005328		322, 326, 334 E. Lockeford Street - Site 8A, 8B, 8C	Recommended not eligible for CRHR listing	2017 (Gerry, R., M. Peak)	Approximately 0.25 mile northeast
P-39-005329		224 N. Main Street - Site 9	Recommended not eligible for CRHR listing	2017 (Gerry, R., M. Peak)	Approximately 0.25 mile northeast

Source: CCIC, April 2019

4.2 NATIVE AMERICAN SCOPING

K.S. Dunbar & Associates, Inc. requested a review of the Sacred Lands File (SLF) by the Native American Heritage Commission. The NAHC sent a response on March 11, 2019, stating that a search of the SLF was completed with negative results (i.e., no sacred lands or resources important to Native Americans identified in the search; Appendix B). The NAHC provided a list of seven Native American contacts that may have knowledge regarding Native American cultural resources within or near the project site.

K.S. Dunbar & Associates, Inc. mailed letters and sent emails dated March 12, 2019, to the seven Native American contacts describing the Lodi projects and asking if they had knowledge regarding cultural resources of Native American origin within or near the project sites (Appendix B). The Northern Valley Yokut responded via email on April 2, 2019, requesting that NCPA conduct a SLF search and CCIC records search. The United Auburn Indian Community responded via email on April 24, 2019 and requested formal AB 52 consultation for this project and provided recommended mitigation measures. Consultation between NCPA and United Auburn Indian Community was formally initiated in a letter dated April 24, 2019. No additional responses have been received as of April 30, 2019.

5. FIELDWORK

5.1 SURVEY METHODS

Anza Principal and Senior Cultural Resources Specialist Kevin Hunt conducted a windshield survey of the project site on April 25, 2019. Because the project site is atop an existing structure, pedestrian survey was not warranted. Only the ground near the project point-of-interconnection with the electrical utility was inspected on-foot.

Mr. Hunt examined all exposed ground surface for artifacts (e.g., flaked stone tools and tool-manufacture debris, ground stone tools, ceramic sherds, fire-affected rock), ecofacts (marine shell, bone), soil discoloration that could indicate the presence of a cultural midden, soil depressions, and features indicative of the former presence of structures or buildings (e.g., standing exterior walls, postholes, foundations) or historic debris (e.g., metal, glass, ceramic sherds, cut bone). Ground disturbances such as burrows and drainages were visually inspected. Photographs documenting the project site and survey are maintained by Anza in cloud storage online.

5.2 RESULTS

The project site is an extant modern three-story parking garage (Photographs 1-3). The NRHP-listed Mission Arch is located adjacent to the south of the project site (Photograph 2). The survey was negative; that is, no cultural (i.e., archaeological, historic built, or tribal cultural) resources were identified within the project site.

Photograph 1. Overview of east side of project site, facing northwest.

Photograph 2. View of south elevation of parking garage and Mission Arch, facing northwest.

Photograph 3. North elevation of parking garage, facing south-southeast.

6. DISCUSSION

The NCPA Solar Project 1 – Lodi Parking Garage project site intends to place PV solar panels atop a rack system above the roof of a modern three-story parking garage. The parking garage is at the former location of the Southern Pacific Passenger Depot. One NRHP-listed resource – the Mission Arch or Lodi Arch (P-39-000491) – is located adjacent to the south of the project site spanning East Pine Avenue. The modern parking garage was constructed adjacent to the Mission Arch and is taller than the arch. It is unlikely the solar panels would be visible to viewers of the arch from street level, and even if visible, their placement atop a modern parking structure would not further reduce the integrity of setting for the Mission Arch. Based on this analysis, installation of the proposed project atop the parking garage would not create a direct or indirect impact to the Mission Arch (P-39-000491). No archaeological resources were identified within the project site.

7. MANAGEMENT RECOMMENDATIONS

The cultural resource records search, Native American scoping, and pedestrian survey identified no cultural resources within the project site. Construction of the project would not directly or indirectly impact the adjacent NRHP-listed Mission Arch. No further cultural resources work is recommended. The following standard measures are recommended in the case of the unanticipated discovery of cultural resources during project related ground disturbing activities, though little if any ground disturbance is anticipated.

7.1 UNANTICIPATED DISCOVERY OF CULTURAL RESOURCES

If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) must be contacted immediately to evaluate the find. If the discovery proves to be significant under CEQA, additional work such as data recovery excavation may be warranted.

7.2 UNANTICIPATED DISCOVERY OF HUMAN REMAINS

The discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the county coroner must be notified immediately. If the human remains are determined to be prehistoric, the coroner will notify the Native American Heritage Commission, which will determine and notify a Most Likely Descendant. The Most Likely Descendant shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

8. REFERENCES

Bennyhoff, James A.
1977 "Ethnogeography of the Plains Miwok." *Center for Archaeological Research at Davis Publication 5*. Davis, CA: University of California, Davis.

Burns, Adam
2007 "Southern Pacific Railroad." *American-Rails.com* website. Accessed April 22, 2019. https://www.american-rails.com/southern-pacific.html

California Office of Historic Preservation
1990 *Archaeological Resource Management Reports (ARMR): Recommended Contents and Format.* Department of Parks and Recreation. Office of Historic Preservation: Sacramento, California.

City of Lodi
2009 Lodi General Plan Draft Environmental Impact Report. Electronic document accessed April 30, 2019. http://www.lodi.gov/DocumentCenter/View/202/Draft-Environmental-Impact-Report-PDF?bidId=.

Dawson, Timothy E.
2009 Preliminary Geologic Map of the Lodi 30' X 60' Quadrangle, California. Electronic figure accessed online April 30, 2019. ftp://ftp.consrv.ca.gov/pub/dmg/rgmp/Prelim_geo_pdf/Lodi_100K_prelim.pdf.

Fredrickson, David A.
1973 Early Cultures of the North Coast Ranges, California. Unpublished Ph.D. dissertation, Department of Anthropology, University of California, Davis.

Heizer, Robert F.
1949 *The Archaeology of Central California: The Early Horizon*. University of California Anthropological Records Vol. 12, No. 1. Berkeley, CA: University of California Press.

Hoover, Mildred, Hero Eugene Rensch, Ethel Grace Rensch, and William N. Abeloe
2002 *Historic Spots in California*. Fifth Edition. Stanford, CA: Stanford University Press.

Kroeber, A.L.
1925 *Handbook of the Indians of California*. Bureau of American Ethnology Bulletin 78. New York, NY: Dover Publications, Inc.

Levy, Richard
1978 "Eastern Miwok." In *Handbook of North American Indians, Volume 8: California,* edited by R. F. Heizer, 398–413. W.C. Sturtevant, general editor. Washington D.C.: Smithsonian Institution.

Lodi Historical Society
2016 "City of Lodi." *Lodi Historical Society* website. Accessed April 22, 2019. http://www.lodihistory.org/

Mithun, Marianne
1999 *The Languages of Native North America*. Cambridge MA: Cambridge University Press.

Moratto, Michael J., with David A. Fredrickson, Christopher Raven, and Claude A. Warren
1984 *California Archaeology*. Orlando, FL: Academic Press.

Ragir, Sonia
1972 *The Early Horizon in Central California Prehistory*. Contributions of the University of California Archaeological Research Facility, No. 15. Berkeley,CA: University of California Press.

Robinson, W.W.
1948 *Land in California: The Story of Mission Lands, Ranchos, Squatters, Mining Claims, Railroad Grants, Land Scrip, Homesteads*. Berkeley, CA: University of California Press.

Rosenthal, Jeffrey S., Gregory G. White, and Mark Q. Sutton
2007 "The Central Valley: A View from the Catbird's Seat." In *California Prehistory: Colonization, Culture, and Complexity*, edited by Terry L. Jones and Kathryn A. Klar. Lanham, MD: Altamira Press

Shumway, Burgess McK
1988 *California Ranchos*. Second Edition. The Borgo Press.

White, Phillip
2019 "California Indians and Their Reservations: An Online Dictionary." *San Diego State University American Indian Studies* website. Accessed April 25, 2019. https://libguides.sdsu.edu/c.php?g=494769&p=3385637.

Appendix A:
Records Search Summary

CENTRAL CALIFORNIA INFORMATION CENTER

California Historical Resources Information System
Department of Anthropology – California State University, Stanislaus
One University Circle, Turlock, California 95382
(209) 667-3307

Alpine, Calaveras, Mariposa, Merced, San Joaquin, Stanislaus & Tuolumne Counties

Date: 4/17/2018

Records Search File No.: 11044L
Access Agreement: #540
Project: NCPA Lodi Parking Garage Solar PV Project; NE corner of N. Sacramento Street at E. Pine

Kevin Hunt
Anza Resource Consultants
603 Seagaze Drive #1018
Oceanside, CA 92054

kevin@anzaresourceconsultants.com

Dear Mr. Hunt:

The Central California Information Center received your Priority Response record search request for the project area/radius referenced above, located on the Lodi North 7.5' quadrangle in San Joaquin County. The following reflects the results of the records search for the project study area and radius:

As per data currently available at the CCaIC, the locations of resources/reports are provided in the following format: ☒ custom GIS maps ☐ shapefiles ☐ hand-drawn maps

Summary Data:

Resources within project area:	1 immediately adjacent: P-39-000073, Southern Pacific RR Depot
Resources within 1/2 mi radius:	15: P-39-000002*, 69, 491, 506, 666, 4277, 4317, 4926, 4931, 5076, 5324, 5325. 5326, 5328, 5329 *for copy see CCaIC 11043L file Please note: The historic building inventory for the City of Lodi has not been mapped in GIS; please refer to the attached OHP Historic Property Data File address list provided your for use in determining if any of the properties listed fall within the ½-mile radius.
Reports within project area:	3: SJ-02756, 4378, 4379
Reports within 1/2 mi radius:	16: SJ-03379, 3995, 4456, 4506, 4596, 4977, 5011, 5342, 5910, 6023, 6117, 6345, 6546, 7879, 7880, 8896

Resource Database Printout (list): ☒ enclosed ☐ not requested ☐ nothing listed

Resource Database Printout (details): ☒ enclosed ☐ not requested ☐ nothing listed

Resource Digital Database Records: ☒ enclosed ☐ not requested ☐ nothing listed

Report Database Printout (list): ☒ enclosed ☐ not requested ☐ nothing listed

Report Database Printout (details): ☐ enclosed ☒ not requested ☐ nothing listed

Report Digital Database Records: ☒ enclosed ☐ not requested ☐ nothing listed

Resource Record Copies: ☒ enclosed ☐ not requested ☐ nothing listed

Report Copies: ☒ enclosed ☐ not requested ☐ nothing listed

OHP Historic Properties Directory: ☒ enclosed ☐ not requested ☐ nothing listed

See City of Lodi listing
Note: 7 resources listed that are in the radius are mapped in GIS:
P-39-000069, listed on the NRHP and California Register of Historical Resources (CRHR)
P-39-000073, NRS S 2S2, listed on the CRHR
P-39-000491, listed on the NRHP & CRHR
P-39-000506, listed on the NRHP & CRHR
P-39-000666, NRS 7R
P-39-004277, NRS 6Y
P-39-004317, NRS S 2S2, listed on the CRHR

Archaeological Determinations of Eligibility: ☐ enclosed ☐ not requested ☒ nothing listed

CA Inventory of Historic Resources (1976): ☐ enclosed ☐ not requested ☒ nothing listed

Caltrans Bridge Survey: ☐ enclosed ☒ not requested ☐ nothing listed

Ethnographic Information: ☐ enclosed ☒ not requested ☐ nothing listed

Historical Literature: ☐ enclosed ☒ not requested ☐ nothing listed

Historical Maps: (see also CCaIC 11042L file*) ☒ enclosed ☐ not requested ☐ nothing listed

Map Number One, *History of San Joaquin County, California, with Illustrations* (1889; 1968 reprint)*
Map of the County of San Joaquin, California (1883)*
Lodi 1:62,500-scale (1939)*
Woodbridge 1:31,680-scale (1910; 1939 reprint)

Local Inventories: ☐ enclosed ☐ not requested ☒ nothing listed

GLO and/or Rancho Plat Maps: ☒ enclosed ☐ not requested ☐ nothing listed

T3N R6E, Sheet 41-202 (1853-1865)

Shipwreck Inventory: ☒ not available at CCIC; please go to

http://shipwrecks.slc.ca.gov/ShipwrecksDatabase/Shipwrecks_Database.asp

Soil Survey Maps: ☒ not available at CCIC; please go to

http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Thank you for using the California Historical Resources Information System (CHRIS).

Note: Billing will be transmitted separately via email by our Financial Services office *($989.63), payable within 60 days of receipt of the invoice.

Sincerely,

E. A. Greathouse

E. A. Greathouse, Coordinator
Central California Information Center
California Historical Resources Information System

* Invoice Request sent to: Laurie Marroquin CSU Stanislaus Financial Services
lamarroquin@csustan.edu

Appendix B:
Native American Scoping

STATE OF CALIFORNIA Gavin Newsom, Governor

NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone: (916) 373-3710
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov
Twitter: @CA_NAHC

March 11, 2019

Keith S. Dunbar
K.S. Dunbar & Associates, Inc.

VIA Email to: ksdpe67@gmail.com

RE: NCPA Solar Project 1 – Lodi Sites, San Joaquin County

Dear Mr. Dunbar:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our lists contain current information. If you have any questions or need additional information, please contact me at my email address: Katy.Sanchez@nahc.ca.gov.

Sincerely,

for

Katy Sanchez
Associate Environmental Planner

Attachment

Native American Heritage Commission
Native American Contacts List
3/11/2019

Buena Vista Rancheria of Me-Wuk Indians
Rhonda Morningstar Pope, Chairperson
1418 20th Street, Suite 200 — Me-Wuk / Miwok
Sacramento ,CA 95811
rhonda@buenavistatribe.com
(916) 491-0011 Office
(916) 491-0012 Fax

California Valley Miwok Tribe
4620 Shippee Lane — Miwok
Stockton ,CA 95212
(209) 931-4567 Office
(209) 931-4333 Fax

California Valley Miwok Tribe
AKA Sheep Rancheria of Me-Wuk Indians of Ca
P.O. Box 395 — Miwok
West Point ,CA 95255
l.ewilson@yahoo.com
(209) 293-4179 Office

Ione Band of Miwok Indians
Sara Dutschke Setchwaelo, Chairperson
P.O. Box 699 — Miwok
Plymouth ,CA 95669
sara@ionemiwok.org
(209) 245-5800 Office
(209) 245-6377 Fax

North Valley Yokuts Tribe
Katherine Erolinda Perez, Chairperson
P.O. Box 717 — Ohlone/Costanoan
Linden ,CA 95236 — Northern Valley Yokuts
canutes@verizon.net — Bay Miwok
(209) 887-3415

United Auburn Indian Community of the Auburn Rancheria
Gene Whitehouse, Chairperson
10720 Indian Hill Road — Maidu
Auburn ,CA 95603 — Miwok
bguth@auburnrancheria.com
(530) 883-2390 Office
(530) 883-2380 Fax

Wilton Rancheria
Raymond Hitchcock, Chairperson
9728 Kent Street — Miwok
Elk Grove ,CA 95624
rhitchcock@wiltonrancheria-nsn.gov
(916) 683-6000 Office
(916) 683-6015 Fax

This list is current as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code,Section 5097.94 of the Public Resources Code, or Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native American Tribes for the proposed:
NCPA Solar Project 1 – Lodi Sites, San Joaquin County.

Fwd: AB 52 Notification - NCPA Solar Project 1 - Lodi Sites

Keith Dunbar <ksdpe67@gmail.com>
Tue 4/2/2019 9:56 AM
To: Kevin Hunt <kevin@anzaresourceconsultants.com>

Kevin,

Good morning!

FYI!

Have a great day,

Keith

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE, F. ASCE

K.S.Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, CA 92590-4314
(951) 699-2082
Cell: (949) 412-2634
ksdpe67@gmail.com

---------- Forwarded message ---------
From: **canutes** <canutes@verizon.net>
Date: Tue, Apr 2, 2019 at 9:41 AM
Subject: Re: AB 52 Notification - NCPA Solar Project 1 - Lodi Sites
To: Keith Dunbar <ksdpe67@gmail.com>

Mr. Dunbar,
The tribe has reviewed the information. The tribe is requesting that the NCPA request a record search from the Native American Heritage Commission and the information center as the area of the proposed project is in an area of sensitivity.

Nototomne Cultural Preservation
Northern Valley Yokut
Katherine
Perez
P.O Box 717
Linden, CA 95236
Cell: 209.649.8972
Email: canutes@verizon.net

Sent from my iPad

On Mar 12, 2019, at 11:54 AM, Keith Dunbar <ksdpe67@gmail.com> wrote:

Katherine Erolinda Perez, Chairperson,

An AB 52 Notification of the Northern California Power Agency's NCPA Solar Project 1 - Lodi Sites is attached in accordance with recommendations of the Native American Heritage Commission.

Thank you,

Keith

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE, F. ASCE

K.S.Dunbar & Associates, Inc.

Environmental Engineering

45375 Vista Del Mar

Temecula, CA 92590-4314

(951) 699-2082

Cell: (949) 412-2634

ksdpe67@gmail.com

<AB 52 Tribal Consultation Notification N Valley Yokuts.pdf>

Gmail Keith Dunbar <ksdpe67@gmail.com>

AB 52 Consultation for the NCPA Solar Project 1 - Lodi Sites

1 message

Cherilyn Neider <cneider@auburnrancheria.com> Wed, Apr 24, 2019 at 9:25 AM
To: "ksdpe67@gmail.com" <ksdpe67@gmail.com>

Dear Keith S. Dunbar,

Thank you for your letter received notifying us of the NCPA Solar Project 1. I am contacting you in order to request:

- Consultation for this project;
- All existing cultural resource assessments;
- Requests for and results of records searches.

Attached you will find mitigation measures recommended for this project. These measures address inadvertent discoveries and a tribal cultural resources awareness training as part of the Worker Environmental Awareness and Protection training. Please confirm that the attached mitigation measures will be included in the environmental document and the adopted mitigation, monitoring and reporting program. Thank you for involving UAIC in the planning process at an early stage. We ask that you make this correspondence a part of the project record and that you provide UAIC with a copy of the final environmental document and adopted mitigation, monitoring and reporting program.

Thank you,
Cherilyn

Cherilyn Neider
Tribal Historic Preservation
United Auburn Indian Community
530.883.2394

3 attachments

5_Mitigation_Measures_CEQA_Construction_Worker_Awareness_Training.docx
22K

Worker Awareness Brochure.pdf
858K

3_Mitigation_Measures_CEQA_Discoveries.docx
24K

If Human Remains are Found

The protocols for human remains discoveries are similar for other discoveries. **It is important to treat any human remains and the situation in which they are discovered with sensitivity, dignity, and respect.**

1. All work within 100 feet of the find will immediately stop. Work will also stop in areas where there is reason to believe additional human remains could be located (generally determined by a tribal monitor or qualified archaeologist).
2. UAIC and the on-site project/construction will be notified immediately.
3. **The location of any Native American Human remains must stay confidential.**

The United Auburn Indian Community

The United Auburn Indian Community is comprised of Miwok and Southern Maidu (Nisenan) people who are traditionally and culturally affiliated with this geographic area. The Tribe's area of geographic traditional and cultural affiliation encompasses all of Amador, El Dorado, Nevada, Placer, Sacramento, Sutter and Yuba counties, as well as portions of Butte, Plumas, San Joaquin, Sierra, Solano and Yolo counties; which includes the project area.

Contact us at

530-883-2394

https://www.auburnrancheria.com/

United Auburn Indian Community
of the Auburn Rancheria
10720 Indian Hill Road
Auburn CA, 95603

Respect on the Project for Native American Culture

Prepared by:
The United Auburn Indian Community
Preservation Department

Protection Measures and Protocols

The United Auburn Indian Community has developed the measures listed below to protect any unanticipated finds of tribal cultural resources and achieve compliance with federal and state cultural and environmental laws.

1. All work must stop IMMEDIATELY at that location and within 100 feet of the find. Work may be stopped by the tribal monitor or a qualified archaeologist. Work can continue on the rest of the project, as long as project activities stay at least 100 feet away.

2. The on-site project/construction manager will immediately be informed of the possible find and contact a qualified archeologist or tribal monitor of the find.

3. Under NO circumstances will any contractor or employee collect the archaeological material.

4. Over the next days or weeks following the discovery, a number of visitors may be present in order to investigate and evaluate the find. These may include: agency officials, the County Coroner, professional archaeologists, members of the tribe or the California Native American Heritage Commission, the California Office of Historic Preservation, and local representatives of the historical society (if the find is historic in nature). It is important for the integrity of the find and for culturally-appropriate treatment, and so that there is no violation issued, that reasonable methods be taken to ensure that there is no disturbance or damage (including theft) to the find and its context and surrounding areas.

5. It is important to respect the direction of the tribal monitor or other authorized tribal representative regarding identification and treatment of finds and to have some flexibility regarding where work might be able recommence outside of the find location area.

6. The location and nature of the discovery will be strictly confidential, shared only with individuals that need to know.

Cultural Resource Examples

There are many types of archaeological resources. The most common kind of artifacts, or markers of human activity that are found include stone tools, shell, beads, plant remains, animal bones, and a type of dark soil called midden. Archaeology from the historic era can also be found: these kinds of artifacts and features can include bottles, cans, ceramics, building foundations, bricks, and many more.

Tribal Cultural Resource – Awareness Training - Mitigation Measure

A consultant and construction worker tribal cultural resources awareness brochure and training program for all personnel involved in project implementation will be developed in coordination with interested Native American Tribes. The brochure will be distributed and the training will be conducted in coordination with qualified cultural resources specialists and Native American Representatives and Monitors from culturally affiliated Native American Tribes before any stages of project implementation and construction activities begin on the project site. The program will include relevant information regarding sensitive tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The worker cultural resources awareness program will also describe appropriate avoidance and minimization measures for resources that have the potential to be located on the project site and will outline what to do and whom to contact if any potential archaeological resources or artifacts are encountered. The program will also underscore the requirement for confidentiality and culturally-appropriate treatment of any find of significance to Native Americans and behaviors, consistent with Native American Tribal values.

Inadvertent Discoveries Mitigation Measure

If potential tribal cultural resources (TCRs), archaeological resources, other cultural resources, articulated, or disarticulated human remains are discovered by Native American Representatives or Monitors from interested Native American Tribes, qualified cultural resources specialists or other Project personnel during construction activities, work will cease within 100 feet of the find (based on the apparent distribution of cultural resources), whether or not a Native American Monitor from a traditionally and culturally affiliated Native American Tribe is present. A qualified cultural resources specialist and Native American Representatives and Monitors from traditionally and culturally affiliated Native American Tribes will assess the significance of the find and make recommendations for further evaluation and treatment as necessary. Culturally appropriate treatment may be, but is not limited to, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, returning objects to a location within the project area where they will not be subject to future impacts. The Tribe does not consider curation of TCR's to be appropriate or respectful and request that materials not be permanently curated, unless requested by the Tribe.

Treatment that preserves or restores the cultural character and integrity of a Tribal Cultural Resource may include Tribal Monitoring, culturally appropriate recovery of cultural objects, and reburial of cultural objects or cultural soil. These recommendations will be documented in the project record. For any recommendations made by traditionally and culturally affiliated Native American Tribes that are not implemented, a justification for why the recommendation was not followed will be provided in the project record.

If adverse impacts to tribal cultural resources, unique archeology, or other cultural resources occurs, then consultation with UAIC and other traditionally and culturally affiliated Native American Tribes regarding mitigation contained in the Public Resources Code sections 21084.3(a) and (b) and CEQA Guidelines section 15370 should occur, in order to coordinate for compensation for the impact by replacing or providing substitute resources or environments.

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678

Initiation of AB 52 Tribal Consultation

Initiation Date:	April 24, 2019
Project Name:	NCPA Solar Project 1 – Lodi Sites
Lead Agency:	Northern California Power Agency
Consultation Coordinator:	Keith S. Dunbar, P.E., BCEE. Hon.D.WRE., F.ASCE
Tribe:	United Auburn Indian Community
Designated Contact:	Cherilyn Neider, Tribal Historic Preservation
Request Received:	April 24, 2019

Introduction:

The Northern California Power Agency (NCPA) is proposing the NCPA Solar Project 1 – Lodi Sites Project which may be located in a geographical area that is traditionally and culturally affiliated with the United Auburn Indian Community.

In response to the AB 52 Tribal Consultation Notification sent to the tribe on February 26, 2019, the Northern California Power Agency (NCPA) has received your formal written request for tribal consultation pursuant to AB 52 for the above-named project.

Initiation of Consultation:

State law under Assembly Bill 52 (Public Resources Code Section 21080.3.1) requires the lead agency to begin the consultation process within 30 days of receiving a California Native American tribe's request for consultation. Please consider this notice as the official initiation of the AB 52 Tribal Consultation process between the Northern California Power Agency and Tribe. As information becomes available on the proposed project, NCPA's consultation coordinator will schedule a face to face meeting with the tribe's designated contact if so requested

The consultation may include discussion concerning the type of environmental review necessary for the project, the significance of tribal cultural resources discovered, the significance of the project's impacts on tribal cultural resources, and, if necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend.

The consultation does not limit the ability of the tribe to submit information to NCPA regarding the significance of the tribal cultural resources, the significance of the project's impact on tribal cultural resources, or any measures the tribe feels are appropriate to mitigate the potential impact. The consultation coordinator may be reached by phone (951) 699-2082, or by email at ksdpe67@gmail.com. General comments may be submitted electronically, however, confidential information transmitted electronically cannot be ensured. NCPA recommends that transmittal of confidential information, such as the specific location of a cultural resource, be done by formal letter, in person, or over the telephone. If you wish to submit information in writing, correspondence may be sent to:

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE
K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
(951) 699-2082
E-Mail: ksddpe67@gmail.com

Overview of the Proposed Project:

The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. Burns & McDonnell was retained by NCPA to complete Phase 2 Site Screening, Plan Development, and Procurement services for each site selected by the member agencies. The City of Lodi selected three sites for development: Century East/West, Pixley Basin and Parking Structure sites. Those three sites are the subject of this Notification.

The Century East site is located on a City easement bordered by an industrial park to the north, recreational fields to the south, residences to the east and the Union Pacific railroad to the west. The Century West site is directly across the railroad tracks from the Century East site. It is bordered on the north, south and west by residential development. The combined developable area of these sites is 2.5 acres which would accommodate a project size of 0.63 megawatts-direct current (MW_{dc}).

The Pixley Basin site contains approximately 27 acres and is located in an undeveloped park that serves as a stormwater detention and flood control basin. The site is surrounded by industrial and commercial uses. Residential areas do exist approximately 0.25 miles west of the site; however, Highway 99 separates the commercial areas from the residential areas and the project site is out of the viewshed of the residences. In its October 5, 2018 report, Burns & McDonnell estimated the developable portion of the site to be approximately 15 acres which would accommodate a project size of 3.51 MW_{dc}.

The parking structure is located at the northeast corner of the intersection of E. Pine and N. Sacramento Streets in a mixed commercial and industrial area. This site contains a developable area of 0.9 acres which would accommodate a project size of 0.18 MW_{dc}.

Location of the Proposed Project

All three proposed sites are within the City of Lodi, San Joaquin County, California. Exact locations are shown below as well as on Figure 1. Individual sites are shown on Figures 2, 3 and 4.

Site	Location		Developable Area (acres)	Estimated Capacity (MW_{dc})
	Latitude, Longitude	Section, Township, Range		
Lodi – Pixley Basin	38º07'18.06"N, 121º15'12.14"W	Sec 7, T 3 N, R 7 E, MDB&M	15.0	3.51
Lodi – Century Park East/West	38º06'26.66"N, 121º16'21.63"W	Sec 13, T 3 N, R 6 E, MDB&M	2.5	0.63
Lodi – Parking Structure	38º08'05.25"N, 121º16'18.58"W	Sec 1, T 3 N, R 6 E, MDB&M	0.9	0.18

Figure 1 NCPA Solar Project 1 – Proposed Sites in the City of Lodi

Figure 2 Century Park East/West Site

Figure 3 Pixley Basin Site

Figure 4 Parking Garage Site

CULTURAL RESOURCES SURVEY
FOR THE
NORTHERN CALIFORNIA POWER AGENCY
SOLAR PROJECT 1 – LODI PIXLEY SITE
SAN JOAQUIN COUNTY, CALIFORNIA

Prepared for
K.S. Dunbar and Associates, Inc.
45375 Vista Del Mar
Temecula, CA 92590-4314

Prepared by
Anza Resource Consultants
603 Seagaze Drive, #1018
Oceanside, CA 92054
www.anzaresourceconsultants.com

USGS Quadrangle
Lodi South, California
Anza Project No. 19-0005

April 2019

EXECUTIVE SUMMARY

Anza Resource Consultants (Anza) was retained by K.S. Dunbar & Associates, Inc. to conduct a Phase I cultural resources study for the Northern California Power Agency (NCPA) Solar Project 1 – Lodi Sites in the City of Lodi, San Joaquin County, California. This study regards the Lodi Pixley project site, which occupies approximately 27 acres located in an undeveloped park that serves as a stormwater detention and flood control basin. The Lodi Pixley project site is located north of Auto Center Drive at the intersection of Pixley Parkway. The proposed project is subject to the California Environmental Quality Act (CEQA) with NCPA serving as lead agency. This study includes a cultural resources records search, Sacred Lands File search and Native American scoping, a pedestrian survey of the project site, and preparation of this technical report in compliance with the cultural resources requirements of CEQA.

The cultural resource records search, Native American scoping, and pedestrian survey identified no cultural resources within or adjacent to the project site. Anza recommends a finding of ***no impact to historical resources*** under CEQA. No further cultural resources study is recommended; however, the following standard measures are recommended to avoid potential impacts from the unanticipated discovery of cultural resources during project related ground disturbing activities.

CULTURAL RESOURCES WORKER SENSITIVITY TRAINING

Prior to the start of construction, NCPA shall hold a pre-grading meeting. The Project Archaeologist shall attend the pre-grading meeting with NCPA's Project Administrator, Field Engineering Inspector and any contractors to conduct a Cultural Resources Worker Sensitivity Training for all construction personnel working on the proposed Project. The training shall include an overview of potential cultural resources that could be encountered during ground disturbing activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated, and any other appropriate protocols.

UNANTICIPATED DISCOVERY OF CULTURAL RESOURCES

If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) must be contacted immediately to evaluate the find. If the discovery proves to be significant under CEQA, additional work such as data recovery excavation may be warranted.

UNANTICIPATED DISCOVERY OF HUMAN REMAINS

The discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the county coroner must be notified immediately. If the human remains are determined to be prehistoric, the coroner will notify the Native American Heritage Commission, which will determine and notify a Most Likely Descendant. The Most Likely Descendant shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF PHOTOGRAPHS

APPENDICES

1. INTRODUCTION

Anza Resource Consultants (Anza) was retained by K.S. Dunbar & Associates, Inc. to conduct a Phase I cultural resources study for the Northern California Power Agency (NCPA) Solar Project 1 – Lodi Sites in the City of Lodi, San Joaquin County, California (Figure 1). The NCPA Solar Project 1 includes the following projects: Century East/West, Pixley Basin, and Parking Structure, and is described below (Section 1.1). This study has been prepared in accordance with the California Environmental Quality Act (CEQA) statutes and guidelines (Section 1.2). This cultural resources study includes a cultural resources records search, a summary of Native American scoping for the project, pedestrian survey, and the preparation of this report following the *Archaeological Resources Management Report (ARMR): Recommended Content and Format* guidelines (California Office of Historic Preservation 1990).

1.1 PROJECT DESCRIPTION

The objective of the NCPA Solar Project 1 is to develop a fleet of photovoltaic (PV) solar power plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by NCPA as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial five to seven years of operation, NCPA plans to purchase the plants.

NCPA has completed the site selection and screening portion of the project and the City of Lodi selected three sites for development: Century East/West, Pixley Basin, and Parking Structure sites. The Pixley Basin site contains approximately 27 acres and is located in an undeveloped park that serves as a stormwater detention and flood control basin. The site is surrounded by industrial and commercial uses. Residential areas exist approximately 0.25 miles west of the site; however, Highway 99 separates the commercial areas from the residential areas and the project site is out of the viewshed of the residences. It is estimated that approximately 8.3 acres of the site are developable, which would accommodate a project size of 1.4 megawatts.

1.2 REGULATORY SETTING

1.2.1 State

CEQA requires a lead agency determine whether a project may have a significant effect on historical resources (Public Resources Code [PRC], Section 21084.1). A historical resource is a resource listed in, or determined to be eligible for listing, in the California Register of Historical Resources (CRHR), a resource included in a local register of historical resources or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (State CEQA Guidelines, Section 15064.5[a][1-3]).

A resource shall be considered historically significant if it meets any of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

4. Has yielded, or may be likely to yield, information important in prehistory or history.

In addition, if it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC, Section 21083.2[a], [b], and PRC, Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, the probability is high that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

California Assembly Bill 52 of 2014 (AB 52) took effect July 1, 2015, and expanded CEQA by establishing a formal consultation process for California tribes within the CEQA process. The bill specifies that any project that may affect or cause a substantial adverse change in the significance of a tribal cultural resource would require a lead agency to "begin consultation with a California Native American tribe that is traditional and culturally affiliated with the geographic area of the proposed project." According to the legislative intent for AB 52, "tribes may have knowledge about land and cultural resources that should be included in the environmental analysis for projects that may have a significant impact on those resources." Section 21074 of AB 52 also defines a new category of resources under CEQA called "tribal cultural resources." Tribal cultural resources are defined as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and is either listed on or eligible for the California Register of Historical Resources or a local historic register, or if the lead agency chooses to treat the resource as a tribal cultural resource. See also PRC 21074 (a)(1)(A)-(B).

1.3 PERSONNEL

Anza Principal and Senior Cultural Resources Specialist Kevin Hunt requested the Sacred Lands File search, conducted the survey, and was the primary author of this report. Principal Investigator Katherine Collins, M.A., Registered Professional Archaeologist (RPA), coauthored this report and served as principal investigator for the study. Ms. Collins meets the Secretary of the Interior's Professional Qualifications Standards for prehistoric and historic archaeology (National Park Service 1983). GIS Specialist Spencer Bietz prepared all maps and figures.

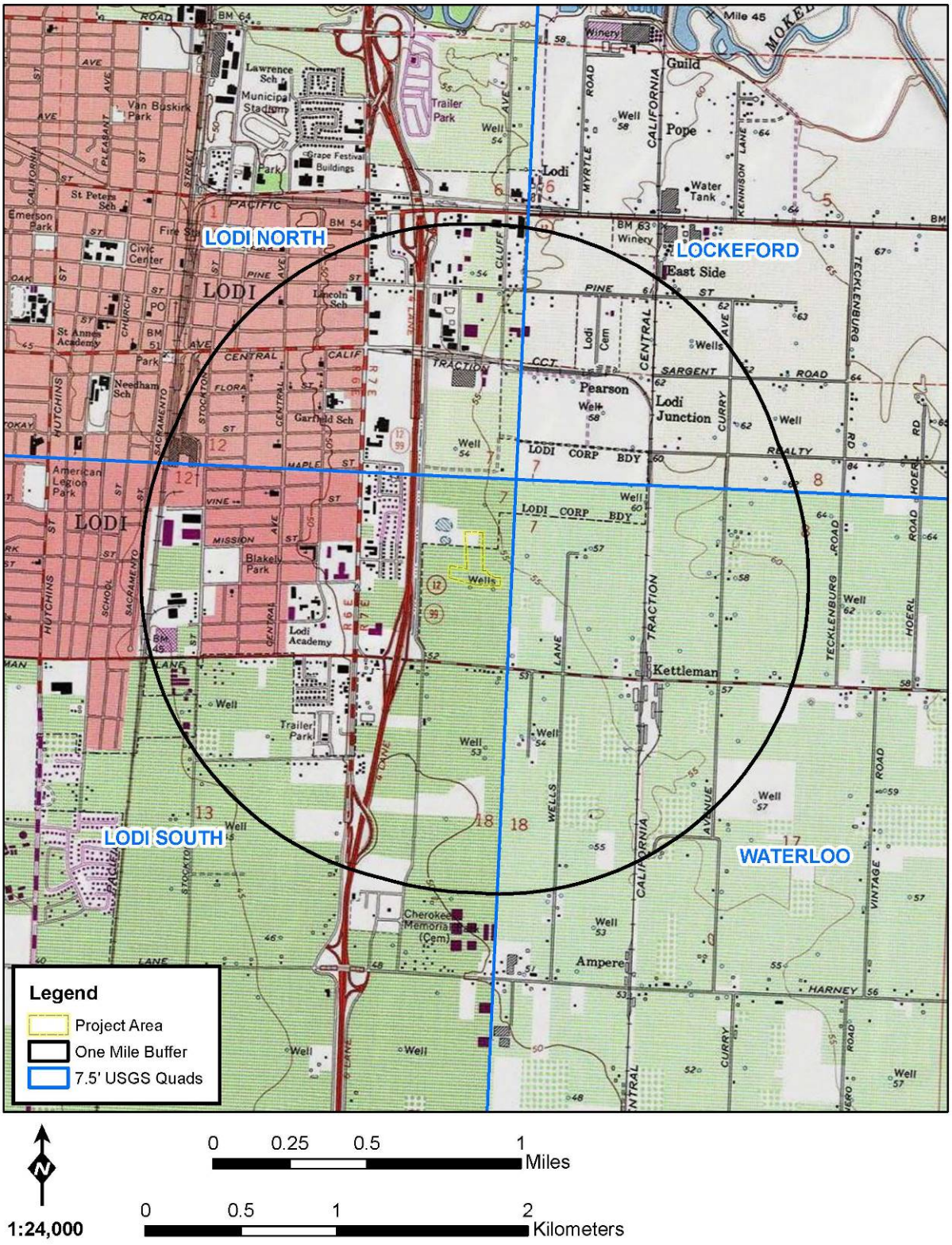


Figure 1. Project Location Map

2. ENVIRONMENTAL SETTING

The Lodi Pixley Site is located the northern San Joaquin Valley, famed for its agriculture. Characteristic vegetation communities in the region include agricultural habitats and annual grassland, with much smaller amounts of freshwater emergent wetland, lacustrine, water, and valley foothill riparian habitats (City of Lodi 2009:3.4-2). Agricultural lands support a broad variety of fauna including California ground squirrel, California vole, red-winged blackbird, northern harrier, white-tailed kite, and yellow-billed magpie. Urban areas support fauna such as American crow, rock dove, American robin, Brewer's blackbird, house finch, house sparrow, northern mockingbird, mourning dove, raccoon, Virginia opossum, and striped skunk. Prior to agricultural and urban development the San Joaquin Valley hosted a broad variety of additional species.

Lodi averages 19 inches of rain annually. Lodi has a hot-summer Mediterranean climate including cool, wet winters, often with dense ground fog, and hot, dry summers. The project site is underlain by the upper member of the Pleistocene Quarternary Modesto formation, composed of undivided alluvium (Dawson 2009).

3. CULTURAL SETTING

3.1 PREHISTORIC OVERVIEW

The prehistory of the Central Valley is generally divided into three main periods: Paleoindian, Archaic, and Emergent. The Archaic is further divided into the Lower, Middle, and Upper (Fredrickson 1973, 1974). This chronological framework is used by researchers to understand how prehistoric cultures adapted and coped with environmental and social change. Within this framework researchers recognized certain sets of cultural and technological traits that appeared to span long periods of time and covered large areas. These sets of traits were referred to as either "horizons" or "patterns" in the literature. With smaller (local) units of patterns referred to as "aspects" and "phases" (Fredrickson 1974, Moratto 1984, Rosenthal et al. 2007). Below is a brief overview of prehistoric occupation history in the San Joaquin Valley portion of the Central Valley.

The **Paleoindian Period** (11,550 to 8550 cal B.C.) was characterized by the arrival of small, high-mobile hunter-gathered groups. A characteristic element of this period is the use of fluted points to bring down large game animals. Evidence of Paleoindian occupation in the San Joaquin Valley have been found at Tracy Lake, Wolfson mound (CA-MER-215) in Merced County, and the Tulare Lake basin (Moratto 1984, Rosenthal et al. 2007).

During the **Archaic Period** (8550 cal B.C. to A.D. 1100) climatic changes preceiptated the drying of pluvial lakes resulting in changes in substance strategies employed by the native populations. By the Middle Archaic (5550 to 550 cal B.C.) a set of cultural traits known as the Windmiller Pattern emerged at several sites in the San Joaquin Valley (Rosethal et al. 2007). The presence of milling stones such as manos and metates often characterize Windmiller sites, although mortar and pestles have also been found, indicating that acorns and/or various seeds formed an important part of the diet (Moratto 1984, Rosenthal et al 2007). A variety of faunal remains have been documented at Windmiller Pattern sites including Tule elk, mule deer, and pronghorn, as well as smaller game such as rabbit, water birds, raptors, and rodents (Rosenthal et al. 2007). Also, the presence of angling hooks and baked clay artifacts possibly used as net or line sinkers, along with the remains of sturgeon, salmon, and smaller fishes, indicate that fishing was an additional source of food (Fredrickson 1973; Heizer 1949; Ragir 1972). Items such as net sinkers, pipes, and discoids, as well as cooking "stones" were made of baked clay. Ground and polished charmstones, impressions of twined basketry, shell beads, and bone tools also have been found at Windmiller Pattern sites. Some items, such as shell beads, obsidian tools, and quartz crystals, were obtained by trade.

The archaeological record at Windmiller Pattern sites indicates people practiced a mixed procurement strategy of both game and wild plants, with the addition of acorns and/or seeds. The mixed exploitation of a wide range of natural resources ties into a seasonal foraging strategy. Populations likely occupied the lower elevations of the Sacramento Valley in the winter months and shifted to higher elevations during the summer (Moratto 1984:206). Characteristic Windmiller mortuary practices included ventrally and dorsally extended burials, accompanied by grave goods, in cemeteries that were separate from the habitation sites (Ragir 1972, Rosenthal et al. 2007). Recent research suggests the Windmiller culture persisted into the Upper Archaic (550 cal B.C. to A.D. 1100) in the San Joaquin Valley and was not replaced by the Berkeley Pattern, as it had in other places. Several sites in San Joaquin and Merced Counties (CA-SJO-17, SJO-87, SJO-106, SJO-154, SJO-246, MER-3, MER-215, and MER-323) continued the characteristic Windmiller mortuary practice of extended burials until sometime between 800 and 1,000 years ago (Rosenthal el al. 2007:156).

During the **Emergent Period** (cal A.D. 1100 to Historic) a new set of cultural traits emerged in the Central Valley known as the Augustine Pattern, although there is sporadic evidence of this cultural pattern in the San Joaquin Valley (Moratto 1984, Rosenthal et al. 2007:157). The Pacheco Complex on the western edge of the valley is the only well-defined example in this region. The Augustine Pattern is evidenced by a substantial increase in the intensity of subsistence exploitation, including fishing, hunting, and gathering (particularly the acorn (Moratto 1984:211–214). These changes begin to reflect the cultural pattern known from historic period Native American groups in the area. Augustine Pattern tools and cooking implements included shaped mortars and pestles, hopper mortars, bone awls used for producing coiled baskets, and the bow and arrow. Pottery vessels, known as Cosumnes brownware, are found in some parts of the Central Valley and most likely developed during this period from the prior baked clay industry.

During this period, an increase in sedentism led to the development of social stratification, accompanied by a shift to elaborate ceremonial and social organization. Exchange networks, with the use of clamshell disk beads as currency, also developed during the Augustine Pattern. Mortuary practices during this period included flexed burials and pre-interment burning of offerings in a grave pit, as well as cremation of high-status individuals (Fredrickson 1973:127–129; Moratto 1984:211). In the San Joaquin Valley villages and smaller communities developed along side-streams of the foothills, and river channels and sloughs in the valley. The introduction of the bow and arrow occurred during this time and one of California's most unique point types, the Stockton serrated edge, was developed in the region (Rosenthal el al. 2007).

3.2 ETHNOGRAPHIC OVERVIEW

The project site is located in the traditional territory of the Plains Miwok people. The Plains Miwok were one of six culture groups that spoke a Miwokan language in California. Other Miwok-speaking groups included the Bay Miwok (Saclan), Northern Sierra Miwok, Central Sierra Miwok, Southern Sierra Miwok, and Coast Miwok. Plains Miwok territory was centered in the Central Valley occupying an area between the lower reaches of the Mokelumne and Cosumnes Rivers and the banks of the Sacramento River, from Rio Vista to Freeport (Levy 1978). The word Miwok (miw·yk) generally means "people" in the Miwok language, which is a member of the Penutian language family (Kroeber 1925, Mithun 1999).

The primary sociopolitical unit among the Plains Miwok was the tribelet, comprising the residents of several base settlements and their associated seasonal camps. Each tribelet had a population of about 300 to 500 people and controlled specific territory and resources within it. Each settlement within a tribelet appeared to be the home of localized patrilineage. The tribelet as whole was led by a chieftain which was a hereditary position passed down from father to son. If there was no male heir, the position could be passed to the chief's daughter. The chief acted as an advisor, had the final say in interpersonal disputes, and determined the best time to gather resources (Levy 1978). Settlements typically contained a semi-subterranean earth lodge used for community ritual or social gatherings. Other structures include a semi-subterranean sweathouse, a menstrual hut, and a granary for storing acorns. Families lived in small earth-covered structures (Kroeber 1925, Levy 1978). Ethnohistoric research indicates a Miwok settlement called *Muquelemne* was located on the south bank of Mokelumne River near Lodi (Levy 1978).

The basic subsistence strategy of the Plains Miwok was seasonally mobile hunting and gathering. However, tobacco was cultivated and they also possessed domesticated dogs. Plant foods included acorns, buckeyes, laurel nuts, hazelnuts, seeds, roots, greens, and berries. Acorns, the primary staple, were gathered in the fall and stored through the winter. Seeds were gathered from May through August. Intentional, periodic burning in August ensured an ample supply of seed-bearing annuals and forage for game. The Miwok ate more meat in the winter, when the only plant resources available were those that

had been stored. Hunting was accomplished with the aid of the bow and arrow, traps, and snares. Animal foods consisted of deer; elk; antelope; rodents; waterfowl; quail, pigeons, flickers, and other birds; freshwater mussels and clams; land snails; fish; and insects. Salt was obtained from springs or through trade with people from the Mono Lake area (Bennyhoff 1977; Levy 1978).

The Plains Miwok used a variety of tools made from bone, stone, antler, wood, and textile. Bows were made of wood from a variety of tree species such as oak, ash, willow, pepperwood, maple, or hazel. Arrow heads were fashioned from stone materials such as obsidian obtained through trade, as well as local materials. Typical basketry items were seed beaters; cradles; sifters; rackets used in ball games; and baskets for storing, winnowing, parching, and carrying burdens. Other textiles included mats and cordage (Levy 1978).

Many Miwok groups were subject to missionization efforts during the late eighteenth and early nineteenth centuries. Christian baptisms of Plains Miwok occurred as early as 1811 and did not stop until 1833. During this time over 2,100 Plains Miwok were baptized. As a result of the missionization effort many Plains Miwok were removed from their traditional territory and sent to Mission San Jose located in the present-day city of Fremont. By the beginning of the nineteenth century the Miwok numbered some 19,500 people but by the early twentieth century this number was below one thousand people. Today there are about 3,500 people of Miwok descent, with many living on several reservations in California (White 2019).

3.3 HISTORIC OVERVIEW

The historic period for the state of California generally begins with the establishment of the first Spanish mission and presidio in San Diego in 1769. This marks the beginning of the Spanish period of California history which lasted until 1822 when news of Mexico's independence from Spain in 1821 finally reached California. The Spanish period saw the establishment of a permanent European presence in California in the form of 21 missions located along the coast between San Diego and Sonoma, four military presidios located in San Diego, Monterey, San Francisco and Santa Barbara, and three pueblos (towns) that later became the cities of Los Angeles, San Jose and Santa Cruz (Robinson 1948). The Spanish period ended with Mexican independence from the Spanish crown in 1822. The Mexican period of California history saw the seizure of lands once held by the missions through the Mexican Secularization Act of 1833 and the redistribution of those lands to individuals in the form of land grants known as "ranchos" (Robinson 1948). During this period the Mexican government in California issued about 700 land grants to Mexican citizens and foreign immigrants (Shumway 1988). The outbreak of war between the United States and Mexico and the signing of the Treaty of Guadalupe Hidalgo in 1848 ended the Mexican period and signaled the beginning of the American period of California history. The early American period is marked by the discovery of gold at Sutter's Mill in 1848, resulting in a gold rush that saw a massive influx of settlers from other parts of the United States and around the world, greatly impacting California's native population. In 1869 the transcontinental railroad was completed linking California with the rest of the United States. The gold rush and the establishment of the railroad played major roles in the development of California into a national and worldwide leader in agricultural and industrial production. These early developments also resulted in making California one of the most racially and ethnically diverse states in the Union.

3.3.1 San Joaquin County

The history of San Joaquin County begins in 1850 as one of the original 27 counties of the state of California. The county derives its name from the San Joaquin River, a major river that flows through the region from southern Sierra Nevada Mountains. Early European exploration through the region included

an expedition led by Gabriel Moraga, a Spanish army officer who named the San Joaquin River as well as other natural features as he made his way through the Central Valley. Between 1840 and 1846 the Mexican government in California issued five land grants – Arroyo Seco, Campo de Los Franceses, El Pescadero, Sanjon de los Moquelumnes, and Rancho del Estanislao (also known as Thompson's Rancho) – that encompassed major portions of San Joaquin County (Shumway 1988). The County's generally flat terrain made it a desirable location for building a railroad and in 1866 Congress authorized the Southern Pacific Railroad to build a transcontinental rail route between San Francisco and the Colorado River. By 1870 the Southern Pacific line made its way through San Joaquin County to the City of Modesto (Burns 2007). The establishment of the Southern Pacific and other rail lines through San Joaquin County provided the transportation backbone to move local agricultural produce to markets across the country. Today, agriculture remains an important component of the County's economy.

3.3.2 City of Lodi

The City of Lodi was established in 1869 along the southern banks of Mokelumne River. It was originally named Mokelunme but was changed to Lodi by an act of the California legislature in 1874. Two of Lodi's early residents, Charles Ivory and John Burt established a general store on the corner of Pine and Sacramento Streets. Their store became a magnet for attracting homesteaders and other businesses to the area. Since its inception, agriculture was the backbone of Lodi's economy growing such crops as wheat, watermelon, and grapes. In 1880 some 3.4 million bushels of wheat were grown in San Joaquin County, much of it grown in the Lodi area. Grape vineyards also dominated the area with over two million plants in production in 1899. By the early twentieth century grapes were so important to Lodi that in 1907 residents held the Tokay Carnival to "advertise the beauty and value of the Tokay grape." During the same year a mission-style arch was built at Pine and Sacramento Streets, in the historic core of Lodi, at a cost of $500. The arch still exists today and is a local landmark (Hoover et al. 2002, Lodi Historical Society 2016).

4. BACKGROUND RESEARCH

4.1 CALIFORNIA HISTORICAL RESOURCE INFORMATION SYSTEM

Anza conducted a search of cultural resource records housed at the California Historical Resources Information System (CHRIS), Central California Information Center (CCIC) located at California State University, Stanislaus. The search was conducted by CCIC on April 16, 2019, to identify all previous cultural resources work and previously recorded cultural resources within a 0.5-mile radius of the project site (Appendix A). The CHRIS search included a review of the NRHP, CRHR, the California Points of Historical Interest list, the California Historical Landmarks list, the Archaeological Determinations of Eligibility list, and the California State Historic Resources Inventory list. The records search also included a review of all available historic USGS 7.5-, 15-, and 30-minute quadrangle maps.

4.1.1 Previous Studies

The CCIC records search identified two cultural resources studies that were conducted within a 0.5-mile radius of the project site, neither of which are mapped within the project site (Table 1).

Table 1. Previous Cultural Resource Studies within a 0.5-Mile Radius of the Project Site

Report Number	Author	Year	Title	Proximity to Project Site
SJ-00821	Peak, A.	1978	Cultural Resource Assessment of the Proposed City of Lodi C-2 Basin Project San Joaquin County, California	Outside
SJ-04508	Jones and Stokes Associates, Inc.	2001	Historic Property Survey Report, 10-SJO-12, P.M. 15.2/18.0, Charge Unit 173, E.A. OG5700: Kettleman Lane, Route 12 Widening Project	Outside

Source: CCIC, April 2019

4.1.2 Previously Recorded Resources

No cultural resources were recorded within 0.5 mile of the project site (Appendix A).

4.2 NATIVE AMERICAN SCOPING

K.S. Dunbar & Associates, Inc. requested a review of the Sacred Lands File (SLF) by the Native American Heritage Commission. The NAHC sent a response on March 11, 2019, stating that a search of the SLF was completed with negative results (i.e., no sacred lands or resources important to Native Americans identified in the search; Appendix B). The NAHC provided a list of seven Native American contacts that may have knowledge regarding Native American cultural resources within or near the project site.

K.S. Dunbar & Associates, Inc. mailed letters and sent emails dated March 12, 2019, to the seven Native American contacts describing the Lodi projects and asking if they had knowledge regarding cultural resources of Native American origin within or near the project sites (Appendix B). The Northern Valley Yokut responded via email on April 2, 2019, requesting that NCPA conduct a SLF search and CCIC records search. The United Auburn Indian Community responded via email on April 24, 2019 and requested formal AB 52 consultation for this project and provided recommended mitigation measures.

Consultation between NCPA and United Auburn Indian Community was formally initiated in a letter dated April 24, 2019. No additional responses have been received as of April 30, 2019.

5. FIELDWORK

5.1 SURVEY METHODS

Anza Principal and Senior Cultural Resources Specialist Kevin Hunt conducted a pedestrian survey of the project site on April 25, 2019. Mr. Hunt surveyed the project site using transects spaced 5 to 10 meters apart and oriented north-south. The entire project site was surveyed.

Mr. Hunt examined all exposed ground surface for artifacts (e.g., flaked stone tools and tool-manufacture debris, ground stone tools, ceramic sherds, fire-affected rock), ecofacts (marine shell, bone), soil discoloration that could indicate the presence of a cultural midden, soil depressions, and features indicative of the former presence of structures or buildings (e.g., standing exterior walls, postholes, foundations) or historic debris (e.g., metal, glass, ceramic sherds, cut bone). Ground disturbances such as burrows and drainages were visually inspected. Photographs documenting the project site and survey are maintained by Anza in cloud storage online.

5.2 RESULTS

The project site is highly disturbed with a water retention basin, contoured embankments, and berms near the project margins (Photographs 1-3). The water retention basin was full and provided zero ground visibility (Photograph 2). The remainder of the project site was covered by dense mixed grasses and occasional plants with odd bare patches resulting in poor ground visibility (approximately 5-15 percent). The survey was negative; that is, no cultural (i.e., archaeological, historic built, or tribal cultural) resources were identified within the project site.

Photograph 1. Overview of project site towards water retention basin, facing northeast.

Photograph 2. View of west side of water retention basin, facing northeast.

Photograph 3. Overview of project site, facing south.

6. MANAGEMENT RECOMMENDATIONS

The cultural resource records search, Native American scoping, and pedestrian survey identified no cultural resources within or adjacent to the project site. No further cultural resources work is recommended. The following measures are recommended in the case of the unanticipated discovery of cultural resources during project related ground disturbing activities.

6.1 UNANTICIPATED DISCOVERY OF CULTURAL RESOURCES

If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) must be contacted immediately to evaluate the find. If the discovery proves to be significant under CEQA, additional work such as data recovery excavation may be warranted.

6.2 UNANTICIPATED DISCOVERY OF HUMAN REMAINS

The discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the county coroner must be notified immediately. If the human remains are determined to be prehistoric, the coroner will notify the Native American Heritage Commission, which will determine and notify a Most Likely Descendant. The Most Likely Descendant shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

7. REFERENCES

Bennyhoff, James A.
1977 "Ethnogeography of the Plains Miwok." *Center for Archaeological Research at Davis Publication 5*. Davis, CA: University of California, Davis.

Burns, Adam
2007 "Southern Pacific Railroad." *American-Rails.com* website. Accessed April 22, 2019. https://www.american-rails.com/southern-pacific.html

California Office of Historic Preservation
1990 *Archaeological Resource Management Reports (ARMR): Recommended Contents and Format.* Department of Parks and Recreation. Office of Historic Preservation: Sacramento, California.

City of Lodi
2009 Lodi General Plan Draft Environmental Impact Report. Electronic document accessed April 30, 2019. http://www.lodi.gov/DocumentCenter/View/202/Draft-Environmental-Impact-Report-PDF?bidId=.

Dawson, Timothy E.
2009 Preliminary Geologic Map of the Lodi 30' X 60' Quadrangle, California. Electronic figure accessed online April 30, 2019. ftp://ftp.consrv.ca.gov/pub/dmg/rgmp/Prelim_geo_pdf/Lodi_100K_prelim.pdf.

Fredrickson, David A.
1973 Early Cultures of the North Coast Ranges, California. Unpublished Ph.D. dissertation, Department of Anthropology, University of California, Davis.

Heizer, Robert F.
1949 *The Archaeology of Central California: The Early Horizon*. University of California Anthropological Records Vol. 12, No. 1. Berkeley, CA: University of California Press.

Hoover, Mildred, Hero Eugene Rensch, Ethel Grace Rensch, and William N. Abeloe
2002 *Historic Spots in California*. Fifth Edition. Stanford, CA: Stanford University Press.

Kroeber, A.L.
1925 *Handbook of the Indians of California*. Bureau of American Ethnology Bulletin 78. New York, NY: Dover Publications, Inc.

Levy, Richard
1978 "Eastern Miwok." In *Handbook of North American Indians, Volume 8: California,* edited by R. F. Heizer, 398–413. W.C. Sturtevant, general editor. Washington D.C.: Smithsonian Institution.

Lodi Historical Society
2016 "City of Lodi." *Lodi Historical Society* website. Accessed April 22, 2019. http://www.lodihistory.org/

Mithun, Marianne
1999 *The Languages of Native North America*. Cambridge MA: Cambridge University Press.

Moratto, Michael J., with David A. Fredrickson, Christopher Raven, and Claude A. Warren
1984 *California Archaeology*. Orlando, FL: Academic Press.

Ragir, Sonia
1972 *The Early Horizon in Central California Prehistory*. Contributions of the University of California Archaeological Research Facility, No. 15. Berkeley,CA: University of California Press.

Robinson, W.W.
1948 *Land in California: The Story of Mission Lands, Ranchos, Squatters, Mining Claims, Railroad Grants, Land Scrip, Homesteads*. Berkeley, CA: University of California Press.

Rosenthal, Jeffrey S., Gregory G. White, and Mark Q. Sutton
2007 "The Central Valley: A View from the Catbird's Seat." In *California Prehistory: Colonization, Culture, and Complexity*, edited by Terry L. Jones and Kathryn A. Klar. Lanham, MD: Altamira Press

Shumway, Burgess McK
1988 *California Ranchos*. Second Edition. The Borgo Press.

White, Phillip
2019 "California Indians and Their Reservations: An Online Dictionary." *San Diego State University American Indian Studies* website. Accessed April 25, 2019. https://libguides.sdsu.edu/c.php?g=494769&p=3385637.

Appendix A:
Records Search Summary

CENTRAL CALIFORNIA INFORMATION CENTER

California Historical Resources Information System
Department of Anthropology – California State University, Stanislaus
One University Circle, Turlock, California 95382
(209) 667-3307

Alpine, Calaveras, Mariposa, Merced, San Joaquin, Stanislaus & Tuolumne Counties

Date: 4/16/2018

Records Search File No.: 11042L
Access Agreement: #540
Project: NCPA Lodi Pixley Solar PV
Project; north side of Auto Center Drive at Pixley Way

Kevin Hunt
Anza Resource
Consultants
603 Seagaze Drive #1018
Oceanside, CA 92054

kevin@anzaresourceconsultants.com

Dear Mr. Hunt:

The Central California Information Center received your Priority Response record search request for the project area/radius referenced above, located on the Lockeford, Lodi North, Lodi South and Waterloo 7.5' quadrangles in San Joaquin County. The following reflects the results of the records search for the project study area and radius:

As per data currently available at the CCaIC, the locations of resources/reports are provided in the following format: ☒ custom GIS maps ☐ shapefiles ☐ hand-drawn maps

Summary Data:

Resources within project area:	None formally reported to the Information Center.
Resources within 1/2 mi radius:	None formally reported to the Information Center. Please note: The historic building inventory for the City of Lodi has not been mapped in GIS; please refer to the attached OHP Historic Property Data File address list provided your for use in determining if any of the properties listed fall within the ½-mile radius.
Reports within project area:	None formally reported to the Information Center.
Reports within 1/2 mi radius:	2: SJ-00821 and SJ-04508

Resource Database Printout (list): ☐ enclosed ☐ not requested ☐ nothing listed

Resource Database Printout (details): ☐ enclosed ☐ not requested ☒ nothing listed

Resource Digital Database Records: ☐ enclosed ☐ not requested ☒ nothing listed

Report Database Printout (list): ☒ enclosed ☐ not requested ☐ nothing listed

Report Database Printout (details): ☐ enclosed ☒ not requested ☐ nothing listed

Report Digital Database Records: ☒ enclosed ☐ not requested ☐ nothing listed

Resource Record Copies: ☐ enclosed ☐ not requested ☒ nothing listed

Report Copies: ☐ enclosed ☒ not requested ☐ nothing listed

OHP Historic Properties Directory: ☒ enclosed ☐ not requested ☐ nothing listed

City of Lodi listing

Archaeological Determinations of Eligibility: ☐ enclosed ☐ not requested ☒ nothing listed

CA Inventory of Historic Resources (1976): ☐ enclosed ☐ not requested ☒ nothing listed

Caltrans Bridge Survey: ☐ enclosed ☒ not requested ☐ nothing listed

Ethnographic Information: ☐ enclosed ☒ not requested ☐ nothing listed

Historical Literature: ☐ enclosed ☒ not requested ☐ nothing listed

Historical Maps: ☒ enclosed ☐ not requested ☐ nothing listed

Map Number One, *History of San Joaquin County, California, with Illustrations* (1889; 1968 reprint)
Map of the County of San Joaquin, California (1883)
Lodi 1:62500-scale (1939)
Lodi South 7.5' (1953)

Local Inventories: ☐ enclosed ☐ not requested ☒ nothing listed

GLO and/or Rancho Plat Maps: ☒ enclosed ☐ not requested ☐ nothing listed

T3N R7E, Sheet 41-203 (1953-1865)

Shipwreck Inventory: ☒ not available at CCIC; please go to

http://shipwrecks.slc.ca.gov/ShipwrecksDatabase/Shipwrecks_Database.asp

Soil Survey Maps: ☒ not available at CCIC; please go to

http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Thank you for using the California Historical Resources Information System (CHRIS).

Note: Billing will be transmitted separately via email by our Financial Services office *($978.45), payable within 60 days of receipt of the invoice.

Sincerely,

E. A. Greathouse

E. A. Greathouse, Coordinator
Central California Information Center
California Historical Resources Information System

* Invoice Request sent to: Laurie Marroquin CSU Stanislaus Financial Services
lamarroquin@csustan.edu

Appendix B:
Native American Scoping

STATE OF CALIFORNIA — Gavin Newsom, Governor

NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone: (916) 373-3710
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov
Twitter: @CA_NAHC

March 11, 2019

Keith S. Dunbar
K.S. Dunbar & Associates, Inc.

VIA Email to: ksdpe67@gmail.com

RE: NCPA Solar Project 1 – Lodi Sites, San Joaquin County

Dear Mr. Dunbar:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our lists contain current information. If you have any questions or need additional information, please contact me at my email address: Katy.Sanchez@nahc.ca.gov.

Sincerely,

Nancy Gonzalez
for

Katy Sanchez
Associate Environmental Planner

Attachment

Native American Heritage Commission
Native American Contacts List
3/11/2019

Buena Vista Rancheria of Me-Wuk Indians
Rhonda Morningstar Pope, Chairperson
1418 20th Street, Suite 200 — Me-Wuk / Miwok
Sacramento ,CA 95811
rhonda@buenavistatribe.com
(916) 491-0011 Office
(916) 491-0012 Fax

California Valley Miwok Tribe
4620 Shippee Lane — Miwok
Stockton ,CA 95212
(209) 931-4567 Office
(209) 931-4333 Fax

California Valley Miwok Tribe
AKA Sheep Rancheria of Me-Wuk Indians of Ca
P.O. Box 395 — Miwok
West Point ,CA 95255
l.ewilson@yahoo.com
(209) 293-4179 Office

Ione Band of Miwok Indians
Sara Dutschke Setchwaelo, Chairperson
P.O. Box 699 — Miwok
Plymouth ,CA 95669
sara@ionemiwok.org
(209) 245-5800 Office
(209) 245-6377 Fax

North Valley Yokuts Tribe
Katherine Erolinda Perez, Chairperson
P.O. Box 717 — Ohlone/Costanoan
Linden ,CA 95236 — Northern Valley Yokuts
canutes@verizon.net — Bay Miwok
(209) 887-3415

United Auburn Indian Community of the Auburn Rancheria
Gene Whitehouse, Chairperson
10720 Indian Hill Road — Maidu
Auburn ,CA 95603 — Miwok
bguth@auburnrancheria.com
(530) 883-2390 Office
(530) 883-2380 Fax

Wilton Rancheria
Raymond Hitchcock, Chairperson
9728 Kent Street — Miwok
Elk Grove ,CA 95624
rhitchcock@wiltonrancheria-nsn.gov
(916) 683-6000 Office
(916) 683-6015 Fax

This list is current as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code,Section 5097.94 of the Public Resources Code, or Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native American Tribes for the proposed:
NCPA Solar Project 1 – Lodi Sites, San Joaquin County.

Fwd: AB 52 Notification - NCPA Solar Project 1 - Lodi Sites

Keith Dunbar <ksdpe67@gmail.com>
Tue 4/2/2019 9:56 AM
To: Kevin Hunt <kevin@anzaresourceconsultants.com>

Kevin,

Good morning!

FYI!

Have a great day,

Keith

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE, F. ASCE

K.S.Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, CA 92590-4314
(951) 699-2082
Cell: (949) 412-2634
ksdpe67@gmail.com

---------- Forwarded message ---------
From: **canutes** <canutes@verizon.net>
Date: Tue, Apr 2, 2019 at 9:41 AM
Subject: Re: AB 52 Notification - NCPA Solar Project 1 - Lodi Sites
To: Keith Dunbar <ksdpe67@gmail.com>

Mr. Dunbar,
The tribe has reviewed the information. The tribe is requesting that the NCPA request a record search from the Native American Heritage Commission and the information center as the area of the proposed project is in an area of sensitivity.

Nototomne Cultural Preservation
Northern Valley Yokut
Katherine
Perez
P.O Box 717
Linden, CA 95236
Cell: 209.649.8972
Email: canutes@verizon.net

Sent from my iPad

On Mar 12, 2019, at 11:54 AM, Keith Dunbar <ksdpe67@gmail.com> wrote:

Katherine Erolinda Perez, Chairperson,

An AB 52 Notification of the Northern California Power Agency's NCPA Solar Project 1 - Lodi Sites is attached in accordance with recommendations of the Native American Heritage Commission.

Thank you,

Keith

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE, F. ASCE

K.S.Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, CA 92590-4314
(951) 699-2082
Cell: (949) 412-2634
ksdpe67@gmail.com

<AB 52 Tribal Consultation Notification N Valley Yokuts.pdf>

Gmail Keith Dunbar <ksdpe67@gmail.com>

AB 52 Consultation for the NCPA Solar Project 1 - Lodi Sites

1 message

Cherilyn Neider <cneider@auburnrancheria.com> Wed, Apr 24, 2019 at 9:25 AM
To: "ksdpe67@gmail.com" <ksdpe67@gmail.com>

Dear Keith S. Dunbar,

Thank you for your letter received notifying us of the NCPA Solar Project 1. I am contacting you in order to request:

- Consultation for this project;
- All existing cultural resource assessments;
- Requests for and results of records searches.

Attached you will find mitigation measures recommended for this project. These measures address inadvertent discoveries and a tribal cultural resources awareness training as part of the Worker Environmental Awareness and Protection training. Please confirm that the attached mitigation measures will be included in the environmental document and the adopted mitigation, monitoring and reporting program. Thank you for involving UAIC in the planning process at an early stage. We ask that you make this correspondence a part of the project record and that you provide UAIC with a copy of the final environmental document and adopted mitigation, monitoring and reporting program.

Thank you,
Cherilyn

Cherilyn Neider
Tribal Historic Preservation
United Auburn Indian Community
530.883.2394

3 attachments

5_Mitigation_Measures_CEQA_Construction_Worker_Awareness_Training.docx
22K

Worker Awareness Brochure.pdf
858K

3_Mitigation_Measures_CEQA_Discoveries.docx
24K

If Human Remains are Found

The protocols for human remains discoveries are similar for other discoveries. **It is important to treat any human remains and the situation in which they are discovered with sensitivity, dignity, and respect.**

1. All work within 100 feet of the find will immediately stop. Work will also stop in areas where there is reason to believe additional human remains could be located (generally determined by a tribal monitor or qualified archaeologist).
2. UAIC and the on-site project/construction will be notified immediately.
3. **The location of any Native American Human remains must stay confidential.**

The United Auburn Indian Community

The United Auburn Indian Community is comprised of Miwok and Southern Maidu (Nisenan) people who are traditionally and culturally affiliated with this geographic area. The Tribe's area of geographic traditional and cultural affiliation encompasses all of Amador, El Dorado, Nevada, Placer, Sacramento, Sutter and Yuba counties, as well as portions of Butte, Plumas, San Joaquin, Sierra, Solano and Yolo counties; which includes the project area.

Contact us at

530-883-2394

https://www.auburnrancheria.com/

United Auburn Indian Community
of the Auburn Rancheria
10720 Indian Hill Road
Auburn CA, 95603

Respect on the Project for Native American Culture

Prepared by:
The United Auburn Indian Community
Preservation Department

Protection Measures and Protocols

The United Auburn Indian Community has developed the measures listed below to protect any unanticipated finds of tribal cultural resources and achieve compliance with federal and state cultural and environmental laws.

1. All work must stop IMMEDIATELY at that location and within 100 feet of the find. Work may be stopped by the tribal monitor or a qualified archaeologist. Work can continue on the rest of the project, as long as project activities stay at least 100 feet away.

2. The on-site project/construction manager will immediately be informed of the possible find and contact a qualified archeologist or tribal monitor of the find.

3. Under NO circumstances will any contractor or employee collect the archaeological material.

4. Over the next days or weeks following the discovery, a number of visitors may be present in order to investigate and evaluate the find. These may include: agency officials, the County Coroner, professional archaeologists, members of the tribe or the California Native American Heritage Commission, the California Office of Historic Preservation, and local representatives of the historical society (if the find is historic in nature). It is important for the integrity of the find and for culturally-appropriate treatment, and so that there is no violation issued, that reasonable methods be taken to ensure that there is no disturbance or damage (including theft) to the find and its context and surrounding areas.

5. It is important to respect the direction of the tribal monitor or other authorized tribal representative regarding identification and treatment of finds and to have some flexibility regarding where work might be able recommence outside of the find location area.

6. The location and nature of the discovery will be strictly confidential, shared only with individuals that need to know.

Cultural Resource Examples

There are many types of archaeological resources. The most common kind of artifacts, or markers of human activity that are found include stone tools, shell, beads, plant remains, animal bones, and a type of dark soil called midden. Archaeology from the historic era can also be found: these kinds of artifacts and features can include bottles, cans, ceramics, building foundations, bricks, and many more.

Tribal Cultural Resource – Awareness Training - Mitigation Measure

A consultant and construction worker tribal cultural resources awareness brochure and training program for all personnel involved in project implementation will be developed in coordination with interested Native American Tribes. The brochure will be distributed and the training will be conducted in coordination with qualified cultural resources specialists and Native American Representatives and Monitors from culturally affiliated Native American Tribes before any stages of project implementation and construction activities begin on the project site. The program will include relevant information regarding sensitive tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The worker cultural resources awareness program will also describe appropriate avoidance and minimization measures for resources that have the potential to be located on the project site and will outline what to do and whom to contact if any potential archaeological resources or artifacts are encountered. The program will also underscore the requirement for confidentiality and culturally-appropriate treatment of any find of significance to Native Americans and behaviors, consistent with Native American Tribal values.

Inadvertent Discoveries Mitigation Measure

If potential tribal cultural resources (TCRs), archaeological resources, other cultural resources, articulated, or disarticulated human remains are discovered by Native American Representatives or Monitors from interested Native American Tribes, qualified cultural resources specialists or other Project personnel during construction activities, work will cease within 100 feet of the find (based on the apparent distribution of cultural resources), whether or not a Native American Monitor from a traditionally and culturally affiliated Native American Tribe is present. A qualified cultural resources specialist and Native American Representatives and Monitors from traditionally and culturally affiliated Native American Tribes will assess the significance of the find and make recommendations for further evaluation and treatment as necessary. Culturally appropriate treatment may be, but is not limited to, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, returning objects to a location within the project area where they will not be subject to future impacts. The Tribe does not consider curation of TCR's to be appropriate or respectful and request that materials not be permanently curated, unless requested by the Tribe.

Treatment that preserves or restores the cultural character and integrity of a Tribal Cultural Resource may include Tribal Monitoring, culturally appropriate recovery of cultural objects, and reburial of cultural objects or cultural soil. These recommendations will be documented in the project record. For any recommendations made by traditionally and culturally affiliated Native American Tribes that are not implemented, a justification for why the recommendation was not followed will be provided in the project record.

If adverse impacts to tribal cultural resources, unique archeology, or other cultural resources occurs, then consultation with UAIC and other traditionally and culturally affiliated Native American Tribes regarding mitigation contained in the Public Resources Code sections 21084.3(a) and (b) and CEQA Guidelines section 15370 should occur, in order to coordinate for compensation for the impact by replacing or providing substitute resources or environments.

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678

Initiation of AB 52 Tribal Consultation

Initiation Date:	April 24, 2019
Project Name:	NCPA Solar Project 1 – Lodi Sites
Lead Agency:	Northern California Power Agency
Consultation Coordinator:	Keith S. Dunbar, P.E., BCEE. Hon.D.WRE., F.ASCE
Tribe:	United Auburn Indian Community
Designated Contact:	Cherilyn Neider, Tribal Historic Preservation
Request Received:	April 24, 2019

Introduction:

The Northern California Power Agency (NCPA) is proposing the NCPA Solar Project 1 – Lodi Sites Project which may be located in a geographical area that is traditionally and culturally affiliated with the United Auburn Indian Community.

In response to the AB 52 Tribal Consultation Notification sent to the tribe on February 26, 2019, the Northern California Power Agency (NCPA) has received your formal written request for tribal consultation pursuant to AB 52 for the above-named project.

Initiation of Consultation:

State law under Assembly Bill 52 (Public Resources Code Section 21080.3.1) requires the lead agency to begin the consultation process within 30 days of receiving a California Native American tribe's request for consultation. **Please consider this notice as the official initiation of the AB 52 Tribal Consultation process between the Northern California Power Agency and Tribe.** As information becomes available on the proposed project, NCPA's consultation coordinator will schedule a face to face meeting with the tribe's designated contact if so requested

The consultation may include discussion concerning the type of environmental review necessary for the project, the significance of tribal cultural resources discovered, the significance of the project's impacts on tribal cultural resources, and, if necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend.

The consultation does not limit the ability of the tribe to submit information to NCPA regarding the significance of the tribal cultural resources, the significance of the project's impact on tribal cultural resources, or any measures the tribe feels are appropriate to mitigate the potential impact. The consultation coordinator may be reached by phone (951) 699-2082, or by email at ksdpe67@gmail.com. General comments may be submitted electronically, however, confidential information transmitted electronically cannot be ensured. NCPA recommends that transmittal of confidential information, such as the specific location of a cultural resource, be done by formal letter, in person, or over the telephone. If you wish to submit information in writing, correspondence may be sent to:

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE
K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
(951) 699-2082
E-Mail: ksddpe67@gmail.com

Overview of the Proposed Project:

The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. Burns & McDonnell was retained by NCPA to complete Phase 2 Site Screening, Plan Development, and Procurement services for each site selected by the member agencies. The City of Lodi selected three sites for development: Century East/West, Pixley Basin and Parking Structure sites. Those three sites are the subject of this Notification.

The Century East site is located on a City easement bordered by an industrial park to the north, recreational fields to the south, residences to the east and the Union Pacific railroad to the west. The Century West site is directly across the railroad tracks from the Century East site. It is bordered on the north, south and west by residential development. The combined developable area of these sites is 2.5 acres which would accommodate a project size of 0.63 megawatts-direct current (MW_{dc}).

The Pixley Basin site contains approximately 27 acres and is located in an undeveloped park that serves as a stormwater detention and flood control basin. The site is surrounded by industrial and commercial uses. Residential areas do exist approximately 0.25 miles west of the site; however, Highway 99 separates the commercial areas from the residential areas and the project site is out of the viewshed of the residences. In its October 5, 2018 report, Burns & McDonnell estimated the developable portion of the site to be approximately 15 acres which would accommodate a project size of 3.51 MW_{dc}.

The parking structure is located at the northeast corner of the intersection of E. Pine and N. Sacramento Streets in a mixed commercial and industrial area. This site contains a developable area of 0.9 acres which would accommodate a project size of 0.18 MW_{dc}.

Location of the Proposed Project

All three proposed sites are within the City of Lodi, San Joaquin County, California. Exact locations are shown below as well as on Figure 1. Individual sites are shown on Figures 2, 3 and 4.

Site	Location		Developable Area (acres)	Estimated Capacity (MW_{dc})
	Latitude, Longitude	Section, Township, Range		
Lodi – Pixley Basin	38°07'18.06"N, 121°15'12.14"W	Sec 7, T 3 N, R 7 E, MDB&M	15.0	3.51
Lodi – Century Park East/West	38°06'26.66"N, 121°16'21.63"W	Sec 13, T 3 N, R 6 E, MDB&M	2.5	0.63
Lodi – Parking Structure	38°08'05.25"N, 121°16'18.58"W	Sec 1, T 3 N, R 6 E, MDB&M	0.9	0.18

Figure 1 NCPA Solar Project 1 – Proposed Sites in the City of Lodi

Figure 2 Century Park East/West Site

Figure 3 Pixley Basin Site

Figure 4 Parking Garage Site

Appendix F

MMRP

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678-6420

Mitigation Monitoring & Reporting Program

NCPA Solar Project 1 – Lodi Sites

Photo Courtesy of SunPower Corporation

Prepared by:

K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
951-699-2082
Email: ksdpe67@gmail.com

July 2019

Mitigation Monitoring and Reporting Program

NCPA Solar Project – Lodi Sites

The California Environmental Quality Act (CEQA) requires that when a public agency completes an environmental document which includes measures to mitigate or avoid significant environmental effects, the public agency must adopt a reporting or monitoring program. This requirement ensures that environmental impacts found to be significant will be mitigated. The reporting or monitoring program must be designed to ensure compliance during project implementation (Public Resources Code Section 21081.6).

In compliance with Public Resources Code Section 21081.6, the following MITIGATION MONITORING AND REPORTING CHECKLIST has been prepared for the NCPA Solar Project 1 – Lodi Sites Project. This Mitigation Monitoring and Reporting Checklist is intended to provide verification that all applicable Conditions of Approval relative to significant environmental impacts are monitored and reported. Monitoring will include: 1) verification that each mitigation measure has been implemented, 2) recordation of the actions taken to implement each mitigation, and 3) retention of records in the NCPA Solar Project 1 – Lodi Sites Project file.

This Mitigation Monitoring and Reporting Program delineates responsibilities for monitoring the Project, but also allows the Northern California Power Agency (NCPA) flexibility and discretion in determining how best to monitor implementation. Monitoring procedures will vary according to the type of mitigation measure. Adequate monitoring consists of demonstrating that monitoring procedures took place and that mitigation measures were implemented.

Reporting consists of establishing a record that a mitigation measure is being implemented and generally involves the following steps:

- NCPA distributes reporting forms to the appropriate persons for verification of compliance.
- Departments/agencies with reporting responsibilities will review the Environmental Impact Report or Initial Study and Mitigated Negative Declaration, which provides general background information on the reasons for including specified mitigation measures.
- Problems or exceptions to compliance will be addressed to NCPA as appropriate.
- Periodic meetings may be held during project implementation to report on compliance of mitigation measures.
- Responsible parties provide NCPA with verification that monitoring has been conducted and ensure, as applicable, that mitigation measures have been implemented. Monitoring compliance may be documented through existing review and approval programs such as field inspection reports and plan review.
- NCPA or Applicant prepares a reporting form periodically during the construction phase and an annual reporting summarizing all project mitigation monitoring efforts.
- Appropriate mitigation measures will be included in construction documents and/or conditions of permits/approvals.

Minor changes to the Mitigation Monitoring and Reporting Program, if required, would be made in accordance with CEQA and would be permitted after further review and approval by NCPA. Such changes could include reassignment of monitoring and reporting responsibilities, program redesign to make any appropriate improvements, and/or modification, substitution or deletion of mitigation measures subject to conditions described in CEQA Guidelines Section 15162. No change will be permitted unless the Mitigation Monitoring and Reporting Program continues to satisfy the requirements of Public Resources Code Section 21081.6.

Mitigation Monitoring and Reporting Program Checklist

NCPA Solar Project 1 – Lodi Sites

Mitigation Measure	Monitoring Process	Monitoring Timing	Responsible Person(s)	Date Completed
Air Quality				
NCPA shall appoint a construction relations officer to act as a community liaison concerning on-site construction activities including resolution of issues related to PM_{10} generation. Additionally, best management practices shall be included in contract documents for this project.	Project Records.	Prior To Construction.	Project Manager.	By: Date:
Standard Construction Practices/Design Features NCPA's contract documents for this project will include the following: The contractor shall: ❖ Utilize electricity from power poles instead of from temporary diesel or gasoline power generators, when feasible. ❖ Require the use of 2010 and newer diesel haul trucks (e.g., material delivery trucks and soil import/export) and if the lead agency determines that 2010 model year or newer diesel trucks cannot be obtained the contractor shall use trucks that meet EPA 2007 model year NO_x emissions requirements. ❖ Require that all on-site construction equipment meet EPA Tier 3 or higher emissions standards according to the following: ➢ All off-road diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards, where available. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. ➢ A copy of each unit's certified tier specification, BACT documentation, and CARB or SJVAPCD operating permit shall be provided at the time of mobilization of each applicable unit of equipment. ❖ Maintain construction equipment engines by keeping them properly tuned and maintained according to manufacturer's specifications. ❖ Use alternative fuels or clean and low-sulfur fuel for equipment. ❖ Idle trucks in accordance with the Airborne Toxic Control Measure (ACTM) to Limit Diesel	Project Records.	Prior To Construction.	Project Manager.	By: Date:

Mitigation Measure	Monitoring Process	Monitoring Timing	Responsible Person(s)	Date Completed
Fueled Commercial Motor Vehicle Idling and other applicable laws. ❖ Spread soil binders on site, where appropriate, unpaved roads and staging areas. ❖ Water site and equipment as necessary to control dust. ❖ Sweep all streets at least once per day in accordance with SJVAPCD Rule 8041. ❖ Conduct operations in accordance with SJVAPCD Rule 8021 requirements. ❖ If necessary, wash off trucks leaving the site. ❖ Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least two feet of freeboard in accordance with the requirements of California Vehicle Code (CVC) Section 23114.				
Biological Resources				
Standard Construction Practices/Design Features NCPA's contract documents for this project will include the following: ❖ If construction occurs between February 1st and August 31st, a pre-construction clearance survey for nesting birds shall be conducted within three (3) days of the start of any vegetation removal or ground disturbing activities to ensure that no nesting birds will be disturbed during construction. The biologist conducting the clearance survey should document a negative survey with a brief letter report indicating that no impacts to active avian nests will occur. If an active avian nest is discovered during the pre-construction clearance survey, construction activities shall stay outside of a no-disturbance buffer. The size of the no-disturbance buffer (generally 300 feet for migratory and non-migratory song birds and 500 feet for raptors and special-status species) will be determined by the wildlife biologist, in coordination with the CDFW, and will depend on the level of noise and/or surrounding disturbances, line of sight between the nest and the construction activity, ambient noise, and topographical barriers. These factors will be evaluated on a case-by-case basis when developing buffer distances. Limits of construction to avoid an active nest will be established in the field with flagging, fencing, or other appropriate barriers; and construction personnel will be instructed on the sensitivity of nest areas. A biological monitor should be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, construction activities within the buffer area can occur.	Project Records.	Prior To Construction.	Project Manager.	By: Date:

Mitigation Measure	Monitoring Process	Monitoring Timing	Responsible Person(s)	Date Completed
Cultural Resources				
Prior to the start of construction, NCPA shall hold a pre-grading meeting. The Project Archaeologist shall attend the pre-grading meeting with NCPA's Project Administrator, Field Engineering Inspector and any contractors to conduct a Cultural Resources Worker Sensitivity Training for all construction personnel working on the proposed Project. The training shall include an overview of potential cultural resources that could be encountered during ground disturbing activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated, and any other appropriate protocols.	Project Records.	Prior To Construction.	Project Manager.	By: Date:
Standard Construction Practices/Design Features NCPA's contract documents for this project will include the following: ❖ In the unlikely event that potentially significant archaeological materials are encountered during construction activities, all work shall be halted in the vicinity of the archaeological discovery until a qualified archaeologist can visit the site of discovery, access the significance of the archaeological resource, and provide proper management recommendations. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted. The treatment and disposition of cultural material that might be discovered during excavation shall be in accordance with applicable laws and regulations.	Project Records.	Prior To Construction.	Project Manager.	By: Date:
❖ All sacred items, should they be encountered within the Project sites, shall be avoided and preserved as the preferred mitigation, if feasible. All cultural materials that are collected during excavation and other earth disturbing activities on the Project sites, with the exception of sacred items, burial goods and human remains which will be addressed in any required Treatment Agreement, shall be tribally curated according to the current repository standards. The collections and associated records shall be transferred, including title, to the closet tribe to the Project site.				
❖ In the event of an accidental discovery or recognition of any human remains, the County Coroner shall be notified and construction activities at the affected work site shall be halted. If the coroner determines the remains to be Native American: (1) the coroner shall contact the Native American Heritage Commission (NAHC) within 24-hours, and (2) the NAHC shall identify the person or persons it believes to be the most likely descended from the deceased Native American. The treatment and disposition of human remains that might be discovered during excavation shall be in accordance with applicable laws and regulations.				

Mitigation Measure	Monitoring Process	Monitoring Timing	Responsible Person(s)	Date Completed
Geology and Soils				
Standard Construction Practices/Design Features NCPA's contract documents for this project will include the following: ❖ In the unlikely event that potentially significant paleontological materials (e.g., fossils) are encountered during construction of the project, all work shall be halted in the vicinity of the paleontological discovery until a qualified paleontologist can visit the site of discovery, assess the significance of the paleontological resource, and provide proper management recommendations. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted. The treatment and disposition of paleontological material that might be discovered during excavation shall be in accordance with applicable laws and regulations.	Project Records	Prior to Construction	Project Manager	By: Date:
Hazards and Hazardous Materials				
Standard Construction Practices/Design Features EMWD's contract documents for this project will include the following: ❖ During project construction, the construction contractor shall implement the following measures to address the potential environmental constraints associated with the presence of hazardous materials at the project sites to the satisfaction of NCPA: ✓ The contractor shall prepare a Health and Safety Plan in compliance with the requirements of Chapter 6.95, Division 20 of the Health and Safety Code (§25500 – 25532). The plan shall include measures to be taken in the event of an accidental spill. ✓ The contractor shall enforce strict on-site handling rules to keep construction and maintenance materials out of receiving waters and storm drains. In addition, the contractor shall store all reserve fuel supplies only within the confines of designated construction staging areas; refuel equipment only with the designated construction staging areas; and regularly inspect all construction equipment for leaks. ✓ The construction staging area shall be designed to contain contaminants such as oil, grease, and fuel products to ensure that they do not drain towards receiving waters or storm drain inlets.	Project Records.	Prior To Construction.	Project Manager.	By: Date:
Hydrology and Water Quality				
Standard Construction Practices/Design Features All site grading and excavation activities associated with the construction of the Project facilities would be subject to the provisions of the National Pollutant Discharge Elimination System (NPDES) Construction Permit for Storm Water Discharges Associated with Construction	Project Records.	Prior To Construction.	Project Manager.	By: Date:

and Land Disturbance Activities [NPDES No. CAS000002 (State Water Resources Control Board Order No. 2009-0009-DWQ)]. Compliance with the provisions of that Order would require NCPA to obtain coverage before the onset of construction activities. Construction activities would comply with the conditions of these permits that include preparation of storm water pollution prevention plans (SWPPP), implementation of BMP's, and monitoring to insure impacts to water quality are minimized. As part of this process, multiple BMP's should be implemented to provide effective erosion and sediment control. These BMP's should be selected to achieve maximum sediment removal and represent the best available technology that is economically achievable. BMP's to be implemented may include, but not be limited to, the following: ✓ Temporary erosion control measures such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other groundcover shall be employed for disturbed areas. ✓ Storm drain inlets on the site and in downstream offsite areas shall be protected from sediment with the use of BMP's acceptable to NCPA, local jurisdictions and the California Regional Water Quality Control Board, Central Valley Region. ✓ Dirt and debris shall be swept from paved streets in the construction zone on a regular basis, particularly before predicted rainfall events. ✓ No disturbed surfaces shall be left without erosion control measures in place. NCPA, or its Construction Contractor, shall file a Notice of Intent with the Regional Board and require the preparation of a pollution prevention plan prior to commencement of construction. NCPA shall routinely inspect the construction site to verify that the BMP's specified in the pollution prevention plan are properly installed and maintained. NCPA shall immediately notify the contractor if there were a noncompliance issue and require immediate compliance. The SWPPP will also identify the method of final stabilization of the site to ensure no post-construction erosion and impacts to water quality will occur. The Notice of Termination (NOT) and release of the Project from the provisions of the Construction General Permit coverage will be granted by the California Regional Water Quality Control Board, Central Valley Region once it is satisfied that no impacts to water quality will occur.				

Commission Staff Report – *DRAFT*

Date: September 4, 2019

COMMISSION MEETING DATE: September 27, 2019

SUBJECT: NCPA Solar Project 1: Plumas-Sierra Chilcoot Site; Initial Study, Mitigated Negative Declaration, and Mitigation Monitoring Program

AGENDA CATEGORY: Discussion/Action

FROM:	Joel Ledesma	**METHOD OF SELECTION:**
	Assistant General Manager	*N/A*
Division:	Generation Services	*If other, please describe:*
Department:	Generation Services	

IMPACTED MEMBERS:

All Members	☒	**City of Lodi**	☐	**City of Shasta Lake**	☐
Alameda Municipal Power	☐	**City of Lompoc**	☐	**City of Ukiah**	☐
San Francisco Bay Area Rapid Transit	☐	**City of Palo Alto**	☐	**Plumas-Sierra REC**	☐
City of Biggs	☐	**City of Redding**	☐	**Port of Oakland**	☐
City of Gridley	☐	**City of Roseville**	☐	**Truckee Donner PUD**	☐
City of Healdsburg	☐	**City of Santa Clara**	☐	**Other**	☐

If other, please specify _____

_____

RECOMMENDATION:

Approval of Resolution 19-XX adopting the Mitigated Negative Declaration and Mitigation Monitoring Program (IS&MND) for the Plumas-Sierra Chilcoot Site, and directing staff to file a notice of Determination with the State Clearinghouse and Shasta County.

It is recommended that this item be listed as a Discussion/Action Item on the Commission agenda.

BACKGROUND:

The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories with construction of most sites to start by the end of 2019. The fleet will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

Plumas-Sierra Rural Electric Cooperative (PSREC) has selected a site located within a 36-acre vacant parcel. The parcel is located south of Highway 70, east of its intersection with Highway 49. The site is bordered by Highway 70 to the north, an industrial facility to the east, the Union Pacific Railroad to the south, and scattered residences to the east. The total installed capacity would be approximately 5.64 megawatts-direct current (MW_{dc}).

Figure 1 - Plumas-Sierra Chilcoot Site

ENVIRONMENTAL ANALYSIS:

For purposes of the California Environmental Quality Act (CEQA), NCPA is the Lead Agency and the Plumas-Sierra Rural Electric Cooperative is the Responsible Agency. NCPA had an Initial Study prepared for the project and, together with a proposed Mitigated Negative Declaration and Mitigation Monitoring Program, was circulated for public review on July 1, 2019. The public review period ended on August 1, 2019. Comments were received from the following individuals and agencies: Scott Morgan (Director, State Clearinghouse, Governor's Office of Planning and Research), Scott A. Zairtz (R.E.H.S., Environmental Scientist, Storm Water & Water Quality Certification Unit, Central Valley Regional Water Quality Control Board), and Marcelino "Marci" Gonzalez (Land Development Review & Regional Transportation Planner). Copies of the comments were compiled and responded to in the Consultation Summary located on NCPA's website (www.NCPA.com) under "Bidding Requests and Public Notifications or at NCPA's Headquarters under the custody of the Commission.

A Notice of Intent to Adopt a Mitigated Negative Declaration and Mitigation Monitoring Program was published on July 10, 2019 in the Portola Reporter, a newspaper of general circulation in the Project area, and on July 5, 2019 in the Sacramento Bee, a newspaper of general circulation in the area of the Lead Agency. NCPA prepared and circulated for public review the document to 19 Federal, State, City and County agencies, and interested agencies. In addition, the State Clearinghouse circulated it to 14 selected State agencies.

The Initial Study found no substantial evidence that the proposal, as mitigated, may result in a significant adverse impact on the environment. The project includes mitigation measures in regards to Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, and Noise that will reduce any potential significant impacts to less than significant level.

The Mitigated Negative Declaration is a finding to that effect. A copy of the Initial Study accompanying studies, and the proposed Mitigated Negative Declaration are attached to this Staff Report. A copy of a draft Mitigation Monitoring Program is also attached.

After considering the entire record, Staff recommends that the Commission adopt the Mitigated Negative Declaration prior to acting on the proposal. Staff further recommends that the Commission adopt the Mitigation Monitoring Program.

FISCAL IMPACT:

The recommended actions have no direct budgetary impact at this time. Adopting Resolution 19-XX defines, for CEQA purposes, "NCPA Solar Project 1: Plumas-Sierra Chilcoot Site" as a project and directs that specific actions be carried out to comply with CEQA. Implementation of the mitigation plan will be the responsibility of the project developer under the direction of NCPA.

COMMITTEE REVIEW:

Pending Committee review.

Respectfully submitted,

RANDY S. HOWARD
General Manager

Attachments (2):

- Resolution
- July 2019 Initial Study & Mitigated Negative Declaration

RESOLUTION 19-xx

RESOLUTION OF THE NORTHERN CALIFORNIA POWER AGENCY APPROVING THE MITIGATED NEGATIVE DECLARATION PREPARED FOR THE NCPA SOLAR PROJECT 1: PLUMAS-SIERRA CHILCOOT SITE, ADOPTING THE MITIGATION MONITORING AND REPORTING PROGRAM, AND DIRECTING THE STAFF TO FILE THE NOTICE OF DETERMINATION WITH THE STATE CLEARINGHOUSE AND CLERK OF THE COUNTY OF PLUMAS

(reference Staff Report #xxx:19)

WHEREAS, the Northern California Power Agency (NCPA) anticipates the implementation of its Mitigated Negative Declaration and Mitigation Monitoring Program for its NCPA Solar Project 1: Plumas-Sierra Chilcoot Site (Project); and

WHEREAS, NCPA is developing a Renewable Energy Supply on behalf of the Participating Member Agencies; and

WHEREAS, the Solar Project 1: Plumas-Sierra Chilcoot Site (Project) is a proposed site located on a vacant 36-acre parcel south of Highway 70, east of the intersection of Highway 70 and Highway 49, which will consist of approximately 5.64 megawatts-direct current (MW_{dc}) photovoltaic electric generation facility on one parcel; and

WHEREAS, NCPA is the Lead Agency for the Project as the public agency with the principal responsibility for approving the Project; the Plumas-Sierra Rural Electric Cooperative (PSREC) is the Responsible Agency, as the public agency with the responsibility to approve the Project for which the Lead Agency has prepared the Initial Study, Mitigated Negative Declaration and Mitigation Monitoring Program; and

WHEREAS, after completing the Initial Study, Mitigated Negative Declaration and Mitigation Monitoring Program, NCPA circulated the documents for public review beginning on July 1, 2019 and ending on August 1, 2019; and

WHEREAS, NCPA also provided a Notice of Intent to Adopt a Mitigated Negative Declaration and Mitigation Monitoring Program to all organizations and individuals who had previously requested such notice, all affected public agencies, and published the Notice of Intent on July 10, 2019 in the Portola Reporter, a newspaper of general circulation in the Project area, and on July 5, 2019 in the Sacramento Bee, a newspaper of general circulation in the area of the Lead Agency. In addition, NCPA made copies of the Initial Study, Mitigated Negative Declaration and Mitigation Monitoring Program available at its Roseville Headquarters Office (651 Commerce Drive, Roseville, CA 95678) and at Plumas-Sierra Rural Electric Cooperative Headquarters (73233 CA-70, Portola, CA 96122). The document was also submitted to 14 select State agencies by the State Clearinghouse; and

WHEREAS, any comments received during the review period have been considered and acknowledged in the Consultation Summary. NCPA consulted with and requested comments from all responsible and trustee agencies, other regulatory agencies, and others pursuant to State CEQA Guidelines section 15086; and

WHEREAS, all the requirements of the California Environmental Quality Act (CEQA), the State CEQA Guidelines, and any of NCPA's local guidelines have been satisfied by NCPA in the Initial Study, Mitigated Negative Declaration and Mitigation Monitoring Program, which is sufficiently detailed so that all of the potentially significant environmental effects of the Project have been

adequately evaluated; and

WHEREAS, all of the findings and conclusions made by NCPA pursuant to this Resolution, including the Consultation Summary, Initial Study, Mitigated Negative Declaration and Mitigation Monitoring Program, are located on NCPA's website (www.NCPA.com) under "Bidding Requests and Public Notifications", or at NCPA's Headquarters under the Custody of the Commission; and

NOW, THEREFORE BE IT RESOLVED, that the Commission of NCPA has reviewed and considered the Initial Study, Mitigated Negative Declaration and Mitigation Monitoring Program in evaluating the impacts of the proposed NCPA Solar Project 1: Plumas-Sierra Chilcoot Site, in respect to the Comments made during the Review Period, find that the Initial Study, Mitigated Negative Declaration and Mitigation Monitoring Program were finalized in compliance with the CEQA, the State CEQA Guidelines, and NCPA's California Environmental Quality Act Manual; and finds that the Initial Study, Mitigated Negative Declaration and Mitigation Monitoring Program reflect NCPA's independent judgment and analysis.

1. The Commission finds that the Initial study was prepared for the Project and, together with a proposed Mitigated Negative Declaration, was circulated for public review on July 1, 2019. The public review period ended on August 1, 2019.

2. The Initial Study, Mitigated Negative Declaration and Mitigation Monitoring Program found no substantial evidence that the Project, as mitigated, may result in a significant adverse impact on the environment. The Project includes mitigation measures in regards to: Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, and Noise that will reduce any potential significant impacts to less than significant. The Mitigated Negative Declaration is a finding to that effect.

3. The NCPA Commission hereby adopts the Mitigated Negative Declaration prior to acting on the Project and adopts the Mitigation Monitoring Program, a copy of which is attached to the Staff Report referenced above. The Commission is directed to file a Notice of Determination with the State Clearinghouse and Plumas County as required by the CEQA.

PASSED, ADOPTED and APPROVED this ____ day of _____, 2019, by the following vote on roll call:

	Vote	Abstained	Absent
Alameda			
San Francisco BART			
Biggs			
Gridley			
Healdsburg			
Lodi			
Lompoc			
Palo Alto			
Port of Oakland			
Redding			
Roseville			
Santa Clara			
Shasta Lake			
Truckee Donner			
Ukiah			
Plumas-Sierra			

ROGER FRITH
CHAIR

ATTEST: CARY A. PADGETT
ASSISTANT SECRETARY

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678-6420

Initial Study and Mitigated Negative Declaration

NCPA Solar Project 1 – Plumas-Sierra Chilcoot Site

Photo Courtesy of SunPower Corporation

Prepared by:

K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
951-699-2082
Email: ksdpe67@gmail.com

July 2019

Table of Contents

Page

List of Tables

Page

List of Figures

Page

Acronyms and Abbreviations

AADT	annual average daily traffic
AAM	annual arithmetic mean
ADOE	Archaeological Determinations of Eligibility
AFY	acre-feet per annum
AGM	annual geometric mean
AQMP	Air Quality Management Plan
ARB	Air Resources Board
CAA	Clean Air Act
CAAA	Clean Air Act Amendments
CDFW	California Department of Fish and Wildlife
CARB	California Air Resources Board
Caltrans	California Department of Transportation
CCAA	California Clean Air Act
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
cfs	cubic feet per second
CH_4	methane
CMP	congestion management program
CNDDB	California Natural Diversity Data Base
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CRWQCB, CVR	California Regional Water Quality Control Board, Central Valley Region
dB(A)	decibels on the A-scale

DEIR	Draft Environmental Impact Report
DTSC	Department of Toxic Substances Control
DWR	Department of Water Resources
EA	Environmental Assessment
EIR	Environmental Impact Report
EMP	Energy Management Plan
EPA	U.S. Environmental Protection Agency
EPDC	expected peak day concentration
ESA	Endangered Species Act
g	acceleration due to gravity
GHG	greenhouse gases
GIS	Geographic Information System
gpm	gallons per minute
ISA	Integrated Science Assessment
GWP	global warming potential
HPD	Historic Property Directory
kV	kilovolts
kW	kilowatts
KSD&A	K.S. Dunbar & Associates, Inc.
Ldn	day-night average sound level
Leq	noise equivalent
LUSTIS	Leaking Underground Storage Tank Information System
MBTA	Migratory Bird Treaty Act
MDB&M	Mount Diablo Base and Meridian
MMRP	Mitigation Monitoring and Reporting Program
MT	metric tons
MW	megawatts
MW_{dc}	megawatts measured as direct current
MWh	megawatt hours
NAAQS	National Ambient Air Quality Standards

NAHC	Native American Heritage Commission
NDDB	Natural Diversity Data Base
NO	nitrogen oxide
NO_2	nitrogen dioxide
NO_x	oxides of nitrogen
NPL	National Priorities List
NRCS	Natural Resources Conservation Service
NSAPCD	Northern Sierra Air Pollution Control District
O_3	ozone
OES	Office of Emergency Services
OHP	Office of Historic Preservation
Pb	lead
Pga	peak ground acceleration
PM	particulate matter
PM_{10}	particulate matter (less than 10 microns in diameter)
$PM_{2.5}$	particulate matter (less than 2.5 microns in diameter)
ppb	parts per billion
ppm	parts per million
PRC	Public Resources Code
PSREC	Plumas-Sierra Rural Electric Cooperative
PV	photovoltaic
RCRA	Resource Conservation and Recovery Act
ROG	reactive organic gases also called VOC (volatile organic compounds)
Sa	spectral acceleration
SAAQS	State Ambient Air Quality Standards
SCAQMD	South Coast Air Quality Management District
SIP	State Implementation Plan
SMAQMD	Sacramento Metropolitan Air Quality Management District
SO_2	sulfur dioxide
SO_x	oxides of sulfur

State Water Board	State Water Resources Control Board
SCAQMD	South Coast Air Quality Management District
SWIS	Solid Waste Information System
SWPPP	Storm Water Pollution Prevention Plan
TOG	total organic gases
USDA	U.S. Department of Agriculture
USF&WS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Service
$\mu g/m^3$	micrograms per cubic meter

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678-6420

Executive Summary

Initial Study and Mitigated Negative Declaration

NCPA Solar Project 1 – Plumas-Sierra Chilcoot Site

Photo Courtesy of SunPower Corporation

Prepared by:

K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
951-699-2082
Email: ksdpe67@gmail.com

July 2019

Executive Summary

Overview of the Proposed Project

The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. Plumas-Sierra Rural Electric Cooperative (PSREC) selected a site near Chilcoot for further analysis as shown below:

:Site	Location		Developable Area (acres)	Estimated Capacity (MW_{dc})
	Latitude, Longitude	Section, Township, Range		
Plumas-Sierra Chilcoot	39° 47' 56.66" N, -120° 09' 49.99" W	Sec 35, T 23 N, R 16 E, MDB&M	28.2	5.64

The Project site is located within a 36-acre vacant parcel that is located just south of Highway 70 east of its intersection with Highway 49. The site is bordered by Highway 70 to the north, an industrial facility to the east, Union Pacific Railroad to the south, and scattered residences to the east (Figure ES-1). This site would accommodate a 5.64 MW_{dc} facility with a one-year output of 9,720 megawatt-hours.

Figure ES-1 Proposed Project Site

Impacts and Mitigation Measures

Table ES-1 identifies each potential significant effect, Standard Construction Practices/Design Features, and proposed mitigation measures that would reduce or avoid that effect. Proposed mitigation measures are NCPA Staff's and its consultant's recommendations to reduce potential impacts associated with implementation of the proposed Project. Should NCPA's Commission adopt the Mitigation Monitoring and Reporting Program (Appendix F in the IS&MND) these mitigation measures would become mandatory and part of the Project.

Table ES-1
Impacts and Mitigation Measures

Environmental Factor:	**Air Quality**
Impact:	The total estimated emissions from installation of the solar equipment at the Plumas-Sierra Chilcoot site would not exceed the construction-related threshold limits for significance established by NCPA to evaluate this Project. However, the ARB has designated Plumas County as non-attainment for the State $PM_{2.5}$ standards. In addition, the U.S. Environmental Protection Agency has designated Plumas County as moderate non-attainment for the federal $PM_{2.5}$ standards. Therefore, every effort should be made to minimize emissions within the Plumas County. Consequently, to reduce the emissions as much as possible,
Standard Construction Practices/Design Features	NCPA will add the following best management practices in its contract documents for this project:
Mitigation Measures	The contractor shall: ❖ Utilize electricity from power poles instead of from temporary diesel or gasoline power generators, when feasible. ❖ Require the use of 2010 and newer diesel haul trucks (e.g., material delivery trucks and soil import/export) and if the lead agency determines that 2010 model year or newer diesel trucks cannot be obtained the contractor shall use trucks that meet EPA 2007 model year NO_x emissions requirements. ❖ Require that all on-site construction equipment meet EPA Tier 3 or higher emissions standards according to the following: ➢ All off-road diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards, where available. In addition, all construction equipment shall be outfitted with *BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. ➢ A copy of each unit's certified tier specification, BACT documentation, and CARB or Northern Sierra AQMD operating permit shall be provided at the time of mobilization of each applicable unit of equipment. ❖ Maintain construction equipment engines by keeping them properly tuned and maintained according to manufacturer's specifications. ❖ Use alternative fuels or clean and low-sulfur fuel for equipment. ❖ Idle trucks in accordance with the Airborne Toxic Control Measure (ACTM) to Limit Diesel Fueled Commercial Motor Vehicle Idling and other applicable laws. ❖ Spread soil binders on site, where appropriate. ❖ Water active construction sites at least twice daily. ❖ Sweep all streets at the end of the day if visible soil materials are carried onto adjacent public paved roads (recommend water sweeper with reclaimed water). ❖ All grading operations shall be suspended when winds (as instantaneous gusts) exceed 20 miles per hour as directed by the Northern Sierra AQMD. ❖ If necessary, wash off trucks leaving the site. ❖ Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least two feet of freeboard in accordance with the requirements of California Vehicle Code (CVC) Section 23114.

Impact After Mitigation:	Less than significant impact.
Mitigation Measures:	NCPA shall appoint a construction relations officer to act as a community liaison concerning on-site construction activities including resolution of issues related to $PM_{2.5}$ generation. Additionally, best management practices shall be included in contract documents for this project.
Impact After Mitigation:	Less than significant impact.
Environmental Factor:	**Biological Resources**
Impact:	Potential impacts to nesting birds.
Standard Construction Practices/Design Features	NCPA will include the following mitigation measures in its contract documents for this project.
Mitigation Measures:	If construction occurs between February 1st and August 31st, a pre-construction clearance survey for nesting birds shall be conducted within three (3) days of the start of any vegetation removal or ground disturbing activities to ensure that no nesting birds will be disturbed during construction. The biologist conducting the clearance survey should document a negative survey with a brief letter report indicating that no impacts to active avian nests will occur. If an active avian nest is discovered during the pre-construction clearance survey, construction activities shall stay outside of a no-disturbance buffer. The size of the no-disturbance buffer (generally 300 feet for migratory and non-migratory song birds and 500 feet for raptors and special-status species) will be determined by the wildlife biologist, in coordination with the CDFW, and will depend on the level of noise and/or surrounding disturbances, line of sight between the nest and the construction activity, ambient noise, and topographical barriers. These factors will be evaluated on a case-by-case basis when developing buffer distances. Limits of construction to avoid an active nest will be established in the field with flagging, fencing, or other appropriate barriers; and construction personnel will be instructed on the sensitivity of nest areas. A biological monitor should be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, construction activities within the buffer area can occur.
Impact After Mitigation:	Less than significant impact
Environmental Factor:	**Cultural Resources**
Potential Impact:	Possible inadvertent discoveries of cultural resources or human remains during excavation activities.
Standard Construction Practices/Design Features	Prior to the start of construction, NCPA shall hold a pre-grading meeting. The Project Archaeologist shall attend the pre-grading meeting with NCPA's Project Administrator, Field Engineering Inspector and any contractors to conduct a Cultural Resources Worker Sensitivity Training for all construction personnel working on the proposed Project. The training shall include an overview of potential cultural resources that could be encountered during ground disturbing activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated, and any other appropriate protocols. In addition, NCPA will include the following mitigation measures in its contract documents for this project.
Mitigation Measures:	❖ In the unlikely event that potentially significant archaeological materials are encountered during construction activities, all work shall be halted in the vicinity of the archaeological discovery until a qualified archaeologist can visit the site of discovery, access the significance of the archaeological resource, and provide proper management recommendations. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted. The treatment and disposition of cultural material that might be discovered during excavation shall be in accordance with applicable laws and regulations. ❖ All sacred items, should they be encountered within the Project sites, shall be avoided and preserved as the preferred mitigation, if feasible. All cultural materials that are collected during excavation and other earth disturbing activities on the Project sites, with the exception of sacred items, burial goods and human remains which will be addressed in any required Treatment Agreement, shall be tribally curated according to the current repository standards. The collections and associated records shall be transferred, including title, to the closet tribe to the Project site. ❖ In the event of an accidental discovery or recognition of any human remains, the County Coroner shall be notified and construction activities at the affected work site shall be halted. If the coroner determines the remains to be Native American: (1) the coroner shall contact the Native American Heritage Commission (NAHC) within 24-hours, and (2) the NAHC shall identify the person or persons it believes to be the most likely descended from the deceased Native American. The treatment and disposition of human remains that might be discovered during excavation shall be in accordance with applicable laws and regulations.
Impact After Mitigation:	Less than significant impact

Environmental Factor	Geology and Soils
Potential Impact	Possible inadvertent discoveries of paleontological resources during excavation activities.
Standard Construction Practices/Design Features	NCPA will include the following mitigation measures in its contract documents for this project.
Mitigation Measures	❖ In the unlikely event that potentially significant paleontological materials (e.g., fossils) are encountered during construction of the project, all work shall be halted in the vicinity of the paleontological discovery until a qualified paleontologist can visit the site of discovery, assess the significance of the paleontological resource, and provide proper management recommendations. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted. The treatment and disposition of paleontological material that might be discovered during excavation shall be in accordance with applicable laws and regulations.
Environmental Factor	**Hazards and Hazardous Materials**
Potential Impact	During construction, the contractor would utilize equipment that uses petroleum-based fuels and lubricants, which are subject to both leakage from engine blocks and containers, or spillage during refueling and lubrication operations
Standard Construction Practices/Design Features	NCPA's contract documents for this project will include the following: During project construction, the construction contractor shall implement the following measures to address the potential environmental constraints associated with the presence of hazardous materials at the project sites to the satisfaction of NCPA: ❖ The contractor shall prepare a Health and Safety Plan in compliance with the requirements of Chapter 6.95, Division 20 of the Health and Safety Code (§25500 – 25532). The plan shall include measures to be taken in the event of an accidental spill. ❖ The contractor shall enforce strict on-site handling rules to keep construction and maintenance materials out of receiving waters and storm drains. In addition, the contractor shall store all reserve fuel supplies only within the confines of designated construction staging areas; refuel equipment only with the designated construction staging areas; and regularly inspect all construction equipment for leaks. ❖ The construction staging area shall be designed to contain contaminants such as oil, grease, and fuel products to ensure that they do not drain towards receiving waters or storm drain inlets.
Mitigation Measures	No additional mitigation is required.
Impact After Mitigation	Less than significant impact.
Environmental Factor	**Hydrology and Water Quality**
Potential Impact	During project construction, there is the potential for sediment-laden runoff to enter downstream drainages.
Standard Construction Practices/Design Features	All site grading and excavation activities associated with the construction of the Project facilities would be subject to the provisions of the National Pollutant Discharge Elimination System (NPDES) Construction Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities [NPDES No. CAS000002 (State Water Resources Control Board Order No. 2009-0009-DWQ)]. Compliance with the provisions of that Order would require NCPA to obtain coverage before the onset of construction activities. Construction activities would comply with the conditions of these permits that include preparation of storm water pollution prevention plans (SWPPP), implementation of BMP's, and monitoring to insure impacts to water quality are minimized. As part of this process, multiple BMP's should be implemented to provide effective erosion and sediment control. These BMP's should be selected to achieve maximum sediment removal and represent the best available technology that is economically achievable. BMP's to be implemented may include, but not be limited to, the following: ✓ Temporary erosion control measures such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other groundcover shall be employed for disturbed areas. ✓ Storm drain inlets on the site and in downstream offsite areas shall be protected from sediment with the use of BMP's acceptable to NCPA, local jurisdictions and the California Regional Water Quality Control Board, Central Valley Region. ✓ Dirt and debris shall be swept from paved streets in the construction zone on a regular basis, particularly before predicted rainfall events. ✓ No disturbed surfaces shall be left without erosion control measures in place. NCPA, or its Construction Contractor, shall file a Notice of Intent with the Regional Board and require the preparation of a pollution

	prevention plan prior to commencement of construction. NCPA shall routinely inspect the construction site to verify that the BMP's specified in the pollution prevention plan are properly installed and maintained. NCPA shall immediately notify the contractor if there were a noncompliance issue and require immediate compliance. The SWPPP will also identify the method of final stabilization of the site to ensure no post-construction erosion and impacts to water quality will occur. The Notice of Termination (NOT) and release of the Project from the provisions of the Construction General Permit coverage will be granted by the California Regional Water Quality Control Board, Central Valley Region once it is satisfied that no impacts to water quality will occur.
Mitigation Measures	No additional mitigation is required.
Impact After Mitigation	Less than significant impact.

Areas of Controversy

There are no areas of controversy associated with the NCPA Solar Project 1 – Plumas-Sierra Chilcoot site.

Issues to be Resolved

There are no issues to be resolved associated with the NCPA Solar Project 1 – Plumas-Sierra Chilcoot site.

Document Availability and Contact Personnel

The Initial Study and Mitigated Negative Declaration is available for review at the following locations:

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678

Plumas-Sierra Rural Electric Cooperative
73233 State Route 70
Portola, California 96122-7069

and can be downloaded at:

https://www.ncpa.com

All comments regarding the Project or environmental documents should be mailed or emailed to:

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE
K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
(951) 699-2082
Email: ksdpe67@gmail.com

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678-6420

Initial Study and Mitigated Negative Declaration

NCPA Solar Project 1 – Plumas-Sierra Chilcoot Site

Photo Courtesy of SunPower Corporation

Prepared by:

K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
951-699-2082
Email: ksdpe67@gmail.com

July 2019

1 Introduction

1.1 Introduction

The following Initial Study addresses the environmental impacts associated with the NCPA Solar 1 Project – Plumas-Sierra Chilcoot site (Project) being implemented by the Northern California Power Agency (NCPA) (Figure 1.1-1). This Initial Study has been prepared in accordance with the *California Environmental Quality Act of 1970,* as amended, (CEQA), the *State CEQA Guidelines,* and NCPA's *Local Guidelines for Implementing the California Environmental Quality Act*, as amended. NCPA is the Lead Agency and the Plumas-Sierra Rural Electric Cooperative is a Responsible Agency for the purposes of CEQA for this project.

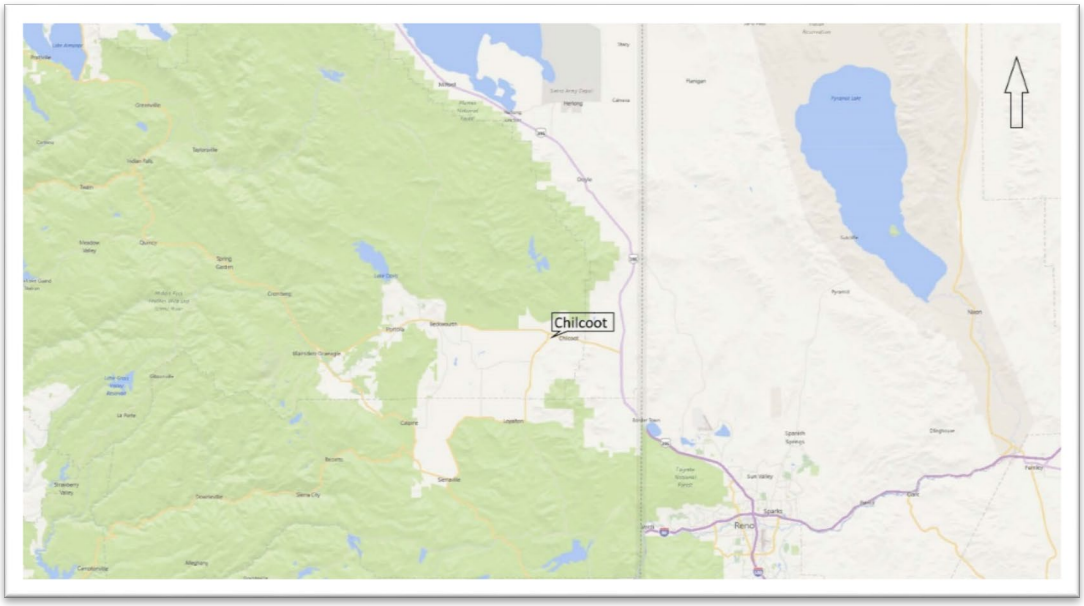


Figure 1.1-1 NCPA Solar Project 1 – Plumas-Sierra Chilcoot Site

1.2 Project Summary

The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by NCPA as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. Plumas-Sierra Rural Electric Cooperative (PSREC) selected a site near Chilcoot for further analysis as shown below:

Site	Location		Developable Area (acres)	Estimated Capacity (MW_{dc})
	Latitude, Longitude	Section, Township, Range		
Plumas-Sierra Chilcoot	39° 47' 56.66" N, -120° 09' 49.99" W	Sec 35, T 23 N, R 16 E, MDB&M	10.3	4.9

The Project site is located within a 36-acre vacant parcel that is located just south of Highway 70 east of its intersection with Highway 49. The site is bordered by Highway 70 to the north, an industrial facility to the east, Union Pacific Railroad to the south, and scattered residences to the east (Figure 1.1-2). This site would accommodate a 4.9 MW_{dc} facility with a one-year output of 9,720 megawatt-hours.

Figure 1.2-2 Proposed Project Location

1.3 California Environmental Quality Act Compliance

The California Environmental Quality Act (California Public Resources Code §21000 et seq.: "CEQA"), requires that the environmental impacts of proposed projects be evaluated and that feasible methods to reduce, avoid or eliminate significant adverse impacts of these projects be identified and eliminated. Therefore, to fulfill the purpose and intent of CEQA, NCPA, as the lead agency, has caused this Initial Study/Mitigated Negative Declaration (IS/MND) to be prepared to address the potentially significant adverse environmental impacts associated with implementation of the Project.

1.3.1 Purposes of an Initial Study

The purposes of an Initial Study, as outlined in §15063(c) of the State CEQA Guidelines, are:

1) *Provide the Lead Agency with information to use as the basis for deciding whether to prepare an EIR or a Negative Declaration;*

2) *Enable an applicant or Lead Agency to modify a project, mitigating adverse impacts before an EIR is prepared, thereby enabling the project to qualify for a Negative Declaration;*

3) *Assist the preparation of an EIR, if one is required, by:*

   a. *Focusing the EIR on the effects determined to be significant,*
   b. *Identifying the effects determined not to be significant,*
   c. *Explaining the reasons for determining that potentially significant effects would not be significant, and*
   d. *Identifying whether a program EIR, tiering, or another appropriate process can be used for analysis of the project's environmental effects.*

4) *Facilitate environmental assessment early in the design of a project;*

5) *Provide documentation of the factual basis for the finding in a Negative Declaration that a project will not have a significant effect on the environment;*

6) *Eliminate unnecessary EIR's; and*

7) *Determine whether a previously prepared EIR could be used with the project.*

1.3.2 Contents of an Initial Study

The contents of an Initial Study are defined in §15063(d) of the CEQA Guidelines as follows:

1) *A description of the project including the location of the project;*

2) *An identification of the environmental setting;*

3) *An identification of environmental effects by use of a checklist, matrix, or other method, provided that entries on a checklist or other form are briefly explained to indicate that there is some evidence to support the entries. The brief explanation may be either through a narrative or a reference to another information source such as an attached map, photographs, or an earlier EIR or negative declaration. A reference to another document should include, where appropriate, a citation to the page or pages where the information is found;*

4) *A discussion of ways to mitigate the significant effects identified, if any;*

5) *An examination of whether the project would be consistent with existing zoning, plans, and other applicable land use controls;*

6) *The name of the person or persons who prepared or participated in the Initial Study.*

1.3.3 Intended Uses of the Initial Study

The Initial Study will be presented to NCPA's Commission for its use in implementing the California Environmental Quality Act (CEQA). The basic purposes of CEQA as outlined in §15002(a) of the CEQA Guidelines are to:

1) *Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities.*

2) *Identify the ways that environmental damage can be avoided or significantly reduced.*

3) *Prevent significant avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.*

4) *Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.*

As pointed out above, one purpose of an Initial Study is:

> Provide the Lead Agency with information to use as the basis for deciding whether to prepare an Environmental Impact Report (EIR) or Negative Declaration.

1.3.4 Lead Agency Decision-Making Process

The Lead Agency (i.e., NCPA) would base its decision on the Project on the findings contained within this Initial Study plus the professional knowledge and judgment of its staff and consultants. During the review process, mitigation measures contained in this document should be evaluated with respect to their effectiveness in reducing impacts to a level of insignificance. Public input, including responsible and trustee agencies, should also be requested and evaluated during the review process.

The approval process for the proposed Project will begin with NCPA's Commission making a decision to prepare a Negative Declaration or an Environmental Impact Report for the Project. Should NCPA decide to prepare a Negative Declaration, based on this Initial Study, it would also determine whether or not it would approve of the Project in accordance with §15074 of the State CEQA Guidelines. Should NCPA decide to prepare an Environmental Impact Report for the Project, it would also have to make findings in accordance with §15091 of the State CEQA Guidelines and to certify the Final Environmental Impact Report in accordance with §15090 of the CEQA Guidelines.

1.3.5 Approvals for which this Initial Study will be Used

The following agencies would also utilize this document in their decision-making process regarding the Proposed Project:

California Regional Water Quality Control Board, Central Valley Region

General Permit for Storm Water Discharges Associated with Construction Activity

Plumas-Sierra Rural Electric Cooperative

Project Approval

2 Project Background and Description

2.1 Introduction

The Northern California Power Agency (NCPA), a California Joint Action Agency, was established in 1968 by a consortium of locally owned electric utilities to make joint investments in energy resources that would ensure an affordable, reliable and clean supply of electricity for customers in its member communities. Today those members include the Cities of Alameda, Biggs, Gridley, Healdsburg, Lodi, Lompoc, Palo Alto, Redding, Roseville, Santa Clara, Shasta Lake, and Ukiah as well as the Bay Area Rapid Transit District, Port of Oakland, Plumas-Sierra Rural Electric Cooperative, and Tahoe Donner Public Utility District.

Over the past four decades, NCPA has constructed and today operates and maintains a fleet of power plants that is among the cleanest in the nation and that provides reliable and affordable electricity to more than 600,000 Californians. NCPA made major investments in renewable energy in the early 1980s when it developed two geothermal power plants and financed and built a 259 MW hydroelectric facility. Thirty years later those resources continue to generate reliable, emission-free electricity for its member communities.

NCPA's 775-megawatt portfolio of power plants is approximately50% greenhouse gas emission free. Its mix of geothermal, hydroelectric and natural gas resources is well positioned to help its members achieve California's goal of a 50% Renewable Portfolio Standard (RPS) by 2030. NCPA member utilities also have invested heavily in the most environmentally friendly form of electricity – the megawatts that are not used. The Agency members have collectively spent more than $100 million on energy efficiency sine 2006 reducing demand for electricity by more than 350 gigawatt hours during that time.

NCPA's commitment to the environment reflects its status as a not-for-profit public entity whose policies and values are set not by investors but by locally elected or appointed officials who serve as the energy regulators in the cities, towns and districts that are members of the Agency.

2.2 Project Background

Now NCPA intends to implement the NCPA Solar Project 1. The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. Four of the member agencies have decided to participate in this project. They are the Cities of Healdsburg, Lodi and Redding as well as the Plumas-Sierra Rural Electric Cooperative. Six potential sites have been selected for further analysis as shown below:

Site	Location	Developable Area (acres)	Estimated Capacity (MW_{dc})
Healdsburg – Wastewater Plant	38°35'00.03N, 122°51'45.37"W	8.13	3.62
Lodi – Pixley Basin	38°07'18.06"N, 121°15'12.14"W	15.0	3.51
Lodi – Century East/West	38°06'26.66"N, 121°16'21.63"W	2.5	0.63
Lodi – Parking Structure	38°08'05.25"N, 121°16'18.58"W	0.9	0.18
Plumas Sierra – Chilcoot	39°47'56.66"N, 120°09'49.99"W	10.3	4.90
Redding – Airport	40°29'41.73"N, 122°16'46.41"W	23.5	13.50

Due to the timing of implementation and the great distance between the member agencies, it was determined that the most logical approach to satisfying the requirements of CEQA for this project was to issue separate CEQA documents for each member agency's projects. Therefore, this document focuses on the project proposed by the Plumas-Sierra Rural Electric Cooperative (PSREC).

2.3 Project Description

As shown above, PSREC selected a potential site near the intersection of State Highways 49 and 70 at Chilcoot for further analysis. The location of this site is shown on Figure 2.3-1.

Figure 2.3-1 Proposed Photovoltaic Site near Chilcoot Location

2.3.1 Project Description

According to Burns & McDonnell's May 2, 2019 *Plumas-Sierra Chilcoot Site Plan* Development report, the Plumas-Sierra Chilcoot Project site consists of a vacant privately-owned parcel containing approximately 33.2 acres. The Project site is bordered by an easement that borders State Highway 70 to the north, an industrial facility to the east, the Union Pacific Railroad to the south, and private residences to the west. A site layout is shown on Figure 2.3-2. The conceptual design shown on Figure 2.3-2 includes a Project size of 4.9 MW_{dc}.

Figure 2.3-2 Plumas-Sierra Chilcoot Project Site

Evaluation categories for the project development criteria included analysis of solar resource potential, panel performance, technology suitability and electrical interconnection. The project team did not discover any fatal flaws during the desktop analyses or site visits with respect to these evaluation criteria. Based on historical Direct Normal Irradiance/Global Horizontal Irradiance (DNI/GHI) data from 1998 to 2014, the site appears to have sufficient solar insolation for photovoltaic generation. The Project site has a low potential for dust and dirt accumulation.

Burns and McDonnell's May 2019 report included a conceptual layout of the proposed solar panel installation (Figure 2.3-3). The conceptual layout was based on the use of horizontal single axis tracking (HSAT) as the Project will be at ground level, only minimum grading will be required, and a penetrating mounting system can be used. A typical HSAT PV array with bifacial modules is shown of Figure 2.3-4.

Figure 2.3-3 Conceptual Layout of Solar Arrays

Figure 2.3-4 Typical HSAT PV Array with Bifacial Modules

Burns and McDonnell received data identifying the point of interconnection (POI). As shown on Figure 2.3-5, the POI is located at the Chilcoot 69 kV substation located adjacent to the eastern Project boundary.

Figure 2.3-5 Point of Interconnection

A summary of Burns & McDonnell's conceptual design parameters is provided in Table 2.3-1.

Table 2.3-1
Conceptual Design Parameters

Parameter	Content
Project Buildable Area	33.2 acres
Approximate PV Area	10.3 acres
Estimated Project Size (dc)	4.9 MW_{dc}
Estimated Project Size (ac)	3.9 MW_{ac}
Target dc/ac Ratio	1.2 – 1.3
Point of Interconnection Voltage	69 kV
Project Boundary to Fence Buffer	3 feet
Parcel Boundary to Array Buffer	50 feet
Security and Fencing	Existing fence upgrade to 6-foot with barbed wire
Module Size	Minimum 350 watt
Racking System	HSAT
Invertors	String (preferred) or Central

3 Environmental Checklist, Analysis and Mitigation Measures

3.1 Introduction

1. Project Title:	**NCPA Solar Project 1 – Plumas-Sierra Chilcoot Site**
2. Lead Agency Name and Address:	Northern California Power Agency 651 Commerce Drive Roseville, California 95678-6420
3. Contact Person, Phone Number and Email:	Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE K.S. Dunbar & Associates, Inc. Environmental Engineering 45375 Vista Del Mar Temecula, California 92590-4314 (951) 699-2082 ksdpe67@gmail.com
4. Project Location:	Within an unincorporated area of Plumas County Section 35, Township 23 North, Range 16 East, Mount Diablo B&M 39º 47' 56.66" N, -120º 09' 49.99" W
5. Project Sponsor's Name and Address:	Northern California Power Agency 651 Commerce Drive Roseville, California 95678 Plumas-Sierra Rural Electric Cooperative 73233 State Route 70 Portola, California 96122-7069
6. General Plan Designations:	Suburban Residential
7. Zoning:	Suburban (S-1)
8. Project Description (Describe the whole action involved, including, but not limited to, later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets, if necessary):	NCPA intends to install a solar photovoltaic generation system at the Plumas-Sierra Chilcoot property. The installed capacity would be 4.90 MW_{dc}.
9. Surrounding Land Uses and Setting:	Mixture of rural residential, industrial, open space and agricultural uses.
10. Other Public Agencies whose Approval is Required (e.g., permits, financing approval, or participation agreement):	California Regional Water Quality Control Board, Central Valley Region Plumas Sierra Rural Electric Cooperative

11. Have California Native American Tribes traditionally and culturally affiliated with the project area requested information pursuant to Public Resources Code Section 21080.3.1? If so, has consultation begun?	Yes.

3.2 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by the Project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐	Aesthetics	☐	Agriculture and Forestry Resources	☐	Air Quality
☐	Biological Resources	☐	Cultural Resources	☐	Energy
☐	Geology/Soils	☐	Greenhouse Gas Emissions	☐	Hazards & Hazardous Materials
☐	Hydrology/Water Quality	☐	Land Use/Planning	☐	Mineral Resources
☐	Noise	☐	Population and Housing	☐	Public Services
☐	Recreation	☐	Transportation	☐	Tribal Cultural Resources
☐	Utilities/Service Systems	☐	Wildfire	☐	Mandatory Findings of Significance

3.3 Determination

On the basis of this initial evaluation:

☐	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 project proponent. 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" impact 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 in 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 or NEGATIVE DECLARATION pursuant to applicable legal standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Original signed by K.S. Dunbar for

Ron Yuen
Director of Engineering, Generation Services

June 28, 2019

Date

3.4 Chapter Organization

This section describes how this chapter of the Initial Study and Mitigated Negative Declaration is organized. In this analysis, potential reasonably foreseeable impacts are evaluated with respect to aesthetics, agriculture and forestry resources, air quality, biological resources, cultural resources, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation, tribal cultural resources, utilities and service systems, and wildfire. Additionally, mandatory findings of significance regarding short-term, long-term, and cumulative impacts are evaluated. Each topic area begins with a listing of the factors identified by the State CEQA Guidelines for analysis, followed by a discussion of the environmental setting, the analysis for each factor, and an overall conclusion.

3.4.1 Environmental Setting

Throughout this document and according to the State CEQA Guidelines, the environmental setting is intended to mean the environmental conditions as they exist at the time the environmental analysis is commenced. The environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant. The description of the environmental setting shall be no longer than is necessary to gain an understanding of the significant effects of the proposed Project and its alternatives.

3.4.2 Discussion and Mitigation Measures

The Initial Study includes an analysis of direct and reasonably foreseeable physical changes in the environment from the proposed Project and feasible mitigation measures that would reduce such impacts to a less than significant level. Thresholds of significance for each potential impact are provided as appropriate.

A "significant effect on the environment" is defined in the State CEQA Guidelines Section 15382 as a "substantial or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. A social or economic change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant."

"Environment" is defined in the State CEQA Guidelines Section 15360 as "the physical conditions which exist within the area which will be affected by a proposed project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance."

A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a Lead Agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

The following requirements for evaluating environmental impacts are cited directly from the State CEQA Guidelines Appendix G.

1) All answers must take into account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

2) Once the Lead Agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation incorporated, or less than

significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect is significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

3) "Negative Declaration: Less Than Significant with Mitigation Incorporated" applies when the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact". The Lead Agency must describe the mitigation measures, and briefly explain how they reduce the effect to less than significant.

4) Earlier analyses may be used where pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. [§15063(c)(3)(D)]. In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.

   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) Mitigation Measures. For effects that are "Less Than Significant with Mitigation Incorporated", describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

5) Lead Agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

6) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

7) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

8) The explanation of each issue should identify:

   a) The significance criteria or threshold, if any, used to evaluate each question; and

   b) The mitigation measures identified, if any, to reduce the impact to less than significance.

3.5 Aesthetics

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
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. Substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	◙
d. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☐	☐	◙	☐

3.5.1 Environmental Setting

As shown on Figure 3.5-1, the proposed Project site is vacant land. The Project site is bounded by rural residential properties to the west, State Highway 70 to the north, Union Pacific Railroad to the south and a small industrial area to the east.

Figure 3.5-1 Proposed Project Site, Plumas-Sierra Chilcoot

3.5.2 Discussion and Mitigation Measures

Aesthetics a. *Would the project have a substantial adverse effect on a scenic vista?*

Answer: No Impact.

Discussion:

There are scenic vistas to the distant mountains from the proposed Project site. However, the solar panels would be of low profile and not interfere with those views. Therefore, there would be no adverse effects on a scenic vista caused by implementation of the Project. Consequently, no further analysis or mitigation is required.

Aesthetics b. *Would the project* substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Answer: No Impact.

Discussion:

There are no officially designated State scenic highways within Plumas County. However, portions of State Highways 36, 70 and 89 are Eligible State Scenic Highways – Not Officially Designated. None of these highways are within view of the proposed Project site. Therefore, no further analysis or mitigation is required.

Aesthetics c. Would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Answer: No Impact.

Discussion:

According to the County of Plumas's Zoning Map, the proposed Project site is presently zoned suburban residential (SI). Installation of public utility facilities is a permitted use in this designation. Therefore, there would be no conflicts with applicable zoning and therefore no further analysis or mitigation is required.

Aesthetics d. *Would the project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?*

Answer: Less than Significant Impact.

Discussion:

According to the June 2014 Meister Consultants Group Solar and Glare Fact Sheet prepared for the U.S. Department of Energy, a common misconception about solar photovoltaic (PV) panels is that they intently cause or create "too much" glare, posing a nuisance to neighbors and a safety risk for pilots. While in certain situations the glass surfaces of solar PV systems can produce a glint (a momentarily flash of bright light) and glare (a reflection of bright light for a longer duration), light adsorption, rather than reflection is central to the function of a solar PV panel – to absorb solar radiation and convert it to electricity. Solar PV panels are constructed of dark-colored (usually blue or black) materials and are covered with anti-reflective coatings. Modern PV panels reflect as little as two percent of incoming sunlight, about the same as water and less than soil or even wood shingles.

Based on the above discussion, the potential for substantial glare from the solar PV panels would be considered less than significant and therefore no further analysis or mitigation is required.

3.5.3 Conclusion

No significant impacts were identified; therefore, no further analysis or mitigation is required.

3.6 Agriculture and Forestry Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project, and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. *Would the Project:*				
a. Convert Prime 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?	☐	☐	☐	◙
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	◙
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 511104(g))?	☐	☐	☐	◙
d. Result in the loss of forest land or conversion of forest land to non-forest uses.	☐	☐	☐	◙
e. Involve other changes in the existing environment that, 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?	☐	☐	☐	◙

3.6.1 Environmental Setting

As shown previously on Figure 3.5-1, the Project site is presently vacant land. There are no agricultural or forest lands on the Project site

3.6.2 Discussion and Mitigation Measures

Agriculture and Forestry Resources. a. *Would the project 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?*

Answer: No Impact.

Discussion:

There are no Prime Farmlands or Farmlands of Statewide Importance as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency at the Project site *(resources.ca.gov, 4/12/2019)*. Therefore, there would be no impacts and no further analysis or mitigation is required.

Agriculture and Forestry Resources. b. *Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?*

Answer: No Impact.

Discussion:

The site is zoned as suburban residential (S-1). It is not under a Williamson Act contract. Therefore, there would be no impacts and no further analysis or mitigation is required.

Agriculture and Forestry Resources. c. *Would the project 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))?*

Answer: No Impact.

Discussion:

The site is not zoned for forest land or timber land use. Therefore, there would be no impacts and no further analysis or mitigation is required.

Agriculture and Forestry Resources. d. *Would the project result in the loss of forest land or conversion of forest land to non-forest use?*

Answer: No Impact.

Discussion:

There is no forest land within the Project site. Therefore, there would be no impacts and no further analysis or mitigation is required.

Agriculture and Forestry Resources. e. *Would the project 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?*

Answer: No Impact.

Discussion:

There is no Farmland or forest land at the Project site. Therefore, there would be no impacts and no further analysis or mitigation is required.

3.6.3 Conclusion

No significant impacts were identified; therefore, no further analysis or mitigation is required.

3.7 Air Quality

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. *Would the Project:*				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	◙	☐
b. Result in cumulatively considerable net increase of any criteria pollutant under an applicable federal or state ambient air quality standard?	☐	☐	◙	☐
c. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	◙
d. Result in other emissions (such as those leading to odors or dust) adversely affecting a substantial number of people?	☐	☐	◙	☐

3.7.1 Environmental Setting

Plumas County's topography greatly influences its climate, which results in disproportionate levels of precipitation across the County. More commonly known as the rain shadow effect, this condition is created by the Sierra Nevada Crest which acts as a barrier to storm systems between the western and eastern portions of the County. Consequently, while the western side of the Sierra Nevada Mountains receives over 90 inches of rain annually, areas east of the crest receive only 11 inches, with the majority falling between October and April. Throughout the year, average temperatures, as measured at Portola, can range from over 80 degrees Fahrenheit (°F) during the summer months to 18°F during the winter months.

The Project area is located within the Mountain Counties Air Basin which includes all of Plumas, Sierra, Nevada, Amador, Calaveras and Tuolumne Counties as well as portions of Placer, El Dorado and Mariposa Counties. Within this Basin, the Northern Sierra Air Quality Management District (NSAQMD) regulates air quality conditions in Plumas County. The California Air Resources Board (ARB) provides ambient air quality data for most air basins in the State. A summary of the data available for the nearest monitoring station to the Project area (i.e., Grass Valley – Lytton Building) is provided in Tables 3.7-1 through 3.7-3.

Table 3.7-1
Ozone Trends Summary: Grass Valley – Lytton Building
National Standards

	Days > Standard			1-hr Observations				8-hr Observations				
	8-hr			EENED[1]				0.070 Std.		0.075 Std.		Year
Year	0.070	0.075	0.080	Max.	1-yr	3-yr	D.V.[2]	Max.	D.V.[2]	Max.	D.V.[2]	Coverage
2017	78	58	21	*0.108*	0.0	0.0	*0.102*	0.099	0.086	0.099	0.087	100
2016	39	16	5	*0.101*	0.0	0.0	*0.101*	0.097	0.083	0.097	0.084	100
2015	26	11	4	*0.101*	0.0	0.0	*0.096*	0.092	0.081	0.092	0.081	96
2014	28	10	1	*0.089*	0.0	0.0	*0.089*	0.085	0.078	0.085	0.079	99
2013	19	4	0	*0.089*	0.0	0.0	*0.089*	0.082	0.076	0.082	0.077	100
2012	46	5	0	*0.087*	0.0	0.0	*0.091*	0.081	0.076	0.081	0.077	98
2011	18	6	0	*0.094*	0.0	0.0	*0.094*	0.081	0.078	0.081	0.079	99
2010	15	6	1	*0.093*	0.0	0.0	*0.103*	0.087	0.083	0.087	0.084	100
2009	34	17	3	*0.103*	0.0	0.0	*0.104*	0.091	0.087	0.091	0.087	99
2008	36	24	10	*0.111*	0.0	0.0	*0.111*	0.108	0.091	0.108	0.091	85

Notes: All concentrations expressed in parts per million.

The national 1-hour ozone standard was revoked in June 2005. Statistics related to the revoked standard are shown in *italics* or ***italics***.

National exceedances shown in **orange**.

An exceedance is not necessarily a violation.

Daily maximum 8-hour averages associated with the National 0.070 ppm standard exclude those 8-hour averages that have first hours between midnight and 6:00 am, Pacific Standard Time.

Daily maximum 8-hour averages associated with the National 0.070 ppm standard include only those 8-hour averages from days that have sufficient data for the day to be considered valid.

Daily maximum 8-hour averages associated with the National 0.075 ppm standard may come from days that don't have sufficient data for the day to be considered valid, provided the daily maximum 8-hour average itself includes sufficient data to be considered valid.

[1] EENED = Estimated Expected Number of **Exceedance** Days

[2] D.V. = National Design Value

* There was insufficient (or no) data available to determine the value.

Source: arb.ca.gov, 04/13//2019

Table 3.7-2
Ozone Trends Summary: Grass Valley – Lytton Building
State Standards

Days > Standard			1-Hour Observations			8-Hour Averages			Year
Year	1-Hour	8-Hour	Max.	EPDC[1]	D.V.[2]	Max.	EPDC[1]	D.V.[2]	Coverage
2017	13	85	0.108	0.1076	0.11	0.099	0.0999	0.099	100
2016	6	46	0.101	0.0980	0.10	0.097	0.0917	0.089	99
2015	4	30	0.101	0.932	0.09	0.093	0.0879	0.086	98
2014	0	36	0.089	0.0896	0.09	0.086	0.0854	0.083	99
2013	0	24	0.089	0.0869	0.09	0.082	0.0828	0.082	100
2012	0	22	0.087	0.0899	0.09	0.082	0.0853	0.085	96
2011	0	20	0.094	0.0958	0.10	0.082	0.0881	0.088	99
2010	0	18	0.093	0.1013	0.10	0.088	0.0948	0.092	100
2009	3	38	0.103	0.1024	0.10	0.091	0.0985	0.097	99
2008	8	42	0.111	0.1084	0.11	0.109	0.1043	0.098	88

Notes: All concentrations expressed in parts per million.

National exceedances shown in **green**.

An exceedance is not necessarily a violation.

[1] EPDC = Expected Peak Day Concentration

[2] D.V. = State Designation Value

*There was insufficient (or no) data available to determine the value.

Source: arb.ca.gov, 04/13/2019

Table 3.7-3
$PM_{2.5}$ Trends Summary: Grass Valley – Lytton Building

Year	Est. Days > Nat'l '06 Std.	Annual Average Nat'l	Annual Average State	Nat'l Ann. Std. D.V.[1]	State Ann. Std D.V.[2]	Nat'l '06 Std. 98th Percentile	Nat'l '06 24-Hr Std. D.V.[1]	High 24-Hour Average Nat'l	High 24-Hour Average State	Year Coverage
2017	3.0	5.0	5.8	4.7	6	32.4	18	68.1	75.4	98
2016	0.0	4.6	4.6	*	5	11.7	28	11.7	19.5	98
2015	0.0	4.6	*	*	6	11.0	34	11.5	130.0	94
2014	*	*	*	*	6	61.3	32	61.3	239.0	83
2013	0.0	5.7	5.7	4.6	6	28.2	15	28.5	38.1	95
2012	0.0	3.8	3.8	*	6	7.6	*	7.7	37.2	95
2011	0.0	4.2	6.1	*	6	9.9	*	10.2	21.0	91
2010	*	*	4.2	*	4	*	*	10.5	19.7	81
2009	0.0	4.5	*	6.3	*	10.0	30	12.9	36.0	90
2008	26.3	9.6	*	6.9	6	65.1	35	102.2	102.2	92

Notes: All concentrations expressed in micrograms per cubic meter.
State exceedances shown in **green**. National exceedances shown in **orange**. An exceedance is not necessarily a violation.
State and national statistics may differ for the following reasons:
State statistics are based on California approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods.
State and national statistics may therefore be based on different samplers.
State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.
[1] D.V. = National Design Value
[2] D.V. = State Designation Value
* There was insufficient (or no) data available to determine the value.

Source: arb.ca.gov, 04/13/2019

Both EPA and ARB issue area designations for individual pollutants for California's air basins. The latest designations for Plumas County are shown in Table 3-7.4.

Table 3.7-4
Ambient Air Quality Area Designations for Plumas County

Pollutant	State Area Designation	National Area Designation
Ozone	Attainment	Unclassified/Attainment
Particulate Matter Less than 2.5 microns in diameter ($PM_{2.5}$)	Non-Attainment	Moderate Non-Attainment
Particulate Matter Less than 10 microns in diameter (PM_{10})	Attainment	Unclassified
Carbon Monoxide (CO)	Unclassified	Unclassified/Attainment
Nitrogen Dioxide (NO_2)	Attainment	Unclassified/Attainment
Sulfur Dioxide (SO_2)	Attainment	Unclassified/Attainment
Sulfates	Attainment	--
Lead (Pb)	Attainment	Unclassified/Attainment
Hydrogen Sulfide (H_2S)	Unclassified	--
Visibility Reducing Particles	Unclassified	--

Source: arb.ca.gov and epa.gov, 4/13/2019

As shown in Table 3.7-4, currently, Plumas County is designated as moderate non-attainment for the federal $PM_{2.5}$ standard and non-attainment for the State $PM_{2.5}$ standard. The primary activities contributing to the $PM_{2.5}$ violations include wildfires, use of woodstoves, forestry management burns, residential open burning, vehicle travel on unpaved roads, and windblown dust.

3.7.2 Discussion and Mitigation Measures

Air Quality. a. *Would the project conflict with or obstruct implementation of the applicable air quality plan?*

Answer: Less than Significant Impact.

Discussion:

Plumas County has been designated as Moderate Non-Attainment for the federal $PM_{2.5}$ standard by the Environmental Protection Agency and Non-Attainment for the State $PM_{2.5}$ standard by the California Air Resources Board. Therefore, the Northern Sierra Air Quality Management District prepared the *Portola Fine Particulate Matter ($PM_{2.5}$) Attainment Plan* during January 2017. That Plan was approved by the California Air Resources Board on February 16, 2017.

The Plan provides a pathway to meeting the annual $PM_{2.5}$ standard by December 31, 2021. Although this Plan was put in place to demonstrate the attainment of the annual standard, the control strategies will also reduce the 24-hour concentrations below the level of 35 µg/m^3 standard by the end of 2021.

The main problem causing the Portola area to violate the $PM_{2.5}$ standards is wood smoke. Wood burning is responsible for 76 percent of mass annually and 86 percent on a typical exceedance day. Wood heat is very popular in the area due to the lack of natural gas and the availability of cheap, or even free, wood. Home wood burning devices include wood stoves, fireplace inserts, fireplaces and wood burning furnaces. Each of these devices has different emission levels, with new devices burning much cleaner and more efficiently than the older devices. Due to the fact that wood burning is a key source of $PM_{2.5}$ pollution in the area, the Northern Sierra AQMD developed a comprehensive wood smoke reduction strategy. While there are many aspects of this strategy, the attainment demonstration relies only on the reductions from the wood stove change-out program and the ongoing reductions in directly emitted $PM_{2.5}$ from the mobile sector.

As shown under "b." below, the projected emissions from construction would be less than significant and, therefore, the Project would not conflict or obstruct implementation of the air quality attainment plan and no further analysis or mitigation is required.

Air Quality. b. *Would the project result in cumulatively considerable net increase of any criteria pollutant under an applicable federal or state ambient air quality standard)?*

Answer: Less than Significant Impact.

Discussion:

Although the Northern Sierra AQMD has not developed recommended thresholds of significance for projects that are subject to CEQA review, other Districts in the Mountain Counties Air Basin have. For example, both the El Dorado APCD and the Placer County AQMD have established thresholds for ozone precursors [i.e., reactive organic gases (ROG) and oxides of nitrogen (NO_x)] and respirable particulate matter (PM_{10}). Those three thresholds are each 82 pounds per day (15 tons per year). These thresholds are utilized in this Initial Study to determine significance.

The Northern Sierra AQMD has not established numerical significance thresholds for carbon monoxide (CO) or oxides of sulfur (SO_x). Other AQMDs have established such thresholds among them the South Coast AQMD. For construction projects, those thresholds are 550 pounds per day and 150 pounds per day, respectively. Those thresholds are used in this Initial Study to determine significance.

Plumas County is designated as moderate non-attainment for the federal $PM_{2.5}$ standard and non-attainment for the State $PM_{2.5}$ standard. Therefore, any analysis of this pollutant should be completed on a conservative basis. Consequently, EPA's threshold of 10 tons per year for $PM_{2.5}$ for "major sources" is used to determine significance in this Initial Study. The 10 tons per year threshold equates to 55 pounds per day.

The Northern Sierra AQMD has not adopted significance thresholds for the evaluation of toxic air contaminants (TACs) and associated human health risks. Cancer risks from TACs is typically expressed in numbers of excess cancer cases per million persons exposed over a defined period of exposure, for example, over an assumed 70-year lifetime. Non-cancer health hazards for chronic and acute diseases are expressed in terms of a hazard index (HI), which is ratio of TAC concentration to a reference exposure level (REL), below which no adverse health effects are expected to occur. This analysis relies on commonly applied thresholds typically recommended by other air pollution control districts in California, as identified in the California Air Pollution Officer Association's (CAPCOA) *Health Risk Assessments for Proposed Land Use Projects (2009).* Exposure to TACs would be considered significant if the probability of contracting cancer for the maximum exposed individual would exceed 10 in one million or would result in a hazard index greater than one. *(Sacramento Metropolitan Air Quality Management District, May 2015).*

The Northern Sierra AQMD has not adopted significance criteria for the evaluation of greenhouse gas (GHG) emissions. Thresholds for GHG emissions are usually expressed in terms of carbon dioxide equivalents (CO_2 eq). EPA has suggested a reportable significance threshold of 25,000 tons of CO_2 eq per year. However, the El Dorado APCD and Placer County AQMD have adopted de minimus thresholds of 1,100 metric tons (MT) per year for construction projects. For the purposes of evaluating the proposed project's GHG impacts, emissions resulting from construction of the project will be quantified and compared to their threshold of 1,100 metric tons of CO_2 eq per year (1,210 tons per year).

A summary of the threshold criteria to determine significance utilized in this Initial Study is provided in Table 3.7-5.

Table 3.7-5
Threshold Criteria Utilized to Determine Significance

Pollutant	Threshold Limit	
	tons per year	Pounds per day
Reactive Organic Gases (ROG)	15	82
Carbon Monoxide (CO)	100	550
Oxides of Nitrogen (NO_x)	15	82
Oxides of Sulfur (SO_x)	27	150
Respirable Particulate Matter (PM_{10})	15	82
Fine Particulate Matter ($PM_{2.5}$)	10	55
Toxic Air Contaminants (TACs), Odor and GHG Thresholds		
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million Chronic and Acute Hazard Index ≥ 1.0 (project increment)	
GHG	1,100 MT/yr CO_2eq (1,210 tons per year).	

Criteria Pollutants

It is anticipated that NCPA would install solar equipment at the Plumas-Sierra Chilcoot site. A typical construction equipment list for this activity follows:

Equipment	Number	Horsepower	Load Factor[1]	Hours per Day
Compressor	1	106	0.48	4
Crane	1	399	0.43	4
Drill Rig	1	291	0.75	6
Sweeper	1	250	0.68	2
Tractor/Backhoe/Loader	1	108	0.55	4
Trencher	1	63	0.75	4
Utility Trucks	1	479	0.57	2
Water Truck	1	189	0.50	2

Notes:
[1] Percentage of the engines' maximum horsepower rating that the equipment actually operates.

These additional assumptions are also utilized in the air quality analyses for installation of the solar equipment:

- The disturbed area is estimated at 28.2 acres on the peak day of activities.

- There would be two heavy-duty trucks delivering supplies to the site. Mileage for each truck is assumed at 100 miles per day.
- There would be approximately 2 pickup trucks traveling to and from the site by inspectors. Mileage for each pickup would be approximately 100 miles per day.
- Approximately 10 construction workers would be involved at the site on the peak day of activities. Mileage for worker commuters would be approximately 50 per day.
- Construction activities would occur for about 90 days.

K.S. Dunbar & Associates, Inc., developed an Excel Spreadsheet model, based on the California Air Resources Board's 2011 OFFROAD emission factors, that calculates estimated emissions from construction activities. That model was used to estimate construction related emissions from off-road heavy construction equipment. Based on construction occurring in 2019, the model generated estimated construction emissions as shown in Table 3.7-6 (detailed model results are contained in Appendix C)[1].

Table 3.7-6
Estimated Emissions from Off-Road Heavy Construction Equipment
Solar Equipment Installation

	Pollutant (pounds per day)[a]					
	ROG	CO	NO_x	SO_x	PM_{10}	$PM_{2.5}$
Solar Equipment Installation	3.75	25.96	34.02	0.07	0.26	0.24
Threshold Limits[b]	82	550	82	150	82	55

[a] Use of particulate traps reduces PM_{10} and $PM_{2.5}$ by 85% and oxidation catalysts reduces NO_x by 15%.
[b] Construction-related threshold limits developed to determine significance.

As can be seen by the data in Table 3.7-6, emissions from heavy construction equipment during solar equipment installation would not exceed the construction-related threshold limits contained in Table 3.7-5.

There would also be 2 heavy-duty trucks transporting equipment to the site as well as two pickup trucks utilized by inspectors at the job site. Based on the assumption that each heavy-duty truck and each pickup travel 100 miles per day, exhaust emissions would be as shown in Table 3.7-7.

Table 3.7-7
Estimated Emissions from On-Road Vehicles
Solar Equipment Installation

Equipment	Pollutant (pounds per day)					
	ROG	CO	NO_x	SO_x	PM_{10}	$PM_{2.5}$
On-Road Trucks	0.24	1.13	2.78	0.01	0.14	0.11
Pickups	0.11	1.01	0.10	0.00	0.02	0.01
Totals	0.35	2.14	2.88	0.01	0.16	0.12

Vehicles owned by construction workers would be an additional source of air pollutants. An estimate of emissions based on 10 worker vehicles per day of which 100 percent are pickup trucks (gross vehicle weight of 8,500 pounds or less) with an average round trip of 50 miles is presented in Table 3.7-8.

Table 3.7-8
Construction Worker Commute Vehicle Emissions
Solar Equipment Installation

Pollutant (pounds per day)					
ROG	CO	NO_x	SO_x	PM_{10}	$PM_{2.5}$
0.29	2.51	0.24	0.01	0.05	0.03

[1] Should the construction period be delayed, the emissions from heavy construction equipment would be less due to technology improvements and phasing out of older equipment. Therefore, the emissions shown are considered the worst-case scenario.

Earthmoving activities would create fugitive dust emissions. It is estimated that fugitive dust emissions from construction activities on disturbed soil approximate 5 pounds per acre per day (PM_{10}) with no mitigation. However, the application of water as required would reduce the emissions by 61 percent *SCAQMD, October 2016)*. As stated above, it is anticipated that approximately 28.2 acres would be disturbed at the peak day of activity. Therefore, the resulting PM_{10} emissions would be estimated at 54.99 pounds per day. SCAQMD also estimates that the $PM_{2.5}$ emissions in fugitive dust are equal to 21 percent of the PM_{10} emissions in fugitive dust *(SCAQMD, October 2006).* Therefore, the $PM_{2.5}$ emissions would equal 11.55 pounds per day.

The total estimated emissions from the installation of the solar equipment at the Plumas-Sierra Chilcoot site are shown in Table 3.7-9

Table 3.7-9
Total Estimated Construction Emissions[a]
Solar Equipment Installation

Source	Pollutant (pounds per day)					
	ROG	CO	NO_x	SO_x	PM_{10}	$PM_{2.5}$
Construction Equipment	3.75	25.96	34.02	0.07	0.26	0.24
On-Road Vehicles	0.35	2.14	2.88	0.01	0.16	0.12
Worker Commutes	0.29	2.51	0.24	0.01	0.05	0.03
Fugitive Dust	0.00	0.00	0.00	0.00	54.99	11.55
Totals	4.39	30.61	37.14	0.09	55.46	11.94
Threshold Limits[b]	82	550	82	150	82	55

[a] Use of particulate traps reduces PM_{10} and $PM_{2.5}$ by 85% and oxidation catalysts reduces NO_x by 15%.
[b] Construction-related threshold limits developed to determine significance.

As shown in Table 3.7-9, the total estimated emissions from installation of the solar equipment at the Plumas-Sierra Chilcoot site would not exceed the construction-related threshold limits for significance presented in Table 3.7-5. However, EPA has designated Plumas County as moderate non-attainment for the federal $PM_{2.5}$ standard and the ARB has designated Plumas County as non-attainment for the State $PM_{2.5}$ standard. Therefore, every effort should be made to minimize emissions within Plumas County. Consequently, to reduce the emissions as much as possible, NCPA will:

- Appoint a construction relations officer to act as a community liaison concerning on-site construction activities including resolution of issues related to $PM_{2.5}$ generation.

- In addition, NCPA will add the following best management practices in its contract documents for this project:

  The contractor shall:

  - Utilize electricity from power poles instead of from temporary diesel or gasoline power generators, when feasible.

  - Require the use of 2010 and newer diesel haul trucks (e.g., material delivery trucks and soil import/export) and if the lead agency determines that 2010 model year or newer diesel trucks cannot be obtained the contractor shall use trucks that meet EPA 2007 model year NO_x emissions requirements.

  - Require that all on-site construction equipment meet EPA Tier 3 or higher emissions standards according to the following:

    - ✓ All off-road diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards, where available. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations.

- ✓ A copy of each unit's certified tier specification, BACT documentation, and CARB or Northern Sierra AQMD operating permit shall be provided at the time of mobilization of each applicable unit of equipment.

- ❖ Maintain construction equipment engines by keeping them properly tuned and maintained according to manufacturer's specifications.
- ❖ Use alternative fuels or clean and low-sulfur fuel for equipment.
- ❖ Idle trucks in accordance with the Airborne Toxic Control Measure (ACTM) to Limit Diesel Fueled Commercial Motor Vehicle Idling and other applicable laws.
- ❖ Spread soil binders on site, where appropriate, unpaved roads and staging areas.
- ❖ Water active construction sites at least twice daily.
- ❖ Sweep all streets at the end of the day if visible soil materials are carried onto adjacent public paved roads (recommend water sweeper with reclaimed water).
- ❖ All grading operations shall be suspended when winds (as instantaneous gusts) exceed 20 miles per hour as directed by the Northern Sierra AQMD.
- ❖ If necessary, wash off trucks leaving the site.
- ❖ Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least two feet of freeboard in accordance with the requirements of California Vehicle Code (CVC) Section 23114.

Operation and maintenance personnel might make two or three trips per week to the Project site. Consequently, there would be essentially no emissions associated with vehicle travel to and from the site during operation and maintenance of the new facilities. Operation of the actual facilities would produce essentially no emissions.

Toxic Air Contaminants (TACs)

The combustion of diesel fuel produces diesel particulate matter as a byproduct. Diesel particulate matter has been identified by the California Air Resources Board (ARB) as a toxic air contaminant (TAC). While TACs can have long-term and/or short-term effects, diesel TAC has been shown by the ARB to have little or no short-term impact.

The ARB determined that the chronic impact of diesel particulate matter was of more concern than the acute impact in the Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines *(ARB 2000)*. In that document, ARB noted that "Our analysis shows that the potential cancer risk from inhalation is the critical path when comparing cancer and non-cancer risk. In other words, a cancer risk of 10 cases per million from the inhalation of diesel particulate matter (PM) will result from diesel PM concentrations that are much less than the diesel PM or TAC concentrations that would result in chronic or acute non-cancer hazard index values of 1 or greater." Consequently, any analysis of diesel TAC should focus on the long-term, chronic cancer risk posed by diesel emissions. Chronic cancer risk is normally measured by assessing what the risk to an exposed individual from a source of TACs would be if the exposure occurred over 70 years. Diesel emissions related to construction of the proposed Project would only occur for less than a one-year period. Therefore, the impact would be considered less than significant and no further analysis is required.

Air Quality. c. *Would the project expose sensitive receptors to substantial pollutant concentrations?*

Answer: No Impact.

Discussion:

As shown above, all emissions from construction of the Project would be less than significant based on the threshold limits shown in Table 3.7-5. Therefore, implementation of the Project would not expose sensitive receptors to substantial pollutant concentrations. Consequently, no further analysis or mitigation is required.

Air Quality. d. *Would the project result in other emissions (such as those leading to odors or dust) adversely affecting a substantial number of people?*

Answer: Less than Significant Impact.

Discussion:

As shown above in Table 3.7-9, the fugitive dust emissions would be less than significant based on threshold criteria shown in Table 3.7-5. In addition, implementation of the Project would not result in the generation of odors. Consequently, no further analysis or mitigation is required.

3.7.3 Conclusions

No significant impacts were identified; however, NCPA will include best management practices in the construction documents for this Project to ensure there are no significant impacts.

3.8 Biological Resources

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

3.8.1 Environmental Setting

K.S. Dunbar & Associates, Inc., retained ELMT Consulting (ELMT) to conduct a habitat and jurisdictional assessment for the Plumas-Sierra Chilcoot site near the community of Chilcoot in Plumas County, California. The field work associated with the habitat and jurisdictional assessment was conducted by biologist Travis J. McGill on May 1, 2019 to document baseline conditions and assess the potential for special-status[2] plant and wildlife species to occur within the Chilcoot Project site that could pose a constraint to implementation of the proposed Project. Special attention was given to the suitability of the Project site to support special-status plant and wildlife species identified by the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB) and other electronic databases as potentially occurring in the general vicinity of the Project sites. EMLT's full report is contained in Appendix C and is the source of the following discussion.

Existing Site Conditions

The Project site is located on a vacant privately-owned property that is comprised of approximately 30 acres. The site is bordered by the Union Pacific Railroad to the south, scattered residences to the west and an existing industrial facility to the east. The northern edge of the parcel is a presumed easement that has been excluded as a developable area for the Project. According to

[2] As used in this report, "special-status" refers to plant and wildlife species that are federally and State listed, proposed, or candidates; plant species that have been designated with a California Native Plant Society Rare Plant Rank; wildlife species that are designated by the CDFW as fully protected, species of special concern, or watch list species; and specially protected natural vegetation communities as designated by the CDFW.

the Federal Emergency Management Agency (FEMA) data, the site is located within the 500-year flood hazard zone; however, the risk of flooding appears to be low based on observations made during the field investigation and the Union Pacific Railroad to the south.

Elevation on the Project site ranges from approximately 4,965 to 4,995 feet above mean sea level and generally slopes from east to west with no areas of significant topographic relief. Based on the NRCS USDA Web Soil Survey, the Project site is underlain by the following soil units: Bidwell sandy loam, sandy substratum (0 to 2 percent slopes), Mottsville loamy sand (2 to 9 percent slopes), and Ormsby loamy coarse sand (2 to 5 percent slopes). Refer to Exhibit 4, *Soils*, in Attachment A of ELMT's report in Appendix C. Soils on-site have been disturbed by historic cattle grazing and weed abatement activities.

Vegetation

Due to existing land uses, no native plant communities or natural communities of special concern were observed on or adjacent to the Project site. The Project site primarily consists of vacant, undeveloped land that has been subject to a variety of anthropogenic disturbances, primarily cattle grazing activities. These disturbances have eliminated the natural plant communities that once occurred within the boundaries of the Project site. Refer to Attachment B, *Site Photographs* in Appendix C, for representative site photographs. No native plant communities will be impacted from implementation of the proposed Project.

The Project site consists of a land cover type that would be classified as disturbed/non-native grassland. Refer to Exhibit 5, *Vegetation* in Attachment A in Appendix C. Plant species observed on and immediately adjacent to the Project footprint include Great basin sagebrush (*Artemesia tridentate*), peony (*Paeonia brownii*), filaree (*Erodium sp.*), fiddleneck (*Amsinckia sp.*), short-podded mustard (*Hirschfeldia incana*), mule ear (*Wyethia mollis*), few flowered blue eyed mary (*Collinsia parviflora*), crested wheatgrass (*Agropyron cirstatum*), narrow leaved willow (*Salix exigua*), Mexican rush (*Juncus mexicanus*), Douglas sedge (*Carex douglasii*).

Wildlife

Plant communities provide foraging habitat, nesting/denning sites, and shelter from adverse weather or predation. This section provides a discussion of those wildlife species that were observed or are expected to occur within the Project site. The discussion is to be used as a general reference and is limited by the season, time of day, and weather conditions in which the field investigation was conducted. Wildlife detections were based on calls, songs, scat, tracks, burrows, and direct observation. The Project site provides limited habitat for wildlife species except those adapted to a high degree of anthropogenic disturbances and development.

Fish

No hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would provide suitable habitat for fish were observed on or within the vicinity of the Project site. No fish are expected to occur and are presumed absent from the Project site.

Amphibians

No amphibians or hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would provide suitable habitat for amphibian species were observed on the Project site. No amphibians are expected to occur and are presumed absent from the Project site.

Reptiles

During the field investigation, no reptilian species were observed on the Project site. Common reptilian species adapted to a high degree of anthropogenic disturbances that have the potential to occur on the Project site include western side-blotched lizard (*Uta stansburiana elegans*), and alligator lizard (*Elgaria multicarinata*). Due to existing site disturbances, no special-status reptilian species are expected to occur within Project site.

Birds

The Project site provides foraging and cover habitat for bird species adapted to a high degree of human disturbance. Bird species detected during the field investigation included northern mockingbird (*Mimus polyglottos*), mourning dove (*Zenaida macroura*), house finch (*Haemorhouse mexicanus*), American crow (*Corvus brachyrhynchos*), killdeer (*Charadrius vociferus*), western meadowlark (*Sturnella neglecta*), red-tailed hawk (*Buteo jamaicensis*), Brewer's blackbird (*Euphagus cyanocephalus*), and turkey vulture (*Cathartes aura*). Due to existing disturbances and lack of native habitats, the Project site does not provide suitable habitat for special-status bird species known to occur in the area.

Mammals

During the field investigation, no mammalian species were observed on the Project site. Common mammalian species adapted to a high degree of anthropogenic disturbances that have the potential to occur within the Project site include California ground squirrel (*Otospermophilus beecheyi*), Botta's pocket gopher (*Thomomys bottae*), opossum (*Didelphis virginiana*), mule deer (*Odocoileus hemionus*), and raccoon (*Procyon lotor*).

Nesting Birds

During the field investigation, an active killdeer nest was observed within the Project footprint and an occupied red-tailed hawk nest was observed in a power pole immediate south of the Project site. The Project site and surrounding area provides foraging and nesting habitat for year-round and seasonal avian residents, as well as migrating songbirds that could occur in the area. In particular, the Project site has the potential to provide suitable nesting opportunities for birds that nest on the open ground. Additionally, the trees on the western boundary of the Project site associated with the residential developments also have the potential to provide suitable nesting opportunities. A pre-construction nesting bird clearance survey should be conducted within three (3) days prior to ground disturbance to ensure no nesting birds will be impacted from site development.

Migratory Corridors and Linkages

Habitat linkages provide connections between larger habitat areas that are separated by development. Wildlife corridors are similar to linkages but provide specific opportunities for animals to disperse or migrate between areas. A corridor can be defined as a linear landscape feature of sufficient width to allow animal movement between two comparatively undisturbed habitat fragments. Adequate cover is essential for a corridor to function as a wildlife movement area. It is possible for a habitat corridor to be adequate for one species yet still inadequate for others. Wildlife corridors are features that allow for the dispersal, seasonal migration, breeding, and foraging of a variety of wildlife species. Additionally, open space can provide a buffer against both human disturbance and natural fluctuations in resources.

The proposed Project will be confined to an existing disturbed area that is bordered by a railroad on its southern boundary, State Route 70 on its northern boundary, residential developments on the western boundary, and an existing industrial facility on its eastern boundary. As a result, the Project site is isolated from regional wildlife corridors and linkages, and there are no riparian corridors, creeks, or useful patches of stepping stone habitat (natural areas) within or connecting the Project site to any identified wildlife corridors or linkages. As a result, implementation of the proposed Project will not disrupt or have any adverse effects on any migratory corridors or linkages in the surrounding area.

Jurisdictional Areas

There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The U.S. Army Corps of Engineers Regulatory Branch regulates discharge of dredge or fill materials into "waters of the United States" pursuant to Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the California Department of Fish and Wildlife (CDFW) regulates alterations to streambed and bank under Fish and Wildlife Code

Sections 1600 et seq., and the California Regional Water Quality Control Boards regulate discharges into surface waters pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act.

The Project site does not support any discernible drainage courses, inundated areas, wetland features, or hydric soils that would be considered jurisdictional by the Corps, Regional Board, or CDFW. Therefore, Project activities will not result in impacts to Corps, Regional Board, or CDFW jurisdictional areas and regulatory approvals will not be required.

Standing patches of water were observed at the toe of slope on the north side of the raised Union Pacific Railroad during the field investigation. It should be noted that scattered rain showers had passed through the area the day prior to the field investigation. The standing water did not display a surface hydrologic connection to downstream "waters of the United States". Water ponds in this area immediately following storm events. During the initial design of the proposed Project, the Project footprint was designed to avoid these areas. Further, a review of recent and historic aerial photographs of the Project site and its immediate vicinity did not provide visual evidence of an astatic or vernal pool conditions within the Project site. From this review of historic aerial photographs and observations during the field investigations, it can be concluded that there is no indication of vernal pools occurring within the proposed Project site.

It should be noted that the vacant property south of the Union Pacific Railroad has been mapped as supporting freshwater emergent wetland habitats and riverine resources by the NWI. This area, outside of the Project footprint, and south of the Union Pacific Railroad has not been subject to anthropogenic disturbances and supports undisturbed habitats. As a result, no impacts to the mapped freshwater wetland habitats or riverine resources are expected to occur from the proposed Project.

Special-Status Biological Resources

The CNDDB Rarefind 5 and the CNPS Electronic Inventory of Rare and Endangered Vascular Plants of California were queried for reported locations of special-status plant and wildlife species as well as special-status natural plant communities in the Chilcoot and Beckwourth USGS 7.5-minute quadrangles. The habitat assessment evaluated the conditions of the habitat(s) within the boundaries of the Project site to determine if the existing plant communities, at the time of the survey, have the potential to provide suitable habitat(s) for special-status plant and wildlife species.

The literature search identified thirteen (13) special-status plant species and nine (9) special-status wildlife species as having potential to occur within the Chilcoot and Beckwourth USGS 7.5-minute quadrangles. No special-status plant communities have been recorded on the Chilcoot and Beckwourth USGS 7.5-minute quadrangles. Special-status plant and wildlife species were evaluated for their potential to occur within the Project site based on habitat requirements, availability and quality of suitable habitat, and known distributions. Species determined to have the potential to occur within the general vicinity of the Project site are presented in the table provided in Attachment C: *Potentially Occurring Special-Status Biological Resources* in Appendix C.

Special-Status Plants

According to the CNDDB and CNPS, thirteen (13) special-status plant species have been recorded in the Chilcoot and Beckwourth quadrangles (refer to Attachment C in Appendix C). No special-status plant species were observed onsite during the habitat assessment. The Project site consists of vacant, undeveloped land that has been subject to existing cattle grazing and weed abatement activities. These disturbances have eliminated the natural plant communities that once occurred onsite which has removed suitable habitat for special-status plant species known to occur in the general vicinity of the Project site. Based on habitat requirements for specific special-status plant species and the availability and quality of habitats needed by each species, it was determined that the Project site does not provide suitable habitat for any of the special-status plant species known to occur in the area and are presumed to be absent. No focused surveys are recommended.

Special-Status Wildlife

According to the CNDDB, nine (9) special-status wildlife species have been reported in the Chilcoot and Beckwourth quadrangles (refer to Attachment C in Appendix C). No special-status wildlife species were observed onsite during the habitat assessment. The Project site consists of vacant, undeveloped land that has been subject to existing cattle grazing and weed abatement activities. These disturbances have eliminated the natural plant communities that once occurred on-site which has removed suitable habitat for special-status wildlife species known to occur in the general vicinity of the Project site.

Based on habitat requirements for specific special-status plant species and the availability and quality of habitats needed by each species, it was determined that the Project site does has a low potential to provide suitable habitat for Swainson's hawk (*Buteo swainsoni*) and prairie falcon (*Falco mexicanus*). The Project site primarily provides suitable foraging habitat for these species, but does not provide suitable nesting opportunities. All remaining special-status wildlife species were presumed to be absent from the Project site because it has been heavily disturbed from onsite disturbances and surrounding development.

In order to ensure impacts to the aforementioned species do not occur from implementation of the proposed Project, a pre-construction nesting bird clearance survey should be conducted prior to ground disturbance. With implementation of mitigation through the pre-construction clearance survey, impacts to the aforementioned species will be less than significant.

Critical Habitat

Under the federal Endangered Species Act, "Critical Habitat" is designated at the time of listing of a species or within one year of listing. Critical Habitat refers to specific areas within the geographical range of a species at the time it is listed that include the physical or biological features that are essential to the survival and eventual recovery of that species. Maintenance of these physical and biological features requires special management considerations or protection, regardless of whether individuals or the species are present or not. All federal agencies are required to consult with the United States Fish and Wildlife Service (USFWS) regarding activities they authorize, fund, or permit which may affect a federally listed species or its designated Critical Habitat. The purpose of the consultation is to ensure that projects will not jeopardize the continued existence of the listed species or adversely modify or destroy its designated Critical Habitat. The designation of Critical Habitat does not affect private landowners, unless a project they are proposing is on federal lands, uses federal funds, or requires federal authorization or permits (e.g., funding from the Federal Highway Administration or a CWA Permit from the Corps). If a there is a federal nexus, then the federal agency that is responsible for providing the funding or permit would consult with the USFWS.

The Project site is not located within federally designated Critical Habitat. Refer to Exhibit 6, *Critical Habitat* in Attachment A in Appendix C. The nearest designated Critical Habitat is located approximately 2.4 miles southwest of the Project site for Webber's ivesia (*Ivesia webberi*). Therefore, the loss or adverse modification of Critical Habitat from site development will not occur and consultation with the USFWS for impacts to Critical Habitat will not be required for implementation of the proposed Project.

3.8.2 Discussion and Mitigation Measures

Biological Resources. a. *Would the project 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?*

Answer: Less than Significant with Mitigation Incorporated.

Discussion:

As stated above, according to the CNDDB and CNPS, thirteen (13) special-status plant species have been recorded in the Chilcoot and Beckwourth quadrangles (refer to Attachment C in Appendix C). No special-status plant species were observed onsite during the habitat assessment. The Project site consists of vacant, undeveloped land that has been subject to existing cattle grazing and weed abatement activities. These disturbances have eliminated the natural plant communities that once occurred onsite which has

removed suitable habitat for special-status plant species known to occur in the general vicinity of the Project site. Based on habitat requirements for specific special-status plant species and the availability and quality of habitats needed by each species, it was determined that the Project site does not provide suitable habitat for any of the special-status plant species known to occur in the area and are presumed to be absent. No focused surveys are recommended.

Also, according to the CNDDB, nine (9) special-status wildlife species have been reported in the Chilcoot and Beckwourth quadrangles (refer to Attachment C in Appendix C). No special-status wildlife species were observed onsite during the habitat assessment. The Project site consists of vacant, undeveloped land that has been subject to existing cattle grazing and weed abatement activities. These disturbances have eliminated the natural plant communities that once occurred on-site which has removed suitable habitat for special-status wildlife species known to occur in the general vicinity of the Project site.

Based on habitat requirements for specific special-status plant species and the availability and quality of habitats needed by each species, it was determined that the Project site does has a low potential to provide suitable habitat for Swainson's hawk (*Buteo swainsoni*) and prairie falcon (*Falco mexicanus*). The Project site primarily provides suitable foraging habitat for these species, but does not provide suitable nesting opportunities. All remaining special-status wildlife species were presumed to be absent from the Project site because it has been heavily disturbed from onsite disturbances and surrounding development.

In order to ensure impacts to the aforementioned species do not occur from implementation of the proposed Project, NCPA will include the following in its contract documents for this Project:

- If construction occurs between February 1st and August 31st, a pre-construction clearance survey for nesting birds shall be conducted within three (3) days of the start of any vegetation removal or ground disturbing activities to ensure that no nesting birds will be disturbed during construction. The biologist conducting the clearance survey should document a negative survey with a brief letter report indicating that no impacts to active avian nests will occur. If an active avian nest is discovered during the pre-construction clearance survey, construction activities shall stay outside of a no-disturbance buffer. The size of the no-disturbance buffer (generally 300 feet for migratory and non-migratory song birds and 500 feet for raptors and special-status species) will be determined by the wildlife biologist, in coordination with the CDFW, and will depend on the level of noise and/or surrounding disturbances, line of sight between the nest and the construction activity, ambient noise, and topographical barriers. These factors will be evaluated on a case-by-case basis when developing buffer distances. Limits of construction to avoid an active nest will be established in the field with flagging, fencing, or other appropriate barriers; and construction personnel will be instructed on the sensitivity of nest areas. A biological monitor should be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, construction activities within the buffer area can occur.

Implementation of the above will insure the impacts to special-status species are less than significant.

Biological Resources. b. *Would the project 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 U.S. Fish and Wildlife Service?*

Answer: No Impact.

Discussion:

As discussed above, there is no riparian habitat or other sensitive natural community on the Project site. Therefore, would be no impacts and no further analysis or mitigation required.

Biological Resources. c. *Would the project 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?*

Answer: No Impact

Discussion:

As discussed above, the Project site does not support any discernible drainage courses, inundated areas, wetland features, or hydric soils that would be considered jurisdictional by the Corps, Regional Board, or CDFW. Therefore, Project activities will not result in impacts to Corps, Regional Board, or CDFW jurisdictional areas and regulatory approvals will not be required. Therefore, there would be no impacts and no further analysis or mitigation is required.

Biological Resources. d. *Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

Answer: No Impact.

Discussion:

As discussed above, the proposed Project will be confined to an existing disturbed area that is bordered by a railroad on its southern boundary, State Route 70 on its northern boundary, residential developments on the western boundary, and an existing industrial facility on its eastern boundary. As a result, the Project site is isolated from regional wildlife corridors and linkages, and there are no riparian corridors, creeks, or useful patches of stepping stone habitat (natural areas) within or connecting the Project site to any identified wildlife corridors or linkages. As a result, implementation of the proposed Project will not disrupt or have any adverse effects on any migratory corridors or linkages in the surrounding area. Therefore, no further analysis or mitigation is required.

Biological Resources. e. *Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

Answer: No Impact.

Discussion:

There are no local policies or ordinances protecting biological resources that would be applicable to the Project. Therefore, no further analysis or mitigation is required.

Biological Resources. f. *Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?*

Answer: No Impact.

Discussion:

There is no adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan applicable to the Project area. Therefore, no further analysis or mitigation is required.

3.8.3 Conclusion

Implementation of the above mitigation measures will insure that the impacts to biological resources are reduced to a level of less than significant.

3.9 Cultural Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☐	◙
b. Cause a substantial adverse change in the significance of an archeological resource pursuant to §15064.5?	☐	◙	☐	☐
c. Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	◙	☐	☐

3.9.1 Environmental Setting

Anza Resource Consultants (Anza) was retained by K.S. Dunbar & Associates, Inc. to conduct a Phase I cultural resources study for the NCPA Solar Project 1 – Plumas-Sierra Chilcoot site located near the intersection of State Highways 70 and 49 in the community of Vinton-Chilcoot, Plumas County, California.

The Phase 1 study includes a cultural resources records search, Sacred Lands File search and Native American scoping, a pedestrian survey of the Project site, and preparation of a technical report in compliance with the cultural resources requirements of CEQA. A complete copy of Anza's report is included in Appendix D of this report.

The cultural resource records search, Native American scoping, and pedestrian survey identified no cultural resources within or adjacent to the Project site. Anza recommends a finding of ***no impact to historical resources*** under CEQA. No further cultural resources study is recommended; however, standard mitigation measures are recommended to avoid potential impacts from the unanticipated discovery of cultural resources during project-related ground disturbing activities.

3.9.2 Discussion and Mitigation Measures

Cultural Resources. a. *Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?*

Answer: No Impact.

Discussion:

Anza requested a search of cultural resource records housed at the California Historical Resources Information System (CHRIS), Northeast Information Center (NEIC) located at California State University, Chico. The search was conducted by NEIC on May 6, 2019, to identify all previous cultural resources work and previously recorded cultural resources within a one-mile radius of the Project site (Appendix A in Anza's report). The CHRIS search included a review of the National Register of Historic Places (NRHP), California Register of Historic Resources (CRHR), the California Points of Historical Interest list, the California Historical Landmarks list, the Archaeological Determinations of Eligibility list, and the California State Historic Resources Inventory list. The records search also included a review of all available historic United States Geological Survey (USGS) 7.5-, 15-, and 30-minute quadrangle maps.

Five historic built or archaeological resources, and one multicomponent site were identified within one mile of the Project site (Table 2 in Anza's report). These were: historic refuse deposit associated with the railroad (P-32-000389); Beckwourth Trail, a historic wagon road constructed in 1851 (P-32-001635H); historic refuse deposit (P-32-002462); the Last Chance Creek Water District ditch system (P-32-003542):; and a segment of the Sierra Valley and Mohawk Railroad grade (P-32-005892H).

Portions of Resource P-32-00392, the Beckwourth Trail, within California have been recorded or updated 26 times between 1980 and 2016. Despite a 220-page resource record, multiple websites, articles and books on the subject, and the listing of Beckwourth Pass (a separate resource) on the NRHP and as a California Historical Landmark, no evidence of CRHR or NRHP eligibility evaluation for the Beckwourth Trail was identified during this study. Nevertheless, it is likely that, at minimum, segments of the trail with sufficient integrity are eligible for the CRHR and NRHP because of the trail's association with the legendary African American mountain man James Beckwourth, the Gold Rush's massive emigration of European Americans into California.

NEIC provided conflicting data regarding the location of the Beckwourth Trail in the immediate vicinity of the Project site. One figure, labeled "Informal Resource Location," depicts the trail within the Project site. However, page 204 of the resource record depicts the trail south of the UPRR in the vicinity of the Project site on the USGS *Chilcoot, California* 7.5-minute quadrangle map. Similarly, the figure titled "Resource Locations" depicts an unlabeled linear resource that better matches the alignment on the resource record. Combined with review of online references and Google Earth, the preponderance of evidence supports Anza's conclusion that the Beckworth Trail does not cross within the Project site. Rather, the trail runs south of the UPRR alignment until just west of the southwest corner of the Project site, where the trail turns northwest and crosses the (later constructed) railroad alignment.

None of the other historic sites are within the Project site. Therefore, there would be no impacts to historic resources due to implementation of the Project and no further analysis or mitigation is required.

Cultural Resources. b. *Would the project cause a substantial adverse change in the significance of an archeological resource pursuant to §15064.5?*

Answer: Less than Significant with Mitigation Incorporated.

Discussion:

Two prehistoric sparse lithic artifact scatters (P-32-000390 and -000392) were identified adjacent to the Project site to the south.

P-32-000390

This prehistoric sparse lithic artifact scatter was recorded by Henrici in 1979. The site comprises six red chert waste flakes (i.e., the byproducts of tool manufacture) within a 3x3-meter area between two east-west dirt roads approximately five meters north of the UPRR. Based on this description, the resource is outside the Project site (development footprint) but within the same parcel. Henrici notes that this artifact scatter is unlikely to possess depth. No CRHR eligibility evaluation was provided; however, sparse lithic scatters of this nature (i.e., very few artifacts, less than three artifacts per square meter, a single material type, no tools or diagnostic artifacts, common for the area, surface scatter only) are typically considered not eligible for CRHR listing as they lack significant data potential.

P-32-000392

This prehistoric sparse lithic artifact scatter was recorded by Henrici in 1979. The site comprises seven red chert waste flakes (i.e., the byproducts of tool manufacture) within a 4x4-meter area between two east-west dirt roads approximately seven meters north of the UPRR. Based on this description, the resource is outside the project site (development footprint) but within the same parcel. Henrici notes that this artifact scatter is unlikely to possess depth. No CRHR eligibility evaluation was provided; however, sparse lithic scatters of this nature (i.e., very few artifacts, less than three artifacts per square meter, a single material type, no tools or diagnostic artifacts, common for the area, surface scatter only) are typically considered not eligible for CRHR listing as they lack significant data potential.

Although there were no archaeological sites discovered on the Project site, there is always the possibility of an inadvertent discovery of an unknown site during excavation. Therefore, NCPA will:

- Prior to the start of construction, NCPA shall hold a pre-grading meeting. The Project Archaeologist shall attend the pre-grading meeting with NCPA's Project Administrator, Field Engineering Inspector and any contractors to conduct a Cultural Resources Worker Sensitivity Training for all construction personnel working on the proposed Project. The training shall include an overview of potential cultural resources that could be encountered during ground disturbing activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated, and any other appropriate protocols.

- In addition, NCPA will include the following mitigation measures in its contract documents for this project.

  - ✓ In the unlikely event that potentially significant archaeological materials are encountered during construction activities, all work shall be halted in the vicinity of the archaeological discovery until a qualified archaeologist can visit the site of discovery, access the significance of the archaeological resource, and provide proper management recommendations. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted. The treatment and disposition of cultural material that might be discovered during excavation shall be in accordance with applicable laws and regulations.

  - All sacred items, should they be encountered within the Project sites, shall be avoided and preserved as the preferred mitigation, if feasible. All cultural materials that are collected during excavation and other earth disturbing activities on the Project sites, with the exception of sacred items, burial goods and human remains which will be addressed in any required Treatment Agreement, shall be tribally curated according to the current repository standards. The collections and associated records shall be transferred, including title, to the closet tribe to the Project site.

Cultural Resources. d. *Would the project disturb any human remains, including those interred outside of formal cemeteries?*

Answer: Less than Significant with Mitigation Incorporated.

Discussion:

No human remains were discovered on-site. However, there is always the potential to inadvertently discover human remains during excavation. Therefore, NCPA will include the following in its standard contract documents for this Project.

- In the event of an accidental discovery or recognition of any human remains, the County Coroner shall be notified and construction activities at the affected work site shall be halted. If the coroner determines the remains to be Native American: (1) the coroner shall contact the Native American Heritage Commission (NAHC) within 24-hours, and (2) the NAHC shall identify the person or persons it believes to be the most likely descended from the deceased Native American. The treatment and disposition of human remains that might be discovered during excavation shall be in accordance with applicable laws and regulations.

3.9.3 Conclusion

Implementation of the above mitigation measures would insure that any impact to cultural resources would be reduced to a level of less than significant.

3.10 Energy

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☐	◙
b. Conflict or obstruct a state of local plan for renewable energy or energy efficiency?	☐	☐	☐	◙

3.10.1 Environmental Setting

The Plumas-Sierra Rural Electric Cooperative (PSREC) was founded in 1937. PSREC serves 6,500 members in Plumas, Sierra and Lassen Counties in California as well as Washoe County in Nevada. During 2017, its power mix included 4% geothermal, 1% small hydro, 50% large hydro, 14% natural gas and 31% unspecified sources. It has been a member of the Northern California Power Agency for over 30 years.

3.10.2 Discussion and Mitigation Measures

Energy. a. *Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*

Answer: No Impact.

Discussion:

During construction, it would be necessary to use diesel-powered equipment. This would not be considered a wasteful, inefficient or unnecessary consumption of energy resources.

It is proposed to install solar photovoltaic electric generation systems at the Plumas-Sierra Chilcoot site. The installed capacity would be 5.64 MW_{dc}. It is anticipated that these facilities would generate a total of approximately 9,720 MWhr during its first year of operation. This generation of electrical energy would far outweigh the minor amount of resources used to construct the facilities.

Therefore, there would be no impacts to energy caused by implementation of the Project. Consequently, there would be no further analysis or mitigation required.

Energy. b. Would the project conflict or obstruct a state of local plan for renewable energy or energy efficiency?

Answer: No Impact.

Discussion:

The addition of approximately 5.64 MW_{dc} of renewable energy generation would assist NCPA and PSREC in meeting its goals of a 50 percent Renewable Portfolio Standard (RPS) by 2030. Therefore, implementation of the Project would not conflict or obstruct implementation of that plan. Consequently, no further analysis or mitigation is required.

3.10.3 Conclusion

No adverse impacts were identified; therefore, no further analysis or mitigation is required.

3.11 Geology and Soils

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
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 or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	◙	☐
i. Strong seismic ground shaking?	☐	☐	◙	☐
ii. Seismic-related ground failure, including liquefaction?	☐	☐	☐	◙
iii. Landslides?	☐	☐	☐	◙
b. Result in substantial soil erosion or the loss of topsoil?	☐	◙	☐	☐
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?	☐	☐	☐	◙
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	◙
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?	☐	☐	☐	◙
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	◙	☐	☐

3.11.1 Environmental Setting

Geologic Setting

The Project area overlies the Sierra Valley Groundwater Basin which is believed to have been formed during the Plioscene-Pleistocene Eras (3 to 11 million years ago). Evidently, this was an undrained basin trapped among the volcanoes and granite knobs of the region. It filled with water during a time when rainfall was heavier than it is now and became a lake until its outlet stream managed to erode a valley deep enough to restore drainage into the Feather River.

It is interesting to note that the Feather River drains this region westward toward and through the high Sierra Mountains. The river would be expected to flow "downhill" away from the high Sierra toward the east. This unexpected direction of flow indicates that the river is older than the outlines of the present landscape and managed to maintain its westward course through all the regional faulting and volcanism of the last several million years. The river was able to erode its channel downward more rapidly than the uplift of the Sierra Nevada block.

The geology of the area is characterized as Q1 (Quaternary lake beds) on the Geologic Map of the Chico Quadrangle, California.

Seismicity

There are no active faults in the Project area that have been zoned by the State Geologist under the Alquist-Priolo Earthquake Fault Zoning Act. The nearest seismically active faults are the Mohawk Valley Fault located approximately 10 miles west of the Project site and the Honey Lake Fault located approximately 19 miles to the east. The nearest potentially active fault zone is the Sulphur Creek Fault Zone located approximately 8 miles to the southwest. This fault has an estimated maximum credible earthquake magnitude of 6.5 *(City of Portola, Safety Element, January 11, 2012).*

Soils

According to the U.S. Department of Agriculture's National Conservation Service's Web Soils Survey for Plumas County, soils at the site are composed of BsA, Bidwell sandy loam, sandy substrate, 0 to 2% slopes: MrC, Mottsville loamy sand, 0 to 2% slopes; and OrB, Ormsby loamy coarse sand, 2 to 5% slopes..

3.11.2 Discussion and Mitigation Measures

Geology and Soils. a. i. *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving 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 or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*

Answer: No impact.

Discussion:

The Alquist-Priolo Earthquake Fault Zoning Act identifies special study zones for areas where existing known faults are located. The main purpose of the Act is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The Act also required the State Geologist to establish regulatory zones (known as Earthquake Fault Zones) around the surface traces of active faults and to issue appropriate maps. As discussed above, there are no Alquist-Priolo Fault Zones in the Project area. Therefore, no further analysis or mitigation is required.

Geology and Soils. a. ii. *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?*

Answer: Less than Significant.

Discussion:

The potential for strong seismic ground shaking in the Project area is similar to that in surrounding areas. Because the Proposed Project consists of facilities that are not intended for human habitation, the Proposed Project will not expose people or critical structures to adverse effects resulting from seismic-related ground failure, including liquefaction. In addition, the Proposed Project facilities are specifically designed to withstand seismic conditions anticipated to occur at the Proposed Project site. Seismic conditions expected to occur in the Proposed Project area can be mitigated by special design using reasonable construction and/or maintenance practices common to the Plumas County area. Any potential impacts would be considered less than significant and no further analysis or mitigation is required.

Geology and Soils. a. iii. *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?*

Answer: Less than Significant.

Discussion:

According to the Plumas County General Plan Draft Environmental Impact Report, the risk of ground shaking and liquefaction (transformation of water-saturated granular soils to a liquid state during ground shaking) in the Project area is considered low. Any potential impacts would be considered less than significant; therefore, no further analysis or mitigation is required.

Geology and Soils. a. 4. *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?*

Answer: No Impact.

Discussion:

According to the Plumas County General Plan Draft Environmental Impact Report, seismically triggered landslides or other types of ground failure, including expansive soils (those that swell when wet and shrink when dry) and subsidence (gradual settling or sinking of an area with little or no horizontal movement) are not considered a significant hazard in the Project area. Therefore, no further analysis or mitigation is required.

Geology and Soils. b. *Would the project result in substantial soil erosion or the loss of topsoil?*

Answer: Less than Significant with Mitigation Incorporated.

Discussion:

The soil types in the Project area have a moderate potential for wind erosion. Up to 28.2 acres of these soils could be exposed during installation of the solar equipment at the Plumas-Sierra Chilcoot site. However, strict adherence to NCPA's best management practices for air quality control would insure that these potential impacts were less than significant.

Geology and Soils. c. *Would the project 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?*

Answer: No Impact.

Discussion:

As stated above, the Project area is not located on a geologic unit or soil that would become unstable. Therefore, no further analysis or mitigation is required.

Geology and Soils. d. *Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?*

Answer: No Impact.

Discussion:

Expansive soils are largely composed of clay which expand in volume when water is absorbed and shrink when dried. The soils at the Project site are loams which are not susceptible to expansion and shrinking. Therefore, there would be no impacts and no further analysis or mitigation is required.

Geology and Soils. e. *Would the project 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?*

Answer: No Impact.

Discussion:

The Project does not include the use of septic tanks or alternative wastewater disposal systems. Therefore, there are no impacts associated with the use of septic tanks or alternative wastewater disposal systems and no mitigation is required.

Geology and Soils. f. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Answer: Less than Significant with Mitigation Incorporated.

Discussion:

There is always the possibility of an inadvertent discovery of paleontological resources during construction. However, NCPA's construction documents for the Project will include the following best management practices:

- In the unlikely event that potentially significant paleontological materials (e.g., fossils) are encountered during construction of the project, all work shall be halted in the vicinity of the paleontological discovery until a qualified paleontologist can visit the site of discovery, assess the significance of the paleontological resource, and provide proper management recommendations. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted. The treatment and disposition of paleontological material that might be discovered during excavation shall be in accordance with applicable laws and regulations.

3.11.3 Conclusion

Strict adherence to NCPA's best management practices outlined above would insure that no significant impacts to geology and soils would occur; therefore, no further analysis or additional mitigation is required.

3.12 Greenhouse Gas Emissions

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance?	☐	☐	◙	☐
b. Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emission of greenhouse gases?	☐	☐	☐	◙

3.12.1 Environmental Setting

Under Assembly Bill 32 (AB 32) greenhouse gases (GHGs) are defined as carbon dioxide (CO_2), methane (CH_4), nitrous oxide (NO_2), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF_6),

GWP is a measure of how much a given mass of greenhouse gas is estimated to contribute to global warming. It is a relative scale that compares the gas in question to the same mass of carbon dioxide (whose GWP by definition is 1). A GWP is calculated over a specific time interval and the value of this must be stated whenever a GWP is quoted or else the value is meaningless. A substance's GWP depends on the time span over which the potential is calculated. A gas which is quickly removed from the atmosphere may initially have a large effect but for longer time periods as it has been removed becomes less important. For the purposes of a CEQA analysis, especially an analysis of operating emissions, the maximum GWP is typically used, regardless of the actual atmospheric lifetime. This approach simplifies the analysis and provides a very conservative analysis, especially for the fluorinated gases. The GWP of the six Kyoto GHGs is shown in Table 3.12-1 [U.S. EPA (www.epa.gov)].

Table 3.12-1
Global Warming Potential of Kyoto GHGs

Gas	Atmospheric Lifetime	GWP
Carbon Dioxide (CO_2)	50 – 200	1
Methane (CH_4)	12 ± 3	21
Nitrous Oxide (NO_2)	120	310
HFC-23 (Hydrofluorocarbons)	264	11,700
HFC-32	5.6	650
HFC-125	32.6	2,800
HFC-134a	14.6	1,300
HFC-143a	48.3	3,800
HFC-152a	1.5	140
HFC-227ea	36.5	2,900
HFC-236fa	209	6,300
HFC-4310mee	17.1	1,300
CF_4 (Perfluorocarbons)	50,000	6,500
C_2F_6	10,000	9,200
C_4F_{10}	2,600	7,000
C_6F_{14}	3,200	7,400
Sulfur Hexafluoride (SF_6)	3,200	23,900

Source: U.S. EPA (www.epa.gov)

According to the California Air Resources Board's *California Greenhouse Gas Emission for 2000 to 2016 Trends of Emissions and Other Indicators,* California uses the annual statewide greenhouse gas (GHG) emission inventory to track progress toward meeting statewide GHG targets. The inventory for 2016 shows that California's GHG emissions continue to

decrease, a trend observed since 2007. In 2016, emissions from routine GHG emitting activities statewide were 429 million metric tons of CO_2 equivalent ($MMTCO_2e$), 12 $MMTCO_2e$ lower than 2015 levels. This puts total emissions just below the 2020 target of 431 million metric tons. Emissions vary from year-to-year depending on the weather and other factors, but California will continue to implement its greenhouse gas reductions program to ensure the state remains on track to meet its climate targets in 2020 and beyond. These reductions come while California's economy grows and continues to generate jobs. Compared to 2015, California's GDP grew 3% while the carbon intensity of its economy declined by 6%.

- The largest reductions came from the electricity sector which continues to see decreases as a result of the state's climate policies, which led to growth in wind generation and solar power, including growth in both rooftop and large solar array generation.
- The abundant precipitation in 2016 provided higher hydropower to the state.
- The industrial sector shows a slight decrease in emissions in the past twoyears.
- The transportation sector remains the largest source of GHG emissions in the state and saw a 2% increasein emissions in 2016.
- Emissions from the remaining sectors are relatively constant in recent years, although emissions from high Global Warming Potential (GWP) gases also continued to increase as they replace Ozone Depleting Substances (ODS) banned under the 1987 Montreal Protocol.

3.12.2 Discussion and Mitigation Measures

Greenhouse Gas Emissions. a. *Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment, based on any applicable threshold of significance?*

Answer: No Impact.

Discussion:

As shown in the Air Quality section, construction of the Project would generate exhaust emissions, including GHGs. from the construction equipment and on-road vehicles. The carbon dioxide equivalent of those emissions (CO_2 and CH_4) are estimated at 275 metric tons during 2019. The Northern Sierra AQMD has not established threshold limits for GHGs. However, NCPA established a de minimus level of 1,100 metric tons per year. Based on this threshold limit, emissions of GHGs during construction of the Project would be less than significant. Therefore, no further analysis or mitigation is required.

Operation of the Project has the potential to lower GHG emissions as the production of solar power does not produce GHGs as opposed to fossil fuel or gas-fired generation facilities.

Greenhouse Gas Emissions. b. *Would the project conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emission of greenhouse gases?*

Answer: No Impact.

Discussion:

As previously stated in the Energy section, the addition of approximately 4.90 MW_{dc} of renewable energy generation would assist NCPA and the Plumas Sierra Rural Electric Cooperative in meeting its goals of a 50 percent Renewable Portfolio Standard (RPS) by 2030. Therefore, implementation of the Project would not conflict or obstruct implementation of that plan. Consequently, no further analysis or mitigation is required.

3.12.3 Conclusion

No significant impacts were identified; therefore, no further analysis or mitigation is required.

3.13 Hazards and Hazardous Materials

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?	☐	◙	☐	☐
b. Create a significant hazard to the public or the environment through reasonably upset accident conditions involving the release of hazardous materials into the environment?	☐	◙	☐	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	◙
d. Be located on a site that 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?	☐	☐	☐	◙
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, and if so, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	◙
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	◙
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	◙

3.13.1 Environmental Setting

Hazards

Seismic and Geologic Hazards

Seismic and geologic hazards were discussed in Section 3.11.

Fire

According to Cal Fire maps, the Project site is within a State Responsibility Area and classified as a Moderate Fire Hazard Severity Zone.

Flooding

The Project site is shown on the Federal Emergency Management Agency's Flood Insurance Rate Map 06063C1375F as an Area of Minimal Flood Risk (Zone X).

Hazardous Materials

Several standard environmental record services are available to determine the potential for recognized environmental conditions in an area. Those databases are briefly described in the following paragraphs.

Superfund Enterprise Management System (SEMS)

In 2014, the Superfund Program implemented a new information system, the Superfund Enterprise Management System (SEMS). SEMS integrates multiple legacy systems (e.g., CERCLIS, ICTS, SDMS) into a comprehensive tracking and reporting tool, providing data on the inventory of active and archived hazardous waste sites evaluated by the Superfund program. It contains sites that are either proposed to be, or are on, the National Priority List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. SEMS also includes information from the California Department of Toxic Substances Control's Envirostor database. The SEMS search did not reveal any sites near the Project site.

Envirostor

Envirostor is a database maintained and primarily used by the California Department of Toxic Substances Control (DTSC) to determine the location of all hazardous waste sites. The Envirostor search did not reveal any active sites near the Project site.

Geotracker

Geotracker is the State Water Resources Control Board's data management system for managing sites that impact groundwater, especially those that require groundwater cleanup (Underground Storage Tanks, Department of Defense Site Cleanup Program) as well as permitted facilities such as operating USTs and land disposal sites. The Geotracker search did not reveal any active sites near the Project site.

Leaking Underground Storage Tank Information System (LUSTIS)

The State Water Resources Control Board (State Water Board) administers the Leaking Underground Storage Tank Information System (LUSTIS). The LUSTIS database includes all reported leaks from underground storage tanks. The LUSTIS database is now reported in the Geotracker results.

Site Mitigation Program Property Database (formerly CalSites)

The California Environmental Protection Agency's Department of Toxic Substances Control (DTSC) administers the CalSites program. Information in the CalSites database is preliminary in nature; therefore, most sites listed in the database need additional work to determine if contamination exists. There are no sites in the CalSites database within the Project area.

Hazardous Waste and Substances Sites List (Cortese)

California's Government Code §65962.5 requires the California Department of Toxic Substances Control to develop, at least annually, an updated list of Hazardous Waste and Substances Sites. This list, known as the Cortese List, is a planning document used by the State, local agencies and developers to comply with the California Environmental Quality Act requirements in providing information about the location of hazardous materials release sites. DTSC is responsible for a portion of the information contained in the Cortese List. Other State and local agencies are required to provide additional hazardous materials release information for the Cortese List. The Cortese List is to be submitted to the Secretary of the California Environmental Protection Agency. There are no sites on the Cortese List within the Project area.

Solid Waste Information System (SWIS)

The Solid Waste Information System (SWIS) is a database provided by the California Department of Resources Recycling and Recovery (CalRecycle) which consists of both open as well as closed and inactive solid waste disposal facilities and transfer stations. There are no active sites in the SWIS database within the Project area.

3.13.2 Discussion and Mitigation Measures

Hazards and Hazardous Materials. a. *Would the project create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?*

Answer: Less than Significant with Mitigation Incorporated.

Discussion:

Implementation of the proposed Project would not create any significant hazards as a result of the routine transport, use, storage, or disposal of hazardous materials. However, construction would include the temporary use and transport of fuels, lubricating fluids, solvents and other hazardous materials. The contractor would be required to adhere to the requirements of a *Health and Safety Plan* that it would develop for the Project pursuant to Chapter 6.95, Division 20 of the Health and Safety Code (§§ 25500—25532) as shown in the following mitigation measures.

- During Project construction, the construction contractor shall implement the following measures to address the potential environmental constraints associated with the presence of hazardous materials associated construction of the Project to the satisfaction of NCPA:
  - The contractor shall prepare a Health and Safety Plan in compliance with the requirements of Chapter 6.95, Division 20 of the Health and Safety Code (§25500 – 25532). The plan shall include measures to be taken in the event of an accidental spill.
  - The contractor shall enforce strict on-site handling rules to keep construction and maintenance materials out of receiving waters and storm drains. In addition, the contractor shall store all reserve fuel supplies only within the confines of designated construction staging areas; refuel equipment only with the designated construction staging areas; and regularly inspect all construction equipment for leaks.
  - The construction staging area shall be designed to contain contaminants such as oil, grease, and fuel products to ensure that they do not drain towards receiving waters or storm drain inlets.

Hazards and Hazardous Materials. b. *Would the project create a significant hazard to the public or the environment through reasonably upset accident conditions involving the release of hazardous materials into the environment?*

Answer: Less than Significant with Mitigation Incorporated.

Discussion:

Construction equipment used to construct the Project facilities would have the potential to release oils, grease, solvents and other finishing products through accidental spills. However, adherence to the above mitigation measures would result in less-than-significant impacts. Therefore, no further analysis or additional mitigation is required.

Hazards and Hazardous Materials. c. *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

Answer: No Impact.

Discussion:

There are no known schools, existing or proposed, within one-quarter mile of the Project site. Therefore, no further analysis or mitigation is required.

Hazards and Hazardous Materials. d. *Would the project be located on a site that 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?*

Answer: No Impact.

Discussion:

Several standard environmental record services are available to determine the potential for recognized environmental conditions in an area. Those databases include:

- Superfund Enterprise Management System (SEMS)
- Envirostor
- Geotracker
- Site Mitigation Program Property Database (formerly CalSites)
- Hazardous Waste and Substances Sites List (Cortese)
- Solid Waste Information System (SWIS)

These databases were searched for the presence of hazardous materials sites within the Project area. According to those databases, there are no active sites in the Project area. Therefore, no further analysis or mitigation is required.

Hazards and Hazardous Materials. e. *Would the project be 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, and if so, would the project result in a safety hazard or excessive noise for people residing or working in the project area?*

Answer: No Impact.

Discussion:

The closest airport to the Project site is the Plumas County Nervino Airport which is located approximately 10 miles west of the Project site. Therefore, there would be no impacts and no further analysis or mitigation is required.

Hazards and Hazardous Materials. f. *Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

Answer: No Impact.

Discussion:

Implementation of the Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan as it would not be constructed within public rights-of-way. Therefore, there would be no impacts and no further analysis or mitigation is required.

Hazards and Hazardous Materials. h. *Would the project expose people or structures, either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?*

Answer: No Impact.

Discussion:

The Project area is within a moderate fire severity zone and a state fire responsibility area. Implementation of the Project would include the installation of solar panels in an area that is presently vacant land and subject to the growth of wild vegetation. Removal of this vegetation would lower the fire danger of the site. Therefore, there would be no impacts and no further analysis or mitigation is required.

3.13.3 Conclusion

Implementation of the above mitigation measures will ensure that the impacts associated with hazards and hazardous materials are reduced to a less than significant level and no further environmental review or mitigation is required.

3.14 Hydrology and Water Quality

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	◙	☐	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable ground management of the basin?	☐	☐	☐	◙
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;	☐	☐	☐	◙
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	☐	◙
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	☐	☐	☐	◙
iv. Impede or redirect flood flows?	☐	☐	☐	◙
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	◙
	☐	☐	☐	◙

3.14.1 Environmental Setting

The Project site is within the Middle Fork Feather River Basin. The Feather River is a major tributary to the Sacramento River which drains 27,210 square miles. The Feather River falls under the jurisdiction of the California Regional Water Quality Control Board, Central Valley Region. The Regional Board has established beneficial uses and water quality objectives for the Feather River in its Water Quality Control Plan for the Sacramento River Basin and the San Joaquin River Basin.

The Feather River was designated a Wild and Scenic River by Congress in 1968. Thus, it is under the jurisdiction of the Plumas National Forest. Public Law 92-542 (October 2, 1968) declares that "…certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreation, geologic, fish and wildlife, historic, cultural or other similar values shall be preserved in free-flowing condition, and that their immediate environs shall be protected for the benefit and enjoyment of present and future generations." The Act continues, "…the appropriate Secretary shall issue guidelines, specifying standards for local zoning ordinances, which are consistent with the purposes of the Act. The standards specified in such guidelines shall have the object of (A) prohibiting new commercial or industrial uses other than commercial or industrial uses which are consistent with purposes of the Act, and (B) the protection of the bank lands by means of acreage, frontage, and setback requirements on development." *(City of Portola Conservation and Open Space Element, January 11, 2012)*.

The Project site lies over the Sierra Valley Groundwater Basin. The Basin covers 125,250 acres and has an estimated storage capacity of 7,500,000 acre-feet.

3.14.2 Discussion and Mitigation Measures

Hydrology and Water Quality. a. *Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*

Answer: Less than Significant with Mitigation Incorporated.

Discussion:

Generally, during site grading and excavation activities, bare soil would be exposed to wind and water erosion. If precautions are not taken to contain sediments, construction activities could produce sediment laden storm runoff. In addition to increased erosion potential, hazardous materials associated with construction equipment could adversely affect water quality if spilled or stored improperly. (See Section 3.13.2 for a full discussion and mitigation measures associated with hazardous materials.) Implementation of the following mitigation measures would insure that all impacts to water quality were less than significant.

- All site grading and excavation activities associated with the construction of the Project facilities would be subject to the provisions of the National Pollutant Discharge Elimination System (NPDES) Construction Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities [NPDES No. CAS000002 (State Water Resources Control Board Order No. 2009-0009-DWQ)]. Compliance with the provisions of that Order would require NCPA to obtain coverage before the onset of construction activities. Construction activities would comply with the conditions of these permits that include preparation of storm water pollution prevention plans (SWPPP), implementation of BMP's, and monitoring to insure impacts to water quality are minimized. As part of this process, multiple BMP's should be implemented to provide effective erosion and sediment control. These BMP's should be selected to achieve maximum sediment removal and represent the best available technology that is economically achievable. BMP's to be implemented may include, but not be limited to, the following:

  - ✓ Temporary erosion control measures such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other groundcover shall be employed for disturbed areas.

  - ✓ Storm drain inlets on the site and in downstream offsite areas shall be protected from sediment with the use of BMP's acceptable to NCPA, local jurisdictions and the California Regional Water Quality Control Board, Central Valley Region.

  - ✓ Dirt and debris shall be swept from paved streets in the construction zone on a regular basis, particularly before predicted rainfall events.

  - ✓ No disturbed surfaces shall be left without erosion control measures in place. NCPA, or its Construction Contractor, shall file a Notice of Intent with the Regional Board and require the preparation of a pollution prevention plan prior to commencement of construction. NCPA shall routinely inspect the construction site to verify that the BMP's specified in the pollution prevention plan are properly installed and maintained. NCPA shall immediately notify the contractor if there were a noncompliance issue and require immediate compliance.

- The SWPPP will also identify the method of final stabilization of the site to ensure no post-construction erosion and impacts to water quality will occur. The Notice of Termination (NOT) and release of the Project from the provisions of the Construction General Permit coverage will be granted by the California Regional Water Quality Control Board, Central Valley Region once it is satisfied that no impacts to water quality will occur.

Hydrology and Water Quality. b. *Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable ground management of the basin?*

Answer: No Impact.

Discussion:

The proposed Project includes the installation of solar photovoltaic facilities and does not include any facilities to extract groundwater. It will not result in the use of groundwater and thus will not substantially deplete groundwater supplies or interfere with groundwater recharge. Therefore, no further analysis or mitigation is required.

Hydrology and Water Quality. c.i. *Would the project 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 result in substantial erosion or siltation on- or off-site?*

Answer: No Impact.

Discussion:

The Project site is essentially level and will require only a minimum amount of grading. The panels will be installed on penetrating piers that would have a negligible effect on runoff from the site. Therefore, no impacts to the existing drainage pattern of the site would occur. Consequently, no further analysis or mitigation is required.

Hydrology and Water Quality. c.ii. *Would the project 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 result in flooding on- or off-site?*

Answer: No Impact.

Discussion:

As discussed above, no impacts to the existing drainage pattern of the site would occur. Consequently, no further analysis or mitigation is required.

Hydrology and Water Quality. c.iii. *Would the project create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?*

Answer: No Impact.

Discussion:

As discussed above, no impacts to the existing drainage pattern of the site would occur. Consequently, no further analysis or mitigation is required.

Hydrology and Water Quality. c.iv. *Would the project impede or redirect flood flows?*

Answer: No Impact.

Discussion:

As discussed above, no impacts to the existing drainage pattern of the site would occur. Consequently, no further analysis or mitigation is required.

Hydrology and Water Quality. d. *Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?*

Answer: No Impact.

Discussion:

According to the Federal Emergency Management Agency's Flood Insurance Rate Map 06063C1375E, the proposed Project site is within an Area of Minimal Flood Risk (Zone X). Therefore, there would be no impacts and no further analysis or mitigation is required.

Hydrology and Water Quality. e. *Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

Answer: No Impact.

Discussion:

As shown above, the Project would have no effect on water quality and therefore would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Consequently, no further analysis or mitigation is required.

3.14.3 Conclusion

Implementation of the above mitigation measures would insure that the impacts to water quality would be less than significant.

3.15 Land Use and Planning

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?	☐	☐	☐	◙
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?	☐	☐	☐	◙

3.15.1 Environmental Setting

The proposed Project site is a vacant parcel that has a small rural residential development to the west and a small industrial facility to the east. Its northern boundary is State Route 70 and its southern boundary is the Union Pacific Railroad. It is designated as Suburban (S-1) in the Plumas County General Plan. Public facilities, such as solar installations, are permitted uses in this land use designation.

3.15.2 Discussion and Mitigation Measures

Land Use and Planning. a. *Would the project physically divide an established community?*

Answer: No Impact.

Discussion:

As stated above, there is a small rural residential area to the west of the Project site; however, implementation of the Project would not change the access to this rural subdivision and, therefore, not physically divide an established community. Consequently, no further analysis or mitigation is required.

Land Use and Planning. b. *Would the project 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?*

Answer: No Impact.

Discussion:

As stated above, solar installations are permitted uses in the designated land use. Therefore, no further analysis or mitigation is required.

3.15.3 Conclusions

No significant effects were identified; therefore, no further analysis or mitigation is required.

3.16 Mineral Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Result in the loss of availability of a known resource that would be of value to the region and the residents of the state?	☐	☐	☐	◙
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?	☐	☐	☐	◙

3.16.1 Environmental Setting

According to the Plumas County Land Use Map, there are no mineral resources sites within the Project area.

3.16.2 Discussion and Mitigation Measures

Mineral Resources. a. *Would the project result in the loss of availability of a known resource that would be of value to the region and the residents of the state?*

Answer: No Impact.

Discussion:

There are no known mineral resources in the Project area that would be of value to the region and the residents of the State. Therefore, there would be no impacts anticipated and no mitigation is required.

Mineral Resources. b. *Would the project 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?*

Answer: No Impact.

Discussion:

There are no locally-important mineral resource recovery sites delineated on the applicable local general plans, specific plan or other land use plan in the Project area. Therefore, there would be no impacts anticipated and no mitigation is required.

3.16.3 Conclusion

No impacts are anticipated; therefore, no further analysis or mitigation is required.

3.17 Noise

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
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?	☐	☐	☐	◙
b. Generation of excessive groundbourne vibration or groundbourne noise levels?	☐	☐	☐	◙

3.17.1 Environmental Setting

The ambient noise level of a region is the total noise generated within the specific environment and is usually composed of sounds emanating from natural and manmade sources. Noise levels monitored in a region tend to have wide spatial and temporal variation due to the great diversity of contributing sources. This is especially true for the greater project area with its blend of rural land uses adjacent to a mix of residential and industrial uses.

Characterization of the Project area noise levels is difficult due to the lack of actual field measurements. Very little noise measurement data are available for the Project area in general. However, typical noise levels for areas like the Project area are in the range of 45 to 55 dB(A).

Generally, the noise levels in the Project area are affected by natural and manmade sources. However, the sound levels are more strongly influenced by human rather than natural sound sources. Within the Project area, the major sources of noise include aircraft and vehicular traffic, including trains.

3.17.2 Discussion and Mitigation Measures

Noise. a. *Would the project result in 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?*

Answer: No Impact.

Discussion:

Plumas County has not adopted a noise ordinance relative to construction noise. Consequently, no further analysis or mitigation is required.

Noise. b. *Would the project result in generation of excessive groundbourne vibration or groundbourne noise levels?*

Answer: No Impact.

Discussion:

Construction activities associated with the Project could result in some minor amount of ground vibration. The California Department of Transportation (Caltrans) has developed a vibration manual. According to that manual, the use of large bulldozers, vibratory rollers, and loaded trucks during grading activities could produce vibration. Depending on the level of vibration, the vibration could cause annoyance or damage structures within the project vicinity. Caltrans has developed a screening tool to determine if vibration from construction equipment is substantial enough to impact surrounding uses. Those thresholds are presented in Tables 3.17-1 and 3.17-2.

Table 3.17-1

Vibration Damage Potential Threshold Criteria

Structural Integrety	Maximum PPV (in/sec)	
	Transient	Continuous
Historic and some older buildings	0.50	0.25
Older residential structures	0.50	0.30
New residential structures	1.00	0.50
Modern industrial and commercial structures	2.00	0.50

Table 3.17-2

Vibration Annoyance Potential Threshold Criteria

Human Response	Maximum PPV (in/sec)	
	Transient	Continuous
Barely perceptible	0.035	0.012
Distinctly perceptible	0.24	0.035
Strongly perceptible	0.90	0.10
Severely perceptible	2.00	0.40

Construction equipment, such as bulldozers, are repetitive sources of vibration; therefore, the continuous threshold should be used in the vibration analysis for this project. The nearest residences to any part of the project site is approximately 150 feet. As shown in Table 3.17-3, the ground vibration from small bulldozers and loaded trucks would not be perceptible to those residences within 150 feet of the construction activity.

Table 3.17-3

Construction Vibration Impacts

Equipment	PPVref	Distance (feet)	PPV (in/sec)
Small Bulldozer	0.003	150	0.0004
Loaded Truck	0.076	150	0.0106

Therefore, no impacts would occur and no further analysis or mitigation is required.

3.17.3 Conclusion

No impacts were identified; therefore, no further analysis or mitigation is required.,

3.18 Population and Housing

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	◙
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	◙

3.18.1 Environmental Setting

The Project area is within U.S. Postal Zip Code Area 96105. The estimated 2018 population for that zip code was 550 with a housing stock of 412 units.

3.18.2 Discussion and Mitigation Measures

Population and Housing. a. *Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*

Answer*: No Impact.*

Discussion:

The Project includes the installation of solar photovoltaic systems at the Plumas-Sierra Chilcoot site. It does not include construction of homes, businesses or other infrastructure that would induce unplanned population growth. Therefore, no further analysis or mitigation is required.

Population and Housing. b. *Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

Answer: No Impact.

Discussion:

The Project facilities would be constructed on PSREC-controlled land that does not include housing and therefore would not displace people or housing. Consequently, no further analysis or mitigation is required.

3.18.3 Conclusion

No impacts were identified; therefore, no further analysis or mitigation is required.

3.19 Public Services

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. 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:				
1. Fire Protection?	☐	☐	☐	◙
2. Police Protection?	☐	☐	☐	◙
3. Schools?	☐	☐	☐	◙
4. Parks?	☐	☐	☐	◙
5. Other Public Facilities?	☐	☐	☐	◙

3.19.1 Environmental Setting

Several entities provide public services to residents in the Project area. They include:

- Police Protection: Plumas County Sheriff's Department
- Fire Protection: California Department of Forestry and Fire Protection
  Sierra Valley Fire Protection District
- Schools: Plumas-Sierra Unified School District

3.19.2 Discussion and Mitigation Measures

Public Services. a.1. *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* ***fire protection services****?*

Answer: No Impact.

Discussion:

Implementation of the Project would not result in the need for additional fire protection services because the Project involves a negligible expansion of operations for which fire protection services would be required. Therefore, there would be no impacts anticipated and no mitigation is required.

Public Services. a.2. *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* ***police protection services****?*

Answer: No Impact.

Discussion:

Implementation of the Project would not result in the need for additional police protection services because the Project involves a negligible expansion of operations for which police services would be required. Additional police protection services (e.g., equipment, sworn officers) would not be required. Therefore, there would be no impacts anticipated and no mitigation is required.

Public Services. a.3. *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 schools****?*

Answer: No Impact.

Discussion:

Implementation of the Project would not result in a need for additional schools because the Project does not include the development of residential uses for which school services would be required. Therefore, there would be no impacts anticipated and no mitigation is required.

Public Services. a.4. *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 parks****?*

Answer: No Impact.

Discussion:

Implementation of the Project would not result in a need for additional park facilities because the Project does not include the development of uses for which public parks would be required. Therefore, there would be no impacts anticipated and no mitigation is required.

Public Services. a.5. *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* ***other public services****?*

Answer: No Impact.

Discussion:

Implementation of the Project would not result in a need for expansions to other public services. Therefore, there would be no impacts anticipated and no mitigation is required.

3.19.3 Conclusion

There were no significant impacts identified; therefore, no further analysis or mitigation is required.

3.20 Recreation

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. 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?	☐	☐	☐	◙
b. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	◙

3.20.1 Environmental Setting

There are many acres of forest service lands as well as several parks, golf courses and water-oriented recreational facilities in the greater Project area.

3.20.2 Discussion and Mitigation Measures

Recreation. 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?*

Answer: No Impact.

Discussion:

The proposed Project would not increase the use or demand for park or recreational facilities because the Project does not include the development of uses that would place demands on these facilities, such as residential dwellings or office employment. Therefore, there would be no impacts anticipated and no further analysis or mitigation is required.

Recreation. b. *Would the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?*

Answer: No Impact.

Discussion:

The Project does not include recreational facilities. Therefore, there would be no impacts anticipated and no further analysis or mitigation is required.

3.20.3 Conclusion

No significant impacts were identified; therefore, no further analysis or mitigation is required.

3.21 Transportation

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Conflict with a plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle lanes and pedestrian paths?	☐	☐	☐	◙
b. For a land use project, would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)(1)?	☐	☐	☐	◙
c. For a transportation project, would the project conflict with CEQA Guidelines section 15064.3, subdivision (b)(3)?	☐	☐	☐	◙
d. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	◙
e. Result in inadequate emergency access?	☐	☐	☐	◙

3.23.1 Environmental Setting

Regional access to the Project sites is via State Highways 49 and 70.

The California Department of Transportation's (Caltrans) latest traffic counts (2017) for these highways near the Project area are shown in Table 3.23-1.

Table 3.23-1
Selected Traffic Counts by Caltrans
(2017)

Location	Southbound or Westbound			Northbound or Eastbound		
	Peak Hour	Peak Month	AADT[1]	Peak Hour	Peak Month	AADT[1]
Highway 49						
Junction Highway 70	120	1,300	1,050	--	--	--
Highway 70						
Junction Highway 49	460	4,550	3,450	500	5,300	4,000

[1] AADT = Average Annual Daily Traffic
Source: Caltrans 2019, www.dot.ca.gov (4/21/2019)

3.23.2 Discussion and Mitigation Measures

Transportation. a. *Would the project conflict with a plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle lanes and pedestrian paths?*

Answer: No Impact.

Discussion:

The Project consists of solar photovoltaic installation at the Plumas-Sierra Chilcoot site. Therefore, the Project would not conflict with a plan, ordinance or policy addressing the circulation system. Consequently, no further analysis or mitigation is required.

Transportation. b. *For a land use project, would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)(1)?*

Answer: No Impact.

Discussion:

The Project is not a land use project; therefore, this potential impact category would not apply to the Project. Consequently, there would be no impacts anticipated and no further analysis or mitigation is required.

Transportation. c. *For a transportation project, would the project conflict with CEQA Guidelines section 15064.3, subdivision (b)(3)??*

Answer: No Impact.

Discussion:

The Project is not a transportation project; therefore, this potential impact category would not apply to the Project. Consequently, there would be no impacts anticipated and no further analysis or mitigation is required.

Transportation. d. *Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

Answer: No Impact.

Discussion:

Implementation of the Project would not substantially increase other hazards due to a geometric design feature or incompatible uses. Therefore, there would be no impacts anticipated and no further analysis or mitigation is required.

Transportation. e. *Would the project result in inadequate emergency access?*

Answer: No Impact.

Discussion:

Implementation of the Project would not result in inadequate emergency access. Therefore, there would be no impacts anticipated and no further analysis or mitigation is required.

3.23.3 Conclusion

No impacts were identified; therefore, no further analysis or mitigation is required.

3.24 Tribal Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant	No Impact
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code §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:				
1) Listed or eligible for listing on the California Register of Historical Resources, or on a local register of historical resources as defined in Public Resources Code §5020.1(k), or	☐	☐	☐	◙
2) A resource determined by a 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 §5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code § 5024.1, the lead agency shall consider the significance of the resources to a California Native American tribe.	☐	☐	☐	◙

3.24.1 Environmental Setting

AB 52 Coordination

On April 10, 2019, K.S. Dunbar & Associates, Inc., sent a request to the Native American Heritage Commission to perform a search of its Sacred Lands file. Subsequently, on April 12, 2019, Gayle Totton, B.S., M.A., Ph.D., Associate Program Analyst, responded in an email to Keith S. Dunbar in which she stated:

> *A record search of the Native American Heritage Commission (NAHC) Sacred Lands file (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.*

Also, on April 12, 2019, K.S. Dunbar & Associates, Inc., emailed AB 52 Notifications to the following based on Dr. Totton's recommended Native American Contact List:

Glenda Nelson, Chairperson
Enterprise Rancheria of Maidu Indians
2133 Monte Vista Avenue
Oroville, California 95966
info@enterpriserancheria.us

Kyle Self, Chairman
Greenville Rancheria of Maidu Indians
Post Office Box 279
Greenville, California 95947-0279
kself@greenvillerancheria.com

Benjamin Clarke, Chairperson
Mooretown Rancheria of Maidu Indians
#1 Alverde Drive
Oroville, California 95966
frontdesk@mooretown.org

Melany Johnson
Tribal Historic Preservation Officer
Susanville Indian Rancheria
745 Joaquin Street
Susanville, California 96130
mjohnson@sir-nsn.gov

Grayson Coney, Cultural Director
T'SI-akim Maidu
Post Office Box 510
Browns Valley, California 95918-0510
tsi-akim-maidu@att.net

Darrel Cruz, Cultural Resources Department
Washoe Tribe of Nevada and California
919 Highway 395 South
Gardnerville, Nevada 89410
darrel.cruz@washoetribe.us

To date, none of these tribes have responded to the Notification or asked for formal consultation.

During the preparation of its cultural resources assessment for the Project, Anza Resource Consultants performed a records search at the Northeast Information Center at the Department of Anthropology, California State University, Chico. Based on that search, no historic or cultural resources have been previously identified on the Project site. Anza's complete report is contained in Appendix D.

3.24.2 Discussion and Mitigation Measures

Tribal Cultural Resources. 1). *Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code §21074 as 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, that is listed or eligible for listing on the California Register of Historical Resources, or on a local register of historical resources as defined in Public Resources Code §5020.1(k),*

Answer: No Impact.

Discussion:

Based on record searches at the Native American Heritage Commission and the California Historic Resources Information System, field surveys and Native American consultation, there are no tribal cultural resources within the Proposed Project area. Therefore, no further analysis or mitigation is required.

Tribal Cultural Resources. 2). *Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code §21074 as a resource determined by a lead agency, in its discretion and supported by substantial evidence, to be significant according to the historical register criteria in Public Resources Code §5023.1(c), and considering the significance of the resource to a California Native American tribe.*

Answer: No Impact.

Discussion:

Based on record searches at the Native American Heritage Commission and the California Historic Resources Information System, field surveys and Native American consultation, there are no tribal cultural resources within the Proposed Project area. Therefore, no further analysis or mitigation is required.

3.24.3 Conclusion

No impacts were identified; therefore, no further analysis or mitigation is required.

3.25 Utilities and Service Systems

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
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 telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	◙
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	◙
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?	☐	☐	☐	◙
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?	☐	☐	☐	◙
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	◙

3.25.1 Environmental Setting

Several entities provide utilities and service systems within the Project area including:

- Water — Individual wells.
- Wastewater — On-site individual disposal systems.
- Electricity — Plumas Sierra Rural Electric Cooperative.
- Natural Gas — None.
- Trash — Intermountain Disposal.

3.25.2 Discussion and Mitigation Measures

Utilities and Service Systems. a. *Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?*

Answer: No Impact.

Discussion:

The Project includes the construction and operation of a solar photovoltaic system at the Plumas-Sierra Chilcoot site. It will not result in the relocation or construction of new or expanded services. The connections to the local electrical grid are immediately adjacent to the Project site. The local grid has the capacity to accept the additional electricity generated by the Project. Therefore, there would be no impacts and no further analysis or mitigation is required.

Utilities and Service Systems. b. *Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?*

Answer: No Impact.

Discussion:

The Project will require a minimal amount of water to periodically clean the solar panels. It is anticipated that the required water would be trucked to the site for this use. Therefore, there would be no impacts and no further analysis or mitigation is required.

Utilities and Service Systems. c. *Would the project 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?*

Answer: No Impact.

Discussion:

The Project will not require wastewater service. Therefore, there would be no impacts and no further analysis or mitigation is required.

Utilities and Service Systems. d. *Would the project 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?*

Answer: No Impact.

Discussion:

The Project will not generate solid waste. Therefore, there would be no impacts and no further analysis or mitigation is required.

Utilities and Service Systems. e. *Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?*

Answer: No Impact.

Discussion:

The Project would comply with all federal, state and local regulations related to solid waste. Therefore, there would be no impacts and no further analysis or mitigation is required.

3.25.3 Conclusion

No impacts were identified; therefore, no further analysis or mitigation is required.

3.26 Wildfire

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a. Impair and adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	◙
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?	☐	☐	☐	◙
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 risks or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	◙
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?	☐	☐	☐	◙

3.26.1 Environmental Setting

Data provided by the California Department of Forestry and Fire Protection (Calfire) indicate that the Project area is within a state fire responsibility area which has been designated a moderate fire severity zone.

3.26.2 Discussion and Mitigation Measures

Wildlife. a. *Would the project impair an adopted emergency response plan or emergency evacuation plan?*

Answer: No Impact.

Discussion:

As discussed in the Transportation section, the Project would not impair an adopted emergency response plan. Therefore, no further analysis or mitigation is required;

Wildlife. b. *Would the project 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?*

Answer: No Impact.

Discussion:

The Project site is relatively flat with only a moderate risk of wildland fires. Implementation of the Project would remove combustible vegetation from the site which would actually lower the risk of wildfires. Therefore, there would be no adverse impacts and no further analysis or mitigation is required.

Wildlife. c. *Would the project 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 risks or that may result in temporary or ongoing impacts to the environment?*

Answer: No Impact.

Discussion:

The Project would be connected to the local electrical grid. However, the connections would be made immediately adjacent to the Project site and be underground. Therefore, there would be no impacts and no further analysis or mitigation is required.

Wildlife. d. *Would the project 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?*

Answer: No Impact.

Discussion:

The Project area is relatively flat and not subject to flooding or landslides. In addition, as stated above, implementation of the project would actually lower the potential for wildland fires on the site. Therefore, there would be no adverse impacts and no further analysis or mitigation is required.

3.26.3 Conclusion

No impacts were identified; therefore, no further analysis or mitigation is required.

3.27 Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. 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?	☐	◙	☐	☐
b. 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.)	☐	◙	☐	☐
c. Have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	◙	☐	☐

3.27.1 Discussion and Mitigation Measures

Mandatory Findings of Significance. a. *Would 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?*

Answer: Less than Significant with Mitigation Incorporated.

Discussion:

Compliance with the mitigation measures included in Sections 3.5 through 3.26 above will ensure that implementation of the proposed Project does not have the potential to significantly 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.

Mandatory Findings of Significance. b. *Would 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.)*

Answer: Less than Significant with Mitigation Incorporated.

Discussion:

Compliance with the mitigation measures included in Sections 3.5 through 3.26 above will ensure that implementation of the proposed Project does not have impacts that are individually limited, but cumulatively considerable. NCPA is not aware of any other projects in the area that could result in cumulative construction impacts.

Mandatory Findings of Significance. c. *Would the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?*

Answer: Less than Significant with Mitigation Incorporated.

Discussion:

Compliance with the mitigation measures included in Sections 3.5 through 3.26 above will ensure that implementation of the proposed Project does not have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly.

3.27.2 Conclusion

All potential significant impacts associated with the proposed Project can be mitigated to a less than significant level. Therefore, no further environmental review or mitigation is required.

4 Persons and Organizations Consulted

On July 1, 2019, K.S. Dunbar & Associates, Inc., the Northern California Power Agency's environmental consultant, mailed copies of the Notice of Intent to Adopt a Mitigated Negative Declaration with a link to the Northern California Power Agency's website where the Initial Study and Mitigated Negative Declaration could be electronically downloaded to the following;

4.1 Federal Agencies

Jennifer Norris, Field Supervisor
Sacramento Fish & Wildlife Office
U.S. Fish & Wildlife Service
2800 Cottage Way, Room W-2605
Sacramento, California 95825-1888

Michael S. Jewell, Chief
Regulatory Division
U.S. Army Corps of Engineers – Sacramento District
1325 J Street, Room 1350
Sacramento, California 95814-2922

Amy Dutschke, Regional Director
Pacific Region Regional Office
Bureau of Indian Affairs
U.S. Department of the Interior
2800 Cottage Way, Room W-2820
Sacramento, California 94825-1885

4.2 State Agencies

Scott Morgan, Director
State Clearinghouse
Governor's Office of Planning and Research
Post Office Box 3044
Sacramento, California 95812-3044

Tina Bartlett, Regional Manager
North Central Region (Region 2)
California Department of Fish and Wildlife
1701 Nimbus Road
Rancho Cordova, California 95670

Clint Snider, Assistant Executive Officer
California Regional Water Quality Control Board, Central Valley Region
364 Knollcrest Drive, Suite 205
Redding, California 96002

Julianne Polanco
State Historic Preservation Officer
Office of Historic Preservation
California Department of Parks and Recreation
1725 23rd Street, Suite 100
Sacramento, California 95816-7100

Wade Crowfoot, Secretary
California Natural Resources Agency
1416 Ninth Street, Suite 1311
Sacramento, California 95814

Christina Snider, Executive Secretary
California Native American Heritage Commission
1550 Harbor Boulevard, Suite 100
West Sacramento, California 95691-3830

4.3 County Agencies

Gretchen Bennitt
Air Pollution Control Officer
Northern Sierra Air Quality Management District
200 Lytton Drive, Suite 320
Grass Valley, California 95945

Randy Wilson, Planning Director
Plumas County
555 Main Street
Quincy, California 95971

4.4 City Agencies

Tom Cooley, Mayor
City of Portola
35 Third Avenue
Portola, California 96122

4.5 Interested Entities

Jason Harston, Manager
Engineering and Operations
Plumas Sierra Rural Electric Cooperative
73233 State Route 70
Portola, California 96122-7069

Glenda Nelson, Chairperson
Enterprise Rancheria of Maidu Indians
2133 Monte Vista Avenue
Oroville, California 95966
info@enterpriserancheria.us

Kyle Self, Chairman
Greenville Rancheria of Maidu Indians
Post Office Box 279
Greenville, California 95947-0279
kself@greenvillerancheria.com

Benjamin Clarke, Chairperson
Mooretown Rancheria of Maidu Indians
#1 Alverde Drive
Oroville, California 95966
frontdesk@mooretown.org

Melany Johnson
Tribal Historic Preservation Officer
Susanville Indian Rancheria
745 Joaquin Street
Susanville, California 96130
mjohnson@sir-nsn.gov

Grayson Coney, Cultural Director
T'SI-akim Maidu
Post Office Box 510
Browns Valley, California 95918-0510
tsi-akim-maidu@att.net

Darrel Cruz, Cultural Resources Department
Washoe Tribe of Nevada and California
919 Highway 395 South
Gardnerville, Nevada 89410
darrel.cruz@washoetribe.us

5 Report Authors/Contributors

5.1 Report Authors

This Initial Study and Mitigated Negative Declaration was prepared under contract to the Northern California Power Agency by:

K.S. Dunbar & Associates, Inc.

Environmental Engineering

45375 Vista Del Mar
Temecula, California 92590-4314
(951) 699-2082
Cell: (949) 412-2634
Email: ksdpe67@gmail.com

Erica D. Dunbar, President
Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE, Project Manager

Anza Resource Consultants

(Cultural Resources)
Kevin Hunt, President
Katherine Collins, M.A., RPA, Principal Investigator
Spencer Bietz, GIS Specialist

ELMT Consulting

(Biological Resources)
Thomas J. McGill, Managing Director
Travis J. McGill, Director/Biologist

5.2 Report Contributors

Northern California Power Agency

Ron Yuen, Director of Engineering, Generation Services

6 References

Air Resources Board. 2000. Risk *Guidance for the Permitting of New Stationary Diesel-Fueled Engines.*

Air Resources Board. 2019. www.arb.ca.gov, 4/13/2019

Air Resources Board. 2018. *California Greenhouse Gas Emissions for 2000 to 2016 Trends of Emissions and Other Indicators. 2018 Edition.*

Anza Resource Consultants. 2019. *Cultural Resources Technical Report, NCPA Solar Project – Plumas-Sierra Chilcoot. K.S. Dunbar & Associates, Inc.*, May 2019.

Association of Environmental Professionals. 2019. *2019 CEQA, California Environmental Quality Act, Statutes & Guidelines.*

Burns and McDonnell. 2018. *Plumas-Sierra Chilcoot Site. Phase 2B Site Screening and Fatal Flaw Evaluation*. Northern California Power Agency. November 13.

Burns and McDonnell. 2019. *Plumas-Sierra Chilcoot Site Plan Development. Northern California Power Agency, Plumas-Sierra Chilcoot Site. Project No. 107642, Revision 0.* May 2.

California Department of Transportation. 2019. *List of Scenic Highways in California*. www.dot.ca.gov, 4/13/2019.

California Department of Transportation. 2019. Traffic Counts. www.dot.ca.gov, 4/13/2019.

California Department of Transportation. 2017. *California Manual on Uniform Traffic Control Devices. 2014 Edition, Revision 2.* April 7, 2017.

California Department of Transportation. 2013. *Transportation and Construction Vibration Guidance Manual.* September

California Department of Toxic Substances Control. 2019. www.dtsc.ca.gov. 4/13/2019.

California Department of Water Resources. 2010. *Guidelines, Proposition 84 & Proposition 1E, Integrated Regional Water Management.* August.

California Natural Resources Agency. 2019. Proposed Regulatory Text for the State CEQA Guidelines.

California Regional Water Quality Control Board. 2018. *The Water Quality Control Plan for the Sacramento River Basin and the San Joaquin River Basin. Fifth Edition.* May.

City of Portola. 2012. *City of Portola General Plan 2020.* January 11.

El Dorado County Air Pollution Control District. 2001. *Guide to Air Quality Assessment, Determining Significance of Air Quality Impacts Under the California Environmental Quality Act, First Edition.* February.

ELMT Consulting. 2019. *Habitat and Jurisdictional Assessment for the Northern California Power Agency Solar Project 1 – Plumas Sierra Chilcoot Site Located Near the Community of Chilcoot, Plumas County, California.* K.S. Dunbar & Associates, Inc. May 8.

ESA. 2012. *Draft Environmental Impact Report 2035 Plumas County General Plan Update.* November.

K.S. Dunbar & Associates, Inc., 2014. *Initial Study and Mitigated Negative Declaration, Solar Photovoltaic Renewable Energy Initiative – Phase II.* Eastern Municipal Water District. July 2014.

K.S. Dunbar & Associates, Inc., 2018. *Initial Study, Solar Photovoltaic Renewable Energy Initiative – Phase III,* Eastern Municipal Water District. August 2018.

Meister Consultants Group. 2014. *Solar and Glare.* Prepared for the U.S. Department of Energy. June.

Northern Sierra Air Quality Management District. 2017. *Portola Fine Particulate Matter ($PM_{2.5}$) Attainment Plan.* January.

Placer County Air Quality Management District. 2016. *Review of Land Use Projects under California Environmental Quality Act (CEQA) Policy.* October 13.

Plumas-Sierra Rural Electric Cooperative. 2018. *2017 Power Content Label.* October.

SCAQMD. 2006. *Final Methodology to Calculate Particulate Matter ($PM)_{2.5}$ and $PM_{2.5}$ Significance Thresholds.* October 2006.

SCAQMD. 2016. *Draft Final 2016 Air Quality Management Plan.* December 2016.

SCAQMD. 2016. *Appendix I, Health Effects. Draft Final 2016 Air Quality Management Plan.* December 2016.

SCAQMD. 1999. *CEQA Air Quality Handbook*. Revised March 2011. www.aqmd.gov. 5/24/2014

SCAQMD. 2008. Localized Significance Thresholds. July. www.aqmd.gov. 5/24/2014

U.S. Department of Agriculture, Natural Resources Conservation Service, Web Soil Survey, Plumas County California. www.websoilsurvey.gov, 4/13/2019.

SCAQMD. 2008. *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold.* October 2008.

www.usa.com, 4/13/2019

Appendix A

Mitigated Negative Declaration

Mitigated Negative Declaration

NCPA Solar Project 1 – Plumas-Sierra Chilcoot Site

1. Name of project:	**NCPA Solar Project 1 – Plumas-Sierra Chilcoot Site**		
2. Project location – Identify street address and cross streets or attach a map showing the project site (preferably a USGS 7½' or 15' topographical map identified by quadrangle name):	See attachment.		
3. Entity or Person undertaking project:			
A. Entity			
(1) Name:	Northern California Power Agency		
(2) Address:	651 Commerce Drive, Roseville, California 95678-6420		
B. Other (Private)			
(1) Name:			
(2) Address:			

Northern California Power Agency, having reviewed the Initial Study of this proposed project, having reviewed the written comments received prior to the public meeting of the Northern California Power Agency, having reviewed the recommendations of the Northern California Power Agency's Staff, does hereby find and declare that the proposed project will not have a significant effect on the environment. A brief statement of the reasons supporting the Northern California Power Agency's findings are as follows:

The Initial Study concluded that all significant impacts can be reduced to a level of less than significant by implementation of the Mitigation Monitoring and Reporting Program developed for this Project.

The Northern California Power Agency finds that the Mitigated Negative Declaration reflects its independent judgment. A copy of the Initial Study and Mitigation Monitoring and Reporting Program are attached.

The location and custodian of the documents and any other materials which constitute the record of proceedings upon which the Northern California Power Agency based its decision to adopt this Mitigated Negative Declaration are as follows:

Custodian:	Ron Yuen Director of Engineering, Generation Services	Location:	Northern California Power Agency 651 Commerce Driver Roseville, California 95678-6420
Phone:	(916) 781-4258		

Date:	Signature

Overview of the Proposed Project:

The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories to be completed and placed in service before the end of 2019. The plants will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. Burns & McDonnell was retained by NCPA to complete Phase 2 Site Screening, Plan Development, and Procurement services for each site selected by the member agencies. Plumas-Sierra Rural Electric Cooperative (PSREC) selected a site near Chilcoot for development. That site is the subject of this Initial Study and Mitigated Negative Declaration (IS&MND).

Location of the Proposed Project

PSREC selected a potential site near the intersection of State Highways 49 and 70 at Chilcoot for further analysis. The location of this site is shown on Figure 1.

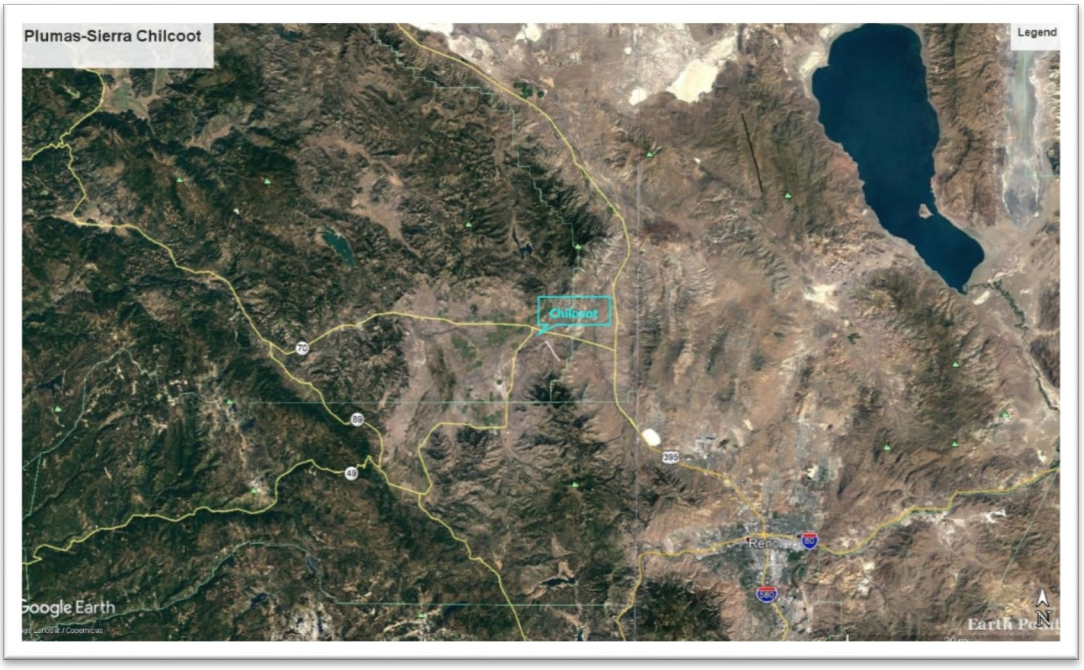


Figure 1 Proposed Photovoltaic Site near Chilcoot

The Project site is located within a 36-acre vacant parcel located just south of Highway 70 east of its intersection with Highway 49. The site is bordered by Highway 70 to the north, an industrial facility to the east, Union Pacific Railroad to the south, and scattered

residences to the east (Figure 2). This site would accommodate a 5.64 MW_{dc} facility with a first-year output of 9,720 megawatt-hours.

Figure 1 Plumas-Sierra Chilcoot Project Site

Appendix B

Air Quality Modeling Results

NCPA Solar Project 1
Northern California Power Agency
Estimated Construction Emissions from Off-Road Heacy Duty Contstuction Equipment During Solar Equipment Installation

2019 Construction Year

Equipment	Emission Factor gr/hp-hr	Emission Factor lb/hp-hr	Number	horsepower	load factor	hours/day	Emissions pounds per day	Mitigated Emissions pounds per day
			Reactive Organic Gases (ROG)					
Compressor	0.538	0.00118502	1	106	0.48	8	0.48	
Crane	0.3491	0.00076894	1	399	0.43	8	1.06	
Drill Rig	0.1292	0.00028458	1	291	0.75	8	0.50	
Sweeper	0.2347	0.00051696	1	500	0.68	2	0.35	
Tractors/Backhoes/Loaders	0.3678	0.00139075	1	108	0.55	4	0.33	
Trencher	0.6314	0.00058040	1	63	0.75	4	0.11	
Utility Trucks	0.2635	0.00058040	1	479	0.57	4	0.63	
Water Trucks	0.2635	0.00058040	1	500	0.5	2	0.29	
Totals							3.75	

Equipment	Emission Factor gr/hp-hr	Emission Factor lb/hp-hr	Number	horsepower	load factor	hours/day	Emissions pounds per day	Mitigated Emissions pounds per day
			Carbon Monoxide (CO)					
Compressor	3.718	0.00818943	1	106	0.48	8	3.33	
Crane	2.96983	0.00654148	1	399	0.43	8	8.98	
Drill Rig	1.03449	0.00227861	1	291	0.75	8	3.98	
Sweeper	1.23013	0.00270954	1	500	0.68	2	1.84	
Tractors/Backhoes/Loaders	3.63777	0.00845104	1	108	0.55	4	2.01	
Trencher	3.83677	0.00326753	1	63	0.75	4	0.62	
Utility Trucks	1.48346	0.00326753	1	479	0.57	4	3.57	
Water Trucks	1.48346	0.00326753	1	500	0.5	2	1.63	
Totals							25.96	

Equipment	Emission Factor gr/hp-hr	Emission Factor lb/hp-hr	Number	horsepower	load factor	hours/day	Emissions pounds per day	Mitigated Emissions pounds per day
			Oxides of Nitrogen (NO_x)					
Compressor	3.706	0.00816300	1	106	0.48	8	3.32	2.82
Crane	4.29654	0.00946374	1	399	0.43	8	12.99	11.04
Drill Rig	1.55098	0.00341626	1	291	0.75	8	5.96	5.07
Sweeper	2.86598	0.00631273	1	500	0.68	2	4.29	3.65
Tractors/Backhoes/Loaders	3.69287	0.01254423	1	108	0.55	4	2.98	2.53
Trencher	5.69508	0.00587778	1	63	0.75	4	1.11	0.94
Utility Trucks	2.66851	0.00587778	1	479	0.57	4	6.42	5.46
Water Trucks	2.66851	0.00587778	1	500	0.5	2	2.94	2.50
Totals							40.02	34.02

Equipment	Emission Factor gr/hp-hr	Emission Factor lb/hp-hr	Number	horsepower	load factor	hours/day	Emissions pounds per day	Mitigated Emissions pounds per day
			Oxides of Sulfur (SO_x)					
Compressor	0.007	0.00001542	1	106	0.48	8	0.01	
Crane	0.0049	0.00001079	1	399	0.43	8	0.01	
Drill Rig	0.0048	0.00001057	1	291	0.75	8	0.02	
Sweeper	0.0049	0.00001079	1	500	0.68	2	0.01	
Tractors/Backhoes/Loaders	0.0049	0.00001079	1	108	0.55	4	0.00	
Trencher	0.0049	0.00001079	1	63	0.75	4	0.00	
Utility Trucks	0.0049	0.00001079	1	479	0.57	4	0.01	
Water Trucks	0.0049	0.00001079	1	500	0.5	2	0.01	
Totals							0.07	

Equipment	Emission Factor gr/hp-hr	Emission Factor lb/hp-hr	Number	horsepower	load factor	hours/day	Emissions pounds per day	Mitigated Emissions pounds per day
			Respirable Particlulate Matter (PM_{10})					
Compressor	0.287	0.00063216	1	106	0.48	8	0.26	0.04
Crane	0.173	0.00038106	1	399	0.43	8	0.52	0.08
Drill Rig	0.0479	0.00010551	1	291	0.75	8	0.18	0.03
Sweeper	0.0989	0.00021784	1	500	0.68	2	0.15	0.02
Tractors/Backhoes/Loaders	0.2465	0.00094846	1	108	0.55	4	0.23	0.03
Trencher	0.4306	0.00021366	1	63	0.75	4	0.04	0.01
Utility Trucks	0.097	0.00021366	1	479	0.57	4	0.23	0.04
Water Trucks	0.097	0.00021366	1	500	0.5	2	0.11	0.02
Totals							1.72	0.26

Equipment	Emission Factor gr/hp-hr	Emission Factor lb/hp-hr	Number	horsepower	load factor	hours/day	Emissions pounds per day	Mitigated Emissions pounds per day
			Fine Particulate Matter ($PM_{2.5}$)					
Compressor	0.287	0.00063216	1	106	0.48	8	0.26	0.04
Crane	0.1592	0.00035066	1	399	0.43	8	0.48	0.07
Drill Rig	0.0441	0.00009714	1	291	0.75	8	0.17	0.03
Sweeper	0.091	0.00020044	1	500	0.68	2	0.14	0.02
Tractors/Backhoes/Loaders	0.2268	0.00087247	1	108	0.55	4	0.21	0.03
Trencher	0.3961	0.00019670	1	63	0.75	4	0.04	0.01
Utility Trucks	0.0893	0.00019670	1	479	0.57	4	0.21	0.03
Water Trucks	0.0893	0.00019670	1	500	0.5	2	0.10	0.01
Totals							1.60	0.24

Equipment	Emission Factor gr/hp-hr	Emission Factor lb/hp-hr	Number	horsepower	load factor	hours/day	Emissions pounds per day	Mitigated Emissions pounds per day
			Carbon Dioxide (CO_2)					
Compressor	568.299	1.25175991	1	106	0.48	8	510	
Crane	483.1422	1.06418987	1	399	0.43	8	1,461	
Drill Rig	477.0462	1.05076256	1	291	0.75	8	1,835	
Sweeper	480.5735	1.05853194	1	500	0.68	2	720	
Tractors/Backhoes/Loaders	486.8508	1.06897247	1	108	0.55	4	254	
Trencher	485.3135	1.06912599	1	63	0.75	4	202	
Utility Trucks	485.3832	1.06912599	1	479	0.57	4	1,168	
Water Trucks	485.3832	1.06912599	1	500	0.5	2	535	
Totals							6,683	

Equipment	Emission Factor gr/hp-hr	Emission Factor lb/hp-hr	Number	horsepower	load factor	hours/day	Emissions pounds per day	Mitigated Emissions pounds per day
			Methane (CH_4)					
Compressor	0.101	0.00022247	1	106	0.48	8	0.09	
Crane	0.1529	0.00033678	1	399	0.43	8	0.46	
Drill Rig	0.1505	0.00033150	1	291	0.75	8	0.58	
Sweeper	0.152	0.00033480	1	500	0.68	2	0.23	
Tractors/Backhoes/Loaders	0.1537	0.00033833	1	108	0.55	4	0.08	
Trencher	0.1536	0.00033833	1	63	0.75	4	0.06	
Utility Trucks	0.1536	0.00033833	1	479	0.57	4	0.37	
Water Trucks	0.1536	0.00033833	1	500	0.5	2	0.17	
Totals							2.04	

Appendix C

Biological Resources Technical Report

May 8, 2019

K.S. DUNBAR & ASSOCIATES
Contact: Keith S. Dunbar, P.E., BCEE, Hon.D.WRE, F.ASCE
45375 Vista Del Mar
Temecula, California 92590

SUBJECT: Habitat and Jurisdictional Assessment for the Northern California Power Agency Solar Project 1 – Plumas Sierra Chilcoot Site Located Near the Community of Chilcoot, Plumas County, California

Introduction

This report contains the findings of ELMT Consulting's (ELMT) habitat and jurisdictional assessment for the Northern California Power Agency (NCPA) Solar Project 1 – Plumas Cierra Chilcoot (project site or site) located near the Community of Chilcoot, Plumas County, California. The habitat and jurisdictional assessment was conducted by biologist Travis J. McGill on May 1, 2019 to document baseline conditions and assess the potential for special-status[1] plant and wildlife species to occur within the project site that could pose a constraint to implementation of the proposed project. Special attention was given to the suitability of the project site to support special-status plant and wildlife species identified by the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB), and other electronic databases as potentially occurring in the general vicinity of the project site.

Project Location

The project site is generally located west of U.S. Route 395, east of State Route 49, south of State Route 70, and north of the Tahoe National Forest west of the Community of Chilcoot, Plumas County, California. The project site is depicted on the Chilcoot quadrangle of the United States Geological Survey's (USGS) 7.5-minute topographic map series within Sections 34 and 35 of Township 23 North, Range 16 East. Specifically, the project site is bordered by State Route 70 along its northern boundary, and the Union Pacific (UP) Railroad along its southern boundary with scattered residences to the west, and an existing industrial facility to the east. The site is located approximately 0.5 mile east of State Route 49, and approximately 1 mile west of State Route 284. Refer to Exhibits 1 thru 3 in Attachment A.

Project Description

Burns & McDonnell estimated the developable area of the site to be approximately 28.2 acres, or enough

1 As used in this report, "special-status" refers to plant and wildlife species that are federally and State listed, proposed, or candidates; plant species that have been designated with a California Native Plant Society Rare Plant Rank; wildlife species that are designated by the CDFW as fully protected, species of special concern, or watch list species; and specially protected natural vegetation communities as designated by the CDFW.

land to potentially yield a project size of 4.7 MW (based on an estimate of 6 acres of land needed per MW developed). The project site was positioned in an area to provide reasonable setbacks from the railroad south of the site, the existing residences to the west and the fencing to the east of the site. The proposed technology type for the solar project is horizontal single axis tracker (HSAT).

Methodology

A literature review and records search were conducted to determine which special-status biological resources have the potential to occur on or within the general vicinity of the project site. In addition to the literature review, a general habitat assessment or field investigation of the project site was conducted to document existing conditions and assess the potential for special-status biological resources to occur within the project site.

Literature Review

Prior to conducting the field investigation, a literature review and records search was conducted for special-status biological resources potentially occurring on or within the vicinity of the project site. Previously recorded occurrences of special-status plant and wildlife species and their proximity to the project site were determined through a query of the CDFW's QuickView Tool in the Biogeographic Information and Observation System (BIOS), CNDDB Rarefind 5, the California Native Plant Society's (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants of California, Calflora Database, compendia of special-status species published by CDFW, and the United States Fish and Wildlife Service (USFWS) species listings.

All available reports, survey results, and literature detailing the biological resources previously observed on or within the vicinity of the project site were reviewed to understand existing site conditions and note the extent of any disturbances that have occurred within the project site that would otherwise limit the distribution of special-status biological resources. Standard field guides and texts were reviewed for specific habitat requirements of special-status and non-special-status biological resources, as well as the following resources:

- Google Earth Pro historic aerial imagery (1992-2014);
- United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS), Soil Survey[2];
- USFWS Critical Habitat designations for Threatened and Endangered Species; and
- USFWS Endangered Species Profiles.

The literature review provided a baseline from which to inventory the biological resources potentially occurring within the project site. The CNDDB database was used, in conjunction with ArcGIS software, to locate the nearest recorded occurrences of special-status species and determine the distance from the project site.

2 A soil series is defined as a group of soils with similar profiles developed from similar parent materials under comparable climatic and vegetation conditions. These profiles include major horizons with similar thickness, arrangement, and other important characteristics, which may promote favorable conditions for certain biological resources.

Habitat Assessment/Field Investigation

Following the literature review, biologist Travis J. McGill inventoried and evaluated the condition of the habitat within the project site on May 1, 2019. Plant communities and land cover types identified on aerial photographs during the literature review were verified by walking meandering transects throughout the project site. In addition, aerial photography was reviewed prior to the site investigation to locate potential natural corridors and linkages that may support the movement of wildlife through the area. These areas identified on aerial photography were then walked during the field investigation.

All plant and wildlife species observed, as well as dominant plant species within each plant community, were recorded. Plant species observed during the field investigation were identified by visual characteristics and morphology in the field. Unusual and less familiar plant species were photographed during the field investigation and identified in the laboratory using taxonomical guides. Wildlife detections were made through observation of scat, trails, tracks, burrows, nests, and/or visual and aural observation. In addition, site characteristics such as soil condition, topography, hydrology, anthropogenic disturbances, indicator species, condition of on-site plant communities and land cover types, and presence of potential jurisdictional drainage and/or wetland features were noted.

Soil Series Assessment

On-site and adjoining soils were researched prior to the field investigation using the USDA NRCS Soil Survey for Plumas County, California. In addition, a review of the local geological conditions and historical aerial photographs was conducted to assess the ecological changes that the project site have undergone.

Plant Communities

Plant communities were mapped using 7.5-minute USGS topographic base maps and aerial photography. The plant communities were classified in accordance with Sawyer, Keeler-Wolf and Evens (2009), delineated on an aerial photograph, and then digitized into GIS Arcview. The Arcview application was used to compute the area of each plant community and/or land cover type in acres.

Plants

Common plant species observed during the field investigation were identified by visual characteristics and morphology in the field and recorded in a field notebook. Unusual and less familiar plants were photographed in the field and identified in the laboratory using taxonomic guides. Taxonomic nomenclature used in this study follows the 2012 Jepson Manual (Hickman 2012). In this report, scientific names are provided immediately following common names of plant species (first reference only).

Wildlife

Wildlife species detected during the field investigation by sight, calls, tracks, scat, or other sign were recorded during surveys in a field notebook. Field guides used to assist with identification of wildlife species during the survey included The Sibley Field Guide to the Birds of Western North America (Sibley 2003), A Field Guide to Western Reptiles and Amphibians (Stebbins 2003), and A Field Guide to Mammals of North America (Reid 2006). Although common names of wildlife species are well standardized, scientific names are provided immediately following common names in this report (first reference only).

Jurisdictional Drainages and Wetlands

Aerial photography was reviewed prior to conducting a field investigation in order to locate and inspect any potential natural drainage features, ponded areas, or water bodies that may fall under the jurisdiction of the United States Army Corps of Engineers (Corps), Regional Water Quality Control Board (Regional Board), or CDFW. In general, surface drainage features indicated as blue-line streams on USGS maps that are observed or expected to exhibit evidence of flow are considered potential riparian/riverine habitat and are also subject to state and federal regulatory jurisdiction. In addition, ELMT reviewed jurisdictional waters information through examining historical aerial photographs to gain an understanding of the impact of land-use on natural drainage patterns in the area. The USFWS National Wetland Inventory (NWI) and Environmental Protection Agency (EPA) Water Program "My Waters" data layers were also reviewed to determine whether any hydrologic features and wetland areas have been documented on or within the vicinity of the project site.

Existing Site Conditions

The project site is located on a vacant privately-owned property that is comprised of approximately 30 acres. The site is bordered by the Union Pacific Railroad to the south, scattered residences to the west and an existing industrial facility to the east. The northern edge of the parcel is a presumed city easement that has been excluded as a developable area for the project. According to the Federal Emergency Management Agency (FEMA) data, the site is located within the 500-year flood hazard zone; however, the risk of flooding appears to be low based on observations made during the field investigation and the Union Pacific Railroad to the south.

Elevation on the project site ranges from approximately 4,965 to 4,995 feet above mean sea level and generally slopes from east to west with no areas of significant topographic relief. Based on the NRCS USDA Web Soil Survey, the project site is underlain by the following soil units: Bidwell sandy loam, sandy substratum (0 to 2 percent slopes), Mottsville loamy sand (2 to 9 percent slopes), and Ormsby loamy coarse sand (2 to 5 percent slopes). Refer to Exhibit 4, *Soils*, in Attachment A. Soils on-site have been disturbed by historic cattle grazing and weed abatement activities.

Vegetation

Due to existing land uses, no native plant communities or natural communities of special concern were observed on or adjacent to the project site. The project site primarily consists of vacant, undeveloped land that has been subject to a variety of anthropogenic disturbances, primarily cattle grazing activities. These disturbances have eliminated the natural plant communities that once occurred within the boundaries of the project site. Refer to Attachment B, *Site Photographs*, for representative site photographs. No native plant communities will be impacted from implementation of the proposed project.

The project site consists of a land cover type that would be classified as disturbed/non-native grassland. Refer to Exhibit 5, *Vegetation* in Attachment A. Plant species observed on and immediately adjacent to the project footprint include Great basin sagebrush (*Artemesia tridentate*), peony (*Paeonia brownii*), filaree (*Erodium sp.*), fiddleneck (*Amsinckia sp.*), short-podded mustard (*Hirschfeldia incana*), mule ear (*Wyethia mollis*), few flowered blue eyed mary (*Collinsia parviflora*), crested wheatgrass (*Agropyron cirstatum*), narrow leaved willow (*Salix exigua*), Mexican rush (*Juncus mexicanus*), Douglas sedge (*Carex douglasii*).

Wildlife

Plant communities provide foraging habitat, nesting/denning sites, and shelter from adverse weather or predation. This section provides a discussion of those wildlife species that were observed or are expected to occur within the project site. The discussion is to be used a general reference and is limited by the season, time of day, and weather conditions in which the field investigation was conducted. Wildlife detections were based on calls, songs, scat, tracks, burrows, and direct observation. The project site provides limited habitat for wildlife species except those adapted to a high degree of anthropogenic disturbances and development.

Fish

No hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would provide suitable habitat for fish were observed on or within the vicinity of the project site. No fish are expected to occur and are presumed absent from the project site.

Amphibians

No amphibians or hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would provide suitable habitat for amphibian species were observed on the project site. No amphibians are expected to occur and are presumed absent from the project site.

Reptiles

During the field investigation no reptilian species were observed on the project site. Common reptilian species adapted to a high degree of anthropogenic disturbances that have the potential to occur on the project site include western side-blotched lizard (*Uta stansburiana elegans*), and alligator lizard (*Elgaria multicarinata*). Due to existing site disturbances, no special-status reptilian species are expected to occur within project site.

Birds

The project site provides foraging and cover habitat for bird species adapted to a high degree of human disturbance. Bird species detected during the field investigation included northern mockingbird (*Mimus polyglottos*), mourning dove (*Zenaida macroura*), house finch (*Haemorhouse mexicanus*), American crow (*Corvus brachyrhynchos*), killdeer (*Charadrius vociferus*), western meadowlark (*Sturnella neglecta*), red-tailed hawk (*Buteo jamaicensis*), Brewer's blackbird (*Euphagus cyanocephalus*), and turkey vulture (*Cathartes aura*). Due to existing disturbances and lack of native habitats, the project site does not provide suitable habitat for special-status bird species known to occur in the area.

Mammals

During the field investigation no mammalian species were observed on the project site. Common mammalian species adapted to a high degree of anthropogenic disturbances that have the potential to occur within the project site include California ground squirrel (*Otospermophilus beecheyi*), Botta's pocket gopher (*Thomomys bottae*), opossum (*Didelphis virginiana*), mule deer (*Odocoileus hemionus*), and raccoon (*Procyon lotor*).

Nesting Birds

During the field investigation an active killdeer nest was observed within the project footprint, and an occupied red-tailed hawk nest was observed in a power pole immediate south of the project site. The project site and surrounding area provides foraging and nesting habitat for year-round and seasonal avian residents, as well as migrating songbirds that could occur in the area. In particular, the project site has the potential to provide suitable nesting opportunities for birds that nest on the open ground. Additionally, the trees on the western boundary of the project site associated with the residential developments also have the provide suitable nesting opportunities. A pre-construction nesting bird clearance survey should be conducted within three (3) days prior to ground disturbance to ensure no nesting birds will be impacted from site development.

Migratory Corridors and Linkages

Habitat linkages provide connections between larger habitat areas that are separated by development. Wildlife corridors are similar to linkages but provide specific opportunities for animals to disperse or migrate between areas. A corridor can be defined as a linear landscape feature of sufficient width to allow animal movement between two comparatively undisturbed habitat fragments. Adequate cover is essential for a corridor to function as a wildlife movement area. It is possible for a habitat corridor to be adequate for one species yet still inadequate for others. Wildlife corridors are features that allow for the dispersal, seasonal migration, breeding, and foraging of a variety of wildlife species. Additionally, open space can provide a buffer against both human disturbance and natural fluctuations in resources.

The proposed project will be confined to an existing disturbed area that is bordered by a railroad on its southern boundary, State Route 70 on its northern boundary, residential developments on the western boundary, and an existing industrial facility on its eastern boundary. As a result, the project site is isolated from regional wildlife corridors and linkages, and there are no riparian corridors, creeks, or useful patches of stepping stone habitat (natural areas) within or connecting the project site to any identified wildlife corridors or linkages. As a result, implementation of the proposed project will not disrupt or have any adverse effects on any migratory corridors or linkages in the surrounding area.

Jurisdictional Areas

There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The Corps Regulatory Branch regulates discharge of dredge or fill materials into "waters of the United States" pursuant to Section 404 of the Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the CDFW regulates alterations to streambed and bank under Fish and Wildlife Code Sections 1600 et seq., and the Regional Board regulates discharges into surface waters pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act.

The project site does not support any discernible drainage courses, inundated areas, wetland features, or hydric soils that would be considered jurisdictional by the Corps, Regional Board, or CDFW. Therefore, project activities will not result in impacts to Corps, Regional Board, or CDFW jurisdictional areas and regulatory approvals will not be required.

Standing patches of water were observed at the toe of slope on the north side of the raised Union Pacific Railroad during the field investigation. It should be noted that scattered rain showers had passed through

the area the day prior to the field investigation. The standing water did not display a surface hydrologic connection to downstream "waters of the United States" and ponds following storm events. During the initial design of the proposed project, the project footprint was designed to avoid these areas. Further, a review of recent and historic aerial photographs of the project site and its immediate vicinity did not provide visual evidence of an astatic or vernal pool conditions within the project site. From this review of historic aerial photographs and observations during the field investigations, it can be concluded that there is no indication of vernal pools occurring within the proposed project site.

It should be noted that the vacant property south of the Union Pacific Railroad has been mapped as supporting freshwater emergent wetland habitats and riverine resources by the NWI. This area, outside of the project footprint, and south of the Union Pacific Railroad has not been subject to anthropogenic disturbances and supports undisturbed habitats. As a result, no impacts to the mapped freshwater wetland habitats or riverine resources are expected to occur from the proposed project.

Special-Status Biological Resources

The CNDDB Rarefind 5 and the CNPS Electronic Inventory of Rare and Endangered Vascular Plants of California were queried for reported locations of special-status plant and wildlife species as well as special-status natural plant communities in the Chilcoot and Beckwourth USGS 7.5-minute quadrangles. The habitat assessment evaluated the conditions of the habitat(s) within the boundaries of the project site to determine if the existing plant communities, at the time of the survey, have the potential to provide suitable habitat(s) for special-status plant and wildlife species.

The literature search identified thirteen (13) special-status plant species and nine (9) special-status wildlife species as having potential to occur within the Chilcoot and Beckwourth USGS 7.5-minute quadrangles. No special-status plant communities have been recorded on the Chilcoot and Beckwourth USGS 7.5-minute quadrangles. Special-status plant and wildlife species were evaluated for their potential to occur within the project site based on habitat requirements, availability and quality of suitable habitat, and known distributions. Species determined to have the potential to occur within the general vicinity of the project site are presented in the table provide in Attachment C: *Potentially Occurring Special-Status Biological Resources*.

Special-Status Plants

According to the CNDDB and CNPS, thirteen (13) special-status plant species have been recorded in the Chilcoot and Beckwourth quadrangles (refer to Attachment C). No special-status plant species were observed onsite during the habitat assessment. The project site consists of vacant, undeveloped land that has been subject to existing cattle grazing and weed abatement activities.These disturbances have eliminated the natural plant communities that once occurred onsite which has removed suitable habitat for special-status plant species known to occur in the general vicinity of the project site. Based on habitat requirements for specific special-status plant species and the availability and quality of habitats needed by each species, it was determined that the project site does not provide suitable habitat for any of the special-status plant species known to occur in the area and are presumed to be absent. No focused surveys are recommended.

Special-Status Wildlife

According to the CNDDB, nine (9) special-status wildlife species have been reported in the Chilcoot and Beckwourth quadrangles (refer to Attachment C). No special-status wildlife species were observed onsite during the habitat assessment. The project site consists of vacant, undeveloped land that has been subject to existing cattle grazing and weed abatement activities. These disturbances have eliminated the natural plant communities that once occurred on-site which has removed suitable habitat for special-status wildlife species known to occur in the general vicinity of the project site.

Based on habitat requirements for specific special-status plant species and the availability and quality of habitats needed by each species, it was determined that the project site does has a low potential to provide suitable habitat for Swainson's hawk (*Buteo swainsoni*) and prairie falcon (*Falco mexicanus*). The project site primarily provides suitable foraging habitat for these species, but does not provide suitable nesting opportunities. All remaining special-status wildlife species were presumed to be absent from the project site since the project sites have been heavily disturbed from onsite disturbances and surrounding development.

In order to ensure impacts to the aforementioned species do not occur from implementation of the proposed project, a pre-construction nesting bird clearance survey should be conducted prior to ground disturbance. With implementation of mitigation through the pre-construction clearance survey, impacts to the aforementioned species will be less than significant.

Critical Habitat

Under the federal Endangered Species Act, "Critical Habitat" is designated at the time of listing of a species or within one year of listing. Critical Habitat refers to specific areas within the geographical range of a species at the time it is listed that include the physical or biological features that are essential to the survival and eventual recovery of that species. Maintenance of these physical and biological features requires special management considerations or protection, regardless of whether individuals or the species are present or not. All federal agencies are required to consult with the United States Fish and Wildlife Service (USFWS) regarding activities they authorize, fund, or permit which may affect a federally listed species or its designated Critical Habitat. The purpose of the consultation is to ensure that projects will not jeopardize the continued existence of the listed species or adversely modify or destroy its designated Critical Habitat. The designation of Critical Habitat does not affect private landowners, unless a project they are proposing is on federal lands, uses federal funds, or requires federal authorization or permits (e.g., funding from the Federal Highways Administration or a CWA Permit from the Corps). If a there is a federal nexus, then the federal agency that is responsible for providing the funding or permit would consult with the USFWS.

The project site is not located with federally designated Critical Habitat. Refer to Exhibit 6, *Critical Habitat* in Attachment A. The nearest designated Critical Habitat is located approximately 2.4 miles southwest of the project site for Webber's ivesia (*Ivesia webberi*). Therefore, the loss or adverse modification of Critical Habitat from site development will not occur and consultation with the USFWS for impacts to Critical Habitat will not be required for implementation of the proposed project.

Recommendations

Migratory Bird Treaty Act and Fish and Game Code

Nesting birds are protected pursuant to the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (Sections 3503, 3503.5, 3511, and 3513 prohibit the take, possession, or destruction of birds, their nests or eggs). In order to protect migratory bird species, a nesting bird clearance survey should be conducted prior to any ground disturbance or vegetation removal activities that may disrupt the birds during the nesting season.

If construction occurs between February 1st and August 31st, a pre-construction clearance survey for nesting birds should be conducted within three (3) days of the start of any vegetation removal or ground disturbing activities to ensure that no nesting birds will be disturbed during construction. The biologist conducting the clearance survey should document a negative survey with a brief letter report indicating that no impacts to active avian nests will occur. If an active avian nest is discovered during the pre-construction clearance survey, construction activities should stay outside of a no-disturbance buffer. The size of the no-disturbance buffer (generally 300 feet for migratory and non-migratory song birds and 500 feet raptors and special-status species) will be determined by the wildlife biologist, in coordination with the CDFW, and will depend on the level of noise and/or surrounding disturbances, line of sight between the nest and the construction activity, ambient noise, and topographical barriers. These factors will be evaluated on a case-by-case basis when developing buffer distances. Limits of construction to avoid an active nest will be established in the field with flagging, fencing, or other appropriate barriers; and construction personnel will be instructed on the sensitivity of nest areas. A biological monitor should be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, construction activities within the buffer area can occur.

Conclusion

Based on the proposed project footprint and existing site conditions discussed in this report, none of the special-status plant or wildlife species known to occur in the general vicinity of the project site are expected to be directly or indirectly impacted from implementation of the proposed project. With completion of the recommendations provided above, no impacts to year-round, seasonal, or special-status avian residents will occur from implementation of the proposed project. Therefore, it was determined that implementation of the project will have "no effect" on federally or State listed species known to occur in the general vicinity of the project site. Additionally, the development of the project will not impact designated Critical Habitats or regional wildlife movement corridors/linkages.

Please do not hesitate to contact Tom McGill at (951) 285-6014 or tmcgill@elmtconsulting.com or Travis McGill at (909) 816-1646 or travismcgill@elmtconsulting.com should you have any questions this report.

Sincerely,

Thomas J. McGill, Ph.D.
Managing Director

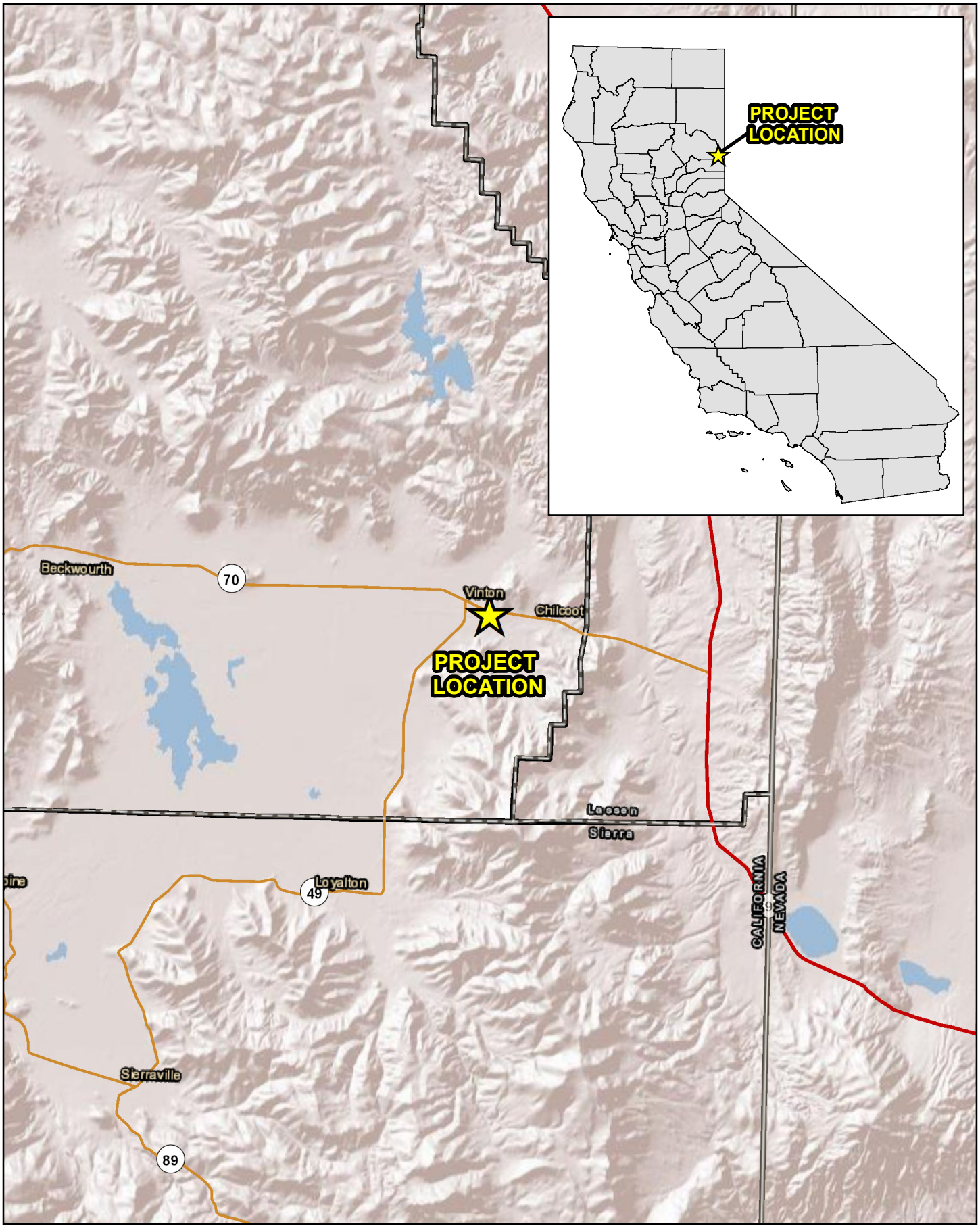
Travis J. McGill
Director

Attachments:

A. *Project Exhibits*
B. *Site Photographs*
C. *Potentially Occurring Special-Status Biological Resources*
D. *Regulations*

Attachment A

Project Exhibits



NCPA SOLAR PROJECT 1 - PLUMAS SIERRA CHILCOOT SITE
HABITAT AND JURISDICTIONAL ASSESSMENT

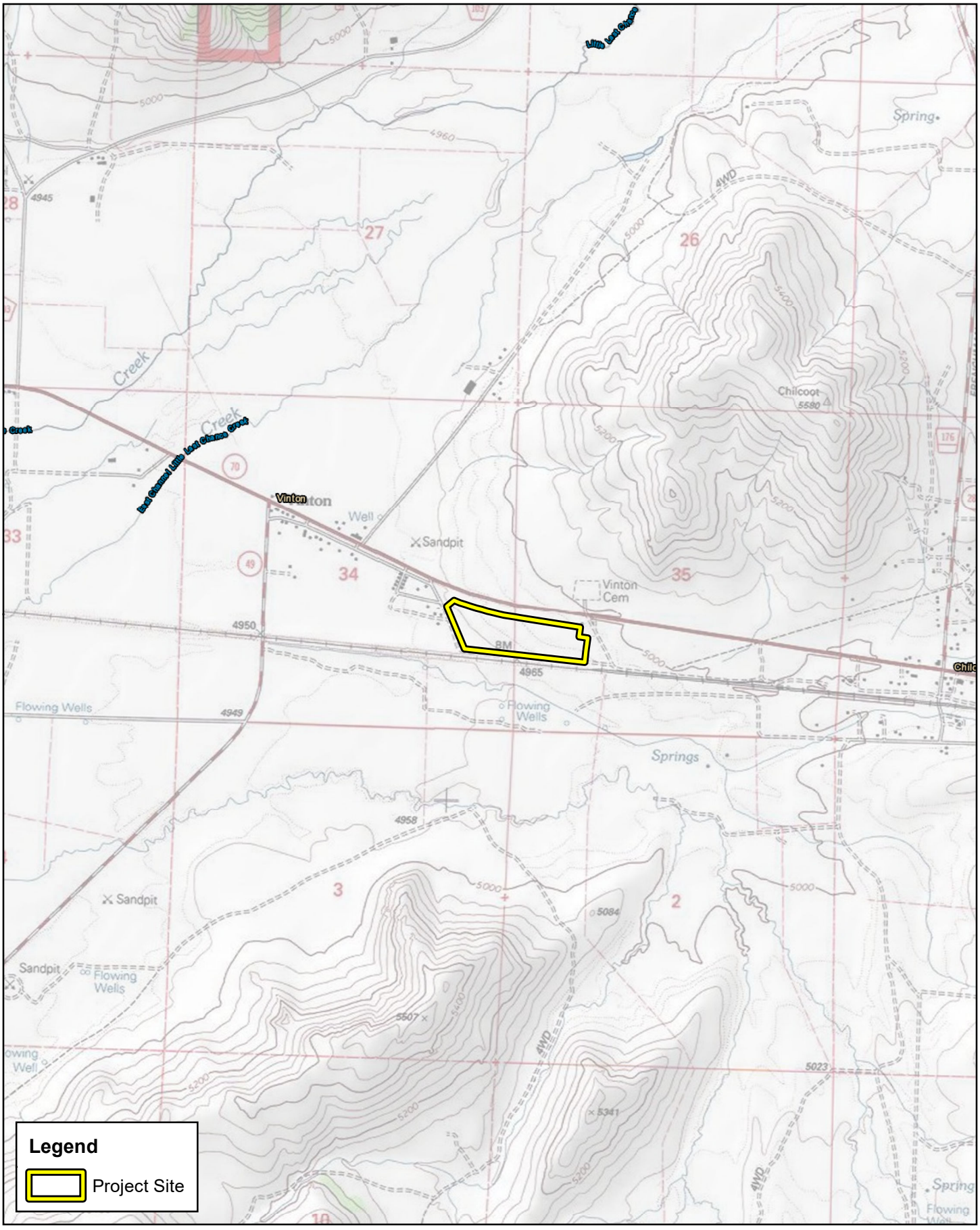
ELMT CONSULTING

0 2.5 5 10 Miles

Source: World Transportation, World Shaded Relief, Plumas County

Regional Vicinity

Exhibit 1



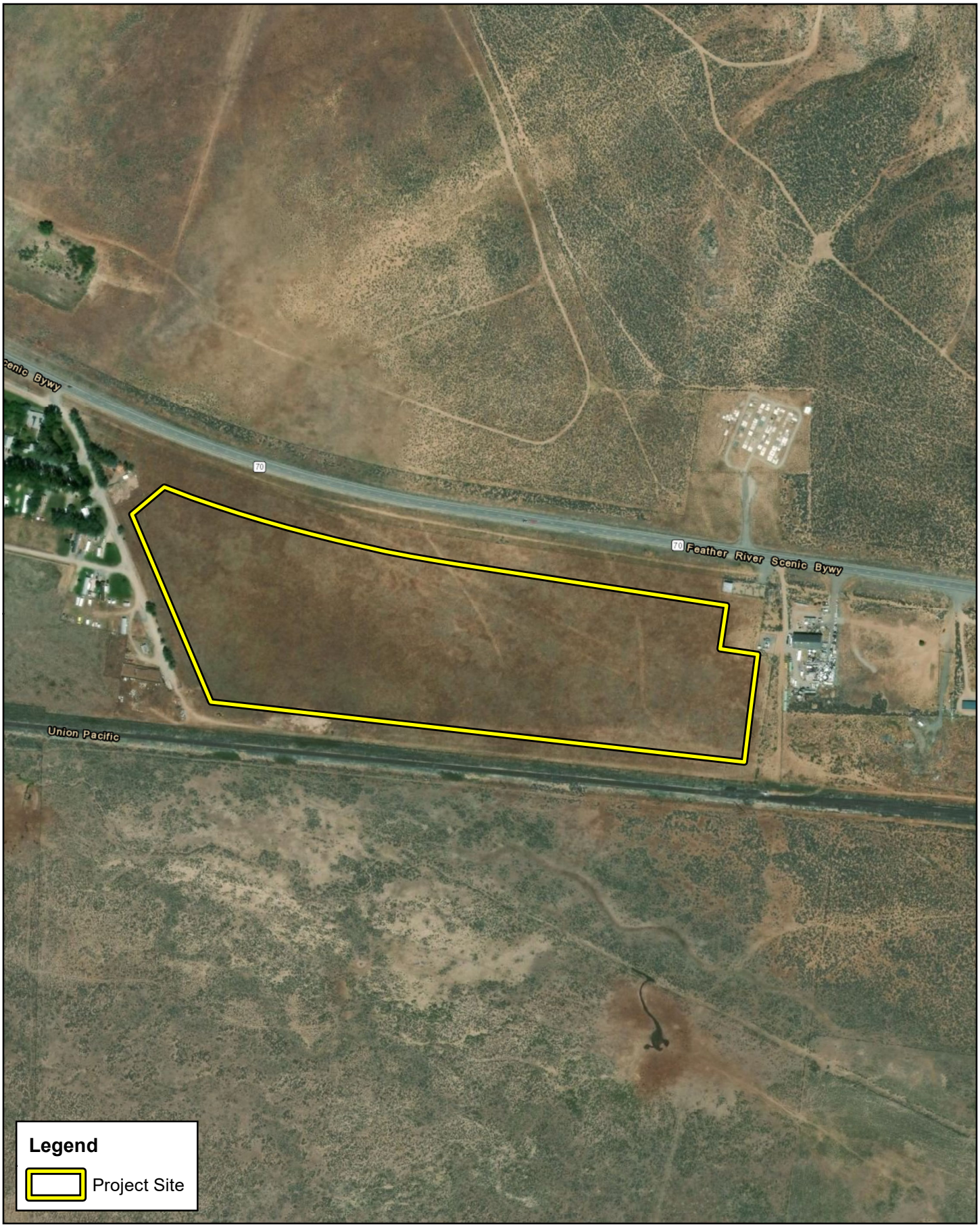
NCPA SOLAR PROJECT 1 - PLUMAS SIERRA CHILCOOT SITE
HABITAT AND JURISDICTIONAL ASSESSMENT

ELMT CONSULTING

Source: USA Topographic Map, Plumas County

Site Vicinity

Exhibit 2



NCPA SOLAR PROJECT 1 - PLUMAS SIERRA CHILCOOT SITE
HABITAT AND JURISDICTIONAL ASSESSMENT

Project Site

ELMT CONSULTING

0 250 500 1,000 Feet

Source: ESRI Aerial Imagery, World Transportation, Plumas County

Exhibit 3

NCPA SOLAR PROJECT 1 - PLUMAS SIERRA CHILCOOT SITE
HABITAT AND JURISDICTIONAL ASSESSMENT

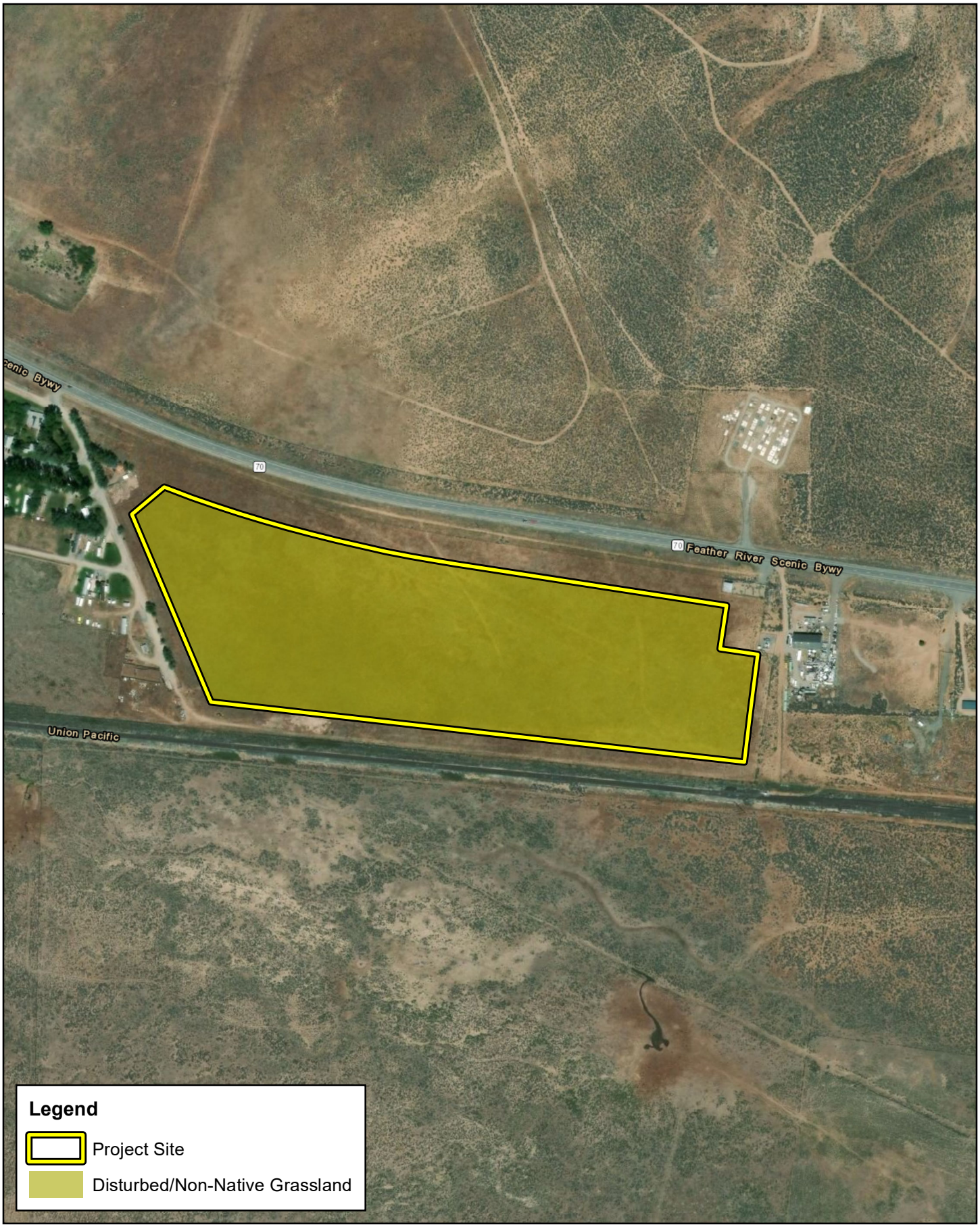
ELMT CONSULTING

0 250 500 1,000 Feet

Source: ESRI Aerial Imagery, NRCS Soil Survey Geographic Database, World Transportation, Plumas County

Soils

Exhibit 4



NCPA SOLAR PROJECT 1 - PLUMAS SIERRA CHILCOOT SITE
HABITAT AND JURISDICTIONAL ASSESSMENT

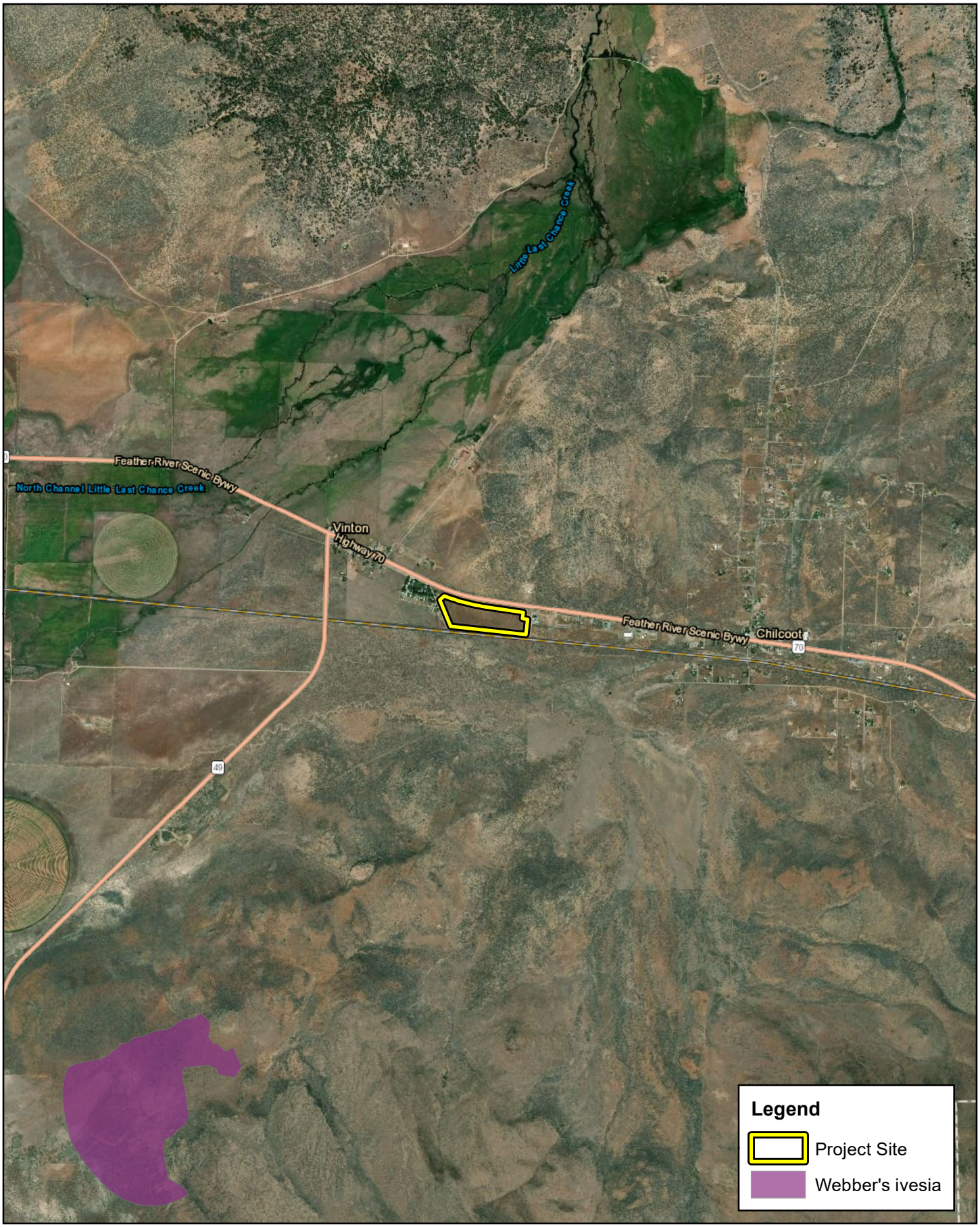
Vegetation

ELMT CONSULTING

0 250 500 1,000 Feet

Source: ESRI Aerial Imagery, World Transportation, Plumas County

Exhibit 5



NCPA SOLAR PROJECT 1 - PLUMAS SIERRA CHILCOOT SITE
HABITAT AND JURISDICTIONAL ASSESSMENT

Critical Habitat

ELMT CONSULTING

0 1,250 2,500 5,000 Feet

Source: ESRI Aerial Imagery, World Transportation, Plumas County

Exhibit 6

Attachment B

Site Photographs

Photograph 1: From the northeast corner of the project site looking west along the northern boundary.

Photograph 2: From the southeast corner of the project site looking north along the eastern boundary.

Photograph 3: From the southeast corner of the project site looking west along the southern boundary.

Photograph 4: From the southern boundary of the site looking west.

Photograph 5: From the southwest corner of the project site looking north along the western boundary.

Photograph 6: From the middle of the western portion of the project site looking east.

Photograph 7: From the middle of the project site looking west.

Photograph 8: From the middle of the eastern portion of the project site looking west.

Photograph 9: Looking west at the area were water ponds on the southern boundary of the site between the railroad and the project footprint.

Photograph 10: Looking east at the area were water ponds on the southern boundary of the site between the railroad and the project footprint.

Photograph 11: Occupied red-tailed hawk nest in a power pole just south of the project site.

Attachment C

Potentially Occurring Special-Status Biological Resources

Scientific Name	Common Name	Federal Status	State Status	CDFW Listing	CNPS Rare Plant Rank	Potential to Occur
Special-Status Wildlife Species						
Aquila chrysaetos	golden eagle	None	None	FP ; WL	-	Presumed Absent
Argochrysis lassenae	Lassen cuckoo wasp	None	None	-	-	Presumed Absent
Bombus morrisoni	Morrison bumble bee	None	None	-	-	Presumed Absent
Buteo swainsoni	Swainson's hawk	None	Threatened	-	-	Low
Canis lupus	gray wolf	Endangered	Endangered	-	-	Presumed Absent
Erethizon dorsatum	North American porcupine	None	None	-	-	Presumed Absent
Falco mexicanus	prairie falcon	None	None	WL	-	Low
Pyrgulopsis longae	Long Valley pyrg	None	None	-	-	Presumed Absent
Spizella breweri	Brewer's sparrow	None	None	-	-	Presumed Absent
Special-Status Plant Species						
Astragalus pulsiferae var. pulsiferae	Pulsifer's milk-vetch	None	None	-	1B.2	Presumed Absent
Eriastrum sparsiflorum	few-flowered eriastrum	None	None	-	4.3	Presumed Absent
Erigeron eatonii var. nevadincola	Nevada daisy	None	None	-	2B.3	Presumed Absent
Eriogonum baileyi var. praebens	Bailey's woolly buckwheat	None	None	-	4.3	Presumed Absent
Eriogonum ochrocephalum var. ochrocephalum	ochre-flowered buckwheat	None	None	-	2B.2	Presumed Absent
Ivesia aperta var. aperta	Sierra Valley ivesia	None	None	-	1B.2	Presumed Absent
Ivesia baileyi var. baileyi	Bailey's ivesia	None	None	-	2B.3	Presumed Absent
Ivesia webberi	Webber's ivesia	Threatened	None	-	1B.1	Presumed Absent
Loeflingia squarrosa var. artemisiarum	sagebrush loeflingia	None	None	-	2B.2	Presumed Absent
Lupinus nevadensis	Nevada lupine	None	None	-	4.3	Presumed Absent
Potamogeton epihydrus	Nuttall's ribbon-leaved pondweed	None	None	-	2B.2	Presumed Absent
Rumex venosus	winged dock	None	None	-	2B.3	Presumed Absent
Stanleya viridiflora	green-flowered prince's plume	None	None	-	2B.3	Presumed Absent

U.S. Fish and Wildlife Service (Fed) - Federal

END- Federal Endangered
THR- Federal Threatened

California Department of Fish and Wildlife (CA) - California

END- California Endangered
THR- California Threatened
Candidate- Candidate for listing under the California Endangered Species Act
FP- California Fully Protected
SSC- Species of Special Concern
WL- Watch List

California Native Plant Society (CNPS)

California Rare Plant Rank

1B Plants Rare, Threatened, or Endangered in California and Elsewhere
2B Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
3 Plants About Which More Information is Needed – A Review List
4 Plants of Limited Distribution – A Watch List

CNPS Threat Ranks

0.1- Seriously threatened in California
0.2- Moderately threatened in California
0.3- Not very threatened in California

Attachment D

Regulations

Special status species are native species that have been afforded special legal or management protection because of concern for their continued existence. There are several categories of protection at both federal and state levels, depending on the magnitude of threat to continued existence and existing knowledge of population levels.

Federal Regulations

Endangered Species Act of 1973

As defined within the Federal Endangered Species Act (FESA) of 1973, an endangered species is any animal or plant listed by regulation as being in danger of extinction throughout all or a significant portion of its geographical range. A threatened species is any animal or plant that is likely to become endangered within the foreseeable future throughout all or a significant portion of its geographical range. Without a special permit, federal law prohibits the "take" of any individuals or habitat of federally listed species. Under Section 9 of the FESA, take is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct." The term "harm" has been clarified to include "any act which actually kills or injures fish or wildlife, and emphasizes that such acts may include significant habitat modification or degradation that significantly impairs essential behavioral patterns of fish or wildlife." The presence of any federally threatened or endangered species within a project area generally imposes severe constraints on development, particularly if development would result in "take" of the species or its habitat. Under the regulations of the FESA, the United States Fish and Wildlife Service (USFWS) may authorize "take" when it is incidental to, but not the purpose of, an otherwise lawful act.

Critical Habitat is designated for the survival and recovery of species listed as threatened or endangered under the ESA. Critical Habitat includes those areas occupied by the species, in which are found physical and biological features that are essential to the conservation of an FESA listed species and which may require special management considerations or protection. Critical Habitat may also include unoccupied habitat if it is determined that the unoccupied habitat is essential for the conservation of the species.

Whenever federal agencies authorize, fund, or carry out actions that may adversely modify or destroy Critical Habitat, they must consult with USFWS under Section 7 of the ESA. The designation of Critical Habitat does not affect private landowners, unless a project they are proposing uses federal funds, or requires federal authorization or permits (e.g., funding from the Federal Highway Administration or a permit from the U.S. Army Corps of Engineers (Corps)).

If the USFWS determines that Critical Habitat will be adversely modified or destroyed from a proposed action, the USFWS will develop reasonable and prudent alternatives in cooperation with the federal institution to ensure the purpose of the proposed action can be achieved without loss of Critical Habitat. If the action is not likely to adversely modify or destroy Critical Habitat, USFWS will include a statement in its biological opinion concerning any incidental take that may be authorized and specify terms and conditions to ensure the agency is in compliance with the opinion.

Migratory Bird Treaty Act

Pursuant to the Migratory Bird Treaty Act (MBTA) (16 U.S. Government Code [USC] 703) of 1918, as amended in 1972, federal law prohibits the taking of migratory birds or their nests or eggs (16 USC 703; 50 CFR 10, 21). The statute states:

> *Unless and except as permitted by regulations made as hereinafter provided in this subchapter, it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill...any migratory bird, any part, nest, or egg of any such bird...included in the terms of the [Migratory Bird] conventions…*

The MBTA covers the taking of any nests or eggs of migratory birds, except as allowed by permit pursuant to 50 CFR, Part 21. Disturbances causing nest abandonment and/or loss of reproductive effort (i.e., killing or abandonment of eggs or young) may also be considered "take." This regulation seeks to protect migratory birds and active nests.

In 1972, the MBTA was amended to include protection for migratory birds of prey (e.g., raptors). Six families of raptors occurring in North America were included in the amendment: Accipitridae (kites, hawks, and eagles); Cathartidae (New World vultures); Falconidae (falcons and caracaras); Pandionidae (ospreys); Strigidae (typical owls); and Tytonidae (barn owls). The provisions of the 1972 amendment to the MBTA protects all species and subspecies of the families listed above. The MBTA protects over 800 species including geese, ducks, shorebirds, raptors, songbirds and many relatively common species.

State Regulations

California Environmental Quality Act (CEQA)

The California Environmental Quality Act (CEQA) provides for the protection of the environment within the State of California by establishing State policy to prevent significant, avoidable damage to the environment through the use of alternatives or mitigation measures for projects. It applies to actions directly undertaken, financed, or permitted by State lead agencies. If a project is determined to be subject to CEQA, the lead agency will be required to conduct an Initial Study (IS); if the IS determines that the project may have significant impacts on the environment, the lead agency will subsequently be required to write an Environmental Impact Report (EIR). A finding of non-significant effects will require either a Negative Declaration or a Mitigated Negative Declaration instead of an EIR. Section 15380 of the CEQA Guidelines independently defines "endangered" and "rare" species separately from the definitions of the California Endangered Species Act (CESA). Under CEQA, "endangered" species of plants or animals are defined as those whose survival and reproduction in the wild are in immediate jeopardy, while "rare" species are defined as those who are in such low numbers that they could become endangered if their environment worsens.

California Endangered Species Act (CESA)

In addition to federal laws, the state of California implements the CESA which is enforced by CDFW. The CESA program maintains a separate listing of species beyond the FESA, although the provisions of each act are similar.

State-listed threatened and endangered species are protected under provisions of the CESA. Activities that may result in "take" of individuals (defined in CESA as; "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill") are regulated by CDFW. Habitat degradation or modification is not included in the definition of "take" under CESA. Nonetheless, CDFW has interpreted "take" to include the destruction of nesting, denning, or foraging habitat necessary to maintain a viable breeding population of protected species.

The State of California considers an endangered species as one whose prospects of survival and reproduction are in immediate jeopardy. A threatened species is considered as one present in such small numbers throughout its range that it is likely to become an endangered species in the near future in the absence of special protection or management. A rare species is one that is considered present in such small numbers throughout its range that it may become endangered if its present environment worsens. State threatened and endangered species are fully protected against take, as defined above.

CDFW has also produced a species of special concern list to serve as a species watch list. Species on this list are either of limited distribution or their habitats have been reduced substantially, such that a threat to their populations may be imminent. Species of special concern may receive special attention during environmental review, but they do not have formal statutory protection. At the federal level, USFWS also uses the label species of concern, as an informal term that refers to species which might be in need of concentrated conservation actions. As the Species of Concern designated by USFWS do not receive formal legal protection, the use of the term does not necessarily ensure that the species will be proposed for listing as a threatened or endangered species.

Fish and Game Code

Fish and Game Code Sections 3503, 3503.5, 3511, and 3513 are applicable to natural resource management. For example, Section 3503 of the Code makes it unlawful to destroy any birds' nest or any birds' eggs that are protected under the MBTA. Further, any birds in the orders Falconiformes or Strigiformes (Birds of Prey, such as hawks, eagles, and owls) are protected under Section 3503.5 of the Fish and Game Code which makes it unlawful to take, possess, or destroy their nest or eggs. A consultation with CDFW may be required prior to the removal of any bird of prey nest that may occur on a project site. Section 3511 of the Fish and Game Code lists fully protected bird species, where the CDFW is unable to authorize the issuance of permits or licenses to take these species. Pertinent species that are State fully protected by the State include golden eagle (*Aquila chrysaetos*) and white-tailed kite (*Elanus leucurus*). Section 3513 of the Fish and Game Code makes it unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

Native Plant Protection Act

Sections 1900–1913 of the Fish and Game Code were developed to preserve, protect, and enhance Rare and Endangered plants in the state of California. The act requires all state agencies to use their authority to carry out programs to conserve Endangered and Rare native plants. Provisions of the Native Plant Protection Act prohibit the taking of listed plants from the wild and require notification of the CDFW at

least ten days in advance of any change in land use which would adversely impact listed plants. This allows the CDFW to salvage listed plant species that would otherwise be destroyed.

California Native Plant Society Rare and Endangered Plant Species

Vascular plants listed as rare or endangered by the CNPS, but which have no designated status under FESA or CESA are defined as follows:

California Rare Plant Rank

1A- Plants Presumed Extirpated in California and either Rare or Extinct Elsewhere

1B- Plants Rare, Threatened, or Endangered in California and Elsewhere

2A- Plants Presumed Extirpated in California, But More Common Elsewhere

2B- Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere

3- Plants about Which More Information is Needed - A Review List

4- Plants of Limited Distribution - A Watch List

Threat Ranks

.1- Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)

.2- Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

.3- Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known).

There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The Corps Regulatory Branch regulates activities pursuant to Section 404 of the Federal Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the CDFG regulates activities under the Fish and Game Code Section 1600-1616, and the Regional Board regulates activities pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act.

Federal Regulations

Section 404 of the Clean Water Act

Since 1972, the Corps and U.S. Environmental Protection Agency (EPA) have jointly regulated the filling of "waters of the U.S.," including wetlands, pursuant to Section 404 of the Clean Water Act (CWA). The Corps has regulatory authority over the discharge of dredged or fill material into the waters of the United States under Section 404 of the CWA. The Corps and EPA define "fill material" to include any "material placed in waters of the United States where the material has the effect of: (i) replacing any portion of a water of the United States with dry land; or (ii) changing the bottom elevation of any portion of the waters of the United States." Examples include, but are not limited to, sand, rock, clay, construction debris, wood chips, and "materials used to create any structure or infrastructure in the waters of the United States." In order to further define the scope of waters protected under the CWA, the Corps and EPA published the Clean Water Rule on June 29, 2015. Pursuant to the Clean Water Rule, the term "*waters of the United States*" is defined as follows:

(i) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.

(ii) All interstate waters, including interstate wetlands[1].

(iii) The territorial seas.

(iv) All impoundments of waters otherwise defined as waters of the United States under the definition.

(v) All tributaries[2] of waters identified in paragraphs (i) through (iii) mentioned above.

(vi) All waters adjacent[3] to a water identified in paragraphs (i) through (v) mentioned above, including wetlands, ponds, lakes, oxbows, impoundments, and similar waters.

---

1 The term *wetlands* means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

2 The terms *tributary* and *tributaries* each mean a water that contributes flow, either directly or through another water (including an impoundment identified in paragraph (iv) mentioned above), to a water identified in paragraphs (i) through (iii) mentioned above, that is characterized by the presence of the physical indicators of a bed and banks and an ordinary high water mark.

3 The term *adjacent* means bordering, contiguous, or neighboring a water identified in paragraphs (i) through (v) mentioned above, including waters separated by constructed dikes or barriers, natural river berms, beach dunes, and the like.

(vii) All prairie potholes, Carolina bays and Delmarva bays, Pocosins, western vernals pools, Texas coastal prairie wetlands, where they are determined, on a case-specific basis, to have a significant nexus to a water identified in paragraphs (i) through (iii) meantioned above.

(viii) All waters located within the 100-year floodplain of a water identified in paragraphs (i) through (iii) mentioned above and all waters located within 4,000 feet of the high tide line or ordinary high water mark of a water identified in paragraphs (i) through (v) mentioned above, where they are determined on a case-specific basis to have a significant nexus to a waters identified in paragraphs (i) through (iii) mentioned above.

The following features are not defined as "waters of the United States" even when they meet the terms of paragraphs (iv) through (viii) mentioned above:

(i) Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the Clean Water Act.

(ii) Prior converted cropland.

(iii) The following ditches:

- (A) Ditches with ephemeral flow that are not a relocated tributary or excavated in a tributary.
- (B) Ditches with intermittent flow that are not a relocated tributary, excavated in a tributary, or drain wetlands.
- (C) Ditches that do not flow, either directly or through another water, into a water of the United States as identified in paragraphs (i) through (iii) of the previous section.

(iv) The following features:

- (A) Artificially irrigated areas that would revert to dry land should application of water to that area cease;
- (B) Artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, or cooling ponds;
- (C) Artificial reflecting pools or swimming pools created in dry land;
- (D) Small ornamental waters created in dry land;
- (E) Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand, or gravel that fill with water;
- (F) Erosional features, including gullies, rills, and other ephemeral features that do not meet the definition of a tributary, non-wetland swales, and lawfully constructed grassed waterways; and
- (G) Puddles.

(v) Groundwater, including groundwater drained through subsurface drainage systems.

(vi) Stormwater control features constructed to convey, treat, or store stormwater that are created in dry land.

(vii) Wastewater recycling structures constructed in dry land; detention and retention basins built for wastewater recycling; groundwater recharge basins; percolation ponds built for wastewater recycling; and water distributary structures built for wastewater recycling.

Section 401 of the Clean Water Act

Pursuant to Section 401 of the CWA, any applicant for a federal license or permit to conduct any activity which may result in any discharge to waters of the United States must provide certification from the State or Indian tribe in which the discharge originates. This certification provides for the protection of the physical, chemical, and biological integrity of waters, addresses impacts to water quality that may result from issuance of federal permits, and helps insure that federal actions will not violate water quality standards of the State or Indian tribe. In California, there are nine Regional Water Quality Control Boards (Regional Board) that issue or deny certification for discharges to waters of the United States and waters of the State, including wetlands, within their geographical jurisdiction. The State Water Resources Control Board assumed this responsibility when a project has the potential to result in the discharge to waters within multiple Regional Boards.

State Regulations

Fish and Game Code

Fish and Game Code Sections 1600 et. seq. establishes a fee-based process to ensure that projects conducted in and around lakes, rivers, or streams do not adversely impact fish and wildlife resources, or, when adverse impacts cannot be avoided, ensures that adequate mitigation and/or compensation is provided.

Fish and Game Code Section 1602 requires any person, state, or local governmental agency or public utility to notify the CDFW before beginning any activity that will do one or more of the following:

(1) substantially obstruct or divert the natural flow of a river, stream, or lake;
(2) substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or
(3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake.

Fish and Game Code Section 1602 applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the State. CDFW's regulatory authority extends to include riparian habitat (including wetlands) supported by a river, stream, or lake regardless of the presence or absence of hydric soils and saturated soil conditions. Generally, the CDFW takes jurisdiction to the top of bank of the stream or to the outer limit of the adjacent riparian vegetation (outer drip line), whichever is greater. Notification is generally required for any project that will take place in or in the vicinity of a river, stream, lake, or their tributaries. This includes rivers or streams that flow at least periodically or permanently through a bed or channel with banks that support fish or other aquatic life and watercourses having a surface or subsurface flow that support or have supported riparian vegetation. A Section 1602 Streambed Alteration Agreement would be required if impacts to identified CDFW jurisdictional areas occur.

Porter Cologne Act

The California *Porter-Cologne Water Quality Control Act* gives the State very broad authority to regulate waters of the State, which are defined as any surface water or groundwater, including saline waters. The Porter-Cologne Act has become an important tool in the post SWANCC and Rapanos regulatory environment, with respect to the state's authority over isolated and insignificant waters. Generally, any person proposing to discharge waste into a water body that could affect its water quality must file a Report of Waste Discharge in the event that there is no Section 404/401 nexus. Although "waste" is partially defined as any waste substance associated with human habitation, the Regional Board also interprets this to include fill discharged into water bodies.

Appendix D

Cultural Resources Technical Report

CULTURAL RESOURCES SURVEY
FOR THE
NORTHERN CALIFORNIA POWER AGENCY
SOLAR PROJECT 1 – PLUMAS-SIERRA CHILCOOT PROJECT
PLUMAS COUNTY, CALIFORNIA

Prepared for
K.S. Dunbar and Associates, Inc.
45375 Vista Del Mar
Temecula, CA 92590-4314

Prepared by
Anza Resource Consultants
603 Seagaze Drive, #1018
Oceanside, CA 92054
www.anzaresourceconsultants.com

USGS Quadrangle
Chilcoot, California
Anza Project No. 19-0008

May 2019

Hunt, Kevin and Katherine Collins
2019 *Cultural Resources Survey for the Northern California Power Agency Solar Project 1 – Plumas-Sierra Chilcoot Project, Plumas County, California*. Anza Resource Consultants Project No. 19-0008. Report on file at the Northeastern Information Center, California State University, Chico.

EXECUTIVE SUMMARY

Anza Resource Consultants (Anza) was retained by K.S. Dunbar & Associates, Inc. to conduct a Phase I cultural resources study for the Northern California Power Agency (NCPA) Solar Project 1 – Plumas-Sierra Chilcoot Project (project) located south of State Route 70, east of Ede Street, north of the Union Pacific Railroad, and west of Simple Fuels Biodiesel in the community of Chilcoot-Vinton, Plumas County, California. The proposed project would develop an approximately 28.2-acre photovoltaic solar power plant within a 36-acre privately owned parcel. The project is subject to the California Environmental Quality Act (CEQA) with NCPA serving as lead agency.

This study includes a cultural resources records search, Sacred Lands File search and Native American scoping, a pedestrian survey of the project site, and preparation of this technical report in compliance with the cultural resources requirements of CEQA.

The cultural resource records search, Native American scoping, and pedestrian survey identified no cultural resources within the project site. Two prehistoric sparse lithic scatters were recorded in 1979 outside but adjacent to the project site; neither of these was relocated during the survey and neither would likely be found CRHR eligible if relocated and subjected to archaeological testing. Anza recommends a finding of ***no impact to historical resources*** under CEQA. No further cultural resources study is recommended; however, the following standard measures are recommended to avoid potential impacts from the unanticipated discovery of cultural resources during project related ground disturbing activities.

CULTURAL RESOURCES WORKER SENSITIVITY TRAINING

Prior to the start of construction, NCPA shall hold a pre-grading meeting. The Project Archaeologist shall attend the pre-grading meeting with NCPA's Project Administrator, Field Engineering Inspector and any contractors to conduct a Cultural Resources Worker Sensitivity Training for all construction personnel working on the proposed Project. The training shall include an overview of potential cultural resources that could be encountered during ground disturbing activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated, and any other appropriate protocols.

UNANTICIPATED DISCOVERY OF CULTURAL RESOURCES

If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) must be contacted immediately to evaluate the find. If the discovery proves to be significant under CEQA, additional work such as data recovery excavation may be warranted.

UNANTICIPATED DISCOVERY OF HUMAN REMAINS

The discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the county coroner must be notified immediately. If the human remains are determined to be prehistoric, the coroner will notify the Native American Heritage Commission, which will determine and

notify a Most Likely Descendant. The Most Likely Descendant shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF PHOTOGRAPHS

APPENDICES

1. INTRODUCTION

Anza Resource Consultants (Anza) was retained by K.S. Dunbar & Associates, Inc. to conduct a Phase I cultural resources study for the Northern California Power Agency (NCPA) Solar Project 1 – Plumas-Sierra Chilcoot Project (project) located south of State Route 70, east of Ede Street, north of the Union Pacific Railroad (UPRR), and west of Simple Fuels Biodiesel in the community of Chilcoot-Vinton, Plumas County, California (Figure 1). This study has been prepared in accordance with the California Environmental Quality Act (CEQA) statutes and guidelines (Section 1.2). This cultural resources study includes a cultural resources records search, a summary of Native American scoping for the project, pedestrian survey, and the preparation of this report following the *Archaeological Resources Management Report (ARMR): Recommended Content and Format* guidelines (California Office of Historic Preservation 1990).

1.1 PROJECT DESCRIPTION

The objective of the NCPA Solar Project 1 – Plumas-Sierra Chilcoot Project is to develop an approximately 28.2-acre photovoltaic (PV) solar power plant within the 36-acre privately owned parcel. The proposed project has an estimated 4.7 megawatts capacity and the point of interconnection is located at the Chilcoot 69 kilovolt Substation, directly adjacent to the eastern project site boundary. The Site is bordered by the UPRR to the south, a mobile home park to the west, and an existing industrial (biofuel) facility to the east. The northern edge of the 36-acre parcel is a presumed city easement that has been excluded as a developable area for the project.

1.2 REGULATORY SETTING

1.2.1 State

CEQA requires a lead agency determine whether a project may have a significant effect on historical resources (Public Resources Code [PRC], Section 21084.1). A historical resource is a resource listed in, or determined to be eligible for listing in, the California Register of Historical Resources (CRHR), a resource included in a local register of historical resources or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (State CEQA Guidelines, Section 15064.5[a][1-3]).

"A resource shall be considered historically significant if it meets any of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history."

In addition, if it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC, Section 21083.2[a], [b], and PRC, Section 21083.2(g) defines a unique archaeological resource as "an archaeological artifact, object, or site about which it can be clearly

demonstrated that, without merely adding to the current body of knowledge, the probability is high that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person."

California Assembly Bill 52 of 2014 (AB 52) took effect July 1, 2015, and expanded CEQA by establishing a formal consultation process for California tribes within the CEQA process. The bill specifies that any project that may affect or cause a substantial adverse change in the significance of a tribal cultural resource would require a lead agency to "begin consultation with a California Native American tribe that is traditional and culturally affiliated with the geographic area of the proposed project." According to the legislative intent for AB 52, "tribes may have knowledge about land and cultural resources that should be included in the environmental analysis for projects that may have a significant impact on those resources." Section 21074 of AB 52 also defines a new category of resources under CEQA called "tribal cultural resources." Tribal cultural resources are defined as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and is either listed on or eligible for the California Register of Historical Resources or a local historic register, or if the lead agency chooses to treat the resource as a tribal cultural resource. See also PRC 21074 (a)(1)(A)-(B).

1.2.2 Plumas County

The Draft Plumas County General Plan Update includes elements, goals, and policies to encourage the identification and protection of significant Native American and historic cultural resources (Plumas County n.d.). Specifically, the Conservation and Open Space (COS) Element includes Goal 7.5:

> "To protect and preserve historic and prehistoric sites, structures, features, objects, and properties important in Native American history for their aesthetic, historical, scientific, educational, and cultural values."

COS Goal 7.5 is supported by 10 policies to help achieve this objective (Plumas County n.d.:174-176).

1.3 PERSONNEL

Anza Principal and Senior Cultural Resources Specialist Kevin Hunt requested the Sacred Lands File search, conducted the survey, and was the primary author of this report. Mr. Hunt was accompanied for part of the field survey by John Williamson, agent for the property landowner. Principal Investigator Katherine Collins, M.A., Registered Professional Archaeologist (RPA), coauthored this report and served as principal investigator for the study. Ms. Collins meets the Secretary of the Interior's Professional Qualifications Standards for prehistoric and historic archaeology (National Park Service 1983). GIS Specialist Spencer Bietz prepared all maps and figures.

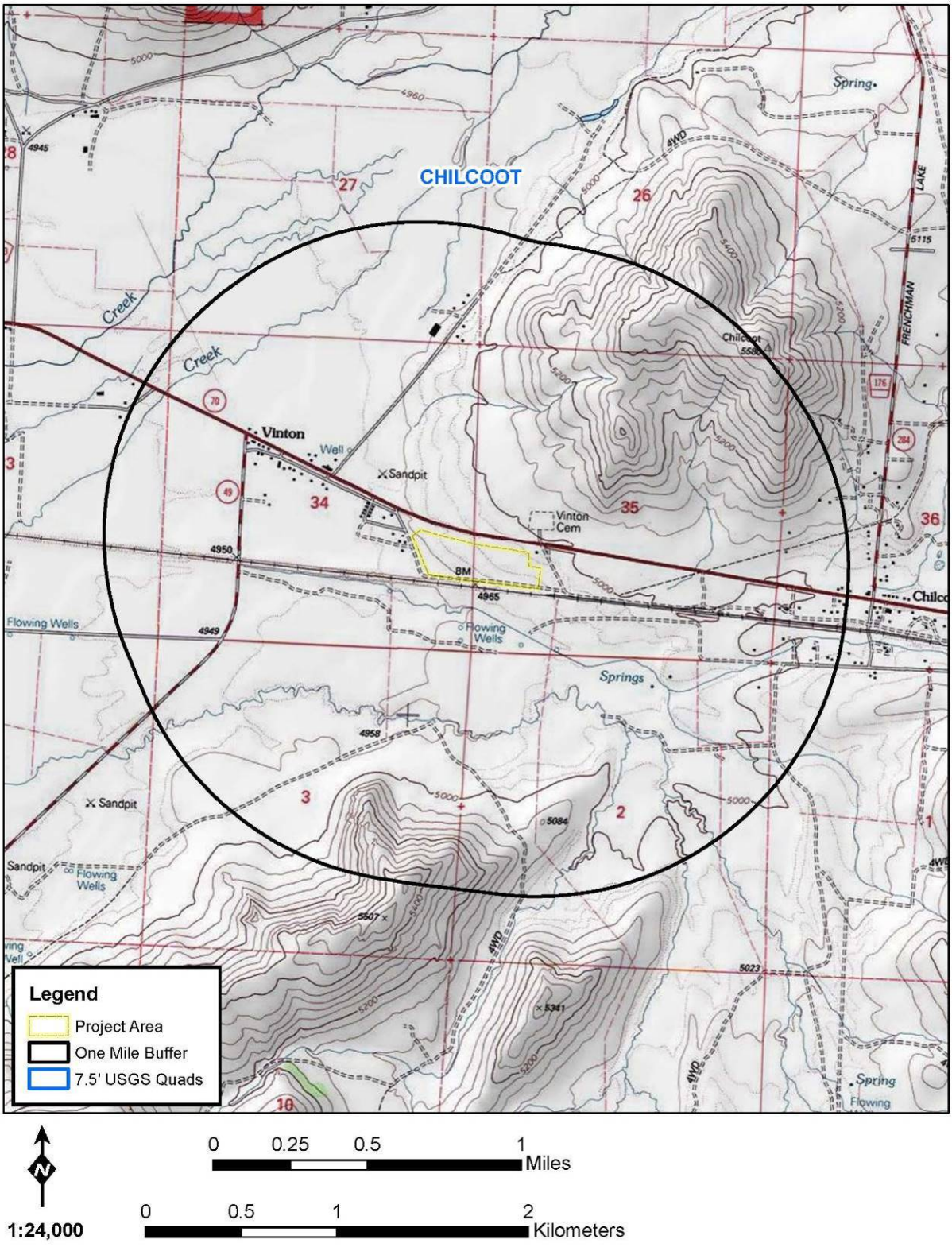


Figure 1. Project Location Map

2. ENVIRONMENTAL SETTING

The Plumas-Sierra Chilcoot Project is located in the community of Chilcoot-Vinton on the south side of State Route 70. Chilcoot-Vinton is in the northeast corner of the Sierra Valley, in the southeast corner of Plumas County, at an elevation of approximately 4965 feet (1513 meters) above mean sea level. According to the Köppen climate classification system, Chilcoot-Vinton has a dry-summer continental climate, averaging 13.73 inches of rain and 38.3 inches of snow per year (Wikipedia 2019). The region can have huge diurnal temperature swings, commonly as much as 40-50 degrees Fahrenheit during the summer (Harnach 2016). The project site is very close to multiple springs, including some to the south identified as "flowing wells" on the *Chilcoot, California* U.S. Geological Survey 7.5-minute quadrangle map (Figure 1). The project site is covered in grass, with the occasional tumbleweed, and has standing water pooled near the middle of the south edge of the parcel.

In a generalized sense, the geology of the Sierra Valley region is a down-faulted block basin (graben) that is filled with volcanic ash deposits and lake sediments (Harnach 2016). Sierra Valley is similar to Lake Tahoe in geologic origin and the valley floor is underlain by valley fill, made of volcanic ash topped with younger recent erosional deposits (Harnach 2016). The surrounding elevations are granitic. Prior to agriculture and ranching, the project site was most likely vegetated with sageland scrub, with nearby springs possibly marshland. The Sierra Valley region has a broad range of fauna including deer, pronghorn, bear, squirrel, rodents, snakes, lizards, birds (including bald eagles, hawks, osprey, Canada geese, and waterfowl), fish (such as German brown trout), and insects.

3. CULTURAL SETTING

3.1 PREHISTORIC OVERVIEW

Northern Sierra Nevada and western Great Basin prehistory is often understood by recognizing the adaptive strategies employed by prehistoric populations to cope with environmental and social change. Major changes in adaptive strategies used by prehistoric cultures about 8,000 years before present (BP) in this region mark the transition between the Pre-Archaic and the Archaic. The Archaic is further divided into the Early, Middle, and Late based on changes of lesser magnitude. Within this overarching framework, researchers have devised regional chronologies to explain culture change within a defined area. A regional chronology for the northern Sierra Nevada Mountains and adjacent inter-montane basins such as the Tahoe Basin, Truckee Basin, and Sierra Valley is known as the Eastern Front Chronology and is briefly described below (Elston 1986, Elston et al. 1994).

The **Pre-Archaic**, regionally represented by the Tahoe Reach Phase (ca 10,000 to 8,000 BP), is characterized by the presence of highly mobile hunter-gatherer groups in pursuit of big-game animals. Plant gathering focused on expedient resources with minimal processing. Pre-Archaic tool assemblages included large, stemmed, edge-ground projectile points of the Great Basin Stemmed series and flaked stone crescents. These artifact types represent temporal markers of prehistoric occupation in the northern Sierra Nevada during the Tahoe Reach Phase (Elston 1986, Elston et al. 1994).

The **Early Archaic** in the northern Sierra Nevada, known as the Spooner Phase (ca 8000 to 5000 BP) represents a period of warmer climatic conditions resulting in the drying of lakes and marshes. Drought tolerant plant species such as shadscale, saltbrush, and greasewood advanced into lowland areas; while changes in rainfall patterns promoted the advance of piñon-juniper woodlands into the western Great Basin. These climatic changes required a new adaptive strategy that involved the exploitation of a more diverse resource base and the processing and storage of seeds.

Archaeological evidence of Spooner Phase occupation in the northern Sierra Nevada Mountains is rare. Only a few sites, including the type-site Spooner Lake site, have been found. Work at these sites has recovered ground stone artifacts such as metates, bifacial manos, and unshaped pestles, and several types of projectile points, including Pinto series (Elston 1986, Moratto 1984). No temporally diagnostic artifacts associated with Spooner Phase sites have been identified. Given the available evidence it is likely high-elevation Spooner Phase sites represent temporary hunting camps rather than long term habitation sites (Elston 1986).

The **Middle Archaic** includes the Martis Phase, which is further divided into the Early Martis (ca 5000 to 3000 BP) and Late Martis (ca 3000 to 1300 BP). Climatic conditions during this period are characterized as cool and moist, becoming drier at the end of the Martis Phase. Settlement patterns indicate sites were consistently re-occupied. Winter settlements often contain pit house with hearth features, storage pits, and burials. Big-game hunting remained an important source of sustenance as was the processing of plants foods as evidence by the presence of ground stone artifacts (Elston 1986).

Flake stone technology focused on the production of large bifaces using locally quarried basalt. Diagnostic artifacts for this phase include Elko series and Martis series projectile points. The Martis Phase cultural complex was first identified at site CA-Pla-5 in the Martis Valley north of Lake Tahoe with other Marits Phase sites located at Chilcoot rockshelter in Plumas County and Loyalton rockshelter in Sierra County (Moratto 1984).

The **Late Archaic** in the northern Sierra Nevada is represented by the Kings Beach Phase, which is divided onto the Early Kings Beach (ca 1300 to 700 BP) and Late Kings Beach (ca 700 to 150 BP). This period is marked by a warming and drying trend that reached its peak about 500 years ago. In addition to climatic changes several cultural changes occurred during this period, such as increased population density and the introduction of the bow and arrow. Lithic technology shifted from the manufacture large bifaces to the production of simple flaked tools and pottery was introduced during this period. Subsistence practices exploited a larger number of ecological zones and a greater diversity of plant resources. Plant processing became more elaborate as evidence by a variety of mortar forms and the use of hullers. Diagnostic artifacts for this period include Rose Spring series projectile points during the Early Kings Beach Phase and Desert Side Notch and Cottonwood series projectile points during the Late Kings Beach Phase (Elston 1986).

3.2 ETHNOGRAPHIC OVERVIEW

The project site is located in the traditional territory of the Washoe people (Kroeber 1925). Washoe territory occupied the valleys east of the Sierra Nevada Mountains from Antelope Valley on the north to Honey Lake including the Carson Valley and Lake Tahoe region. The Washoe language has no close relatives but is likely a member of the Hokan language family and is the only non-Numic language spoken in the Great Basin region (Mithun 1999).

The basic social and economic unit for the Washoe was the family or household. Families moved together in search of food as a composite cultural group at times coming together with other households for hunting trips and cooperative endeavors. Family size would vary from five or less to a dozen people with no set rules on who could be considered a family member. The basic family unit was usually a man, his wife and children, but a widower might also be head of the unit. It could also include siblings and their spouses or "friends" (Downs 1966). Washoe households occasionally combined to form clusters of closely related households known as "the bunch" (D'Azevedo 1986, Downs 1966). The size and composition of each bunch varied on environmental and interpersonal conditions. Each bunch was led by a headman or chief which seems to have been a hereditary position passed on through either parent; however, a separate leader would be selected to organize fishing, hunting, and ceremonial functions. Leaders gained status through actions of wisdom, expertise and benevolent qualities. They regularly expounded on goodness and proper behavior to their community. Headmen met with other headmen to exchange information on Washoe life and appoint "bosses" with special knowledge to research locations that might have abundant hunting or gathering possibilities in a given year (D'Azevedo 1986, Downs 1966, Kroeber 1925).

Washoe subsistence primarily relied on the gathering of pine nuts and fishing (primarily trout and suckers). Pine nuts were gathered in late fall and winter when other plant resources were scarce. Fishing was a year-round activity. The rivers and lakes in Washoe territory held an abundance of fish, including the mountain whitefish in Lake Tahoe tributaries, cutthroat trout along the Truckee River, and suckers, chubs, and minnows which could be scooped from streams with baskets. In the winter, ice-fishing provided food when resources were low (D'Azevedo 1986). The Washoe obtained Pinyõn pine nuts (Pinus monophylla) on treks through the pinõn–juniper woodland of the Pine Nut Mountains near Woodsfords–Markleeville (D'Azevedo 1986: 472). The nuts were cracked and eaten, but were usually converted into a meal from which a mush was made. Other plant resources gathered included sego lily, sand seeds, cat tails, tule roots, currants, elderberries, sweet elderberry roots, gooseberries, chokecherries, buckberries, rose tea, Indian tea, and wild varieties of mustard, spinach, potatoes, sweet potatoes, celery, turnips, onions, and strawberries. The Washoe obtained acorns on their own or through trade with neighboring tribes.

Hunting was conducted using the bow and arrow. Communal drives led by "bosses" were common for hunting small game such as rabbits, prairie dogs, ground hogs, woodchucks, sagehens, quail, and waterfowl and antelope. Deer and mountain goats were hunted at higher elevations in the winter using snow shoes (D'Azevedo 1986).

The Washoe built two basic structures: the winter house which consisted of a conical framework of poles covered by overlapping slabs of cedar and/or other conifer bark, with a short covered doorway or vestibule; and the summer brush house which varied from a simple low enclosure resembling a windbreak to a completely covered, dome-shaped house. Washoe constructed covered fishing platforms over streams that were often described as floating houses by observers. Washoe also built sweat lodges and large earth-covered dance houses but there is disagreement regarding whether or not these structures were regularly used prior to the historic period (D'Azevedo 1986).

Washoe material culture included chipped stone tools such as knives; arrow and spear points; club heads; and scrapers, for use in hunting and food processing. Mortars and pestles were commonly used to grind acorns, pine nuts, seeds and other plant foods, and meat. Manos and metates were also used in nut flour preparation. Fist-sized, heated stones were used to cook and/or warm acorn gruel and pine nut meal. Whole acorns were stored in granaries and pine nuts were stored in large brush and pine bough covered caches.

Sustained contact with Euro-American populations did not occur until 1800's when migrants from the eastern United States began to cross into California using one of several passes through the Sierra Nevada Mountains. Some of these migrants established trading posts and settlements in Washoe territory and began to fence off tracts as ranch land (D'Azevedo 1986). These initial encounters were the start of a long history of conflict with Euro-American settlers that lead to the dispossession of their land and regulation onto reservations. Today the Washoe people live in California on the Woodfords Indian Colony in Alpine County, and on the eastern side of Lake Tahoe in Nevada on and near the Washoe colonies of Alpine, Carson, Dresslerville, and Sparks. All these colonies are governed by a single tribal council (White 2019).

3.3 HISTORIC OVERVIEW

The historic period for the state of California generally begins with the establishment of the first Spanish mission and presidio in San Diego in 1769. This marks the beginning of the Spanish period of California history which lasted until 1822, when news of Mexico's independence from Spain in 1821 finally reached California. The Spanish period saw the establishment of a permanent European presence in California in the form of 21 missions located along the coast between San Diego and Sonoma, four military presidios located in San Diego, Monterey, San Francisco and Santa Barbara, and three pueblos (towns) that later became the cities of Los Angeles, San Jose and Santa Cruz (Robinson 1948). The Mexican period of California history saw the seizure of lands once held by the missions through the Mexican Secularization Act of 1833 and the redistribution of those lands to individuals in the form of land grants known as "ranchos" (Robinson 1948). During this period the Mexican government in California issued about 700 land grants to Mexican citizens and foreign immigrants (Shumway 1988). The outbreak of war between the United States and Mexico and the signing of the Treaty of Guadalupe Hidalgo in 1848 ended the Mexican period and signaled the beginning of the American period of California history. The early American period is marked by the discovery of gold at Sutter's Mill in 1848 resulting in a gold rush that saw a massive influx of settlers from other parts of the United States and around the world, greatly impacting California's native population. In 1869 the transcontinental railroad was completed linking California with the rest of the United States. The gold rush and the establishment of the railroad played major roles in the development of California into a national and worldwide leader in agricultural and

industrial production. These early developments also resulted in making California one of the most racially and ethnically diverse states in the Union.

3.3.1 Plumas County

Plumas County was established in 1854 from a portion of Butte County. The county derives its name from the original Spanish name for the Feather River, El Rio de las Plumas, coined by explorer Luis Arguello in 1820. Arguello, a native Californian or *Californio*, would later become the first governor of California during the Mexican period. The gold rush that started at Sutter's Mill in 1848 also spread to parts of Plumas County. Prospectors flocked to the region to work its streams in the hope of striking it rich. Some gold was discovered such as at Rich Bar on the Feather River. Thousands of migrants from the eastern United States entered California using the Lassen Emigrant Trail which passed through Plumas County. During this time Big Meadows, now the site of Lake Almanor, was an important stopping place for food and water. Mountain man James P. Beckwourth was the first European American to discover the lowest pass across the Sierra Nevada in 1850 (now called the Beckwourth Pass), and in 1851 completed a wagon trail for California-bound emigrants from western Nevada, through Plumas County, to the Sacramento Valley, which State Route 70 generally follows in the vicinity of Chilcoot-Vinton. The beginning of the twentieth century saw the establishment of the Western Pacific Railroad (now part of the Union Pacific Railroad) in 1910 through the Middle Fork of the Feather River to Salt Lake City. In addition to mining, logging and agriculture have played important economic roles in the Plumas County (Hoover et al. 2002).

3.3.2 Chilcoot-Vinton

The census-designated place of Chilcoot-Vinton is actually two communities approximately two miles apart on California State Route (SR) 70, with the project site located more or less in the middle. Vinton is located at the intersection of SR 70 and SR 49. Chilcoot is east at the intersection of SR 70 and SR 284, a short spur highway that runs only from Chilcoot north to Frenchman Lake. The Beckwourth Pass – the lowest mountain pass in the Sierra Nevada at 5,221 feet above mean sea level – is east of Chilcoot and is a California Historical Landmark (No. 336). The Vinton post office opened in 1897, named after Vinton Bowen, the daughter of a Sierra Valley Railway official. The Chilcoot post office opened in 1898. Chilcoot was a resting place for covered wagon, or "prairie schooner," emigrants and later a stagecoach stop. Today agriculture and ranching still dominate the local economy but outdoor tourism has become an important addition because of the area's considerable beauty and great fishing.

4. BACKGROUND RESEARCH

4.1 CALIFORNIA HISTORICAL RESOURCE INFORMATION SYSTEM

Anza requested a search of cultural resource records housed at the California Historical Resources Information System (CHRIS), Northeast Information Center (NEIC) located at California State University, Chico. The search was conducted by NEIC on May 6, 2019, to identify all previous cultural resources work and previously recorded cultural resources within a one-mile radius of the project site (Appendix A). The CHRIS search included a review of the NRHP, CRHR, the California Points of Historical Interest list, the California Historical Landmarks list, the Archaeological Determinations of Eligibility list, and the California State Historic Resources Inventory list. The records search also included a review of all available historic United States Geological Survey (USGS) 7.5-, 15-, and 30-minute quadrangle maps.

4.1.1 Previous Studies

The NEIC records search identified ten cultural resources studies that were conducted within a one-mile radius of the project site, one of which (000839) is mapped including the project site; however, this study was an overview that did not include pedestrian survey within the project site (Table 1). Another report (005890) included survey adjacent to the east of the project site.

Table 1. Previous Cultural Resource Studies within a One-Mile Radius of the Project Site

Report Number	Author	Year	Title	Proximity to Project Site
000839	Kowta, Makoto	1988	The Archaeology and Prehistory of Plumas and Butte Counties, California: An Introduction and Interpretive Model	Regional overview that includes project site (no survey)
005120	Jensen, Peter M.	2002	Archaeological Survey, c. 6-acres Earle Little Property, Between Vinton And Chilcoot On Highway 70, Plumas County, California	Outside
005820	McCombs, Diane	2003	A Heritage Resource Survey For The Proposed Sierra Sands Sand And Gravel Mine, An Eighty Acre Survey Near Vinton In Plumas County, California	Outside
005890	Westwood, Lisa with, Deanna Grimstead And, and Brandon Patterson	2004	Archaeological Survey Report For The Sierra Slot Source Project, Near Chilcoot, Plumas County, California	Adjacent to east
005992	Jensen, Peter M.	2004	Archaeological Survey, c 15-acre Little Property, Highway 70 near The Vinton Cemetery, Plumas County, California	Outside
007126	Bennett, Elizabeth A.	1989	Archaeological Survey Report For A Proposed Highway Rehabilitation And Widening Project On State Route 760, Plumas County, California	Outside

Report Number	Author	Year	Title	Proximity to Project Site
007132	Henrici, Dawn	1979	Archaeological Reconnaissance for the Tenetive Parcel Map-Sneed APN# 010-120-13, Plumas County	Outside
007137	Henton, Gregory	1983	An Archaeological Reconnaissance of June A. Gottschalk's Property	Outside
009912	McCombs, Diane	2006	Heritage Resource Survey for the Little Last Chance Creek Restoration Project	Outside
012349	Meyer, Jack	2013	A Geoarchaeological Overview and Assessment of Northeast California, Cultural Resources Inventory of Caltrans District 2 Rural Conventional Highways: Lassen, Modoc, Plumas, Shasta, Siskiyou, Tehama, and Trinity Counties	Outside

Source: NEIC, May 2019

4.1.2 Previously Recorded Resources

Seven prehistoric archaeological sites, four historic built or archaeological resources, and one multicomponent site were identified within one mile of the project site (Table 2). Two prehistoric sparse lithic artifact scatters (P-32-000390 and -000392) were identified adjacent to the project site to the south (discussed in Sections 4.1.2.1 and 4.1.2.2). The historic Beckwourth Trail (P-32-001635) was informally recorded crossing within the site but actually runs approximately 0.1 mile south of the project site, as recorded on its resource record and other maps (Section 4.1.2.3).

Table 2. Previously Recorded Cultural Resources within One Mile of the Project Site

Primary Number	Trinomial	Description	NRHP/CRHR Eligibility Status	Recorded Year (By Whom)	Relationship to Project Site
P-32-000122	CA-PLU-000122	Prehistoric lithic artifact scatter; the “Vinton Cemetery Site”	Insufficient information	1965 (Bryan)	Approximately 0.2 mile north
P-32-000388	CA-PLU-000388	Prehistoric lithic artifact scatter. Chert including projectile point	Insufficient information	1979 (Henrici)	Approximately 0.1 mile north
P-32-000389	CA-PLU-000389H	Historic refuse deposit associated with the railroad	Insufficient information	1979 (Henrici)	Approximately 0.25 mile east
P-32-000390	CA-PLU-000390	Prehistoric sparse lithic artifact scatter (6 chert flakes)	Insufficient information	1979 (Henrici)	**Adjacent to south**
P-32-000391	CA-PLU-000391	Prehistoric sparse lithic artifact scatter (6 chert “waste” flakes)	Insufficient information	1979 (Henrici)	Approximately 0.15 mile east
P-32-000392	CA-PLU-000392	Prehistoric sparse lithic artifact scatter (7 chert “waste” flakes)	Insufficient information	1979 (Henrici)	**Adjacent to south**
P-32-000542	CA-PLU-000542	Prehistoric sparse lithic artifact scatter (or isolate): 2 chert flakes and one basalt projectile point	Insufficient information	1979 (Henrici)	Approximately 0.25 mile east

Primary Number	Trinomial	Description	NRHP/CRHR Eligibility Status	Recorded Year (By Whom)	Relationship to Project Site
P-32-001635	CA-PLU-001635H	Beckwourth Trail; historic wagon road constructed in 1851	Insufficient information	Recorded or updated 26 times from 1980 through 2016	Approximately 0.1 mile south
P-32-002445	CA-PLU-002445	Large prehistoric lithic artifact scatter with multiple tools and bedrock milling	Not yet evaluated for NRHP or CRHR (Status Code 7)	2003 (D. Mc Combs)	Approximately 1 mile north
P-32-002462	CA-PLU-002462H	Historic refuse deposit	Insufficient information	2004 (Patterson, Grimstead, Lisa Westwood)	Approximately 0.5 mile east
P-32-002522		Four geographically distinct isolates (three historic refuse items, one prehistoric chert flake) recorded as a single multicomponent site; one locus overlaps P-32-000389	Presumed ineligible	2004 (Patterson, Grimstead, Lisa Westwood)	Approximately 0.25 mile east
P-32-003542		Last Chance Creek Water District; The Last Chance Creek Water District ditch system	Found ineligible for NR, CR or Local designation through survey evaluation (Status Code 6Z)	2006 (Diane McCombs); 2017 (Lisa Shapiro, Graham Dalldorf, Jackie Farrington, and Nic Grosjean)	Approximately 0.75 mile northwest
P-32-005892	CA-PLU-005892H	Segment of the Sierra Valley and Mohawk Railroad grade	Insufficient information	2017 (Lisa Shapiro, Graham Dalldorf, Jackie Farrington and Nic Grosjean)	Approximately 0.75 mile east

Source: NEIC, May 2019

4.1.2.1 P-32-000390

This prehistoric sparse lithic artifact scatter was recorded by Henrici in 1979. The site comprises six red chert waste flakes (i.e., the byproducts of tool manufacture) within a 3x3-meter area between two east-west dirt roads approximately five meters north of the UPRR. Based on this description, the resource is outside the project site (development footprint) but within the same parcel. Henrici notes that this artifact scatter is unlikely to possess depth. No CRHR eligibility evaluation was provided; however, sparse lithic scatters of this nature (i.e., very few artifacts, less than three artifacts per square meter, a single material type, no tools or diagnostic artifacts, common for the area, surface scatter only) are typically considered not eligible for CRHR listing as they lack significant data potential.

4.1.2.2 P-32-000392

This prehistoric sparse lithic artifact scatter was recorded by Henrici in 1979. The site comprises seven red chert waste flakes (i.e., the byproducts of tool manufacture) within a 4x4-meter area between two east-west dirt roads approximately seven meters north of the UPRR. Based on this description, the resource is outside the project site (development footprint) but within the same parcel. Henrici notes that this artifact scatter is unlikely to possess depth. No CRHR eligibility evaluation was provided; however, sparse lithic scatters of this nature (i.e., very few artifacts, less than three artifacts per square meter, a single material type, no tools or diagnostic artifacts, common for the area, surface scatter only) are typically considered not eligible for CRHR listing as they lack significant data potential.

4.1.2.3 P-32-001635

Portions of Resource P-32-00392, the Beckwourth Trail, within California have been recorded or updated 26 times between 1980 and 2016. Despite a 220-page resource record, multiple websites, articles and books on the subject, and the listing of Beckwourth Pass (a separate resource) on the NRHP and as a California Historical Landmark, no evidence of CRHR or NRHP eligibility evaluation for the Beckwourth Trail was identified during this study. Nevertheless, it is likely that, at minimum, segments of the trail with sufficient integrity are eligible for the CRHR and NRHP because of the trail's association with legendary African American mountain man James Beckwourth, the Gold Rush's massive emigration of European Americans into California.

NEIC provided conflicting data regarding the location of the Beckwourth Trail in the immediate vicinity of the project site. One figure, labeled "Informal Resource Location," depicts the trail within the project site. However, page 204 of the resource record depicts the trail south of the UPRR in the vicinity of the project site on the USGS *Chilcoot, California* 7.5-minute quadrangle map. Similarly, the figure titled "Resource Locations" depicts an unlabeled linear resource that better matches the alignment on the resource record. Combined with review of online references and Google Earth, the preponderance of evidence supports Anza's conclusion that the Beckworth Trail does not cross within the project site. Rather, the trail runs south of the UPRR alignment until just west of the southwest corner of the project site, where the trail turns northwest and crosses the (later constructed) railroad alignment.

4.1.3 Historic Maps

The 1864 General Land Office (GLO) plat map depicts the Mohawk Valley Road going through or near the project site (map scale prevents further confirmation). The 1890 *Sierraville* quadrangle map similarly depicts an unnamed road and a blueline stream going through or adjacent to the project site.

4.2 NATIVE AMERICAN SCOPING

K.S. Dunbar & Associates, Inc. requested a review of the Sacred Lands File (SLF) by the Native American Heritage Commission. The NAHC sent a response on April 12, 2019, stating that a search of the SLF was completed with negative results. That is, no sacred lands or other resources important to Native Americans were identified near the project site during the SLF search (Appendix B). The NAHC provided a list of seven Native American contacts that may have knowledge regarding Native American cultural resources within or near the project site.

K.S. Dunbar & Associates, Inc. mailed letters dated April 15, 2019, to the seven Native American contacts asking if they had knowledge regarding cultural resources of Native American origin within or near the project site (Appendix B). As of May 9, 2019, no responses have been received.

5. FIELDWORK

5.1 SURVEY METHODS

Anza Principal and Senior Cultural Resources Specialist Kevin Hunt conducted a pedestrian survey of the project site on April 25, 2019. Mr. Hunt surveyed the entire project site using transects spaced 10 meters apart and oriented east-west.

Mr. Hunt examined all exposed ground surface for artifacts (e.g., flaked stone tools and tool-manufacture debris, ground stone tools, ceramic sherds, fire-affected rock), ecofacts (marine shell, bone), soil discoloration that could indicate the presence of a cultural midden, soil depressions, and features indicative of the former presence of trails, structures or buildings (e.g., standing exterior walls, postholes, foundations) or historic debris (e.g., metal, glass, ceramic sherds, cut bone). Ground disturbances such as burrows and drainages were visually inspected. Photographs documenting the project site and survey are maintained by Anza in cloud storage online.

5.2 RESULTS

The project site is within a fenced flat field covered in grass and heavily saturated with water along the center of the southern boundary (Photographs 1-5). Ground visibility was poor to fair (30 to 40 percent) throughout most of the project site with bare patches between grasses providing some visibility. The survey was negative; that is, no cultural (i.e., archaeological, historic built, or tribal cultural) resources were identified within the project site. No evidence of prehistoric sparse lithic scatters P-32-000390 and P-32-000392, both recorded in 1979 outside the project site but within the same parcel, was observed despite the fact these areas outside and south of the project boundary were surveyed. No evidence of the Beckwourth Trail was observed within or adjacent to the project site. Modern broken and burned domestic refuse was observed to the south of the project site west of the standing water along the southern boundary.

Photograph 1. View of project site from outside southeast corner, facing northwest.

Photograph 2. View of standing water along southern edge of project site, facing northeast.

Photograph 3. View of portion of project site, facing northeast.

Photograph 4. View from southern edge of project site, facing east.

Photograph 5. View of portion of project site, facing west.

6. MANAGEMENT RECOMMENDATIONS

The cultural resource records search, Native American scoping, and pedestrian survey identified no cultural resources within the project site. Two prehistoric sparse lithic scatters were recorded in 1979 outside but adjacent to the project site; neither of these was relocated during the survey and neither would likely be found CRHR eligible if relocated and subjected to archaeological testing. Anza recommends a finding of ***no impact to historical resources*** under CEQA. No further cultural resources study is recommended; however, the following standard measures are recommended to avoid potential impacts from the unanticipated discovery of cultural resources during project related ground disturbing activities.

6.1 CULTURAL RESOURCES WORKER SENSITIVITY TRAINING

Prior to the start of construction, NCPA shall hold a pre-grading meeting. The Project Archaeologist shall attend the pre-grading meeting with NCPA's Project Administrator, Field Engineering Inspector and any contractors to conduct a Cultural Resources Worker Sensitivity Training for all construction personnel working on the proposed project. The training shall include an overview of potential cultural resources that could be encountered during ground disturbing activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated, and any other appropriate protocols.

6.2 UNANTICIPATED DISCOVERY OF CULTURAL RESOURCES

If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) must be contacted immediately to evaluate the find. If the discovery proves to be significant under CEQA, additional work such as data recovery excavation may be warranted.

6.3 UNANTICIPATED DISCOVERY OF HUMAN REMAINS

The discovery of human remains is always a possibility during ground disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the county coroner must be notified immediately. If the human remains are determined to be prehistoric, the coroner will notify the Native American Heritage Commission, which will determine and notify a Most Likely Descendant. The Most Likely Descendant shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

7. REFERENCES

California Office of Historic Preservation
1990 *Archaeological Resource Management Reports (ARMR): Recommended Contents and Format.* Department of Parks and Recreation. Office of Historic Preservation: Sacramento, California.

D'Azevedo, Warren L.
1986 "Washoe." In *Handbook of North American Indians, Volume 11: Great Basin*, edited by W. C. Sturtevant, 466–498. Washington D.C.: Smithsonian Institution.

Downs, J.F.
1966 *The Two Worlds of the Washo, an Indian Tribe of California and Nevada*. New York, NY: Holt, Rinehart, and Winston.

Elston, Robert G.
1986 "Prehistory of the Western Area." In *Handbook of North American Indians, Volume 11: Great Basin*, edited by Warren L. D'Azevedo, 135–148. Washington D.C.: Smithsonian Institution.

Elston, Robert G., Susan Stornetta, Daniel P. Dugas, and Peter Mires.
1994 *Beyond the BlueRoof: Archaeological Survey on Mt. Rose Fan and Northern Steamboat Hills. Intermountain Research, Silver City, Nevada*. On file, the Toiyabe National Forest, Carson City.

Harnach, William
2016 *Annotated checklist of the flora of the Sierra Valley region of Sierra and Plumas counties, California*. Electronic document online accessed May 8, 2019. http://www.phytoneuron.net/2016Phytoneuron/13PhytoN-SVChecklist.pdf

Hoover, Mildred, Hero Eugene Rensch, Ethel Grace Rensch, and William N. Abeloe
2002 *Historic Spots in California*. Fifth Edition. Stanford, CA: Stanford University Press.

Kroeber, Alfred J.
1925 *Handbook of the Indians of California*. Bureau of American Ethnology Bulletin 78. New York: Dover Publications, Inc.

Mithun, Marianne
1999 *The Languages of Native North America*. Cambridge MA: Cambridge University Press.

Moratto, Michael J., with David A. Fredrickson, Christopher Raven, and Claude A. Warren
1984 *California Archaeology*. Orlando, FL: Academic Press.

Plumas County
2012 General Plan Update Draft Environmental Impact Report, 4.12 Cultural Resources. Online document accessed May 8, 2019. http://www.plumascounty.us/DocumentCenter/View/9357

n.d. Draft Plumas County General Plan. Online document accessed May 8, 2019. http://www.plumascounty.us/DocumentCenter/Home/View/4500

Robinson, W.W.
1948 *Land in California: The Story of Mission Lands, Ranchos, Squatters, Mining Claims, Railroad Grants, Land Scrip, Homesteads*. Berkeley, CA: University of California Press.

White, Phillip
2019 "California Indians and Their Reservations: An Online Dictionary." San Diego State University American Indian Studies website. Accessed April 25, 2019. https://libguides.sdsu.edu/c.php?g=494769&p=3385637.

Wikipedia
2019 Chilcoot-Vinton, California. Online document accessed May 8, 2019. https://en.wikipedia.org/wiki/Chilcoot-Vinton,_California

Appendix A:
Records Search Summary

Northeast Center of the California Historical Resources Information System

BUTTE
GLENN
LASSEN
MODOC
PLUMAS
SHASTA
SIERRA
SISKIYOU
SUTTER
TEHAMA
TRINITY

123 West 6th Street, Suite 100
Chico CA 95928
Phone (530) 898-6256
neinfocntr@csuchico.edu

May 6, 2019

Anza Resource Consultants
603 Seagaze Drive, #1018
Oceanside, CA 92054
Attn.: Mr. Kevin Hunt

I.C. File # D19-61
Priority Records Search

RE: NCPA Plumas Sierra Chilcoot Solar PV Project
T23N, R16E, Sections 34 & 35 MDBM
USGS Chilcoot 7.5' and Chilcoot (1950) 15' quads
Approximately 28.86 acres, estimated from project maps (Plumas County)

Dear Mr. Hunt,

In response to your request, a priority records search for the project cited above was conducted by examining the official maps and records for archaeological sites and surveys in Plumas County. Please note, the search includes the requested 1-mile radius surrounding the project area.

RESULTS:

Resources: According to our records, 13 sites and one informal resource have been recorded within the project area and 1-mile project radius. Resource locations are plotted on the enclosed NEIC-generated maps. A Resource List, Resource Details, a spreadsheet, and copies of the site records are included. The project is located in a region utilized prehistorically by Washoe populations. Unrecorded prehistoric and historic cultural resources may be located within the project area.

The USGS Chilcoot (1950) 15' quad map indicates that Sierra Valley and a trail are located in the project area, while the towns of Vinton, Chilcoot, the Western Pacific Railroad, Last Chance Creek, a cemetery, jeep trails, streams, roads, and structures are located in the general project vicinity.

A copy of the GLO plat map (1864) depicting the Mohawk Valley Road adjacent to the project area is enclosed. Also enclosed is a copy of the historic Sierraville (1890) quad map depicting a road and stream adjacent to the project area. Finally, a copy of the Oregon-California Trails Association (OCTA) map depicting the Beckwourth Trail within the project area is also enclosed.

Previous Archaeological Investigations: According to our records, the project area has not been previously surveyed for cultural resources. However, portions of the 1-mile project radius have been previously surveyed. Study locations are plotted on the enclosed NEIC-generated map. A Report List and spreadsheet are included. Copies of the reports are NOT enclosed, per your request.

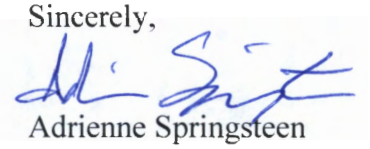
Literature Search: The official records and maps for archaeological sites and surveys in Plumas County were reviewed. Also reviewed: **National Register of Historic Places - Listed properties and Determined Eligible Properties** (2012); **Directory of Properties in the Historic Property Data File for Plumas County** (2012); **California Register of Historical Resources** (2012); **California Points of Historical Interest** (2012); and **Handbook of North American Indians, Vol. 8, California** (1978).

RECOMMENDATIONS:

We recommend that you contact the appropriate local Native American representatives for information regarding traditional cultural properties that may be located within project boundaries for which we have no records.

The fee for this records search is $864.30 (please refer to the following page for more information). An invoice will follow from CSU, Chico Research Foundation for billing purposes. Thank you for your dedication to preserving California's irreplaceable cultural heritage, and please feel free to contact us if you have any questions or need further information or assistance.

Sincerely,



Adrienne Springsteen
Research Associate

Appendix B:
Native American Scoping

K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, CA 92590-4314
(951) 699-2082
Cell: (949) 412-2634
ksdpe67@gmail.com

Erica D. Dunbar, President
Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE
Chief Executive Officer

April 10, 2019

Christina Snider, Executive Secretary
California Native American Heritage Commission
1550 Harbor Boulevard, Room 100
West Sacramento, California 95691

Request for a Sacred Lands File Search
NCPA Solar Project 1 – Plumas-Sierra Chilcoot Site
Northern California Power Agency

Dear Christina:

The Northern California Power Agency (NCPA) intends to implement its NCPA Solar Project 1 – Plumas-Sierra Chilcoot Site. The project is described in the attachments to this letter.

We respectfully request that you complete a search of your Sacred Lands files for this Project. A completed request form as well as maps showing the project elements are attached for your use in the search.

We also respectfully request that you provide us with a list of tribes and individuals that you believe might have cultural resources information regarding the project area.

It would be greatly appreciated if you could email your response to ksdpe67@gmail.com.

If you have any questions concerning this request, please contact me.

Sincerely,

K. S. Dunbar

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE

Attachments

pc: Ron Yuen
Director of Engineering, Generation Services
Northern California Power Agency
651 Commerce Drive,
Roseville California 95678

Sacred Lands File & Native American Contacts List Request

Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
916-373-3710
FAX: 916-373-5471
nahc@nahc.ca.gov

Information Below is Required for a Sacred Lands File Search

Project: NCPA Solar Project 1 – Plumas-Sierra Chilcoot Site

County: Plumas

USGS Quadrangle Name: Chilcoot, California

See attachment for detailed project location.

Company/Firm/Agency: K.S. Dunbar & Associates, Inc.

Street Address: 45375 Vista Del Mar

City: Temecula **Zip: 92590-4314**

Phone: 951-699-2082

Email: ksdpe67@gmail.com

Project Description: The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. Burns & McDonnell was retained by NCPA to complete Phase 2 Site Screening, Plan Development, and Procurement services for each site selected by the member agencies. The Plumas-Sierra Rural Electric Cooperate selected a site at Chilcoot (Figure 1). That site is the subject of this Notification.

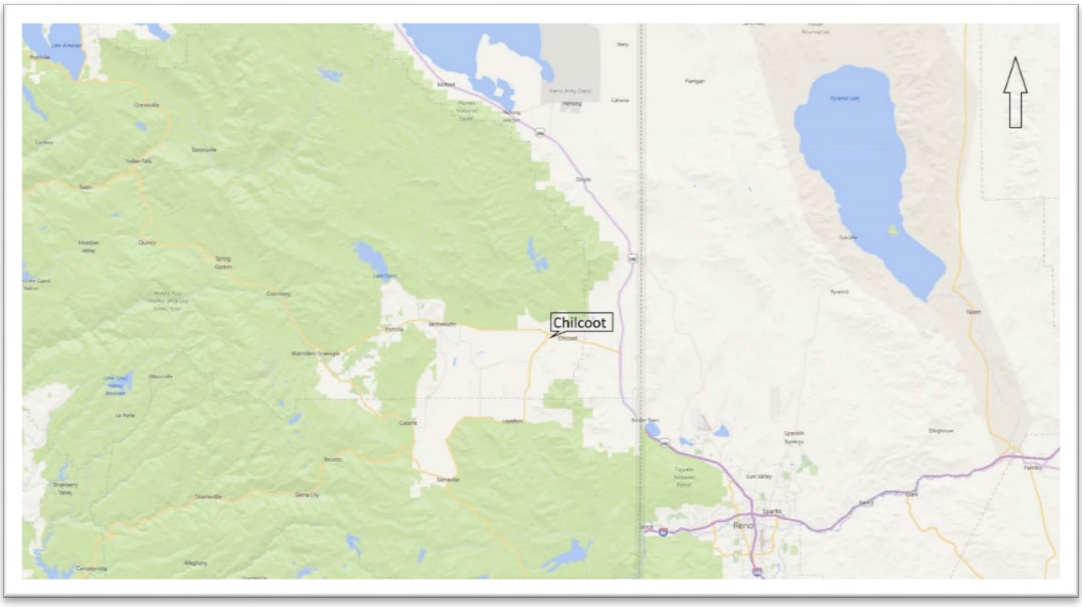


Figure 1 Plumas-Sierra Chilcoot Project Location

The Project site is located within a 36-acre vacant parcel located just south of Highway 70 east of its intersection with Highway 49. The site is bordered by Highway 70 to the north, an industrial facility to the east, Union Pacific Railroad to the south, and scattered residences to the east (Figure 2). This site would accommodate a 4.7 MW facility with a one-year output of 9,720 megawatt-hours.

Figure 2 Plumas-Sierra Chilcoot Project Site

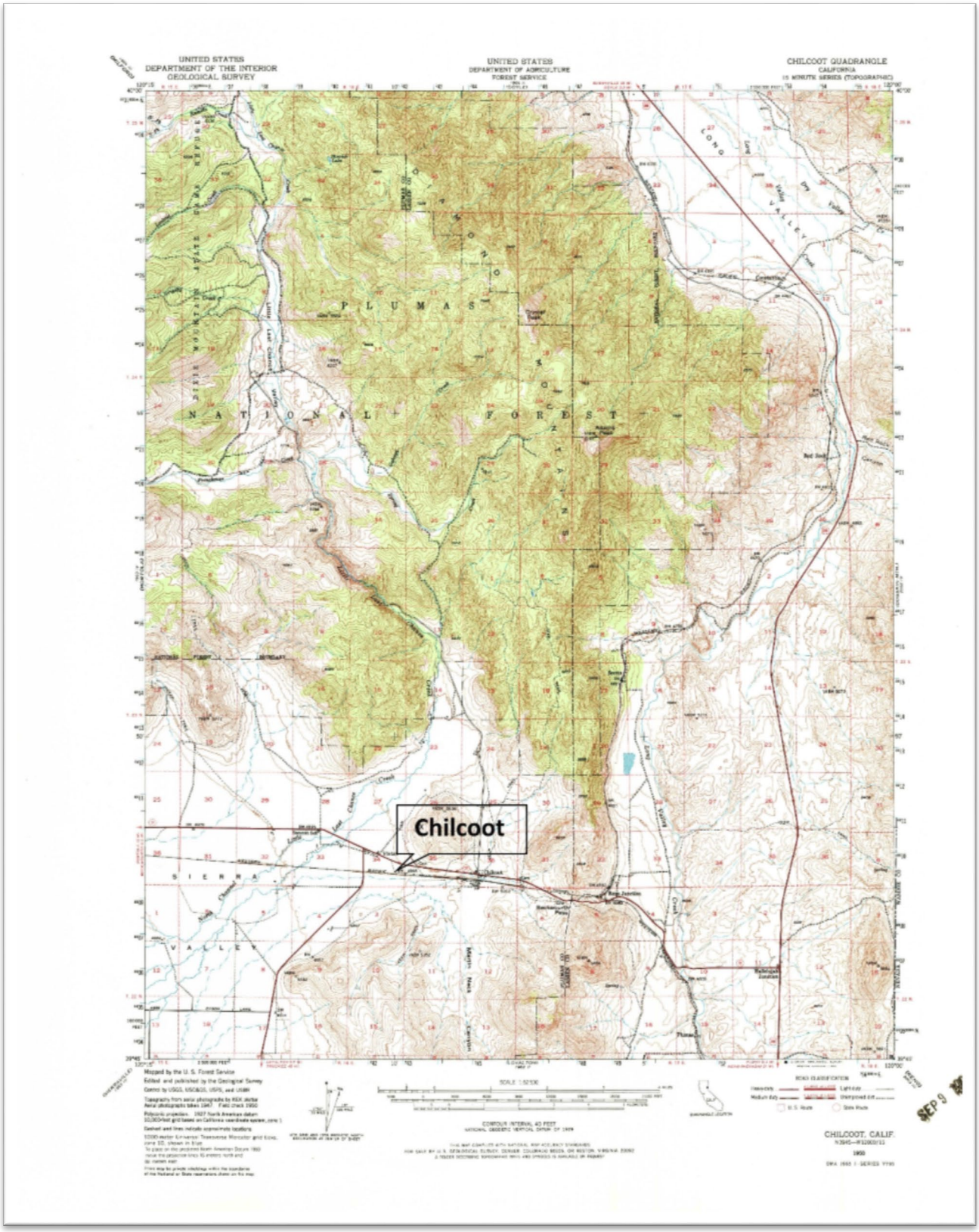


Figure 3 Proposed Solar Site shown on Chilcoot Quadrangle.

NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone: (916) 373-3710
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov

April 12, 2019

Keith S. Dunbar
K. S. Dunbar & Associates, Inc.

VIA Email to: ksdpe67@gmail.com

RE: **NCPA Solar Project 1 – Plumas-Sierra Chilcoot Site Project**, Community of Chilcoot; Chilcoot USGS Quadrangle, Plumas County, California.

Dear Mr. Dunbar:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our lists contain current information. If you have any questions or need additional information, please contact me at my email address: gayle.totton@nahc.ca.gov.

Sincerely,

Gayle Totton

Gayle Totton, B.S., M.A., Ph.D.
Associate Governmental Program Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Plumas County
4/12/2019

Estom Yumeka Maidu Tribe of the Enterprise Rancheria
Glenda Nelson, Chairperson
2133 Monte Vista Avenue — Maidu
Oroville, CA, 95966
Phone: (530) 532 - 9214
Fax: (530) 532-1768
info@enterpriserancheria.org

Greenville Rancheria of Maidu Indians
Kyle Self, Chairperson
P.O. Box 279 — Maidu
Greenville, CA, 95947
Phone: (530) 284 - 7990
Fax: (530) 284-6612
kself@greenvillerancheria.com

Mooretown Rancheria of Maidu Indians
Benjamin Clark, Chairperson
#1 Alverda Drive — KonKow
Oroville, CA, 95966 — Maidu
Phone: (530) 533 - 3625
Fax: (530) 533-3680
frontdesk@mooretown.org

Mooretown Rancheria of Maidu Indians
Guy Taylor,
#1 Alverda Drive — KonKow
Oroville, CA, 95966 — Maidu
Phone: (530) 533 - 3625

Susanville Indian Rancheria
Brandon Guitierez, Chairperson
745 Joaquin Street — Maidu
Susanville, CA, 96130 — Paiute
Phone: (530) 257 - 6264 — Pit River
Fax: (530) 257-7986 — Washoe
sirtribalchair@citlink.net

Tsi Akim Maidu
Grayson Coney, Cultural Director
P.O. Box 510 — Maidu
Browns Valley, CA, 95918
Phone: (530) 383 - 7234
tsi-akim-maidu@att.net

Washoe Tribe of Nevada and California
Darrel Cruz, Cultural Resources Department
919 Highway 395 North — Washoe
Gardnerville, NV, 89410
Phone: (775) 265 - 8600
darrel.cruz@washoetribe.us

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed NCPA Solar Project 1 - Plumas-Sierra Chilcoot Site, Plumas County.

Appendix E

AB 52 Consultation

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678

AB 52 Tribal Consultation Notification

Date:	April 12, 2019
To:	Glenda Nelson, Chairperson (info@enterpriserancheria.org)
Tribe:	Estom Yumeka Maidu Tribe of the Enterprise Rancheria
Subject:	Notification for Tribal Consultation
Project Name:	NCPA Solar Project 1 – Plumas- Sierra Chilcoot Project
Lead Agency:	Northern California Power Agency

Introduction:

The Northern California Power Agency (NCPA) is proposing the NCPA Solar Project 1 – Plumas-Sierra Chilcoot Project which may be located in a geographical area that is traditionally and culturally affiliated with the Estom Yumeka Maidu Tribe of the Enterprise Rancheria

Request for Consultation:

California law under Assembly Bill 52 (Public Resources Code §21080.3.1) now allows California Native American tribes 30 days to request consultation regarding possible significant effects that implementation of the proposed project may have on tribal cultural resources. This request must be in writing to NCPA and identify a lead contact person. NCPA will begin the consultation process within 30 days of receiving the tribes request for consultation. The consultation may include discussion concerning the type of environmental review necessary for the project, the significance of tribal cultural resources discovered, the significance of the project's impacts on tribal cultural resources, and, if necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend.

The consultation does not limit the ability of the tribe to submit information to NCPA regarding the significance of the tribal resources, the significance of the project's impact on tribal cultural resources, or any measures the tribe feels are appropriate to mitigate the potential impacts. If you wish to informally submit information, written comments may be sent to:

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE
K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
(951) 699-2082
E-Mail: ksddpe67@gmail.com

Confidential information transmitted electronically cannot be ensured. NCPA recommends that transmittal of confidential information, such as the specific location of a cultural resource, is done by formal letter, in person, or over the telephone, the tribes request to consult on the above-named project must be received no later than 30 days from the date of this notification.

Overview of the Proposed Project

The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. Burns & McDonnell was retained by NCPA to complete Phase 2 Site Screening, Plan Development, and Procurement services for each site selected by the member agencies. The Plumas-Sierra Rural Electric Cooperative selected the Chilcoot site for further analysis (Figure 1). That site is the subject of this Notification.

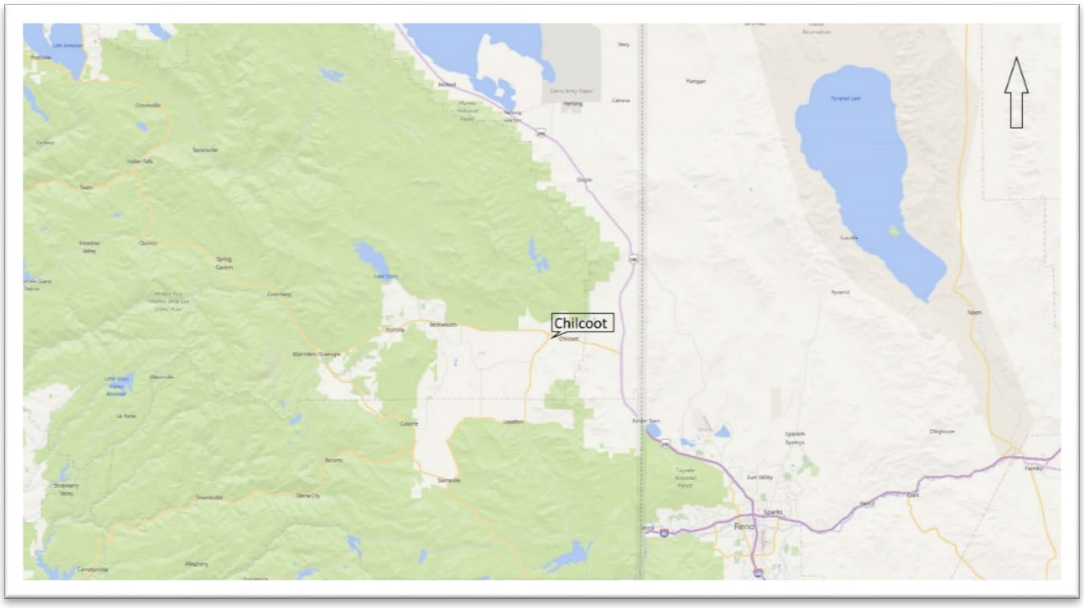


Figure 1 Plumas-Sierra Chilcoot Project Location

The Project site is located within a 36-acre vacant parcel located just south of Highway 70 east of its intersection with Highway 49. The site is bordered by Highway 70 to the north, an industrial facility to the east, Union Pacific Railroad to the south, and scattered residences to the east (Figure 2). This site would accommodate a 4.7 MW facility with a one-year output of 9,720 megawatt-hours.

Figure 2 Plumas-Sierra Chilcoot Project Site

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678

AB 52 Tribal Consultation Notification

Date:	April 12, 2019
To:	Kyle Self, Chairman (kself@greenvillerancheria.com
Tribe:	Greenville Rancheria of Maidu Indians
Subject:	Notification for Tribal Consultation
Project Name:	NCPA Solar Project 1 – Plumas- Sierra Chilcoot Project
Lead Agency:	Northern California Power Agency

Introduction:

The Northern California Power Agency (NCPA) is proposing the NCPA Solar Project 1 – Plumas-Sierra Chilcoot Project which may be located in a geographical area that is traditionally and culturally affiliated with the Greenville Rancheria of Maidu Indians.

Request for Consultation:

California law under Assembly Bill 52 (Public Resources Code §21080.3.1) now allows California Native American tribes 30 days to request consultation regarding possible significant effects that implementation of the proposed project may have on tribal cultural resources. This request must be in writing to NCPA and identify a lead contact person. NCPA will begin the consultation process within 30 days of receiving the tribes request for consultation. The consultation may include discussion concerning the type of environmental review necessary for the project, the significance of tribal cultural resources discovered, the significance of the project's impacts on tribal cultural resources, and, if necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend.

The consultation does not limit the ability of the tribe to submit information to NCPA regarding the significance of the tribal resources, the significance of the project's impact on tribal cultural resources, or any measures the tribe feels are appropriate to mitigate the potential impacts. If you wish to informally submit information, written comments may be sent to:

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE
K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
(951) 699-2082
E-Mail: ksddpe67@gmail.com

Confidential information transmitted electronically cannot be ensured. NCPA recommends that transmittal of confidential information, such as the specific location of a cultural resource, is done by formal letter, in person, or over the telephone, the tribes request to consult on the above-named project must be received no later than 30 days from the date of this notification.

Overview of the Proposed Project

The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. Burns & McDonnell was retained by NCPA to complete Phase 2 Site Screening, Plan Development, and Procurement services for each site selected by the member agencies. The Plumas-Sierra Rural Electric Cooperative selected the Chilcoot site for further analysis (Figure 1). That site is the subject of this Notification.

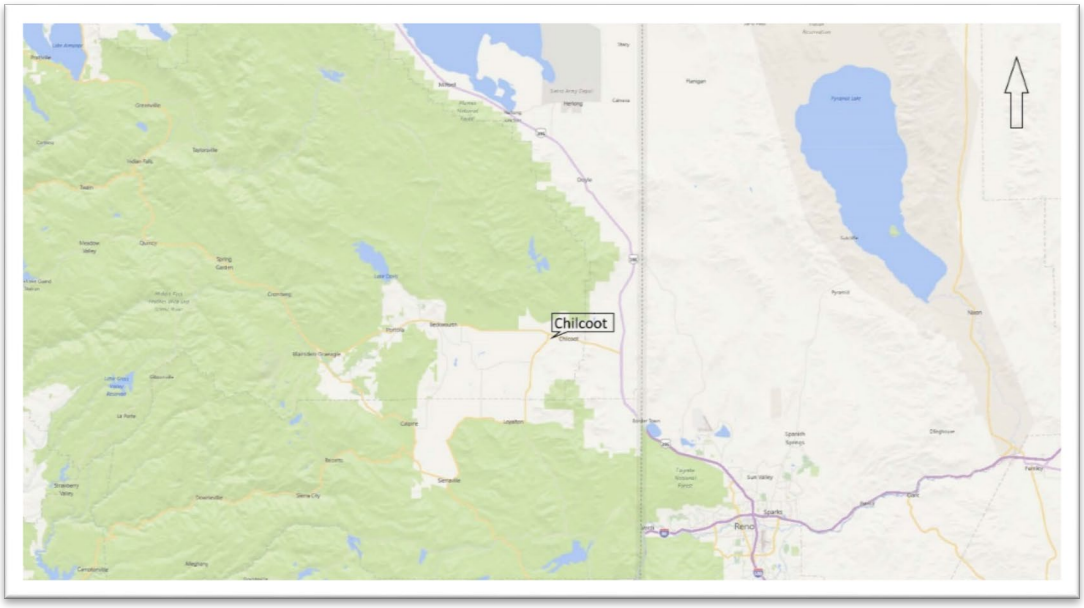


Figure 1 Plumas-Sierra Chilcoot Project Location

The Project site is located within a 36-acre vacant parcel located just south of Highway 70 east of its intersection with Highway 49. The site is bordered by Highway 70 to the north, an industrial facility to the east, Union Pacific Railroad to the south, and scattered residences to the east (Figure 2). This site would accommodate a 4.7 MW facility with a one-year output of 9,720 megawatt-hours.

Figure 2 Plumas-Sierra Chilcoot Project Site

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678

AB 52 Tribal Consultation Notification

Date:	April 12, 2019
To:	Benjamin Clarke, Chairperson (frontdesk@mooretown.org)
Tribe:	Mooretown Rancheria of Maidu Indians
Subject:	Notification for Tribal Consultation
Project Name:	NCPA Solar Project 1 – Plumas- Sierra Chilcoot Project
Lead Agency:	Northern California Power Agency

Introduction:

The Northern California Power Agency (NCPA) is proposing the NCPA Solar Project 1 – Plumas-Sierra Chilcoot Project which may be located in a geographical area that is traditionally and culturally affiliated with the Mooretown Rancheria of Maidu Indians.

Request for Consultation:

California law under Assembly Bill 52 (Public Resources Code §21080.3.1) now allows California Native American tribes 30 days to request consultation regarding possible significant effects that implementation of the proposed project may have on tribal cultural resources. This request must be in writing to NCPA and identify a lead contact person. NCPA will begin the consultation process within 30 days of receiving the tribes request for consultation. The consultation may include discussion concerning the type of environmental review necessary for the project, the significance of tribal cultural resources discovered, the significance of the project's impacts on tribal cultural resources, and, if necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend.

The consultation does not limit the ability of the tribe to submit information to NCPA regarding the significance of the tribal resources, the significance of the project's impact on tribal cultural resources, or any measures the tribe feels are appropriate to mitigate the potential impacts. If you wish to informally submit information, written comments may be sent to:

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE
K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
(951) 699-2082
E-Mail: ksddpe67@gmail.com

Confidential information transmitted electronically cannot be ensured. NCPA recommends that transmittal of confidential information, such as the specific location of a cultural resource, is done by formal letter, in person, or over the telephone, the tribes request to consult on the above-named project must be received no later than 30 days from the date of this notification.

Overview of the Proposed Project

The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. Burns & McDonnell was retained by NCPA to complete Phase 2 Site Screening, Plan Development, and Procurement services for each site selected by the member agencies. The Plumas-Sierra Rural Electric Cooperative selected the Chilcoot site for further analysis (Figure 1). That site is the subject of this Notification.

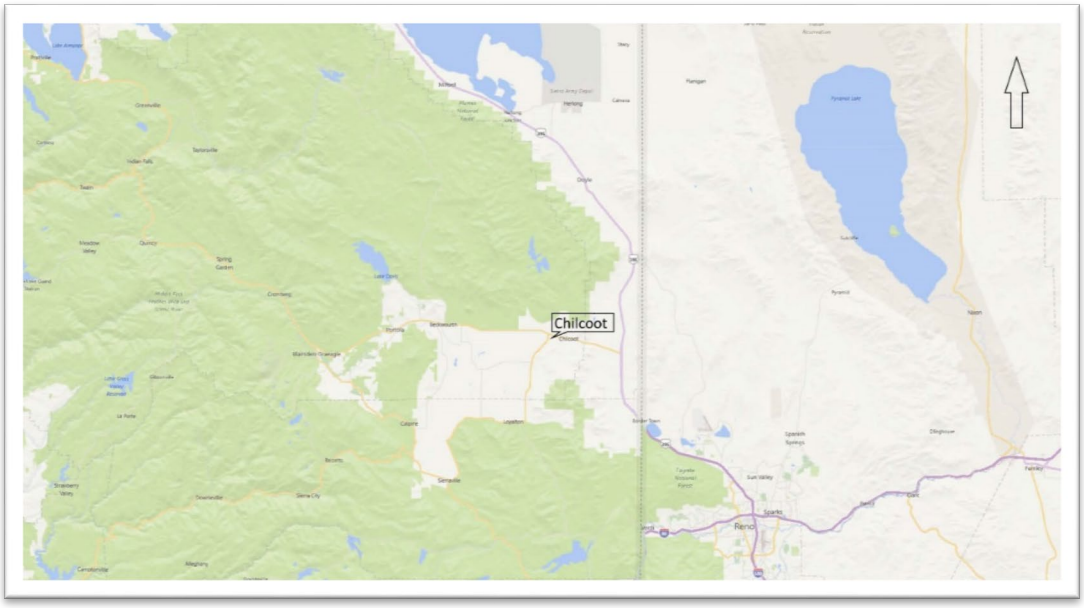


Figure 1 Plumas-Sierra Chilcoot Project Location

The Project site is located within a 36-acre vacant parcel located just south of Highway 70 east of its intersection with Highway 49. The site is bordered by Highway 70 to the north, an industrial facility to the east, Union Pacific Railroad to the south, and scattered residences to the east (Figure 2). This site would accommodate a 4.7 MW facility with a one-year output of 9,720 megawatt-hours.

Figure 2 Plumas-Sierra Chilcoot Project Site

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678

AB 52 Tribal Consultation Notification

Date:	April 12, 2019
To:	Melany Johnson, Tribal Historic Preservation Officer (mjohnson@sir-nsn.gov)
Tribe:	Susanville Indian Rancheria
Subject:	Notification for Tribal Consultation
Project Name:	NCPA Solar Project 1 – Plumas- Sierra Chilcoot Project
Lead Agency:	Northern California Power Agency

Introduction:

The Northern California Power Agency (NCPA) is proposing the NCPA Solar Project 1 – Plumas-Sierra Chilcoot Project which may be located in a geographical area that is traditionally and culturally affiliated with the Susanville Indian Rancheria.

Request for Consultation:

California law under Assembly Bill 52 (Public Resources Code §21080.3.1) now allows California Native American tribes 30 days to request consultation regarding possible significant effects that implementation of the proposed project may have on tribal cultural resources. This request must be in writing to NCPA and identify a lead contact person. NCPA will begin the consultation process within 30 days of receiving the tribes request for consultation. The consultation may include discussion concerning the type of environmental review necessary for the project, the significance of tribal cultural resources discovered, the significance of the project's impacts on tribal cultural resources, and, if necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend.

The consultation does not limit the ability of the tribe to submit information to NCPA regarding the significance of the tribal resources, the significance of the project's impact on tribal cultural resources, or any measures the tribe feels are appropriate to mitigate the potential impacts. If you wish to informally submit information, written comments may be sent to:

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE
K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
(951) 699-2082
E-Mail: ksddpe67@gmail.com

Confidential information transmitted electronically cannot be ensured. NCPA recommends that transmittal of confidential information, such as the specific location of a cultural resource, is done by formal letter, in person, or over the telephone, the tribes request to consult on the above-named project must be received no later than 30 days from the date of this notification.

Overview of the Proposed Project

The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. Burns & McDonnell was retained by NCPA to complete Phase 2 Site Screening, Plan Development, and Procurement services for each site selected by the member agencies. The Plumas-Sierra Rural Electric Cooperative selected the Chilcoot site for further analysis (Figure 1). That site is the subject of this Notification.

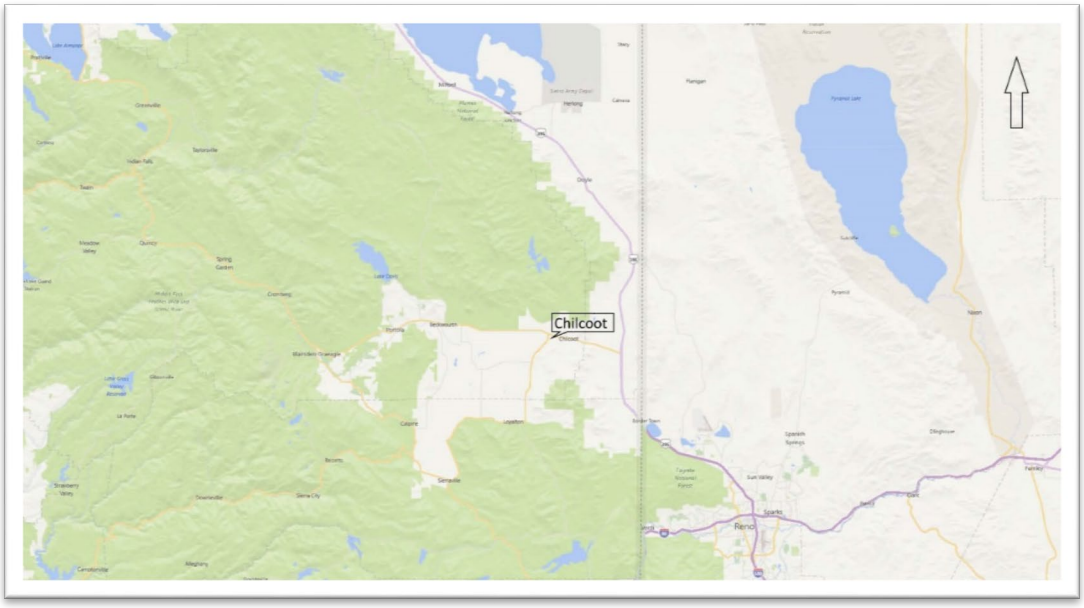


Figure 1 Plumas-Sierra Chilcoot Project Location

The Project site is located within a 36-acre vacant parcel located just south of Highway 70 east of its intersection with Highway 49. The site is bordered by Highway 70 to the north, an industrial facility to the east, Union Pacific Railroad to the south, and scattered residences to the east (Figure 2). This site would accommodate a 4.7 MW facility with a one-year output of 9,720 megawatt-hours.

Figure 2 Plumas-Sierra Chilcoot Project Site

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678

AB 52 Tribal Consultation Notification

Date:	April 12, 2019
To:	Grayson Coney, Cultural Director (tsi-akim-maidu@att.net)
Tribe:	T'SI-akim Maidu
Subject:	Notification for Tribal Consultation
Project Name:	NCPA Solar Project 1 – Plumas- Sierra Chilcoot Project
Lead Agency:	Northern California Power Agency

Introduction:

The Northern California Power Agency (NCPA) is proposing the NCPA Solar Project 1 – Plumas-Sierra Chilcoot Project which may be located in a geographical area that is traditionally and culturally affiliated with the T'SI-akim Maidu.

Request for Consultation:

California law under Assembly Bill 52 (Public Resources Code §21080.3.1) now allows California Native American tribes 30 days to request consultation regarding possible significant effects that implementation of the proposed project may have on tribal cultural resources. This request must be in writing to NCPA and identify a lead contact person. NCPA will begin the consultation process within 30 days of receiving the tribes request for consultation. The consultation may include discussion concerning the type of environmental review necessary for the project, the significance of tribal cultural resources discovered, the significance of the project's impacts on tribal cultural resources, and, if necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend.

The consultation does not limit the ability of the tribe to submit information to NCPA regarding the significance of the tribal resources, the significance of the project's impact on tribal cultural resources, or any measures the tribe feels are appropriate to mitigate the potential impacts. If you wish to informally submit information, written comments may be sent to:

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE
K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
(951) 699-2082
E-Mail: ksddpe67@gmail.com

Confidential information transmitted electronically cannot be ensured. NCPA recommends that transmittal of confidential information, such as the specific location of a cultural resource, is done by formal letter, in person, or over the telephone, the tribes request to consult on the above-named project must be received no later than 30 days from the date of this notification.

Overview of the Proposed Project

The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. Burns & McDonnell was retained by NCPA to complete Phase 2 Site Screening, Plan Development, and Procurement services for each site selected by the member agencies. The Plumas-Sierra Rural Electric Cooperative selected the Chilcoot site for further analysis (Figure 1). That site is the subject of this Notification.

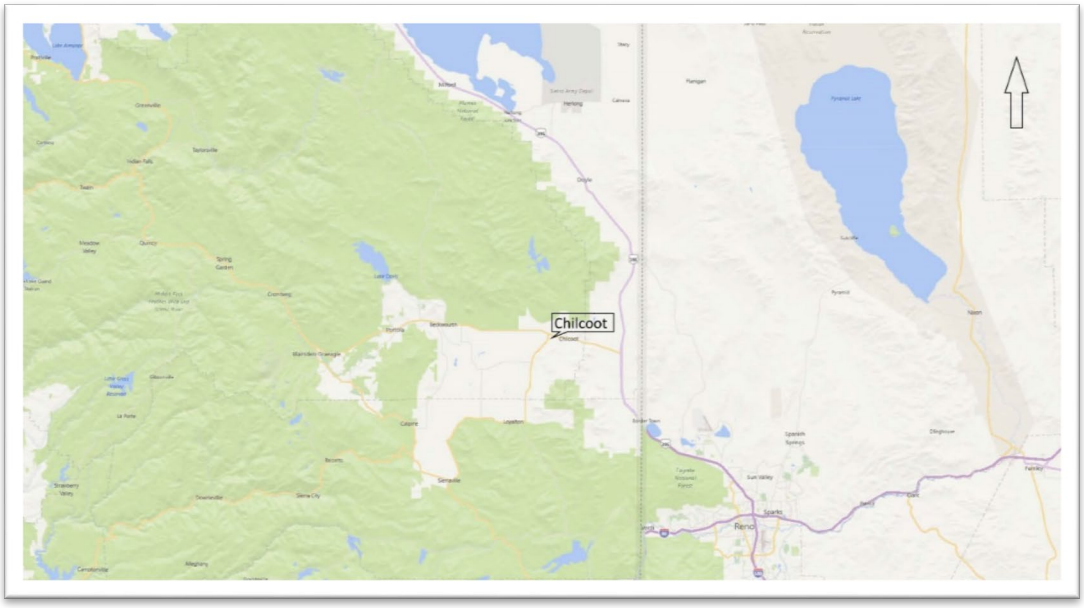


Figure 1 Plumas-Sierra Chilcoot Project Location

The Project site is located within a 36-acre vacant parcel located just south of Highway 70 east of its intersection with Highway 49. The site is bordered by Highway 70 to the north, an industrial facility to the east, Union Pacific Railroad to the south, and scattered residences to the east (Figure 2). This site would accommodate a 4.7 MW facility with a one-year output of 9,720 megawatt-hours.

Figure 2 Plumas-Sierra Chilcoot Project Site

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678

AB 52 Tribal Consultation Notification

Date:	April 12, 2019
To:	Darrel Cruz, Cultural Resources Department (darrel.cruz@washoetribe.us)
Tribe:	Washoe Tribe of Nevada and California
Subject:	Notification for Tribal Consultation
Project Name:	NCPA Solar Project 1 – Plumas- Sierra Chilcoot Project
Lead Agency:	Northern California Power Agency

Introduction:

The Northern California Power Agency (NCPA) is proposing the NCPA Solar Project 1 – Plumas-Sierra Chilcoot Project which may be located in a geographical area that is traditionally and culturally affiliated with the Washoe Tribe of Nevada and California.

Request for Consultation:

California law under Assembly Bill 52 (Public Resources Code §21080.3.1) now allows California Native American tribes 30 days to request consultation regarding possible significant effects that implementation of the proposed project may have on tribal cultural resources. This request must be in writing to NCPA and identify a lead contact person. NCPA will begin the consultation process within 30 days of receiving the tribes request for consultation. The consultation may include discussion concerning the type of environmental review necessary for the project, the significance of tribal cultural resources discovered, the significance of the project's impacts on tribal cultural resources, and, if necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend.

The consultation does not limit the ability of the tribe to submit information to NCPA regarding the significance of the tribal resources, the significance of the project's impact on tribal cultural resources, or any measures the tribe feels are appropriate to mitigate the potential impacts. If you wish to informally submit information, written comments may be sent to:

Keith S. Dunbar, P.E., BCEE, Hon.D.WRE., F. ASCE
K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
(951) 699-2082
E-Mail: ksddpe67@gmail.com

Confidential information transmitted electronically cannot be ensured. NCPA recommends that transmittal of confidential information, such as the specific location of a cultural resource, is done by formal letter, in person, or over the telephone, the tribes request to consult on the above-named project must be received no later than 30 days from the date of this notification.

Overview of the Proposed Project

The objective of the NCPA Solar Project 1 is to develop a fleet of Photovoltaic (PV) Solar Power Plants throughout participating member service territories to be completed and placed in service by the end of 2019. The plants will be managed by the Northern California Power Agency (NCPA) as a single project to be owned and operated by a third-party provider through a power purchase agreement (PPA). After the initial 5 – 7 years of operation, NCPA plans to purchase the plants.

The project will be executed in three phases:

- Phase 1 – Determine member interest and requirements and identify potential sites.
- Phase 2 – Site selection and screening, plan development and selection of a third-party provider to fulfill design, construction and operation through a PPA.
- Phase 3 – Construction and operation per the PPA.

NCPA has now completed Phase 1 and the site selection and screening portion of Phase 2. Burns & McDonnell was retained by NCPA to complete Phase 2 Site Screening, Plan Development, and Procurement services for each site selected by the member agencies. The Plumas-Sierra Rural Electric Cooperative selected the Chilcoot site for further analysis (Figure 1). That site is the subject of this Notification.

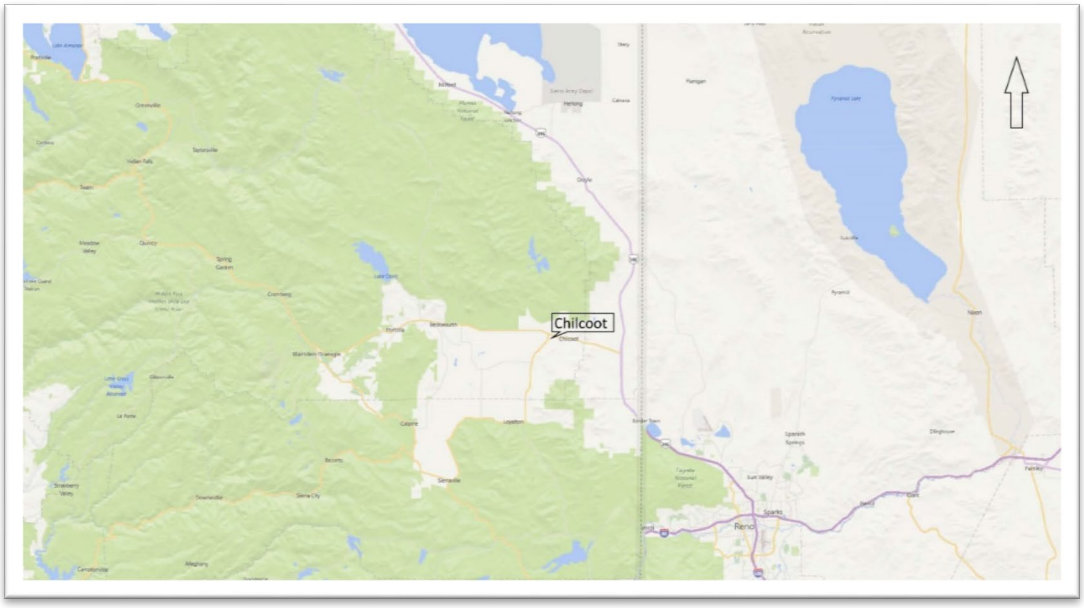


Figure 1 Plumas-Sierra Chilcoot Project Location

The Project site is located within a 36-acre vacant parcel located just south of Highway 70 east of its intersection with Highway 49. The site is bordered by Highway 70 to the north, an industrial facility to the east, Union Pacific Railroad to the south, and scattered residences to the east (Figure 2). This site would accommodate a 4.7 MW facility with a one-year output of 9,720 megawatt-hours.

Figure 2 Plumas-Sierra Chilcoot Project Site

Appendix F

MMRP

Northern California Power Agency
651 Commerce Drive
Roseville, California 95678-6420

Mitigation Monitoring & Reporting Program

NCPA Solar Project 1 – Plumas-Sierra Chilcoot Site

Photo Courtesy of SunPower Corporation

Prepared by:

K.S. Dunbar & Associates, Inc.
Environmental Engineering
45375 Vista Del Mar
Temecula, California 92590-4314
951-699-2082
Email: ksdpe67@gmail.com

April 2019

Mitigation Monitoring and Reporting Program

NCPA Solar Project – Plumas-Sierra Chilcoot Site

The California Environmental Quality Act (CEQA) requires that when a public agency completes an environmental document which includes measures to mitigate or avoid significant environmental effects, the public agency must adopt a reporting or monitoring program. This requirement ensures that environmental impacts found to be significant will be mitigated. The reporting or monitoring program must be designed to ensure compliance during project implementation (Public Resources Code Section 21081.6).

In compliance with Public Resources Code Section 21081.6, the following MITIGATION MONITORING AND REPORTING CHECKLIST has been prepared for the NCPA Solar Project 1 – Plumas-Sierra Chilcoot Site Project. This Mitigation Monitoring and Reporting Checklist is intended to provide verification that all applicable Conditions of Approval relative to significant environmental impacts are monitored and reported. Monitoring will include: 1) verification that each mitigation measure has been implemented, 2) recordation of the actions taken to implement each mitigation, and 3) retention of records in the NCPA Solar Project 1 – Plumas-Sierra Chilcoot Site Project file.

This Mitigation Monitoring and Reporting Program delineates responsibilities for monitoring the Project, but also allows the Northern California Power Agency (NCPA) flexibility and discretion in determining how best to monitor implementation. Monitoring procedures will vary according to the type of mitigation measure. Adequate monitoring consists of demonstrating that monitoring procedures took place and that mitigation measures were implemented.

Reporting consists of establishing a record that a mitigation measure is being implemented and generally involves the following steps:

- NCPA distributes reporting forms to the appropriate persons for verification of compliance.
- Departments/agencies with reporting responsibilities will review the Environmental Impact Report or Initial Study and Mitigated Negative Declaration, which provides general background information on the reasons for including specified mitigation measures.
- Problems or exceptions to compliance will be addressed to NCPA as appropriate.
- Periodic meetings may be held during project implementation to report on compliance of mitigation measures.
- Responsible parties provide NCPA with verification that monitoring has been conducted and ensure, as applicable, that mitigation measures have been implemented. Monitoring compliance may be documented through existing review and approval programs such as field inspection reports and plan review.
- NCPA or Applicant prepares a reporting form periodically during the construction phase and an annual reporting summarizing all project mitigation monitoring efforts.
- Appropriate mitigation measures will be included in construction documents and/or conditions of permits/approvals.

Minor changes to the Mitigation Monitoring and Reporting Program, if required, would be made in accordance with CEQA and would be permitted after further review and approval by NCPA. Such changes could include reassignment of monitoring and reporting responsibilities, program redesign to make any appropriate improvements, and/or modification, substitution or deletion of mitigation measures subject to conditions described in CEQA Guidelines Section 15162. No change will be permitted unless the Mitigation Monitoring and Reporting Program continues to satisfy the requirements of Public Resources Code Section 21081.6.

Mitigation Monitoring and Reporting Program Checklist

NCPA Solar Project 1 – Plumas-Sierra Chilcoot Site

Mitigation Measure	Monitoring Process	Monitoring Timing	Responsible Person(s)	Date Completed
Air Quality				
NCPA shall appoint a construction relations officer to act as a community liaison concerning on-site construction activities including resolution of issues related to PM_{10} generation. Additionally, best management practices shall be included in contract documents for this project.	Project Records.	Prior To Construction.	Project Manager.	By: Date:
Standard Construction Practices/Design Features NCPA's contract documents for this project will include the following: The contractor shall: ❖ Utilize electricity from power poles instead of from temporary diesel or gasoline power generators, when feasible. ❖ Require the use of 2010 and newer diesel haul trucks (e.g., material delivery trucks and soil import/export) and if the lead agency determines that 2010 model year or newer diesel trucks cannot be obtained the contractor shall use trucks that meet EPA 2007 model year NO_x emissions requirements. ❖ Require that all on-site construction equipment meet EPA Tier 3 or higher emissions standards according to the following: ➢ All off-road diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards, where available. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. ➢ A copy of each unit's certified tier specification, BACT documentation, and CARB or Northern Sierra AQMD operating permit shall be provided at the time of mobilization of each applicable unit of equipment. ❖ Maintain construction equipment engines by keeping them properly tuned and maintained according to manufacturer's specifications. ❖ Use alternative fuels or clean and low-sulfur fuel for equipment. ❖ Idle trucks in accordance with the Airborne Toxic Control Measure (ACTM) to Limit Diesel	Project Records.	Prior To Construction.	Project Manager.	By: Date:

Mitigation Measure	Monitoring Process	Monitoring Timing	Responsible Person(s)	Date Completed
Fueled Commercial Motor Vehicle Idling and other applicable laws. ❖ Spread soil binders on site, where appropriate. ❖ Water active construction sites at least twice daily. ❖ Sweep all streets at the end of the day if visible soil materials are carried onto adjacent public paved roads (recommend water sweeper with reclaimed water). ❖ All grading operations shall be suspended when winds (as instantaneous gusts) exceed 20 miles per hour as directed by the Northern Sierra AQMD. ❖ If necessary, wash off trucks leaving the site. ❖ Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least two feet of freeboard in accordance with the requirements of California Vehicle Code (CVC) Section 23114.				
Biological Resources				
Standard Construction Practices/Design Features NCPA's contract documents for this project will include the following: ❖ If construction occurs between February 1st and August 31st, a pre-construction clearance survey for nesting birds shall be conducted within three (3) days of the start of any vegetation removal or ground disturbing activities to ensure that no nesting birds will be disturbed during construction. The biologist conducting the clearance survey should document a negative survey with a brief letter report indicating that no impacts to active avian nests will occur. If an active avian nest is discovered during the pre-construction clearance survey, construction activities shall stay outside of a no-disturbance buffer. The size of the no-disturbance buffer (generally 300 feet for migratory and non-migratory song birds and 500 feet for raptors and special-status species) will be determined by the wildlife biologist, in coordination with the CDFW, and will depend on the level of noise and/or surrounding disturbances, line of sight between the nest and the construction activity, ambient noise, and topographical barriers. These factors will be evaluated on a case-by-case basis when developing buffer distances. Limits of construction to avoid an active nest will be established in the field with flagging, fencing, or other appropriate barriers; and construction personnel will be instructed on the sensitivity of nest areas. A biological monitor should be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged and left the nest, or the nest otherwise becomes	Project Records.	Prior To Construction.	Project Manager.	By: Date:

Mitigation Measure	Monitoring Process	Monitoring Timing	Responsible Person(s)	Date Completed
inactive under natural conditions, construction activities within the buffer area can occur.				
Cultural Resources				
Prior to the start of construction, NCPA shall hold a pre-grading meeting. The Project Archaeologist shall attend the pre-grading meeting with NCPA's Project Administrator, Field Engineering Inspector and any contractors to conduct a Cultural Resources Worker Sensitivity Training for all construction personnel working on the proposed Project. The training shall include an overview of potential cultural resources that could be encountered during ground disturbing activities; the requirements of the monitoring program; the protocols that apply in the event inadvertent discoveries of cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated, and any other appropriate protocols.	Project Records.	Prior To Construction.	Project Manager.	By: Date:
Standard Construction Practices/Design Features NCPA's contract documents for this project will include the following: ❖ In the unlikely event that potentially significant archaeological materials are encountered during construction activities, all work shall be halted in the vicinity of the archaeological discovery until a qualified archaeologist can visit the site of discovery, access the significance of the archaeological resource, and provide proper management recommendations. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted. The treatment and disposition of cultural material that might be discovered during excavation shall be in accordance with applicable laws and regulations.	Project Records.	Prior To Construction.	Project Manager.	By: Date:
❖ All sacred items, should they be encountered within the Project sites, shall be avoided and preserved as the preferred mitigation, if feasible. All cultural materials that are collected during excavation and other earth disturbing activities on the Project sites, with the exception of sacred items, burial goods and human remains which will be addressed in any required Treatment Agreement, shall be tribally curated according to the current repository standards. The collections and associated records shall be transferred, including title, to the closet tribe to the Project site.				
❖ In the event of an accidental discovery or recognition of any human remains, the County Coroner shall be notified and construction activities at the affected work site shall be halted. If the coroner determines the remains to be Native American: (1) the coroner shall contact the Native American Heritage Commission (NAHC) within 24-hours, and (2) the NAHC shall identify the person or persons it believes to be the most likely descended from the deceased Native American. The treatment and disposition of human remains that might be discovered during excavation shall be in accordance with applicable laws and regulations.				

Mitigation Measure	Monitoring Process	Monitoring Timing	Responsible Person(s)	Date Completed
Geology and Soils				
Standard Construction Practices/Design Features NCPA's contract documents for this project will include the following: ❖ In the unlikely event that potentially significant paleontological materials (e.g., fossils) are encountered during construction of the project, all work shall be halted in the vicinity of the paleontological discovery until a qualified paleontologist can visit the site of discovery, assess the significance of the paleontological resource, and provide proper management recommendations. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted. The treatment and disposition of paleontological material that might be discovered during excavation shall be in accordance with applicable laws and regulations.	Project Records	Prior to Construction	Project Manager	By: Date:
Hazards and Hazardous Materials				
Standard Construction Practices/Design Features NCPA's contract documents for this project will include the following: ❖ During project construction, the construction contractor shall implement the following measures to address the potential environmental constraints associated with the presence of hazardous materials at the project sites to the satisfaction of NCPA: ✓ The contractor shall prepare a Health and Safety Plan in compliance with the requirements of Chapter 6.95, Division 20 of the Health and Safety Code (§25500 – 25532). The plan shall include measures to be taken in the event of an accidental spill. ✓ The contractor shall enforce strict on-site handling rules to keep construction and maintenance materials out of receiving waters and storm drains. In addition, the contractor shall store all reserve fuel supplies only within the confines of designated construction staging areas; refuel equipment only with the designated construction staging areas; and regularly inspect all construction equipment for leaks. ✓ The construction staging area shall be designed to contain contaminants such as oil, grease, and fuel products to ensure that they do not drain towards receiving waters or storm drain inlets.	Project Records.	Prior To Construction.	Project Manager.	By: Date:
Hydrology and Water Quality				
Standard Construction Practices/Design Features All site grading and excavation activities associated with the construction of the Project facilities would be subject to the provisions of the National Pollutant Discharge Elimination System (NPDES) Construction Permit for Storm Water Discharges Associated with Construction	Project Records.	Prior To Construction.	Project Manager.	By: Date:

and Land Disturbance Activities [NPDES No. CAS000002 (State Water Resources Control Board Order No. 2009-0009-DWQ)]. Compliance with the provisions of that Order would require NCPA to obtain coverage before the onset of construction activities. Construction activities would comply with the conditions of these permits that include preparation of storm water pollution prevention plans (SWPPP), implementation of BMP's, and monitoring to insure impacts to water quality are minimized. As part of this process, multiple BMP's should be implemented to provide effective erosion and sediment control. These BMP's should be selected to achieve maximum sediment removal and represent the best available technology that is economically achievable. BMP's to be implemented may include, but not be limited to, the following: ✓ Temporary erosion control measures such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, and temporary revegetation or other groundcover shall be employed for disturbed areas. ✓ Storm drain inlets on the site and in downstream offsite areas shall be protected from sediment with the use of BMP's acceptable to NCPA, local jurisdictions and the California Regional Water Quality Control Board, Central Valley Region. ✓ Dirt and debris shall be swept from paved streets in the construction zone on a regular basis, particularly before predicted rainfall events. ✓ No disturbed surfaces shall be left without erosion control measures in place. NCPA, or its Construction Contractor, shall file a Notice of Intent with the Regional Board and require the preparation of a pollution prevention plan prior to commencement of construction. NCPA shall routinely inspect the construction site to verify that the BMP's specified in the pollution prevention plan are properly installed and maintained. NCPA shall immediately notify the contractor if there were a noncompliance issue and require immediate compliance. The SWPPP will also identify the method of final stabilization of the site to ensure no post-construction erosion and impacts to water quality will occur. The Notice of Termination (NOT) and release of the Project from the provisions of the Construction General Permit coverage will be granted by the California Regional Water Quality Control Board, Central Valley Region once it is satisfied that no impacts to water quality will occur.				
Noise				
NCPA shall appoint a construction relations officer to act as a community liaison concerning on-site construction activities. Prior to ground disturbing activities NCPA shall notify adjoining property owners of the potential for ground vibration impacts.	Project Records.	Prior to Construction.	Project Manager.	By: Date