



Referral Early Consultation

Date: April 1, 2021

To: Distribution List (See Attachment A)

From: Kristen Anaya, Assistant Planner
Planning and Community Development

Subject: USE PERMIT & WILLIAMSON ACT CANCELLATION APPLICATION NO. PLN2020-0117 – HYDASPES SOLAR FACILITY – W HWY 5

Respond By: April 16, 2021

******PLEASE REVIEW REFERRAL PROCESS POLICY******

The Stanislaus County Department of Planning and Community Development is soliciting comments from responsible agencies under the Early Consultation process to determine: a) whether or not the project is subject to CEQA and b) if specific conditions should be placed upon project approval.

Therefore, please contact this office by the response date if you have any comments pertaining to the proposal. Comments made identifying potential impacts should be as specific as possible and should be based on supporting data (e.g., traffic counts, expected pollutant levels, etc.). Your comments should emphasize potential impacts in areas which your agency has expertise and/or jurisdictional responsibilities.

These comments will assist our Department in preparing a staff report to present to the Planning Commission. Those reports will contain our recommendations for approval or denial. They will also contain recommended conditions to be required should the project be approved. Therefore, please list any conditions that you wish to have included for presentation to the Commission as well as any other comments you may have. Please return all comments and/or conditions as soon as possible or no later than the response date referenced above.

Thank you for your cooperation. Please call (209) 525-6330 if you have any questions.

Applicant: Adapture Renewables, Inc.

Project Location: 5925 Sullivan Road, west of Interstate Highway 5 and the California Aqueduct, in the Newman area.

APN: 028-015-002

Williamson Act Contract: 71-409

General Plan: Agriculture

Current Zoning: A-2-40 (General Agriculture)

Project Description: Request to establish a photovoltaic (PV) solar energy farm creating an aggregate peak power capacity of 40 megawatts (MW) of electricity on a 314± acre parcel in the A-2-40 (General Agriculture) zoning district. The project will consist of a collector substation enclosed within a 16,500 square-foot compound, a battery energy storage system (BESS) with a 40 megawatt (MW) backup capacity for the electric grid, an underground 34.5kV electrical collector system and inverters, a generation tie-line route which will run north and interconnect to the existing Sullivan Solar Project (UP WA-CAN PLN2015-0081) generation tie-line, and an operations & maintenance building. Construction will occur over 7-10 months with 3-4 temporary staging areas used for parking and material storage over the course of the construction process. The applicant anticipates up to 4-5 employees on a maximum shift, and one on a minimum shift during operation, manning the maintenance & operation building during daylight hours. The application materials indicate that

on-site well water will be utilized during construction as needed, and water sourced from the Del Puerto Water District will be trucked in to serve the site during operation. No method of wastewater management has been indicated; however, the project will be conditioned requiring the provision of restrooms for the on-site employees. The facility will be surrounded by a seven-foot-tall perimeter chain-link fence and will take access onto a privately-maintained portion of Sullivan Road via two gated driveways. The property is enrolled in an active Williamson Act Contract; however, because this request is for a Tier 3 Use Permit which prohibits the project site from being enrolled in a contract, a Williamson Act Cancellation for the 300± acres is included as part of this request. Under the proposed lease agreement and will operate for approximately 35 years; after which, the project site will be decommissioned and returned to agricultural use.

Full document with attachments available for viewing at:
<http://www.stancounty.com/planning/pl/act-projects.shtm>



DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

1010 10TH Street, Suite 3400, Modesto, CA 95354
 Planning Phone: (209) 525-6330 Fax: (209) 525-5911
 Building Phone: (209) 525-6557 Fax: (209) 525-7759

USE PERMIT & WILLIAMSON ACT CANCELLATION APPLICATION NO. PLN2020-0117 – HYDASPES SOLAR FACILITY – W HWY 5

Attachment A
 Distribution List

X	CA DEPT OF CONSERVATION Land Resources		STAN CO ALUC
X	CA DEPT OF FISH & WILDLIFE		STAN CO ANIMAL SERVICES
X	CA DEPT OF FORESTRY (CAL FIRE)	X	STAN CO BUILDING PERMITS DIVISION
X	CA DEPT OF TRANSPORTATION DIST 10		STAN CO CEO
X	CA OPR STATE CLEARINGHOUSE		STAN CO CSA
X	CA RWQCB CENTRAL VALLEY REGION	X	STAN CO DER
	CA STATE LANDS COMMISSION	X	STAN CO ERC
X	CEMETERY DISTRICT: HILLS FERRY	X	STAN CO FARM BUREAU
	CENTRAL VALLEY FLOOD PROTECTION	X	STAN CO HAZARDOUS MATERIALS
	CITY OF:		STAN CO PARKS & RECREATION
	COMMUNITY SERVICES DIST:	X	STAN CO PUBLIC WORKS
	COOPERATIVE EXTENSION		STAN CO RISK MANAGEMENT
X	COUNTY OF: MERCED	X	STAN CO SHERIFF
X	DER GROUNDWATER RESOURCES DIVISION	X	STAN CO SUPERVISOR DIST 5: CONDIT
X	FIRE PROTECTION DIST: WEST STAN	X	STAN COUNTY COUNSEL
X	GSA: NORTHWESTERN DELTA- MENDOTA		StanCOG
X	HOSPITAL DIST: WEST SIDE COMMUNITY HEALTHCARE	X	STANISLAUS FIRE PREVENTION BUREAU
X	IRRIGATION DIST: DEL PUERTO	X	STANISLAUS LAFCO
X	MOSQUITO DIST: TURLOCK	X	STATE OF CA SWRCB DIVISION OF DRINKING WATER DIST. 10
	MOUNTAIN VALLEY EMERGENCY MEDICAL SERVICES		SURROUNDING LAND OWNERS
	MUNICIPAL ADVISORY COUNCIL:	X	TELEPHONE COMPANY: AT&T
X	PACIFIC GAS & ELECTRIC	X	TRIBAL CONTACTS
	POSTMASTER:		US ARMY CORPS OF ENGINEERS
	RAILROAD:	X	US FISH & WILDLIFE
X	SAN JOAQUIN VALLEY APCD		US MILITARY (SB 1462) (7 agencies)
X	SCHOOL DIST 1: NEWMAN-CROWS LANDING UNIFIED	X	USDA NRCS
	SCHOOL DIST 2:		WATER DIST:
	WORKFORCE DEVELOPMENT	X	CA PUBLIC UTILITIES COMMISSION
X	STAN CO AG COMMISSIONER	X	SAN FRANCISCO PUBLIC UTILITIES COMMISSION
	TUOLUMNE RIVER TRUST		



STANISLAUS COUNTY CEQA REFERRAL RESPONSE FORM

TO: Stanislaus County Planning & Community Development
1010 10th Street, Suite 3400
Modesto, CA 95354

FROM: _____

SUBJECT: USE PERMIT & WILLIAMSON ACT CANCELLATION APPLICATION NO.
PLN2020-0117 – HYDASPES SOLAR FACILITY – W HWY 5

Based on this agency’s particular field(s) of expertise, it is our position the above described project:

- _____ Will not have a significant effect on the environment.
- _____ May have a significant effect on the environment.
- _____ No Comments.

Listed below are specific impacts which support our determination (e.g., traffic general, carrying capacity, soil types, air quality, etc.) – (attach additional sheet if necessary)

- 1.
- 2.
- 3.
- 4.

Listed below are possible mitigation measures for the above-listed impacts: *PLEASE BE SURE TO INCLUDE WHEN THE MITIGATION OR CONDITION NEEDS TO BE IMPLEMENTED (PRIOR TO RECORDING A MAP, PRIOR TO ISSUANCE OF A BUILDING PERMIT, ETC.):*

- 1.
- 2.
- 3.
- 4.

In addition, our agency has the following comments (attach additional sheets if necessary).






Response prepared by:

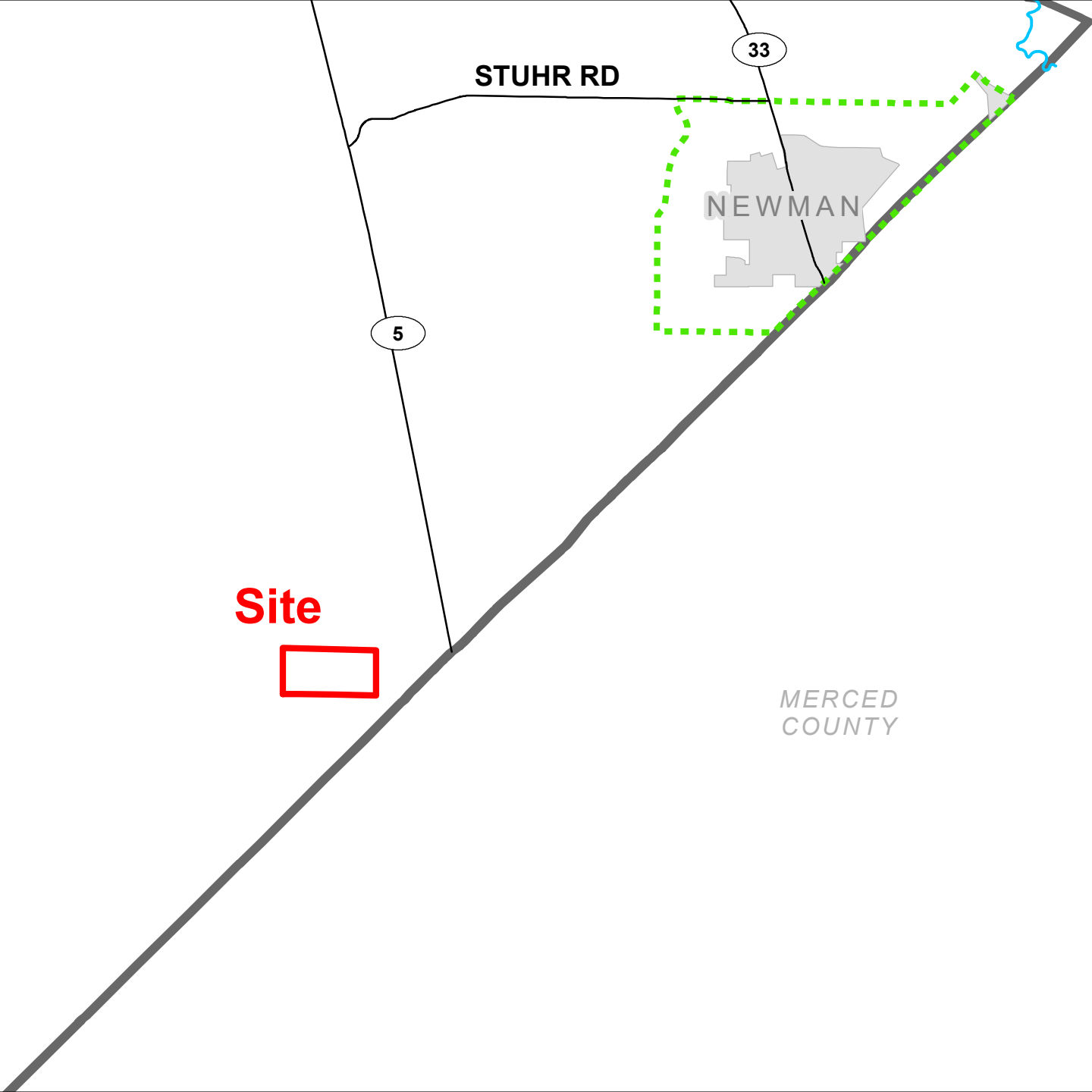
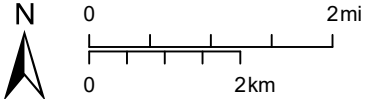
Name	Title	Date
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HYDASPES SOLAR FACILITY UP PLN2020-0117

AREA MAP







LEGEND

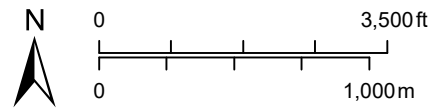
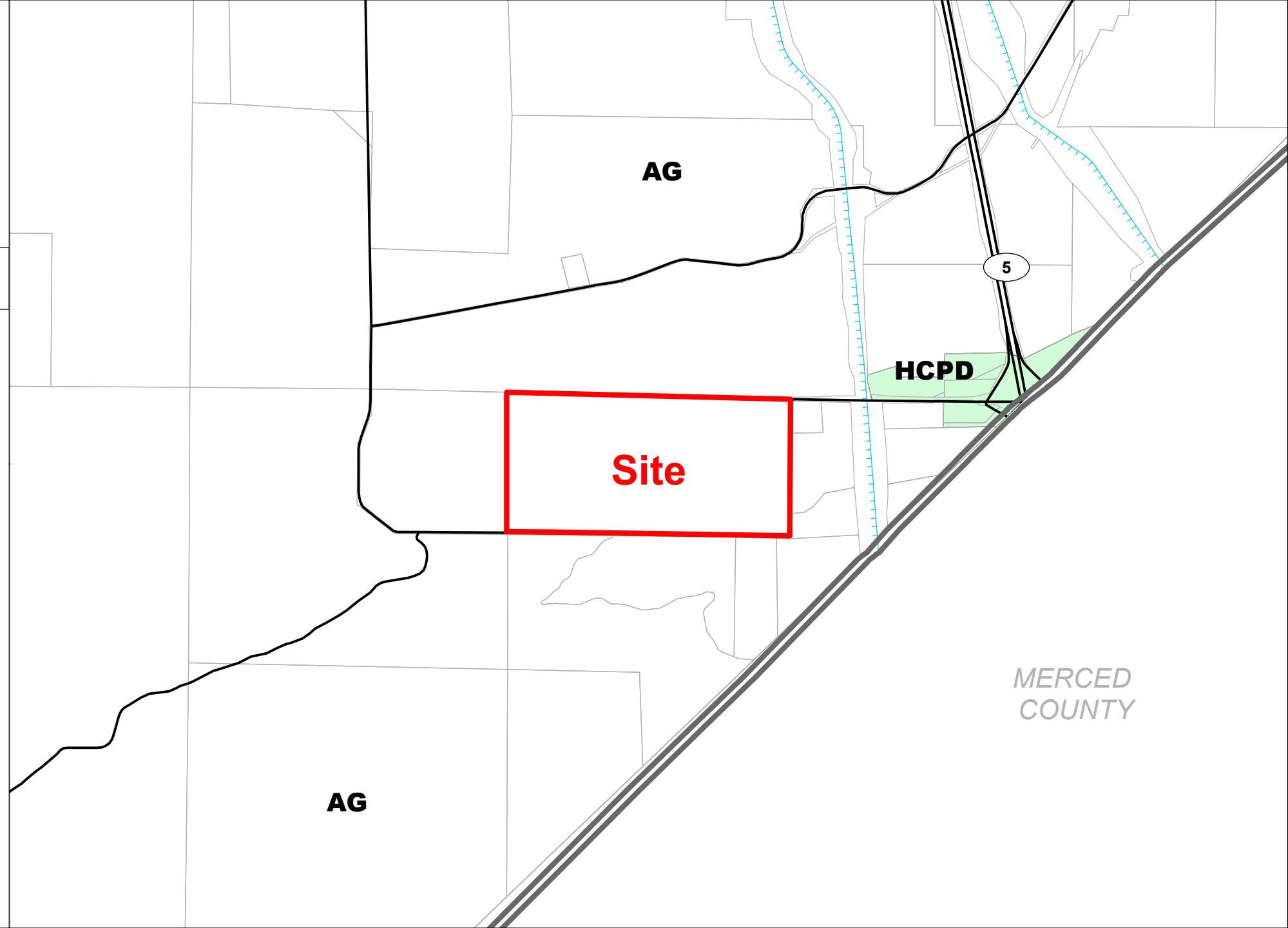
-  Project Site
-  Sphere of Influence
-  City
-  Road
-  River



HYDASPES SOLAR FACILITY UP PLN2020-0117

GENERAL PLAN MAP

- LEGEND**
-  Project Site
 -  Parcel
 -  Road
 -  Canal
- General Plan**
-  Agriculture
 -  Highway Commercial Planned Development



HYDASPES SOLAR FACILITY UP PLN2020-0117

ZONING MAP

LEGEND

 Project Site

 Parcel

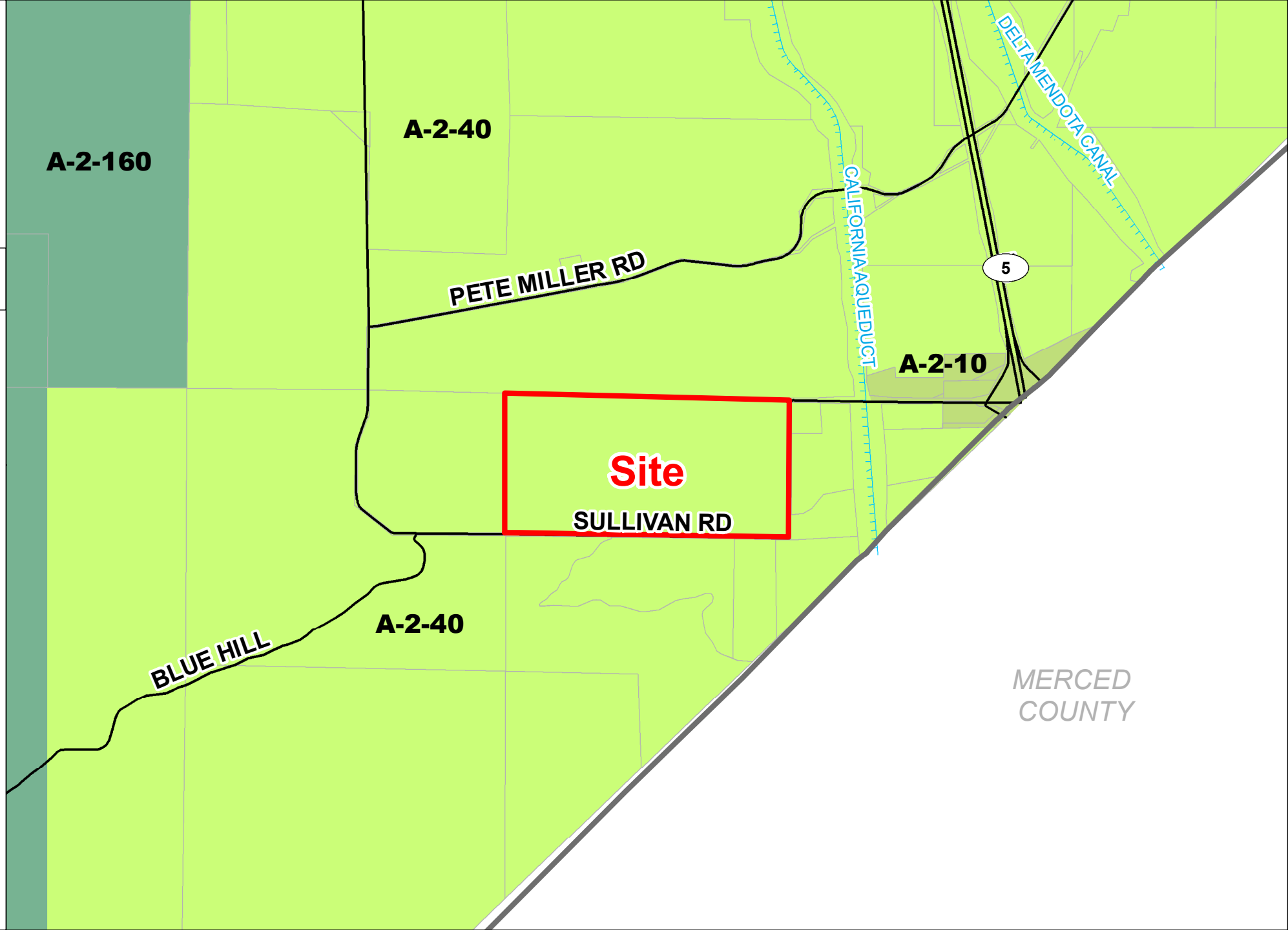
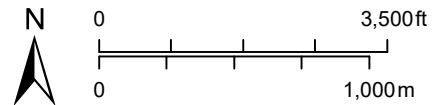
 Road  Canal

Zoning Designation

 General Agriculture 160 Acre




 General Agriculture 10 Acre

 General Agriculture 40 Acre



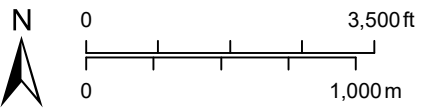
**HYDASPES
SOLAR
FACILITY
UP
PLN2020-0117**

2017 AERIAL AREA MAP

- LEGEND
-  Project Site
 -  Road
 -  Canal





MERCED
COUNTY

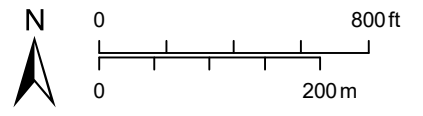
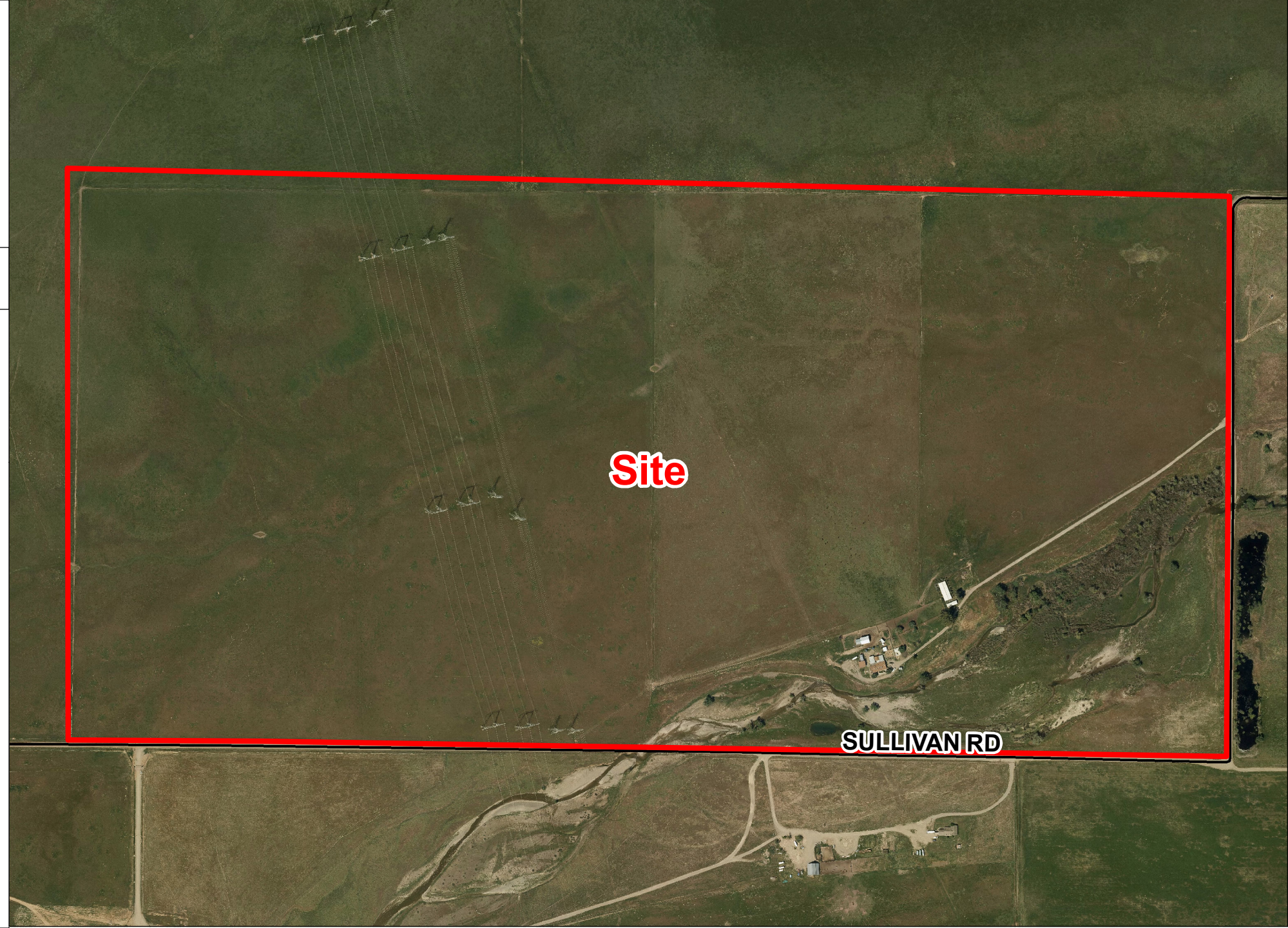


**HYDASPES
SOLAR
FACILITY**
UP
PLN2020-0117

2017 AERIAL SITE MAP

LEGEND

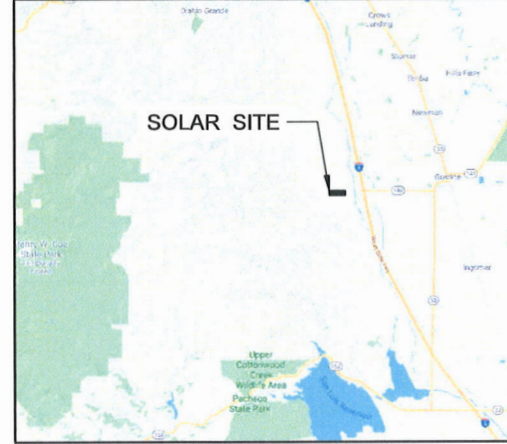
-  Project Site
-  Road



HYDASPES SOLAR

OVERALL SITE PLAN

VICINITY MAP



PROJECT INFORMATION

SITE INFORMATION	
PROJECT AREA	257.25 ACRES
FENCE HEIGHT	7 FT
FENCE PERIMETER	14,614 LINEAR FEET
SYSTEM INFORMATION	
SYSTEM SIZE	55.06 MW DC (40.56 MW AC)
MODULES	370 & 520 W
MODULE QTY.	114,521
INVERTERS	39 QTY (GROUPS OF 3, 4 & 5)
STRUCTURAL INFORMATION	
RACKING	2-IN-PORTRAIT SINGLE AXIS TRACKER
CONFIGURATION	116, 87 & 58 MODULES PER TABLE
ROW SPACING (PITCH)	32' & 34'
GROUND COVERAGE RATIO	40% - 45%

- NOTE:**
- FENCE IS LOCATED ON THE WESTERN SIDE OF ROAD ROW. FENCE IS 20FT OFF THE CL OF THE ROAD ROW. MODULES ARE AT A MIN 20 FT OFF THE FENCE. MAKING MODULES MIN 40FT OF CL OF ROAD ROW
 - CURRENTLY NO EASEMENT FOR AT&T LINE (NE SECTION). WILL BE REQUESTING AT&T TO MOVE PHONE LINES OUTSIDE OF PROPERTY BOUNDARY.

REV	DESCRIPTION	DATE
0	CUP LAYOUT	09/21/20
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

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 Oakland, CA 94612, USA

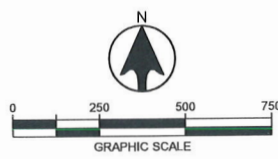
PROJECT NAME:
HYDASPES SOLAR

PROJECT ADDRESS:
**5925 SULLIVAN RD.
 GUSTINE, CA 95322
 37.243, -121.114**

SEAL:	DATE: 09/21/2020
	PROJECT #: ---
	DRAWN BY: IS
	CHECKED BY: ZZ

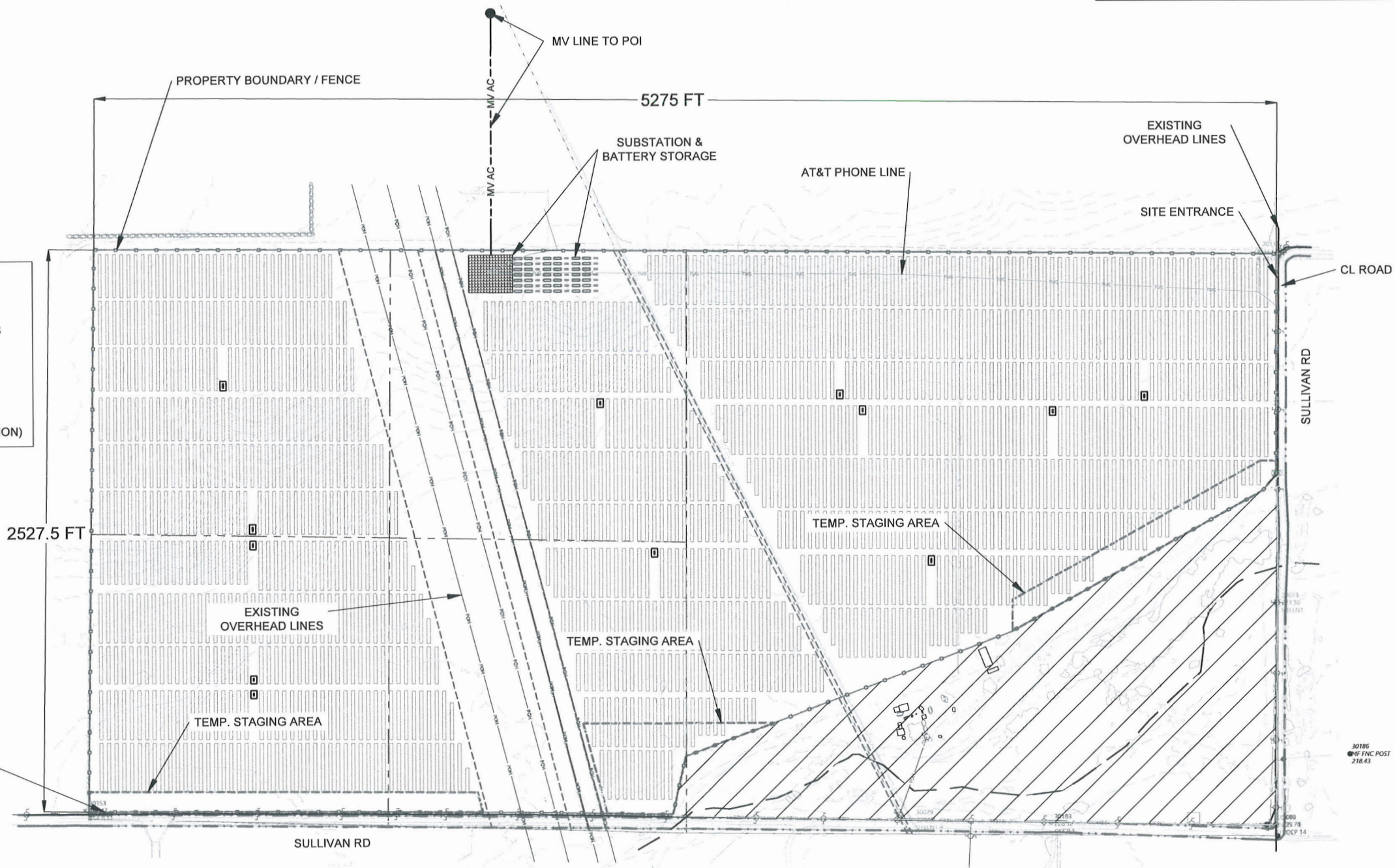
TITLE:
OVERALL SITE PLAN

SHEET:
E-100



LEGEND

	LANDOWNER CONSTRAINTS
	CA AWARENESS FLOOD PLAINS
	EXISTING OVERHEAD LINES
	PROPOSED STAGING AREA
	AT&T PHONE LINE
	POI (POINT OF INTERCONNECTION)



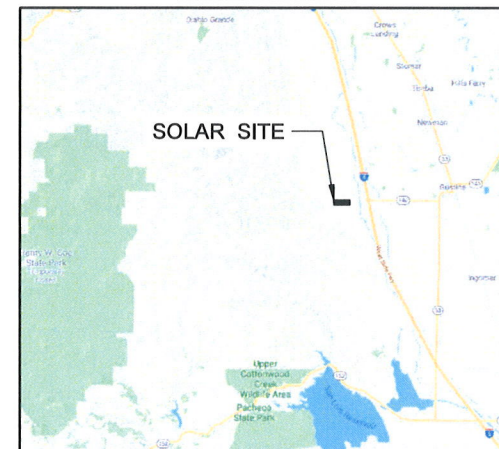
1 SITE OVERVIEW

1" = 250'

HYDASPES SOLAR

OVERALL SITE PLAN

VICINITY MAP



PROJECT INFORMATION

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-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

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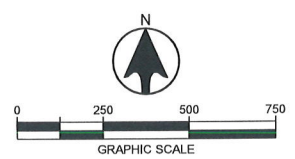
PROJECT NAME:
HYDASPES SOLAR

PROJECT ADDRESS:
**5925 SULLIVAN RD.
 GUSTINE, CA 95322
 37.243, -121.114**

SEAL: _____ DATE: 09/21/2020
 PROJECT #: _____
 DRAWN BY: IS
 CHECKED BY: ZZ

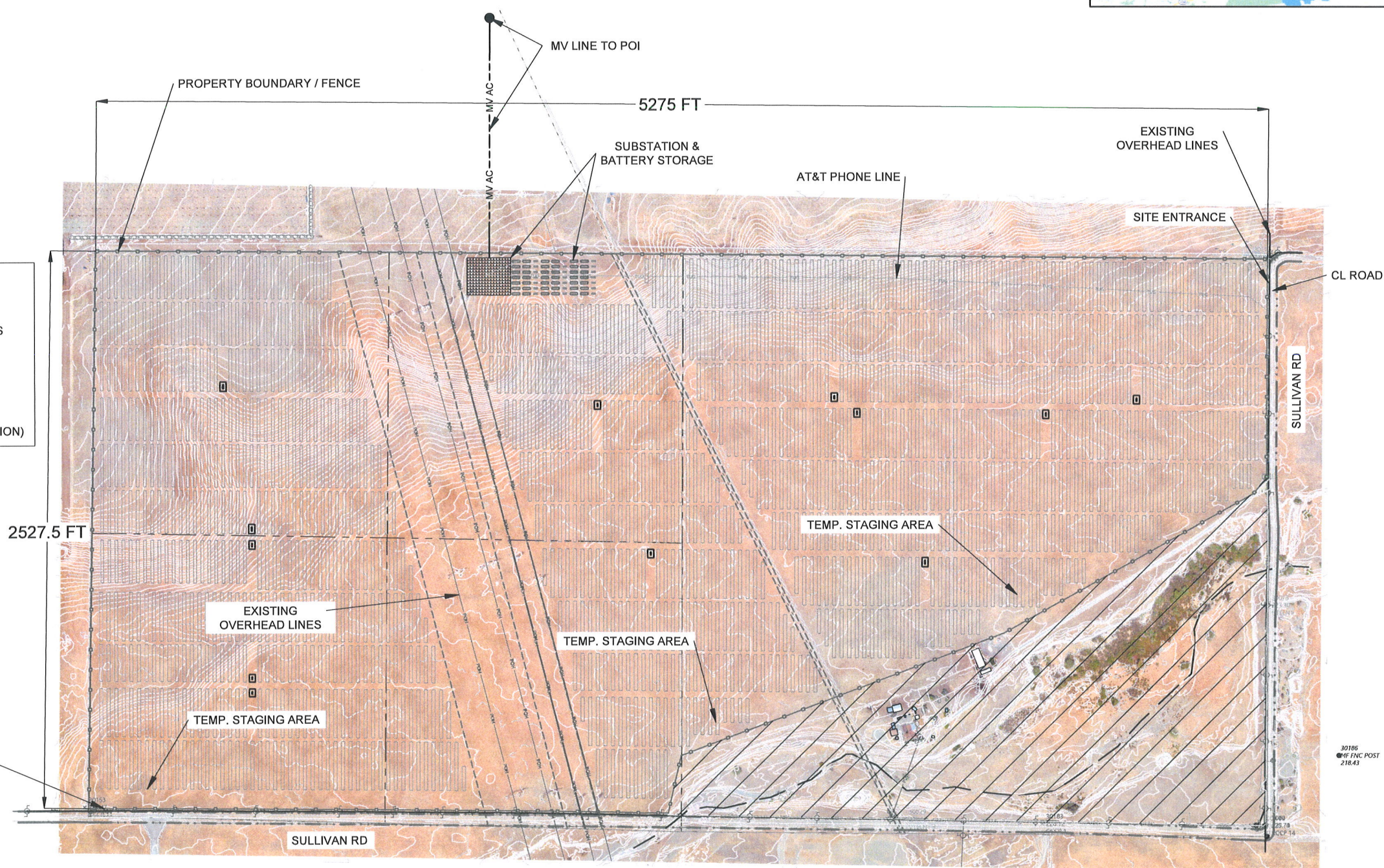
TITLE:
OVERALL SITE PLAN

SHEET:
E-100



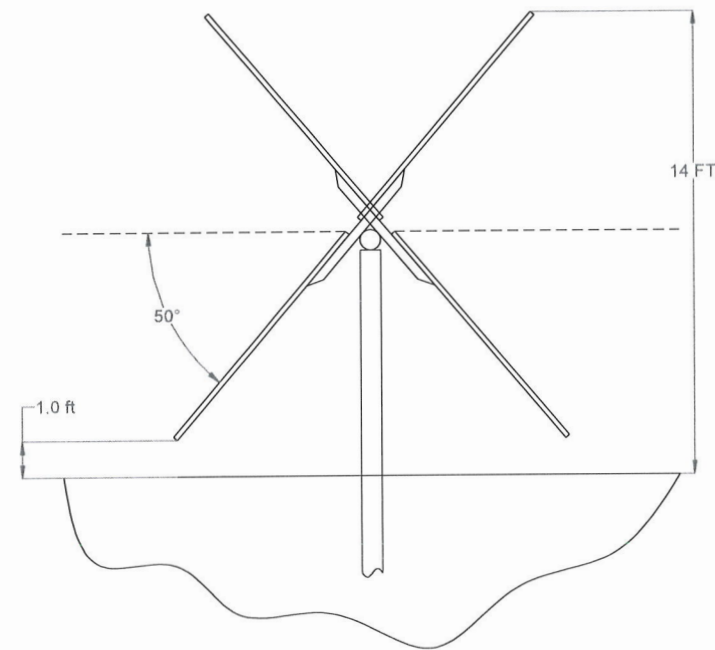
LEGEND

- LANDOWNER CONSTRAINTS
- CA AWARENESS FLOOD PLAINS
- EXISTING OVERHEAD LINES
- PROPOSED STAGING AREA
- AT&T PHONE LINE
- POI (POINT OF INTERCONNECTION)

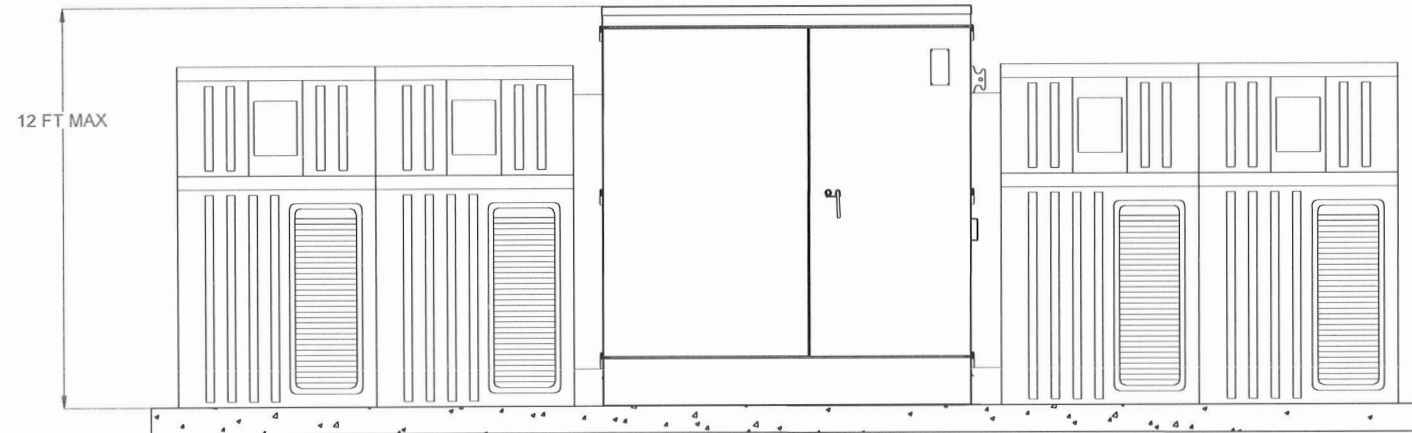


1 SITE OVERVIEW

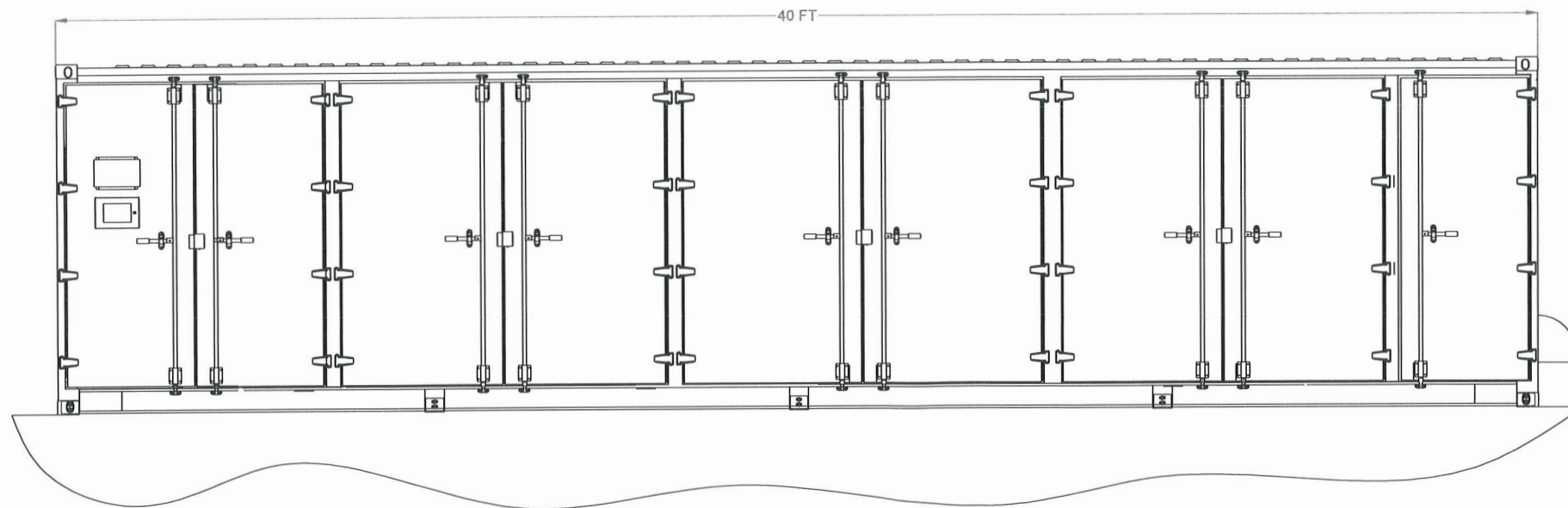
1" = 250'



1 TRACKER PROFILE



2 TYP. EQUIPMENT PAD PROFILE



3 TYP. BATTERY CONTAINER (40' X 8')

REV	DESCRIPTION	DATE
0	CUP LAYOUT	09/21/20
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

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	PROJECT #:
	DRAWN BY: IS
	CHECKED BY: ZZ

TITLE:
 DETAILS - GENERAL

SHEET:
 E-101



APPLICATION QUESTIONNAIRE

<p><u>Please Check all applicable boxes</u> APPLICATION FOR: <i>Staff is available to assist you with determining which applications are necessary</i></p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top; padding: 2px;"><input type="checkbox"/> General Plan Amendment</td> <td style="width: 50%; vertical-align: top; padding: 2px;"><input type="checkbox"/> Subdivision Map</td> </tr> <tr> <td style="vertical-align: top; padding: 2px;"><input type="checkbox"/> Rezone</td> <td style="vertical-align: top; padding: 2px;"><input type="checkbox"/> Parcel Map</td> </tr> <tr> <td style="vertical-align: top; padding: 2px;"><input checked="" type="checkbox"/> Use Permit</td> <td style="vertical-align: top; padding: 2px;"><input type="checkbox"/> Exception</td> </tr> <tr> <td style="vertical-align: top; padding: 2px;"><input type="checkbox"/> Variance</td> <td style="vertical-align: top; padding: 2px;"><input checked="" type="checkbox"/> Williamson Act Cancellation</td> </tr> <tr> <td style="vertical-align: top; padding: 2px;"><input type="checkbox"/> Historic Site Permit</td> <td style="vertical-align: top; padding: 2px;"><input type="checkbox"/> Other _____</td> </tr> </table>	<input type="checkbox"/> General Plan Amendment	<input type="checkbox"/> Subdivision Map	<input type="checkbox"/> Rezone	<input type="checkbox"/> Parcel Map	<input checked="" type="checkbox"/> Use Permit	<input type="checkbox"/> Exception	<input type="checkbox"/> Variance	<input checked="" type="checkbox"/> Williamson Act Cancellation	<input type="checkbox"/> Historic Site Permit	<input type="checkbox"/> Other _____	<p>PLANNING STAFF USE ONLY:</p> <p>Application No(s): _____</p> <p>Date: _____</p> <p>S _____ T _____ R _____</p> <p>GP Designation: _____</p> <p>Zoning: _____</p> <p>Fee: _____</p> <p>Receipt No. _____</p> <p>Received By: _____</p> <p>Notes: _____</p>
<input type="checkbox"/> General Plan Amendment	<input type="checkbox"/> Subdivision Map										
<input type="checkbox"/> Rezone	<input type="checkbox"/> Parcel Map										
<input checked="" type="checkbox"/> Use Permit	<input type="checkbox"/> Exception										
<input type="checkbox"/> Variance	<input checked="" type="checkbox"/> Williamson Act Cancellation										
<input type="checkbox"/> Historic Site Permit	<input type="checkbox"/> Other _____										

In order for your application to be considered COMPLETE, please answer all applicable questions on the following pages, and provide all applicable information listed on the checklist on pages i – v. Under State law, upon receipt of this application, staff has 30 days to determine if the application is complete. We typically do not take the full 30 days. It may be necessary for you to provide additional information and/or meet with staff to discuss the application. Pre-application meetings are not required, but are highly recommended. An incomplete application will be placed on hold until all the necessary information is provided to the satisfaction of the requesting agency. An application will not be accepted without all the information identified on the checklist.

Please contact staff at (209) 525-6330 to discuss any questions you may have. Staff will attempt to help you in any way we can.

PROJECT INFORMATION

PROJECT DESCRIPTION: (Describe the project in detail, including physical features of the site, proposed improvements, proposed uses or business, operating hours, number of employees, anticipated customers, etc. – Attach additional sheets as necessary)

***Please note:** A detailed project description is essential to the reviewing process of this request. In order to approve a project, the Planning Commission or the Board of Supervisors must decide whether there is enough information available to be able to make very specific statements about the project. These statements are called "Findings". It is your responsibility as an applicant to provide enough information about the proposed project, so that staff can recommend that the Commission or the Board make the required Findings. Specific project Findings are shown on pages 17 – 19 and can be used as a guide for preparing your project description. (If you are applying for a Variance or Exception, please contact staff to discuss special requirements).

Construction of a utility-scale solar PV energy system paired with battery storage capability to provide renewable energy to the local energy grid. The Property is zoned for General Agriculture, physical features of the site consists entirely of rangeland and slopes down from 310 feet mean sea level (msl) in the northwest corner to 230 feet msl along the eastern boundary. Once operational, the Project will provide 40 megawatts of energy to the local grid.

PROJECT SITE INFORMATION

Complete and accurate information saves time and is vital to project review and assessment. Please complete each section entirely. If a question is not applicable to your project, please indicated this to show that each question has been carefully considered. Contact the Planning & Community Development Department Staff, 1010 10th Street – 3rd Floor, (209) 525-6330, if you have any questions. Pre-application meetings are highly recommended.

ASSESSOR'S PARCEL NUMBER(S): Book 028 Page 015 Parcel 002

Additional parcel numbers: N/A

Project Site Address or Physical Location: 5925 Sullivan Road, Newman or Gustine in Stanislaus County, CA

Property Area: Acres: 314 or Square feet: _____

Current and Previous Land Use: (Explain existing and previous land use(s) of site for the last ten years)

Previous land use: rangeland and transmission line infrastructure, which continues to be the current land use.

List any known previous projects approved for this site, such as a Use Permit, Parcel Map, etc.: (Please identify project name, type of project, and date of approval)

None known.

Existing General Plan & Zoning: A-2-40 General Agriculture District

Proposed General Plan & Zoning: AG - Agriculture
(if applicable)

ADJACENT LAND USE: (Describe adjacent land uses within 1,320 feet (1/4 mile) and/or two parcels in each direction of the project site)

East: Subdivision to the southeast, Garzas Creek to the east & rangeland.

West: Rangeland

North: Rangeland and utility transmission line infrastructure.

South: Subdivision to the southeast, roadways & rangeland to the south.

WILLIAMSON ACT CONTRACT:

Yes No

Is the property currently under a Williamson Act Contract?

Contract Number: 1971-0409

If yes, has a Notice of Non-Renewal been filed?

Date Filed: _____

Yes No

Do you propose to cancel any portion of the Contract?

Yes No

Are there any agriculture, conservation, open space or similar easements affecting the use of the project site. (Such easements do not include Williamson Act Contracts)

If yes, please list and provide a recorded copy: _____

SITE CHARACTERISTICS: (Check one or more)

Flat

Rolling

Steep

VEGETATION: What kind of plants are growing on your property? (Check one or more)

Field crops

Orchard

Pasture/Grassland

Scattered trees

Shrubs

Woodland

River/Riparian

Other

Explain Other: _____

Yes No

Do you plan to remove any trees? (If yes, please show location of trees planned for removal on plot plan and provide information regarding transplanting or replanting.)

GRADING:

Yes No

Do you plan to do any grading? (If yes, please indicate how many cubic yards and acres to be disturbed. Please show areas to be graded on plot plan.) Grading is not currently anticipated as the portion of the site with slopes greater than 15% is minimal (refer to sheet E102 of Site Plan). Tracker systems today have the capability to use longer racking pile to avoid grading sloped land.

STREAMS, LAKES, & PONDS:

Yes No

Are there any streams, lakes, ponds or other watercourses on the property? (If yes, please show on plot plan)

Yes No

Will the project change any drainage patterns? (If yes, please explain – provide additional sheet if needed) The Site will not change any drainage pattern due to use of advanced trackers and no anticipated site grading.

Yes No

Are there any gullies or areas of soil erosion? (If yes, please show on plot plan)

Yes No

Do you plan to grade, disturb, or in any way change swales, drainages, ditches, gullies, ponds, low lying areas, seeps, springs, streams, creeks, river banks, or other area on the site that carries or holds water for any amount of time during the year? (If yes, please show areas to be graded on plot plan)

Please note: If the answer above is yes, you may be required to obtain authorization from other agencies such as the Corps of Engineers or California Department of Fish and Game.

STRUCTURES:

Yes No Are there structures on the site? (If yes, please show on plot plan. Show a relationship to property lines and other features of the site.)

Yes No Will structures be moved or demolished? (If yes, indicate on plot plan.)

Yes No Do you plan to build new structures? (If yes, show location and size on plot plan.)
Project Substation, Battery & O&M containers will be located at the northern west boundary of the plan

Yes No Are there buildings of possible Historical significance? (If yes, please explain and show location and size on plot plan.) _____

PROJECT SITE COVERAGE:

Existing Building Coverage: 0 Sq. Ft. Landscaped Area: 0 Sq. Ft.

Proposed Building Coverage: 0 Sq. Ft. Paved Surface Area: _____ Sq. Ft.

BUILDING CHARACTERISTICS:

Size of new structure(s) or building addition(s) in gross sq. ft.: (Provide additional sheets if necessary) No new buildings are proposed. See list of solar project appurtenances below.

Number of floors for each building: NA

Building height in feet (measured from ground to highest point): (Provide additional sheets if necessary) _____

No buildings are proposed for the project.

Height of other appurtenances, excluding buildings, measured from ground to highest point (i.e., antennas, mechanical equipment, light poles, etc.): (Provide additional sheets if necessary) Battery Storage structures are approximately 10ft high

Solar trackers are approximately 9 ft. in height, Security fencing is a maximum of 7 ft. in height.

Proposed surface material for parking area: (Provide information addressing dust control measures if non-asphalt/concrete material to be used) Unpaved parking area. Gravel will be applied to parking area as a dust control measure.

Temporary staging area will be used for onsite parking along with material storage during construction process.

UTILITIES AND IRRIGATION FACILITIES:

Yes No Are there existing public or private utilities on the site? Includes telephone, power, water, etc. (If yes, show location and size on plot plan)

Who provides, or will provide the following services to the property?

Electrical: Pacific Gas & Electric

Sewer*: Not Applicable

Telephone: AT&T

Gas/Propane: Not Applicable

Water**: Truck in water for construction & operation

Irrigation: Not Needed/Not Applicable

***Please Note:** A “will serve” letter is required if the sewer service will be provided by City, Sanitary District, Community Services District, etc.

****Please Note:** A “will serve” letter is required if the water source is a City, Irrigation District, Water District, etc., and the water purveyor may be required to provide verification through an Urban Water Management Plan that an adequate water supply exists to service your proposed development.

Will any special or unique sewage wastes be generated by this development other than that normally associated with resident or employee restrooms? Industrial, chemical, manufacturing, animal wastes? (Please describe:)

N/A. There will not be any special or unique waste generated.

Please Note: Should any waste be generated by the proposed project other than that normally associated with a single family residence, it is likely that Waste Discharge Requirements will be required by the Regional Water Quality Control Board. Detailed descriptions of quantities, quality, treatment, and disposal may be required.

Yes No Are there existing irrigation, telephone, or power company easements on the property? (If yes, show location and size on plot plan.)

Yes No Do the existing utilities, including irrigation facilities, need to be moved? (If yes, show location and size on plot plan.)

Yes No Does the project require extension of utilities? (If yes, show location and size on plot plan.)

AFFORDABLE HOUSING/SENIOR:

Yes No Will the project include affordable or senior housing provisions? (If yes, please explain)

RESIDENTIAL PROJECTS: (Please complete if applicable – Attach additional sheets if necessary)

Total No. Lots: NA Total Dwelling Units: NA Total Acreage: NA

Net Density per Acre: NA Gross Density per Acre: NA

<i>(complete if applicable)</i>	Single Family	Two Family Duplex	Multi-Family Apartments	Multi-Family Condominium/Townhouse
Number of Units:	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Acreage:	<u> </u>	<u> </u>	<u> </u>	<u> </u>

COMMERCIAL, INDUSTRIAL, MANUFACTURING, RETAIL, USE PERMIT, OR OTHER PROJECTS: (Please complete if applicable – Attach additional sheets if necessary)

Square footage of each existing or proposed building(s): No existing buildings are on the site.

Type of use(s): Utility-scale solar PV energy system paired with battery storage capability to provide renewable energy to the local grid.

Days and hours of operation: Sunday through Saturday during daylight hours.

Seasonal operation (i.e., packing shed, huller, etc.) months and hours of operation: NA

Occupancy/capacity of building: None

Number of employees: (Maximum Shift): 4-5 during operation period (Minimum Shift): 1 during operation period

Estimated number of daily customers/visitors on site at peak time: None

Other occupants: None

Estimated number of truck deliveries/loadings per day: None

Estimated hours of truck deliveries/loadings per day: Daylight hours

Estimated percentage of traffic to be generated by trucks: None

Estimated number of railroad deliveries/loadings per day: None

Square footage of:

Office area: NA

Warehouse area: NA

Sales area: NA

Storage area: Total 360sq.ft and 9ft tall containers to store spare parts and equipment

Loading area: NA

Manufacturing area: NA

Other: (explain type of area) _____

Yes No Will the proposed use involve toxic or hazardous materials or waste? (Please explain)

NA

ROAD AND ACCESS INFORMATION:

What County road(s) will provide the project's main access? (Please show all existing and proposed driveways on the plot plan)

Sullivan Road

Yes No Are there private or public road or access easements on the property now? (If yes, show location and size on plot plan)

Yes No Do you require a private road or easement to access the property? (If yes, show location and size on plot plan)

Yes No Do you require security gates and fencing on the access? (If yes, show location and size on plot plan)

Please Note: Parcels that do not front on a County-maintained road or require special access may require approval of an Exception to the Subdivision Ordinance. Please contact staff to determine if an exception is needed and to discuss the necessary Findings.

STORM DRAINAGE:

How will your project handle storm water runoff? (Check one) Drainage Basin Direct Discharge Overland

Other: (please explain) Adapture will work with the County to design and obtain proper stamped plans for all SWPPP & ESC measure necessary for the site along with implementation of dust control measures (i.e., watering).
If direct discharge is proposed, what specific waterway are you proposing to discharge to? _____

Please Note: If direct discharge is proposed, you will be required to obtain a NPDES permit from the Regional Water Quality Control Board, and must provide evidence that you have contacted them regarding this proposal with your application.

EROSION CONTROL:

If you plan on grading any portion of the site, please provide a description of erosion control measures you propose to implement.

The Applicant will design and implement a SWPPP during construction and ESC (erosion sediment control) measure to minimize impacts to soil & water resources and comply with state and county codes.

Please note: You may be required to obtain an NPDES Storm Water Permit from the Regional Water Quality Control Board and prepare a Storm Water Pollution Prevention Plan.

ADDITIONAL INFORMATION:

Please use this space to provide any other information you feel is appropriate for the County to consider during review of your application. (Attach extra sheets if necessary)



ADAPTURE

RENEWABLES

October 29, 2020

County of Stanislaus – Department of Planning & Community Development
1010 10th Street, Suite 3400
Modesto, CA 95354

Subject: Proposed 40MW AC Solar PV and Battery Energy Storage System Facility in Stanislaus County

EXECUTIVE SUMMARY

Adapture Renewables Inc. (“Adapture”), is an Oakland, California-based solar development company that develops, owns and operates solar farms in California. Adapture is proposing a 40MW alternating current (AC)/ 55MW direct current (DC) utility oriented solar photovoltaic (PV) plus 40MW/160MWh battery energy storage system (BESS) facility (hereafter “Project”) named Hydaspes Solar Project located on approximately 264 acres of agriculturally zoned property (the “Project Site”) approximately 5 miles southwest of the City of Newman, Stanislaus County, California. The Project will interconnect into the 115kV Miller Tap #1 Substation via an approximately 1,000 foot generation tie-line from the northern boundary of the Project into the existing Q1103 Sullivan Solar’s (CS40) generation tie-line. The Project is under option to lease agreement and would operate for approximately 35 years, after which the facilities would be decommissioned and removed, and the Project Site returned to agricultural use.

Adapture will be the sole sponsor, developer and operator of the Project. Adapture believes the Project is well-sited, complies with Stanislaus County Code of Ordinances and is seeking approval of a Use Permit and a Williamson Act Cancellation from the Stanislaus County Board of Supervisors to allow for the construction and operation of the Project. As part of this submission, please find a Use Permit Application, a detailed Project description and additional supporting documents as described in the application checklist for your review and processing.

Adapture looks forward to working with you and Stanislaus County Planning & Community Development to build a successful project.

Please direct any questions and request for further information to Peter Davis (pdavis@adapturere Renewables.com) and Mayura Patankar (mpatankar@adapturere Renewables.com).

Regards,

Peter Davis

Director of Project Development

Adapture Renewables, Inc.

pdavis@adapturere Renewables.com

Direct: 415.866.7450

1901 Harrison Street, Suite 1630, Oakland, CA 94612

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NOV 03 2020

STANISLAUS CO. PLANNING &
COMMUNITY DEVELOPMENT DEPT.

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HYDASPES SOLAR PROJECT – PROJECT DESCRIPTION

This Project description is for the Hydaspes Solar Project (Project) proposed by the applicant, Adapture Renewables, Inc. The proposed Project will involve the development of a photovoltaic (PV) solar facility at a site consisting a portion of one (1) parcel and associated infrastructure necessary to generate up to a combined 40 megawatts (MW) alternating current (AC) / 55 MW direct current (DC) of renewable electrical energy and/or energy storage capacity.

PROJECT OBJECTIVES

The proposed Project would provide Stanislaus County and the State of California (State) with a renewable energy source that would assist the State in complying with the Renewables Portfolio Standard (RPS) under Senate Bill (SB) 350, which requires that by December 31, 2030, 50 percent of all electricity sold in the State shall be generated from renewable energy sources. SB 100, approved in September 2018, increased the RPS to a 100 percent goal by the year 2045.

The following are the Project objectives:

- Construct a utility solar energy generation facility with a battery energy storage system to advance the above referenced RPS;
- Minimize infrastructure needs and thereby reducing potential environmental impacts by locating the facility near existing and planned facilities, including access to an existing substation with available transmission capacity;
- Site and design the project in a manner that minimizes potential land use conflicts with agricultural land uses;
- Provide green related jobs in Stanislaus County;
- Support California’s efforts to reduce greenhouse gases (GHG) emissions consistent with the timeline established in 2006 under Assembly Bill (AB) 32 and SB 32; and
- Support and implement California’s RPS Program consistent with SB 100.

Project Site

The Project consists of an approximately 257-acre site (“Site” or “Project Area”) within a larger 314-acre parcel [Assessor’s Parcel Number (APN) # 028-015-002] in Section 17, T8S, R8E, Stanislaus County, California, which is approximately 5 miles southwest of the City of Newman.

The Project is west of Interstate 5, and adjacent to Sullivan Road along its eastern and southern boundaries. The Site consists entirely of rangeland and slopes down from 310 feet mean sea level (msl) in the northwest corner to 230 feet msl along the eastern boundary. Rangeland borders the Project on most sides with a homestead, stream, and woodland located immediately to the southeast. The surrounding general land use consists of open rangeland, agricultural fields, homesteads, and foothills.

PROJECT OVERVIEW & DESIGN

The Project will include the development of solar facilities and associated infrastructure with the capacity to generate up to 40 MW AC / 55MW DC of renewable electric energy and/or energy storage capacity. The Project will interconnect into the 115kV Miller Tap #1 Substation via an approximately 1,000 foot generation tie-line from the northern boundary of the Project into the existing Q1103 Sullivan Solar's (CS40) generation tie-line. The solar facilities would use PV technology and consist of solar arrays mounted on either fixed or tracking structures mounted to vertical posts.

The Project will consist of the following components:

- **Solar PV Generating Facilities and Solar Modules:** The Project will use Tier 1 modules arranged in strings and will range approximately 6.5 to 7.5 feet wide. The rows will vary in dimensions with a pitch of approximately 30 to 40 feet, oriented at 180 degrees south, track +/- 50 degrees, and at a minimum will be 1 foot from the ground and at a maximum be 14 to 16 feet apart as shown in Hydaspes Solar Site Plan page E-100.
- **Collector Substation:** The 115 kV to 34.5 kV substation will consist of several parts. The dimensions of the yard will be approximately 110 feet by 150 feet with the base of the yard consisting of crushed rock to maintain safe levels of voltage. The yard will be graded at approximately 1-3 percent for water drainage. The substation structures will consist of steel I-Beams resting on an augured foundation and utilize slab foundations for transformer and breakers. The incoming line will interlink on a standard PG&E specified metering structure approximately 40 feet tall with an additional 20 foot tall lightning spike on top. The metering, protection, and solar SCADA equipment will be enclosed inside of a control building. The protection system runs on 125VDC and can provide a minimum 8 hour backup as an alternative power source.
- **Battery Energy Storage System (BESS):** The Project includes installation of energy storage facilities and appurtenances that would provide energy storage capacity for the electric grid. The 40MW/160MWh BESS will utilize inverters, transformers, batteries, etc. and will be located on the on the eastern portion of the site adjacent to the substation on Site.
- **Electrical Collector System and Inverters:** A 34.5kV underground collector system will be employed throughout the facility. The cables are typically buried approximately 30 inches below grade, will run to each inverter connecting one another and then terminate on riser supports within the substation.
- **Generation Tie-Line:** The proposed Project's generation tie-line will start on the northern side of the Site and will connect to the Q1103 Sullivan's Solar (CS40) existing utility line via an additional approximately 1,000 foot 115kV utility line. An alternative generation tie-line route would start on the north east side of the Project, run north for 2,200 feet crossing at Pete Miller Road and then tap into the existing utility line at the 115kV Miller Substation. The electrical generator tie-line will consist of wooden poles approximately 70 feet tall and 300 to 500 feet long, and will have three phase conductors approximately 566ACSR, "Osprey" mounted, above grade at each pole dipping to NESC minimum distance at a maximum sag. Underneath the phase conductors, the utility poles will mount on a neutral conductor 4/0 "Penguin" located approximately NESC distance underneath the phase conductors (approximately 3 - 6 feet) and a fiber optic cable will be mounted underneath the neutral conductor. Overhead conductors will maintain NESC clearance to grade at all times.

- **Telecommunication Facilities:** No standard telecommunication facilities (e.g., towers) are included as part of the Project. Telecommunication equipment, including SCADA and fiber optic systems, will be used to connect the CAISO Rig to capture metering, weather information and transfer data to the CAISO operations control center.
- **Site Access and Security:** On-site access roads will be provided for the Project with fencing around the Site at a minimum 7 feet high in compliance with NEC codes. The fence will be either a 6 feet chain link with 1 foot of barbed wire on top, or 7 feet of chain link to comply with County requirements. During construction, a security guard will be stationed at the main site entrance, and several security cameras will be installed at each pad and at each site entrance with motion sensor lights coated with anti-reflective located.
- **Operations and Maintenance (O&M) building, warehouse and employee building:** During operation of the Project, the facility will include a shipping container placed in a designated area close to the site entrance to store spare parts and tools needed for O&M activities.

If a water source is needed during the construction phase, an onsite well will be the primary source (if available and with the landowner's permission). Otherwise, water will be trucked in and sourced offsite.

The facilities are intended to operate year-round and would be designed to produce up to a combined 40 MW AC of solar power and/or energy storage capacity at the point of interconnection to the transmission grid.

SOLAR PV GENERATING FACILITIES AND SOLAR MODULES

Solar modules for the Project would be provided on a single-axis tracker system. The panels would measure approximately 6.5 to 7.5 feet wide, and the total height of the panel system measured from ground surface would be a minimum 1 foot and maximum of 15 feet. The length of each row of panels would be a maximum of 14 feet and will be oriented south and track in the east–west direction.

The Project Area will have 1 entrance on the east side of the site to provide access throughout the Project Area. Spacing between each solar panel row will be approximately 14 to 16 feet. Single-axis tracking systems will employ a motor mechanism that will allow the arrays to track the path of the sun throughout the day. The motors will be installed after the horizontal cross-members are in place. In the morning, the panels would face the east. Throughout the day, the panels will slowly move to the upright position at noon and on to the west at sundown. The panels will reset to the east in the evening or early morning to receive sunlight at sunrise.

The Project site is bordered on the east and south by Sullivan Road. The Project Site will be surrounded by a property boundary fence. Since the Project will interconnect into a utility owned substation and the Project Site sits on cattle grazed land in a less populated area, Adapture is requesting to be exempt from the 150-foot county setback for agricultural zoned areas from the Stanislaus County Commissioner if the Project is approved to move forward. The property boundary fence will be located 20-feet off the centerline of Sullivan Road right-of-way. The solar modules will be located a minimum of 20-feet off of the fence line making the modules a minimum of 40-feet off of the road right-of-way. Refer to Hydaspes Solar Site Plan page E-100 for centerlines details.

BATTERY ENERGY STORAGE FACILITY

The 40MW/160MWh battery energy storage system (BESS) is proposed to be located on the northern side of the project site, adjacent to the existing overhead lines, and will use Lithium-ion batteries. The BESS will utilize inverters, transformers, and switchgear approximately 20 feet long, 8 feet wide and 10 feet tall mounted on concrete pads or on pre-assembled skids mounted on pile foundations. There are typically two to three ISO containers connected to a single transformer plus inverter. The Site will contain multiple inverters plus transformers and associated battery ISO containers located adjacent to the substation. The batteries will be located within 40 feet of the ISO containers housing batteries, air conditioners, fire suppression system and associated monitoring. The energy storage structure(s) will also have a fire rating in conformance with County standards and specialized fire suppression systems installed for the battery rooms. The structure(s) will also have HVAC cooling to maintain energy efficiency. Power to the HVAC, lighting, etc. will be provided via a connection to the on-site substation service transformer with connection lines installed aboveground and/or belowground. The energy storage system will be unmanned, with remote operational control and periodic inspections and maintenance performed as necessary.

TELECOMMUNICATION FACILITIES

The Project will also require telecommunication facilities to meet the communication requirements for interconnecting with the existing 115kV Miller Substation via line tap and to support remote Project operations monitoring. To provide for communication, a fiber-optic cable will be placed on the gen-tie line poles and an underground fiber optic cable to connect all of the inverters, BESS system, substation components, etc. will be installed within the existing transmission line roadway to provide redundant communications required by PG&E. The Project will use local exchange carrier services with high speed networks such as AT&T or Verizon for telecommunication to support remote monitoring requirements.

The Project will utilize a SCADA system that will run on GE cimplicity software or similar to control the **functionality of the facility's various controls and manage power output required in the Interconnection Agreement**. The system will also make use of a CAISO rig to capture metering data, weather information and transfer all relevant data to the CAISO's operations control center.

SITE ACCESS AND SECURITY

Security fencing will consist of a maximum 7-foot high black or green vinyl coated chain-link fence to surround the Project perimeter. The primary site access gate will be located along the eastern boundary of the Project along Sullivan Road. An alternate site access will be provided along the southwestern boundary of the Project along Sullivan Road.

During construction, a security guard will be employed at the primary site entrance to check-in and check-out all workers from the Site and potentially watch the Site at night. There will be several security cameras on site including one located at the primary site entrance and at least one located at a pad in each section. Each pad will include a motion sensor light, which will turn on only when maintenance is being done. The site entrance will also include a motion sensor light.

OPERATIONS AND MAINTENANCE ACTIVITIES

Typical O&M activities that will occur on the Site during operation include, but are not limited to:

- Cleaning PV arrays (approximately once every six months)
- Vegetation management (mowing and trimming)
- Inverter maintenance, repairs and upgrades

Solid and Non-Hazardous Waste. The Project is expected to produce a small amount of waste associated with maintenance activities, which could include broken and rusted metal, defective or malfunctioning modules, electrical materials, empty containers, and other miscellaneous solid waste, including the typical refuse generated by workers. Most of these materials will be collected and delivered back to the manufacturer or to recyclers. Non-recyclable waste will be placed in covered dumpsters and removed on a regular basis by a certified waste-handling contractor for disposal at a Class III landfill.

Hazardous Materials. Limited amounts of hazardous materials will be stored or used on the Site during operations, including use of mineral oil for insulation and cooling. The Project will utilize a single GSU transformer on site with approximately 7,000 gallons of the mineral oil and a secondary containment surrounding the transformer. Appropriate spill containment and cleanup kits would be maintained during operation of the Project.

SCHEDULE

Construction of the Project is anticipated to take approximately 7 to 10 months.

Typical construction equipment used to construct the facility will include pile drivers, track skid steers, telehandler forklifts and excavators. Typical sequencing of construction activities is as follows:

- Contractors mobilize to site
- Erosion and sediment controls are installed
- Perimeter fence is installed
- Posts are driven
- Racking is installed
- Modules are installed
- Equipment pads are poured and equipment is installed
- DC and AC wiring is installed
- System testing and commissioning
- Contractors complete final punch list
- Site cleanup and demobilization

During construction, the Project will require a significant amount of local support for labor and materials and it is anticipated that more than 60 construction-related jobs will be created per phase of the project including electrical jobs, mechanical installation jobs and civil work.

The Project Site will accommodate 3-4 temporary staging areas within the Project boundary that will be used for onsite parking along with any material storage during the majority of the construction process. These areas can be increased or decreased in size depending on motor vehicle sizes and needs. It is

anticipated that the parking needs will decrease towards the end of the construction and can be accommodated by a designated parking area close to the site entrance near the O&M building.

USE PERMIT FINDINGS

Section 18.104.040 of the Stanislaus County Municipal Code (Basis for Approval) lists the following findings necessary for the approval of the Use Permit (UP). The findings are listed followed by a response statement (*italics*).

All Use Permits:

- The establishment, maintenance and operation of the proposed use or building applied for is consistent with the General Plan and will not, under the circumstances of the particular case, be detrimental to the health, safety and general welfare of persons residing or working in the neighborhood of the use, and that it will not be detrimental or injurious to property and improvements in the neighborhood or to the general welfare of the County.

The proposed use is consistent with the General Plan. The proposed use is a passive, photovoltaic solar project that will not be detrimental to the health, safety and welfare of the public or to the property and residents in the vicinity. The use will benignly operate without any environmental or community impacts. Indeed, the proposed use will benefit and contribute to the health, safety and welfare of the public by providing electrical energy without any greenhouse gas (GHG) emissions, while supporting the State's Renewable Portfolio Standard.

Agricultural Uses:

Tier Three

1. The use as proposed will not be substantially detrimental to or in conflict with agricultural use of other property in the vicinity, and

The proposed use is a passive, photovoltaic solar project that will not be detrimental to or in conflict with agricultural use of other property in the vicinity.

2. The parcel on which such use is requested is not located in one of the County's "most productive agricultural areas," as the term is used in the Agricultural Element of the General Plan; or the character of the use that is requested is such that the land may reasonably be returned to agricultural use in the future.

In determining "most productive agricultural areas," factors to be considered include but are not limited to soil types and potential for agricultural production; the availability of irrigation water; ownership and parcelization patterns; uniqueness and flexibility of use; the existence of Williamson Act contracts; existing uses and their contributions to the agricultural sector of the economy. "Most productive agricultural areas" does not include any land within LAFCO-approved spheres of influence of cities or community services districts and sanitary districts serving the unincorporated community.

According to the USDA Web Soil Survey, the primary soils on the Site are various loams and clay loams. All of the Project Area is classified as prime farmland if irrigated except a small area on the southern boundary that is classified as not prime farmland (Exhibit 4). The proposed site

currently consists of non-irrigated rangeland and slopes. The project is under option to lease agreement and would operate for approximately 35 years, after which the facilities would be decommissioned and removed, and the Project Site returned to agricultural use.

The Williamson Act's Principles of Compatibility are provided in the County zoning ordinance under Section 21.20.045(A), and indicate that uses on contracted lands are considered compatible with the Williamson Act if they do not have the potential to significantly compromise, displace, or impair the long-term productive agricultural capability of the subject contracted parcel or parcels on other contracted lands in agricultural preserves, and will not significantly impair current agricultural operations on the subject parcel. According to Section 21.20.045(B)(1) of the zoning ordinance, the erection, construction, alteration, and maintenance of electric facilities are considered consistent with the Principles of Compatibility and may be approved on contracted land, unless the planning commission and/or board of supervisors makes a finding to the contrary.

Cancellation of a Williamson Act contract is regulated under California Government Code Section 51282, which requires in part that the contract rescission is found to be in the public interest. The project site is currently under Williamson Act Contract and Adapture, on behalf of the landowner, would file a Notice of Non-Renewal with the County and Williamson Act Cancellation if project is approved to move forward.

Hydaspes Solar Project

Stanislaus County, California

March 29, 2019



Prepared By:

Westwood

Prepared For:

WDG Capital Partners
PO Box 31159
Santa Barbara, CA 98130

Westwood

Critical Issues Analysis

Hydaspes Solar Project

Stanislaus County, California

Prepared for:

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Santa Barbara, California 93130

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Project Number: R0022418.00

Date: 3/29/2019

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EXHIBITS

- Exhibit 1: Project Location and USGS Topography
- Exhibit 2: Water Resources
- Exhibit 3: Desktop Hydrology Review
- Exhibit 4: Biological Resources & Public Lands
- Exhibit 5: Infrastructure
- Exhibit 6: Soils

APPENDICES

Appendix A: Information for Planning and Consultation (IPaC) Results

1.0 INTRODUCTION

Westwood Professional Services, Inc. (Westwood) was retained by WDG Capital Partners to analyze a range of crucial issues on the proposed site, Hydaspes Solar Project (hereafter “Project”), which might constrain the development of solar projects. The Project consists of a 264-acre site (“Site” or “Project Area”) within a larger parcel (PIN # 028-015-002) in Section 17, T8S, R8E, Stanislaus County, California (**Exhibit 1**) which is approximately 5 miles southwest of the city of Newman, CA. The Project is north of and adjacent to and west of and adjacent to Sullivan Road. The Site consists entirely of rangeland and slopes down from 310 feet mean sea level (msl) in the northwest corner to 230 feet msl along the eastern boundary. Rangeland borders the Project on most sides with a homestead, stream, and woodland located immediately to the southeast. The surrounding general land use consists of open rangeland, agricultural fields, homesteads, and foothills.

The Critical Issues Analysis (CA) explored the following specific issues:

1. Surface Hydrology Resources
2. Biological Resources
3. Archaeological, Cultural and Historical Resources
4. Land Use Constraints

This CA is based on a desktop review and analysis of a variety of relevant and available Geographic Information System (GIS) data and Westwood’s previous experience on solar projects. The results of the desktop analysis are described herein, and the data is presented in the attached exhibits.

2.0 METHODS

Westwood compiled and reviewed a series of datasets known to present development constraints for solar development. Those datasets included water resources, floodplains, impaired waters, cultural resources, public and conservation lands, sensitive species and habitats, infrastructure, zoning, and geotechnical data. In addition, Westwood reviewed state and federal lists of endangered, threatened, and special concern species, reviewed their preferred habitats with respect to land cover within the Project Area, and assessed their potential to occur within or near the Project. Some of the data sources reviewed include the following:

Federal:

- U.S. Geological Survey (USGS)
- National Hydrography Dataset (NHD)
- Federal Emergency Management Agency (FEMA) Floodplain Mapping
- USFWS Information for Planning and Consultation (IPaC)
- USFWS Critical Habitat
- Natural Resource Conservation Service (NRCS)

- USGS Breeding Bird Survey
- Federal, State, and Private Conservation Lands

State:

- California Natural Resources Agency (CNRA)
- California Environmental Protection Agency (CalEPA)
- California Energy Commission
- California Department of Fish and Wildlife
- California Natural Diversity Database (CNDDDB)
- California Office of Historic Preservation (OHP)
- National Wetlands Inventory (NWI)
- California Department of Water Resources (DWR) Best Available Maps (BAM)

Local:

- Stanislaus County Government Webpage
- Stanislaus County Code of Ordinances
- Stanislaus County Public Parcel Viewer

Non-profit:

- National Audubon Society Christmas Bird Count

3.0 RESULTS

3.1 Surface Hydrological Resources

3.1.1 Floodplains

- FEMA flood data indicates no flood hazard within the Project Area.
- Based on CA Department of Water Resources Awareness (CADWR) mapping, the southeastern boundary of the Site is partially within a 100-year floodplain.

3.1.2 Wetlands and Waters Resources

- NWI data map no wetlands within the Project Area. Three wetland complexes are located to the southeast of the Site.
- No NHD flowlines or waterbodies were mapped within the Project Area. One intermittent stream flowline, Garzas Creek, is located along the southeastern boundary of the Site.

- State Water Resources Control Board data indicated there are no impaired waters in or within one mile of the Project Area. The closest impaired water, Newman Wasteway, is located approximately 3.2 miles north of the Site.

3.1.3 Desktop Hydrology Review

- The landcover within the Project Boundary is rangeland (**Exhibit 3**). There are defined channels through the Project Area visible on aerial imagery. The drainage routes on the Project Area generally drain to the east.
- The Project Area is located on moderate slopes with a moderate amount of offsite drainage entering the Project Boundary. The total offsite drainage is approximately 300 acres. The onsite drainage area is 263.5 acres and discharges from 2 different drainage areas. The larger north drainage area flows to the east/southeast and the south drainage area flows to the east/northeast. These two drainage areas converge just downstream and outside of the Project boundary into a larger channel (Garzas Creek) that has an offsite drainage of approximately 35,500 acres. This channel flows right alongside the south side of the Project boundary. It is recommended that a FLO2D model be run due to this channel being so close to the Project boundary.
- Based on Google Earth aerial imagery, there are no low lying areas within the Project boundary. There is the possibility of the adjacent channel to back up water within the Project Area during an unknown storm event. If this project is pursued further, a preliminary drainage study with a FLO2D model for the contributing area near the Project should be completed in conjunction with design to ensure that stormwater regulations are being met and drainage on the Project is properly designed.

3.1.4 Regulatory Framework

- The U.S. Army Corps of Engineers (USACE) regulates the discharge of dredged and fill material into waters of the U.S. under Section 404 of the Federal Clean Water Act (CWA). Solar infrastructure such access roads, collection cables, and PV foundations should be sited to avoid watercourses and wetland features to the extent practicable to minimize wetland impacts and permitting requirements. Project is located in the Sacramento District of the USACE.

- Wetlands in California are regulated primarily under CWA Section 401 and the Porter-Cologne Water Quality Control Act. The State Water Resources Control Board (State Water Board or SWRCB), Division of Water Quality and nine Regional Water Quality Control Boards (RWQCBs) constitute the California State Water Board. The State Water Board is responsible for implementing state and federal laws and regulations related to water quality protection. The State Water Board issues water discharge requirements (WDRs) for impacts to state waters and wetlands and issue permits for dredge fill/excavation projects under the jurisdiction of multiple RWQCBs. Regional Board 5/Central Valley is the Regional Water Quality Control Board for this area.
- The State Water Board is currently proposing a State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures), for inclusion in the forthcoming Water Quality Control Plan for Inland Surface Waters and Enclosed Bays and Estuaries and Ocean Waters of California. The Procedures consist of four major elements: 1) a wetland definition; 2) a framework for determining if a feature that meets the wetland definition is a water of the state; 3) wetland delineation procedures; and 4) procedures for the submittal, review and approval of applications for Water Quality Certifications and Waste Discharge Requirements for dredge or fill activities.
- Water resources are regulated by the State of California Section 1600-1616 of the California Fish and Game Code which states “An entity may not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.” It is anticipated that the proposed Project infrastructure can avoid jurisdictional waters if present on the site.
- There are no other watershed districts or other water management organizations with jurisdiction over the Project. The Del Puerto Water District begins immediately south and east of the Project.
- Impaired waters are regulated by California Water Code section 13191.3(a) and implemented by the State and Regional Water Boards. There are no impaired waters found within one-mile of the Project.

3.2 Biological Resources

3.2.1 California Natural Diversity Database

- A review of the California Natural Diversity Database (CNDDDB) licensed to Westwood (February 2019) was conducted for records of federal or state-listed rare, threatened, or endangered species or habitats in, or within one-mile of the Project Area. No records of sensitive species or habitats were identified within the Project Area. Eight records of sensitive vertebrate species were identified within one mile of the Project Area. Four of the records were of a species that is a candidate for state-listing as endangered, two of the records were of a federally-endangered and state-threatened species, one record was of a species that is federally- and state-listed as threatened, and the remaining record is of a state Species of Concern. No other species or habitats were reported within one mile of the Project Area.
- Arid rangeland, water resources, woodland, and montane habitats in the general area may support rare species. The probability that rare species will occur within the Project Area is moderate to high due to the rare species records within one mile of the Project, and the similarities of habitats where rare species were observed to those within the Project Area. Please note that the lack of rare species or habitat records within the Project Area should not be interpreted to mean lack of occurrence; instead, it may imply that the area has not been surveyed.

3.2.2 Federally-Protected Species

- Westwood conducted an Information for Planning and Consultation (IPaC) coordination with the U.S. Fish and Wildlife Service (USFWS 2019). The results of the effort identified 10 species, federally-listed as threatened or endangered, as potentially occurring within the Project Area. The 10 species include the federally-listed as endangered Fresno kangaroo rat (*Dipodomys nitratoides exilis*), San Joaquin kit fox (*Vulpes macrotis mutica*), blunt-nosed leopard lizard (*Gambelia silus*) and vernal pool tadpole shrimp (*Lepidurus packardii*), and the federally-listed as threatened giant garter snake (*Thamnophis gigas*), California red-legged frog (*Rana draytonii*), California tiger salamander (*Ambystoma californiense*), delta smelt (*Hypomesus transpacificus*), valley elderberry longhorn beetle (*Desmocerus californicus dimporphus*), and vernal pool fairy shrimp (*Branchinecta lynchi*) (USFWS 2019) (**Appendix A**).
- The federally-endangered Fresno kangaroo rat is also state-listed as endangered. Fresno kangaroo rats occur in the valley floor of the San

Joaquin Valley from Merced County to northern Kings County, California (USFWS 2010). Fresno kangaroo rats occur in elevated grassy patches on alkali plains or in grassy terrain with scattered alkali patches that occur in friable soils that allow them to dig burrows (USFWS 2010). Kangaroo rats are known to alkali sink communities at elevations ranging from 61 to 91 m (200 to 300 ft) (USFWS 1998). Threats to Fresno kangaroo rat populations include habitat loss and degradation from agricultural and urban development, and heavy or absent livestock grazing (USFWS 1998). Seasonal livestock grazing practices are believed to be beneficial to Fresno kangaroo rat habitat quality. As the Project Area is approximately 56.5 miles northwest of the nearest designated Fresno kangaroo rat critical habitat (USFWS 2018) and it appears from aerial photos that livestock grazing within the Project Area is heavy, suggesting that suitable Fresno kangaroo rat habitat is not available, the probability that they are present is low.

- The San Joaquin kit fox is federally-listed as endangered and is state-listed as threatened. San Joaquin kit foxes occur in open, arid desert-like habitats with sandy soils that are predominately stone-free (USFWS 2010). San Joaquin kit foxes avoid areas where soils are shallow due to high water table, impenetrable surface, or proximity to parent material. Kit fox presence is limited by soil type as foxes dig and use burrows for shelter and reproduction. Kit foxes occupy large home ranges with estimated mean home range sizes ranging from 1,071 to 5,782 acres (428 to 2,313 hectares) (Cypher et al. 2001, Root and Eliason 2001). Threats to San Joaquin kit fox populations include predation from coyote (*Canis latrans*) and non-native red fox (*Vulpes vulpes*), habitat loss and alteration and human activities such as hunting, rodenticide and pesticide application, and off-road vehicle use. As land cover within the Project Area appears to be suitable for San Joaquin kit fox use and kit fox home ranges encompass large areas, the likelihood of San Joaquin kit fox occurrence within the Project Area is considered moderate.
- The blunt-nosed leopard lizard is federally- and state-listed as endangered. Blunt-nosed leopard lizards are endemic to the San Joaquin Valley and are believed to have occurred from Stanislaus County to Kern County in California (USFWS 1998). In the late 1990's the distribution of blunt-nosed leopard lizard was believed to be restricted to undeveloped parcels on the Valley floor and in foothills of the Coastal Range (USFWS 1998). The USFWS (1998) report indicated that the nearest known blunt-nosed leopard lizard records to the Project Area were in northern Merced County. Blunt-nosed lizards do not occur above 800 m (2,600 ft) in elevation and they prefer open, sparsely vegetated areas of low relief (USFWS 1998). They are most commonly associated with saline and

alkaline soils or playa clays that are populated by low, alkali-tolerant shrubs or annual grasses. Blunt-nosed leopard lizards typically avoid areas with steep slopes, dense vegetation, or that are subject to seasonal flooding (Montanucci 1965). Threats to blunt-nosed leopard lizard populations include habitat loss and alteration that result from human activities such as petroleum and mineral extraction, pesticide application, off-road vehicle use, cultivation, and irrigation infrastructure (USFWS 1998). Based on aerial photography, it appears that the Project Area is currently used for livestock grazing, which depending on intensity can either benefit or impede blunt-nosed leopard lizard occurrence. If livestock grazing within the Project Area is low to moderate, it could support blunt-nosed leopard lizard populations, whereas, if grazing intensity is high, it would not support them. Aerial photos indicate that livestock grazing within the Project Area is heavy, suggesting that suitable blunt-nosed leopard lizard habitat is not available and that the probability that they are present is low.

- The giant garter snake is federally- and state-listed as threatened. The primary threats to giant garter snake populations include habitat loss as a result of urbanization and wetland conversion (USFWS 2017). Necessary habitat requirements for giant garter snake presence include fresh-water aquatic habitat with emergent vegetation, upland habitat for thermoregulation and for shelter in burrows, and upland refugia that serves as winter hibernacula (Halstead et al. 2010, Wylie et al. 1995). Specific aquatic habitat preferences for giant garter snakes includes slow-moving or static water over mud substrate that is present from March to November, absence of large predatory fish and presence of small amphibians and small fish, emergent vegetation, and absence of recurrent flooding (Hansen 1986, Wylie et al. 1995). Preferred upland habitat characteristics include vegetative cover (typically tule [*Scirpus* spp.] or cattail [*Typha* spp.]), availability of semi-permanent to permanent shelter (i.e., crevices, holes, or small mammal burrows), and no more than moderate livestock grazing, to maintain vegetative structure. Aerial photos indicate that livestock grazing within the Project Area is heavy, suggesting that suitable giant garter snake habitat is not available and that the probability that they are present is low.
- The delta smelt is federally-listed as endangered and state-listed as threatened. Delta smelt are endemic to California and only occur in the San Francisco Estuary. The life cycle of delta smelt follows spring spawning in fresh water, summer migration to the low salinity zone where offspring rearing and maturation occurs, and upstream migration during the winter shortly before spawning. Threats to delta smelt populations include loss of genetic integrity, toxins, changes in water

outflow, changes in food sources, water diversion, diseases, competition, and predation (Moyle 2002). As the Project Area is approximately 27.5 miles southeast of the nearest designated delta smelt critical habitat (USFWS 2018) and there are no suitable water resources on-site the probability of delta smelt occurrence is considered low.

- The California tiger salamander is federally- and state-listed as threatened. California tiger salamanders use aquatic and upland habitats depending on the stage of their life-cycle. For example, larval salamanders mature in ponds and then migrate to terrestrial habitats following metamorphosis where they remain underground in rodent burrows or crevices (Bolster 2010). Breeding occurs in vernal pools or in man-made livestock watering ponds. Most salamanders return to their pond of origin to breed, although some individuals disperse to new breeding grounds (Bolster 2010). Threats to California tiger salamander populations include habitat loss and fragmentation, and hybridization with non-native tiger salamanders. There are multiple artificially managed stock ponds within the Project Area that may provide suitable California tiger salamander breeding and maturation habitat. It is also possible that the surrounding upland habitat is suitable for young adult salamanders. Although, the Project Area is approximately 18 miles north of the nearest designated California tiger salamander critical habitat (USFWS 2018), it is possible that there is suitable habitat available within the Project Area for various stages of the California tiger salamander life-cycle. Therefore, the probability of occurrence is considered low to moderate.
- The California red-legged frog is federally-listed as threatened. California red-legged frog populations typically occur below 1,050 meters (m) (3,500 feet [ft]) above mean sea level (amsl), although some have been observed up to 1,500 m (5,200 ft). This species may complete their entire life-cycle in one habitat (i.e., a pond suitable for all life-stages) or they may use different habitats (i.e., aquatic, riparian, and upland) at different points in their life-history (USFWS 2002). Suitable breeding habitat typically includes streams, deep pools, and backwaters with still or slow-moving water greater than 0.7 m (two ft) and emergent or shrubby riparian vegetation, although the species has been known to breed in artificial stock ponds (USFWS 2002). Eggs, larvae, and tadpoles are sensitive to, and will experience mortality in waters with high salinity (i.e., greater than 4.5 parts per thousand) (USFWS 2002). During wet periods, some individuals will disperse up to three kilometers (km) (two miles) to another location (USFWS 2002). When water is not available frogs will search for summer habitat including spaces under debris (i.e., logs, rocks, industrial, leaf litter, etc.), agricultural drains, and mammal

burrows. Threats to California red-legged frog populations include habitat loss, fragmentation, and alteration that primarily occur from human agricultural and urban development activities. There are multiple artificially managed stock ponds within the Project Area that may provide suitable California red-legged frog breeding and maturation habitat. It is also possible that the surrounding upland habitat is suitable for dispersing or foraging adult frogs. Although, the Project Area is approximately eight miles northeast of the nearest designated California red-legged frog critical habitat (USFWS 2018), it is possible that there is suitable habitat available within the Project Area for various stages of the California red-legged frog life-cycle. Therefore, the probability of occurrence is considered low to moderate.

- The vernal pool tadpole shrimp is federally-listed as endangered. Vernal pool tadpole shrimp have been found in pools ranging in size from 2 to 356,253 square meters (6.5 square feet to 88 acres) in size (USFWS 2005). Specific habitat preferences for this species are unknown at this time, but it is believed that the species is tolerant of temporary dry periods and variations in pH, salinity, dissolved oxygen and other water chemistry characteristics (USFWS 2005). Threats to vernal pool tadpole shrimp populations include habitat loss and fragmentation due to human activities. As the artificially managed stock ponds are likely unsuitable for vernal pool tadpole shrimp habitation and the Project Area is approximately 13 miles west of the nearest designated vernal pool tadpole shrimp critical habitat (USFWS 2018), the probability of vernal pool tadpole shrimp occurrence within the Project Area is considered low.
- The vernal pool fairy shrimp is federally-listed as threatened. Vernal pool fairy shrimp only occur in vernal pools or in similar pool-like habitats and prefer small pools (i.e., less than or equal to 0.02 hectares [0.05 acres] in size) at elevations from 10 m (33 ft) to 1,220 m (4,003 ft) amsl (USFWS 2005). Vernal pool fairy shrimp have multiple adaptations to survive and reproduce in the ephemeral habitats that they live in including the ability of eggs to remain dormant during dry periods and the ability to reach sexual maturity quickly (USFWS 2005). Vernal pool fairy shrimp are more widely distributed than other fairy shrimp species but are uncommon and rarely abundant where they do occur (USFWS 2005). Threats to vernal pool fairy shrimp populations include habitat loss and fragmentation due to human activities. Vernal pool fairy shrimp have been documented scattered locations on private land in Stanislaus and Merced counties (USFWS 2005). As the Project Area is approximately 13 miles west of the nearest designated vernal pool fairy shrimp critical habitat (USFWS 2018) and the artificially managed stock ponds within the Project Area are

unlikely to be suitable for vernal pool fairy shrimp, the probability of occurrence is considered low.

- The valley elderberry longhorn beetle is federally-listed as threatened. The distribution of the valley elderberry longhorn beetle is closely tied to the distribution of elderberry shrubs (*Sambucus* spp.), as they are the host plants for larval beetles (USFWS 2017). Elderberry shrubs are most common along high and old riparian floodplain terraces, canals, levees, and ditches. Most valley elderberry longhorn beetle occurrences have been documented below 152 m (500ft) in elevation (USFWS 2017). Primary threats to valley elderberry longhorn beetle populations are loss of riparian habitat (and subsequently elderberry shrubs) from agricultural and urban development. As there do not appear to be elderberry shrubs within the Project Area based on aerial photos, and the Project Area is approximately 94 miles south of the nearest designated valley elderberry longhorn beetle critical habitat (USFWS 2018), the likelihood of occurrence is considered low.
- Bald (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*) are no longer protected under the federal ESA, but they are protected under the Bald and Golden Eagle Protection Act (USFWS 2019). A review of public bird surveys (i.e., USGS Breeding Bird Surveys [BBS] and National Audubon Christmas Bird Counts [CBCs]) within 20 miles of the Project Area identified that the Westley BBS route was within the search radius (18.5 miles to the north). Only one bald eagle has been observed in the last 10 years of surveys along the Westley BBS route (USGS 2019). Although bald or golden eagles may use the Project Area for foraging or stopover activities, it is unlikely that the proposed Project would negatively impact eagles that may be present in the area, as there is similar habitat in the surrounding area that would equally serve eagles that may currently use habitats within the Project Area. The likelihood of bald or golden eagle occurrence within the Project Area is considered low as only one bald eagle has been observed in the last 10 years on the Westley BBS route.

3.3 Archaeological, Cultural, and Historical Resources

- Information regarding previously recorded cultural resources within the Project Area and a two-mile buffer was obtained from a review of publically available data regarding properties and districts listed in the National Register of Historic Places (NRHP).
- No NRHP listed resources are mapped within two miles of the Project according to a review of the NRHP GIS layer.

- A formal cultural resources literature review should be conducted by requesting the CA Office of Historic Preservation (OHP) to perform a search of the California Historical Resources Information System (CHRIS) in order to obtain additional information on cultural resources in and near the Project. This research may also provide information if a cultural resources field survey would be recommended.
- Should the current Project be deemed a federal undertaking (requiring a federal permit, license, or approval; being located on federally owned or managed land; or receiving federal financial assistance), the scope of required cultural resource investigations would be determined by the functioning lead federal agency in cooperation with the State Historic Preservation Office (SHPO) and pertinent Tribal Historic Preservation Offices (THPO) as defined in both Section 101 of the National Environmental Policy Act of 1969 (NEPA) and Section 106 of the National Historic Preservation Act of 1966 (as amended) (NHPA).
- Should federal involvement require environmental review of the Project, the lead federal agency would be responsible for defining the scope of cultural resources investigations within the defined Area of Potential Effect (APE) to assess the potential impact on cultural resources.

3.4 Land Use Constraints

3.4.1 Public and Conservation Lands

- There are no federal, state, conservation easements or other public land within the Project Area. Portions of a 33,038 acre conservation easement held by The Nature Conservancy is within one mile of the Project Area (Exhibit 4). The conservation easement is adjacent to the Project Area along the southern and eastern boundaries. The purpose of the conservation easement is unknown.

3.4.2 Zoning, Existing and Future Land Use

- On March 20, 2019, Westwood researched zoning, land use ordinances, and potential county-level permitting for solar projects in Stanislaus County, California. According to the Stanislaus County Public Parcel Viewer, the Project Area is sited outside of any township or municipal boundaries. The Parcel Viewer notes that the Project Parcel 028-015-002 is sited within the A-2-40 General Agriculture 40 Acre Zoning District; the General Plan notes that area is planned for AG-Agriculture. Solar energy facilities were not listed as a permitted use, uses requiring Use Permits,

or uses requiring Board of Supervisors’ approval in the County Zoning Code Chapter 21.20. The Project may be considered a facility for public utilities and communication towers, which would trigger the need for a Use Permit. The County does not have a solar ordinance, nor was solar energy mentioned throughout the Stanislaus County Code. It is likely that Project development will be permitted through a Use Permit from Stanislaus County.

- In addition to the Use Permit, the Project will likely require a Building Permit and Grading Permit through the Stanislaus Department of Planning and Community Development Division of Building Permits. The Building Permit is broad permit application that requires submittal of supplemental materials such as construction and engineering plans, floodplain elevation certificates, electrical plans, and more. The Division of Building Permits will identify other departments of Stanislaus County who will need to be involved in the review process. The Building Permit Application is available online; complete and submit the application, supplemental materials, and fees to the Division of Building Permits. The Grading Permit is required prior to any grading, clearing, excavating, filling or other disturbances of natural terrain. Using the Grading Permit Checklist in the Stanislaus County Improvement Standards, submit the necessary materials and fees to the Division of Building Permits.
- Stormwater Permitting will be conducted at the State Level through the State Water Resources Control Board’s Construction Stormwater General Permit. Since the Project will be disturbing more than one acre, the County only requires submittal of the Stormwater Pollution Prevention Plan (SWPPP); no additional stormwater permitting requirements are necessary.
- Transportation and Encroachment permits through the Stanislaus County Department of Public Works may be necessary prior to construction, should the Project utilize county-maintained roadways or perform construction within County ROW.
- Structures must meet the setback requirements for the district in which it is located. Stanislaus County setback requirements for the A-2 General Agricultural District are summarized in **Table 3.4.2**.

Table 3.4.2 Structure Setbacks from Roads

Front Yard	
Required Setback Distance from Road Centerline (ft)	Road Class

75	Street; nor less than 15 ft from a planned street line on a major street or expressway, whichever is greater
45	Collector street (60 ft wide); nor less than 15 ft from the planned street line where a specific plan has been adopted
45	Minor street (50 ft wide); nor less than 15 ft from the planned street line where a specific plan has been adopted
20	Vehicle opening of any building no closer than 20 ft to the property line where road faces
Side/Rear Yard	
5	Interior lot line

- The Stanislaus Zoning Code states that no fence, hedge, or screening in excess of three feet in height shall be constructed or permitted to grow within any required front or side yard of a corner lot unless determined by the director that visibility will not be obstructed.

3.4.3 Infrastructure

- **Exhibit 5** depicts the locations of public and private infrastructure and land use constraints in the vicinity of the Project.
- No buildings are located on the Project Area.
- According to the California Department of Water Resources, one water well is mapped within the Project Area. The water well was installed for domestic use so it is likely found at the farmstead southeast of the Project Area rather than in the middle as it is currently mapped.
- No pipelines are found within the Project Area. The nearest pipelines are one natural gas pipeline 0.40 miles to the north and one oil and one natural gas lines found approximately 0.9 miles east of the Site, east of Interstate Highway 5.
- Three transmission lines are found within the Project Area. Two transmission lines, 138 kV and 500 kV lines, run north to south through the west of the Site and a 115 kV line runs along the eastern boundary.

- No substations are located within the Project Area. The closest substation is found approximately 0.4 miles north of the Site.
- One plugged dry hole well is found within the Project Area and another is found within one mile.
- No railroad tracks are mapped within or adjacent to the Project Area. The nearest railway is located approximately 6 miles east of the Site.
- No airports are within five miles of the Project. The closest airport, Gustine, is located approximately 8 miles east of the Site
- The FAA’s Notice Criteria screening tool was used to determine if further aeronautical study or FAA filing is needed for the Project. The screening tool indicated that the studied elevation and height scenario (310 ft elevation, 15 ft structure) at the center of the Project do not exceed Notice Criteria and therefore no 7460-1 forms need to be filed for the Project.

3.4.4 Soils

- According to the USDA Web Soil Survey, the primary soils on the Site are various loams and clay loams. All soils within the Project Area are classified as non-hydric except a small area of predominantly hydric soil found along the southern boundary of the Site (**Exhibit 6**).
- All of the Project Area is classified as prime farmland if irrigated except a small area on the southern boundary that is classified as not prime farmland (Exhibit 4).

3.4.5 Environmental Hazards

- A search for known environmental hazards and conditions was completed for this Project using the U.S. Environmental Protection Agency (EPA) *My Environment* online database. *My Environment* indicated that no sites were recorded within the Project Area. One air pollutant source, the Shell Pipeline Company Lp (Information System Id CASJV00006099N2224), is located approximately 0.4 miles north of the Site.

4.0 CRITICAL ISSUES ANALYSIS SUMMARY

Table 4.1 Critical Issues Analysis Summary		
Category	Items of Note	Significant Constraints/Hurdles
Floodplain	FEMA flood data indicates no flood risk in the Project Area. CA DWR Awareness mapping indicates a 100-year floodplain along the southeast boundary of the Project.	None identified.
Water Resources	No water resources are mapped within the Project Area. No impaired waters are found within a mile of the Project Area.	None identified.
Hydrology	The Project Boundary is located on a moderate slope with a moderate amount of offsite drainage. There is a channel adjacent to the Project Boundary with a large amount of offsite with the possibility of backing up water within the Project Boundary. If this project is pursued further a FLO2D model should be used to model the offsite watershed.	None Identified.
Water resources regulations	If jurisdictional wetlands are present, project infrastructure such as access roads, collection cables, and PV foundations should be sited to avoid water resources to the degree practicable.	None identified.
Sensitive Biological Resources	No rare species or habitats were identified within the Project Area, however, eight rare vertebrate species occurrences were identified within one mile of the Project Area. Three of the 10 federally-listed species identified	There is potential for permitting agencies to request sensitive resources surveys within the Project Area as part of the due diligence process. Specifically for the species

Table 4.1 Critical Issues Analysis Summary		
Category	Items of Note	Significant Constraints/Hurdles
	by IPaC (USFWS 2019) have probabilities of occurrence above low.	identified by the CNDD or that have probabilities of occurrence that are considered above low.
Archaeological and Historic Resources	No properties listed in the NRHP were mapped in the publically available GIS layer. Additional cultural resources research should be conducted	None identified.
Public Lands	There are no federal, state or other public lands mapped within the Project Area. Portions of a large conservation easement held by The Nature Conservancy are within one mile and adjacent to the Project Area.	None identified.
Zoning and Land Use	The Project Area is zoned A-2 General Agricultural. Stanislaus County will likely require a Use Permit, Building Permit, and Grading Permit for the Project. The Project may also require Transportation and Encroachment permits.	None Identified.
Infrastructure	No buildings are located in the Project area. Two transmission lines are located in the west of the Site and another is located along the eastern boundary of the Project. One water well is mapped on the Site.	None identified.
Soils	Most of the soils on the Site are loams and clay loams and classified as non-hydric.	None identified.
Environmental Hazards	No significant records identified in USEPA <i>My Environment</i> search.	None identified.

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<https://fws.maps.arcgis.com/home/webmap/viewer.html?webmap=9d8de5e265ad4fe09893cf75b8dbfb77> Accessed January 2019.

U.S. Fish and Wildlife Service. 2017. Framework for assessing impacts to the valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*). Sacramento, California. Pp. 1-28.

U.S. Fish and Wildlife Service. 2010. Fresno kangaroo rat (*Dipodomys nitratoides exilis*) 5-year review: Summary and evaluation. Sacramento Fish and Wildlife Office, Sacramento, CA. Pp. 1-22.

U.S. Fish and Wildlife Service. 2019. Information for Planning and Consultation – Waterloo Solar Farm. Accessed February 2019.

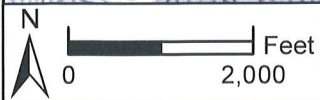
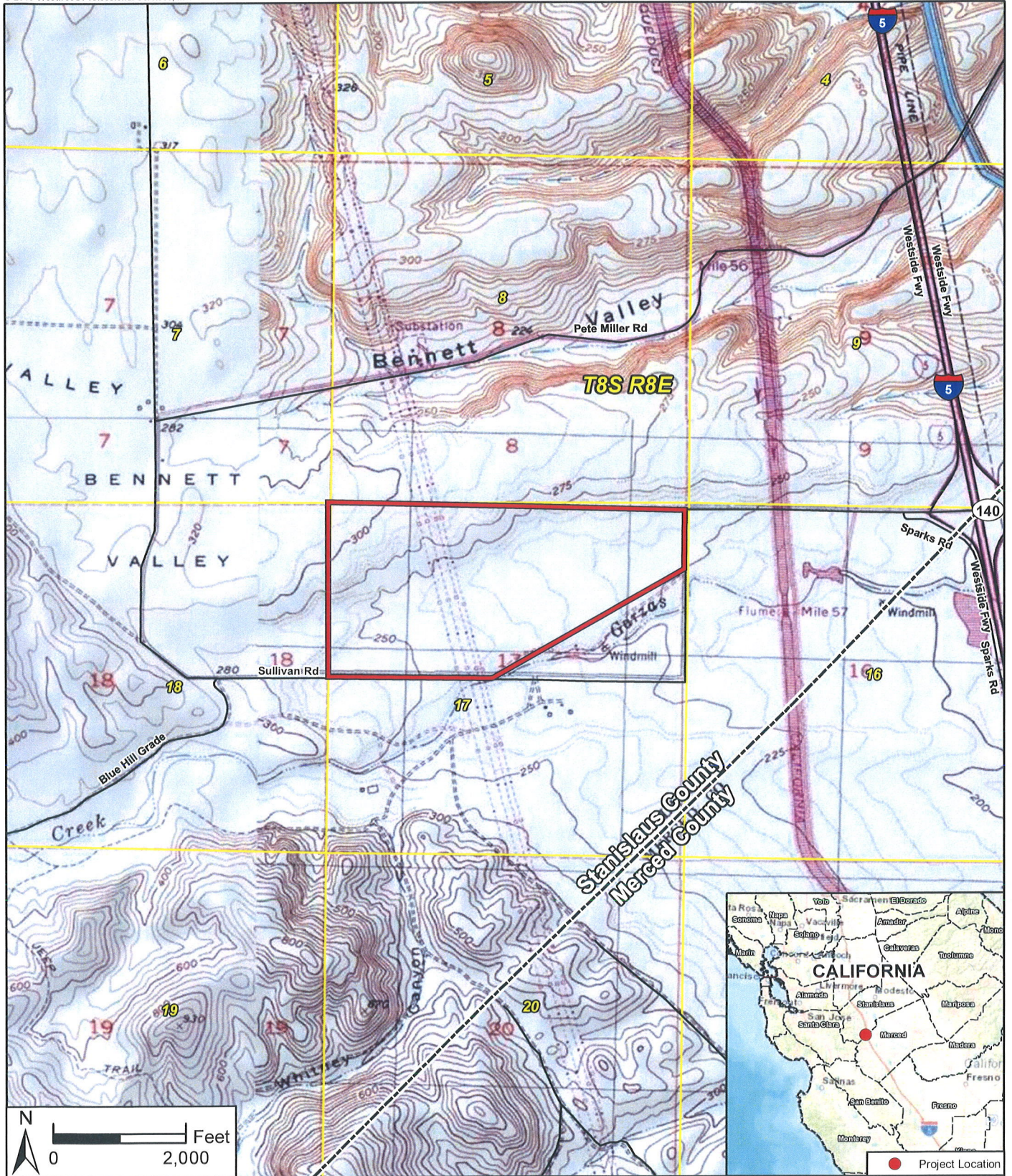
U.S. Fish and Wildlife Service. 2002. Recovery Plan for the California red-legged frog (*Rana aurora draytonii*). U.S. Fish and Wildlife Service, Portland, Oregon. Pp. 1-173.

U.S. Fish and Wildlife Service. 2017. Recovery Plan for the giant garter snake (*Thamnophis gigas*). Sacramento, California. Pp. 1-79.

U.S. Fish and Wildlife Service. 1998. Recovery Plan for upland species of the San Joaquin Valley, California. Portland, Oregon. Pp. 1-319.

U.S. Fish and Wildlife Service. 2005. Recovery Plan for vernal pool ecosystems of California and southern Oregon. Portland, Oregon. Pp. 1-606.

Exhibits



Data Source(s): Westwood (2019); ESRI WMS USA Topo Basemap Imagery (Accessed 2019); Bureau of Land Management (2011); Census Bureau (2018).

Legend

- Project Boundary
- PLS Township Boundary
- County Boundary
- City Boundary
- Road
- PLS Section Boundary

Westwood
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 Westwood Professional Services, Inc.



Hydaspes Solar Project
 Stanislaus County, California

Project Location & USGS Topography

Map Document: N:\0022418.00\GISAnalysis\190325_NGB\WaterInfo_CIA_Ex1_Site_Location_190325.mxd 3/26/2019 9:32:34 AM NGBryant



Data Source(s): Westwood (2019); Census Bureau (2018); USDA NAIP Stanislaus County (2016); EPA Impaired Waters (2015); USGS NHD (2015); USFWS NWI (2017); California Department of Water Resources (2012).

Legend

- Project Boundary
- Impaired Stream
- Impaired Lake
- NWI Wetland
- Drainage Ditch
- NHD Flowline
- NHD Waterbody
- 100-Year CDWR Floodplain
- 100-Year FEMA Floodplain
- 500-Year FEMA Floodplain

Hydaspes Solar Project

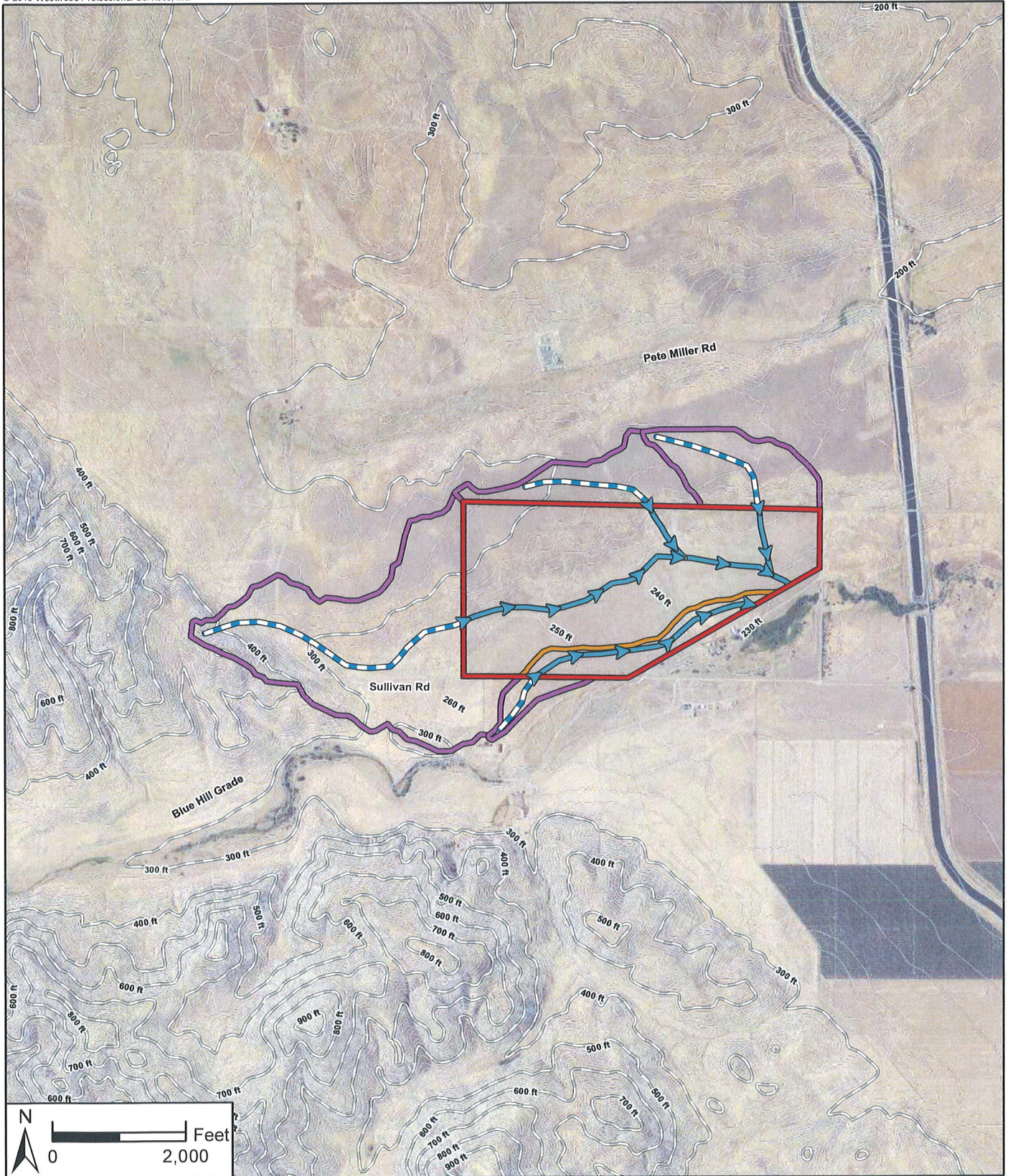
Stanislaus County, California

Water Resources

Westwood

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Westwood Professional Services, Inc.

Flood Awareness data comes from California Water Resource Board (CDWR) and floodplains are identified using approximate assessment procedures.



Data Source(s): Westwood (2019); Census Bureau (2018); USDA NAIP Stanislaus County (2016); USGS NED (2018).

Legend

- Project Boundary
- 100ft Contour
- 10ft Contour
- ➔ Onsite Flowpath
- ➔ Offsite Flow Path
- Onsite Drainage Area
- Offsite Drainage Area

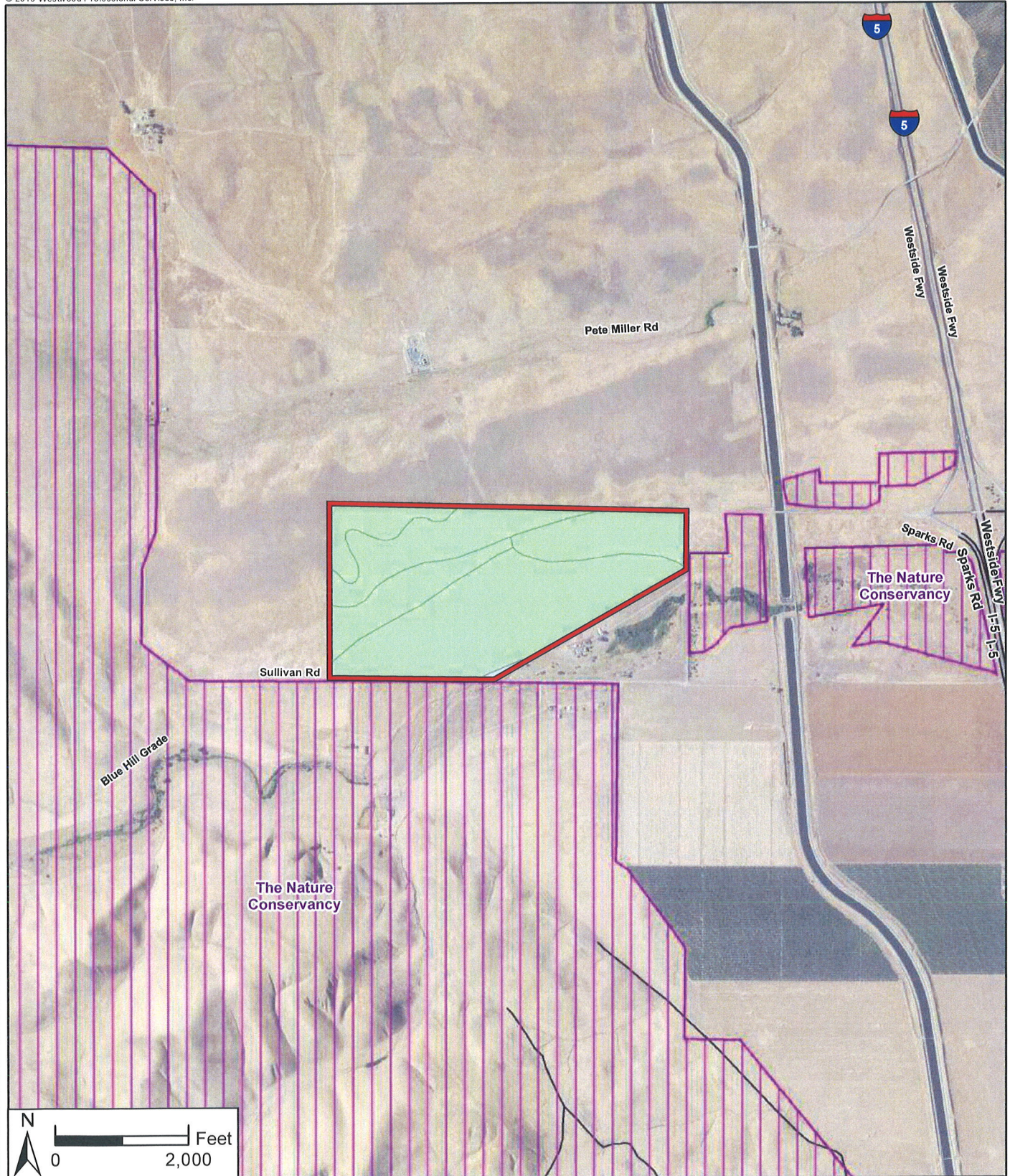
Hydaspes Solar Project
Stanislaus County, California

Desktop Hydro

EXHIBIT 3

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Westwood Professional Services, Inc.



Data Source(s): Westwood (2019); Census Bureau (2018); USDA Stanislaus County (2018); NCED and Partners (2016); Conservation Biology Institute PAD-US (2016); USFWS (2012); California Natural Diversity Database (2019).
 Note: CNDBB data referenced here were provided by the California Department of Fish & Game and are current as of 2019. These data are not based on an exhaustive inventory of the state. The lack of data for any geographic area shall not be construed to mean that no significant features are present.

Legend

- Project Boundary
- National Conservation Easement
- National Wildlife Refuge Boundary
- PAD Public Land

Prime Farmland Classification

- Not prime farmland
- Prime farmland if irrigated

Hydaspes Solar Project
Stanislaus County, California

Biological Resources
& Public Lands

EXHIBIT 4

CNDBB data indicates eight records for sensitive Vertebrate Animal within 1 mile of the project boundary.



Map Document: N:\0022418.00\GIS\A_ Exhibits\Waterloo_CIA_Ext_Infrastructure_190328.mxd 3/26/2019 10:22:58 AM NGBryant

Data Source(s): Westwood (2019); Census Bureau (2018); USDA NAIP Stanislaus County (2016); Ventyx Velocity Suite, Ventyx Energy LLC (2018); California Department of Water Resources (2019); California Energy Commission (2018).

- Legend**
- Project Boundary
 - Oil Pipeline
 - CO2 Pipeline
 - Natural Gas Pipeline
 - Transmission Line
 - Railroad
 - Airport
 - Substation
 - W Water Well
 - + Plugged Oil & Gas Well
 - + Natural Gas Compressor Station

Hydaspes Solar Project

Stanislaus County, California


Infrastructure

Westwood
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 Westwood Professional Services, Inc.



Data Source(s): Westwood (2019); Census Bureau (2018); USDA NAIP Stanislaus County (2016); USDA, Natural Resources Conservation Service (2019).

Legend

 Project Boundary

 Soil Unit Boundary

 All Hydric/Predominantly Hydric Soil

Unified Soil Classification System | USDA Map Unit Symbol | USDA Map Unit Name | Hydric Soils Classification

CH | 303 | Damluis gravelly clay loam, 2 to 8 percent slopes | 0% Hydric

CL | 130 | Stomar clay loam, 0 to 2 percent slopes | 0% Hydric

CL | 302 | Damluis gravelly clay loam, 0 to 2 percent slopes | 0% Hydric

ML | 271 | Elsalado loam, 0 to 2 percent slopes, rarely flooded | 0% Hydric

SC | 220 | Xerofluvents-Xerorthents complex, 1 to 8 percent slopes, occasionally flooded | 92% Hydric

SC | 300 | Damluis clay loam, 0 to 2 percent slopes | 0% Hydric

Hydaspes Solar Project
Stanislaus County, California

Soils

EXHIBIT 6

Westwood

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Westwood Professional Services, Inc.

Appendix A

Information for Planning and Consultation (IPaC) Results



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713



In Reply Refer To:

March 20, 2019

Consultation Code: 08ESMF00-2019-SLI-1419

Event Code: 08ESMF00-2019-E-04582

Project Name: Hydaspes Solar Project

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- **Official Species List**

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

(916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2019-SLI-1419

Event Code: 08ESMF00-2019-E-04582

Project Name: Hydaspes Solar Project

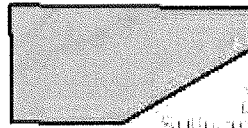
Project Type: POWER GENERATION

Project Description: Solar Energy Facility

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/37.24284109446412N121.11421352283504W>

ETT VALLEY



STANISLAUS
MERCED

Counties: Stanislaus, CA

Endangered Species Act Species

There is a total of 10 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Fresno Kangaroo Rat <i>Dipodomys nitratoides exilis</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5150 Species survey guidelines: https://ecos.fws.gov/ipac/guideline/survey/population/37/office/11420.pdf	Endangered
San Joaquin Kit Fox <i>Vulpes macrotis mutica</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2873	Endangered

Reptiles

NAME	STATUS
Blunt-nosed Leopard Lizard <i>Gambelia silus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/625	Endangered
Giant Garter Snake <i>Thamnophis gigas</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4482	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander <i>Ambystoma californiense</i> Population: U.S.A. (Central CA DPS) There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2076	Threatened

Fishes

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
Valley Elderberry Longhorn Beetle <i>Desmocerus californicus dimorphus</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7850 Habitat assessment guidelines: https://ecos.fws.gov/ipac/guideline/assessment/population/436/office/11420.pdf	Threatened

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp <i>Lepidurus packardii</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2246	Endangered

Critical habitats

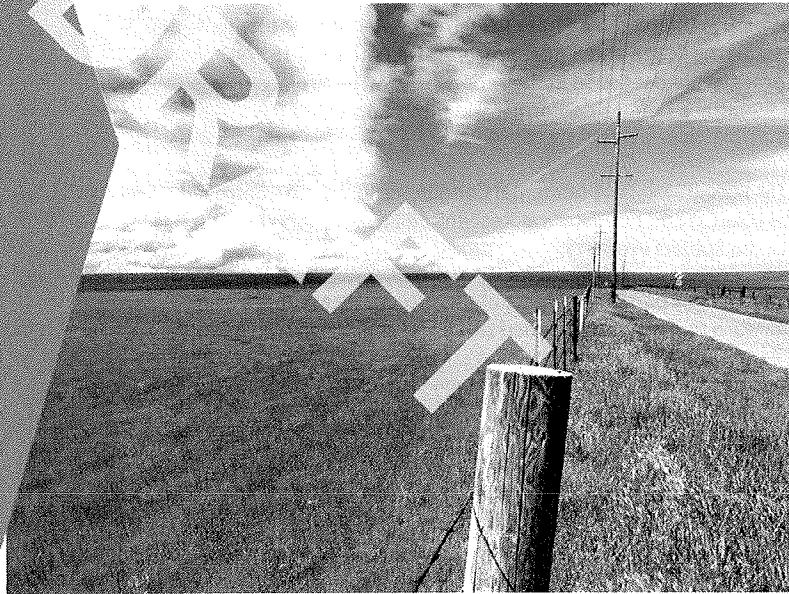
THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Phase I Environmental Site Assessment

Hydaspes Solar Project

Newman, California

March 29, 2019



Prepared By:
Westwood

Prepared For:
WIGP
CAPITAL PARTNERS

March 29, 2019

Elliott MacDougall
WDG Capital Partners
PO Box 31159
Santa Barbara, CA 93139

Re: Phase I Environmental Site Assessment for Hydaspes Solar Project
Newman, Stanislaus County, California
Project No. R0022418.00

Dear Mr. MacDougall,

Westwood Professional Services (Westwood) completed a Phase I Environmental Site Assessment (Phase I ESA) in general conformance with the scope and limitations of ASTM Practice E 1527-13. Any exceptions to or deletions from this practice are described in the report [below](#). The Project Area is located near the town of Newman in Stanislaus County, California, and totals approximately 265.0-acres.

This assessment has revealed no ASTM Recognized Environmental Conditions (RECs), no Controlled Recognized Environmental Conditions (CRECs) and no Historical Recognized Environmental Conditions (HRECs) in connection with the Subject Property.

If you have any questions or wish to discuss any particular aspect of the project, please feel free to call me at (952) 697-5763 . We look forward to being of continued service to you.

Sincerely,

Westwood Professional Services



Andy Brummer
Environmental Due Diligence Lead

Westwood

Phase I Environmental Site Assessment
Hydaspes Solar Project
Newman, California

Prepared for:

WDG Capital Partners
PO Box 31159
Santa Barbara, CA 93139

Prepared by:

Westwood Professional Services
12701 Whitewater Drive, Suite 300
Minnetonka, MN 55343
(952) 937-5150

Project Number: R0022418.00
Date: March 29, 2019

Multi-Disciplined Surveying & Engineering
westwoodps.com

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Appendix A: User Questionnaire

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1.0 EXECUTIVE SUMMARY

Westwood Professional Services (Westwood) performed this Phase I Environmental Site Assessment (Phase I ESA) for WDG Capital Partners, Weymouth Development Group and Enerparc (collectively the Users) in support of the Hydaspes Solar Project at 5925 Sullivan Road in Newman, Stanislaus County, California. The Subject Property is associated with the Stanislaus County parcel identification number (PIN) 028-015-002 ([Exhibit 1](#)). This Phase I ESA generally conforms to the scope and limitations of American Society for Testing and Materials (ASTM) Standard E 1527-13 and 40 CFR § 312 Subp. C., All Appropriate Inquiries (AAI) Standards and Practices.

This assessment has revealed no ASTM Recognized Environmental Conditions (RECs), no Controlled Recognized Environmental Conditions (CRECs) and no Historical Recognized Environmental Conditions (HRECs) in connection with the Subject Property.

2.0 INTRODUCTION

Westwood's scope of work for this Phase I ESA generally conforms to the American Society for Testing and Materials (ASTM) Practice E 1527-13: Standard Practice for Environmental Site Assessments: Phase I ESA Process and the AAI. The purpose of this standard practice is to define good commercial and customary practice for conducting a Phase I ESA of a parcel of real estate with respect to the range of contaminants within the scope of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and petroleum products. As such, this practice is intended to permit a user to satisfy one of the requirements for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on CERCLA liability, i.e. landowner liability protections. The ASTM standard is designed to meet the criteria mandated by CERCLA for AAI into the previous ownership and uses of the property consistent with good commercial or customary practice.

In defining a standard of good commercial and customary practice for conducting a Phase I ESA of a parcel of property, the goal of the ASTM practice is to identify Recognized Environmental Conditions (RECs). The term RECs means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimis conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate government agencies. As defined in ASTM E1527-13, the term Controlled Recognized Environmental Condition (CREC) means a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls. Historical Recognized Environmental Conditions (HRECs) are those that were or would have been considered to be RECs in the past, but because of additional information or a change in conditions, may no longer be considered a REC.

2.1 Purpose

According to the User, the Phase I ESA was conducted in association with the leasing of the Subject Property.

Westwood performed the Phase I ESA in general accordance with ASTM Practice E1527-13 to determine if the Subject Property is known to contain an existing release, past release, or a material threat of a release of hazardous substances or petroleum products into structures or into the ground, groundwater, or surface water. The Phase I ESA process does not include sampling, which may verify or evaluate the extent of suspected environmental impacts.

2.2 Scope of Services

The User authorized Westwood Professional Services, Inc. to conduct a Phase I ESA, which was performed in general accordance with Westwood Professional Services proposal, and considered the following:

2.2.1 Records Review

Westwood obtained and reviewed available records to identify RECs in connection with the Subject Property. Availability of records information varies from information source to information source, including government jurisdictions. The ASTM standard identifies record information from standard sources and the User. The environmental professional is required to review only record information that is reasonably ascertainable or practically reviewable. Westwood researched the operations of the Subject Property back to 1937.

2.2.2 Site Reconnaissance

Westwood performed a site reconnaissance to visually observe RECs in connection with the Subject Property during one or more site visit(s). Westwood observed structures on the Subject Property to the extent that the view of such structures was not obstructed by water bodies, adjacent buildings, or other obstacles. If applicable, limitations are noted within the Phase I ESA report.

2.2.3 Interviews

Westwood conducted interviews with site representatives and state and/or local governmental agencies to obtain information in connection with the Subject Property.

2.2.4 Report

Westwood prepared this Phase I ESA report to generally follow the recommended report format of ASTM Practice E1527-13. This Phase I ESA report includes a scope of services, findings, opinions, and conclusions, which are supported by documentation collected during the assessment.

2.3 Significant Assumptions

Landowner contact information, Site boundaries and other information pertaining to the Site was provided to Westwood by the User or site representative. Westwood assumes that all information supplied is true and accurate and that the boundaries of the Subject Property is accurate based on information supplied by the User. The identification of geologic or geotechnical hazards is beyond the scope of this project.

2.4 User Reliance

Westwood's findings and opinions in this Phase I ESA are exclusively for the use of the Weymouth Development Group, LLC, Valhalla Solar Properties, LLC, and Enerparc Solar Development, LLC (collectively the Users). Westwood will not distribute or publish the Phase I ESA report without the consent of the Users, except as required by law or court order. No other party may rely on the Phase I ESA report without Westwood's written consent. The findings and opinions contained herein are limited to use by the Users. Westwood's services for this project have been performed in a manner consistent with normal standards of the profession. No other warranty or guarantee, expressed or implied, is made.

3.0 SUBJECT PROJECT DESCRIPTION

3.1 Location Description

The Subject Property is located at 5925 Sullivan Road in Newman, Stanislaus County, California. The Subject Property is associated with Stanislaus County PIN 028-015-002 and located within Section 17, Township 08 South, and Range 8 East.

3.2 Subject Property and Area Characteristics

The Subject Property is characterized by undeveloped pasture land. Local access to the Subject Property was provided by the east and south adjoining Sullivan Road and regional access was provided by Interstate 5. The Subject Property is located within an agricultural area of Newman, California.

An underground crude oil pipeline was installed on the central portion of the property between 1963 and 1971. The pipeline is owned and operated by Shell Pipeline CO., LP and is currently active.

3.3 Hydrogeological and Topographical Conditions

Based on the United States Department of Agriculture (USDA) Web Soil Survey (WSS), the Subject Property is underlain by clay loam. Bedrock geology consists of sedimentary units.

The Subject Property is located at an approximate elevation of 230 to 310 feet above mean sea level (amsl) and is generally flat. Surficial groundwater flow direction near the Subject Property is expected to flow south towards the Garzas Creek. However, the local direction of groundwater

flow may be affected by nearby streams, lakes, wells, and/or wetlands and may vary seasonally.

Property-specific groundwater flow direction was not determined through direct measurement during this Phase I ESA. Additional field investigation, beyond the Scope of Services of this Phase I ESA, would be required to determine this information.

3.4 Current Uses of Subject Property

The Subject Property is currently used as a cattle pasture and is undeveloped.

3.5 Structures, Roads, and Improvements

The Subject Property was developed with overhead electrical transmission lines and supports on the central portion of the property. The remainder of the property was pasture land and undeveloped.

3.6 Current Uses of Adjoining Properties

Current uses of the adjoining properties consist of farmsteads to the south and southeast and the remaining adjoining properties consisted of cattle pastures and vacant pasture land.

4.0 INFORMATION PROVIDED BY USER

4.1 Title Records

No title records were provided for review as part of this assessment.

4.2 Environmental Liens and Activity and Use Limitations

The User is unaware of environmental liens, activity, or use limitations encumbering the Subject Property.

4.3 Specialized Environmental Knowledge

The User was not aware of specialized environmental knowledge for the Site.

4.4 Valuation Reduction for Environmental Issues

The User is unaware of any reduction in value of the Subject Property due to past or present environmental issues.

4.5 Commonly Known or Reasonably Ascertainable Information

The User was not aware of commonly known or reasonably ascertainable information for the Site.

4.6 Degree of Obviousness

The User was not aware of any obvious indications of the presence or likely presence of releases or threatened releases at the Site.

See [Appendix A](#) for a copy of the User and/or Landowner Questionnaire(s).

4.7 Subject Property Location Information

The Subject Property boundaries were provided via a KMZ file from the User.

5.0 RECORDS REVIEW

5.1 Sources of Environmental Records

ERIS - Environmental Risk Information Services (ERIS) provided regulatory record sources listed in Section 8.2.1 of the ASTM Standard. The ERIS report is included in [Appendix B](#). The records review identified records of known sites located within the ASTM minimum search distances from the Subject Property. ERIS also provided Westwood with certain supplemental environmental database records that surpass the ASTM minimum standards government database lists. Any facilities identified by Westwood within the immediate vicinity of the Subject Property are discussed in the appropriate database section. The ASTM prescribed search radius for each database searched for records by ERIS, the number of listings located on each database searched, and their appropriate locations with respect to the Subject Property, are summarized below. The listings are located as shown in the ERIS report. Refer to the ERIS report for a detailed description of each database that is searched in their evaluation, and the date of the last revision for each source searched by ERIS.

5.1.1 Subject Property

The Site is not listed in the ERIS report on any of the standard environmental record sources as specified in the ASTM Standard.

5.1.2 Adjoining Properties

The adjoining properties were not listed in the ERIS report on any of the standard environmental record sources as specified in the ASTM Standard.

5.1.3 Surrounding Areas

Westwood reviewed the ERIS report for facilities located beyond adjoining properties that may indicate a release or likely release of hazardous substances and/or petroleum products that may impact the Subject Property. Based on factors that include regulatory status, distance from the Subject Property, and/or location relative to the regional groundwater flow direction, no facilities are identified in the ERIS report that warrant further consideration as potential recognized environmental conditions.

5.2 Historical Use Information

Westwood reviewed the historical records associated with the Subject Property and adjoining properties below for the denoted years.

Historical Resources Reviewed

Resource	2010's	2000's	1990's	1980's	1970's	1960's	1950's	1940's	1930's	1920's	1910's	1900's
Aerial Photographs	✓	✓	✓	✓	✓	✓	✓	✓	✓			
Historic Topo Maps	✓		✓		✓	✓	✓	✓		✓		

5.2.1 Subject Property Aerial Photographs

The 1937 and 1942 aerial photographs depict the Subject Property developed as cultivated agricultural land. The 1950 aerial photograph depicts the construction of the overhead electrical transmission lines and supports on the central portion of the property. No significant changes are depicted on the Subject Property until the 1963 aerial photograph where the Subject Property no longer appears to be under cultivation. The 1971 aerial photograph depicts the underground crude oil pipeline was installed on the central portion of the property, in an approximately north to south orientation. No significant changes are depicted on the Subject Property in the 1977 through 2016 aerial photographs.

5.2.2 Adjoining Properties Aerial Photographs

The 1937 aerial photograph depicts the southeast and south adjoining properties developed with farmsteads and a stream system, the remaining adjoining properties are cultivated agricultural land and pasture land. The 1950 aerial photographs depict the overhead electrical transmission lines and supports installed on the north and south adjoining properties. No significant changes are depicted on the adjoining properties through present-day.

5.2.3 Topographic Maps

Historical United States Geological Survey (USGS) Topographic mapping was reviewed online for the Subject Property through the USGS Historical Topographic Map Explorer website. Maps reviewed included the Pacheco Pass, Howard Ranch, and San Jose topographic maps. The topographic maps reviewed were consistent with the above discussed aerial photographs.

5.3 Additional Environmental Records

Additionally, the California Environmental Protection Agency (CalEPA) Regulated Site Portal database were researched to identify any potential environmentally sensitive operations located at the Subject Property and within the vicinity of the Subject Property. No additional information was identified during the review of these online database sources.

5.4 Use of Prior Environmental Assessments

Westwood was not provided with any previous environmental assessments as part of this Phase I ESA.

6.0 SITE RECONNAISSANCE

An environmental scientist from Westwood conducted a site reconnaissance of the Subject Property on March 26, 2019, in general accordance with the ASTM Standard. It included review of the elements listed in Section 9 of the ASTM Standard. The objective of the site reconnaissance was to obtain information indicating the likelihood of identifying RECs in connection with the Subject Property. The following observations were visually observed and recorded. Photographs from the site reconnaissance are included in Appendix F.

Westwood reviewed available aerial photography prior to conducting the site reconnaissance to identify areas of special concern. The Subject Property was reviewed and accessed by vehicle and by physically walking the property.

Site Reconnaissance

Issue	Observed On Site	Observed on Adjacent Properties
Potable Water Supply	No	No
Hazardous Substances and Petroleum Products	No	No
Aboveground Storage Tanks	No	No
Underground Storage Tanks	No	No
Odors	No	No
Pools of Liquid	No	No
Drums	No	No
Electrical or Hydraulic Equipment	Yes	Yes
Exterior Observations	No	Yes
Pits, Ponds, or Lagoons	No	No
Stained Soil or Pavement	No	No
Stressed Vegetation	No	No
Possible Fill Material or Buried Solid Waste	No	No
Solid Waste and Unidentified Substances	No	No
Wastewater	No	No
Wells	No	No
Septic Systems	No	No

6.1 General Description of Structures

Besides the overhead electrical line and crude oil pipeline, no structures, roads, or other improvements are currently located on the Subject Property.

6.2 Hazardous Substances and Petroleum Products

An underground crude oil pipeline was installed on the central portion of the property between 1963 and 1971. The pipeline is owned and operated by Shell Pipeline CO., LP and is currently active.

6.3 Electrical or Hydraulic Equipment

Overhead electrical transmission lines and supports are located on the central portion of the Subject Property and the north and south adjoining properties.

7.0 INTERVIEWS

User Representative

Westwood interviewed Mr. Elliott MacDougall with WDG Capital Partners on March 14, 2019. Mr. MacDougall indicated that he was unaware of any past or current uses of the property that might be associated with risks of environmental contamination, specific hazardous chemicals or materials that are or were present at the Subject Property, any spills or releases of hazardous substances or petroleum products, any dumped, buried or burned hazardous substances or petroleum products or any environmental concerns associated with the Subject Property.

Local Government Officials

Westwood attempted to contact a representative from the Newman Fire Department, on March 28, 2019 for the purpose of conducting a records search of past or current environmental concerns associated with the Subject Property. At the time of this report, messages have not been returned and if they are returned and it changes the outcome of this report, an addendum to this report will be issued.

Landowner Representative

Westwood interviewed a landowner representative during the site reconnaissance on March 26, 2019, who stated that the site has been used as cattle pastures for at least the last ten years and, to her knowledge, has not been previously developed.

8.0 LIMITATIONS, DEVIATIONS, AND DATA GAPS

Westwood based the findings and conclusions of this Phase I ESA on the procedures described in ASTM Standard E1527-13, information and observations collected during those procedures, and Westwood's interpretation of that information. The findings of this Phase I ESA are limited to the specific Subject Property described in this report, and by the accuracy and completeness of information provided by others.

A Phase I ESA does not entirely eliminate uncertainty regarding the potential for RECs in connection with the Subject Property. Performance of ASTM Standard E1527-13 is intended to reduce, but not eliminate, uncertainty regarding the potential for RECs in connection with the Subject Property within reasonable limits of time and cost.

Several caveats are inherent in conducting this or any other environmental due diligence examination:

- It is difficult to predict which, if any, identified potential problems will become actual problems in the future. Federal and state regulations continually change as do the enforcement priorities of the applicable government agencies involved.
- There is always the possibility that sources of future environmental liability have yet to manifest themselves to the point where they are reasonably identifiable through an external investigation such as the one conducted for this assessment.

- The results of Westwood's investigation represent the applications of a variety of technical disciplines to material facts and conditions associated with the Subject Property. Many of these facts and conditions are subject to change over time. Therefore, the findings and opinions expressed within this document must be viewed in this context.
- Westwood is not responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed.
- Properties adjoining the Subject Property were only unobtrusively and visually inspected. Westwood cannot be held responsible for identifying conditions on adjoining properties that were not conspicuous at the time of the site reconnaissance.

The following limiting conditions were encountered:

- Due to the large size of the Project Area, Westwood was unable to view the entire Project Area without limitation. However, Westwood viewed the Project Area from land section borders, corners, and accessible roads.

No data gaps were identified during the course of this assessment. The identified limiting condition did not affect the environmental professional's ability to render opinions regarding conditions indicative of a release or threatened release.

9.0 FINDINGS

Westwood's findings identify all potential RECs, CRECs and HRECs through information uncovered during site reconnaissance or provided by the User, landowner, government official, ERIS report, or other sources. All findings listed in Section 9.0 that require further discussion are elaborated upon in Section 10.0 to either dismiss the finding or label it as a REC (10.1), CREC (10.2), HREC (10.3), De Minimis Condition (10.4) or an Additional Consideration (10.5).

Westwood makes the following findings based on this Phase I ESA:

- The government database records review identified regulated facilities within the vicinity of the Subject Property.
- The Subject Property was used solely for agricultural purposes from at least 1937 through 1963.
- An underground crude oil pipeline was installed on the central portion of the Subject Property between 1963 and 1971.

10.0 OPINIONS

According to the User, the Phase I ESA was conducted in association with leasing of the Subject Property. Opinions expressed herein are influenced by the stated reason for conducting the Phase I ESA. Furthermore, the expressed opinions might not be applicable to alternate reasons for reliance on the content of the Phase I ESA.

10.1 Recognized Environmental Conditions

The term RECs means the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimis conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate government agencies.

No RECS were identified in preparation of this Phase I ESA.

10.2 Historical Recognized Environmental Conditions

HRECs are those that were or would have been considered to be RECs in the past, but because of additional information or a change in conditions, may no longer be considered a REC.

No HRECS were identified in preparation of this Phase I ESA.

10.3 Controlled Recognized Environmental Conditions

A controlled recognized environmental condition is defined by ASTM Practice E1527-13 as “a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls.”

No CRECS were identified in preparation of this Phase I ESA.

10.4 De Minimis Conditions

A *de minimis* condition is one that generally does not pose a threat to human health or the environment and that would generally not trigger an enforcement action if brought to the attention of an applicable regulatory agency. Conditions determined to be *de minimis* are not RECs. The following findings are considered *de minimis* conditions:

- The government database records review identified regulated facilities within the search radius. Based on mitigating factors that affect the apparent significance of the identified facilities on the Site, such as regulatory status, distance from the Site, location of the facility in relation to the groundwater flow direction, and/or the database(s) the identified regulated facilities are listed on, it is our opinion that the identified regulated facilities are considered *de minimis* conditions.
- The Subject Property was used solely for agricultural purposes from at least 1937 through 1963. The use of the Subject Property for agricultural purposes would be considered a *de minimis* condition.
- An underground crude oil pipeline was installed on the central portion of the property between 1963 and 1971. The pipeline is currently owned and operated by Shell Pipeline CO., LP and is currently active. No releases have been reported or identified in connection to the pipeline and therefore the existence of the pipeline would be considered a *de minimis* condition.

10.5 Additional Considerations

An additional consideration is a condition that does not meet the definition of a REC, CREC, or HREC, but, in our opinion, should be brought to the attention of the User.

- No additional considerations were noted based on the finding of this report.

11.0 CONCLUSIONS

Westwood performed a Phase I ESA of the Subject Property in general conformance with the scope and limitations of ASTM Standard E1527-13. Exceptions to, or deletions from, this practice are described in Section 8.0 of the Phase I ESA. Our assessment did not reveal any RECs, CRECs or HRECs in connection with the Subject Property.

12.0 REFERENCES

ASTM International.2013. ASTM Practice E Practice E 1527-13.Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.

Stanislaus County Assessor. Real Property Records. Accessed March 2019.

Minnesota Pollution Control Agency. Environmental Data. Accessed March 2019.

United States Environmental Protection Agency. "All Appropriate Inquiries" Final Rule, 40 C.F.R. Part 312 (2014).

United States Department of Agriculture (USDA) Web Soil Survey (WSS). Accessed March 2019.

USGS. TopoView. Accessed March 2019.

13.0 ENVIRONMENTAL PROFESSIONAL'S STATEMENT OF QUALIFICATIONS

We declare that, to the best of our professional knowledge and belief, we meet the definition of environmental professional as defined in §312.10 of 40 CFR § 312. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Project Area. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312. Resumes are available upon request.

Name	Degrees	Years' Experience	Licenses and Certifications	Role on Project
Megan Lamb	BS, Geology	3	NA	Report Preparation Site Reconnaissance
Andy Brummer	BS, Biology	17	MN Asbestos	Peer Review Quality Assurance

Prepared and Reviewed by:

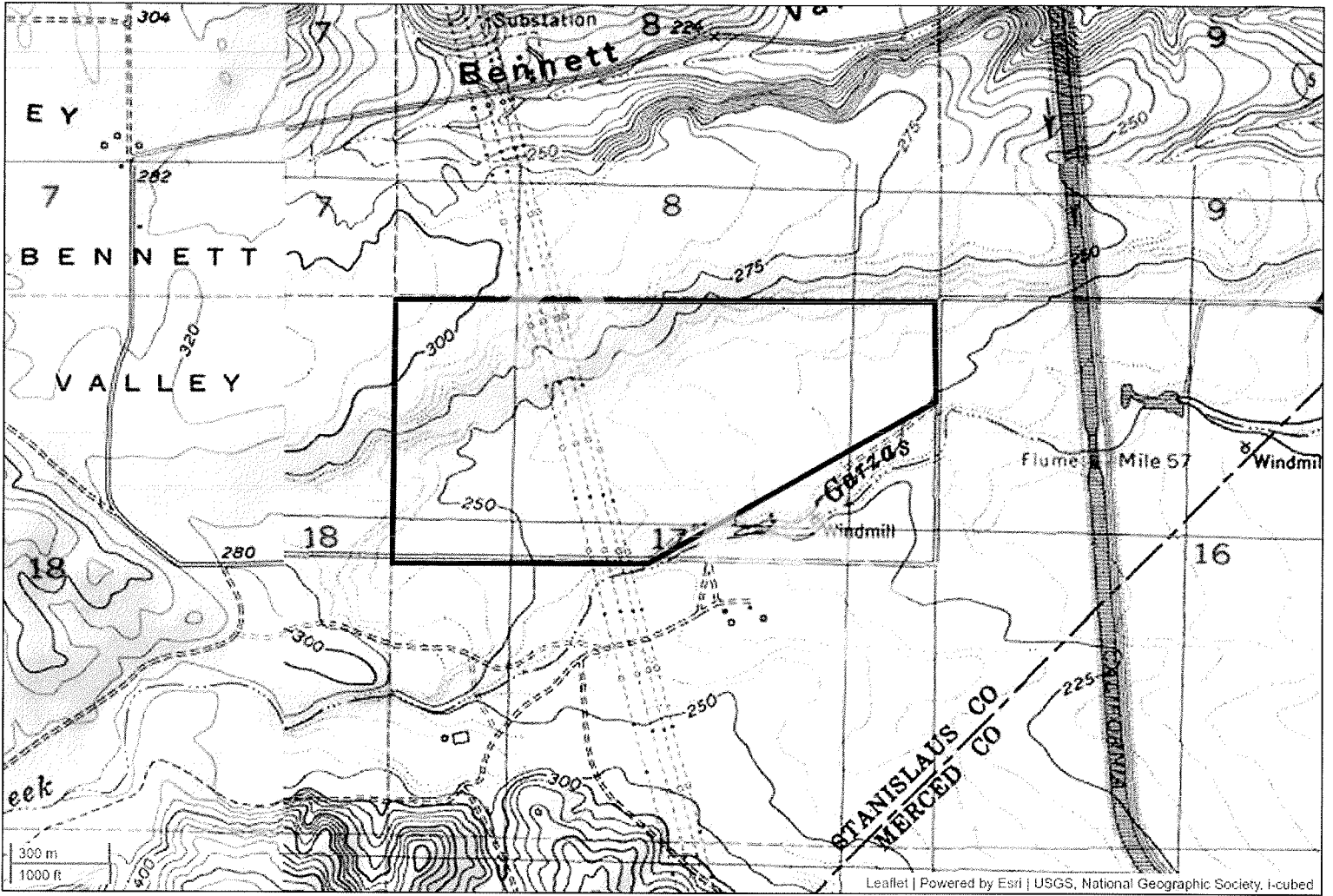


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Exhibit 1 Project Location



Project Boundary & USGS Topography

Hydaspes Solar Project
 Newman, California
 EXHIBIT 1

Westwood



Exhibit 2 Project Area and Subject Property



Project Area & Subject Property

Hydaspes Solar Project
Newman, California
EXHIBIT 2

Westwood

Appendix A: User Questionnaire

PHASE I ENVIRONMENTAL SITE ASSESSMENT
USER/CLIENT QUESTIONNAIRE
Westwood Professional Services

Project Information

User/Client Firm: Waterloo Solar **Project No:** _____
Weymouth Development Group **Interviewer:** _____
Name: Elliott MacDougall **(If applicable)**
Title: Manager
Phone: 805-617-0309
Email: emacdougall@wdgp.com
Date: 3/14/19

INSTRUCTIONS

Please make your answers as specific as feasible and answer the questions in good faith and to the extent of your knowledge. The word "property" refers to the land that will be purchased or leased for the project.

1. Do you know of past or current uses of the property that might be associated with risks of environmental contamination? If YES, describe those uses, the environmental contamination risks, and the location(s) within the property.

Answer: Yes / No

2. Do you know of specific hazardous chemicals or materials that are present or once were present at the property? If YES, describe the type of material(s), their locations, the time when they were present, and their use on the property.

Answer: Yes / No

3. Are you aware of any chemical, petroleum product, or hazardous material spills or releases at the property (such as oil, gas, diesel, herbicide, pesticide, other farm chemicals, lead-based paint, or asbestos) recently or in the past? If YES, please describe the material spilled or released, how much was involved, what happened, when it happened, and where it happened.

Answer: Yes / No

4. Do you know if any hazardous substance or petroleum products, tires, automotive batteries, or any other waste materials have been dumped above ground, buried and/or burned on the property? If YES, what occurred, where, and when?

Answer: Yes / No

5. Do you know of any environmental cleanups that have taken place on the property? If YES, please list and describe them and their location(s).

Answer: Yes / No

6. Are you aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state or local law? If YES, please list and describe them.

Answer: Yes / No

7. Are you aware of any activity and use limitations, such as engineering controls or institutional controls, which have been filed or recorded under federal, tribal, state or local law? If YES, please list and describe them and their location(s). (Activity and use limitations are legal or physical restrictions or limitations that affect access or use of a site. They can be restrictions of record on titles, zoning restrictions, easements, covenants, or physical barriers that reduce potential exposure to hazardous substances or petroleum products.)

Answer: Yes / No

8. Do you have any specialized knowledge or experience related chemical or material use at the property or nearby properties? If YES, please describe your knowledge or experience.

Answer: Yes / No

9. Does the purchase price of the property or the property leases reasonably reflect the fair market value of the property or leases? If the purchase price is lower than the fair market value, have you considered whether the lower purchase price may relate to contamination known or believed to be present at the property?

Answer: Yes / No

10. Based on your knowledge and experience of the property, are there obvious indicators that point to the presence or likely presence of contamination at the property? If YES, please list and describe the indicator(s) and their location(s).

Answer: Yes / No

11. Can you identify additional people, other than the property owners, who would be available to answer these questions and who would know more about the land use, history, and environmental condition of the property? If YES, please list name(s), phone number(s), and email(s).

Answer: Yes / No

Appendix B: Regulatory Database Report

ERIS
ENVIRONMENTAL RISK INFORMATION SERVICES



DATABASE REPORT

Project Property: *Waterloo
n/a
Gustine CA*

Project No: *2025342*

Report Type: *Database Report*

Order No: *20190321088*

Requested by: *Historical Information Gatherers*

Date Completed: *March 25, 2019*

Environmental Risk Information Services

A division of Glacier Media Inc.

1.866.517.5204 | info@erisinfo.com | erisinfo.com

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Executive Summary

Property Information:

Project Property: *Waterloo
n/a Gustine CA*

Project No: *2025342*

Coordinates:

Latitude: *37.243124*
Longitude: *-121.114324*
UTM Northing: *4,123,509.45*
UTM Easting: *667,252.47*
UTM Zone: *UTM Zone 10S*

Elevation: *242 FT*

Order Information:

Order No: *20190321088*
Date Requested: *March 21, 2019*
Requested by: *Historical Information Gatherers*
Report Type: *Database Report*

Historicals/Products:

Executive Summary: Report Summary

Database	Searched	Search Radius	Project Property	Within 0.12mi	.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
Standard Environmental Records								
Federal								
NPL	Y	1	0	0	0	0	0	0
PROPOSED NPL	Y	1	0	0	0	0	0	0
DELETED NPL	Y	.5	0	0	0	0	-	0
SEMS	Y	.5	0	0	0	0	-	0
ODI	Y	.5	0	0	0	0	-	0
SEMS ARCHIVE	Y	5	0	0	0	0	-	0
IODI	Y	5	0	0	0	0	-	0
CERCLIS	Y	.5	0	0	0	0	-	0
CERCLIS NFRAP	Y	5	0	0	0	0	-	0
CERCLIS LIENS	Y	PO	0	-	-	-	-	0
RCRA CORRACTS	Y	1	0	0	0	0	0	0
RCRA TSD	Y	.5	0	0	0	0	-	0
RCRA LQG	Y	.25	0	0	0	-	-	0
RCRA SQG	Y	.25	0	0	0	-	-	0
RCRA CESQG	Y	.25	0	0	0	-	-	0
RCRA NON GEN	Y	.25	0	0	0	-	-	0
FED ENG	Y	.5	0	0	0	0	-	0
FED INST	Y	.5	0	0	0	0	-	0
ERNS 1982 TO 1986	Y	PO	0	-	-	-	-	0
ERNS 1987 TO 1989	Y	PO	0	-	-	-	-	0
ERNS	Y	PO	0	-	-	-	-	0
FED BROWNFIELDS	Y	.5	0	0	0	0	-	0
FEMA UST	Y	.25	0	0	0	-	-	0
SEMS LIEN	Y	PO	0	-	-	-	-	0
SUPERFUND ROD	Y	1	0	0	0	0	0	0
State								
RESPONSE	Y	1	0	0	0	0	1	1

Database	Searched	Search Radius	Project Property	Within 0.12mi	.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
ENVIROSTOR	Y	1	0	0	0	0	1	1
DELISTED ENV5	Y	1	0	0	0	0	0	0
SWF/LF	Y	.5	0	0	0	0	-	0
HWP	Y	1	0	0	0	0	0	0
SWAT	Y	.5	0	0	0	0	-	0
LDS	Y	.5	0	0	0	0	-	0
LUST	Y	.5	0	0	0	0	-	0
DELISTED LST	Y	.25	0	0	0	-	-	0
UST	Y	.5	0	0	0	0	-	0
SWRCB SWF	Y	.5	0	0	0	0	-	0
UST CLOSURE	Y	.5	0	0	0	0	-	0
HHSS	Y	.25	0	0	0	-	-	0
AST	Y	.25	0	0	0	-	-	0
DELISTED TNK	Y	.25	0	0	0	-	-	0
CERS TANK	Y	.25	0	0	0	-	-	0
LUR	Y	.5	0	0	0	0	-	0
HLUR	Y	.5	0	0	0	0	-	0
DEED	Y	.5	0	0	0	0	-	0
VCP	Y	.5	0	0	0	0	-	0
CLEANUP SITES	Y	.5	0	0	0	0	-	0
DELISTED CTNK	Y	.25	0	0	0	-	-	0
HIST TANK	Y	.25	0	0	0	-	-	0

Tribal

INDIAN LUST	Y	.5	0	0	0	0	-	0
INDIAN UST	Y	.25	0	0	0	-	-	0
DELISTED ILST	Y	.5	0	0	0	0	-	0
DELISTED IUST	Y	.25	0	0	0	-	-	0

County

DELISTED COUNTY	Y	.25	0	0	0	-	-	0
MERCED CUPA	Y	.25	0	0	0	-	-	0
UST CLEANUP	Y	.5	0	0	0	0	-	0
MAHER SF	Y	.5	0	0	0	0	-	0
STANISLAUS CUPA	Y	.25	0	0	0	-	-	0

Additional Environmental Records

Federal

FINDS/FRS	Y	PO	0	-	-	-	-	0
TRIS	Y	PO	0	-	-	-	-	0
HMIRS	Y	.125	0	0	-	-	-	0
NCDL	Y	PO	0	-	-	-	-	0

Database	Searched	Search Radius	Project Property	Within 0.12mi	.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
TSCA	Y	.125	0	0	-	-	-	0
HIST TSCA	Y	.125	0	0	-	-	-	0
FTTS ADMIN	Y	PO	0	-	-	-	-	0
FTTS INSP	Y	PO	0	-	-	-	-	0
PRP	Y	PO	0	-	-	-	-	0
SCRD DRYCLEANER	Y	.5	0	0	0	0	-	0
ICIS	Y	PO	0	-	-	-	-	0
FED DRYCLEANERS	Y	.25	0	0	0	-	-	0
DELISTED FED DRY	Y	.25	0	0	0	-	-	0
FUDS	Y	1	0	0	0	0	1	1
MLTS	Y	PO	0	-	-	-	-	0
HIST MLTS	Y	PO	0	-	-	-	-	0
MINES	Y	.25	0	0	0	-	-	0
ALT FUELS	Y	.25	0	0	0	-	-	0
SSTS	Y	.25	0	0	0	-	-	0
PCB	Y	.5	0	0	0	0	-	0

State

DRYCLEANERS	Y	.25	0	0	0	-	-	0
DELISTED DRYCLEANERS	Y	.25	0	0	0	-	-	0
DRYC GRANT	Y	.25	0	0	0	-	-	0
HWSS CLEANUP	Y	.5	0	0	0	0	-	0
DTSC HWF	Y	.5	0	0	0	0	-	0
INSP COMP ENF	Y	1	0	0	0	0	0	0
SCH	Y	1	0	0	0	0	0	0
CHMIRS	Y	PO	0	-	-	-	-	0
HAZNET	Y	PO	0	-	-	-	-	0
HIST CHMIRS	Y	PO	0	-	-	-	-	0
HIST MANIFEST	Y	PO	0	-	-	-	-	0
HIST CORTESE	Y	.5	0	0	0	0	-	0
CDO/CAO	Y	.5	0	0	0	0	-	0
CERS HAZ	Y	.125	0	0	-	-	-	0
DELISTED HAZ	Y	.5	0	0	0	0	-	0
WASTE DISCHG	Y	.25	0	0	0	-	-	0
EMISSIONS	Y	.25	0	0	0	-	-	0
CDL	Y	.125	0	0	-	-	-	0

Tribal *No Tribal additional environmental record sources available for this State.*

County *No County additional environmental databases were selected to be included in the search.*

Database	Searched	Search Radius	Project Property	Within 0.12mi	.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
			0	0	0	0	3	3

* PO – Property Only

* 'Property and adjoining properties' database search radii are set at 0.25 miles.

Executive Summary: Site Report Summary - Project Property

<i>Map Key</i>	<i>DB</i>	<i>Company/Site Name</i>	<i>Address</i>	<i>Direction</i>	<i>Distance (mi/ft)</i>	<i>Elev Diff (ft)</i>	<i>Page Number</i>
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No records found in the selected databases for the project property.

Executive Summary: Site Report Summary - Surrounding Properties

Map Key	DB	Company/Site Name	Address	Direction	Distance (mi/ft)	Elev Diff (ft)	Page Number
<u>1</u>	ENVIROSTOR	GUSTINE BOMBING RANGE (J09CA7287) - MMRP	5 MILES WEST OF GUSTINE AND 156 MILES SOUTH OF SACRAMENTO GUSTINE CA 95322 <i>Estor/EPA ID Cleanup Status: 80001093 INACTIVE - ACTION REQUIRED AS OF 4/11/2016</i>	NE	0.65 / 3,407.30	2	<u>16</u>
<u>1</u>	FUDS	Gustine Bombing Range	CA	NE	0.65 / 3,407.30	2	<u>18</u>
<u>1</u>	RESPONSE	GUSTINE BOMBING RANGE (J09CA7287) - MMRP	5 MILES WEST OF GUSTINE AND 156 MILES SOUTH OF SACRAMENTO GUSTINE CA 95322 <i>Estor/EPA ID Cleanup Status: 80001093 INACTIVE - ACTION REQUIRED AS OF 4/11/2016</i>	NE	0.65 / 3,407.30	2	<u>18</u>

Executive Summary: Summary by Data Source

Standard

State

RESPONSE - State Response Sites

A search of the RESPONSE database, dated Dec 20, 2018 has found that there are 1 RESPONSE site(s) within approximately 1.00 miles of the project property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (mi/ft)</u>	<u>Map Key</u>
GUSTINE BOMBING RANGE (J09CA7287) - MMRP	5 MILES WEST OF GUSTINE AND 156 MILES SOUTH OF SACRAMENTO GUSTINE CA 95322 <i>Estor/EPA ID Cleanup Status: 80001093 INACTIVE - ACTION REQUIRED AS OF 4/11/2016</i>	NE	0.65 / 3,407.30	<u>1</u>

ENVIROSTOR - EnviroStor Database

A search of the ENVIROSTOR database, dated Dec 20, 2018 has found that there are 1 ENVIROSTOR site(s) within approximately 1.00 miles of the project property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (mi/ft)</u>	<u>Map Key</u>
GUSTINE BOMBING RANGE (J09CA7287) - MMRP	5 MILES WEST OF GUSTINE AND 156 MILES SOUTH OF SACRAMENTO GUSTINE CA 95322 <i>Estor/EPA ID Cleanup Status: 80001093 INACTIVE - ACTION REQUIRED AS OF 4/11/2016</i>	NE	0.65 / 3,407.30	<u>1</u>

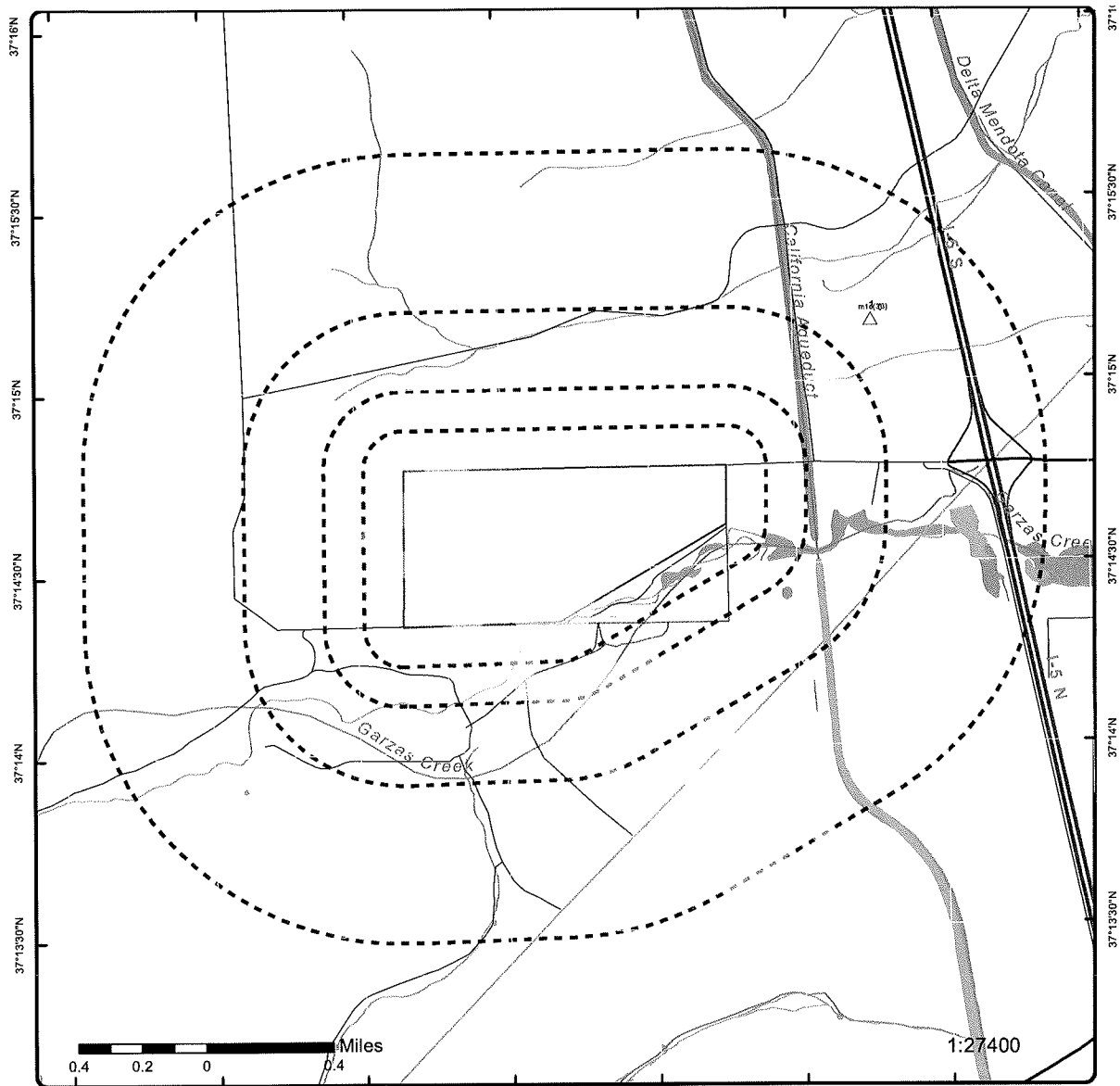
Non Standard

Federal

FUDS - Formerly Used Defense Sites

A search of the FUDS database, dated Oct 23, 2018 has found that there are 1 FUDS site(s) within approximately 1.00 miles of the project property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction</u>	<u>Distance (mi/ft)</u>	<u>Map Key</u>
Gustine Bombing Range	CA	NE	0.65 / 3,407.30	<u>1</u>



Map : 1 Mile Radius

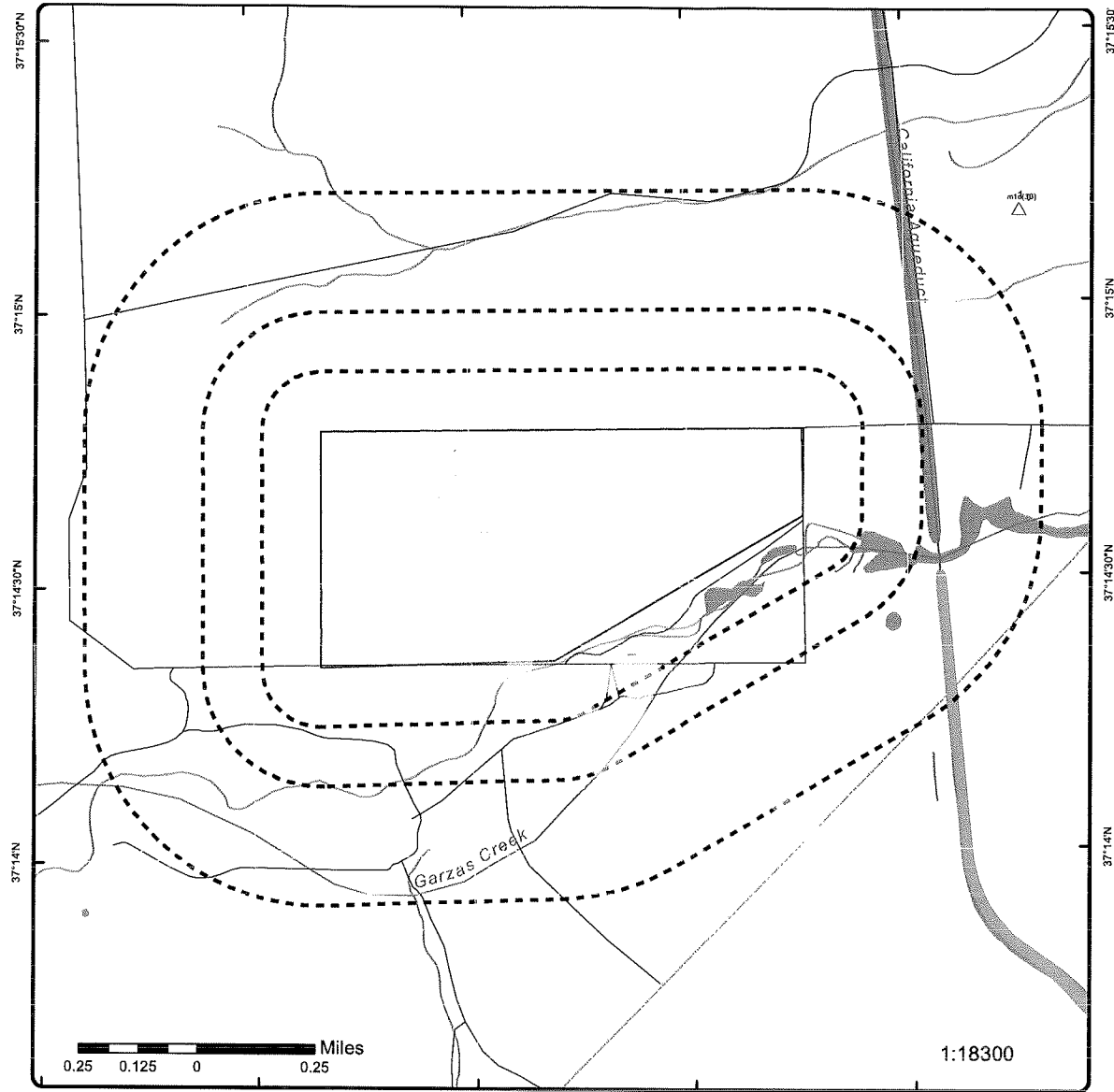
Order No: 20190321088
 Address: n/a, Gustine, CA



Project Property	Rails	State Boundary	FWS Special Designation Areas
Buffer Outline	Major Highways	National Priority List Sites	State Brownfield Sites
Eris Sites with Higher Elevation	Major Highways Ramps	National Wetland	State Brownfield Areas
Eris Sites with Same Elevation	Major Roads	Indian Reserve Land	State Superfund Areas:Dept. of Defense
Eris Sites with Lower Elevation	Major Roads Ramps	Historic Fill	State Superfund Areas:NPL
Eris Sites with Unknown Elevation	Secondary Roads	100 Year Flood Zone	WQARF Areas
County Boundary	Secondary Roads Ramps	500 Year Flood Zone	Federal Lands: Dept. of Defense (owned/administered areas)
	Local Roads and Ramps		

Source: © 2016 ESRI

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Map : 0.5 Mile Radius

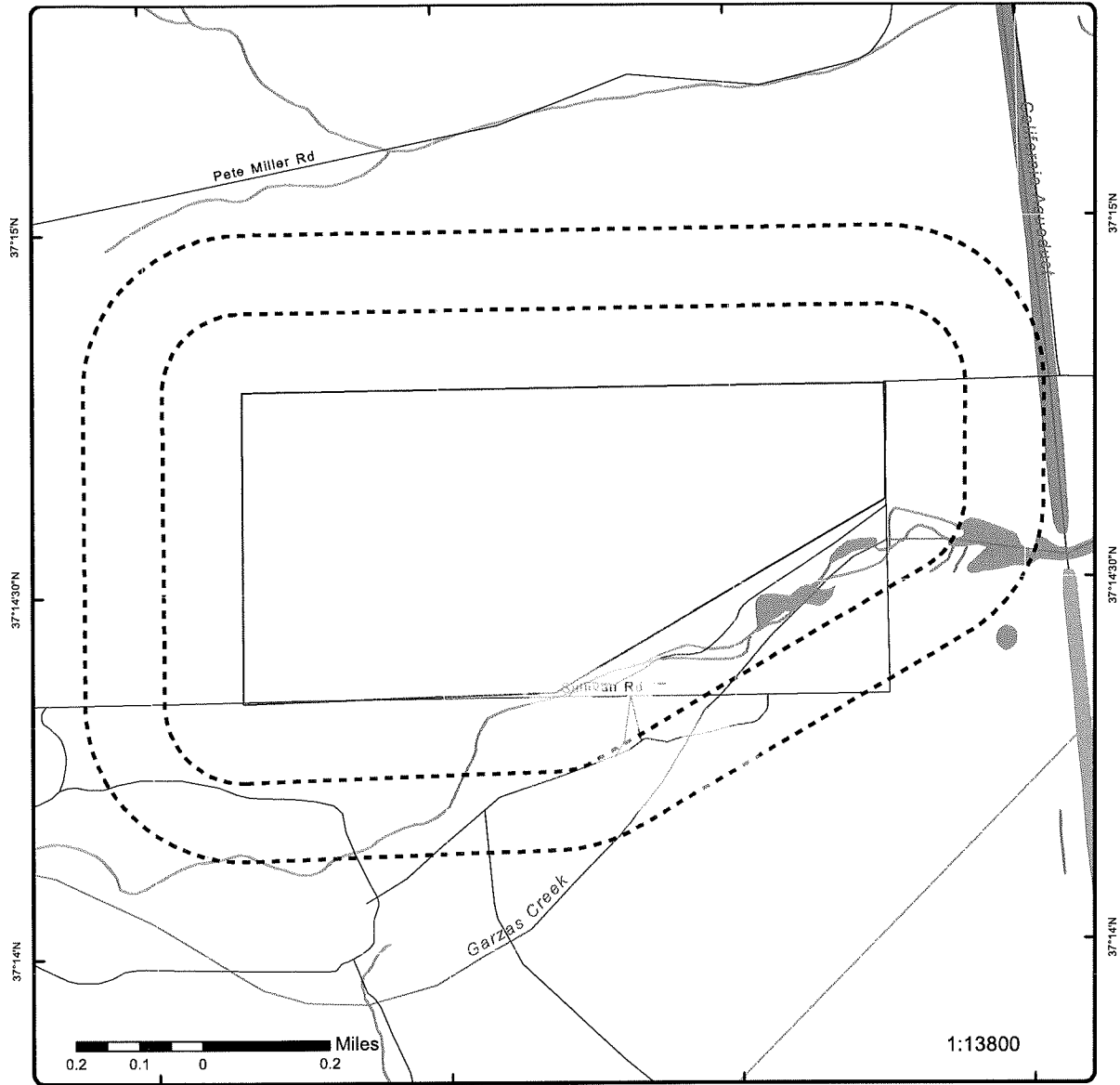
Order No: 20190321088
 Address: n/a, Gustine, CA



	Project Property		Rails		State Boundary		FWS Special Designation Areas
	Buffer Outline		Major Highways		National Priority List Sites		State Brownfield Sites
	Eris Sites with Higher Elevation		Major Highways Ramps		National Wetland		State Brownfield Areas
	Eris Sites with Same Elevation		Major Roads		Indian Reserve Land		State Superfund Areas:Dept. of Defense
	Eris Sites with Lower Elevation		Major Roads Ramps		Historic Fill		State Superfund Areas:NPL
	Eris Sites with Unknown Elevation		Secondary Roads		100 Year Flood Zone		WQARF Areas
	County Boundary		Secondary Roads Ramps		500 Year Flood Zone		Federal Lands: Dept. of Defense (owned/administered areas)
			Local Roads and Ramps				

Source: © 2016 ESRI

© ERIS Information Inc.



Map : 0.25 Mile Radius

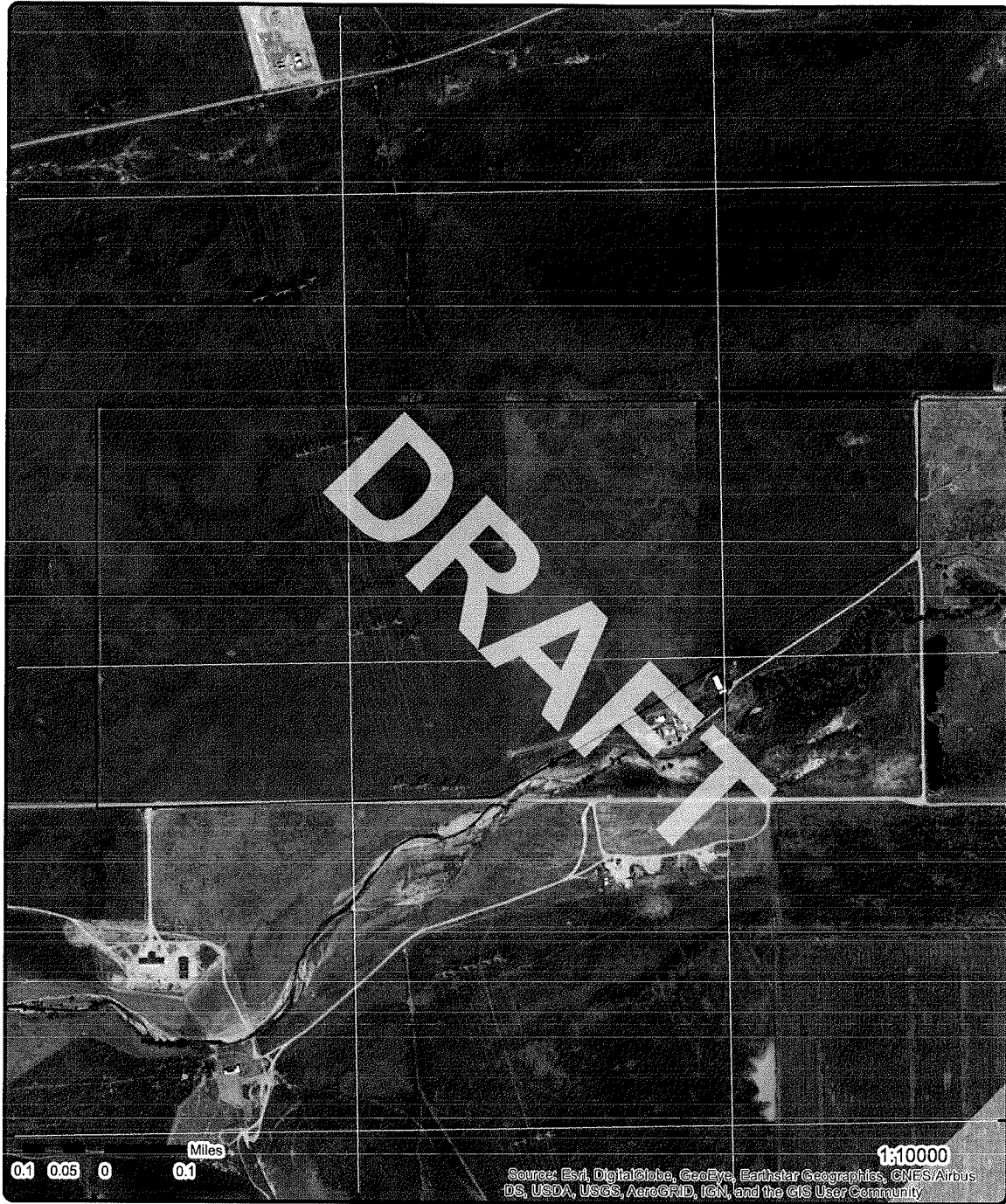
Order No: 20190321088
 Address: n/a, Gustine, CA



Project Property	Rails	State Boundary	FWS Special Designation Areas
Buffer Outline	Major Highways	National Priority List Sites	State Brownfield Sites
Eris Sites with Higher Elevation	Major Highways Ramps	National Wetland	State Brownfield Areas
Eris Sites with Same Elevation	Major Roads	Indian Reserve Land	State Superfund Areas: Dept. of Defense
Eris Sites with Lower Elevation	Major Roads Ramps	Historic Fill	State Superfund Areas: NPL
Eris Sites with Unknown Elevation	Secondary Roads	100 Year Flood Zone	WQARF Areas
County Boundary	Secondary Roads Ramps	500 Year Flood Zone	Federal Lands: Dept. of Defense (owned/administered areas)
	Local Roads and Ramps		

Source: © 2016 ESRI

© ERIS Information Inc.



Aerial (2017)

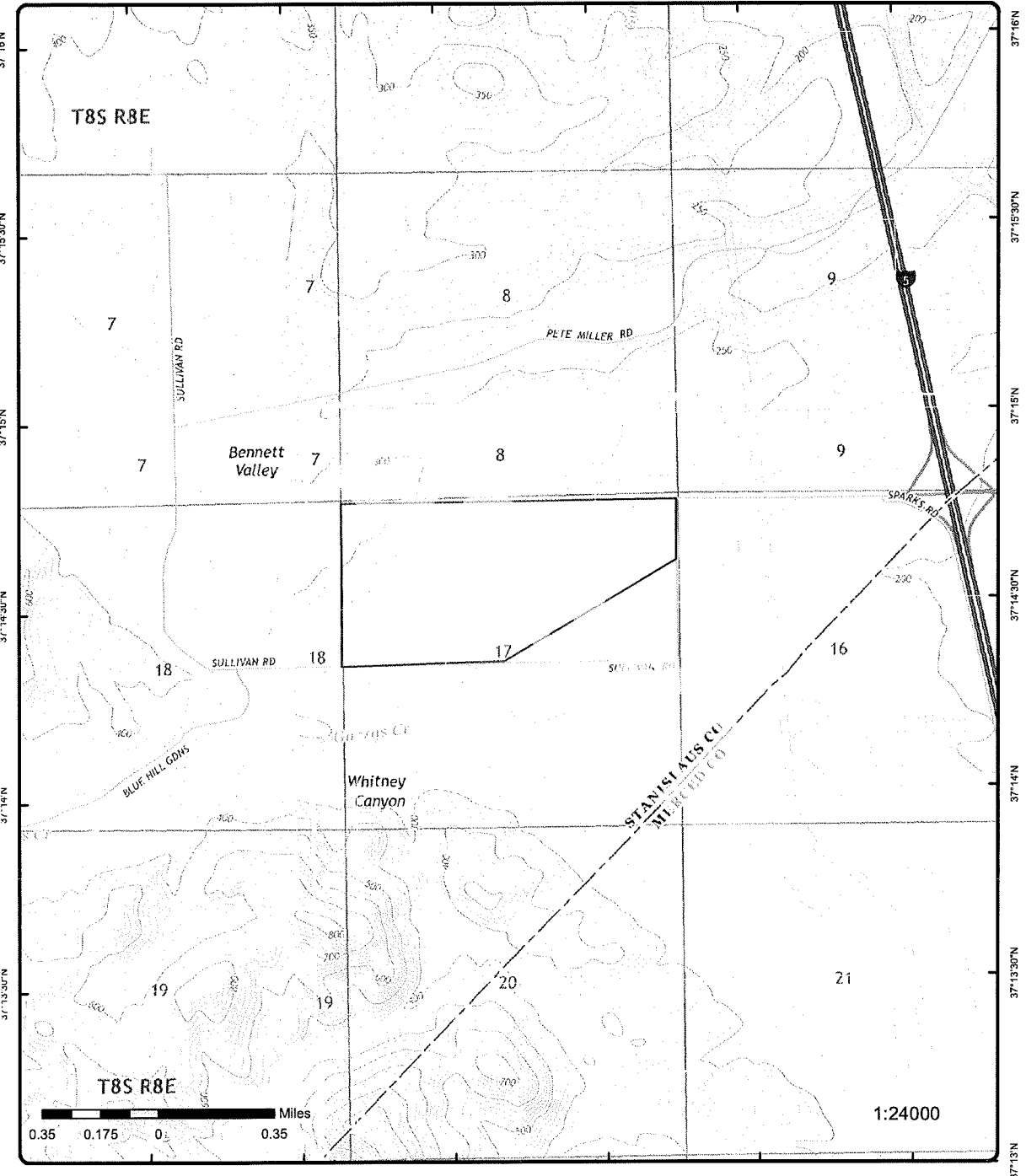
Address: n/a, Gustine, CA

Source: ESRI World Imagery

Order No: 20190321088



© ERIS Information Inc.



Topographic Map (2015)

Address: n/a, Gustine, CA

Quadrangle(s): Orestimba Peak, CA; Newman, CA; Howard Ranch, CA; Crevison Peak, CA;

Source: USGS Topographic Map

Order No: 20190321088



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Detail Report

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
1	1 of 3	NE	0.65 / 3,407.30	244.01 / 2	GUSTINE BOMBING RANGE (J09CA7287) - MMRP 5 MILES WEST OF GUSTINE AND 156 MILES SOUTH OF SACRAMENTO GUSTINE CA 95322	ENVIROSTOR

Estor/EPA ID: 80001093	Permit Renewal Lead:
Site Code: 101940	Project Manager: CARRIE TATOIAN-CAIN
Nat Priority List: NO	Supervisor: NOEL SHRUM
Acres: 510 ACRES	Public Partici Spclst:
Special Program:	Census Tract: 6099003400
Funding: MMRP	County: MERCED
Assembly District: 21	Latitude: 37.2527777777778
Senate District: 12	Longitude: -121.095555555556
School District:	

APN: NONE SPECIFIED
Cleanup Status: INACTIVE - ACTION REQUIRED AS OF 4/11/2016
Cleanup Oversight Agencies: DTSC - SITE CLEANUP PROGRAM - LEAD AGENCY
Site Type: FUDS
Office: CLEANUP SACRAMENTO
Past Use that Caused Contam: FIRING RANGE - ARTILLERY
Potential Media Affected: SOIL
Potential Contaminant of Concern:

EXPLOSIVES (UXO, MEC), MUNITIONS DEBRIS (MD)

Site History:

The Gustine Range was used for practice dive bombing, using the AN-MK 23 miniature practice bomb, which would have been used for practice dive bombing and bombing against radar targets. The target, which no longer exists, consisted of a large net strung between eight large poles, similar in size to those used for telephone lines. The AN-MK 23 is eight inches long, 3 inches in diameter, and weighs about 3 lbs. It contains a 10-gauge shell which triggers a pyrotechnic spotting charge to propel an inert powder to mark the point of impact.

FROM THE CORPS PUBLIC GIS SYSTEM: Property Description - Most of the Gustine Bombing Target property is in Stanislaus County, with a small portion in Merced County, California. The former target area consists of 510 acres and is located approximately 5 miles from Gustine and 156 miles south of Sacramento. The target is situated at 37N15' latitude and 12W06' longitude. The area is bisected by Interstate 5 and the California Aqueduct. Pathways bordering the aqueduct provide public access through the area for biking and hiking.

Property History - In 1944, 510 acres were acquired for the Gustine Bombing Range for use as a practice target by Naval Air Stations Crows Landing and Alameda. In 1946, the acreage was returned to the Simon Newman Company. This property is known or suspected to contain military and explosives of concern (e.g., unexploded ordnance) and therefore may present an explosive hazard.

Status: INACTIVE - ACTION REQUIRED
Program Type: STATE RESPONSE
CalEnviroScreen Score: 76-80%
Summary Link: http://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=80001093

Completed Activities

Title: Site Inspection Report
Title Link: http://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=80001093&doc_id=6021626
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Preliminary Assessment/Site Inspection Report (PA/SI)
Date Completed: 1/4/2010

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Comments:		DTSC concurs with the SI Report recommendations with minor comments.				
Title:		No Department of Defense Action Indicated request from USACE, J09CA728700/J09CA728701				
Title Link:		http://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=80001093&doc_id=60394625				
Area Name:						
Area Link:						
Sub Area:						
Sub Area Link:						
Document Type:		No Department of Defense Action Indicated (NDAI)				
Date Completed:		4/11/2016				
Comments:						
Title:		Site Inspection Work Plan				
Title Link:		http://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=80001093&doc_id=6021620				
Area Name:						
Area Link:						
Sub Area:						
Sub Area Link:						
Document Type:		Preliminary Assessment/Site Inspection Report (PA/SI)				
Date Completed:		12/9/2008				
Comments:		DTSC concurred with the procedures specified in the SI Work Plan.				
Title:		Inventory Project Report				
Title Link:		http://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=80001093&doc_id=60394623				
Area Name:						
Area Link:						
Sub Area:						
Sub Area Link:						
Document Type:		Inventory Project Report (INPR)				
Date Completed:		4/11/2016				
Comments:						
Title:		USACE No Defense Actions Indicated Request				
Title Link:		http://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=80001093&doc_id=6028717				
Area Name:						
Area Link:						
Sub Area:						
Sub Area Link:						
Document Type:		No Department of Defense Action Indicated (NDAI)				
Date Completed:		8/2/2006				
Comments:						
Title:		Archive Search Report portion of NDAI request				
Title Link:		http://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=80001093&doc_id=60394621				
Area Name:						
Area Link:						
Sub Area:						
Sub Area Link:						
Document Type:		Archive Search Report (ASR)				
Date Completed:		4/11/2016				
Comments:						
Title:		Archive search report Gustine Bombing Range Stanislaus				
Title Link:		http://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=80001093&doc_id=60299820				
Area Name:						
Area Link:						
Sub Area:						
Sub Area Link:						
Document Type:		Archive Search Report (ASR)				
Date Completed:		2/6/2002				
Comments:						
Title:		Preliminary Assessment Report Gustine Bombing target				
Title Link:						
Area Name:						
Area Link:						
Sub Area:						
Sub Area Link:						
Document Type:		Preliminary Assessment Report				

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
Date Completed:		2/12/1999				
Comments:		Draft document added for historical reference.				
Title:		Inventory Project Report				
Title Link:		http://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=80001093&doc_id=60283834				
Area Name:						
Area Link:						
Sub Area:						
Sub Area Link:						
Document Type:		Inventory Project Report (INPR)				
Date Completed:		9/3/1999				
Comments:						

<u>1</u>	2 of 3	NE	0.65 / 3,407.30	244.01 / 2	Gustine Bombing Range	FUDS
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CA

FUDS No:	J09CA7287	State Code:	06
FF ID:	CA9799FA297	County Code:	
INST ID:	53502	County:	
FID:	553	Lat Degree:	37
NPL Status:		Lat Minutes:	0
EPA Region:	09	Lat Seconds:	0
FY:	2012	Lat Direction:	N
Acres:	510	Long Degree:	-12
CTC:	4340.4	Long Minutes:	0
RAB:		Long Seconds:	0
CONG DIST:	18	Long Direction:	E
Corps Dist:	Sacramento District (SPK)	Latitude:	37.25277778
Phone:	916-557-7461	Longitude:	-121.09555556
Current Owner:	Private Sector		

Desc: Most of the Gustine Bombing Target property is in Stanislaus County, with a small portion in Merced County, California. The former target area consists of 510 acres and is located approximately 5 miles from Gustine, Interstate 5 and the Cal **Note: Many records provided by the department have a truncated Description field

History: In 1944, Naval Air Stations Crows Landing and Alameda acquired 510 acres through a lease with the Simon Newman Company for use as a practice target. In 1946, the acreage reverted back to the Simon Newman Company. This property is known or **Note: Many records provided by the department have a truncated History field

<u>1</u>	3 of 3	NE	0.65 / 3,407.30	244.01 / 2	GUSTINE BOMBING RANGE (J09CA7287) - MMRP 5 MILES WEST OF GUSTINE AND 156 MILES SOUTH OF SACRAMENTO GUSTINE CA 95322	RESPONSE
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Estor/EPA ID:	80001093	Permit Renewal Lead:	
Site Code:	101940	Project Manager:	CARRIE TATOIAN-CAIN
Nat Priority List:	NO	Supervisor:	NOEL SHRUM
Acres:	510 ACRES	Public Partici Spclst:	
Special Program:		Census Tract:	6099003400
Funding:	MMRP	County:	MERCED
Assembly District:	21	Latitude:	37.252777777778
Senate District:	12	Longitude:	-121.095555555556
School District:			
APN:	NONE SPECIFIED		
Cleanup Status:	INACTIVE - ACTION REQUIRED AS OF 4/11/2016		
Cleanup Oversight Agencies:	DTSC - SITE CLEANUP PROGRAM - LEAD AGENCY		
Site Type:	FUDS		
Office:	CLEANUP SACRAMENTO		
Past Use that Caused Contam:	FIRING RANGE - ARTILLERY		
Potential Media Affected:	SOIL		
Potential Contamin of Concern:			

EXPLOSIVES (UXO, MEC), MUNITIONS DEBRIS (MD)

Site History:

The Gustine Range was used for practice dive bombing, using the AN-MK 23 miniature practice bomb, which would have been used for practice dive bombing and bombing against radar targets. The target, which no longer exists, consisted of a large net strung between eight large poles, similar in size to those used for telephone lines. The AN-MK 23 is eight inches long, 3 inches in diameter, and weighs about 3 lbs. It contains a 10-gauge shell which triggers a pyrotechnic spotting charge to propel an inert powder to mark the point of impact.

FROM THE CORPS PUBLIC GIS SYSTEM: Property Description - Most of the Gustine Bombing Target property is in Stanislaus County, with a small portion in Merced County, California. The former target area consists of 510 acres and is located approximately 5 miles from Gustine and 156 miles south of Sacramento. The target is situated at 37N15' latitude and 12W06' longitude. The area is bisected by Interstate 5 and the California Aqueduct. Pathways bordering the aqueduct provide public access through the area for biking and hiking.

Property History - In 1944, 510 acres were acquired for the Gustine Bombing Range for use as a practice target by Naval Air Stations Crows Landing and Alameda. In 1946, the acreage was returned to the Simon Newman Company. This property is known or suspected to contain military and explosives of concern (e.g., unexploded ordnance) and therefore may present an explosive hazard.

Status: INACTIVE - ACTION REQUIRED
Program Type: STATE RESPONSE
CalEnviroScreen Score: 76-80%
Summary Link: http://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=80001093

Completed Activities

Title: Site Inspection Report
Title Link: http://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=80001093&doc_id=6021626

Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Preliminary Assessment/Site Inspection Report (PA/SI)
Date Completed: 1/4/2010
Comments: DTSC concurs with the SI Report recommendations with minor comments.

Title: Preliminary Assessment Report Gustine Bombing target

Title Link:
Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Preliminary Assessment Report
Date Completed: 2/12/1999
Comments: Draft document added for historical reference.

Title: Archive Search Report portion of NDAI request
Title Link: http://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=80001093&doc_id=60394621

Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Archive Search Report (ASR)
Date Completed: 4/11/2016
Comments:

Title: Site Inspection Work Plan
Title Link: http://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=80001093&doc_id=6021620

Area Name:
Area Link:
Sub Area:
Sub Area Link:
Document Type: Preliminary Assessment/Site Inspection Report (PA/SI)
Date Completed: 12/9/2008
Comments: DTSC concurred with the procedures specified in the SI Work Plan.

Title: Inventory Project Report
Title Link: http://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=80001093&doc_id=60394623

Area Name:

<i>Map Key</i>	<i>Number of Records</i>	<i>Direction</i>	<i>Distance (mi/ft)</i>	<i>Elev/Diff (ft)</i>	<i>Site</i>	<i>DB</i>
<i>Area Link:</i>						
<i>Sub Area:</i>						
<i>Sub Area Link:</i>						
<i>Document Type:</i>			Inventory Project Report (INPR)			
<i>Date Completed:</i>			4/11/2016			
<i>Comments:</i>						
<i>Title:</i>			Archive search report Gustine Bombing Range Stanislaus			
<i>Title Link:</i>			http://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=80001093&doc_id=60299820			
<i>Area Name:</i>						
<i>Area Link:</i>						
<i>Sub Area:</i>						
<i>Sub Area Link:</i>						
<i>Document Type:</i>			Archive Search Report (ASR)			
<i>Date Completed:</i>			2/6/2002			
<i>Comments:</i>						
<i>Title:</i>			Inventory Project Report			
<i>Title Link:</i>			http://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=80001093&doc_id=60283834			
<i>Area Name:</i>						
<i>Area Link:</i>						
<i>Sub Area:</i>						
<i>Sub Area Link:</i>						
<i>Document Type:</i>			Inventory Project Report (INPR)			
<i>Date Completed:</i>			9/3/1999			
<i>Comments:</i>						
<i>Title:</i>			No Department of Defense Action Indicated request from USACE, J09CA728700/J09CA728701			
<i>Title Link:</i>			http://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=80001093&doc_id=60394625			
<i>Area Name:</i>						
<i>Area Link:</i>						
<i>Sub Area:</i>						
<i>Sub Area Link:</i>						
<i>Document Type:</i>			No Department of Defense Action Indicated (NDAI)			
<i>Date Completed:</i>			4/11/2016			
<i>Comments:</i>						
<i>Title:</i>			USACE No Defense Actions Indicated Request			
<i>Title Link:</i>			http://www.envirostor.dtsc.ca.gov/public/final_documents2?global_id=80001093&doc_id=6028717			
<i>Area Name:</i>						
<i>Area Link:</i>						
<i>Sub Area:</i>						
<i>Sub Area Link:</i>						
<i>Document Type:</i>			No Department of Defense Action Indicated (NDAI)			
<i>Date Completed:</i>			8/2/2006			
<i>Comments:</i>						

Unplottable Summary

Total: 2 Unplottable sites

DB	Company Name/Site Name	Address	City	Zip	ERIS ID
CDL		4 MILES NORTH OF SULLIVAN RD, ON EAST SIDE OF MENDOTA CANAL	GUSTINE CA	95322	820121956
CDL		SULLIVAN RD, 2 MILES WEST OF 33RD	GUSTINE CA	95322	820117869

Unplottable Report

Site: 4 MILES NORTH OF SULLIVAN RD, ON EAST SIDE OF MENDOTA CANAL GUSTINE CA 95322 CDL

Clue: 2003-04-021
Date: 4/3/2003
County: STANISLAUS
Lab Type: A
Lab Type Description: Abandoned Drug Lab Waste - location away from an actual illegal drug lab where drug lab waste and/or equipment were abandoned.

Site: SULLIVAN RD, 2 MILES WEST OF 33RD GUSTINE CA 95322 CDL

Clue: 2003-09-047
Date: 9/12/2003
County: MERCED
Lab Type: A
Lab Type Description: Abandoned Drug Lab Waste - location away from an actual illegal drug lab where drug lab waste and/or equipment were abandoned.

Appendix: Database Descriptions

Environmental Risk Information Services (ERIS) can search the following databases. The extent of historical information varies with each database and current information is determined by what is publicly available to ERIS at the time of update. ERIS updates databases as set out in ASTM Standard E1527-13, Section 8.1.8 Sources of Standard Source Information:

"Government information from nongovernmental sources may be considered current if the source updates the information at least every 90 days, or, for information that is updated less frequently than quarterly by the government agency, within 90 days of the date the government agency makes the information available to the public."

Standard Environmental Record Sources

Federal

National Priority List:

NPL

National Priorities List (Superfund)-NPL: EPA's (United States Environmental Protection Agency) list of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under the Superfund program. The NPL, which EPA is required to update at least once a year, is based primarily on the score a site receives from EPA's Hazard Ranking System. A site must be on the NPL to receive money from the Superfund Trust Fund for remedial action.

Government Publication Date: Dec 12, 2018

National Priority List - Proposed:

PROPOSED NPL

Includes sites proposed (by the EPA, the state, or concerned citizens) for addition to the NPL due to contamination by hazardous waste and identified by the Environmental Protection Agency (EPA) as a candidate for cleanup because it poses a risk to human health and/or the environment.

Government Publication Date: Dec 12, 2018

Deleted NPL:

DELETED NPL

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Government Publication Date: Dec 12, 2018

SEMS List 8R Active Site Inventory:

SEMS

The Superfund Program has deployed the Superfund Enterprise Management System (SEMS), which integrates multiple legacy systems into a comprehensive tracking and reporting tool. This inventory contains active sites evaluated by the Superfund program that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. The Active Site Inventory Report displays site and location information at active SEMS sites. An active site is one at which site assessment, removal, remedial, enforcement, cost recovery, or oversight activities are being planned or conducted.

Government Publication Date: Feb 6, 2019

Inventory of Open Dumps, June 1985:

ODI

The Resource Conservation and Recovery Act (RCRA) provides for publication of an inventory of open dumps. The Act defines "open dumps" as facilities which do not comply with EPA's "Criteria for Classification of Solid Waste Disposal Facilities and Practices" (40 CFR 257).

Government Publication Date: Jun 1985

SEMS List 8R Archive Sites:

SEMS ARCHIVE

The Superfund Enterprise Management System (SEMS) Archived Site Inventory displays site and location information at sites archived from SEMS. An archived site is one at which EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program at this time.

Government Publication Date: Feb 6, 2019

EPA Report on the Status of Open Dumps on Indian Lands:

IODI

Public Law 103-399, The Indian Lands Open Dump Cleanup Act of 1994, enacted October 22, 1994, identified congressional concerns that solid waste open dump sites located on American Indian or Alaska Native (AI/AN) lands threaten the health and safety of residents of those lands and contiguous areas. The purpose of the Act is to identify the location of open dumps on Indian lands, assess the relative health and environment hazards posed by those sites, and provide financial and technical assistance to Indian tribal governments to close such dumps in compliance with Federal standards and regulations or standards promulgated by Indian Tribal governments or Alaska Native entities.

Government Publication Date: Dec 31, 1998

Comprehensive Environmental Response, Compensation and Liability Information System -

CERCLIS

CERCLIS:

Superfund is a program administered by the United States Environmental Protection Agency (EPA) to locate, investigate, and clean up the worst hazardous waste sites throughout the United States. CERCLIS is a database of potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. The EPA administers the Superfund program in cooperation with individual states and tribal governments; this database is made available by the EPA.

Government Publication Date: Oct 25, 2013

CERCLIS - No Further Remedial Action Planned:

CERCLIS NFRAP

An archived site is one at which EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program at this time. The Archive designation means that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL). This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Government Publication Date: Oct 25, 2013

CERCLIS Liens:

CERCLIS LIENS

A Federal Superfund lien exists at any property where EPA has incurred Superfund costs to address contamination ("Superfund site") and has provided notice of liability to the property owner. A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. This database is made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: Jan 30, 2014

RCRA CORRACTS-Corrective Action:

RCRA CORRACTS

RCRA Info is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. At these sites, the Corrective Action Program ensures that cleanups occur. EPA and state regulators work with facilities and communities to design remedies based on the contamination, geology, and anticipated use unique to each site.

Government Publication Date: Dec 17, 2018

RCRA non-CORRACTS TSD Facilities:

RCRA TSD

RCRA Info is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. This database includes Non-Corrective Action sites listed as treatment, storage and/or disposal facilities of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA).

Government Publication Date: Dec 17, 2018

RCRA Generator List:

RCRA LQG

RCRA Info is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Large Quantity Generators (LQGs) generate 1,000 kilograms per month or more of hazardous waste or more than one kilogram per month of acutely hazardous waste.

Government Publication Date: Dec 17, 2018

RCRA Small Quantity Generators List:

RCRA SQG

RCRA Info is the EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Small Quantity Generators (SQGs) generate more than 100 kilograms, but less than 1,000 kilograms, of hazardous waste per month.

Government Publication Date: Dec 17, 2018

RCRA Conditionally Exempt Small Quantity Generators List:

RCRA CESQG

RCRA Info is the EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Conditionally Exempt Small Quantity Generators (CESQG) generate 100 kilograms or less per month of hazardous waste or one kilogram or less per month of acutely hazardous waste.

Government Publication Date: Dec 17, 2018

RCRA Non-Generators:

RCRA NON GEN

RCRA Info is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Non-Generators do not presently generate hazardous waste.

Government Publication Date: Dec 17, 2018

Federal Engineering Controls-ECs:

FED ENG

Engineering controls (ECs) encompass a variety of engineered and constructed physical barriers (e.g., soil capping, sub-surface venting systems, mitigation barriers, fences) to contain and/or prevent exposure to contamination on a property. This database is made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: Jan 20, 2016

Federal Institutional Controls- ICs:

FED INST

Institutional controls are non-engineered instruments, such as administrative and legal controls, that help minimize the potential for human exposure to contamination and/or protect the integrity of the remedy. Although it is EPA's (United States Environmental Protection Agency) expectation that treatment or engineering controls will be used to address principal threat wastes and that groundwater will be returned to its beneficial use whenever practicable, ICs play an important role in site remedies because they reduce exposure to contamination by limiting land or resource use and guide human behavior at a site.

Government Publication Date: Jan 20, 2016

Emergency Response Notification System:

ERNS 1982 TO 1986

Database of oil and hazardous substances spill reports controlled by the National Response Center. The primary function of the National Response Center is to serve as the sole national point of contact for reporting oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories.

Government Publication Date: 1982-1986

Emergency Response Notification System:

ERNS 1987 TO 1989

Database of oil and hazardous substances spill reports controlled by the National Response Center. The primary function of the National Response Center is to serve as the sole national point of contact for reporting oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories.

Government Publication Date: 1987-1989

Emergency Response Notification System:

ERNS

Database of oil and hazardous substances spill reports controlled by the National Response Center. The primary function of the National Response Center is to serve as the sole national point of contact for reporting oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories. This database is made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: Sep 24, 2018

The Assessment, Cleanup and Redevelopment Exchange System (ACRES) Brownfield Database:

FED BROWNFIELDS

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties protects the environment, reduces blight, and takes development pressures off greenspaces and working lands. This database is made available by the United States Environmental Protection Agency (EPA).

Government Publication Date: Jan 11, 2019

FEMA Underground Storage Tank Listing:

FEMA UST

The Federal Emergency Management Agency (FEMA) of the Department of Homeland Security maintains a list of FEMA owned underground storage tanks.

Government Publication Date: Dec 31, 2017

LIEN on Property:

SEMS LIEN

The EPA Superfund Enterprise Management System (SEMS) provides LIEN information on properties under the EPA Superfund Program.

Government Publication Date: Feb 6, 2019

Superfund Decision Documents:

SUPERFUND ROD

This database contains a listing of decision documents for Superfund sites. Decision documents serve to provide the reasoning for the choice of (or) changes to a Superfund Site cleanup plan. The decision documents include Records of Decision (ROD), ROD Amendments, Explanations of Significant Differences (ESD), along with other associated memos and files. This information is maintained and made available by the US EPA (Environmental Protection Agency).

Government Publication Date: Feb 12, 2019

State

State Response Sites:

RESPONSE

A list of identified confirmed release sites where the Department of Toxic Substances Control (DTSC) is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk. This database is state equivalent NPL.

Government Publication Date: Dec 20, 2018

EnviroStor Database:

ENVIROSTOR

The EnviroStor Data Management System is made available by the Department of Toxic Substances Control (DTSC). Includes Corrective Action sites, Tiered Permit sites, Historical Sites and Evaluation/Investigation sites. This database is state equivalent CERCLIS.

Government Publication Date: Dec 20, 2018

Delisted State Response Sites:

DELISTED ENVS

Sites removed from the list of State Response Sites made available by the EnviroStor Data Management System, Department of Toxic Substances Control (DTSC).

Government Publication Date: Dec 20, 2018

Solid Waste Information System (SWIS):

SWF/LF

The Solid Waste Information System (SWIS) database made available by the Department of Resources Recycling and Recovery (CalRecycle) contains information on solid waste facilities, operations, and disposal sites throughout the State of California. The types of facilities found in this database include landfills, transfer stations, material recovery facilities, composting sites, transformation facilities, waste tire sites, and closed disposal sites.

Government Publication Date: Feb 11, 2019

EnviroStor Hazardous Waste Facilities:

HWP

A list of hazardous waste facilities including permitted, post-closure and historical facilities found in the Department of Toxic Substances Control (DTSC) EnviroStor database.

Government Publication Date: Dec 20, 2018

Sites Listed in the Solid Waste Assessment Test (SWAT) Program Report:

SWAT

In a 1993 Memorandum of Understanding, the State Water Resources Control Board (SWRCB) agreed to submit a comprehensive report on the Solid Waste Assessment Test (SWAT) Program to the California Integrated Waste Management Board (CIWMB). This report summarizes the work completed to date on the SWAT Program, and addresses both the impacts that leakage from solid waste disposal sites (SWDS) may have upon waters of the State and the actions taken to address such leakage.

Government Publication Date: Dec 31, 1995

Land Disposal Sites:

LDS

Land Disposal Sites in GeoTracker, the State Water Resources Control Board (SWRCB)'s data management system. The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units. Waste management units include waste piles, surface impoundments, and landfills.

Government Publication Date: Nov 30, 2018

Leaking Underground Fuel Tank Reports:

LUST

List of Leaking Underground Storage Tanks within the Cleanup Sites data in GeoTracker database. GeoTracker is the State Water Resources Control Board's (SWRCB) data management system for managing sites that impact groundwater, especially those that require groundwater cleanup (Underground Storage Tanks, Department of Defense and Site Cleanup Program) as well as permitted facilities such as operating Underground Storage Tanks. The Leak Prevention Program that overlooks LUST sites is the SWRCB in California's Environmental Protection Agency.

Delisted Leaking Storage Tanks:

DELISTED LST

List of Leaking Underground Storage Tanks (LUST) cleanup sites removed from GeoTracker, the State Water Resources Control Board (SWRCB)'s database system, as well as sites removed from the SWRCB's list of UST Case closures.

Government Publication Date: March 11, 2019

Permitted Underground Storage Tank (UST) in GeoTracker:

UST

List of Permitted Underground Storage Tank (UST) sites made available by the State Water Resources Control Board (SWRCB) in California's Environmental Protection Agency (EPA).

Government Publication Date: Nov 30, 2018

Solid Waste Disposal Sites with Waste Constituents Above Hazardous Waste Levels:

SWRCB SWF

This is a list of solid waste disposal sites identified by California State Water Resources Control Board with waste constituents above hazardous waste levels outside the waste management unit.

Government Publication Date: Sep 20, 2006

Proposed Closure of Underground Storage Tank Cases:

UST CLOSURE

List of UST cases that are being considered for closure by either the California Environmental Protection Agency, State Water Resources Control Board or the Executive Director that have been posted for a 60-day public comment period.

Government Publication Date: Mar 11, 2019

Historical Hazardous Substance Storage Information Database:

HHSS

The Historical Hazardous Substance Storage database contains information collected in the 1980s from facilities that stored hazardous substances. The information was originally collected on paper forms, was later transferred to microfiche, and recently indexed as a searchable database. When using this database, please be aware that it is based upon self-reported information submitted by facilities which has not been independently verified. It is unlikely that every facility responded to the survey and the database should not be expected to be a complete inventory of all facilities that were operating at that time. This database is maintained by the California State Water Resources Control Board's (SWRCB) Geotracker.

Government Publication Date: Aug 27, 2015

Aboveground Storage Tanks:

AST

A statewide list from 2009 of aboveground storage tanks (ASTs) made available by the Cal FIRE Office of the State Fire Marshal (OSFM). This list is no longer maintained or updated by the Cal FIRE OSFM.

Government Publication Date: Aug 31, 2009

Delisted Storage Tanks:

DELISTED TNK

This database contains a list of storage tank sites that were removed by the State Water Resources Control Board (SWRCB) in California's Environmental Protection Agency (EPA) and the Cal FIRE Office of State Fire Marshal (OSFM).

Government Publication Date: Mar 11, 2019

California Environmental Reporting System (CERS) Tanks:

CERS TANK

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs. The CalEPA oversees the statewide implementation of the Unified Program which applies regulatory standards to protect Californians from hazardous waste and materials.

Government Publication Date: Feb 13, 2019

Site Mitigation and Brownfields Reuse Program Facility Sites with Land Use Restrictions:

LUR

The Department of Toxic Substances Control (DTSC) Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents land use restrictions that are active. Some sites have multiple land use restrictions.

Government Publication Date: Dec 20, 2018

Hazardous Waste Management Program Facility Sites with Deed / Land Use Restrictions:

HLUR

The Department of Toxic Substances Control (DTSC) Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Deed Restrictions and Land Use Restrictions:

DEED

List of Deed Restrictions, Land Use Restrictions and Covenants in GeoTracker made available by the State Water Resources Control Board (SWRCB) in California's Environmental Protection Agency. A deed restriction (land use covenant) may be required to facilitate the remediation of past environmental contamination and to protect human health and the environment by reducing the risk of exposure to residual hazardous materials.

Government Publication Date: Nov 30, 2018

Voluntary Cleanup Program:

VCP

List of sites in the Voluntary Cleanup Program made available by the Department of Toxic Substances and Control (DTSC). The Voluntary Cleanup Program was designed to respond to lower priority sites. Under the Voluntary Cleanup Program, DTSC enters site-specific agreements with project proponents for DTSC oversight of site assessment, investigation, and/or removal or remediation activities, and the project proponents agree to pay DTSC's reasonable costs for those services.

Government Publication Date: Dec 20, 2018

GeoTracker Cleanup Sites Data:

CLEANUP SITES

A list of cleanup sites in the state of California made available by The State Water Resources Control Board (SWRCB) of the California Environmental Protection Agency (EPA). SWRCB tracks leaking underground storage tank cleanups as well as other water board cleanups.

Government Publication Date: Nov 30, 2018

Delisted California Environmental Reporting System (CERS) Tanks:

DELISTED CTNK

This database contains a list of Aboveground Petroleum Storage and Underground Storage Tank sites that were removed from in the California Environmental Protection Agency (CalEPA) Regulated Site Portal.

Government Publication Date: Feb 13, 2019

Historical Hazardous Substance Storage Container Information - Facility Summary:

HIST TANK

The State Water Resources Control Board maintained the Hazardous Substance Storage Containers listing and inventory in the 1980s. This facility summary lists historic tank sites where the following container types were present: farm and motor vehicle fuel tanks; waste tanks; sumps; pits, ponds, lagoons, and others; and all other product tanks. This set, published in May 1988, lists facility and owner information, as well as the number of containers. This data is historic and will not be updated.

Government Publication Date: May 27, 1988

Tribal

Leaking Underground Storage Tanks (LUSTs) on Indian Lands:

INDIAN LUST

LUSTs on Tribal/Indian Lands in Region 9, which includes California.

Government Publication Date: Dec 31, 2017

Underground Storage Tanks (USTs) on Indian Lands:

INDIAN UST

USTs on Tribal/Indian Lands in Region 9, which includes California.

Government Publication Date: Dec 31, 2017

Delisted Tribal Leaking Storage Tanks:

DELISTED ILST

Leaking Underground Storage Tank facilities which have been removed from the Regional Tribal LUST lists made available by the EPA.

Government Publication Date: Oct 14, 2017

Delisted Tribal Underground Storage Tanks:

DELISTED IUST

Underground Storage Tank facilities which have been removed from the Regional Tribal UST lists made available by the EPA.

Government Publication Date: Oct 14, 2017

County

Delisted County Records:

DELISTED COUNTY

Records removed from county or CUPA databases. Records may be removed from the county lists made available by the respective county departments because they are inactive, or because they have been deemed to be below reportable thresholds.

Merced County - CUPA Facilities List:

MERCED CUPA

A list of facilities associated with various Certified Unified Program Agency (CUPA) programs in the County of Merced. This list is made available by Merced County which has been certified by CalEPA to implement the Unified program as a CUPA for the entire county.

Government Publication Date: Oct 4, 2018

Orange County - Anaheim City UST Cleanup Cases:

UST CLEANUP

A list of UST Cleanup Cases in the City of Anaheim in Orange County. As part of its Groundwater Protection Program, the City of Anaheim managed the UST Cleanup Oversight Program from April 1991 to June 2014. This list is published by the City of Anaheim Underground Storage Tank Cleanup Program.

Government Publication Date: May 26, 2015

San Francisco County - Maher Ordinance:

MAHER SF

List of development projects that are located on sites with known or suspected soil and/or groundwater contamination are subject to the provisions of Health Code Article 22A, which is administered by the San Francisco County Department of Public Health (DPH).

Government Publication Date: Jan 23, 2019

Stanislaus County - CUPA List:

STANISLAUS CUPA

The Environmental Resources Department of Stanislaus County maintains a list of Certified Unified Program Agency (CUPA) facilities.

Government Publication Date: Jan 28, 2019

Additional Environmental Record Sources

Federal

Facility Registry Service/Facility Index:

FINDS/FRS

The US Environmental Protection Agency (EPA)'s Facility Registry System (FRS) is a centrally managed database that identifies facilities, sites or places subject to environmental regulations or of environmental interest. FRS creates high-quality, accurate, and authoritative facility identification records through rigorous verification and management procedures that incorporate information from program national systems, state master facility records, data collected from EPA's Central Data Exchange registrations and data management personnel.

Government Publication Date: Jan 30, 2019

Toxics Release Inventory (TRI) Program:

TRIS

The EPA's Toxics Release Inventory (TRI) is a database containing data on disposal or other releases of over 650 toxic chemicals from thousands of U.S. facilities and information about how facilities manage those chemicals through recycling, energy recovery, and treatment. One of TRI's primary purposes is to inform communities about toxic chemical releases to the environment.

Government Publication Date: Dec 31, 2017

Hazardous Materials Information Reporting System:

HMIRS

US DOT - Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) Incidents Reports Database taken from Hazmat Intelligence Portal, U.S. Department of Transportation.

Government Publication Date: May 23, 2018

National Clandestine Drug Labs:

NCDL

The U.S. Department of Justice ("the Department") provides this data as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy.

Government Publication Date: Jul 18, 2018

Toxic Substances Control Act:

TSCA

The Environmental Protection Agency (EPA) is amending the Toxic Substances Control Act (TSCA) section 8(a) Inventory Update Reporting (IUR) rule and changing its name to the Chemical Data Reporting (CDR) rule.

The CDR enables EPA to collect and publish information on the manufacturing, processing, and use of commercial chemical substances and mixtures (referred to hereafter as chemical substances) on the TSCA Chemical Substance Inventory (TSCA Inventory). This includes current information on chemical substance production volumes, manufacturing sites, and how the chemical substances are used. This information helps the Agency determine whether people or the environment are potentially exposed to reported chemical substances. EPA publishes submitted CDR data that is not Confidential Business Information (CBI).

Government Publication Date: Jun 30, 2017

Hist TSCA:

HIST TSCA

The Environmental Protection Agency (EPA) is amending the Toxic Substances Control Act (TSCA) section 8(a) Inventory Update Reporting (IUR) rule and changing its name to the Chemical Data Reporting (CDR) rule.

The 2006 IUR data summary report includes information about chemicals manufactured or imported in quantities of 25,000 pounds or more at a single site during calendar year 2005. In addition to the basic manufacturing information collected in previous reporting cycles, the 2006 cycle is the first time EPA collected information to characterize exposure during manufacturing, processing and use of organic chemicals. The 2006 cycle also is the first time manufacturers of inorganic chemicals were required to report basic manufacturing information.

Government Publication Date: Dec 31, 2006

FTTS Administrative Case Listing:

FTTS ADMIN

An administrative case listing from the Federal Insecticide, Fungicide, & Rodenticide Act (FIFRA) and Toxic Substances Control Act (TSCA), together known as FTTS. This database was obtained from the Environmental Protection Agency's (EPA) National Compliance Database (NCDB). The FTTS and NCDB was shut down in 2006.

Government Publication Date: Jan 19, 2007

FTTS Inspection Case Listing:

FTTS INSP

An inspection case listing from the Federal Insecticide, Fungicide, & Rodenticide Act (FIFRA) and Toxic Substances Control Act (TSCA), together known as FTTS. This database was obtained from the Environmental Protection Agency's (EPA) National Compliance Database (NCDB). The FTTS and NCDB was shut down in 2006.

Government Publication Date: Jan 19, 2007

Potentially Responsible Parties List:

PRP

Early in the cleanup process, the Environmental Protection Agency (EPA) conducts a search to find the potentially responsible parties (PRPs). EPA looks for evidence to determine liability by matching wastes found at the site with parties that may have contributed wastes to the site.

Government Publication Date: Dec 20, 2018

State Coalition for Remediation of Drycleaners Listing:

SCRD DRYCLEANER

The State Coalition for Remediation of Drycleaners (SCRD) was established in 1998, with support from the U.S. Environmental Protection Agency (EPA) Office of Superfund Remediation and Technology Innovation. Coalition members are states with mandated programs and funding for drycleaner site remediation. Current members are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Government Publication Date: Nov 08, 2017

Integrated Compliance Information System (ICIS):

ICIS

The Integrated Compliance Information System (ICIS) is a system that provides information for the Federal Enforcement and Compliance (FE&C) and the National Pollutant Discharge Elimination System (NPDES) programs. The FE&C component supports the Environmental Protection Agency's (EPA) Civil Enforcement and Compliance program activities. These activities include Compliance Assistance, Compliance Monitoring and Enforcement. The NPDES program supports tracking of NPDES permits, limits, discharge monitoring data and other program reports.

Government Publication Date: Nov 18, 2016

Drycleaner Facilities:

FED DRYCLEANERS

A list of drycleaner facilities from the Integrated Compliance Information System (ICIS). The Environmental Protection Agency (EPA) tracks facilities that possess NAIC and SIC codes that classify businesses as drycleaner establishments.

Government Publication Date: May 29, 2018

Delisted Drycleaner Facilities:

DELISTED FED DRY

List of sites removed from the list of Drycleaner Facilities (sites in the EPA's Integrated Compliance Information System (ICIS) with NAIC or SIC codes identifying the business as a drycleaner establishment).

Government Publication Date: May 29, 2018

Formerly Used Defense Sites:

FUDS

Formerly Used Defense Sites (FUDS) are properties that were formerly owned by, leased to, or otherwise possessed by and under the jurisdiction of the Secretary of Defense prior to October 1986, where the Department of Defense (DoD) is responsible for an environmental restoration. This list is published by the U.S. Army Corps of Engineers.

Government Publication Date: Oct 23, 2018

Material Licensing Tracking System (MLTS):

MLTS

A list of sites that store radioactive material subject to the Nuclear Regulatory Commission (NRC) licensing requirements. This list is maintained by the NRC. As of September 2016, the NRC no longer releases location information for sites. Site locations were last received in July 2016.

Government Publication Date: Nov 1, 2018

Historic Material Licensing Tracking System (MLTS) sites:

HIST MLTS

A historic list of sites that have inactive licenses and/or removed from the Material Licensing Tracking System (MLTS). In some cases, a site is removed from the MLTS when the state becomes an "Agreement State". An Agreement State is a State that has signed an agreement with the Nuclear Regulatory Commission (NRC) authorizing the State to regulate certain uses of radioactive materials within the State.

Government Publication Date: Jan 31, 2010

Mines Master Index File:

MINES

The Master Index File (MIF) contains mine identification numbers issued by the Department of Labor Mine Safety and Health Administration (MSHA) for mines active or opened since 1971. Note that addresses may or may not correspond with the physical location of the mine itself.

Government Publication Date: Nov 30, 2018

Alternative Fueling Stations:

ALT FUELS

List of alternative fueling stations made available by the US Department of Energy's Office of Energy Efficiency & Renewable Energy. Includes Biodiesel stations, Ethanol (E85) stations, Liquefied Petroleum Gas (Propane) stations, Ethanol (E85) stations, Natural Gas stations, Hydrogen stations, and Electric Vehicle Supply Equipment (EVSE). The National Renewable Energy Laboratory (NREL) obtains information about new stations from trade media, Clean Cities coordinators, a Submit New Station form on the Station Locator website, and through collaborating with infrastructure equipment and fuel providers, original equipment manufacturers (OEMs), and industry groups.

Government Publication Date: Jan 15, 2019

Registered Pesticide Establishments:

SSTS

List of active EPA-registered foreign and domestic pesticide-producing and device producing establishments based on data from the Section Seven Tracking System (SSTS). The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Section 7 requires that facilities producing pesticides, active ingredients, or devices be registered. The list of establishments is made available by the EPA.

Government Publication Date: Sep 1, 2018

Polychlorinated Biphenyl (PCB) Notifiers:

PCB

Facilities included in the national list of facilities that have notified the United States Environmental Protection Agency (EPA) of Polychlorinated Biphenyl (PCB) activities. Any company or person storing, transporting or disposing of PCBs or conducting PCB research and development must notify the EPA and receive an identification number.

Government Publication Date: Sep 14, 2018

State

Dry Cleaning Facilities:

DRYCLEANERS

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial, linen supply, commercial laundry, dry cleaning and pressing machines - Coin Operated Laundry and Dry Cleaning. This is provided by the Department of Toxic Substance Control.

Government Publication Date: Jan 18, 2019

Delisted Drycleaners:

DELISTED DRYCLEANERS

Sites removed from the list of drycleaner related facilities that have EPA ID numbers, made available by the California Department of Toxic Substance Control.

Government Publication Date: Jan 18, 2019

Non-Toxic Dry Cleaning Incentive Program:

DRYC GRANT

A list of grant recipients of the Non-Toxic Dry Cleaning Incentive Program made available by the California Air Resources Board (CARB). The program provides grants to eligible dry cleaning businesses to assist them in transitioning away from PERC machines to alternative non-toxic and non-smog forming technologies.

Government Publication Date: Feb 28, 2018

Hazardous Waste and Substances Site List - Site Cleanup:

HWSS CLEANUP

The Hazardous Waste and Substances Sites (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. This list is published by California Department of Toxic Substance Control.

Government Publication Date: Dec 4, 2018

List of Hazardous Waste Facilities Subject to Corrective Action:

DTSC HWF

This is a list of hazardous waste facilities identified in Health and Safety Code (HSC) § 25187.5. These facilities are those where Department of Toxic Substances Control (DTSC) has taken or contracted for corrective action because a facility owner/operator has failed to comply with a date for taking corrective action in an order issued under HSC § 25187, or because DTSC determined that immediate corrective action was necessary to abate an imminent or substantial endangerment.

Government Publication Date: Jul 18, 2016

EnviroStor Inspection, Compliance, and Enforcement:

INSP COMP ENF

A list of permitted facilities with inspections and enforcements tracked in the Department of Toxic Substance Control (DTSC) EnviroStor.

Government Publication Date: Jan 21, 2019

School Property Evaluation Program Sites:

SCH

A list of sites registered with The Department of Toxic Substances Control (DTSC) School Property Evaluation and Cleanup (SPEC) Division. SPEC is responsible for assessing, investigating and cleaning up proposed school sites. The Division ensures that selected properties are free of contamination or, if the properties were previously contaminated, that they have been cleaned up to a level that protects the students and staff who will occupy the new school.

Government Publication Date: Dec 20, 2018

California Hazardous Material Incident Report System (CHMIRS):

CHMIRS

A list of reported hazardous material incidents, spills, and releases from the California Hazardous Material Incident Report System (CHMIRS). This list has been made available by the California Office of Emergency Services (OES).

Government Publication Date: Jun 19, 2018

Hazardous Waste Manifest Data:

HAZNET

A list of hazardous waste manifests received each year by Department of Toxic Substances Control (DTSC). The volume of manifests is typically 900,000 - 1,000,000 annually, representing approximately 450,000 - 500,000 shipments.

Government Publication Date: Oct 24, 2016

Historical California Hazardous Material Incident Report System (CHMIRS):

HIST CHMIRS

A list of reported hazardous material incidents, spills, and releases from the California Hazardous Material Incident Report System (CHMIRS) prior to 1993. This list has been made available by the California Office of Emergency Services (OES).

Government Publication Date: Jan 1, 1993

Historical Hazardous Waste Manifest Data:

HIST MANIFEST

A list of historic hazardous waste manifests received by the Department of Toxic Substances Control (DTSC) from year the 1980 to 1992. The volume of manifests is typically 900,000 - 1,000,000 annually, representing approximately 450,000 - 500,000 shipments.

Government Publication Date: Dec 31, 1992

Historical Cortese List:

HIST CORTESE

List of sites which were once included on the Cortese list. The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies and developers to comply with the California Environmental Quality Act requirements for providing information about the location of hazardous sites.

Government Publication Date: Nov 13, 2008

Cease and Desist Orders and Cleanup and Abatement Orders:

CDO/CAO

The California Environment Protection Agency "Cortese List" of active Cease and Desist Orders (CDO) and Cleanup and Abatement Orders (CAO). This list contains many CDOs and CAOs that do NOT concern the discharge of wastes that are hazardous materials. Many of the listed orders concern, as examples, discharges of domestic sewage, food processing wastes, or sediment that do not contain hazardous materials, but the Water Boards' database does not distinguish between these types of orders.

Government Publication Date: Feb 16, 2012

California Environmental Reporting System (CERS) Hazardous Waste Sites:

CERS HAZ

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the following regulatory programs: Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, RCRA LQ HW Generator. The CalEPA oversees the statewide implementation of the Unified Program which applies regulatory standards to protect Californians from hazardous waste and materials.

Government Publication Date: Feb 13, 2019

Delisted Environmental Reporting System (CERS) Hazardous Waste Sites:

DELISTED HAZ

This database contains a list of sites that were removed from the California Environmental Protection Agency (CalEPA) in the following regulatory programs: Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, RCRA LQ HW Generator.

Government Publication Date: Nov 29, 2018

Waste Discharge Requirements:

WASTE DISCHG

List of sites in California State Water Resources Control Board (SWRCB) Waste Discharge Requirements (WDRs) Program in California, made available by the SWRCB via GeoTracker. The WDR program regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Government Publication Date: Nov 30, 2018

Toxic Pollutant Emissions Facilities:

EMISSIONS

A list of criteria and toxic pollutant emissions data for facilities in California made available by the California Environmental Protection Agency - Air Resources Board (ARB). Risk data may be based on previous inventory submittals. The toxics data are submitted to the ARB by the local air districts as requirement of the Air Toxics "Hot Spots" Program. This program requires emission inventory updates every four years.

Government Publication Date: Dec 31, 2016

Clandestine Drug Lab Sites:

CDL

The Department of Toxic Substances Control (DTSC) maintains a listing of drug lab sites. DTSC is responsible for removal and disposal of hazardous substances discovered by law enforcement officials while investigating illegal/ clandestine drug laboratories.

Government Publication Date: Dec 31, 2017

Tribal

No Tribal additional environmental record sources available for this State.

County

No County additional environmental databases were selected to be included in the search.

Definitions

Database Descriptions: This section provides a detailed explanation for each database including: source, information available, time coverage, and acronyms used. They are listed in alphabetic order.

Detail Report: This is the section of the report which provides the most detail for each individual record. Records are summarized by location, starting with the project property followed by records in closest proximity.

Distance: The distance value is the distance between plotted points, not necessarily the distance between the sites' boundaries. All values are an approximation.

Direction: The direction value is the compass direction of the site in respect to the project property and/or center point of the report.

Elevation: The elevation value is taken from the location at which the records for the site address have been plotted. All values are an approximation. Source: Google Elevation API.

Executive Summary: This portion of the report is divided into 3 sections:

'Report Summary'- Displays a chart indicating how many records fall on the project property and, within the report search radii.

'Site Report Summary'-Project Property'- This section lists all the records which fall on the project property. For more details, see the 'Detail Report' section.

'Site Report Summary-Surrounding Properties'- This section summarizes all records on adjacent properties, listing them in order of proximity from the project property. For more details, see the 'Detail Report' section.

Map Key: The map key number is assigned according to closest proximity from the project property. Map Key numbers always start at #1. The project property will always have a map key of '1' if records are available. If there is a number in brackets beside the main number, this will indicate the number of records on that specific property. If there is no number in brackets, there is only one record for that property.

The symbol and colour used indicates 'elevation': the red inverted triangle will dictate 'ERIS Sites with Lower Elevation', the yellow triangle will dictate 'ERIS Sites with Higher Elevation' and the orange square will dictate 'ERIS Sites with Same Elevation.'

Unplottables: These are records that could not be mapped due to various reasons, including limited geographic information. These records may or may not be in your study area, and are included as reference.

**Appendix C: Historical Aerial
Photographs**

Waterloo

Waterloo

Gustine, CA 95322

Inquiry Number: 5590693.5

March 19, 2019

The EDR Aerial Photo Decade Package



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Site Name:

Waterloo
 Waterloo
 Gustine, CA 95322
 EDR Inquiry # 5590693.5

Client Name:

Westwood Professional Services
 7699 Anagram Drive
 Eden Prairie, MN 55344
 Contact: Andy Brummer



Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
2016	1"=750'	Flight Year: 2016	USDA/NAIP
2012	1"=750'	Flight Year: 2012	USDA/NAIP
2009	1"=750'	Flight Year: 2009	USDA/NAIP
2006	1"=750'	Flight Year: 2006	USDA/NAIP
1998	1"=750'	Acquisition Date: August 16, 1998	USGS/DOQQ
1982	1"=750'	Flight Date: June 14, 1982	USDA
1977	1"=750'	Flight Date: June 26, 1977	USGS
1971	1"=750'	Flight Date: July 04, 1971	USGS
1963	1"=750'	Flight Date: January 01, 1963	USDA
1957	1"=750'	Flight Date: March 23, 1957	USGS
1950	1"=750'	Flight Date: March 03, 1950	USDA
1942	1"=750'	Flight Date: May 05, 1942	USDA
1937	1"=750'	Flight Date: August 08, 1937	USDA

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DRAFT

INQUIRY #: 5590693.5

YEAR: 2016

————— = 750'



DRAFT

INQUIRY #: 5590693.5

YEAR: 2012

————— = 750'





INQUIRY #: 5590693.5

YEAR: 2009

————— = 750'



DRAFT

INQUIRY #: 5590693.5

YEAR: 2006

_____ = 750'





DRAFT

INQUIRY #: 5590693.5

YEAR: 1998

————— = 750'





DRAFT

INQUIRY #: 5590693.5

YEAR: 1982

_____ = 750'



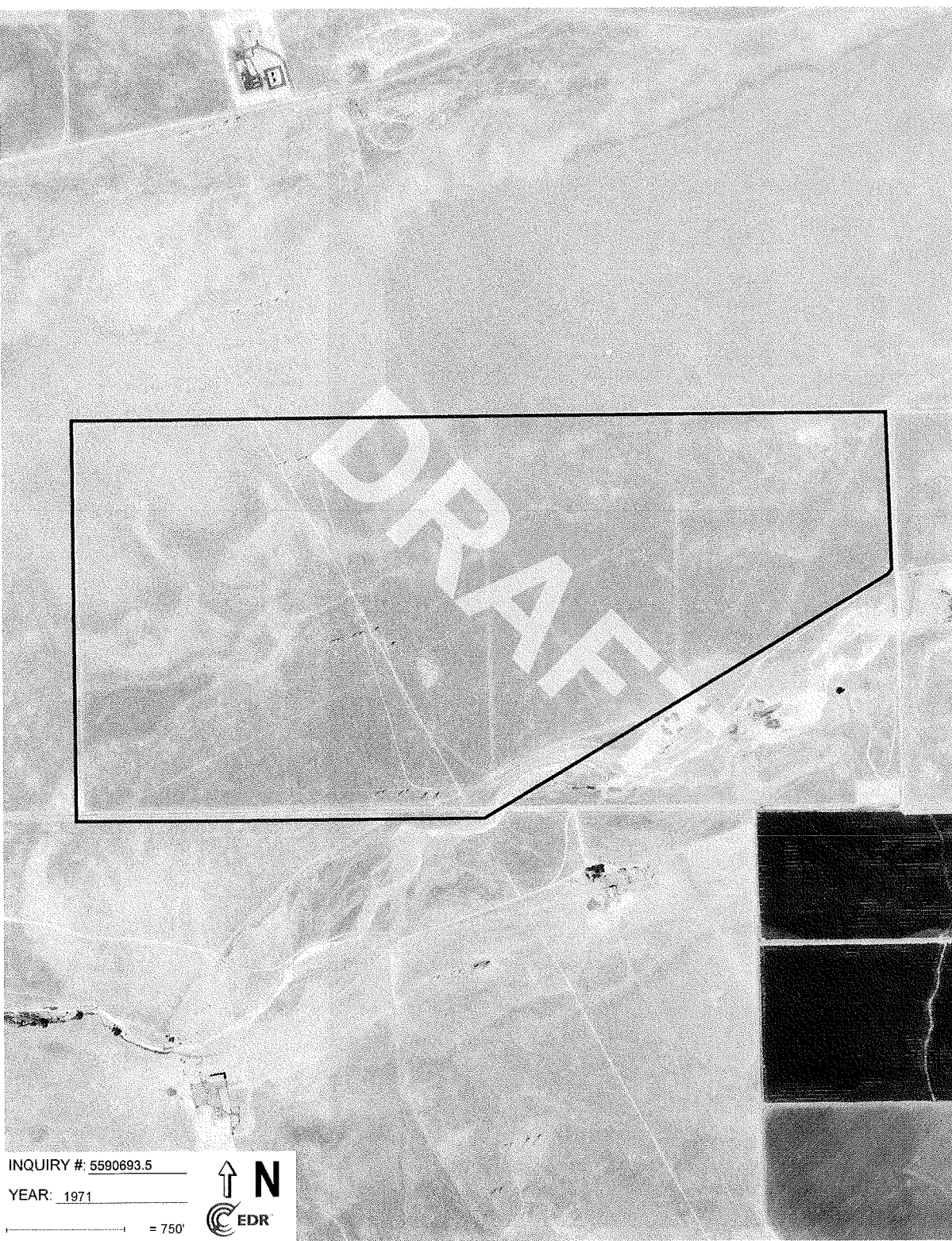
DRAFT

INQUIRY # 5590693.5

YEAR: 1977

←—————→ = 750'





DRAFT



INQUIRY #: 5590693.5

YEAR: 1971

_____ = 750'





INQUIRY #: 5590693.5

YEAR: 1963

— = 750'



DRAFT

INQUIRY #: 5590693.5

YEAR: 1957

————— = 750'



DRAFT

INQUIRY #: 5590693.5

YEAR: 1950

← = 750'





DRAFT

INQUIRY #: 5590693.5

YEAR: 1942

_____ = 750'





DRAFT

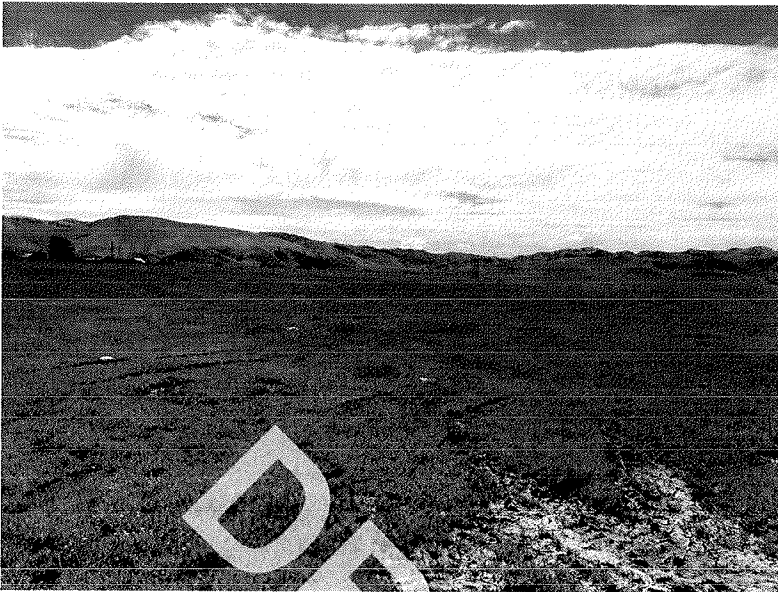
INQUIRY #: 5590693.5

YEAR: 1937

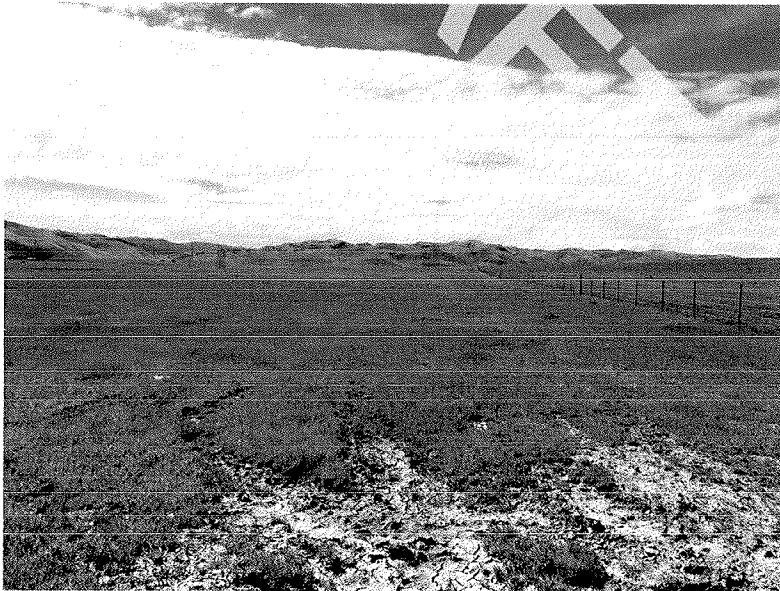
← = 750'



Appendix D: Site Photographs



Central portion of the property looking southwest.



Northern portion of the property looking west.

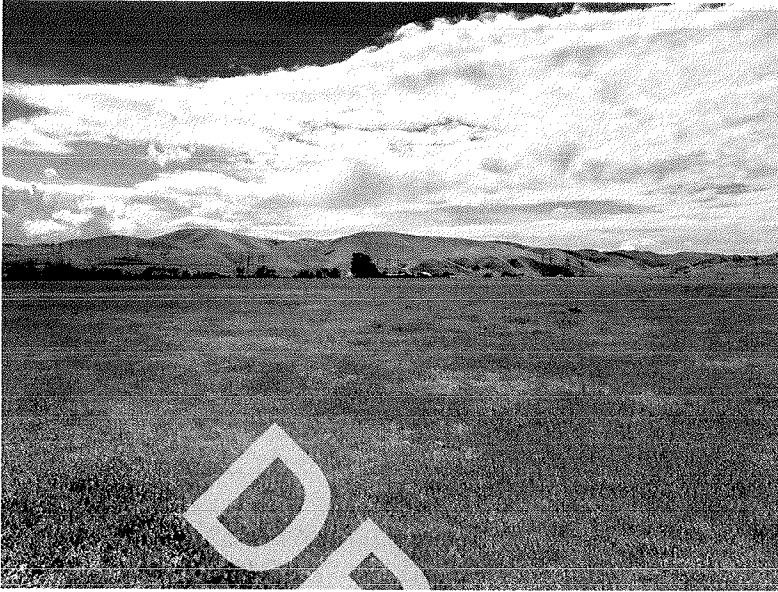


Eastern portion of the property looking south.



Central portion of the property looking west.

5



Eastern portion of the property looking south.

6



Eastern portion of the property looking north.



Central portion of the property looking northwest.



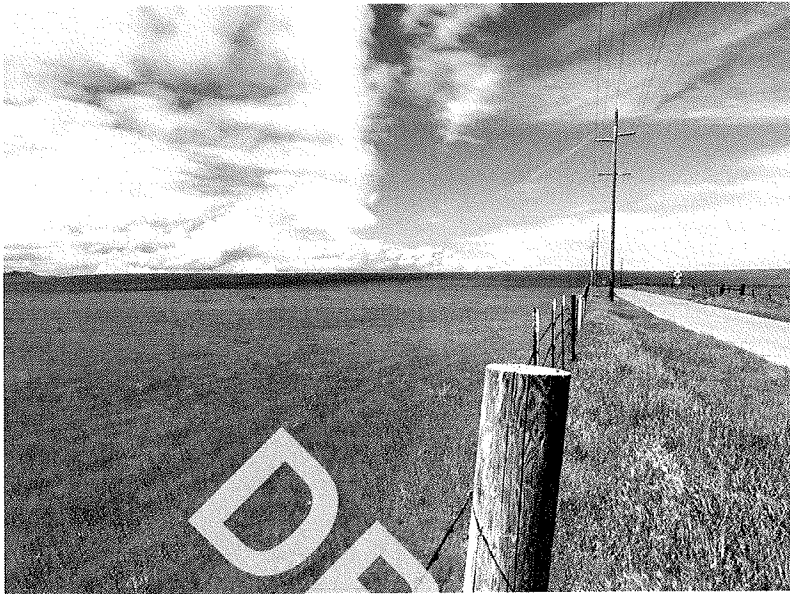
Southern portion of the property looking west.



Central portion of the property looking north.



Stream system southeast of the Subject Property.



Eastern portion of the property looking north.



East adjoining cattle pasture.