



Department of Development Services

Paula Daneluk, AICP, Director
Curtis Johnson, Assistant Director

7 County Center Drive
Oroville, California 95965

T: 530.552.3700
F: 530.538.7785

[buttecounty.net/dds](https://www.buttecounty.net/dds)

BUTTE COUNTY
NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION
HOWELL GRADING PERMIT (CEQA23-0001)

NOTICE IS HEREBY GIVEN that Butte County has prepared an Initial Study in accordance with the California Environmental Quality Act (CEQA) and is considering the adoption of a Mitigated Negative Declaration for the project described below. The Mitigated Negative Declaration establishes that although the proposed project could have a significant effect on the environment, there will not be a significant effect because required mitigation measures will address potential project effects. The County has prepared this Notice of Intent to Adopt a Mitigated Negative Declaration to provide an opportunity for input from public agencies, organizations, and interested parties on the environmental analysis addressing the potential effects of the proposed project. The IS/MND is available for review on the County's website at <https://www.buttecounty.net/363/California-Environmental-Quality-Act-CEQ>.

Project Information

Project: Howell Grading Permit (CEQA23-0001)

Location: The project site is located on the east side of Hicks Lane, approximately 1 mile north of East Eaton Road, immediately north and west of the City of Chico city limits; Assessor Parcel Number: 007-010-054.

Project Description: Proposed grading permit for future site development to establish a towing company storage yard. Grading activities include leveling 1.66 acres and the access driveway of a vacant 10-acre property to construct a 10' x 30' modular office trailer, fenced parking and vehicle storage area, groundwater well, septic disposal area, and ancillary improvements. Grading involves the importation of 3,000 cubic yards of soil and the excavation of 20 cubic yards of onsite soils, with all excavated spoils to be retained on the property. Construction is expected to begin in late 2024.

The Initial Study/Mitigated Negative Declaration (IS/MND) is on file for public review and comment starting **December 29, 2023**, to **January 27, 2024**. All comments for the IS/MND must be submitted in writing and received by **5:00 pm Saturday, January 27, 2024**. Written comments may be submitted to the project planner, Rowland Hickel, Senior Planner, Butte County Development Services Department, Planning Division, 7 County Center Drive, Oroville, CA 95965. Phone: (530) 552-3684 Email: rhickel@buttecounty.net. The Butte County Planning Commission will consider the proposed project at a public hearing on a future date to be determined.

PAULA DANELUK, AICP, DIRECTOR OF DEVELOPMENT SERVICES

INITIAL STUDY AND ENVIRONMENTAL REVIEW CHECKLIST

California Environmental Quality Act (CEQA)

PROJECT INFORMATION

1. Project Title: Howell Grading Permit (CEQA23-0001)
2. Lead Agency Name and Address: Butte County – Department of Development Services
Planning Division
7 County Center Drive
Oroville, CA 95965
3. Contact Person and Phone Number: Rowland Hickel, AICP, Senior Planner
530.552-3684; rhickel@buttecounty.net
4. Project Location: The subject property is comprised of one parcel totaling approximately 10 acres (APN 007-010-054). It is located at 0 Hicks Lane (southeast of the intersection of Caballo Lane), Chico, CA. Lat. 39.4718⁰ N/Long. - 121.5313⁰W.
5. Project Sponsor's Name and Address: Greg Howell
19 Top Flight Court
Chico, CA 95928
6. General Plan Designation: Industrial (I)
7. Zoning: General Industrial (GI)/Airport Compatibility Overlay (AO-C), North Chico Specific Plan Light Industrial / Open Space (M-1/OS), Airport Compatibility Zone (C).
8. Description of Project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)

The proposed project, a grading permit, and future development would include the construction of an access gate, gravel driveway, parking area, solar array, portable restroom, potable water well, and install a 10x30 modular office trailer. These improvements would be constructed adjacent to a proposed towing company storage yard. A slatted fence would be installed around the improved area. The project would provide storage for a commercial towing company. As stated, an on-site water well is proposed. No wastewater septic system is proposed during the initial development; however, a septic system is proposed for installation during a future phase of the project, this is currently under review by the Butte County Public Health Department, Environmental Health Division under permit SEWW23-0032. The site is vacant and has not previously been developed. The site would be accessed via Hicks Lane. The area proposed for leveling and grading would be approximately 376' x 192'. Approximately 20 cubic yards of material would be excavated. A total of 3,000 cubic yards of subgrade would be imported. All excavated spoils would be reused. No export would be required. Construction is expected to begin in late 2023.
9. Surrounding Land Uses and Setting: (Briefly describe the project's surroundings)

The site is undeveloped open space. A total of three ephemeral drainages and three wetlands occur on the property; however, none would be disturbed as part of the project. The Property supports four habitat types

consisting of ruderal grassland, seasonal wetland, seasonal swale, and ephemeral drainage. The project area proposed for disturbance is located on ruderal grassland; however, a total of 0.13 acres of seasonal swale would be permanently impacted by the project. The property is relatively flat with an elevation of approximately 187 feet above sea level at the southwest corner and 193 feet above sea level in the northeast corner. The site is bordered by single-family residential parcels ranging from 1.0 to 2.0 acres to the west with Industrial zoning to the north and south and the Chico Municipal Airport to the east. Access to the property is provided by frontage onto Hicks Lane.

Access to the property is provided by Hicks Lane. The project site is located approximately 0.5 miles west of Chico Municipal Airport and is within Compatibility Zone C.

Direction	General Plan Designation	Zoning	Existing Land Use(s)
North	Industrial	GI, NCSP M-1/OS	Light Industrial
South	Industrial	GI, NCSP M-1/OS	Light Industrial
East	City of Chico	City of Chico	Vacant/Chico Municipal Airport
West	Very Low Density Residential	VLDR, NCSP Suburban Residential (SR-1)	Residential

10. Other public agencies whose approval is required: (e.g., permits, financing approval, or participation agreement)

- Butte County Development Services: Building Permits
- Butte County Public Works Land Development Division Department: Grading Permit *PWGRD23-0001*
- Butte County Department of Environmental Health: Well Permit and Septic permit *SEWW23-0032*

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

See Discussion 1.18

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages. Where checked below, the topic with a potentially significant impact will be addressed in an environmental impact report.

<input type="checkbox"/>	Aesthetics	<input type="checkbox"/>	Agriculture and Forest Resources	<input type="checkbox"/>	Air Quality
<input type="checkbox"/>	Biological Resources	<input type="checkbox"/>	Cultural Resources	<input type="checkbox"/>	Energy
<input type="checkbox"/>	Geology / Soils	<input type="checkbox"/>	Greenhouse Gas Emissions	<input type="checkbox"/>	Hazards / Hazardous Materials
<input type="checkbox"/>	Hydrology / Water Quality	<input type="checkbox"/>	Land Use / Planning	<input type="checkbox"/>	Mineral Resources
<input type="checkbox"/>	Noise	<input type="checkbox"/>	Population / Housing	<input type="checkbox"/>	Public Services
<input type="checkbox"/>	Recreation	<input type="checkbox"/>	Transportation	<input type="checkbox"/>	Tribal Cultural Resources
<input type="checkbox"/>	Utilities / Service Systems	<input type="checkbox"/>	Wildfire	<input type="checkbox"/>	Mandatory Findings of Significance
		<input type="checkbox"/>	None	<input checked="" type="checkbox"/>	None with Mitigation Incorporated

DETERMINATION (To be completed by the Lead Agency)

On the basis of this initial evaluation:

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

Rowland Hickel

12/21/2023

Ernest Weems, AICP, Senior Planner

Date

Mark Michelena

12/21/2023

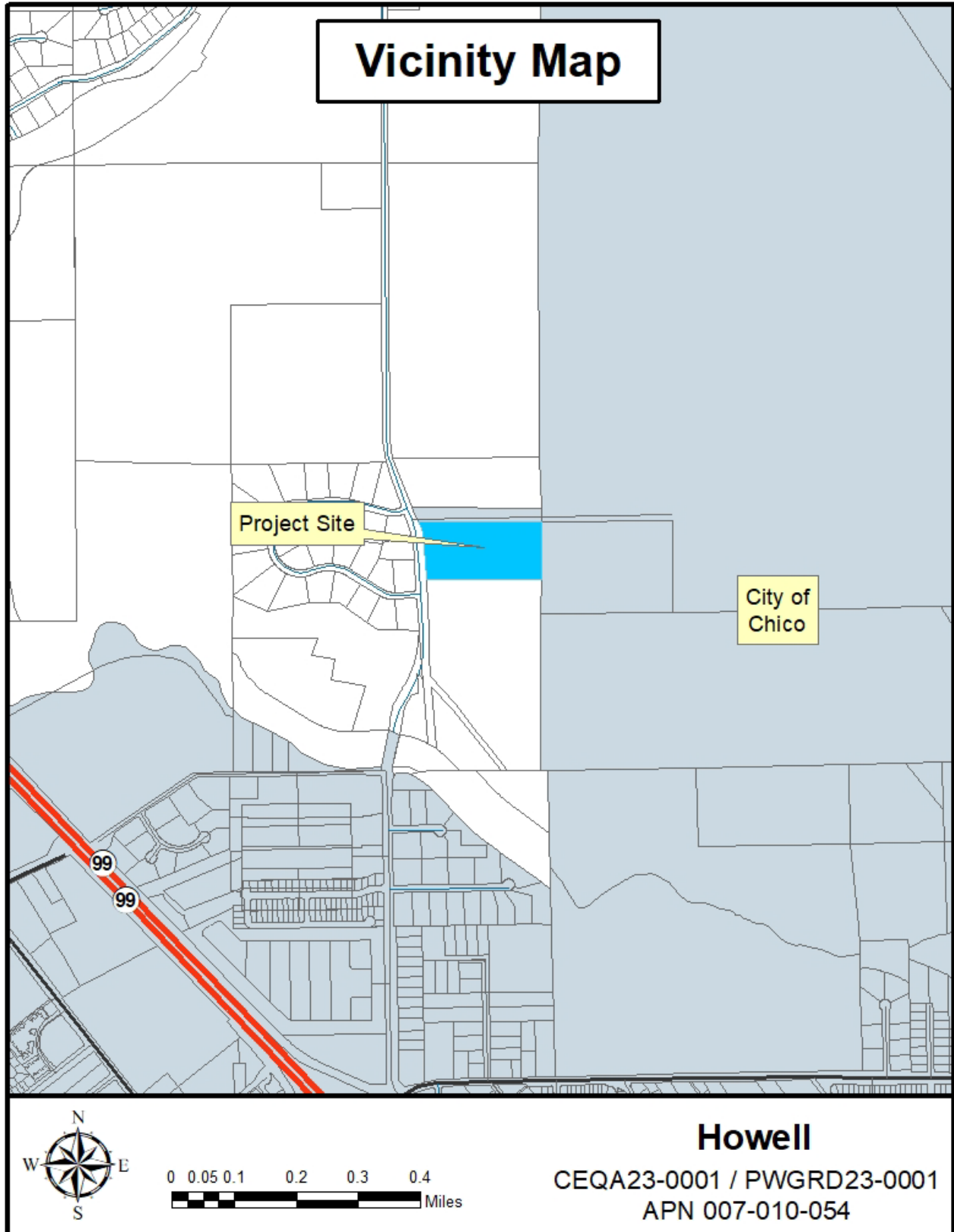
Mark Michelena, Principal Planner

Date

EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
4. “Negative Declaration: Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from “Earlier Analyses,” as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are “Less than Significant with Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project’s environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
 - a) the significance criteria or threshold, if any, used to evaluate each question; and
 - b) the mitigation measure identified, if any, to reduce the impact to less than significance.

Vicinity Map

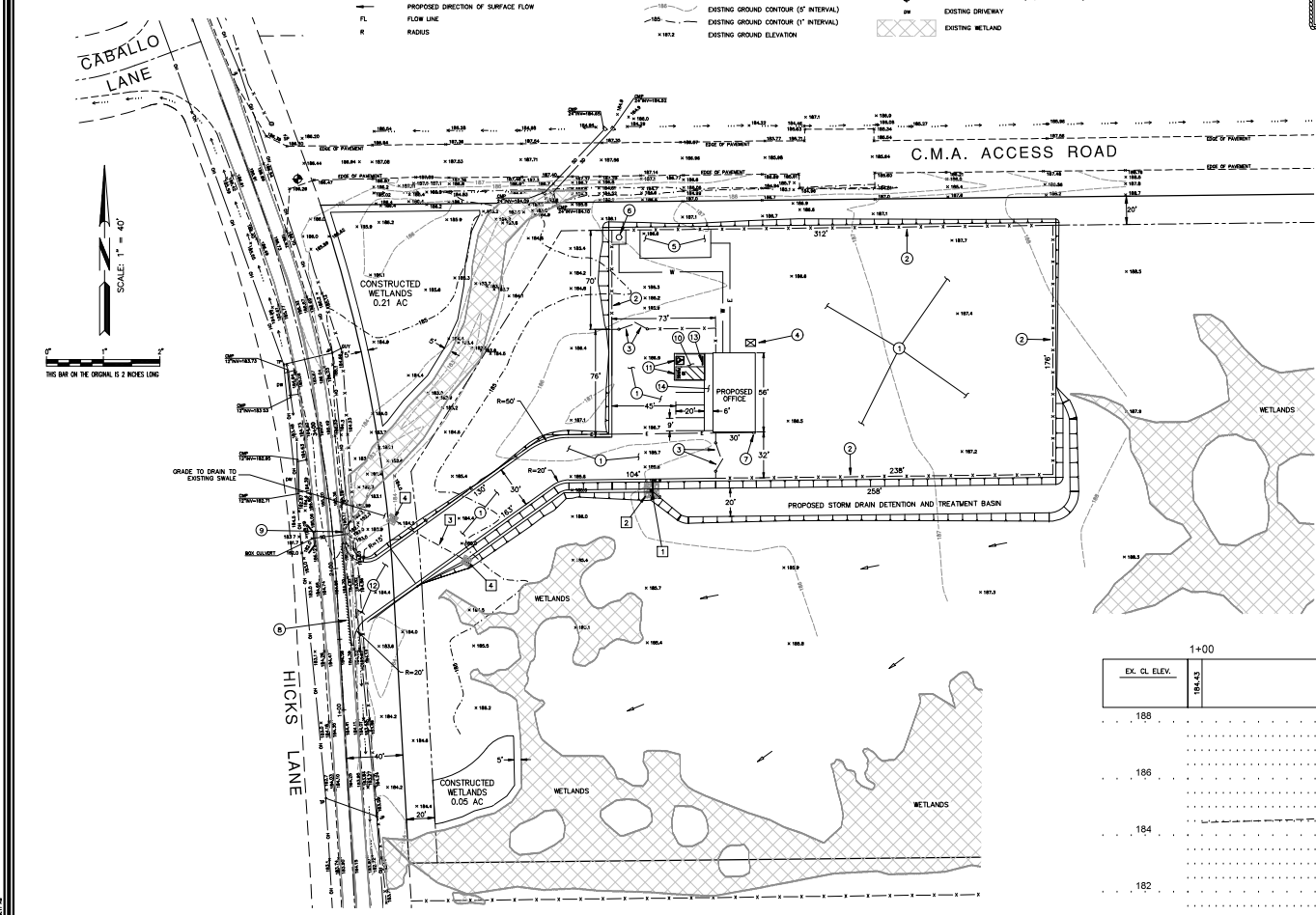
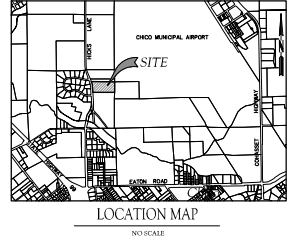


LEGEND

- | | | | | | |
|-----------|--|----|---------------------------------------|---|---|
| — | PROJECT BOUNDARY | — | PROPOSED STORM DRAIN CATCH BASIN | → | EXISTING DIRECTION OF SURFACE FLOW |
| - - - | APPROXIMATE LOCATION OF EXISTING PROPERTY LINE | EP | EDGE OF PAVEMENT | ⊠ | EXISTING ROCK PILE FENCE CORNER |
| - · - · - | APPROXIMATE BUILDING SETBACK LINE | C | CORNER | ⊕ | EXISTING TELEPHONE POLE |
| - x - x - | PROPOSED FENCE | — | EXISTING FENCE | ⊕ | EXISTING JOINT UTILITY POLE |
| - w - w - | PROPOSED WATER SERVICE | — | EXISTING EITCH FLOWLINE | ⊕ | EXISTING UTILITY POLE GUY WIRE |
| - e - e - | PROPOSED ELECTRIC SERVICE (DESIGN BY OTHERS) | — | EXISTING EDGE OF PAVEMENT | ⊕ | EXISTING CORRUGATED METAL PIPE |
| - s - s - | PROPOSED STORM DRAIN PIPE | — | EXISTING OVERHEAD UTILITY LINE | ⊕ | EXISTING SIGN POST |
| - g - g - | PROPOSED FINISH GRADE (ADD 100.00) | — | EXISTING STORM DRAIN OUTLET | ⊕ | TEMPORARY BENCHMARK (P.M. ELEV= 186.36) |
| — | PROPOSED STORM DRAIN PIPE | — | EXISTING GROUND CONTOUR (5' INTERVAL) | ⊕ | EXISTING DRIVEWAY |
| FL | FLOW LINE | — | EXISTING GROUND CONTOUR (1' INTERVAL) | ⊕ | EXISTING WETLAND |
| R | RADIUS | — | EXISTING GROUND ELEVATION | | |

BUTTE COUNTY DEPARTMENT OF PUBLIC WORKS APPROVAL:
 THESE IMPROVEMENT PLANS HAVE BEEN REVIEWED FOR COMPLIANCE WITH APPLICABLE BUTTE COUNTY CODES AND IMPROVEMENT STANDARDS.

SIGNATURE _____ DATE _____

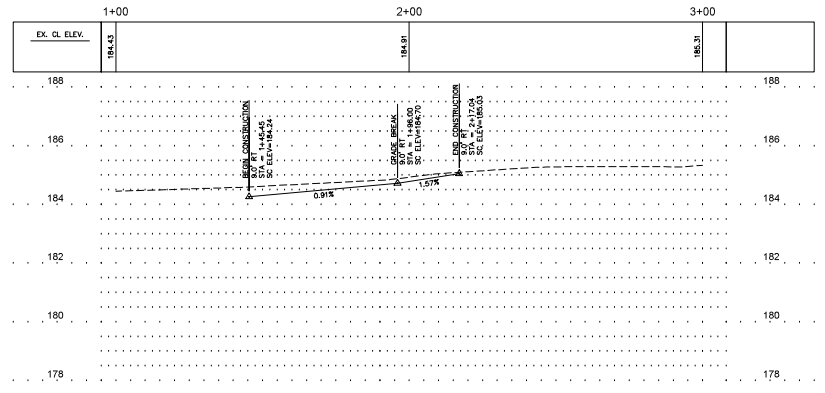


CONSTRUCTION NOTES

1. PLACE 6" CLASS 2 AGGREGATE BASE COMPACTED TO 95% RELATIVE COMPACTION OVER 12" SUBGRADE COMPACTED TO 90% RELATIVE COMPACTION.
2. INSTALL 4" TALL CHAIN LINK FENCE
3. INSTALL 20" WIDE GATE
4. PROPOSED PORTABLE TOILET
5. PROPOSED SOLAR ARRAY
6. PROPOSED GROUNDWATER WELL
7. PROPOSED ELECTRIC METER LOCATION
8. SAWCUT MEAT LINE AND REMOVE AND DISPOSE OF EXISTING MATERIALS
9. PROTECT EXISTING STORM DRAIN PIPES AND HEADWALL IN PLACE
10. INSTALL 4,000 PSI 6" THICK PORTLAND CEMENT CONCRETE WITH #4 REBAR 24" O.C. BOTH DIRECTIONS OVER 6" CLASS 2 AGGREGATE BASE OVER 12" SUBGRADE COMPACTED TO 95% R.C.
11. INSTALL ADA PARKING SPACE, STRIPING, PAVEMENT MARKINGS AND SIGNS PER ACCESSIBLE PARKING STALL DETAIL AND MARKING DETAILS ON DRAWING NO. 2
12. INSTALL BUTTE COUNTY STD. 5-31 DRIVEWAY
13. INSTALL CAL TRANS STD. ASDA PARKING BUMPER, REFER TO NOTE 3 OF CALTRANS STANDARD PLANS FOR ADDITIONAL INFORMATION
14. PLACE 2" ASPHALT OVER 2" AGGREGATE BASE COMPACTED TO 95% RELATIVE COMPACTION. CROSS SLOPE SHALL NOT EXCEED 2%.

STORM DRAIN CONSTRUCTION NOTES

1. INSTALL CURE CONCRETE 18"x18" STORM DRAIN CATCH BASIN OR APPROVED EQUAL, WITH DISCHARGE CONTROL PER DETAIL ON DWG. 2. OR 18x30.
2. PLACE GEO-FABRIC AND 6" TO 8" COBBLES BEYOND THE STORM DRAIN BOX (4' IN EACH DIRECTION)
3. INSTALL 357 LF 12" DIA. CMP STORM DRAIN PIPE, S=0.0035. BACK FILL TRENCH WITH ONE SLOK CEMENT GUNNITY TO 4" ABOVE TOP OF PIPE
4. INSTALL 12" DIA. CMP FLARED END SECTION. PLACE 48 SF.5 OF 7" THICK (MIN) CLASS NO. 8 ROCK SLOPE PROTECTION OVER CLASS 8 FIBRE PER CALTRANS STANDARD SPECIFICATION SECTIONS 72-4 AND 72-2.02B. ROCK SHALL MEET EDGE OF FLARED END SECTION, TOP OF ROCK SHALL BE FLUSH WITH ADJACENT GRADE. SEE DETAIL ON DWG. 3



SITE DATA

1. ASSESSOR'S PARCEL NUMBER: 007-010-054
2. PARCEL AREA: 9.38 ACRES ±
3. EXISTING ZONING: GI - GENERAL INDUSTRIAL
4. GENERAL PLAN: OPI
5. LAND USE: IV
6. FLOOD ZONE: X
7. TOTAL DISTURBED AREA: 82.77 ACRES
8. CUT (UNADJUSTED): 351 CY
9. FILL (UNADJUSTED): 1069 CY

NOTES

1. THE TEMPORARY BENCHMARK OF ORIGIN IS A PIN LOCATED 5 FEET NORTH OF THE EDGE OF PAVEMENT AT THE SOUTHWEST INTERSECTION OF HICKS LANE AND THE C.M.A. ACCESS ROAD. THE TEMPORARY BENCHMARK ELEVATION IS 186.36.
2. THE LOCATIONS OF PROPERTY LINES ARE APPROXIMATE AND NOT BASED ON FOUND MONUMENTS OR A BOUNDARY SURVEY.
3. THE TOPOGRAPHIC SURVEY WAS PERFORMED ON 01/17/2022. LOCATIONS AND DEPTHS OF EXISTING UTILITIES SHOWN ON THIS SURVEY ARE APPROXIMATE. EXISTING UNDERGROUND UTILITIES HAVE BEEN SHOWN BASED ON SURVEY MEASUREMENTS OF SURFACE VISIBLE FEATURES.
4. DETAILS AND CONSTRUCTION NOTES FOR NEW WETLAND AREAS TO BE PROVIDED BY ENVIRONMENTAL CONSULTANT FOR PROJECT.



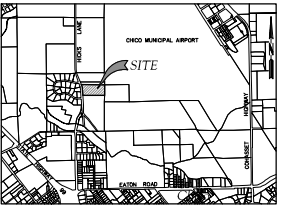
APPROVED: _____
 DATE: MAY, 2023

PREPARED FOR:
GREG HOWELL

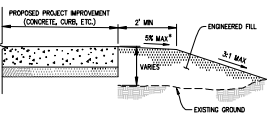


SITE AND UTILITY PLAN
 HICKS LANE - A.P.N. 007-010-054

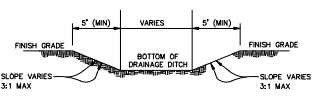
DESIGNED	DJB
DRAWN	CAD
CHECKED	PWR
DRAWING NO.	1 OF 4
DATE	20153



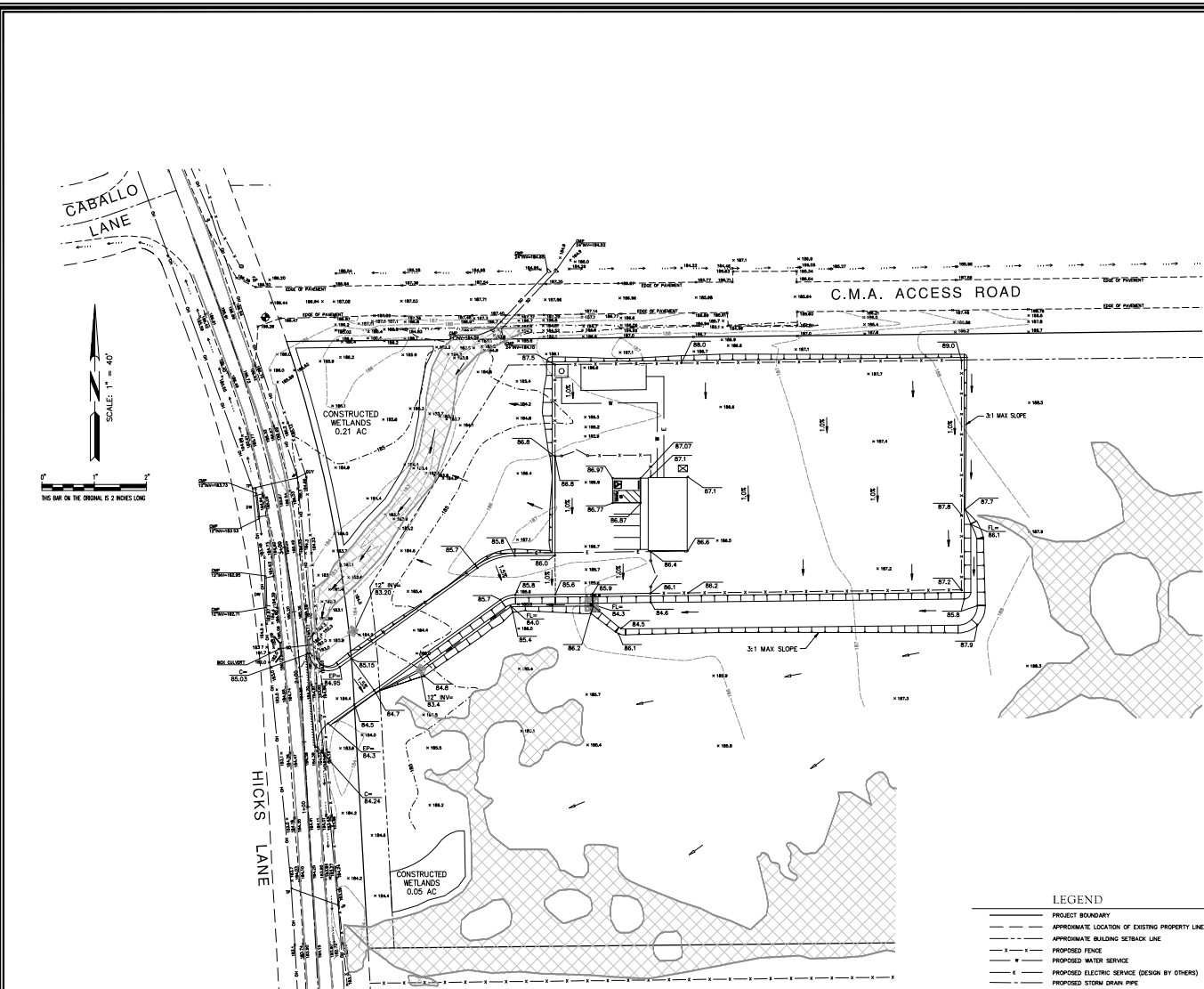
LOCATION MAP
NO SCALE



GRADING BEYOND IMPROVEMENTS DETAIL
NO SCALE



DRAINAGE SWALE TYPICAL SECTION
NO SCALE



LEGEND

—	PROJECT BOUNDARY	—	EXISTING DIRECTION OF SURFACE FLOW
---	APPROXIMATE LOCATION OF EXISTING PROPERTY LINE	EP	EDGE OF PAVEMENT
---	APPROXIMATE BUILDING SETBACK LINE	C	CONFORM
-X-X-	PROPOSED FENCE	—X—	EXISTING FENCE
—W—	PROPOSED WATER SERVICE	---	EXISTING DITCH FLOWLINE
---	PROPOSED ELECTRIC SERVICE (DESIGN BY OTHERS)	---	EXISTING EDGE OF PAVEMENT
---	PROPOSED STORM DRAIN PIPE	—M—	EXISTING OVERHEAD UTILITY LINE
—100'—	PROPOSED FINISH GRADE (ADD 100.00)	---	EXISTING GROUND CONTOUR (5' INTERVAL)
—	PROPOSED DIRECTION OF SURFACE FLOW	—100'—	EXISTING GROUND CONTOUR (1' INTERVAL)
FL	FLOW LINE	+ 107.2	EXISTING GROUND ELEVATION
R	RADIUS		
		—	EXISTING DIRECTION OF SURFACE FLOW
		○	EXISTING ROCK PILE FENCE CORNER
		T	EXISTING TELEPHONE POLE
		J	EXISTING JOINT UTILITY POLE
		UV	EXISTING UTILITY POLE GUY WIRE
		—M—	EXISTING CORRUGATED METAL PIPE
		—	EXISTING SIGN POST
		—	TEMPORARY BENCHMARK (PK, ELEV= 106.30)
		—	EXISTING DRIVEWAY
		—X—	EXISTING WETLAND



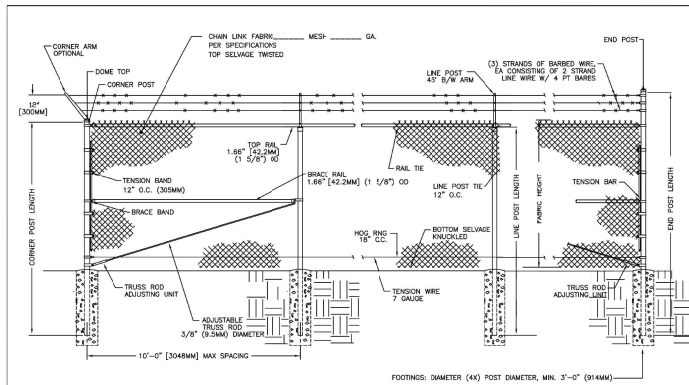
APPROVED: _____
DATE: MAY, 2023

PREPARED FOR: **GREG HOWELL**

ROLLS ANDERSON & ROLLS
CIVIL ENGINEERS
215 WILSONS BLVD • CHICO, CALIFORNIA 95926-5812 • TELEPHONE 530-893-1422

GRADING PLAN
HICKS LANE - A.P.N. 007-010-054

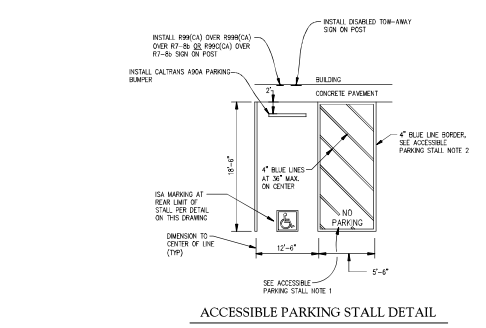
DESIGNED	DJB
DRAWN	CAD
CHECKED	PWR
DRAWING NO.	2 OF 4
PLT NO.	20153



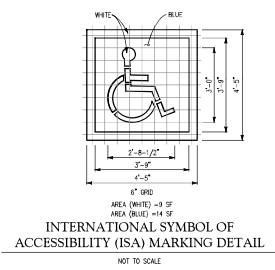
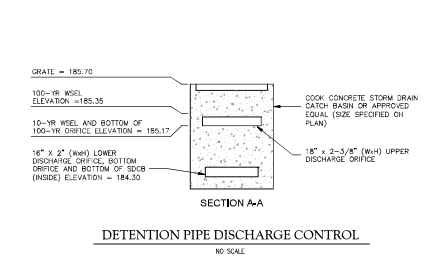
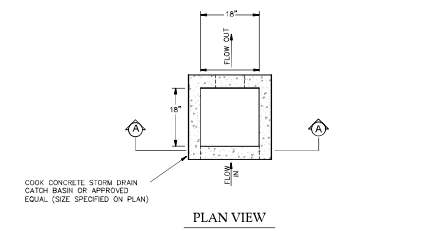
<p>Chain Link Fence Manufacturers Institute 10015 Old Columbia Rd. Suite B 215 Columbia, MD, 21046</p>	<p>TYPICAL FENCE SECTION</p> <p>TYPICAL FENCE ELEVATION TOP RAIL / TRUSSED BRACE RAIL 3 STRANDS BARBED WIRE W/1 BOTTOM TENSION WIRE</p>	<p>CLFMI</p>
		<p>CLTA</p>
<p>BY: ART</p> <p>DATE: 08/10/09</p>		<p>SCALE:</p>

GENERAL NOTES

- ALL CONSTRUCTION SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE COUNTY OF BUTTE IN FILE IN THE OFFICE OF THE DIRECTOR OF PUBLIC WORKS, BUTTE COUNTY, CALIFORNIA.
 - LOCATIONS AND DEPTHS OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE. VERIFY THE EXISTENCE, LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO ORDERING MATERIALS OR BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL CALL UNDERGROUND SERVICE ALERT (USA) AT 811 AT LEAST 3 DAYS PRIOR TO CONSTRUCTION.
 - CALL BUTTE COUNTY DEPARTMENT OF PUBLIC WORKS AT (530) 538-7681 AT LEAST 48 HOURS (2 WORKING DAYS) PRIOR TO THE START OF CONSTRUCTION FOR IDENTIFICATION AND FIELD MARKING OF COUNTY MAINTAINED UNDERGROUND STORM DRAIN AND OTHER UTILITY FACILITIES.
 - THE CONTRACTOR SHALL OBTAIN AN ENCROACHMENT PERMIT PRIOR TO PERFORMING ANY WORK WITHIN COUNTY RIGHT-OF-WAYS.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING MONUMENTS AND OTHER SURVEY MARKERS DURING CONSTRUCTION. ALL SUCH MONUMENTS DESTROYED DURING CONSTRUCTION SHALL BE REPLACED AT CONTRACTOR'S EXPENSE.
 - AS IS DEFINED AS TYPE "A" ASPHALT CONCRETE 3/4" MAXIMUM MEDIUM GRADING.
 - AS IS DEFINED AS CLASS 2 AGGREGATE BASE 3/4" MAXIMUM GRADING.
 - CALL BUTTE COUNTY DEPARTMENT OF PUBLIC WORKS AT (530) 538-7681 TO SCHEDULE INSPECTION AT LEAST 24 HOURS PRIOR TO CONSTRUCTION OF ROAD IMPROVEMENTS.
 - DUST GENERATED BY THE DEVELOPMENT ACTIVITIES SHALL BE KEPT TO A MINIMUM AND RETAINED ON-SITE. FOLLOW THE AIR QUALITY CONTROL MEASURES LISTED BELOW.
- DESIGN EXHAUST FROM CONSTRUCTION EQUIPMENT AND COMMERCIAL ON-ROAD SCHEDULES GREATER THAN 1000 GPM:**
- ALL ON- AND OFF-ROAD EQUIPMENT SHALL NOT IDELE FOR MORE THAN 5 MINUTES. SIGNS SHALL BE POSTED IN THE DESIGNATED QUEUING AREAS AND/OR JOB SITES TO REMIND DRIVERS AND OPERATORS OF THE FIVE-MINUTE IDLING LIMIT.
 - IDLING, STANDING AND QUEUING OF DIESEL EQUIPMENT WITHIN 1000 FEET OF SENSITIVE RECEPTORS IS PROHIBITED.
 - ALL CONSTRUCTION EQUIPMENT SHALL BE MAINTAINED IN PROPER TUNE ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS. EQUIPMENT MUST BE CHECKED BY A CERTIFIED MECHANIC AND DETERMINED TO BE RUNNING IN PROPER CONDITION BEFORE THE START OF WORK.
 - INSTALL DIESEL PARTICULATE FILTERS OR IMPLEMENT OTHER CARBON-VERIFIED DIESEL EMISSION CONTROL STRATEGIES.
 - SHALL NOT OPERATE A DIESEL-POWERED AUXILIARY POWER SYSTEM (APS) TO POWER A HEATER, AIR CONDITIONER, OR ANY AUXILIARY EQUIPMENT ON THAT VEHICLE DURING SLEEPING OR RESTING IN A SLEEPER BERTH FOR GREATER THAN 3 MINUTES AT ANY LOCATION WITHIN 100 FEET OF A RESTRICTED AREA.
 - TO THE EXTENT FEASIBLE, TRUCK TRIPS SHALL BE SCHEDULED DURING NON-PEAK HOURS TO REDUCE PEAK HOUR EMISSIONS.
- OPERATIONAL TOXIC EMISSIONS**
- ALL MOBILE AND STATIONARY TOXIC AIR CONTAMINANTS (TACS) SOURCES SHALL COMPLY WITH APPLICABLE AIRBORN TOXIC CONTROL MEASURES (ATCMS) PROMULGATED BY THE CARB THROUGHOUT THE LIFE OF THE PROJECT. SEE: www.pwds.org/airtox/atom.htm.
 - STATIONARY SOURCES SHALL COMPLY WITH APPLICABLE DISTRICT RULES AND REGULATIONS.
- ILLEGIBLE DUST**
- CONSTRUCTION ACTIVITIES CAN GENERATE FUGITIVE DUST THAT CAN BE A NUISANCE TO LOCAL RESIDENTS AND BUSINESSES NEAR A CONSTRUCTION SITE. DUST COMPLAINTS COULD RESULT IN A VIOLATION OF THE DISTRICT'S "NUISANCE AND FUGITIVE DUST" RULES 22-4 AND 22-5, RESPECTIVELY. THE FOLLOWING IS A LIST OF MEASURES THAT MAY BE REQUIRED THROUGHOUT THE DURATION OF THE CONSTRUCTION ACTIVITIES:
- REDUCE THE AMOUNT OF THE DISTURBED AREA WHERE POSSIBLE.



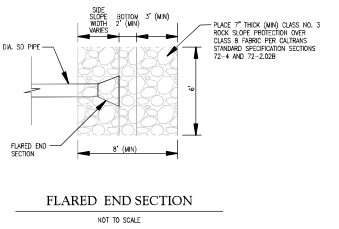
- ACCESSIBLE PARKING STALL NOTES:**
- THE WORDS "NO PARKING" SHALL BE PAINTED IN THE LOADING AND UNLOADING AREA IN WHITE LETTERS NO LESS THAN 1" HIGH ON A CONTRASTING BACKGROUND AND LOCATED SO THAT IT IS VISIBLE TO TRAFFIC ENFORCEMENT OFFICIALS.
 - LOADING AND UNLOADING AREA BORDER SHALL BE MARKED IN BLUE PAINT. THE BORDER AND HATCH LINES SHALL BE PAINTED BLUE.
 - SIGN POSTS SHALL BE INSTALLED ON POSTS.
 - PARKING STALL AND THE LOADING AND UNLOADING AREA SHALL BE CONSTRUCTED USING 6" 10" CONCRETE OVER 6" OF CLASS 2 AGGREGATE BASE, COMPACTED TO 90% R.C. OVER 12" SUBGRADE COMPACTED TO 90% R.C.. ALL CONCRETE SHALL HAVE #4 REBAR PLACED ON 24" CENTERS EACH WAY AND SHALL HAVE A BROOM FINISH TO CREATE A SLIP RESISTANT SURFACE. SLOPES SHALL NOT EXCEED 2% IN ANY DIRECTION.



INTERNATIONAL SYMBOL OF ACCESSIBILITY (ISA) MARKING DETAIL
NOT TO SCALE



NO PARKING LEGEND
NOT TO SCALE



FLARED END SECTION
NOT TO SCALE



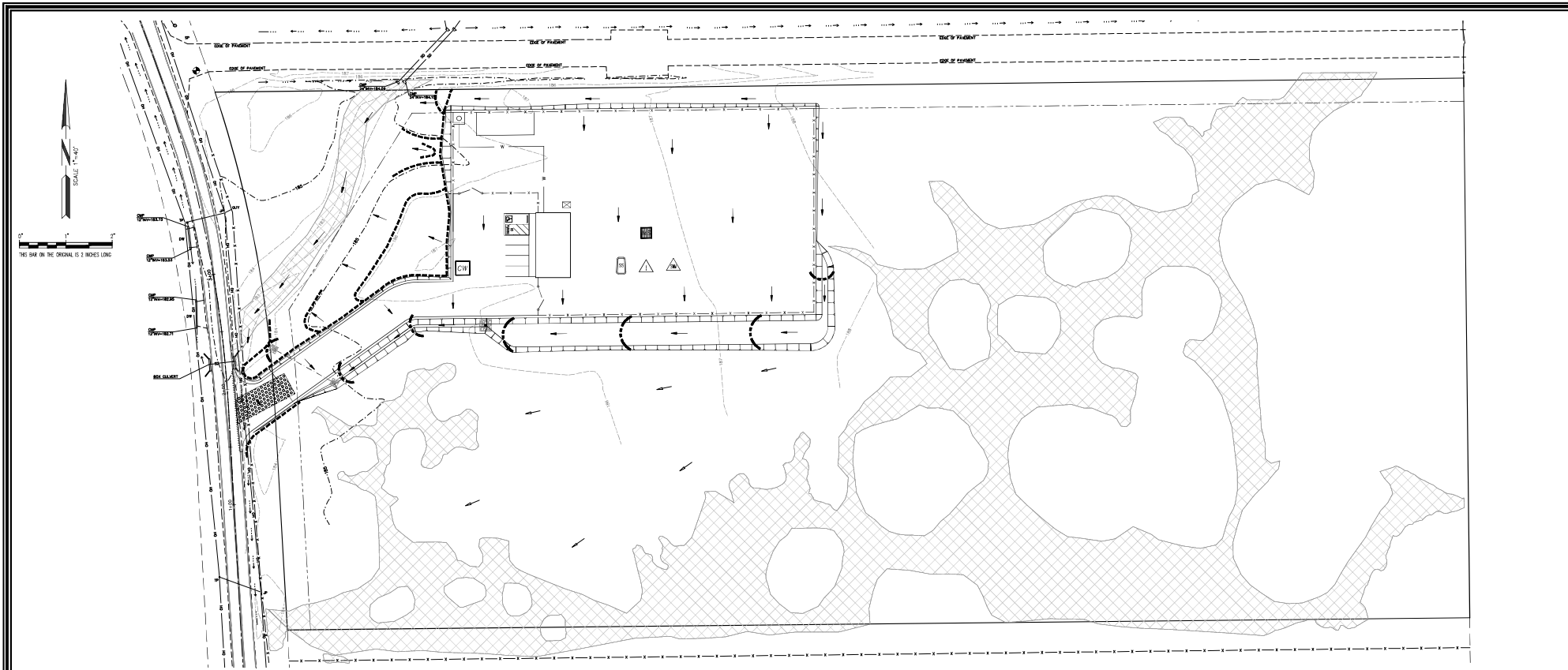
APPROVED: _____
DATE: MAY, 2023

PREPARED FOR:
GREG HOWELL



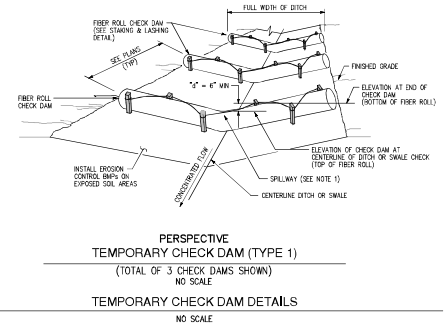
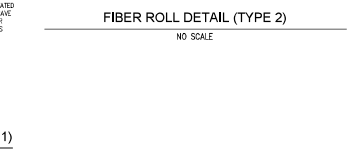
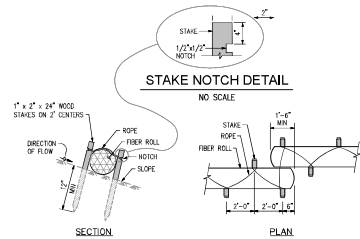
DETAILS AND GENERAL NOTES
HICKS LANE - A.P.N. 007-010-054

DESIGNED	DJB
DRAWN	CAD
CHECKED	PWR
DRAWING NO.	3 OF 4
PIR NO.	20153



ESCP LEGEND

- ➔ PROPOSED SURFACE FLOW DIRECTION
- ▨ PROPOSED SAWCUT
- ▨ PROPOSED MATERIAL DELIVERY AND STORAGE AREA
- ⚠ PROPOSED SOLID WASTE MANAGEMENT
- ⚠ PROPOSED HAZARDOUS WASTE MANAGEMENT
- 🚻 PROPOSED PORTABLE RESTROOM
- ☐ DESIGNATES A 15'x15' AREA, WITH A 2 FOOT HIGH BERM ON ALL FOUR SIDES LINED WITH 10MIL PLASTIC TO BE CONSTRUCTED BY THE CONTRACTOR FOR WASHOUT OF CONCRETE TRUCKS LEAVING THE SITE. CONTRACTOR SHALL DECAULOUT RESIDUE ON A REGULAR BASIS AND MAINTAIN PERIMETER BERMING IF NECESSARY FOR CONSTRUCTION PURPOSES. THE DESIGNATED AREA MAY BE RELOCATED TO OTHER AREAS AWAY FROM CONCENTRATED RUNOFF
- 18" ROUND "FIBER ROLL" TO CONTROL AND FILTER SEDIMENT FROM STORM WATER RUNOFF PER FIBER ROLL DETAIL TYPE 1 OR 2. MAY BE REMOVED AFTER SITE HAS STABILIZED AND THERE IS NO POTENTIAL FOR CONSTRUCTION RELATED STORM WATER POLLUTION
- 20' WIDE BY 50' LONG CRUSHED ROCK INTERTRENCH
- INSTALL CHECK DAM PER DETAIL



EROSION AND SEDIMENT CONTROL NOTES

1. NO SOIL DISTURBANCE SHALL OCCUR PRIOR TO OBTAINING A BUILDING OR GRADING PERMIT.
2. PERSON RESPONSIBLE FOR EROSION CONTROL: TBD
3. EROSION CONTROL MEASURES SHALL BE IN PLACE BETWEEN OCTOBER 15TH AND APRIL 15TH, OR WHEN RAIN IS FORECASTED.
4. SOILS TRACKED OFF SITE INTO STREETS SHALL BE CLEANED UP AT THE END OF EACH WORK DAY.
5. ALL STOCKPILE MATERIALS SHALL BE COVERED AND PROTECTED WITH A TEMPORARY PERMEABLE SEDIMENT BARRIER WITH NOT ACTUALLY BEING USED, AT THE END OF EACH DAY AND PRIOR TO THE ONSET OF PRECIPITATION.
6. THE EROSION CONTROL PLAN SHALL BE RE-EVALUATED AND ADJUSTED ACCORDINGLY AS THE SITE CHANGES AND AFTER RAIN EVENTS.
7. EROSION CONTROL MEASURES SHALL BE MAINTAINED.
8. RECEIVE FROM PORTLAND COUNTY CONCRETE OR ASPHALT CONCRETE OPENING/PLACING OPERATIONS SHALL BE PROVED UP BY MEANS OF A VACUUM SYSTEM OR SWEEPING AND SHALL NOT BE ALLOWED TO FLOW INTO THE STORM DRAINAGE SYSTEM.
9. ONSITE VEHICLE AND EQUIPMENT MAINTENANCE, CLEANING, AND FUELING IS DISCOURAGED. WHEN ONE OF THESE ACTIVITIES MUST OCCUR ONSITE, THE WORK SHALL TAKE PLACE WITHIN A BERMED AREA PROTECTED FROM RUNOFF AT LEAST 50 FEET FROM DRAINAGE FACILITIES. SPILL CLEAN-UP MATERIALS SHALL BE AVAILABLE PRIOR TO ANY OF THESE ACTIVITIES TAKING PLACE.
10. VEHICLES AND EQUIPMENT STORED ONSITE SHALL BE PLACED WITHIN A BERMED AREA PROTECTED FROM RUNOFF AT LEAST 50 FEET FROM DRAINAGE FACILITIES.
11. ALL MATERIAL EXCAVATED OR GRADED SHALL BE SUFFICIENTLY WATERED TO PREVENT EXCESSIVE AMOUNTS OF DUST. WATERING WITH COMPLETE COVERAGE SHALL OCCUR AS NECESSARY.
12. ACCESS TO THE SITE SHALL BE LIMITED TO ONE LOCATION. THE ACCESS POINT AND ADJACENT ROADWAY SHALL BE CLEANED DAILY TO PREVENT THE OFFSITE TRACKING OF SEDIMENT AND/OR MUD. THE CONTRACTOR SHALL CONSTRUCT A 12" THICK CRUSHED STONE (3/4" - 1") DRIVEWAY ON GEOTEXTILE FABRIC AND THE MASH VEHICLES AND EQUIPMENT ARE ALLOWED TO ACCESS NON-PAVED AREAS. THE CONTRACTOR SHALL CLEAN AND/OR REPLACE THE DRIVEWAY AS NEEDED TO PREVENT THE OFFSITE TRACKING OF SEDIMENT AND/OR MUD.



APPROVED: _____
DATE: MAY, 2023

PREPARED FOR: **GREG HOWELL**

RAR
ROLLS ANDERSON & ROLLS
CIVIL ENGINEERS
215 WILLOWBROOK DRIVE • CHICO, CALIFORNIA 95921-5812 • TELEPHONE 530-895-1422

EROSION AND SEDIMENT CONTROL PLAN
HICKS LANE - A.P.N. 007-010-054

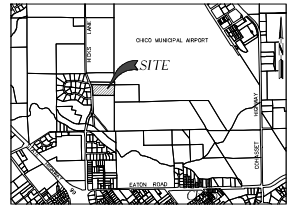
DESIGNED: DJB	4 OF 4
DRAWN: CAD	
CHECKED: PWR	
DRAWING NO.:	
DATE:	20153

THIS BAR ON THE ORIGINAL IS 2 INCHES LONG



LEGEND

	PROJECT BOUNDARY		EXISTING FENCE
	APPROXIMATE LOCATION OF EXISTING PROPERTY LINE		EXISTING DITCH FLOWLINE
	APPROXIMATE BUILDING SETBACK LINE		EXISTING EDGE OF PAVEMENT
	PROPOSED FENCE		EXISTING STORM DRAIN PIPE
	PROPOSED ELECTRIC SERVICE		EXISTING GROUND CONTOUR (5' INTERVAL)
	PROPOSED FINISH GRADE		EXISTING GROUND CONTOUR (1' INTERVAL)
	PROPOSED DIRECTION OF SURFACE FLOW		EXISTING WETLANDS

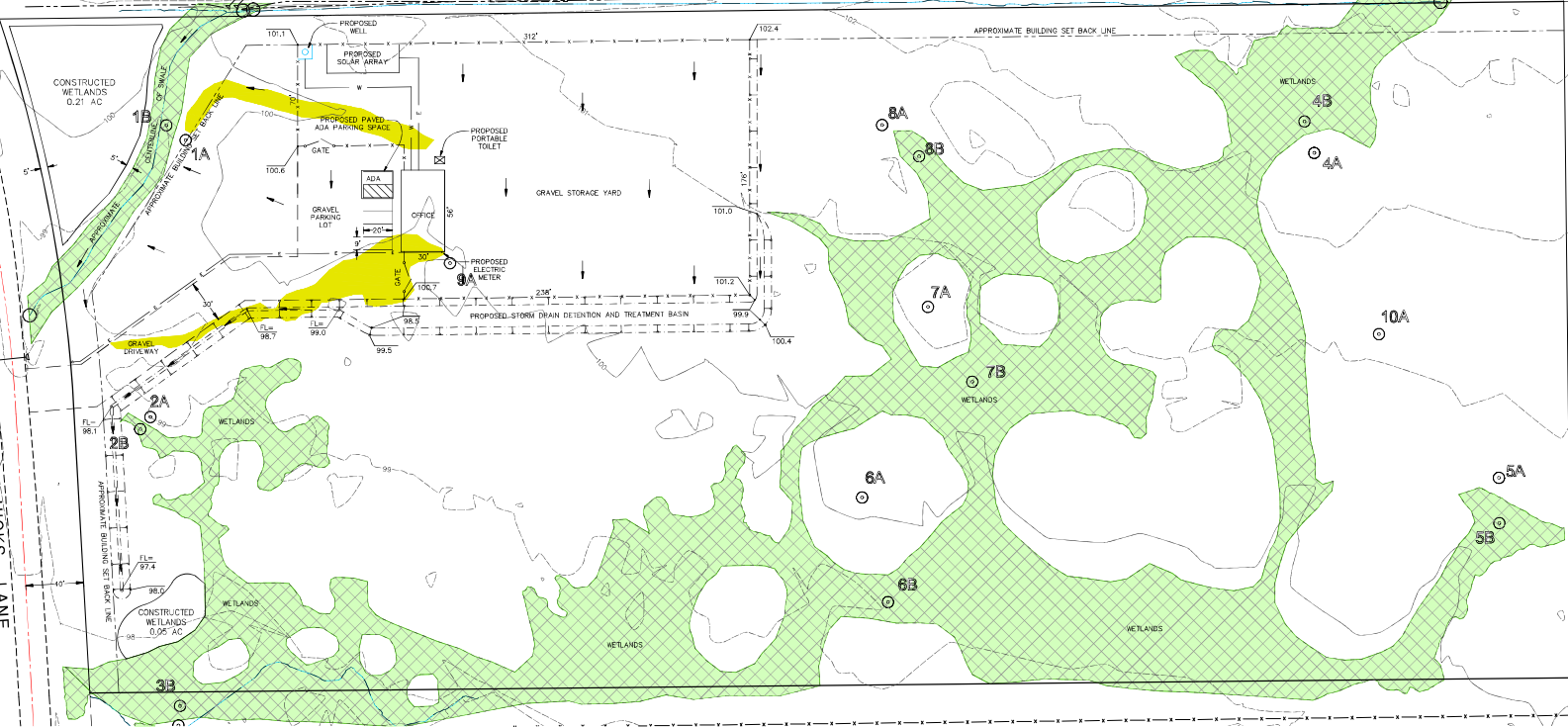


LOCATION MAP
NO SCALE

CABALLO LANE

HICKS LANE

C.M.A. ACCESS ROAD



NOTE: THE LOCATIONS OF PROPERTY LINES ARE APPROXIMATE AND NOT BASED ON FOUND MONUMENTS OR A BOUNDARY SURVEY.

DRAFT

APPROVED: _____
DATE: DECEMBER, 2021

PREPARED FOR: **GREG HOWELL**

RAR
ROLLS ANDERSON & ROLLS
CIVIL ENGINEERS
215 YELLOWSTONE DRIVE • CHICO, CALIFORNIA 95923-5818 • TELEPHONE 530-895-1422

SITE PLAN - A.P.N. 007-010-054
HICKS LANE

DESIGNED	
DRAWN	CAD
CHECKED	PWR
DRAWING NO.	1 OF 1
PLOT NO.	20153

1.1 AESTHETICS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. Aesthetics.				
Except as provided in Public Resources Code section 21099 (where aesthetic impacts shall not be considered significant for qualifying residential, mixed-use residential, and employment centers), would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Setting

The project site is vacant and previously used for agricultural and grazing purposes. The site is designated for General Industrial uses. The topography in the project site area is gentle and flat, with an average elevation of 190 feet above sea level. Vegetation in the project site area is ruderal, disturbed. As stated, three ephemeral drainages and three wetlands are located on-site. None would be affected by the project. Surrounding uses are open space, light industrial, Chico Municipal Airport and single-family residential.

The Butte County General Plan depicts identified scenic resources in Butte County, including land-based and water-based scenic resources (Figure COS-7), County scenic highways (Figure COS-8), and Scenic Highway Zones (Figure COS-9). Based on the information provided in the General Plan, the project site is not located within, or in the vicinity of, identified scenic resources, or along a scenic highway or Scenic Highway Zone.

Discussion

a) Have a substantial adverse effect on a scenic vista?

Less than significant impact. The proposed project would develop a new commercial towing yard with a gravel driveway, parking area and install a new modular trailer for use as an office. Views to and from the site would change with construction of the project related improvements; however, the views are not considered scenic. A less than significant impact would occur under this threshold.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No impact. The project site and surrounding area is not identified as a scenic resource nor is Hicks Lane designated a State or County scenic highway. No impact would occur under this threshold.

- c) **In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?**

Less than significant impact. The project parcels are located in a Light / General Industrial and Open Space Zoning designation northwest of the City of Chico. The subject parcel was previously used for agricultural/grazing. The project would change the views into the site; however, the development would be consistent with the surrounding land use. The project would have a less than significant effect on the visual character of the area. A less than significant impact would occur under this threshold.

- d) **Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?**

Less than significant impact. Less than significant impact. Outdoor lighting for safety and security could potentially be added to existing and future structures on the resultant parcels. However, based on residential proximity and development siting, the proposed use development would minimize ordinary nighttime lighting impacts to adjacent areas. As a result, the proposed project would not create new sources of substantial lighting or glare that would generate a significant impact.

1.2 AGRICULTURE AND FOREST RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. Agriculture and Forest Resources.				
<p>In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997, as updated) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland.</p> <p>In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.</p> <p>Would the project:</p>				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

The subject parcel is zoned General Industrial (GI)/Airport Compatibility Overlay (AO-C), NCSP M-1/OS, and designated Industrial in the Butte County General Plan. As stated, the project parcel has been used for agricultural purposes; however, it is not designated for this use.

Regulatory Setting

Williamson Act/Land Conservation Act (LCA) Contracts

The California Land Conservation Act of 1965, commonly known as the Williamson Act, was established based on numerous State legislative findings regarding the importance of agricultural lands in an urbanizing society. Policies emanating from those findings include those that discourage premature and unnecessary conversion of agricultural

land to urban uses and discourage discontinuous urban development patterns, which unnecessarily increase the costs of community services to community residents. The Williamson Act authorizes each County to establish an agricultural preserve. Land that is within the agricultural preserve is eligible to be placed under a contract between the property owner and County that would restrict the use of the land to agriculture in exchange for a tax assessment that is based on the yearly production yield. The contracts have a 9-year term that is automatically renewed each year, unless the property owner or county requests a non-renewal or the contract is cancelled.

Farmland Mapping and Monitoring Program

To characterize the environmental baseline for agricultural resources, Important Farmland Maps produced by the California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) were reviewed. Important Farmland maps show categories of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance (if adopted by the county), Grazing Land, Urban and Built-up Land, Other Land, and Water. Prime Farmland and Farmland of Statewide Importance map categories are based on qualifying soil types, as determined by the U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS), as well as current land use. These map categories are defined by the Department of Conservation's FMMP as follows:

Prime Farmland: Land which has the best combination of physical and chemical characteristics for the production of crops. It has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops when treated and managed, including water management, according to current farming methods.

Farmland of Statewide Importance: Land that is similar to *Prime Farmland* but with minor shortcomings, such as greater slopes or less ability to hold and store moisture.

Unique Farmland: Land of lesser quality soils used for the production of specific high economic value crops. It has the special combination of soil quality, location, growing season, and moisture supply needed to produce sustained high quality or high yields of a specific crop when treated and managed according to current farming methods. It is usually irrigated but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Examples of crops include oranges, olives, avocados, rice, grapes, and cut flowers.

Farmland of Local Importance: Land of importance to the local agricultural economy, as determined by each county's board of supervisors and local advisory committees. Examples include dairies, dryland farming, aquaculture, and uncultivated areas with soils qualifying for *Prime Farmland* and *Farmland of Statewide Importance*. Butte County has not adopted a definition of Farmland of Local Importance.

Grazing Land: Land on which the existing vegetation, whether grown naturally or through management, is suitable for grazing or browsing of livestock.

Urban and Built-up Land: Land used for residential, industrial, commercial, construction, institutional, public administrative purpose, railroad yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment plants, water control structures, and other development purposes. Highways, railroads, and other transportation facilities are also included in this category.

Other Land: Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than forty acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

Water: Water areas with an extent of at least 40 acres.

The project site is identified by the Department of Conservation as containing lands classified as Prime Farmland.

California Public Resources Code Section 4526

"Timberland" means land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of a commercial species used

to produce lumber and other forest products, including Christmas trees. Commercial species shall be determined by the board on a district basis.

California Public Resources Code Section 12220(g)

"Forest land" is land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.

Butte County Right to Farm Ordinance

Butte County has adopted a Right to Farm Ordinance (Butte County Code Chapter 35, Protection of Agricultural Land). This ordinance protects properly conducted agricultural operations in the unincorporated County against nuisance lawsuits and requires annual disclosure to all property owners within the County of the right to farm. In addition, the ordinance requires disclosure to buyers of real property and as part of development approvals. While the County Right-to-Farm Ordinance specifically applies to commercial agricultural operations within the unincorporated area, all commercial agricultural operations that comply with agricultural standards currently are protected from nuisance claims under State law (Section 3482.5 of the California Civil Code), whether located within cities or unincorporated areas.

Discussion

The subject property is undeveloped; however, it was formerly used for agricultural purposes. Surrounding uses are single-family residential to the west, Industrial to the north and south and vacant land within the City of Chico to the east. The project parcel is not under a Williamson Act contract.

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No impact. The California Farmland Mapping and Monitoring Program designates the project site area as Grazing. The project would not convert Prime, Unique or Farmland of Statewide Importance. No impact would occur under this threshold.

b) Conflict with existing zoning for agricultural use or a Williamson Act contract?

No impact. The proposed project site is zoned GI/AO-C, NCSP M-1/OS. It is not zoned for agricultural use nor is it restricted by a Williamson Act contract. No impact would occur under this threshold.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No impact. The project site is not located in a timber resource zone. The project site is also not classified as forest land, pursuant to California Public Resources Code Section 12220(g). Therefore, the proposed project would not conflict with, or cause the rezoning of, a timber resource zoning designation. No impact would occur under this threshold.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No impact. The project site is not considered forest land; and therefore, the proposed project would not result in loss or conversion of forest land to a non-forest use.

- e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

No impact. The site is not designated for agricultural or forest use. There are no known changes to the existing environment that would result in the conversion of farmland to non-agricultural use or the conversion of forest land to non-forest use. No impact would occur under this threshold.

1.3 AIR QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. Air Quality.				
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied on to make the following determinations.				
Are significance criteria established by the applicable air district available to rely on for significance determinations?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Butte County is located within the Sacramento Valley Air Basin (SVAB), comprising the northern half of California's 400-mile long Great Central Valley. The SVAB encompasses approximately 14,994 square miles with a largely flat valley floor (excepting the Sutter Buttes) about 200 miles long and up to 150 miles wide, bordered on its east, north and west by the Sierra Nevada, Cascade and Coast mountain ranges, respectively.

The SVAB, containing 11 counties and some two million people, is divided into two air quality planning areas based on the amount of pollutant transport from one area to the other and the level of emissions within each. Butte County is within the Northern Sacramento Valley Air Basin (NSVAB), which is composed of Butte, Colusa, Glenn, Shasta, Sutter, Tehama, and Yuba Counties.

Emissions from the urbanized portion of the basin (Sacramento, Yolo, Solano, and Placer Counties) dominate the emission inventory for the Sacramento Valley Air Basin, and on-road motor vehicles are the primary source of emissions in the Sacramento metropolitan area. While pollutant concentrations have generally declined over the years, additional emission reductions will be needed to attain the State and national ambient air quality standards in the SVAB.

Seasonal weather patterns have a significant effect upon regional and local air quality. The Sacramento Valley and Butte County have a Mediterranean climate, characterized by hot, dry summers and cool, wet winters. Winter weather is governed by cyclonic storms from the North Pacific, while summer weather is typically subject to a high-pressure cell that deflects storms from the region.

In Butte County, winters are generally mild with daytime average temperatures in the low 50s°F and nighttime temperatures in the upper 30s°F. Temperatures range from an average January low of approximately 36°F to an average July high of approximately 96°F, although periodic lower and higher temperatures are common. Rainfall between

October and May averages about 26 inches but varies considerably year to year. Heavy snowfall often occurs in the northeastern mountainous portion of the County. Periodic rainstorms contrast with occasional stagnant weather and thick ground or “tule” fog in the moister, flatter parts of the valley. Winter winds generally come from the south, although north winds also occur.

Diminished air quality within Butte County largely results from local air pollution sources, transport of pollutants into the area from the south, the NSVAB topography, prevailing wind patterns, and certain inversion conditions that differ with the season. During the summer, sinking air forms a “lid” over the region, confining pollution within a shallow layer near the ground that leads to photochemical smog and visibility problems. During winter nights, air near the ground cools while the air above remains relatively warm, resulting in little air movement and localized pollution “hot spots” near emission sources. Carbon monoxide, nitrogen oxides, particulate matters and lead particulate concentrations tend to elevate during winter inversion conditions when little air movement may persist for weeks.

As a result, high levels of particulate matter (primarily fine particulates or PM2.5) and ground-level ozone are the pollutants of most concern to the NSVAB Districts. Ground-level ozone, the principal component of smog, forms when reactive organic gases (ROG) and nitrogen oxides (NOx) – together known as ozone precursor pollutants – react in strong sunlight. Ozone levels tend to be highest in Butte County during late spring through early fall, when sunlight is strong and constant, and emissions of the precursor pollutants are highest (Butte County CEQA Air Quality Handbook 2014).

Air Quality Attainment Status

Local monitoring data from the BCAQMD is used to designate areas a nonattainment, maintenance, attainment, or unclassified for the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS). The four designations are further defined as follows:

Nonattainment – assigned to areas where monitored pollutant concentrations consistently violate the standard in question.

Maintenance – assigned to areas where monitored pollutant concentrations exceeded the standard in question in the past but are no longer in violation of that standard.

Attainment – assigned to areas where pollutant concentrations meet the standard in question over a designated period of time.

Unclassified – assigned to areas where data are insufficient to determine whether a pollutant is violating the standard in question.

Table 1.3-1. Federal and State Attainment Status of Butte County

POLLUTANT	STATE DESIGNATION	FEDERAL DESIGNATION
1-hour ozone	Nonattainment	-
8-hour ozone	Nonattainment	Nonattainment
Carbon monoxide	Attainment	Attainment
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Attainment
24-Hour PM10	Nonattainment	Attainment
24-Hour PM2.5	No Standard	Attainment
Annual PM10	Attainment	No Standard
Annual PM2.5	Nonattainment	Attainment

Source: Butte County AQMD, 2018

Sensitive Receptors

Sensitive receptors are frequently occupied locations where people who might be especially sensitive to air pollution are expected to live, work, or recreate. These types of receptors include residences, schools, churches, health care facilities, convalescent homes, and daycare centers. The project site is located in a suburban area with residential uses associated with VLDR zoning west of the property. Table 1.3-2 lists sensitive receptors that were identified in the project vicinity and the distances from the center of the project site.

Table 1.3-2. Sensitive Receptors in the Project Vicinity

SENSITIVE RECEPTORS	DISTANCE FROM PROJECT SITE TO RECEPTOR
Residence (4408 Caballo Way)	100 feet northwest
Residence (4208 Caballo Way)	100 feet southwest
Residence (4242 Caballo Way)	200 feet to the west

Source: Google Earth imagery

Butte County Air Quality Management District

The Butte County Air Quality Management District (BCAQMD) is the local agency with primary responsibility for compliance with both the federal and state standards and for ensuring that air quality conditions are maintained. They do this through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues.

Activities of the BCAQMD include the preparation of plans for the attainment of ambient air quality standards, adoption and enforcement of rules and regulations concerning sources of air pollution, issuance of permits for stationary sources of air pollution, inspection of stationary sources of air pollution and response to citizen complaints, monitoring of ambient air quality and meteorological conditions, and implementation of programs and regulations required by the FCAA and CCAA.

According to the State CEQA Guidelines, the significance criteria established by the applicable air quality management or air pollution control district may be relied on to make significance determinations for potential impacts on environmental resources. BCAQMD is responsible for ensuring that state and federal ambient air quality standards are not violated within Butte County. Analysis requirements for construction and operation-related pollutant emissions are contained in BCAQMD's *CEQA Air Quality Handbook: Guidelines for Assessing Air Quality and Greenhouse Gas Impacts for Projects Subject to CEQA Review*. Established with these guidelines are screening criteria to determine whether or not additional modeling for criteria air pollutants is necessary for a project. The CEQA Air Quality Handbook also contains thresholds of significance for construction-related and operation-related emissions: ROG, NOx and PM10. The screening criteria listed in Table 1.3-3 were created using CalEEMod version 2013.2.2 for the given land use types. To determine if a proposed project meets the screening criteria, the size and metric for the land use type (units or square footage) should be compared with that of the proposed project. If a project is less than the applicable screening criteria, then further quantification of criteria air pollutants is not necessary, and it may be assumed that the project would have a less than significant impact for criteria air pollutants. If a project exceeds the size provided by the screening criteria for a given land use type then additional modeling and quantification of criteria air pollutants should be performed (Butte County Air Quality Management District 2014).

Table 1.3-3. Screening Criteria for Criteria Air Pollutants

LAND USE TYPE	MAXIMUM SCREENING LEVELS FOR PROJECTS
Single-Family Residential	30 Units
Multi-Family (Low Rise) Residential	75 Units
Commercial	15,000 square feet
Educational	24,000 square feet
Industrial	59,000 square feet
Recreational	5,500 square feet
Retail	11,000 square feet

Discussion

a) Conflict with or obstruct implementation of the applicable air quality plan?

No impact. The applicable air quality plan for the project area is the *Northern Sacramento Valley Planning Area 2015 Triennial Air Quality Attainment Plan*. In adopting this plan, BCAQMD assumes that growth within its jurisdiction will be in accordance with city and county general plans, for which air quality effects associated with build-out have been analyzed.

A project is deemed inconsistent with an air quality plan if it would result in population or employment growth that exceeds the growth estimates in the applicable air quality plan (i.e., generating emissions not accounted for in the applicable air quality plan emissions budget). The proposed project would be developed consistent with the GI/AO-C, NCSP M-1/OS zoning designation; and thus, would not result in population growth in the County greater than that anticipated in the General Plan. Further, the project would not result in an increase in criteria air pollutants that would cause significant impacts to regional air quality.

Table 4-1 (Screening Criteria for Critical Pollutants) lists the established thresholds based on land use, including residential. The proposed project would construct a new towing storage yard and related improvements. The threshold for a commercial use is 15,000 square feet. The proposed improvements would not exceed the screening criteria referenced above. Thus, the project would not conflict with or obstruct the air quality plan. No impact would occur under this threshold.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Less than significant impact with mitigation. Construction occurring as a result of the approval has the potential to impact air quality primarily in two ways: (1) the project would generate mobile source emissions (i.e., added vehicle trips, energy use) associated with future development and (2) construction activities associated with the development would generate fugitive dust (PM₁₀) from grading activities, construction exhaust emissions (PM₁₀, NO_x), and evaporative emissions of reactive organic gases (ROG or VOC) from paving activities.

Mobile source emissions are produced from motor vehicles and include tailpipe and evaporative emissions. Energy use associated with future development would also generate emission from heating and cooling systems, lighting, paint application, water use and wastewater. As referenced, a future development application would be evaluated per the screening criteria shown in Table 1.3-3. Per the zoning designation, the proposed square footage of the office facility would not exceed those specified in the screening table. A less than significant impact operational would occur under.

Construction-related emissions are generally created throughout the course of project implementation and would originate from construction equipment exhaust, worker vehicle exhaust, dust from grading disturbance, exposed soil eroded by wind, and ROGs generated from asphalt paving. Construction-related emissions would vary depending on the level of activity, length of the construction period, specific construction operations occurring, types of equipment operating on the site, number of personnel, wind and precipitation conditions, and soil moisture content. Despite this variability in the project and project site conditions, there are feasible control measures that can be reasonably implemented to reduce construction-related emissions to a less than significant level. These measures as well as other common air pollution control measures are recommended in *Appendix C of BCAQMD's CEQA Handbook (2014)* and are to be implemented as **Mitigation Measure AIR-1**, listed below.

c) **Expose sensitive receptors to substantial pollutant concentrations?**

Less than significant impact with mitigation incorporated. Sensitive receptors in the project area and their distances from the project site area shown in Table 1.3-2. Operation of the project would generate emissions; however, the project is not anticipated to exceed BCAQMD significance criterion. Implementation of **Mitigation Measure AIR-1** would be implemented to reduce potential cumulative fugitive dust emissions during construction to less than significant.

d) **Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?**

Less than significant impact. Future use of the site as a towing yard storage area is not expected to create objectionable odors. Butte County DDS staff would review future development applications to ensure compliance with applicable BCAQMD emission control standards related to odor causing uses. Future construction activities could include objectionable odors from tailpipe diesel emissions and from solvents in adhesives, paints, caulking materials and new asphalt. Since odor impacts would be temporary and limited to the area adjacent to the construction operations, odors would not impact a substantial number of people for an extended period of time. A less than significant impact would occur under this threshold.

Mitigation Measures

Mitigation Measure AIR-1

The following best practice measures to reduce impacts to air quality shall be incorporated by the project applicant, subject property owners, or third-party contractors during construction activities on the project site. These measures are intended to reduce criteria air pollutants that may originate from the site during the course of land clearing and other construction operations.

Diesel PM Exhaust from Construction Equipment and Commercial On-Road Vehicles Greater than 10,000 Pounds

- All on- and off-road equipment shall not idle for more than five minutes. Signs shall be posted in the designated queuing areas and/or job sites to remind drivers and operators of the five-minute idling limit.
- Idling, staging and queuing of diesel equipment within 1,000 feet of sensitive receptors is prohibited.
- All construction equipment shall be maintained in proper tune according to the manufacturer's specifications. Equipment must be checked by a certified mechanic and determined to be running in proper condition before the start of work.
- Install diesel particulate filters or implement other CARB-verified diesel emission control strategies.
- Shall not operate a diesel-fueled auxiliary power system (APS) to power a heater, air conditioner, or any ancillary equipment on that vehicle during sleeping or resting in a sleeper berth for greater than 5 minutes at any location when within 100 feet of a restricted areas.
- To the extent feasible, truck trips shall be scheduled during non-peak hours to reduce peak hour emissions.

Operational TAC Emissions

- All mobile and stationary Toxic Air Contaminants (TACs) sources shall comply with applicable Airborne Toxic Control Measures (ATCMs) promulgated by the CARB throughout the life of the project (see <http://www.arb.ca.gov/toxics/atcm/atcm.htm>).
- Stationary sources shall comply with applicable District rules and regulations.

Fugitive Dust

Construction activities can generate fugitive dust that can be a nuisance to local residents and businesses near a construction site. Dust complaints could result in a violation of the District's "Nuisance" and "Fugitive Dust" Rules 200

and 205, respectively. The following is a list of measures that may be required throughout the duration of the construction activities:

- Reduce the amount of the disturbed area where possible.
- Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. An adequate water supply source must be identified. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible.
- All dirt stockpile areas should be sprayed daily as needed, covered, or a District approved alternative method will be used.
- Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible following completion of any soil disturbing activities.
- Exposed ground areas that will be reworked at dates greater than one month after initial grading should be sown with a fast-germinating non-invasive grass seed and watered until vegetation is established.
- All disturbed soil areas not subject to re-vegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the Butte County Air Quality Management District.
- All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.
- Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site.
- All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with local regulations.
- Install wheel washers where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site.
- Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible.
- Post a sign in prominent location visible to the public with the telephone numbers of the contractor and the Butte County Air Quality Management District - (530) 332-9400 for any questions or concerns about dust from the project.

All fugitive dust mitigation measures required should be shown on grading and building plans. In addition, the contractor or builder should designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. Their duties shall include holidays and weekend period when work may not be in progress. The name and telephone number of such persons shall be provided to the District prior to land use clearance for map recordation and finished grading of the area.

Please note that violations of District Regulations are enforceable under the provisions of California Health and Safety Code Section 42400, which provides for civil or criminal penalties of up to \$25,000 per violation.

Plan Requirements: This note shall also be placed on grading plans and future site development plans.

Timing: Requirements of the condition shall be adhered to throughout all grading and construction periods.

Monitoring: The Butte County Department of Development Services and the Public Works Department shall ensure that the note shall also be placed on grading plans and future development plans. Building inspectors shall spot check and shall ensure compliance on-site. Butte County Air Pollution Control District inspectors shall respond to nuisance complaints.

1.4 BIOLOGICAL RESOURCES

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

Environmental Setting

The project site is situated in the North Chico Specific Plan area within a mixed-use region northwest of the City of Chico. There is residential development to the west and general industrial parcel to the north and south. The zoning in this area is GI/AO-C, and NCSP M-1/OS, the parcel has been vacant for at least the last thirty years.

Agriculture

The agricultural natural community is comprised of several land cover types including orchards and vineyards, rice, irrigated cropland, irrigated pasture, and non-native woodland. Agriculture occurs where the soils and topography are most suitable for production, which are generally the flat and well-drained areas located in the valley region of the County. Conversion of lands to agricultural use has resulted in the removal of most of the historical native habitat.

Agriculture natural community areas generally do not support the wildlife compared with most native habitats; however, these areas continue to support abundant wildlife and provide essential breeding, foraging and roosting habitat for many resident and migrant wildlife species.

Jurisdictional Waters of the United States, including Wetlands

Waters of the United States (U.S.), including wetlands, are broadly defined to include navigable waterways, and tributaries of navigable waterways, and adjacent wetlands. Although definitions vary to some degree, wetlands are generally considered to be areas that are periodically or permanently inundated by surface water or groundwater, supporting vegetation adapted to life in saturated soil. Jurisdictional wetlands are vegetated areas that meet specific vegetation, soil, and hydrologic criteria defined by the U.S. Army Corps of Engineers (USACE). The USACE holds sole authority to determine the jurisdictional status of waters of the U.S., including wetlands. Jurisdictional wetlands and Waters of the U.S. include, but are not limited to, perennial and intermittent creeks and drainages, lakes, seeps, and springs; emergent marshes; riparian wetlands; and seasonal wetlands. Wetland and waters of the U.S. provide critical habitat components, such as nest sites and reliable source of water for a wide variety of wildlife species.

Special-Status Species

Many species of plants and animals within the State of California have low populations, limited distributions, or both. Such species may be considered "rare" and are vulnerable to extirpation as the state's human population grows and the habitats these species occupy are converted to agricultural and urban uses. A sizable number of native species and animals have been formally designated as threatened or endangered under State and Federal endangered species legislation. Others have been designated as "Candidates" for such listing and the California Department of Fish and Wildlife (CDFW) have designated others as "Species of Special Concern". The California Native Plant Society (CNPS) has developed its own lists of native plants considered rare, threatened or endangered. Collectively, these plants and animals are referred to as "special status species."

Various direct and indirect impacts to biological resources may result from the small amount of development enabled by the project, including the loss and/or alteration of existing undeveloped open space that may serve as habitat. Increased vehicle trips to and from the project site can result in wildlife mortality and disruption of movement patterns within and through the project vicinity. Disturbances such as predation by pets (e.g., cats and dogs) and human residents may also occur at the human/open space interface, while conversion of land from lower to higher density residential use can lead to a predominance of various urban-adapted wildlife species (e.g., coyotes, raccoons, ravens and blackbirds) that have been observed to displace more sensitive species.

California Environmental Quality Act Guidelines Section 15065 requires a mandatory finding of significance for projects that have the potential to substantially degrade or reduce the habitat of a threatened or endangered species, and to fully disclose and mitigate impacts to special status resources. For the purposes of this Initial Study, the California Environmental Quality Act (Sections 21083 and 21087, Public Resources Code) defines mitigation as measure(s) that:

- Avoids the impact altogether by not taking a certain action or parts of an action.
- Minimizes impacts by limiting the degree or magnitude of the action and its implementation.
- Rectifies the impact by repairing, rehabilitating, or restoring the impacted environment.
- Reduces or eliminates the impact over time by preservation and maintenance operations during the life of the project.
- Compensates for the impact by replacing or providing substitute resources or environments.

The California Natural Diversity Database (CNDDDB) was reviewed to determine if any special-status species have the potential to occur on the project site or in the vicinity. Table 4.4-1 lists the regulatory status and habitat requirements for each special-status species identified within a two-mile radius of the project site.

Table 4.4-1. Special-Status Species in the vicinity of the project site

Scientific Name	Common Name	Federal Status	State Status	CNPS/DFG List	Habitat
PLANTS					
<i>Paronychia ahartii</i>	Ahart's paronychia	None	Rare	1B.1	Vernal pools, wetlands and non-wetlands.
<i>Limnanthes floccosa ssp. californica</i>	Butte County meadowfoam	Endangered	Endangered	1B.1	Plants are sometimes found at the edges of vernal pools, but they are primarily found in the deepest parts of vernal swales that connect vernal pools. This wildflower is mainly limited to northern California. It grows in adobe clay soils of the Coast Ranges and low hills in the Central Valley from Tehama and Mendocino Counties south to Solano County.
<i>Fritillaria pluriflora</i>	Adobe-lily	None	None	1B.2	
BIRDS					
<i>Athene cunicularia</i>	burrowing owl	None	Species of Concern		It breeds from Canada's southern prairie provinces south throughout western United States to southern California.
MAMMALS					
<i>Erethizon dorsatum</i>	North American porcupine	None	None		Coniferous and mixed-forest habitats of Canada, the northeastern and western regions of the United States.
CRUSTACEANS					
<i>Lepidurus packardii</i>	vernal pool tadpole shrimp	Endangered	None		Vernal pool type of habitat, and other freshwater aquatic habitats including ponds, reservoirs, ditches, road ruts, and other natural and artificial temporary water bodies.
<i>Branchinecta lynchi</i>	vernal pool fairy shrimp	Threatened	None		Same as above
<i>Linderiella occidentalis</i>	California linderiella	None	None		Same as above

Material in this section is summarized from the Biological Resource Analysis Report prepared by Olberding Environmental, Inc., (November 2019 and updated April 2023). Vegetation on the project site area is primarily comprised of ruderal grassland. Seasonal wetland, seasonal swale and ephemeral drainage vegetation is also located on the site. Ornamental species are located on adjacent properties.

a) **Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?**

Less than Significant with Mitigation. A query of the California Natural Diversity Database (CNDDDB) showed that two special-status plant species have a high potential to occur on the Property. The adobe lily (*Fritillaria pluriflora*) and Butte County meadowfoam (*Limnanthes floccosa ssp. californica*) were identified as having the potential to occur on the Property based on the presence of suitable habitat for these species and a CNDDDB occurrence located on or immediately adjacent to the Property. Suitable habitats for these plant species occurs throughout the Property within the grassland, seasonal wetlands and swales. To avoid potential impacts to these species, implementation of Mitigation Measures BIO-1 and BIO-2 would be implemented at the County's discretion prior to any construction activities, to document presence or absence of this species and to determine whether mitigation is required.

A total of six bird species were identified to have a moderate to high potential to occur on the Property in a nesting or foraging capacity. The red-shouldered hawk (*Buteo lineatus*), red-tailed hawk (*Buteo jamaicensis*), white-tailed kite (*Elanus leucurus*), American kestrel (*Falco sparverius*), and Cooper's hawk (*Accipiter cooperii*) all have a high potential to occur in a nesting and foraging capacity. The Swainson's hawk (*Buteo swainsoni*) has a moderate potential to occur in a nesting and foraging capacity. Two of the six birds listed above red-tailed hawk and American kestrel were present, observed foraging on the Property. Implementation of Mitigation Measure BIO-3 would avoid potential impacts to these species.

CNDDDB listed three occurrences (Occurrence #304, 305, 730) of burrowing owl (*Athene cunicularia*) within five miles of the Property. The closest occurrence (Occurrence #304) was observed immediately south of the Property where two adults were observed in a burrow in 1998. The area is historically known to provide suitable habitat for burrowing owls. The Property has suitable ruderal grassland habitat for burrowing owl, and while numerous burrows were observed at the site, ground squirrels were absent. The burrows present on site were made by small mammals including pocket gophers and voles, which are inadequate for burrowing owls. For these reasons the burrowing owl has a low potential to occur on the Property in nesting and foraging capacity and is not likely to occur.

Three species of special status invertebrates were identified as having the potential to occur on the Property: vernal pool fairy shrimp (*Lepidurus packardii*), vernal pool tadpole shrimp (*Branchinecta lynchi*), and California linderiella (*Linderiella occidentalis*). All of these species have a high potential to occur on the Property due to the presence of suitable vernal pool/wetland habitat and the close proximity of several CNDDDB occurrences. Neither vernal pool or wetland habitat would be affected by project improvements.

No sign of bat use was observed on the Property during the October 2019 survey; however, based on habitat suitability, it was determined that bats have a moderate potential to utilize the site in a roosting and foraging capacity. Special status bat species with potential to occur include pallid bat (*Antrozous pallidus*) and hoary bat (*Lasiurus cinereus*). Mitigation Measure BIO-3 would be implemented at the County's discretion to avoid potential impacts to bat species.

With the implementation as required by Butte County Development Services, impacts under this threshold would be reduced to less than significant.

- b) **Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?**

No impact. The project site does not contain any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations or by CDF&W or USF&WS. No impact would occur under this threshold.

- c) **Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

Less than Significant with Mitigation. The Property contains three ephemeral drainage features totaling 0.07 acres and three seasonal wetlands totaling 2.89 acres. These features all exhibit the three criteria required to be considered jurisdictional: hydrophytic vegetation, evidence of hydrology, and hydric soils. Additionally, the Property contains two seasonal swales totaling 0.13 acres. The two swales would be impacted by the project. The applicant would mitigate on-site by constructing 0.26-acres of wetland outside the impact area. The mitigation would occur at a 2:1 ratio per Mitigation Measure BIO-4 below. Mitigation Measures BIO-4 would reduce direct impacts to seasonal swales to less than significant.

- d) **Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?**

No impact. Wildlife movement corridors are routes frequently utilized by wildlife that provide shelter and sufficient food supplies to support wildlife species during migration. Movement corridors generally consist of riparian, woodlands, or forested habitats that span contiguous acres of undisturbed habitat. Wildlife movement corridors are an important element of resident species home ranges, including deer and coyote.

The project site is not located within Butte County migratory deer corridors. No major migratory routes or corridors have been designated through the project site, and the existing developed components of the project area (i.e., roads, agriculture, industrial and residential uses; fenced parcels) preclude use of the area as a migratory wildlife corridor for large mammals. The project site is vacant and has supported agriculture cultivation and grazing. No impact would occur under this threshold.

- e) **Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

No impact. The project would result in the development of a new commercial tow yard driveway, parking area, modular office building and fenced vehicle storage yard. The site is vacant and disturbed. The area proposed for disturbance is comprised of ruderal grassland vegetation. The project would not conflict with any local policies or ordinances protecting biological resources. It is consistent with goals and policies identified in Butte County General Plan 2030. No impact would occur under this threshold.

- f) **Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?**

No impact. The Butte Regional Conservation Plan (BRCP) is a joint Habitat Conservation Plan (HCP)/National Community Conservation Plan (NCCP) for the western half of the Butte County. The project site is located within the proposed plan area of the BRCP. However, as the plan has not been adopted, the proposed project will not conflict, nor interfere with, the attainment of the goals of the proposed plan. Thus, no impact to sensitive biological resources that would require mitigation under the future habitat conservation plan would occur. No impact would occur under this threshold.

Mitigation Measures

Mitigation Measure BIO-1

Perform Special Status Plant Surveys. Prior to site disturbance, surveys for the adobe-lily and meadowfoam shall be conducted in accordance with CDFW and CNPS guidelines by a qualified biologist to determine presence or absence on areas proposed for disturbance prior to issuing a grading permit. The survey should be scheduled to coincide with the identified blooming or identification periods for the adobe lily and Butte County meadowfoam (March - April). If either of these species are found, then appropriate mitigation measures should be implemented. A report of survey findings shall be provided to the Butte County Development Services Department.

Plan Requirements: Protocol level surveys for the identified species.

Timing: The survey shall be scheduled to coincide with the identified blooming or identification periods for the adobe lily and Butte County meadowfoam (March - April). All survey work shall be performed prior to any ground disturbing activities.

Monitoring: The Butte County Department of Development Services and the Public Works Department shall ensure the condition is met prior to any development activity at the site. All information and studies conducted in support of this mitigation shall be furnished to the Department of Development Services and Public Works, including all mapped resources, protocol level surveys and mapped delineations.

Mitigation Measure BIO-2

Presence of Butte County meadowfoam and / or adobe lily. This compensatory mitigation may include one or a combination of the following options:

- Purchase BCM credits from an approved mitigation bank within the service area. The actual fee paid shall be that in effect at the time of payment.
- Preserve, as described in the Habitat Mitigation and Monitoring Plan, and enhance BCM and adobe lily habitat within the project site.

In either case, this option would require the preparation of a long-term management plan, subject to approval by USFWS and the County, prior to the start of construction, along with an endowment for the long-term management of the property and a USFWS approved conservation easement to ensure that the population of BCM and adobe lily are protected in perpetuity.

If the adobe lily or Butte County meadowfoam are identified within areas proposed for disturbance, then the following mitigation measure shall be implemented. Prior to ground disturbance, the Applicant shall consult with both the USFWS and the CDFW to obtain authorization for project implementation and develop appropriate type and amount of compensatory mitigation for project impacts to Butte County meadowfoam (BCM) and adobe lily occupied habitat. Preserve and enhance BCM and adobe lily habitat within the project site area pursuant to a Habitat Mitigation and Monitoring Plan approved by the USFWS and the CDFW at a minimum 1:1 ratio for temporary impacts (1.0 acres enhanced over pre-project conditions for every one acre of temporarily impacted habitat) and at the ratios described below for permanent impacts.

Enhancement activities will be detailed in the Habitat Mitigation and Monitoring Plan and will include vegetation management for non-native, annual grasses. In addition, in areas not previously documented to support BCM or adobe lily, but which consist of the same mapped soils association, BCM or adobe lily habitat will be created through a site-specific restoration plan to mitigate at a 1.5:1 ratio for permanent impacts (1.5 acres created over pre-project conditions for every one acre of permanently impacted habitat).

Because successful creation of the microhabitat required by BCM and/or adobe lily cannot be guaranteed, a performance bond, annual letter of credit, or other such form of security acceptable to the County shall be established prior to restoration activities taking place, to purchase BCM or adobe lily credits at an approved mitigation bank at ratios in an amount equivalent to the costs of purchasing BCM or adobe lily credits or purchasing property shown to

support sufficient BCM or adobe lily habitat meeting the ratio requirements outlined in Section (2) of this mitigation, below. The option to purchase the requisite credits for BCM and adobe lily habitat shall be secured by the applicant prior to approval of grading or other work resulting in impacts to BCM and or adobe lily for which mitigation is not already in place.

Creation of BCM and adobe lily habitat will likely consist of seed collection, contouring areas within the onsite area that are currently and historically not occupied by BCM or adobe lily to produce suitable topographical and hydrological conditions for BCM, sowing approximately 50 percent of the collected seed stock (holding the other 50 percent in reserve), and, if necessary, distributing topsoil from impacted BCM and adobe lily areas to the species' habitat creation area scraping topsoil to mimic the soil depth suitable for BCM and adobe lily (~4-6 inch depth of soil over bedrock) adjacent to swale habitat. Topsoil from known locations of these species in the impact area will be salvaged and transplanted to these created areas and observed for three years. Performance will be met only when density of these species in created habitat matches reference population density in preserved habitat.

The success of the on-site preserve for BCM and adobe lily habitat (enhancement and creation) shall be documented with before-and-after protocol-level, floristic, rare plant surveys that compare pre-project baseline BCM and adobe lily acreage and stem counts to post-restoration BCM and adobe lily acreage and stem counts. Biological monitoring for the successful establishment of BCM and adobe lily will be conducted for five years or until the success criteria are met for three years without human intervention.

Monitoring will include: (a) monitoring of general conditions within the species establishment area including documentation of vegetation community, vegetative cover, and the presence of any erosion or sedimentation or other conditions that may be detrimental to the long-term viability of these species populations; (b) the extent of these species occurrence within the creation area will be recorded, following the methodology used to assess occupied habitat, and adjacent known species habitat will also be monitored to provide a reference for species populations; (c) the creation will be deemed successful when three years of monitoring of occupied BCM and adobe lily habitat within the creation areas meets or exceeds the creation ratio (i.e., 1.5:1); and (d) reserved BCM and adobe lily seed can be used during the monitoring period to supplement areas where BCM and adobe lily establishment is not meeting success criteria.

The Habitat Mitigation and Monitoring Plan shall detail methods, locations, and goals for relocating soils from impacted areas to the areas BCM and adobe lily habitat creation efforts, and include contingency measures that address the potential that creation efforts could fall short of stated goals (including security provisions for acquiring off-site BCM habitat as noted above a performance bond posted by the Applicant during the restoration period matching the funding required to purchase credits at a 19:1 ratio); or, (2) Preserve habitat for BCM at a 19:1 ratio (19 acres of preservation for every one acre impacted) for direct impacts and at a 5:1 ratio (five acres of preservation for every one acre impacted) for indirect impacts. However, final habitat acreages, mitigation ratios, and other project-specific compensatory requirements for direct and indirect impacts shall be finalized during consultation between USFWS and the Corps as part of the Section 404 permitting process and during consultation with the CDFW.

Plan Requirements: Protocol level surveys for the identified species, long-term management program and purchasing mitigation credits and / or habitat creation.

Timing: The survey shall be scheduled to coincide with the identified blooming or identification periods for the adobe lily and Butte County meadowfoam (March - April). All survey work shall be performed prior to any ground disturbing activities.

Monitoring: The Butte County Department of Development Services and the Public Works Department shall ensure the condition is met prior to any development activity at the site. All information and studies conducted in support of this mitigation shall be furnished to the Department of Development Services and Public Works, including calculations for mitigation banking and all documentation of purchased mitigation credits.

Mitigation Measure BIO-3

If project construction activities, including site grubbing and vegetation removal, occur during the nesting season for birds protected under the Migratory Bird Treaty Act (MBTA) and California Department Fish & Game Code (CDFC)

(approximately February 1 – August 31), the project proponent shall retain a qualified biologist to perform preconstruction surveys for nesting bird species. Surveys to identify active bird nests shall be conducted within and 250 feet around the footprint of proposed construction site. During the survey, the biologist shall also look for evidence of roosting bats. The survey shall be conducted within 7 days prior to the initiation of construction activities. In the event that an active nest or sign of roosting bats is observed, a species protection buffer shall be established. The species protection buffer will be defined by the qualified biologist based on the species, nest type and tolerance to disturbance. Construction activity shall be prohibited within the buffer zones until the young have fledged or the nest fails. Nests shall be monitored by a qualified biologist once per week and a report submitted to the Butte County Department of Development Services.

Plan Requirements: Perform protocol-level surveys for migratory birds and roosting bats, protected by the California Department Fish & Game Code and the Migratory Bird Treaty Act. The note shall be placed on all building and site development plans.

Timing: Requirements of the condition shall be adhered to prior to and during construction activities planned to occur during nesting seasons for CDFC and MBTA species (between February 1 and August 31).

Monitoring: The Butte County Department of Development Services shall ensure the condition is met at the time of development and during construction activities.

Mitigation Measure BIO-4

Aquatic Resources. The applicant shall mitigate the loss of 0.13 acres of seasonal swales through the creation, preservation, or restoration of wetlands, which may include purchasing credits from an agency approved mitigation bank, consistent with applicable regulatory standards in the Clean Water Act or Waste Discharge Requirements (WDRs), as applicable. Mitigation acreage requirements shall be determined in consultation with the U.S. Army Corps of Engineers and the Regional Water Quality Control Board.

Plan Requirements: This mitigation measure shall be placed on all building and site development plans.

Timing: Prior to ground disturbance

Monitoring: Applicant shall provide evidence from the regulatory agencies that Mitigation Measure BIO-4 was implemented consistent with regulatory agency permit requirements prior to final project approval.

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

Environmental Setting

Butte County contains a rich diversity of archaeological, prehistoric and historical resources. The General Plan 2040 Update EIR observes that the “archaeological sensitivity of Butte County is generally considered high, particularly in areas near water sources or on terraces along water courses” (Butte County General Plan EIR, 2010, p. 4.5-7).

A substantial adverse change upon a historically significant resource would be one wherein the resource is demolished or materially altered so that it no longer conveys its historic or cultural significance in such a way that justifies its inclusion in the California Register of Historical Resources or such a local register (CEQA Guidelines Section 15064.5, subd. (b)(2)). Cultural resources include prehistoric and historic period archaeological sites; historical features, such as rock walls, water ditches and flumes, and cemeteries; and architectural features. Cultural resources consist of any human-made site, object (i.e., artifact), or feature that defines and illuminates our past. Often such sites are found in foothill areas, areas with high bluffs, rock outcroppings, areas overlooking deer migratory corridors or near bodies of water.

Discussion

a) **Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?**

No impact. Historic use of the project site for agricultural and grazing purposes has resulted in ground-disturbing activities. This has likely destroyed any cultural resources that may have been located on the surface. The project site does not contain known historic resources. No impact would occur under this threshold.

b) **Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?**

Less than significant impact with mitigation incorporated. According to the Northeast Information Center letter (July 28, 2022), no prehistoric or historic resources are known to be located on the project site. However, prehistoric, protohistoric, and historic cultural resources may occur within the general area. Native Americans used the region for seasonal and/or permanent settlement, as well as for the gathering of plants, roots, seeds, and seasonal game. Historically, Euro-Americans also utilized the region for mining farming, and cattle ranching. With past use of the project area by prehistoric and historic populations, unanticipated archaeological discoveries may be encountered during ground-disturbing activities, resulting in potentially significant impacts. To avoid potential impacts to undiscovered prehistoric resources, historic resources, and human remains that may be uncovered during development activities on the project site, implementation of **Mitigation Measure CUL-1**, below, is recommended to reduce potential impacts to cultural resources to less than significant.

c) **Disturb any human remains, including those interred outside of formal cemeteries?**

Less than significant impact with mitigation incorporated. Indications are that humans have occupied Butte County for over 10,000 years and it is not always possible to predict where human remains may occur outside of formal cemeteries. Therefore, excavation and construction activities, regardless of depth, may yield human remains that may not be interred in marked, formal burials.

Under CEQA, human remains are protected under the definition of archaeological materials as being “any evidence of human activity.” Additionally, [Public Resources Code section 5097.98](#) has specific stop-work and notification procedures to follow in the event that human remains are inadvertently discovered during project implementation.

The Butte County General Plan Conservation Element has established two policies that address the inadvertent discovery of human remains. COS-P16.3 requires human remains discovered during construction to be treated with dignity and respect and to fully comply with the federal Native American Graves Protection and Repatriation Act and other appropriate laws. COS-P16.4 requires work to stop if human remains are found

during construction until the County Coroner has been contacted, and, if the human remains are determined to be of Native American origin, the North American Heritage Commission and most likely descendant have been consulted.

Implementation of the **Mitigation Measure CUL-1** would ensure that all construction activities associated with the proposed development that inadvertently discover human remains, implement state required consultation methods to determine the disposition and historical significance of any discovered human remains. **Mitigation Measure CUL-1** would reduce this impact to less than significant.

Mitigation Measures

Mitigation Measure CUL-1

If grading activities reveal the presence of prehistoric or historic cultural resources (i.e., artifact concentrations, including arrowheads and other stone tools or chipping debris, cans glass, etc.; structural remains; or human skeletal remains) work within 50 feet of the find shall immediately cease until a qualified professional archaeologist can be consulted to evaluate the find and implement appropriate mitigation procedures. If human skeletal remains are encountered, State law requires immediate notification of the County Coroner (530.538.7404). If the County Coroner determines that the remains are in an archaeological context, the Native American Heritage Commission in Sacramento shall be notified immediately, pursuant to State Law, to arrange for Native American participation in determining the disposition of such remains. The provisions of this mitigation shall be followed during construction of all improvements, including land clearing, road construction, utility installation, and building site development.

Plan Requirements: This note shall be placed on a separate document which is to be recorded concurrently with the map or on an additional map sheet and shall be shown on all site development and building plans.

Timing: This measure shall be implemented during all site preparation and construction activities.

Monitoring: The Department of Development Services and/or Public Works Department shall ensure the note is placed on the Grading Permit. Should cultural resources be discovered, the landowner shall notify the Planning Division and a professional archaeologist. The Planning Division shall coordinate with the developer and appropriate authorities to avoid damage to cultural resources and determine appropriate action. State law requires the reporting of any human remains.

1.6 Energy

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

Discussion

- a) **Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?**

Less than Significant impact. Development of the proposed project would consume energy primarily in two ways: (1) construction activities would consume energy through the operation of heavy off-road equipment, trucks, and worker traffic, and (2) use of the office would cause long-term energy consumption from electricity and vehicle operations to and from the project site.

Construction energy consumption would largely result from fuel consumption by heavy equipment during grading activities associated with road and building site clearance; trucks transporting construction materials to the site and worker trips to and from the job site. Energy consumption during construction related activities would vary depending on the level of activity, length of the construction period, specific construction operations, types of equipment and the number of personnel. Despite this variability in the construction activities, the overall scope of the construction that could be accommodated on the site is not expected to require a substantial amount of fuel to complete. Additionally, increasingly stringent state and federal regulations on engine efficiency combined with local, state and federal regulations limiting engine idling times and recycling of construction debris, would further reduce the amount of transportation fuel demand during project construction. Considering these factors, the proposed project would not result in the wasteful and inefficient use of energy resources during construction and impacts would be less than significant.

Long-term energy consumption would occur after build-out of the project. The office would consume electricity for lighting and heating. The project would generate vehicle trips by employees accessing the site and vehicles being towed to/from the site. This would result in the consumption of transportation fuel.

State and federal regulatory requirements addressing fuel efficiency are expected to increase fuel efficiency over time as older, less fuel-efficient vehicles are retired. This would reduce vehicle fuel energy consumption rates over time. Therefore, energy impacts related to fuel consumption/efficiency during project operations would be less than significant.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency

Less than significant impact. Many of the state and federal regulations regarding energy efficiency are focused on increasing building efficiency and renewable energy generation, as well as reducing water consumption and Vehicles Miles Traveled. Project design would be required to include energy conservation measures intended to meet and exceed regulatory requirements, including reducing idling time of heavy equipment during construction activities (see Mitigation Measure AIR-1). Additionally, future development would be in compliance with the most recent Title 24 and CalGreen building code standards at the time of project construction. Therefore, the proposed project would implement energy reduction design features and comply with the most recent energy building standards. The project would not result in wasteful or inefficient use of nonrenewable energy sources. Impacts would be less than significant under this threshold.

1.7 Geology and Soils

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

Discussion

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)

No impact. There are no known active faults underlying, or adjacent to, the project site. The Cleveland Hill fault is the only active fault zone in Butte County identified in the most recent Alquist-Priolo Earthquake Fault Zoning Map. The only known active fault in Butte County is the Cleveland Hill fault zone, located approximately 29 miles southeast of the project site. Because the nearest active fault is located a considerable distance from the project site, the likelihood of a surface rupture at the project site is low. No impact would occur under this threshold.

ii) Strong seismic ground shaking?

No impact. Like most of north central California, the site will likely be subjected to strong seismic ground shaking. All buildings and other improvements are designed and constructed in accordance with seismic standards in the Uniform Building Code. No impacts would occur under this threshold.

iii) Seismic-related ground failure, including liquefaction?

No impact. According to Butte County General Plan 2040 Update, areas that are at risk for liquefaction are found on the valley floor, especially near the Sacramento and Feather Rivers, and their tributaries, which have a higher potential to contain sandy and silty soils. Liquefaction is a phenomenon where loose, saturated, granular soils lose their inherent shear strength due to excess water pressure that builds up during repeated movement from seismic activity. Factors that contribute to the potential for liquefaction include a low relative density of granular materials, a shallow groundwater table, and a long duration and high acceleration of seismic shaking. Liquefaction usually results in horizontal and vertical movements from lateral spreading of liquefied materials and post-earthquake settlement of liquefied materials. Liquefaction potential is greatest where the groundwater level is shallow, and submerged loose, fine sands occur within a depth of approximately 50 feet or less. According to the Butte County General Plan Health and Safety Element, much of the western and southwestern portion of Butte County is subject to liquefaction. As stated, the project would result in the construction of a new fenced tow yard, modular office building, driveway and parking area. Development would be evaluated for liquefaction potential and if needed, design measures would be implemented to address this issue. No impact would occur under this threshold.

iv) Landslides?

No impact. The project area is flat with 0-2% slopes. As a result, the landslide potential for the project site and surrounding area is low to none. The Subsidence and Landslide Potential Map of the Health and Safety Element of the Butte County General Plan (Figure HS-7 of the General Plan 2040 Update) indicates that there is a low to no potential for landslides in this area. No impact would occur under this threshold.

b) Result in substantial soil erosion or the loss of topsoil?

Less than Significant impact. Construction activities associated with the project would be subject to the National Pollutant Discharge Elimination System (NPDES) General Construction Activities Storm Water permit program

if one acre or more is disturbed. Construction activities that result in a land disturbance of less than one acre, but which are part of a larger common plan of development, also require a permit. This program requires implementation of erosion control measures during and immediately after construction that are designed to avoid significant erosion during the construction period. In addition, the project operation would be subject to State Water Resources Control Board requirements for the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) to control pollution in stormwater runoff from the project site, including excessive erosion and sedimentation. The SWPPP, if required, must be obtained prior to any soil disturbance activities. Implementation of standard erosion control BMPs during future construction-related activities, together with adherence to State requirements regarding grading activities, would ensure that potential erosion impacts are less than significant.

- c) **Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?**

No impact. The project is not located on an unstable geologic unit or soil and will not cause instability that would result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. As stated, the project would result in the construction of a new fenced tow yard, modular office building, driveway and parking area. Development would be evaluated for soil instability and if needed, design measures would be implemented to address this issue. No impact would occur under this threshold.

- d) **Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?**

No impact. Figure HS-9 of the General Plan Health and Safety Element indicates that the project site has a low to very low expansive soil potential. The Butte County Building Division may require soil tests prior to issuance of a building permit to determine if the soils on the site have an expansive potential. No impacts associated with expansive soil would occur.

- e) **Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?**

No impact. A septic system is proposed to accommodate onsite toilet facilities. This system is subject to a Butte County Department of Environmental Health design review and permitting process to ensure on-site soils would provide adequate percolation. No impact would occur under this threshold.

- f) **Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?**

Less than significant impact. No previously recorded fossil sites have been identified on the project site or within the surrounding area. Butte County General Plan 2040 Update and the accompanying Environmental Impact Report do not indicate the project area is sensitive for paleontological resources. Therefore, it is not likely that unique paleontological resources would be found in the project area during future development of the project. However, the discovery of fossils, and the subsequent opportunity for data collection and study, is a rare event that could occur from construction grading activities associated with development. While the probability of encountering fossils on the project site is low; implementation of **Mitigation Measure CUL-1** would reduce potential impacts associated with the unanticipated discovery of subsurface resources including cultural and paleontological resources, to less than significant.

1.8 GREENHOUSE GAS EMISSIONS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. Greenhouse Gas Emissions.				
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Setting

Discussion

- a) **Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

Less than significant impact. The project would generate greenhouse gas (GHG) emissions during the construction and operation. Construction-related emissions during development may be generated from construction equipment exhaust, construction employee vehicle trips to and from the worksite, application of architectural coatings, and asphalt paving. The project’s construction GHG emissions would occur over a short duration and consist primarily of equipment exhaust emissions. The long-term regional emissions associated with the project would mainly arise from employees accessing the site and vehicles being towed to/from the site as well as indirect sources emissions, such as electricity consumption and solid waste disposal.

The Butte County Climate Action Plan (CAP) was adopted in February 2014 and updated in December 2021. The Butte County CAP includes strategies and associated actions related to public education and outreach efforts regarding reducing GHG emissions, administrative actions to monitor progress, and encouraging participation in programs. The strategies either apply to existing buildings that have already completed the environmental analysis, address operational characteristics of the county, or encourage options for actions that would reduce GHG emissions.

The proposed project’s construction activities and operations are consistent with the Butte County General Plan. GHG emissions associated with the build-out of the project site have been analyzed and mitigated with the adoption of the Butte County CAP and the continued implementation of its strategies. Electricity consumed during construction and operations is provided primarily by the area service provider regulated by state renewable energy plans. Vehicles used during construction, and generated by the project’s operations, would conform to state regulations and plans regarding fuel efficiency. Therefore, the project would not generate substantial GHG emissions, either directly or indirectly, significantly impacting the environment. Impacts are less than significant.

- b) **Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?**

Less than significant impact. The project’s consistency with the Butte County General Plan would ensure compliance with the GHG emission reduction strategies in the Butte County CAP, which in turn, support

County-wide efforts to meet statewide GHG emission reduction goals. Therefore, impacts are less than significant.

1.9 HAZARDS AND HAZARDOUS MATERIALS

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

Discussion

- a) **Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**

Less than significant impact. Limited quantities of miscellaneous hazardous substances, such as gasoline, diesel fuel, hydraulic fluid, solvents, oils, etc. would be used to maintain vehicles and motorized equipment during construction-related activities during development of the project. Accidental spill of any of these substances could impact water and/or groundwater quality. Depending on the relative hazard of the material, if a spill were to occur of significant quantity, the accidental release could pose a hazard to construction workers, the public, as well as the environment. Construction personnel who are experienced in containing accidental

releases of hazardous materials will be present to contain and treat affected areas in the event a spill occurs. If a larger spill were to occur, construction personnel would generally be on-hand to contact the appropriate agencies.

It is not anticipated that large quantities of hazardous materials would be permanently stored or used within the project site. Vehicles stored on-site would likely contain fuel and other mechanical fluids. The vehicles would not be a storage yard long-term and measures would be taken by the operator to avoid soils contamination. Chemicals would be comprised of household/office cleaners, petroleum-based products for vehicle maintenance and equipment operation, paints, solvents and other common items. These materials would not be present in sufficient strength or quantity to create a substantial risk of fire or explosion, or otherwise pose a substantial risk to human or environmental health. A less than significant impact would occur under this threshold.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?

Less than significant impact. It is not anticipated that construction or operation of the project would create a significant hazard to the environment or to the public due to the accidental release of hazardous materials into the environment. Accidental release of hazardous materials routinely used during construction activities or those associated with materials stored on-site are addressed in section a.), above. A less than significant impact would occur under this threshold.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No impact. No existing or proposed schools have been identified within one-quarter mile of the project site. The closest school is Shasta Elementary which is located approximately one mile southwest of the site. No impact would occur under this threshold.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No impact. A review of regulatory agency databases (i.e., Geotracker website-<https://geotracker.waterboards.ca.gov/>), which includes lists of hazardous materials sites compiled pursuant to California Government Code Section 65962.5, did not identify any sites at or adjacent to the project site that have used, stored, disposed of, or released hazardous materials. The project will use groundwater; however, it is not expected to cause or contribute to hazardous materials conditions on or in proximity to the site. Thus, no impact would occur under this threshold.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

Less than significant impact. The project site is located approximately 0.5 miles west of the Chico Municipal Airport. Per the Butte County Airport Land Use Compatibility Plan, the project site is located within Compatibility Zone C. According to the ALUCP compatibility policies, industrial uses are planned for vacant land west of the airport. Thus, while aircraft overflights may be audible, the proposed use is not noise sensitive and future development would not result in a safety hazard or excessive noise exposure for people working at the site. A less than significant impact would occur under this threshold.

f) **Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

No impact. The proposed project would design, construct, and maintain the driveway in accordance with applicable standards associated with vehicular access allowing for adequate emergency access and evacuation. Development of the project per the GI zoning designation, would not include any actions that physically interfere with emergency response or emergency evacuation plans. No impact would occur under this threshold.

g) **Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?**

Less than significant impact. The project is located in a moderate hazard severity zone as shown in Figure HS-11 in the Butte County General Plan 2040 Update Health and Safety Element and designated by the California Department of Forestry and Fire Protection (CalFire). The project site is within a Local Responsibility Area (LRA), which means that Butte County Fire has fiscal responsibility for preventing and suppressing fires. The nearest staffed fire station is the Butte County Fire Station #41, located at 13871 Highway 99, north of Chico, California, approximately 2.5 miles northwest of the site. Oversight by Butte County Fire would ensure the proposed project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires. A less than significant impact would occur under this threshold.

1.10 HYDROLOGY AND WATER QUALITY

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

Discussion

- a) **Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?**

No impact. The proposed project would not generate wastewater requiring treatment in a municipal system. As stated, a portable restroom would be installed on-site for use during grading and site construction. A future bathroom with a county-approved wastewater system will be required. No impact would occur under this threshold.

- b) **Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?**

Less than significant impact. The Sacramento Valley Groundwater Basin supplies a portion of the municipal and agricultural water demands for the City of Chico and surrounding unincorporated areas. The project site is located over the Sacramento Valley Groundwater Basin which underlies the majority of eastern Butte County. The proposed project would be served by an on-site well.

According to the Butte County Groundwater Management Plan (2005), groundwater supplies approximately 31% of potable water demand county-wide. Water demand for the unincorporated areas of the county was projected to grow from 8,322.3 million gallons in 2000 to 9,736.4 million gallons in 2030, an increase of 17 percent. Development of modular office and paved parking area would create a small increase in impervious surfaces relative to existing conditions. However, stormwater runoff would be directed to a retention and treatment basin located along the southern boundary of the improved area. The additional impervious area associated with the project would be negligible and would not cause a measurable reduction in surface infiltration or a decrease in deep percolation to the underlying aquifers. The project site is not located in a groundwater recharge area for the Sacramento Valley Groundwater Basin. Impacts would be less than significant.

- c) **Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:**

- i) **Result in substantial on- or offsite erosion or siltation;**

Less than significant impact. Future development would alter existing site drainage with the construction of impervious surfaces. During construction-related activities, specific erosion control and surface water protection methods for each construction activity would be implemented on the project site by construction personnel. The type and number of measures implemented would be based upon location-specific attributes (i.e., slope, soil type, weather conditions). These control and protection measures, or BMPs, are standard in the construction industry and are commonly used to minimize soil erosion and water quality degradation. Application of BMPs administered through the construction process would minimize the potential increase of surface runoff from erosion. See response to 1.10 (a) above. The project would not alter the course of a stream or river. Impacts would be less than significant.

- ii) **Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;**

Less than significant impact. The increase in impervious surface area from construction of the paved parking area and modular office would alter drainage patterns on-site. Storm flows would be retained and treated on-site in a new basin proposed along the southern boundary of the improved area. The proposed development would be reviewed by the Butte County Public Works Department to ensure any potential drainage concerns are addressed using the retention basin and that no net increase in stormwater runoff leaves the project site. The project would not result in on- or off-site flooding. Impacts would be less than significant.

- iii) **Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or**

Less than Significant Impact. The project would remain primarily pervious. The stormwater system would be designed to retain anticipated pre-construction flows and would not exceed the capacity of the existing stormwater drainage systems or substantially increase polluted runoff. Impacts would be less than significant.

- iv) **Impede or redirect flood flows?**

No Impact. The floodplain mapping of the project area identifies the project site being located within flood zones X (FEMA Map 06007C0340E, January 6, 2011). Areas designated Flood Zone X are not subject to inundation by 100-year flood events. No impact would occur under this threshold.

- d) **In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?**

No impact. As stated, the project is located within Flood Zone X. The site is not located proximal to the ocean or other large open water body. The proposed action would not result in a risk of pollutant release during a flood hazard, tsunami or seiche event. No impact would occur under this threshold.

- e) **Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?**

No impact. The project site is located within the Butte County Groundwater Management Plan area and West Butte Subbasin. While the project would have a well, it would not affect water quality, groundwater demand or recharge. No impact would occur under this threshold.

1.11 LAND USE AND PLANNING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. Land Use and Planning.				
Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Setting

Butte County General Plan

The General Plan represents the basic community values, ideals and aspirations with respect to land use, development, transportation, public services, and conservation policy that will govern Butte County through 2040. The Land Use Element of the General Plan designates the land use of areas within the county and includes a description of the characteristics and intensity of each land use category. The land use designation for the project parcel is Industrial.

Industrial

This designation allows the processing, manufacturing, assembly, packaging, storage, and distribution of goods and commodities. It also allows for warehouses, storage, logistics centers, trucking terminals, and railroad facilities. Alternative energy facilities are allowed in the Industrial designation, subject to permit requirements. In addition, this designation allows hazardous waste management facilities where it can be demonstrated that potential environmental impacts can be mitigated. Industrial uses are allowed by right where applicants can demonstrate that adequate existing services are already available.

Butte County Zoning Ordinance

The Zoning Ordinance implements the goals and policies of the Butte County General Plan by regulating the uses of the land and structures within the County. The zoning designations of the project site and their intended use are as follows:

General Industrial

The purpose of the General Industrial (GI) zone is to allow for a variety of industrial and service commercial uses in Butte County. Standards for the GI zone are intended to preserve locations for existing and future employment-generating businesses, including both traditional businesses and innovative green technology enterprises. In addition to the uses permitted in the LI zone, the GI zone also permits agricultural and timber processing and heavy manufacturing with the approval of a Conditional Use Permit. The maximum permitted floor area ratio in the GI zone is one-half (0.5). The GI zone implements the Industrial land use designation in the General Plan.

North Chico Specific Plan Light Industrial (M-1)

Uses permitted in the M-1 zone include:

- (1) Wholesale and storage warehouses;
- (2) The assembly and storage of goods, materials, liquids and equipment (except the storage of inflammable matter or explosives or materials which create dust, odors or fumes);

(3) The manufacturing, processing, fabricating, assembling, refining, repairing, packaging, and treatment of goods, materials and products by power (oil, gas or electric), including, by way of example and illustration, but not limited to, the manufacturing, fabrication and assembling of bathroom shower and patio partitions, enclosures and doors, windows and store fronts of aluminum, plastic and fiberglass, or other suitable material, and the processing, finishing, polishing and anodizing of aluminum extrusions and castings, assaying, broom and brush manufacturing, die casting, draying, freighting or trucking yards or terminals, heavy equipment rental or sale, heating and ventilating service shops, jewelry manufacturing, lumberyards, packaging plants, public utility service yards, truck repairing and overhauling, and welding shops.

North Chico Specific Plan Open Space (OS)

Permitted uses in the OS designation include:

- (1) Biking and hiking trails
- (2) Drainage improvements
- (3) Walls and fences
- (4) Public parks (recreation centers and facilities)
- (5) Wetland preserves, reference to section 7.5 Wetlands Mitigation.
- (6) Private parks (active and passive)
- (7) Any other uses deemed compatible by the Director of Development Services or designee.

North Chico Specific Plan Area Wetlands Discussion (Section 7.5 of the NCSP)

7.5 Wetlands Mitigation

Development of any area which directly or indirectly impacts jurisdictional wetlands shall be subject to the following procedure for wetlands delineation and mitigation:

7.5-1 Conduct formal wetland delineations. Delineations shall be carried out on all areas of potential concern that are proposed for development or infrastructure. Delineations are the responsibility of individual landowners and shall be carried out according to the methodology recognized by the U. S. Army Corps of Engineers (Corps), presently the 1987 Corps manual. Delineation study areas will include all areas potentially of concern under applicable wetland regulations.

This includes not only the sites of direct alteration (e.g. discharge of dredged or fill material), but also all upstream and downstream wetland areas that may be subject to hydrologic alterations resulting from fills, excavation, or drainage improvements.

Figure 5-2 identifies those areas that would require a formal delineation for development to proceed. (This parcel is located within Figure 5-2).

7.5-2 Obtain Corps permits. Wetland delineations shall be reviewed and approved by the Corps, and the required processes completed resulting in the issuance of nationwide, regional or individual permits.

7.5-3 Compensate for unavoidable wetland tiffs. Compensation will be in accordance with Corps regulations. Compensation for fills or alterations of wetland habitat shall ensure that an equal or greater acreage of wetlands, of equal or greater functions and values, will be created and shall include compensation for temporary habitat losses. These and other considerations usually require that proposed compensation exceed the acreage of wetland affected by a ratio of 2 to 1. Wetland creation or enhancement shall be conducted according to compensation plans approved by the Corps. Each proposed project will be responsible for adherence to Section 404(b)(1) guidelines, and for providing compensation for wetland fills either independently or in conjunction with other projects, subject to Corps approval.

7.5-4 If elements of project design or of a Plan amendment would eliminate or render unsuitable any designated preservation/mitigation area, the documentation for that project or amendment must include designation of another mitigation area of equal or greater size and suitability.

Preserve and protect existing or created wetlands. During . nearby construction, establish 50-foot buffers around wetlands (as measured from the outer edge of the pool's zone of influence) by construction of a barrier to prevent damage. Prohibit alteration of drainage into or out of a wetland. Prohibit artificial drainage or deposition into a wetland or its drainage without proper engineering design and necessary permits. Prohibit placement of materials or substances into a wetland or its drainage.

a) Physically divide an established community?

No impact. The project site is located in a developing suburban area of the City of Chico in an area of Butte County proximal to and west of the Chico Municipal Airport. Surrounding uses are comprised of vacant land to the east, single-family residential to the west and general industrial land to the north and south. The project parcel is vacant and formerly used for agriculture and grazing. The proposed land use action would add a new commercial towing storage yard and related improvements. The project would develop a privately-owned property proximal to existing single-family residential development located west of the site. It would not physically divide an established community. No impact would occur under this threshold.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No impact. The project would be allowed outright per the existing General Plan land use and zoning designation. Further, the project would not conflict with any land use plan, policy or regulation adopted for the purpose of avoiding or mitigating environmental effects. No impact would occur under this threshold.

1.12 MINERAL RESOURCES

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

Discussion

- a) **Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?**

No impact. There are no known economically viable sources of rock materials in the immediate vicinity of the project site. No mining operations have occurred on the project site or surrounding area and the project would not preclude future extraction of available mineral resources. Mineral resource extraction is not proposed with this project. However, development would use mineral resources in the construction of structures and access roads. The amount of resources used for the anticipated development is minor and would not result in the loss of its availability of mineral resources. No impact would occur under this threshold.

- b) **Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?**

No impact. The project site is not within or near any designated locally important mineral resource recovery site. No impact would occur under this threshold.

1.13 NOISE

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

Environmental Setting

According to the Butte County General Plan 2030, noise is a concern throughout Butte County, but especially in rural areas and in the vicinity of noise-sensitive uses such as residences, schools, and churches. Noise is discussed in the Health and Safety Chapter of the Butte County General Plan 2030. Tables HS-2 and HS-3 in the County General Plan (included as Tables 1.13-1 and 1.13-2 below) outline the maximum allowable noise levels at sensitive receptor land uses.

Table 1.13-1. Maximum Allowable Noise Exposure Transportation Noise Sources

LAND USE	Exterior Noise Level Standard for Outdoor Activity Areas ^a		Interior Noise Level Standard	
	L _{dn} /CNEL, dB	L _{eq} , dBA ^b	L _{dn} /CNEL, dB	L _{eq} , dBA ^b
Residential	60 ^c	-	45	-
Transient Lodging	60 ^c	-	45	-
Hospitals, nursing homes	60 ^c	-	45	-
Theaters, auditoriums, music halls	-	-	-	35
Churches, meeting halls	60 ^c	-	-	40
Office Buildings	-	-	-	45
Schools, libraries, museums	-	70	-	45
Playgrounds, neighborhood parks	-	70	-	-

Source: Table HS-2, Butte County General Plan 2030

^a Where the location of outdoor activity areas is unknown, the exterior noise-level standard shall be applied to the property line of the receiving land use.

^b As determined for a typical worst-case hour during periods of use.

^c Where it is not possible to reduce noise in outdoor activity areas to 60 dB Ldn/CNEL or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB Ldn/CNEL may be allowed, provided that available exterior noise-level reduction measures have been implemented and interior noise levels are in compliance with this table.

Table 1.13-2. Maximum Allowable Noise Exposure Non-Transportation Noise Sources

NOISE LEVEL DESCRIPTION	Daytime 7 am - 7 pm		Evening 7 pm - 10 pm		Night 10 pm - 7 am	
	Urban	Non-Urban	Urban	Non-Urban	Urban	Non-Urban
Hourly Leq (dB)	55	50	50	45	45	40
Maximum Level (dB)	70	60	60	55	55	50

Source: Table HS-3, Butte County General Plan 2030

Notes:

1. “Non-Urban designations” are Agriculture, Timber Mountain, Resource Conservation, Foothill Residential and Rural Residential. All other designations are considered “urban designations” for the purposes of regulating noise exposure.
2. Each of the noise levels specified above shall be lowered by 5 dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g. caretaker dwellings).
3. The County can impose noise level standards which are up to 5 dB less than those specified above based upon determination of existing low ambient noise levels in the vicinity of the project site.
4. In urban areas, the exterior noise level standard shall be applied to the property line of the receiving property. In rural areas, the exterior noise level standard shall be applied at a point 100 feet away from the residence. The above standards shall be measured only on property containing a noise sensitive land use. This measurement standard may be amended to provide for measurement at the boundary of a recorded noise easement between all affected property owners and approved by the County.

Table 1.13.1, above, identifies the maximum allowable noise exposure to a variety of land uses from transportation sources, including from roadways, rail and airports. Table 1.13-2 identifies the maximum allowable noise exposure from non-transportation sources. In the case of transportation noise sources, exterior noise level standards for residential outdoor activity areas are 60 dB (Ldn/CNEL). However, where it is not possible to reduce noise in an outdoor activity area to 60 dB Ldn/CNEL or less using a practical application of the best-available noise-reduction measures, an exterior noise level of up to 65 dB may be allowed, provided that available exterior noise-level reduction measures have been implemented and interior noise levels are in compliance with applicable standards.

Butte County Noise Ordinance

Chapter 41A, Noise Control, of the Butte County Code of Ordinance applies to the regulation of noise. The purpose of the noise ordinance is to protect the public welfare by limiting unnecessary, excessive, and unreasonable noise. Section 41A-7 specifies the exterior noise limits that apply to land use zones within the County, which are provided in Table 1.13-2.

The Butte County Noise Ordinance provides the County with a means of assessing complaints of alleged noise violations and to address noise level violations from stationary sources. The ordinance includes a list of activities that are exempt from the provisions of the ordinance.

Discussion

- a) **Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?**

Less than significant impact. The nearest noise sensitive properties to the project site are single-family residences located adjacent to and west of the project site across Hicks Lane. All project traffic would use Hicks Lane. As stated, the site is located within a suburban area and the traffic and airport operations are likely the primary noise source within the project area. It is unknown how many daily vehicle trips would be generated by the project; however, it is likely that they would be periodic as access to the storage yard is required. An audible change in noise levels (+/- 3 A-weighted decibels) requires a doubling or halving of sound energy. The addition of periodic project-related trips unlikely to not double the existing sound energy on neighboring roadways; thus, baseline noise levels will not noticeably change. The project would have a less than significant impact to existing residences.

- b) **Generation of excessive groundborne vibration or groundborne noise levels?**

Less than significant impact. The project may generate short-term vibration during vibration; however, this would be temporary and unlikely to affect adjacent residences. A less than significant impact would occur under this threshold.

- c) **For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?**

No impact. The Chico Municipal Airport is located approximately one-half mile east of the site. The project is a commercial towing storage yard with related improvements. This use would not be sensitive to airport noise. No impact would occur under this threshold.

1.14 POPULATION AND HOUSING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. Population and Housing.				
Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

- a) **Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?**

No impact. The proposed project, grading permit, will not generate population growth in the area. Future development of the site would be allowed outright per the General Plan and zoning designation. The project would construct and operate and new commercial towing storage yard. The project would not induce population growth within the area. No impact would occur under this threshold.

- b) **Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?**

No impact. The site is vacant; thus, the project would not displace existing individuals or housing. No impact would occur under this threshold.

1.15 PUBLIC SERVICES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. Public Services.				
Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

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

Fire protection?

No impact. Fire protection services are provided by Butte County Fire. Approval of the proposed grading permit will not require additional fire protection services. Future development on the site would require the payment of fire protection impact fees to help offset the impacts of that development. Such fees would be used to fund capital costs associated with acquiring land for new fire stations, constructing new fire stations, purchasing fire equipment, and providing for additional staff as needed. Fire protection impact fees would be paid at the time of building permit issuance. No impact would occur under this threshold.

Police protection?

No impact. The Butte County Sheriff's Office provides law enforcement service to the site. The proposed action, grading, is unlikely to increase service calls. However, increased development in the County impacts the ability of the Sheriff's Department to adequately provide services to outlying areas. The project, or future development/use of the site is not expected to require any new law enforcement facilities or the alteration of existing facilities to maintain acceptable performance objectives. Future development would be partially offset through project-related impact fees. No impact would occur under this threshold.

Schools?

No impact. The project site is located within the Chico Unified School District. The proposed action and future development/use on the site would not increase demand for school services within the Chico Unified School District. No impact would occur under this threshold.

Parks?

No Impact. Increase in the demand for recreational facilities is typically associated with increases in population. As discussed in Section 1.14 - *Population and Housing*, the proposed project will not generate growth in the local population. Future development of the site would require payment of development fees to address county-wide changes in demand for park services. Thus, impacts would be less than significant under this threshold.

Other public facilities?

No impact. No other public facilities would be impacted by the proposed project. No impact would occur under this threshold.

1.16 RECREATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. Recreation.				
Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

- a) **Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**

No impact. Development of a commercial tow yard would not increase the use of existing recreational resources such that physical deterioration of facilities would occur. No impact would occur under this threshold.

- b) **Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?**

No impact. The proposed project does not include plans for additional recreational facilities nor would it require expansion of existing recreational facilities. Therefore, the proposed project would not result in any adverse physical effects on the environment from construction or expansion of recreational facilities. No impact would occur under this threshold.

1.17 TRANSPORTATION

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

Setting

Roadway Network

Regional and local access to the project site is provided by Hicks Lane. A new driveway would be constructed to access the site. The driveway would connect the site to Hicks Lane and serve as only ingress/egress to the project site.

Bicycle and Pedestrian Transportation

Bicycle facilities include bike paths (Class I), bike lanes (Class II), and bike routes (Class III).

Class I Bike paths provide a completely separated facility designed for the exclusive use of bicycles and pedestrians within minimal cross flows by motorists. Caltrans standards call for Class I two-way bike paths to have 8 feet of pavement width with 2-foot wide graded shoulders on either side, for a total right-of-way width of 12 feet. Designated one-way bike paths are allowed 5 feet of minimum pavement width. Class I bike paths must also be at least 5 feet from the edge of a paved roadway, 8 feet from an obstruction, and meet specified minimum horizontal and vertical curve requirements for the speeds anticipated.

Class II Bike lanes provides restricted on-street right-of-way designated for the exclusive or semi-exclusive use of bicycles with through travel by motor vehicles or pedestrians prohibited, but with vehicle parking and crossflows by pedestrians and motorists permitted. Caltrans standards generally require a minimum 4-foot bike lane with 6-inch white strip separating the roadway from the bike lane. Where raised curbs without permitted parking or designated marked parking exists, a minimum 5-foot bike lane adjacent to the traffic lane is required. Where parking is permitted, but unmarked, the 6-inch white stripe separating the traffic lane from the bike lane must be a minimum of 12 feet from the raised curb.

Class III Bike routes provides a preferred shared route with motorists on the street, or to a more restricted extent, with pedestrians on sidewalks where designated by signs or permanent markings. The main purpose of designated bike routes is to provide continuity to the bikeway network by connecting discontinuous segments of Class I and II bikeways and may also be used to direct bicyclists to a route of higher degree of service or use. Roadways designated as Class III bike routes should have sufficient width to accommodate motorists, bicyclists, and pedestrians. Other than a street sign, there are no special markings required for a Class III bike route.

Pedestrian facilities include sidewalks, crosswalks, pedestrian signals, and paved shoulders adjacent to rural roads. The County of Butte’s Development Standards typically require proposed residential developments located in the County’s urban areas to construct curb, gutter, and sidewalk improvements within the County roadway right of way fronting the development.

Discussion

a) **Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?**

Less than significant impact. The project site is located in a suburban General Industrial area. The proposed action would generate daily trips; however, the number will vary based on demand for services. The project is not anticipated to adversely impact intersections proximal to the site. Further, the project would not impact pedestrian, bicycle or transit services. A less than significant impact would occur under this threshold.

b) **Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?**

Less than significant impact. To assist in SB 743 implementation, the Office of Planning and Research (OPR) released a *Technical Advisory on Evaluating Transportation Impacts in CEQA* (Technical Advisory) in December 2018. This includes technical recommendations regarding the assessment of VMT, thresholds of significance, VMT mitigation measures and screening thresholds for certain land use projects. Lead agencies may consider and use these recommendations at their discretion. Specific to residential projects and considering the land use context for Butte County and the project area, the Technical Advisory contains recommendations related to assessing VMT impacts. Those projects that meet specific screening criteria have been determined to generate too few trips to warrant evaluation. With respect to the “small project” criteria, projects consistent with a Sustainable Community Strategy, the local general plan and that generate or attract fewer than 110 vehicle trips per day may be presumed to have a less than significant VMT impact. Specific trip generation rates for tow yards are not available; however, project related effects associated with planned development have been evaluated in the General Plan 2040 Update Program Environmental Impact Report (PEIR). As stated in the Transportation section of the PEIR (page 5.16-62 of the Draft PEIR), because growth expected under General Plan 2040 is consistent with previous plans, including the previous General Plan update and the County Climate Action Plan and the General Plan 2040 Update includes a variety of goals, policies, and actions applicable to specific projects that would reduce the VMT of future development, the proposed project would not conflict with or be inconsistent with CEQA Guidelines Section 15064.3(b). A less than significant impact would occur under this threshold.

c) **Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?**

No impact. The proposed project would add a new access driveway; however, it would not change the configuration (alignment) of area roadways and would not introduce types of vehicles that are not already traveling on area roads. No impact would occur under this threshold.

d) **Result in inadequate emergency access?**

No impact. Emergency vehicles access the area using Hicks Lane. The project would have no effect on this roadway. The proposed driveway would be designed consistent with Butte County standards and would provide sufficient emergency access. No impact would occur under this threshold.

1.18 TRIBAL CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. Tribal Cultural Resources.				
Has a California Native American Tribe requested consultation in accordance with Public Resources Code section 21080.3.1(b)?	<input checked="" type="checkbox"/>			<input type="checkbox"/>
<p>Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:</p>				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Setting

Tribal Cultural Resources are defined as a site feature, place, cultural landscape, sacred place or object, which is of cultural value to a Tribe and is either on or eligible for the California Historic Register, a local register, or a resource that the lead agency, at its discretion, chooses to treat as such (Public Resources Code Section 21074 (a)(1)).

Butte County contains a rich diversity of archaeological, prehistoric and historical resources. The General Plan 2030 EIR observes that the “archaeological sensitivity of Butte County is generally considered high, particularly in areas near water sources or on terraces along water courses” (Butte County General Plan EIR, 2010, p. 4.5-7).

A substantial adverse change upon a historically significant resource would be one wherein the resource is demolished or materially altered so that it no longer conveys its historic or cultural significance in such a way that justifies its inclusion in the California Register of Historical Resources or such a local register (CEQA Guidelines Section 15064.5, sub. (b)(2)). Cultural resources include prehistoric and historic period archaeological sites; historical features, such as rock walls, water ditches and flumes, and cemeteries; and architectural features. Cultural resources consist of any human-made site, object (i.e., artifact), or feature that defines and illuminates our past. Often such sites are found in foothill areas, areas with high bluffs, rock outcroppings, areas overlooking deer migratory corridors, or near bodies of water.

Per Assembly Bill AB 52 (Statutes of 2014) Notification Request, Public Resources Code Section 21080.3(b), the County sent letters to the Mechoopda Indian Tribe and Pasketna Band of Nomlaki Indians on April 21, 2023. No response was received.

Discussion

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

- a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

No impact. Per Assembly Bill AB 52 (Statutes of 2014) Notification Request, Public Resources Code Section 21080.3(b), the County sent letters to the Mechoopda Indian Tribe and Pasketna Band of Nomlaki Indians on April 21, 2023. As stated, no response was received. No impact to historic resources would occur under this threshold.

- b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

No impact. See discussion 4.17(a) – *Tribal Cultural Resources*. No impact would occur under this threshold.

1.19 UTILITIES AND SERVICE SYSTEMS

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

Discussion

- a) **Require or result in the relocation or construction of construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?**

No impact. The project site is undeveloped. A portable restroom would be provided on-site during the grading, site preparation. A septic system is proposed (Butte County Environmental Health permit SEWW23-0032) as part future use of the site. Potable water would be provided by a well.

No existing on-site storm water drainage facilities are located on the project site. All precipitation percolates into the ground. Future development would require the installation of a stormwater management system. A new detention basin would be constructed along the south side of the site.

The project site is currently served by electric power (PG&E), natural gas (PG&E) and wireless phone service. The project would not result in the relocation or construction of new or expanded infrastructure including water services, wastewater treatment, stormwater drainage, natural gas, or telecommunication facilities. No impact would occur under this threshold.

- b) **Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?**

Less than significant impact. Domestic water services would be provided by one well assuming approval of a permit by the Butte County Department of Environmental Health. A less than significant impact would occur under this threshold.

- c) **Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?**

No impact. As stated, a portable restroom would be provided on-site during the grading/site preparation. A septic system is proposed during the initial phase. Therefore, the project would not have an impact on any wastewater treatment facilities. The septic system requires approval by Butte County Public Health Environmental Health Division. Because a portable restroom and septic system would be utilized, no impact would occur under this threshold.

- d) **Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?**

No impact. Construction and operation of the project would result in a minor increase of solid waste that would require disposal at the Neal Road Recycling and Waste Facility. The Neal Road Facility has a maximum permitted throughput of 1,500 tons per day, and an estimated current daily average throughput of 466 tons per day. Solid waste generated by the project is anticipated to be limited to the office use. The Neal Road Facility has a maximum permitted throughput of 1,500 tons per day, and an estimated current daily average throughout of 466 tons per day. Therefore, the facility would have adequate capacity to accommodate solid waste generated by the project. A less than significant impact would occur under this threshold.

- e) **Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?**

No impact. The proposed project would comply with statutes and regulations related to solid waste. Waste generated by the proposed project would consist only of domestic refuse, which would be collected in approved trash bins and removed from the project site by a waste hauler. No impact would occur under this threshold.

1.20 WILDFIRE

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

Environmental Setting

The project site is located in a Local Responsibility Area for fire protection. The project site is located within a Wildland-Urban Interface moderate fire hazard severity zone as identified by the State Department of Forestry and Fire Protection.

Discussion

a) **Substantially impair an adopted emergency response plan or emergency evacuation plan?**

No impact. The project site would be accessed via Hicks Lane and a new a driveway. There would be no lane closures or other actions that would impact emergency access or interfere with an emergency evacuation plan. No impact would occur under this threshold.

b) **Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?**

No impact. The project site is located in a moderate fire hazard severity zone. No conditions or factors have been identified in the project area that would exacerbate wildfire risks.

- c) **Require the installation of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?**

No impact. The project site is located in a moderate fire hazard severity zone. However, due to the heightened risk of wildfire and increased potential for damage or loss, development must meet Butte County Code requirements which establish standards for access, signage, maintenance of defensible space and vegetation management. These standards will be included as conditions of approval and implemented at the time of development if it occurs. The project would not require infrastructure improvements that would exacerbate fire risks or generate temporary impacts to the project site or surrounding area. No impact would occur under this threshold.

- d) **Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?**

No impact. The project site area is located within a suburban area and the topography is flat. The project area does not exhibit flooding potential (see discussion Section 1.10.d – Hydrology and Water Quality) or landslide potential (see discussion Section 1.7.a – Geology Soils). Therefore, no impacts from post-fire instability or drainage changes would occur. No impact would occur under this threshold.

1.21 MANDATORY FINDINGS OF SIGNIFICANCE

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

Discussion

- a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?

Less than significant impact with mitigation incorporated. Potential impacts to biological resources and cultural resources associated with future development of the proposed project were analyzed in this Initial Study. With implementation of **Mitigation Measure CUL-1**, all direct, indirect, and cumulative impacts to cultural resources could be mitigated to less than significant. No special status species or their habitat was identified on the site. Development of the subject parcel would not cause fish or wildlife populations to drop below self-sustaining levels or restrict the movement/distribution of a rare or endangered species. However, **Mitigation Measures BIO-1, BIO-2, BIO-3 and BIO-4** would be implemented to address potential impacts to sensitive plant species (BIO-1), meadowfoam / adobe lily (BIO-2), nesting birds / bats (BIO-3) and seasonal swales (BIO-4).

Development of the proposed project would not affect significant historic resources or known archaeological or paleontological resources. **Mitigation Measure CUL-1** has been identified to address the potential discovery of unknown resources during excavation or other soil disturbance associated with development. Additionally, the project applicant is required to comply with [California Code of Regulations \(CCR\) Section 15064.5\(e\)](#),

[California Health and Safety Code Section 7050.5](#), and [Public Resources Code \(PRC\) Section 5097.98](#) as a matter of policy in the event human remains are encountered at any time. Implementation of **Mitigation Measure CUL-1**, as well as regulations governing human remains, would reduce potential impacts to cultural and paleontological resources to less than significant.

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

Less than significant impact with mitigation incorporated. Development of the proposed project would have no impact, a less than significant impact or a less than significant impact with mitigation incorporated with respect to all environmental issues pursuant to CEQA. Due to the limited scope of direct physical impacts to the environment associated with the project, potential impacts are project-specific.

The proposed project site is located within an area has been designated by the County for VLDR development. Short-term construction-related air quality impacts that would result from construction of the site improvements and build-out of residences will be reduced to less than significant with implementation of **Mitigation Measure AIR-1**. No adverse impacts requiring mitigation to other topical areas would be needed.

The cumulative effects resulting from build out of the Butte County General Plan 2040 Update were previously identified in the General Plan EIR. The type, scale, and location of the type of development that is proposed for the site is consistent with County’s General Plan and zoning designation and is compatible with the pattern of development on adjacent properties. Because of this consistency, the potential cumulative environmental effects of the proposed project would fall within the impacts identified in the County’s General Plan EIR. Build-out of the project would be subject to required “fair share” development impact fees, which will be paid at the time of development.

- c) **Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?**

Less than significant impact with mitigation incorporated. There have been no impacts discovered through the review of this application demonstrating that approval of the CEQA document or future development of the parcel would cause substantial adverse effects to human beings either directly or indirectly. However, development of the parcel has the potential to cause both temporary and future impacts related to air quality and cultural resources. With implementation of mitigation measures included in this Initial Study, these impacts would be mitigated to less than significant.

Authority for the Environmental Checklist: Public Resources Code Sections 21083, 21083.5.

Reference: Government Code Sections 65088.4.

Public Resources Code Sections 21080, 21083.5, 21095; *Eureka Citizens for Responsible Govt. v. City of Eureka* (2007) 147 Cal.App.4th 357; *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th at 1109; *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656.

Environmental Reference Materials

1. Butte County. *Butte County Climate Action Plan*. Updated December 2021. Available at <https://www.buttecounty.net/DocumentCenter/View/2255/2021-Butte-County-Climate-Action-Plan-CAP-PDF?bidId=>
2. Butte County. *Butte County Bicycle Plan*. June 14, 2011. Available at <https://www.buttecounty.net/DocumentCenter/View/4542/2011-Adopted-Butte-County-Bicycle-Plan-PDF>
3. Butte County. *Butte County General Plan 2030 Final Environmental Impact Report*. April 8, 2010. Available at http://www.buttegeneralplan.net/products/2010-08-30_FEIR/default.asp.
4. Butte County. *Butte County General Plan Update 2040 Update Final Environmental Impact Report*. March 2023. Available at <https://www.buttecounty.net/DocumentCenter/View/6521/Butte-GPU-FEIR-030923?bidId=>
5. Butte County. *Butte County General Plan 2040 Update*. March 28, 2023. Available at https://www.buttecounty.net/DocumentCenter/View/11581/Butte_County_General_Plan_2040_Compiled_Appendix_Optimized---Updated---10-12-23
6. Butte County. *Butte County General Plan 2030 and Zoning Ordinance Amendments – Draft Supplemental Environmental Impact Reports.aspx*. June 17, 2015. Available at <https://www.buttecounty.net/DocumentCenter/View/2136/Complete-General-Plan-PDF>
7. Butte County. *Butte County General Plan 2040 Setting and Trends Report Public Draft*. June 2021. Available at <http://www.buttegeneralplan.net/products/SettingandTrends/default.asp>.
8. Butte County. *Butte County Code of Ordinances, Chapters 19, 20, 24 & 41A*. Available at https://www.municode.com/library/ca/butte_county/codes/code_of_ordinances/
9. Butte County. *Butte County Department of Development Services GIS Data*. April 2022.
10. Butte County Air Quality Management District. *CEQA Air Quality Handbook – Guidelines for Assessing Air Quality and Greenhouse Gas Impacts for Projects Subject to CEQA Review*. October 23, 2014. Available at <https://bcaqmd.org/planning/air-quality-planning-ceqa-and-climate-change/>
11. Butte County Public Works Department, Division of Waste Management. *Joint Technical Document-Neal Road Recycling and Waste Facility, Butte County, California*. November 2017.
12. Butte County Airport Land Use Compatibility Plan, Chico Municipal Airport, November 15, 2017. <https://www.buttecounty.net/DocumentCenter/View/3018/Chapter-5---Chico-Municipal-PDF>
13. California Department of Conservation. *Fault-Rupture Hazard Zones in California. Altquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Fault Zone Maps*. Special Publication 42. Interim Revision. 2007.
14. California Department of Conservation, Division of Land Resource Protection. *A Guide to the Farmland Mapping and Monitoring Program*. 2014.
15. California Department of Toxic Substance Control. 2009. *Envirostor Database*. Accessed on April 2022. <http://www.envirostor.dtsc.ca.gov/public>.
16. California Department of Water Resources, Northern Region Office. *Geology of the Northern Sacramento Valley, California*. September 2014.

17. Kopple & Gruber, Public Finance, Inc., *Chico Unified School District 2020 School Fee Justification Study*, March 2020.http://www.chicousd.org/documents/Business%20Services/Developer%20Fee%20Studies/CUSD_FeeJustificationStudy_2020_FINAL.pdf
18. Olberding Environmental Inc., *Biological Resources Analysis Report for the Hicks Lane Property*, November 2019.

APPENDIX - A

Mitigation Monitoring and Reporting Program

MITIGATION MONITORING AND REPORTING PROGRAM

In accordance with the California Environmental Quality Act (CEQA), Butte County (County) prepared a Mitigated Negative Declaration (MND) that identifies adverse impacts related to the Howell Grading Permit (Project). The MND also identifies mitigation measures that would reduce or eliminate these impacts.

Section 21081.6 of the California Public Resources Code (PRC) (§ 15091(d) and 15097 of the State CEQA Guidelines) requires public agencies “to adopt a reporting and monitoring program for changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment.” A mitigation monitoring and reporting program (MMRP) is required for the Project because the MND for the project identified potentially significant adverse impacts related to construction and implementation activities, and mitigation measures have been identified to mitigate those impacts.

PURPOSE OF MITIGATION MONITORING AND REPORTING PROGRAM

This MMRP has been prepared to ensure that all required mitigation measures are implemented and completed according to schedule and maintained satisfactorily during project implementation as adopted by the County, as required. The MMRP may be modified by the County during Project implementation, as necessary, in response to changing conditions or other refinements. The attached Mitigation Monitoring and Reporting table has been prepared to assist the responsible parties in implementing and documenting required mitigation measures. The table identifies individual mitigation measures, implementation timing/schedule, responsible person/agency for implementing the measure, implementation, and verification action, and provides space to confirm implementation of the mitigation measures. The numbering of mitigation measures follows the numbering sequence of the MND.

ROLES AND RESPONSIBILITIES

Unless otherwise specified herein, the County is ultimately responsible for ensuring that mitigation measures are implemented according to the specifications provided for each measure and for demonstrating that the action has been successfully completed. At its discretion, the County may delegate implementation responsibility or portions thereof to a licensed contractor or professional. In most instances, the applicant is responsible for funding and implementing the measures.

The County will be responsible for the overall administration of the MMRP and for

verifying that County staff and/or the construction contractor has completed the necessary actions for each measure. The County will designate a project manager to oversee the MMRP during construction. The County project manager is responsible for the following duties:

- Ensure that routine inspections of the project site are conducted by appropriate County staff; check plans, reports, and other documents required by the MMRP; and conduct report activities.
- Serve as a liaison between the County and the site manager regarding mitigation monitoring issues.
- Complete forms and maintain reports and other records and documents generated by the MMRP.
- Coordinate and ensure corrective actions or enforcement measures are taken, if necessary.

MITIGATION MONITORING PLAN TABLE

The column categories identified in the MMRP table are described below:

- **Mitigation Measure:** This column lists the mitigation measures by number and provides the text of the mitigation measures identified in the MND.
- **Timing/Schedule:** This column lists the time frame in which the mitigation will take place.
- **Implementation Responsible Party:** This column identifies the party responsible for complying with the requirements of the mitigation measure.
- **Monitoring Responsible Party:** This column identifies the party responsible for verifying the implementation of mitigation actions.
- **Date Completed/Name of County Staff Verifying Completion:** This column is to be dated and signed by the County project manager or their designee based on the documentation provided by the applicant, its agents (qualified individuals), and/or through visual inspection.

HOWELL GRADING PERMIT (CEQA23-0001) - MITIGATION MONITORING AND REPORTING TABLE

Mitigation Measures	Timing/Schedule	Implementation Responsible Party	Monitoring Responsible Party	Date Completed/Name of County Staff Verifying Completion
AIR QUALITY				
<p>Mitigation Measure AIR-1 (Particular Matter, TAC, and Fugitive Dust Emissions): The following best practice measures to reduce impacts to air quality shall be incorporated by the project applicant, subject property owners, or third-party contractors during construction activities on the project site. These measures are intended to reduce criteria air pollutants that may originate from the site during the course of land clearing and other construction operations.</p> <p><u>Diesel PM Exhaust from Construction Equipment and Commercial On-Road Vehicles Greater than 10,000 Pounds</u></p> <ul style="list-style-type: none"> • All on- and off-road equipment shall not idle for more than five minutes. Signs shall be posted in the designated queuing areas and/or job sites to remind drivers and operators of the five-minute idling limit. • Idling, staging and queuing of diesel equipment within 1,000 feet of sensitive receptors is prohibited. • All construction equipment shall be maintained in proper tune according to the manufacturer’s specifications. Equipment must be checked by a certified mechanic and determined to be running in proper condition before the start of work. 	<p>During construction activities</p>	<p>Applicant</p>	<p>Butte County Butte County Air Quality Management District</p>	

Mitigation Measures	Timing/Schedule	Implementation Responsible Party	Monitoring Responsible Party	Date Completed/Name of County Staff Verifying Completion
<ul style="list-style-type: none"> • Install diesel particulate filters or implement other CARB-verified diesel emission control strategies. • Shall not operate a diesel-fueled auxiliary power system (APS) to power a heater, air conditioner, or any ancillary equipment on that vehicle during sleeping or resting in a sleeper berth for greater than 5 minutes at any location when within 100 feet of restricted areas. • To the extent feasible, truck trips shall be scheduled during non-peak hours to reduce peak hour emissions. <p><u>Operational TAC Emissions</u></p> <ul style="list-style-type: none"> • All mobile and stationary Toxic Air Contaminants (TACs) sources shall comply with applicable Airborne Toxic Control Measures (ATCMs) promulgated by the CARB throughout the life of the project. • Stationary sources shall comply with applicable District rules and regulations. <p><u>Fugitive Dust</u></p> <p>Construction activities can generate fugitive dust that can be a nuisance to local residents and businesses near a construction site. Dust complaints could result in a violation of the District’s “Nuisance” and “Fugitive Dust” Rules 200 and 205, respectively. The following is a list of</p>				

Mitigation Measures	Timing/Schedule	Implementation Responsible Party	Monitoring Responsible Party	Date Completed/Name of County Staff Verifying Completion
<p>measures that may be required throughout the duration of the construction activities:</p> <ul style="list-style-type: none"> • Reduce the amount of the disturbed area where possible. • Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. An adequate water supply source must be identified. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible. • All dirt stockpile areas should be sprayed daily as needed, covered, or a District-approved alternative method will be used. • Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible following completion of any soil disturbing activities. • Exposed ground areas that will be reworked at dates greater than one month after initial grading should be sown with a fast-germinating non-invasive grass seed and watered until vegetation is established. • All disturbed soil areas not subject to re-vegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in 				

Mitigation Measures	Timing/Schedule	Implementation Responsible Party	Monitoring Responsible Party	Date Completed/Name of County Staff Verifying Completion
<p>advance by the Butte County Air Quality Management District.</p> <ul style="list-style-type: none"> • All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used. • Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site. • All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with local regulations. • Install wheel washers where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site. • Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible. • Post a sign in prominent location visible to the public with the telephone numbers of the contractor and the Butte County Air Quality 				

Mitigation Measures	Timing/Schedule	Implementation Responsible Party	Monitoring Responsible Party	Date Completed/Name of County Staff Verifying Completion
<p>Management District - (530) 332-9400 for any questions or concerns about dust from the project.</p> <p>All fugitive dust mitigation measures required shall be shown on grading and building plans. In addition, the contractor or builder should designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. Their duties shall include holidays and weekend period when work may not be in progress. The name and telephone number of such persons shall be provided to the District prior to land use clearance for map recordation and finished grading of the area.</p> <p>Please note that violations of District Regulations are enforceable under the provisions of California Health and Safety Code Section 42400, which provides for civil or criminal penalties of up to \$25,000 per violation.</p>				
BIOLOGICAL RESOURCES				
<p>Mitigation Measure BIO-1 (Perform Special Status Plant Surveys):</p> <p>Prior to site disturbance, surveys for the adobe-lily and meadowfoam shall be conducted in accordance with CDFW and CNPS guidelines by a qualified biologist to determine presence or absence on areas proposed for disturbance prior to issuing a grading permit. The survey should be scheduled to coincide with the identified blooming or identification periods for the adobe lily and Butte County meadowfoam (March - April). If either of these species are found, then appropriate mitigation</p>	<p>Prior to all ground disturbing activities</p>	<p>Applicant/qualified biologist</p>	<p>Butte County Planning Division</p> <p>California Department of Fish and Wildlife</p>	

Mitigation Measures	Timing/Schedule	Implementation Responsible Party	Monitoring Responsible Party	Date Completed/Name of County Staff Verifying Completion
<p>measures should be implemented. A report of survey findings shall be provided to the Butte County Development Services Department.</p>				
<p>Mitigation Measure BIO-2 (Presence of Butte County meadowfoam and/or adobe lily): This compensatory mitigation may include one or a combination of the following options:</p> <ul style="list-style-type: none"> • Purchase BCM credits from an approved mitigation bank within the service area. The actual fee paid shall be that in effect at the time of payment. • Preserve, as described in the Habitat Mitigation and Monitoring Plan, and enhance BCM and adobe lily habitat within the project site. <p>In either case, this option would require the preparation of a long-term management plan, subject to approval by USFWS and the County, prior to the start of construction, along with an endowment for the long-term management of the property and a USFWS approved conservation easement to ensure that the population of BCM and adobe lily are protected in perpetuity.</p> <p>If the adobe lily or Butte County meadowfoam are identified within areas proposed for disturbance, then the following mitigation measure shall be implemented. Prior to ground disturbance, the Applicant shall consult with both the USFWS and the CDFW to obtain authorization for project implementation and develop appropriate type</p>	<p>Prior to any ground disturbing activities</p>	<p>Applicant/ qualified biologist</p>	<p>Butte County Planning Division</p> <p>California Department of Fish and Wildlife</p>	

Mitigation Measures	Timing/Schedule	Implementation Responsible Party	Monitoring Responsible Party	Date Completed/Name of County Staff Verifying Completion
<p>and amount of compensatory mitigation for project impacts to Butte County meadowfoam (BCM) and adobe lily occupied habitat. Preserve and enhance BCM and adobe lily habitat within the project site area pursuant to a Habitat Mitigation and Monitoring Plan approved by the USFWS and the CDFW at a minimum 1:1 ratio for temporary impacts (1.0 acres enhanced over pre-project conditions for every one acre of temporarily impacted habitat) and at the ratios described below for permanent impacts.</p> <p>Enhancement activities will be detailed in the Habitat Mitigation and Monitoring Plan and will include vegetation management for non-native, annual grasses. In addition, in areas not previously documented to support BCM or adobe lily, but which consist of the same mapped soils association, BCM or adobe lily habitat will be created through a site-specific restoration plan to mitigate at a 1.5:1 ratio for permanent impacts (1.5 acres created over pre-project conditions for every one acre of permanently impacted habitat).</p> <p>Because successful creation of the microhabitat required by BCM and/or adobe lily cannot be guaranteed, a performance bond, annual letter of credit, or other such form of security acceptable to the County shall be established prior to restoration activities taking place, to purchase BCM or adobe lily credits at an approved mitigation bank at ratios in an amount equivalent to the costs of purchasing BCM or adobe lily credits or purchasing property shown to support sufficient BCM or adobe lily habitat meeting the ratio requirements outlined</p>				

Mitigation Measures	Timing/Schedule	Implementation Responsible Party	Monitoring Responsible Party	Date Completed/Name of County Staff Verifying Completion
<p>in Section (2) of this mitigation, below. The option to purchase the requisite credits for BCM and adobe lily habitat shall be secured by the applicant prior to approval of grading or other work resulting in impacts to BCM and or adobe lily for which mitigation is not already in place. Creation of BCM and adobe lily habitat will likely consist of seed collection, contouring areas within the onsite area that are currently and historically not occupied by BCM or adobe lily to produce suitable topographical and hydrological conditions for BCM, sowing approximately 50 percent of the collected seed stock (holding the other 50 percent in reserve), and, if necessary, distributing topsoil from impacted BCM and adobe lily areas to the species' habitat creation area scraping topsoil to mimic the soil depth suitable for BCM and adobe lily (~4-6 inch depth of soil over bedrock) adjacent to swale habitat. Topsoil from known locations of these species in the impact area will be salvaged and transplanted to these created areas and observed for three years. Performance will be met only when density of these species in created habitat matches reference population density in preserved habitat. The success of the on-site preserve for BCM and adobe lily habitat (enhancement and creation) shall be documented with before-and-after protocol-level, floristic, rare plant surveys that compare pre-project baseline BCM and adobe lily acreage and stem counts to post-restoration BCM and adobe lily acreage and stem counts. Biological monitoring for the successful establishment of BCM and adobe lily will be conducted for five years or until the success criteria are met for three years without human intervention.</p>				

Mitigation Measures	Timing/Schedule	Implementation Responsible Party	Monitoring Responsible Party	Date Completed/Name of County Staff Verifying Completion
<p>Monitoring will include: (a) monitoring of general conditions within the species establishment area including documentation of vegetation community, vegetative cover, and the presence of any erosion or sedimentation or other conditions that may be detrimental to the long-term viability of these species populations; (b) the extent of these species occurrence within the creation area will be recorded, following the methodology used to assess occupied habitat, and adjacent known species habitat will also be monitored to provide a reference for species populations; (c) the creation will be deemed successful when three years of monitoring of occupied BCM and adobe lily habitat within the creation areas meets or exceeds the creation ratio (i.e., 1.5:1); and (d) reserved BCM and adobe lily seed can be used during the monitoring period to supplement areas where BCM and adobe lily establishment is not meeting success criteria.</p> <p>The Habitat Mitigation and Monitoring Plan shall detail methods, locations, and goals for relocating soils from impacted areas to the areas BCM and adobe lily habitat creation efforts, and include contingency measures that address the potential that creation efforts could fall short of stated goals (including security provisions for acquiring off-site BCM habitat as noted above a performance bond posted by the Applicant during the restoration period matching the funding required to purchase credits at a 19:1 ratio); or, (2) Preserve habitat for BCM at a 19:1 ratio (19 acres of preservation for every one acre impacted) for direct impacts and at a 5:1 ratio (five acres of preservation for every one acre impacted) for indirect impacts. However,</p>				

Mitigation Measures	Timing/Schedule	Implementation Responsible Party	Monitoring Responsible Party	Date Completed/Name of County Staff Verifying Completion
<p>final habitat acreages, mitigation ratios, and other project-specific compensatory requirements for direct and indirect impacts shall be finalized during consultation between USFWS and the Corps as part of the Section 404 permitting process and during consultation with the CDFW.</p>				
<p>Mitigation Measure BIO-3 (Nesting Bird Survey): If project construction activities, including site grubbing and vegetation removal, occur during the nesting season for birds protected under the Migratory Bird Treaty Act (MBTA) and California Department Fish & Game Code (CDFC) (approximately February 1 – August 31), the project proponent shall retain a qualified biologist to perform preconstruction surveys for nesting bird species. Surveys to identify active bird nests shall be conducted within and 250 feet around the footprint of proposed construction site. During the survey, the biologist shall also look for evidence of roosting bats. The survey shall be conducted within 7 days prior to the initiation of construction activities. In the event that an active nest or sign of roosting bats is observed, a species protection buffer shall be established. The species protection buffer will be defined by the qualified biologist based on the species, nest type and tolerance to disturbance. Construction activity shall be prohibited within the buffer zones until the young have fledged or the nest fails. Nests shall be monitored by a qualified biologist once per week and a report submitted to the Butte County Department of Development Services.</p>	<p>Prior to and during construction activities planned to occur during nesting seasons for CDFC and MBTA species (between February 1 and August 31).</p>	<p>Applicant/ qualified biologist</p>	<p>Butte County Planning Division California Department of Fish and Wildlife</p>	

Mitigation Measures	Timing/Schedule	Implementation Responsible Party	Monitoring Responsible Party	Date Completed/Name of County Staff Verifying Completion
<p>Mitigation Measure BIO-4 (Aquatic Resources): The applicant shall mitigate the loss of 0.13 acres of seasonal swales through the creation, preservation, or restoration of wetlands, which may include purchasing credits from an agency approved mitigation bank, consistent with applicable regulatory standards in the Clean Water Act or Waste Discharge Requirements (WDRs), as applicable. Mitigation acreage requirements shall be determined in consultation with the U.S. Army Corps of Engineers and the Regional Water Quality Control Board.</p>	<p>Prior to ground-disturbing activities</p>	<p>Applicant/qualified biologist</p>	<p>Butte County Planning Division United States Army Corps of Engineers California Regional Water Quality Control Board</p>	
<p>CULTURAL RESOURCES</p>				

Mitigation Measures	Timing/Schedule	Implementation Responsible Party	Monitoring Responsible Party	Date Completed/Name of County Staff Verifying Completion
<p>Mitigation Measure CUL-1 (Inadvertent Discovery : If grading activities reveal the presence of prehistoric or historic cultural resources (i.e., artifact concentrations, including arrowheads and other stone tools or chipping debris, cans glass, etc.; structural remains; or human skeletal remains) work within 50 feet of the find shall immediately cease until a qualified professional archaeologist can be consulted to evaluate the find and implement appropriate mitigation procedures. If human skeletal remains are encountered, State law requires immediate notification of the County Coroner (530.538.7404). If the County Coroner determines that the remains are in an archaeological context, the Native American Heritage Commission in Sacramento shall be notified immediately, pursuant to State Law, to arrange for Native American participation in determining the disposition of such remains. The provisions of this mitigation shall be followed during construction of all improvements, including land clearing, road construction, utility installation, and building site development.</p>	<p>During all ground disturbance and excavation activities</p>	<p>Applicant/qualified archaeologist</p>	<p>Butte County Planning Division California Register of Historic Resources, Office of Historic Preservation</p>	

Mitigation Measures and Monitoring Requirements

GRADING PERMIT / HOWELL (CEQA23-0001)

Project Sponsor(s) Incorporation of Mitigation into Proposed Project

I/We have reviewed the Initial Study for the Grading Permit for Howell (CEQA23-0001) application and particularly the mitigation measures identified herein. I/We hereby modify the applications on file with the Butte County Planning Department to include and incorporate all mitigations set forth in this Initial Study.



Project Sponsor/Project Agent

12/21/2023
Date

Project Sponsor/Project Agent

Date

Mitigation Measures and Monitoring Requirements

GRADING PERMIT / HOWELL (CEQA23-0001)

MITIGATION MEASURES:

Mitigation Measure AIR-1

The following best practice measures to reduce impacts to air quality shall be incorporated by the project applicant, subject property owners, or third-party contractors during construction activities on the project site. These measures are intended to reduce criteria air pollutants that may originate from the site during the course of land clearing and other construction operations.

Diesel PM Exhaust from Construction Equipment and Commercial On-Road Vehicles Greater than 10,000 Pounds

- All on- and off-road equipment shall not idle for more than five minutes. Signs shall be posted in the designated queuing areas and/or job sites to remind drivers and operators of the five-minute idling limit.
- Idling, staging and queuing of diesel equipment within 1,000 feet of sensitive receptors is prohibited.
- All construction equipment shall be maintained in proper tune according to the manufacturer's specifications. Equipment must be checked by a certified mechanic and determined to be running in proper condition before the start of work.
- Install diesel particulate filters or implement other CARB-verified diesel emission control strategies.
- Shall not operate a diesel-fueled auxiliary power system (APS) to power a heater, air conditioner, or any ancillary equipment on that vehicle during sleeping or resting in a sleeper berth for greater than 5 minutes at any location when within 100 feet of a restricted areas.
- To the extent feasible, truck trips shall be scheduled during non-peak hours to reduce peak hour emissions.

Operational TAC Emissions

- All mobile and stationary Toxic Air Contaminants (TACs) sources shall comply with applicable Airborne Toxic Control Measures (ATCMs) promulgated by the CARB throughout the life of the project.
- Stationary sources shall comply with applicable District rules and regulations.

Fugitive Dust

Construction activities can generate fugitive dust that can be a nuisance to local residents and businesses near a construction site. Dust complaints could result in a violation of the District's "Nuisance" and "Fugitive Dust" Rules 200 and 205, respectively. The following is a list of measures that may be required throughout the duration of the construction activities:

- Reduce the amount of the disturbed area where possible.
- Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. An adequate water supply source must be identified. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible.
- All dirt stockpile areas should be sprayed daily as needed, covered, or a District approved alternative method will be used.

Mitigation Measures and Monitoring Requirements

GRADING PERMIT / HOWELL (CEQA23-0001)

- Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible following completion of any soil disturbing activities.
- Exposed ground areas that will be reworked at dates greater than one month after initial grading should be sown with a fast-germinating non-invasive grass seed and watered until vegetation is established.
- All disturbed soil areas not subject to re-vegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the Butte County Air Quality Management District.
- All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.
- Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site.
- All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with local regulations.
- Install wheel washers where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site.
- Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible.
- Post a sign in prominent location visible to the public with the telephone numbers of the contractor and the Butte County Air Quality Management District - (530) 332-9400 for any questions or concerns about dust from the project.

All fugitive dust mitigation measures required should be shown on grading and building plans. In addition, the contractor or builder should designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. Their duties shall include holidays and weekend period when work may not be in progress. The name and telephone number of such persons shall be provided to the District prior to land use clearance for map recordation and finished grading of the area.

Please note that violations of District Regulations are enforceable under the provisions of California Health and Safety Code Section 42400, which provides for civil or criminal penalties of up to \$25,000 per violation.

Plan Requirements: This note shall also be placed on grading plans and future site development plans.

Timing: Requirements of the condition shall be adhered to throughout all grading and construction periods.

Monitoring: The Butte County Department of Development Services and the Public Works Department shall ensure that the note shall also be placed on grading plans and future development plans. Building inspectors shall spot check and shall ensure compliance on-site. Butte County Air Pollution Control District inspectors shall respond to nuisance complaints.

Mitigation Measures and Monitoring Requirements

GRADING PERMIT / HOWELL (CEQA23-0001)

Mitigation Measure BIO-1

Perform Special Status Plant Surveys. Prior to site disturbance, surveys for the adobe-lily and meadowfoam shall be conducted in accordance with CDFW and CNPS guidelines by a qualified biologist to determine presence or absence on areas proposed for disturbance prior to issuing a grading permit. The survey should be scheduled to coincide with the identified blooming or identification periods for the adobe lily and Butte County meadowfoam (March - April). If either of these species are found, then appropriate mitigation measures should be implemented. A report of survey findings shall be provided to the Butte County Development Services Department.

Plan Requirements: Protocol level surveys for the identified species.

Timing: The survey shall be scheduled to coincide with the identified blooming or identification periods for the adobe lily and Butte County meadowfoam (March - April). All survey work shall be performed prior to any ground disturbing activities.

Monitoring: The Butte County Department of Development Services and the Public Works Department shall ensure the condition is met prior to any development activity at the site. All information and studies conducted in support of this mitigation shall be furnished to the Department of Development Services and Public Works, including all mapped resources, protocol level surveys and mapped delineations.

Mitigation Measure BIO-2

Presence of Butte County meadowfoam and / or adobe lily. This compensatory mitigation may include one or a combination of the following options:

- Purchase BCM credits from an approved mitigation bank within the service area. The actual fee paid shall be that in effect at the time of payment.
- Preserve, as described in the Habitat Mitigation and Monitoring Plan, and enhance BCM and adobe lily habitat within the project site.

In either case, this option would require the preparation of a long-term management plan, subject to approval by USFWS and the County, prior to the start of construction, along with an endowment for the long-term management of the property and a USFWS approved conservation easement to ensure that the population of BCM and adobe lily are protected in perpetuity.

If the adobe lily or Butte County meadowfoam are identified within areas proposed for disturbance, then the following mitigation measure shall be implemented. Prior to ground disturbance, the Applicant shall consult with both the USFWS and the CDFW to obtain authorization for project implementation and develop appropriate type and amount of compensatory mitigation for project impacts to Butte County meadowfoam (BCM) and adobe lily occupied habitat. Preserve and enhance BCM and adobe lily habitat within the project site area pursuant to a Habitat Mitigation and Monitoring Plan approved by the USFWS and the CDFW at a minimum 1:1 ratio for temporary impacts (1.0 acres enhanced over pre-project conditions for every one acre of temporarily impacted habitat) and at the ratios described below for permanent impacts.

Enhancement activities will be detailed in the Habitat Mitigation and Monitoring Plan and will include vegetation management for non-native, annual grasses. In addition, in areas not previously documented to support BCM or adobe lily, but which consist of the same mapped soils association, BCM or adobe lily habitat

Mitigation Measures and Monitoring Requirements

GRADING PERMIT / HOWELL (CEQA23-0001)

will be created through a site-specific restoration plan to mitigate at a 1.5:1 ratio for permanent impacts (1.5 acres created over pre-project conditions for every one acre of permanently impacted habitat).

Because successful creation of the microhabitat required by BCM and/or adobe lily cannot be guaranteed, a performance bond, annual letter of credit, or other such form of security acceptable to the County shall be established prior to restoration activities taking place, to purchase BCM or adobe lily credits at an approved mitigation bank at ratios in an amount equivalent to the costs of purchasing BCM or adobe lily credits or purchasing property shown to support sufficient BCM or adobe lily habitat meeting the ratio requirements outlined in Section (2) of this mitigation, below. The option to purchase the requisite credits for BCM and adobe lily habitat shall be secured by the applicant prior to approval of grading or other work resulting in impacts to BCM and or adobe lily for which mitigation is not already in place.

Creation of BCM and adobe lily habitat will likely consist of seed collection, contouring areas within the onsite area that are currently and historically not occupied by BCM or adobe lily to produce suitable topographical and hydrological conditions for BCM, sowing approximately 50 percent of the collected seed stock (holding the other 50 percent in reserve), and, if necessary, distributing topsoil from impacted BCM and adobe lily areas to the species' habitat creation area scraping topsoil to mimic the soil depth suitable for BCM and adobe lily (~4-6 inch depth of soil over bedrock) adjacent to swale habitat. Topsoil from known locations of these species in the impact area will be salvaged and transplanted to these created areas and observed for three years. Performance will be met only when density of these species in created habitat matches reference population density in preserved habitat.

The success of the on-site preserve for BCM and adobe lily habitat (enhancement and creation) shall be documented with before-and-after protocol-level, floristic, rare plant surveys that compare pre-project baseline BCM and adobe lily acreage and stem counts to post-restoration BCM and adobe lily acreage and stem counts. Biological monitoring for the successful establishment of BCM and adobe lily will be conducted for five years or until the success criteria are met for three years without human intervention.

Monitoring will include: (a) monitoring of general conditions within the species establishment area including documentation of vegetation community, vegetative cover, and the presence of any erosion or sedimentation or other conditions that may be detrimental to the long-term viability of these species populations; (b) the extent of these species occurrence within the creation area will be recorded, following the methodology used to assess occupied habitat, and adjacent known species habitat will also be monitored to provide a reference for species populations; (c) the creation will be deemed successful when three years of monitoring of occupied BCM and adobe lily habitat within the creation areas meets or exceeds the creation ratio (i.e., 1.5:1); and (d) reserved BCM and adobe lily seed can be used during the monitoring period to supplement areas where BCM and adobe lily establishment is not meeting success criteria.

The Habitat Mitigation and Monitoring Plan shall detail methods, locations, and goals for relocating soils from impacted areas to the areas BCM and adobe lily habitat creation efforts, and include contingency measures that address the potential that creation efforts could fall short of stated goals (including security provisions for acquiring off-site BCM habitat as noted above a performance bond posted by the Applicant during the restoration period matching the funding required to purchase credits at a 19:1 ratio); or, (2) Preserve habitat for BCM at a 19:1 ratio (19 acres of preservation for every one acre impacted) for direct impacts and at a 5:1 ratio (five acres of preservation for every one acre impacted) for indirect impacts. However, final habitat acreages, mitigation ratios, and other project-specific compensatory requirements for direct and indirect impacts shall be finalized during consultation between USFWS and the Corps as part of the Section 404 permitting process and during consultation with the CDFW.

Mitigation Measures and Monitoring Requirements

GRADING PERMIT / HOWELL (CEQA23-0001)

Plan Requirements: Protocol level surveys for the identified species, long-term management program and purchasing mitigation credits and / or habitat creation.

Timing: The survey shall be scheduled to coincide with the identified blooming or identification periods for the adobe lily and Butte County meadowfoam (March - April). All survey work shall be performed prior to any ground disturbing activities.

Monitoring: The Butte County Department of Development Services and the Public Works Department shall ensure the condition is met prior to any development activity at the site. All information and studies conducted in support of this mitigation shall be furnished to the Department of Development Services and Public Works, including calculations for mitigation banking and all documentation of purchased mitigation credits.

Mitigation Measure BIO-3

If project construction activities, including site grubbing and vegetation removal, occur during the nesting season for birds protected under the Migratory Bird Treaty Act (MBTA) and California Department Fish & Game Code (CDFC) (approximately February 1 – August 31), the project proponent shall retain a qualified biologist to perform preconstruction surveys for nesting bird species. Surveys to identify active bird nests shall be conducted within and 250 feet around the footprint of proposed construction site. During the survey, the biologist shall also look for evidence of roosting bats. The survey shall be conducted within 7 days prior to the initiation of construction activities. In the event that an active nest or sign of roosting bats is observed, a species protection buffer shall be established. The species protection buffer will be defined by the qualified biologist based on the species, nest type and tolerance to disturbance. Construction activity shall be prohibited within the buffer zones until the young have fledged or the nest fails. Nests shall be monitored by a qualified biologist once per week and a report submitted to the Butte County Department of Development Services.

Plan Requirements: Perform protocol-level surveys for migratory birds and roosting bats, protected by the California Department Fish & Game Code and the Migratory Bird Treaty Act. The note shall be placed on all building and site development plans.

Timing: Requirements of the condition shall be adhered to prior to and during construction activities planned to occur during nesting seasons for CDFC and MBTA species (between February 1 and August 31).

Monitoring: The Butte County Department of Development Services shall ensure the condition is met at the time of development and during construction activities.

Mitigation Measure BIO-4

Aquatic Resources. The applicant shall mitigate the loss of 0.13 acres of seasonal swales through the creation, preservation, or restoration of wetlands, which may include purchasing credits from an agency approved mitigation bank, consistent with applicable regulatory standards in the Clean Water Act or Waste Discharge Requirements (WDRs), as applicable. Mitigation acreage requirements shall be determined in consultation with the U.S. Army Corps of Engineers, and the Regional Water Quality Control Board.

Plan Requirements: This mitigation measure shall be placed on all building and site development plans.

Timing: Prior to ground disturbance

Monitoring: Applicant shall provide evidence from the regulatory agencies that Mitigation Measure BIO-4 was implemented consistent with regulatory agency permit requirements prior to final project approval.

Mitigation Measures and Monitoring Requirements

GRADING PERMIT / HOWELL (CEQA23-0001)

Mitigation Measure CUL-1

If grading activities reveal the presence of prehistoric or historic cultural resources (i.e., artifact concentrations, including arrowheads and other stone tools or chipping debris, cans glass, etc.; structural remains; or human skeletal remains) work within 50 feet of the find shall immediately cease until a qualified professional archaeologist can be consulted to evaluate the find and implement appropriate mitigation procedures. If human skeletal remains are encountered, State law requires immediate notification of the County Coroner (530.538.7404). If the County Coroner determines that the remains are in an archaeological context, the Native American Heritage Commission in Sacramento shall be notified immediately, pursuant to State Law, to arrange for Native American participation in determining the disposition of such remains. The provisions of this mitigation shall be followed during construction of all improvements, including land clearing, road construction, utility installation, and building site development.

Plan Requirements: This note shall be placed on a separate document which is to be recorded concurrently with the map or on an additional map sheet and shall be shown on all site development and building plans.

Timing: This measure shall be implemented during all site preparation and construction activities.

Monitoring: The Department of Development Services and/or Public Works Department shall ensure the note is placed on the Grading Permit development plans. Should cultural resources be discovered, the landowner shall notify the Planning Division and a professional archaeologist. The Planning Division shall coordinate with the developer and appropriate authorities to avoid damage to cultural resources and determine appropriate action. State law requires the reporting of any human remains.

APPENDIX - B

Biological Study

OLBERDING ENVIRONMENTAL, INC.

Wetland Regulation and Permitting

April 6, 2023

Tristan Weems
Butte County Department of Development Services
7 County Center Drive
Oroville, CA 95965

SUBJECT: Hicks Lane Property – Site Evaluation / CEQA Letter of Compliance

Dear Mr. Weems:

On Tuesday, April 4, 2023, Olberding Environmental, Inc. (Olberding Environmental) conducted a reconnaissance-level site evaluation survey of the Hicks Lane Property (Property) located in unincorporated Butte County, California. The purpose of the survey was to determine if site conditions are generally unchanged since the November 12, 2019 survey. This survey was conducted in response to a March 2023 request from the Butte County Senior Planner as a requirement for the initiation of California Environmental Quality Act (CEQA) compliance.

The survey consisted of walking throughout the Property and evaluating the site and adjacent lands for potential changes in site conditions. Existing conditions, plants and wildlife observed, adjacent land use, soils and potential biological resource constraints were recorded during the visit. Existing conditions were compared to the site conditions observed during the November 12, 2019 site visit as recorded in the Biological Resources Analysis Report (Olberding Environmental, Inc., November 2019).

Results of the reconnaissance-level survey conducted by Olberding Environmental indicate that the Property remains unchanged from the November 12, 2019 survey and can continue the CEQA process as needed.

If you have any questions, please feel free to contact me at (925) 866-2111.

Sincerely,



Jeff Olberding
Regulatory Scientist



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SACRAMENTO DISTRICT
1325 J STREET
SACRAMENTO CA 95814-2922

May 22, 2020

Regulatory Division (SPK-2019-00055)

North Valley Towing
Attn: Mr. Greg T. Howell
19 Top Flight Court
Chico, California 95928
greg530@gmail.com

Dear Mr. Howell:

We are responding to your April 6, 2020, request for verification of an aquatic resource delineation for the Hicks Lane Property Fill site. The approximately 12.1-acre project site is located approximately 1.1 miles southwest of the Chico Municipal Airport on Hicks Lane, at coordinates (NAD 83) Latitude 39.7881°, Longitude -121.8699°, in Chico, Butte County, California.

Based on available information, we concur with the aquatic resources delineation for the site, which consists of approximately 2.89 acres of seasonal wetlands, 0.07 acre (1,524 linear feet) of ephemeral drainage, and 0.13 acre of seasonal swales, as depicted on the enclosed November 20, 2019, *Figure 11: Jurisdictional Delineation Map for the Hicks Lane Property* drawing, prepared by Olberding Environmental, Inc., and revised by this office on May 20, 2020 (enclosure 1).

This verification letter does not constitute a determination of jurisdiction. A jurisdictional determination (JD) is not required to process an application for a Department of the Army permit. If you do not require a JD for the site, your permit application may be processed sooner.

You may request a JD for this site at any time prior to starting work in aquatic resources, including after a permit decision is made. To request a JD for this site, complete the attached *Request for Jurisdictional Determination Form* (enclosure 2) and return it, along with the information required to process a JD, to this office at the electronic mail address listed on the form.

Please refer to identification number SPK-2019-00055 in any correspondence concerning this project. If you have any questions, please contact Mr. Nathaniel Duyck at 1325 J Street, Room 1350, Sacramento, California 95814, by email at Nathaniel.F.Duyck@usace.army.mil, or telephone at (916) 557-6883. For program information or to complete our Customer Survey, visit our website at www.spk.usace.army.mil/Missions/Regulatory.aspx.

Sincerely,

A handwritten signature in blue ink that reads "Leah M. Fisher".

Leah Fisher
Senior Project Manager
CA North Section

Enclosures

cc: (w/encls)

Mr. Jeff Olberding, Olberding Environmental, Inc.; jeff@olberdingenv.com

BIOLOGICAL RESOURCES ANALYSIS REPORT

FOR THE

HICKS LANE PROPERTY

BUTTE COUNTY, CALIFORNIA



Prepared for:

MR. GREG HOWELL.

19 Top Flight Court

Chico, CA 95928

Prepared by:

OLBERDING ENVIRONMENTAL, INC.

Wetland Regulatory Consultants

3170 Crow Canyon Place, Suite 260

San Ramon, California 94583

Phone: (925) 866-2111 ~ Fax: (925) 866-2126

E-mail: jeff@olberdingenv.com

Contact: Jeff Olberding

NOVEMBER 2019

TABLE OF CONTENTS

SUMMARY	1
1.0 INTRODUCTION	2
2.0 LOCATION	2
3.0 PROPERTY DESCRIPTION	3
4.0 REGULATORY SETTING	4
4.1 Federal Regulatory Setting	4
4.1.1 Plants and Wildlife	4
4.1.2 Wetlands/Waters	4
4.1.3 Migratory Bird Treaty Act	5
4.1.4 Federal Bald and Golden Eagle Protection Act	6
4.2 State Regulatory Setting	6
4.2.1 Plants and Wildlife	6
4.2.2 Wetlands/Waters	7
4.2.3 California Environmental Quality Act	8
5.0 METHODS OF ANALYSIS FOR GENERAL BIOLOGICAL RESOURCES	9
5.1 Soils Evaluation	10
5.2 Plant Survey Methods	10
5.2.1 Review of Literature and Data Sources	11
5.2.2 Field Surveys	11
5.3 Wildlife Survey Methods	11
5.3.1 Review of Literature and Data Sources	11
5.3.2 Field Surveys	12
6.0 RESULTS FOR GENERAL BIOLOGICAL RESOURCES	12
6.1 Soil Evaluation Results	12
6.1.1 Soil Analysis Within the Wetlands	14
6.2 Plant Survey Results	15
6.2.1 Floristic Inventory and Habitat Characterization	15
6.3 Wildlife Survey Results	18
6.3.1 General Wildlife Species and Habitats	18
7.0 CONCLUSIONS	25
7.1 Wetlands	25
7.2 Special-status Plants	25
7.3 Special-status Wildlife	25
8.0 RECOMMENDATIONS	26
9.0 LITERATURE CITED	28

LIST OF ATTACHMENTS

ATTACHMENT 1 FIGURES

Figure 1	Regional Map
Figure 2	Vicinity Map
Figure 3	USGS Topographic Map
Figure 4	Aerial Map
Figure 5	CNDDDB Wildlife Occurrences within 5 miles
Figure 6	CNDDDB Plant Occurrences within 5 miles
Figure 7	USFWS Critical Habitat
Figure 8	Soils Map
Figure 9	Photo Location Map
Figure 10	Habitat Map
Figure 11	Jurisdictional Delineation Map

ATTACHMENT 2 TABLES

Table 1	Plant and Wildlife Species Observed Within/Adjacent to the Survey Area
Table 2	Special-Status Species Occurring Within/Adjacent to the Survey Area

ATTACHMENT 3 SITE PHOTOGRAPHS

ATTACHMENT 4 ARID WEST DATA SHEETS

This report should be cited as: Olberding Environmental, Inc. November 2019. *Biological Resources Analysis Report for the Hicks Lane Property, Butte County, California*. Prepared for Mr. Greg Howell.

SUMMARY

On November 12, 2019, Olberding Environmental, Inc. conducted a field reconnaissance survey of the Hicks Lane Property (Property) for the purpose of identifying sensitive plant and wildlife species, sensitive habitats, and biological constraints potentially occurring on the Property. The Property surveyed is comprised of approximately 12.1 acres located in unincorporated Butte County, California.

Results of the initial reconnaissance survey indicate that the Property contains wetlands/waters that might be considered jurisdictional by the U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (RWQCB), and/or the California Department of Fish and Wildlife (CDFW). The Property contains three ephemeral drainage features totaling 0.07 acres and three seasonal wetlands totaling 2.89 acres. These features showed all three criteria required to be considered jurisdictional: hydrophytic vegetation, evidence of hydrology, and hydric soils. Additionally, the Property contains two seasonal swales totaling 0.13 acres that may not be considered jurisdictional, as they lacked a defined channel and did not contain all three wetland criteria. If any project related activities are to occur within these features a Corps permit would be required. A map showing these features can be seen in Attachment 1, Figure 11. Arid west data sheets are provided as Attachment 4.

A query of the California Natural Diversity Database (CNDDDB) showed that two special-status plant species have a high potential to occur on the Property. The adobe lily (*Fritillaria pluriflora*) and Butte County meadowfoam (*Limnanthes floccosa ssp. californica*) identified as having the potential to occur on the Property based on the presence of suitable habitat for these species and a CNDDDB occurrence located on or immediately adjacent to the Property. Suitable habitats for these plant species occurs throughout the Property within the grassland, seasonal wetlands and swales. Olberding Environmental recommends that a rare plant survey be conducted prior to any construction activities to document presence or absence of this species and to determine the need for mitigation. These special status plants bloom in the early spring, and should be surveyed between March and April by a qualified biologist to determine presence or absence.

A total of six bird species were identified to have a moderate to high potential to occur on the Property in a nesting or foraging capacity. The red-shouldered hawk (*Buteo lineatus*), red-tailed hawk (*Buteo jamaicensis*), white-tailed kite (*Elanus leucurus*), American kestrel (*Falco sparverius*) and Cooper's hawk (*Accipiter cooperii*) all have a high potential to occur in a nesting and foraging capacity. The Swainson's hawk (*Buteo swainsoni*) has a moderate potential to occur in a nesting and foraging capacity. Two of the six birds listed above red-tailed hawk and American kestrel were present, observed foraging on the Property. If project construction-related

activities such as tree and vegetation removal or grading take place during the nesting season (February through August), preconstruction surveys for nesting passerine birds and raptors are recommended.

Three species of special status invertebrates were identified as having the potential to occur on the Property: vernal pool fairy shrimp (*Lepidurus packardii*), vernal pool tadpole shrimp (*Branchinecta lynchi*), and California linderiella (*Linderiella occidentalis*). All of these species have a high potential to occur on the Property due to the presence of suitable vernal pool/wetland habitat and the close proximity of several CNDDDB occurrences.

No sign of bat use was observed on the Property during the October 2019 survey; however, based on habitat suitability, it was determined that bats have a moderate potential to utilize the site in a roosting and foraging capacity. Special status bat species with potential to occur include pallid bat (*Antrozous pallidus*) and hoary bat (*Lasiurus cinereus*). If project construction-related activities such as tree removal take place it is recommended that a bat habitat assessment be conducted by a qualified bat biologist during seasonal periods of bat activity to determine suitability of the on-site habitat. If special-status bat species are discovered, construction activities may be timed to minimize impacts and additional mitigation may be required.

1.0 INTRODUCTION

Olberding Environmental, Inc. has conducted a biological resources analysis (biological constraints assessment) of the Hicks Lane Property, located in unincorporated Butte County, California. This biological resources analysis included a review of pertinent literature on relevant background information and habitat characteristics of the site. Our review included researching existing information in the California Natural Diversity Database (CNDDDB) maintained by the CDFW and the California Native Plant Society's (CNPS) *Inventory of Rare and Endangered Vascular Plants of California*. Also included was a review of information related to species of plants and animals that could potentially utilize the described habitats identified on and immediately surrounding the Property. To assist in the assessment, a field reconnaissance investigation of the Property was conducted on November 12, 2019. This report documents the methods, results, and conclusions for the reconnaissance-level survey associated with the biological resources analysis for the Property.

2.0 LOCATION

The Property is located approximately 1.1 miles southwest of the Chico Municipal Airport, on Hicks Lane, Butte County, California. The Property itself lies just outside the City limits of Chico. Attachment 1, Figure 1 depicts the regional location of the Property in Butte County, and illustrates the vicinity of the Property in relationship to the City of Chico. Attachment 1, Figure

3 identifies the location of the Property on the USGS 7.5 Quadrangle Map for Richardson Springs. An aerial photograph of the Property has been included as Attachment 1, Figure 4.

Access to the Property is provided from Highway 99. From Chico, take Highway 99 North for approximately 3.7 miles, then take exit 389 for Eaton Road. After exiting, turn right onto Eaton Road and travel for approximately 125 feet before turning left onto Hicks Lane. The Property will be on the right side after approximately 0.9 miles.

3.0 PROPERTY DESCRIPTION

The Property encompasses approximately 12.1 acres in a rectangular shape bounded on the north and east by open space, residential development to the west, and a small ranchette to the south. The Property supports four habitat types consisting of ruderal grassland, seasonal wetland, seasonal swale, and ephemeral drainage. Characteristic vegetation within the ruderal grassland includes medusa head (*Taeniatherum caput-medusae*), Italian ryegrass (*Festuca perennis*), turkey mullein (*Croton setiger*), prickly lettuce (*Lactuca serriola*), and vinegarweed (*Trichostema lanceolatum*). The southern boundary of the Property is lined with eucalyptus (*Eucalyptus sp.*) trees and ornamental species.

Three ephemeral drainages occur on the Property. The first drainage (ED1) is a ditch-like channel that runs along the northern Property boundary and occupies 0.04 acres, or 914 linear feet (lnft). The second drainage (ED2) is a larger, cobble-lined channel that flows across the northwestern corner of the Property and occupies 0.01 acres or 280 lnft. This channel is fed by two culverts on the northern edge of the Property and exits the western side of the Property via a box culvert below Hicks Lane. The third drainage (ED3) is also cobble-lined and flows along the southern boundary of the Property and occupies 0.02 acres or 330 lnft.

The Property also contains three seasonal wetlands. The first wetland (SW1) is the largest at 2.75 acres and extends across the majority of the eastern and southern portions of the Property. This wetland is best described as a complex of vernal pools and swales that flow between and around shallow upland mounds. SW1 is fed by a culvert present on the northern boundary of the Property. The second seasonal wetland (SW2) immediately surrounds ED2 in the northwestern corner of the Property and occupies 0.13 acres. The third and final wetland (SW3) is 0.01 acres and is present along the southern Property boundary and is fed by ED3. Additionally, two seasonal swales (SS1 and SS2) are present in the northwestern portion of the Property. These features occupy 0.13 acres and are most likely non-jurisdictional due to the absence of hydrologic indicators or a defined channel.

The topography of the Property consists of relatively flat land with scattered raised mounds, primarily located in the eastern half of the site. Elevation ranges between 187 feet above sea

level in the southwestern corner of the Property and 193 feet above sea level in the northeastern corner.

4.0 REGULATORY SETTING

4.1 Federal Regulatory Setting

4.1.1 Plants and Wildlife

The federal Endangered Species Act (ESA) of 1973 (16 USC 1531 et seq., as amended) prohibits federal agencies from authorizing, permitting, or funding any action that would result in biological jeopardy to a plant or animal species listed as Threatened or Endangered under the Act. Listed species are taxa for which proposed and final rules have been published in the Federal Register (U.S. Fish and Wildlife Service [USFWS] 2019a). If a proposed project may jeopardize listed species, Section 7 of the ESA requires consideration of those species through formal consultations with the USFWS. Federal Proposed species (USFWS, 2019b) are species for which a proposed listing as Threatened or Endangered under ESA has been published in the Federal Register. If a proposed project may jeopardize proposed species, Section 7 of the ESA affords consideration of those species through informal conferences with USFWS. The USFWS defines federal Candidate species as “those taxa for which we have on file sufficient information on biological vulnerability and threats to support issuance of a proposed rule to list, but issuance of the proposed rule is precluded by other higher priority listing actions” (USFWS, 2019b). Federal Candidate species are not afforded formal protection, although USFWS encourages other federal agencies to give consideration to Candidate species in environmental planning.

4.1.2 Wetlands/Waters

The federal government, acting through the Corps and the Environmental Protection Agency (EPA), has jurisdiction over all “waters of the United States” as authorized by §404 of the Clean Water Act (CWA) and §10 of the Rivers and Harbors Act of 1899 (33 CFR Parts 320-330). Properties that cause the discharge of dredged or fill material into waters of the United States require permitting by the Corps. Actions affecting small areas of jurisdictional waters of the United States may qualify for a Nationwide Permit (NWP), provided conditions of the permit are met, such as avoiding impacts to threatened or endangered species or to important cultural sites. Properties that affect larger areas or which do not meet the conditions of an NWP require an Individual Permit. The process for obtaining an Individual Permit requires a detailed alternatives analysis and development of a comprehensive mitigation/monitoring plan. Waters of the United States are classified as wetlands, navigable waters, or other waters. Wetlands are transitional habitats between upland terrestrial areas and deeper aquatic habitats such as rivers and lakes. Under federal regulation, wetlands are defined as “those areas that are inundated or saturated by

surface or ground water at a frequency and duration sufficient to support, and that under normal conditions do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR Part 328.3[b]). Swamps, marshes, bogs, fens, and estuaries are all defined as wetlands, as are seasonally saturated or inundated areas such as vernal pools, alkali wetlands, seeps, and springs. In addition, portions of the riparian habitat along a river or stream may be a wetland where the riparian vegetation is at or below the ordinary high water mark and thus also meets the wetland hydrology and hydric soil criteria.

Navigable waters include all waters subject to the ebb and flow of the tides, including the open ocean, tidal bays, and tidal sloughs. Navigable waters also include some large, non-tidal rivers and lakes, which are important for transportation in commerce. The jurisdictional limit over navigable waters extends laterally to the entire water surface and bed of the waterbody landward to the limits of the mean high tide line. For non-tidal rivers or lakes, which have been designated (by the Corps) to be navigable waters, the limit of jurisdiction along the shoreline is defined by the ordinary high water mark. “Other waters” refer to waters of the United States other than wetlands or navigable waters. Other waters include streams and ponds, which are generally open water bodies and are not vegetated. Other waters can be perennial or intermittent water bodies and waterways. The Corps regulates other waters to the outward limit of the ordinary high water mark. Streams should exhibit a defined channel, bed and banks to be delineated as other waters.

The Corps does not generally consider “non-tidal drainage and irrigation ditches excavated on dry land” to be jurisdictional waters of the United States (and such ditches would therefore not be regulated by the Corps (33 CFR Parts 320-330, November 13, 1986). Other areas generally not considered jurisdictional waters include: 1) artificially irrigated areas that would revert to upland habitat if the irrigation ceased; 2) artificial lakes and ponds created by excavating and/or diking of dry land to collect and retain water, used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing; 3) waste treatment ponds; 4) ponds formed by construction activities including borrow pits until abandoned; and 5) ponds created for aesthetic reasons such as reflecting or ornamental ponds (33 CFR Part 328.3). However, the preamble also states “the Corps reserves the right on a case-by-case basis to determine that a particular waterbody within these categories” can be regulated as jurisdictional water. The EPA also has authority to determine jurisdictional waters of the U.S. on a case-by-case basis. Riparian habitat that is above the ordinary high water mark and does not meet the three-parameter criteria for a wetland would not be regulated as jurisdictional waters of the United States.

4.1.3 Migratory Bird Treaty Act

Raptors are migratory bird species protected by international treaty under the Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR. Part 10, including

feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). Sections 3503, 3503.5, and 3800 of the California Fish and Game Code prohibit the take, possession, or destruction of birds, their nests or eggs. Implementation of the take provisions requires that Property-related disturbance at active nesting territories be reduced or eliminated during critical phases of the nesting cycle (generally February 1 – September 1, annually). Disturbance that causes nest abandonment and/or loss of reproductive effort (e.g., killing or abandonment of eggs or young) or the loss of habitat upon which the birds depend, is considered “taking” and is potentially punishable by fines and/or imprisonment. Such taking would also violate federal law protecting migratory birds (e.g., MBTA).

4.1.4 Federal Bald and Golden Eagle Protection Act

In addition to protection under the MBTA, both the bald eagle and the golden eagle are also protected by the Bald and Golden Eagle Protection Act of 1940 (16 U.S.C. 668-668c). The Bald and Golden Eagle Protection Act, and amended several times since being enacted in 1940, prohibits anyone, without a permit issued by the Secretary of the Interior, from “taking” bald or golden eagles, including their parts, nests, or eggs (USFWS 2007). The Act provides criminal penalties for persons who “take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof.” The Act defines “take” as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb” (USFWS 2007).

For purposes of these guidelines, “disturb” means: “to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior” (USFWS 2007).

In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle’s return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death or nest abandonment (USFWS 2007).

4.2 State Regulatory Setting

4.2.1 Plants and Wildlife

Property permitting and approval requires compliance with California Environmental Quality Act (CEQA), the 1984 California Endangered Species Act (CESA), and the 1977 Native Plant

Protection Act (NPPA). The CESA and NPPA authorize the California Fish and Game Commission to designate Endangered, Threatened and Rare species and to regulate the taking of these species (§§2050-2098, Fish & Game Code). The California Code of Regulations (Title 14, §670.5) lists animal species considered Endangered or Threatened by the State.

The Natural Heritage Division of the CDFW administers the state rare species program. The CDFW maintains lists of designated Endangered, Threatened, and Rare plant and animal species (CDFW 2019b and 2019c). Listed species either were designated under the NPPA or designated by the Fish and Game Commission. In addition to recognizing three levels of endangerment, the CDFW can afford interim protection to candidate species while they are being reviewed by the Fish and Game Commission.

The CDFW also maintains a list of animal species of special concern (CDFW 2019b), most of which are species whose breeding populations in California may face extirpation. Although these species have no legal status, the CDFW recommends considering them during analysis of proposed property impacts to protect declining populations and avoid the need to list them as endangered in the future.

Under provisions of §15380(d) of the CEQA Guidelines, the CEQA lead agency and CDFW, in making a determination of significance, must treat non-listed plant and animal species as equivalent to listed species if such species satisfy the minimum biological criteria for listing. In general, the CDFW considers plant species on List 1A (Plants Presumed Extinct in California), List 1B (Plants Rare, Threatened, or Endangered in California and elsewhere), or List 2 (Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere) of the CNPS *Inventory of Rare and Endangered Vascular Plants of California* (Skinner and Pavlik 1994) as qualifying for legal protection under §15380(d). Species on CNPS Lists 3 or 4 may, but generally do not, qualify for protection under this provision.

Sensitive habitats include riparian corridors, wetlands, habitats for legally protected species and CDFW Species of Special Concern, areas of high biological diversity, areas providing important wildlife habitat, and unusual or regionally restricted habitat types. Habitat types considered sensitive include those listed on the CNDDDB working list of “high priority” habitats (i.e., those habitats that are rare or endangered within the borders of California) (Holland 1986).

4.2.2 Wetlands/Waters

The RWQCB regulates activities in wetlands and other waters through §401 of the Clean Water Act. Section 401 requires a state water quality certification for properties subject to 404 regulations. Requirements of the certification include mitigation for loss of wetland habitat. In the San Francisco Bay region, the RWQCB may identify additional wetland mitigation beyond the mitigation required by the Corps. California Fish and Game Code §§1600-1607 require the

CDFW be notified of any activity that could affect the bank or bed of any stream that has value to fish and wildlife. Upon notification, the CDFW has the discretion to execute a Streambed Alteration Agreement. The CDFW defines a stream as follows:

“... a body of water that flows at least periodically...through a bed or channel having banks and supporting fish and other aquatic life. This includes watercourses having a subsurface flow that supports or has supported riparian vegetation.”

(Source: Streambed Alteration Program, California Department of Fish and Wildlife, 2016).

In practice, CDFW authority is extended to any “blue line” stream shown on a USGS topographic map, as well as unmapped channels with a definable bank and bed. Wetlands, as defined by the Corps, need not be present for CDFW to exert authority.

4.2.3 California Environmental Quality Act

According to Appendix G of the CEQA (CEQA 2019) Guidelines, a proposed project would have a significant impact on biological resources if it would:

- a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW and USFWS?
- b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFW or USFWS?
- c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
- d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?
- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
- f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

5.0 METHODS OF ANALYSIS FOR GENERAL BIOLOGICAL RESOURCES

A special-status plant and wildlife species database search and review was conducted using the CNDDDB and other sources. An additional search was conducted for special-status plants using CNPS *Inventory* on-line. Special-status species reports were accessed by searching the CNDDDB database for the Richardson Springs, Campbell Mound, Cohasset, Paradise West, Hamlin Canyon, Chico, Ord Ferry, Nord, and Richardson Springs NW USGS 7.5-minute quadrangles which surround the Property, and by examining those species that have been identified in the vicinity of the Property. These quadrangles will be henceforth noted as surrounding quads. The database report identified special-status species known to occur in the region or those that have the potential to occur in the vicinity of the Property. The CNDDDB report was used to focus special-status species analysis of the site prior to the reconnaissance surveys.

An Olberding Environmental biologist conducted a reconnaissance-level survey of the Property on November 12, 2019. The survey consisted of walking throughout the Property and evaluating the site and adjacent lands for potential biological resources. Existing conditions, observed plants and wildlife, adjacent land use, soils and potential biological resource constraints were recorded during the visit. Plant and wildlife species observed within and adjacent to the Property during the reconnaissance survey are listed in Attachment 2, Table 1.

The objectives of the field survey were to determine the potential presence or absence of special-status species habitat listed in the CNDDDB database report and to identify any wetland areas that could be potentially regulated by the Corps, RWQCB, and/or CDFW (CNDDDB 2019). In addition, the Olberding Environmental biologist looked for other potential sensitive species or habitats that may not have been obvious from background database reports or research. Surveys conducted after the growing season or conducted outside of the specific flowering period for a special-status plant cannot conclusively determine the presence or absence of such plant species; therefore, site conditions and habitat type were used to determine potential for occurrence. When suitable habitat was observed to support a special-status plant or animal species, it was noted in the discussion for that particular species. Regulatory agencies evaluate the possibility of occurrence based on habitats observed on-site and the degree of connectivity with other special-status animal habitats in the vicinity of the Property. These factors are discussed in each special-status plant or animal section. Potential for occurrence of each special-status or protected plant and animal species was evaluated using the following criteria.

- **Present:** The species has been recorded by CNDDDB or other literature as occurring on the Property and/or was observed on the Property during the reconnaissance survey or protocol surveys.

- **May Occur:** The species has been recorded by CNDDDB or other literature as occurring within five miles of the Property, and/or was observed within five miles of the Property, and/or suitable habitat for the species is present on the Property or its immediate vicinity.
- **Not Likely to Occur:** The species has historically occurred on or within five miles of the Property, but has no current records. The species occurs within five miles of the Property but only marginally suitable habitat conditions are present. The Property is likely to be used only as incidental foraging habitat or as an occasional migratory corridor.
- **Presumed Absent:** The species will not occur on the Property due to the absence of suitable habitat conditions, and/or the lack of current occurrences. Alternatively, if directed or protocol-level surveys were done during the proper occurrence period and the species was not found, it is presumed absent.

Sources consulted for agency status information include USFWS (2019a) for federally listed species and CDFW (2019b) for State of California listed species. Based on information from the above sources, Olberding Environmental developed a target list of special-status plants and animals with the potential to occur within or in the vicinity of the Property (Attachment 2, Table 2).

5.1 Soils Evaluation

The soils present on a property may determine if habitat on the site is suitable for certain special-status plants and animals. The host plants of some special-status invertebrates may also require specific soil conditions. In the absence of suitable soil conditions, special-status plants or animals requiring those conditions would be presumed absent. Information regarding soil characteristics for the Property was obtained by viewing the Natural Resources Conservation Service (NRCS) Web Soil Survey report for the Property (NRCS 2019)

5.2 Plant Survey Methods

The purposes of the botanical surveys were (1) to characterize the habitat types (plant communities) of the study area; (2) to determine whether any suitable habitat for any special-status plant species occurs within the study area; and (3) to determine whether any sensitive habitat types (wetlands) occur within the study area. Site conditions and plant habitat surveys are important tools in determining the potential occurrence of plants not recorded during surveys (e.g., special-status plants) because presence cannot conclusively be determined if field surveys are conducted after the growing season or conducted outside a specific flowering period.

5.2.1 Review of Literature and Data Sources

The biologist conducted focused surveys of literature and special-status species databases in order to identify special-status plant species and sensitive habitat types with potential to occur in the study area. Sources reviewed included the CNDDDB occurrence records (CNDDDB 2019) and CNPS *Inventory* (Skinner and Pavlik 1994) for the surrounding quads; and standard flora (Hickman 1993). From the above sources, a list of special-status plant species with potential to occur in the Property vicinity was developed (Attachment 2, Table 2).

5.2.2 Field Surveys

A biologist from Olberding Environmental conducted a reconnaissance-level survey to determine habitat types and the potential for special-status plants based on the observed habitat types. All vascular plant species that were identifiable at the time of the survey were recorded and identified using keys and descriptions in Hickman (1993).

The habitat types occurring on the Property were characterized according to pre-established categories. In classifying the habitat types on the site, the generalized plant community classification schemes of *A Manual of California Vegetation* (Sawyer, Keeler-Wolf, and Evens 2009) were consulted. The final classification and characterization of the habitat types of the study area were based on field observations.

5.3 Wildlife Survey Methods

The purposes of the wildlife survey were to identify special-status wildlife species and/or potential special-status wildlife habitats within the study area.

5.3.1 Review of Literature and Data Sources

A focused review of literature and data sources was conducted in order to determine which special-status wildlife species had potential to occur in the vicinity of the Property. Current agency status information was obtained from USFWS (2019a) for species listed as Threatened or Endangered, as well as Proposed and Candidate species for listing, under the federal ESA; and from CDFW (2019b, 2019c) for species listed as Threatened or Endangered by the state of California under the CESA, or listed as “species of special concern” by CDFW. From the above sources, a list of special-status wildlife species with potential to occur in the Property vicinity was developed (Attachment 2, Table 2).

5.3.2 Field Surveys

General Wildlife Survey – An Olberding Environmental biologist conducted a survey of species habitat within the entire study area, including visible portions of the adjacent properties. The purpose of the habitat survey was to evaluate wildlife habitats and the potential for any protected species to occur on or adjacent to the Property.

Reconnaissance-Level Raptor Survey – A reconnaissance-level raptor survey was conducted on the Property. Observation points were established on the periphery of the site to view raptor activity over a fifteen- to thirty-minute time period. This survey was conducted with the use of binoculars and notes were taken for each species occurrence. Additionally, utility poles and perch sites in the vicinity of the Property were observed. All raptor activity within and adjacent to the Property was recorded during the reconnaissance-level observation period.

Reconnaissance-Level Burrowing Owl (*Athene cunicularia*) Survey – A reconnaissance-level burrowing owl (*Athene cunicularia*) survey was also conducted on the Property to identify potential burrow sites or burrowing owl use of on-site habitat. The general presence and density of suitable burrow sites (e.g., rodent burrows) was evaluated for the Property.

6.0 RESULTS FOR GENERAL BIOLOGICAL RESOURCES

The search and review of the CNDDDB database reports revealed the occurrence of special-status plant and wildlife species that occur in the habitats found within the Property boundaries (CNDDDB 2019). The CNDDDB database and background data were reviewed for the surrounding quads (Attachment 2, Table 2). Those animals listed in Attachment 2, Table 2 were reviewed for their potential to occur on the Property based on general habitat types. Most of the plant and several of the animal species identified by the CNDDDB require specific habitat microclimates that were not found to occur within the Property.

6.1 Soil Evaluation Results

The NRCS (2019) reports two soil types within the Property. A map of this soil type can be found in Attachment 1, Figure 8. The soil type mapped included the following:

- **302: Redtough-Redswale, 0 to 2 percent slopes** – The composition of this soil type within the Property consists of 50 percent Redtough soils and 35 percent Redswale soils.

The Redtough series consists of shallow, somewhat poorly drained soils that formed in alluvium from predominantly volcanic rocks. Redtough soils are on mounds and risers on high fan terraces and are on strath terraces on Cascade foothills.

Typically, Redtough soils exhibit very high runoff and feature moderate saturated conductivity between the A and BT horizons, and are impermeable in the Bqm horizon. These soils are used mainly for livestock, grazing, wildlife habitat, watershed and home site development. Principal vegetation is soft chess, medusahead, filaree, popcorn flower, shooting star, brodiaea, red brome, ruggut brome, mouse barley, butter-n-eggs, blue dicks, tidytips, goldfields, yellow carpet, soap plant, yellow star thistle, Mediterranean barley, vetch, hairy pink, and dandelion. Its stratified layers consist of the following (colors are for dry soil unless otherwise stated):

A--0 to 1 inch; reddish brown loam, dark reddish brown moist; 19 percent clay; slightly hard, friable, slightly sticky and slightly plastic; 10 percent gravel; slightly acid (pH 6.2).

Bt1--1 to 7 inches; yellowish red gravelly loam, dark reddish brown moist; 25 percent clay; moderately hard, firm, slightly sticky and slightly plastic; 15 percent gravel and 5 percent cobbles; slightly acid (pH 6.5).

Bt2--7 to 13 inches; yellowish red very cobbly loam, dark reddish brown moist; 26 percent clay; slightly hard, firm, slightly sticky and slightly plastic; 10 percent gravel and 25 percent cobbles; slightly acid (pH 6.5).

Bqm-- 13 inches; indurated duripan; 1/8-inch manganese capping.

The Redswale series consists of very shallow, poorly drained soils that formed in alluvium from predominantly volcanic rocks. Redtough soils are in swales on high fan terraces and are on strath terraces on Cascade foothills.

Typically, Redswale soils exhibit very high runoff and feature moderate saturated conductivity between the A and BT horizons, and are impermeable in the Bqm horizon. These soils are used mainly for livestock, grazing, wildlife habitat, watershed and home site development. Principal vegetation is ryegrass, soft chess, filaree, goldfields, navarretia, Mediterranean barley, tidytips, brodiaea, pepperweed, woolly marbles, cowbag clover, soap plant, mouse barley, and other plants adapted to vernal wet conditions. Its stratified layers consist of the following (colors are for dry soil unless otherwise stated):

A--0 to 1 inch; reddish yellow cobbly loam, dark reddish brown moist; 19 percent clay; slightly hard, friable, slightly sticky and slightly plastic; 10 percent gravel and 15 percent cobbles; slightly acid (pH 6.3).

Bt--1 to 7 inches; yellowish red very cobbly loam, dark reddish brown moist; 26 percent clay; moderately hard, firm, slightly sticky and slightly plastic; 15 percent gravel and 25 percent cobbles; neutral (pH 6.7).

Bqm—7 to 13 inches; indurated duripan; 1/16-inch manganese capping.

- **336: Galt clay, 0 to 1 percent slopes** – The Galt series consists of moderately deep, moderately well drained soils that formed in fine textured alluvium from mixed but dominantly granitic rock sources. Galt soils are on low terraces, basins and basin rims and have slopes of 0 to 5 percent. The composition of this soil type within the Property consists of 90 percent Galt and similar soils, and 10 percent of minor components including Anita (3%), Unnamed (3%), Bosquejo (2%), and Conejo (2%).

Typically, Galt soils exhibit slow permeability and runoff is ponded to medium. Some areas are rarely or occasionally flooded for brief to long periods in December through April. These soils are used mostly for range, dryland crops, irrigated pasture, rice and irrigated field crops. Vegetation is mostly soft chess, annual ryegrass, foxtail fescue, broadleaf filaree, and clovers. Its stratified layers consist of the following (colors are for dry soil unless otherwise stated):

A--0 to 5 inches; grayish brown clay, very dark grayish brown moist; very hard, firm, sticky and plastic; slightly acid (pH 6.5).

Bss1--5 to 13 inches; grayish brown clay, very dark grayish brown moist; very hard, firm, sticky and plastic; slightly acid (pH 6.5).

Bss2--13 to 22 inches; mixed grayish brown and brown clay, dark brown moist; extremely hard, very firm, very sticky and very plastic; slightly acid (pH 6.5).

Bw--22 to 32 inches; mixed grayish brown and brown clay, dark brown moist; extremely hard, very fine, very sticky and very plastic; moderately alkaline (pH 8.0).

Bkqm--32 to 60 inches; variegated white, light yellowish brown, yellowish red continuous silica pan; moderately alkaline (pH 8.0).

6.1.1 Soil Analysis Within the Wetlands

The soils were analyzed for color within the Property. A total of 16 soil pits were dug by shovel to a maximum depth of 6 inches at locations representative of various hydrogeomorphic surface

conditions of the seasonal wetlands, drainages, and upland; sample pits are typically dug to a depth of 12 inches but due to the presence of a concrete-like duripan and the high rock/cobble content of the soils, the biologist was unable to dig past a depth of 6 inches. The upland points are distinguished by “A” and the wetland positions “B.”

The wetland position’s soil colors across the Property were 5YR 5/2, 3/3, and 5/3 with prominent redoximorphic features. The redox concentrations within the wetland sample points were nearly all 5YR 5/8. Each soil sampled were generally a cobbly or rocky loam texture. The upland positions were 10YR 3/3 and also contained a cobbly loam texture. A distinction between the uplands and wetlands could not always be determined based on soil colors and textures within the Property, as most of the soils exhibited very red soils. Vegetation and signs of hydrology were used to distinguish the upland versus the wetland positions.

6.2 Plant Survey Results

6.2.1 Floristic Inventory and Habitat Characterization

The Property supports four habitat types consisting of ruderal grassland, seasonal wetland, seasonal swale, and ephemeral drainage. In classifying the habitat types on the Property, generalized plant community classification schemes were used (Sawyer, Keeler-Wolf, and Evens 2009). The final classification and characterization of the habitat type of the Property was based on field observations.

The habitat type and a description of the plant species present within the habitat type are provided below. Dominant plant species are also noted. A complete list of plant species observed on the Property can be found within Attachment 2, Table 1.

Ruderal Grassland

A large majority of the Property is dominated by ruderal grassland habitat. Dominant vegetation observed within this habitat type includes but is not limited to medusa head, Italian ryegrass, turkey mullein, carlessweed (*Amaranthus palmeri*), tumbleweed (*Amaranthus albus*), prickly lettuce, and vinegarweed.

Ephemeral Drainage

The Property contains three ephemeral drainage features. Vegetation within ED1 was consistent with the ruderal grassland habitat and included species such as medusa head, spikeweed (*Centromadia fitchii*) (FACU), and yellow star thistle (*Centaurea solstitialis*).

Cover within ED2 was primarily comprised of rocks and cobble, but several species such as spikeweed (FACU), curly dock (*Rumex crispus*) (FAC), Italian ryegrass (FAC), great valley button celery (*Eryngium castrense*) (OBL), and European heliotrope (*Heliotropium europaeum*) were found in the channel. Ground cover within ED2 also included biotic crust, which is a hydrologic indicator. Additional indicators of hydrology include drainage patterns and oxidized rhizospheres among living roots.

Cover within ED3 was mostly cobble, but surrounding vegetation was consistent with the ruderal grassland. Ground cover within ED3 also included biotic crust, which is a hydrologic indicator.

Seasonal Wetland

There are three seasonal wetlands found within the Property. The ephemeral drainage (ED2) in the northwestern corner of the Property is immediately surrounded by a seasonal wetland (SW2) and is characterized by hydrophytic plants such as curly dock, Italian ryegrass, and great valley button celery.

SW1 is a large mosaic of upland mounds and swale- and vernal-pool like wetlands, many of which contained cobble or bare ground as the dominant cover. Vegetation within the fringes of SW1 was consistent with the surrounding grasslands. Vegetation within the wetland basins consisted of wetland species such as great valley button celery (OBL), Italian ryegrass (FAC), curly dock (FAC), annual hairgrass (*Deschampsia danthonioides*) (FACW), and California amaranth (*Amaranthus californicus*) (FACW). In some areas, upland vegetation such as medusa head was the dominant cover; the vernal nature of the wetlands and short hydroperiod allows for upland vegetation to establish once the wetland dries. Ground cover within SW1 also included biotic crust, which is a hydrologic indicator.

SW3 consisted mostly of bare ground, but also included hydrophytic species such as tall flat sedge (*Cyperus eragrostis*) (FACW) and slender willowherb (*Epilobium ciliatum*) (FACW). Biotic crust, a hydrologic indicator, was also present in this feature.

Seasonal Swale

The vegetation within the seasonal swales was consistent with the surrounding uplands. These features did not contain a defined channel, nor did they show any of the three criteria required to be considered a wetland. Instead, they can be described as low-spots or depressional basins relative to the surrounding upland mounds.

Special-Status Plant Species

Special-status plant species include species listed as Rare, Threatened, or Endangered by the USFWS (2019a) or by the State of California (CDFW 2019c). Federal Proposed and Candidate

species (USFWS, 2019b) are also special-status species. Special-status species also include species listed on List 1A, List 1B, or List 2 of the CNPS Inventory (Skinner and Pavlik, 1994; CNPS 2018). All species in the above categories fall under state regulatory authority under the provisions of CEQA, and may also fall under federal regulatory authority. Considered special-status species are species included on List 3 (Plants About Which We Need More Information—A Review List) or List 4 (Plants of Limited Distribution—A Watch List) of the CNPS *Inventory*. These species are considered to be of lower sensitivity and generally do not fall under specific state or federal regulatory authority. Specific mitigation considerations are not generally required for List 3 and List 4 species.

Attachment 2, Table 2 includes a list of special-status plants with the potential to occur within or in the immediate vicinity of the Property based on a review of the surrounding quads. The special-status plant species identified by the CNDDDB as potentially occurring on the Property are known to grow only from specific habitat types. The specific habitats or “micro-climate” necessary for many of the plant species to occur are not found within the boundaries of the Property. The habitats necessary for the CNDDDB reported plant species consist of valley and foothill grassland, cismontane woodlands, chaparral, playas, chenopod scrub, adobe clay soils, alkaline soils, serpentine soils, sandy soils, gravelly soils, coastal prairie, coastal scrub, coastal dunes, coastal bluff scrub, coastal salt marsh, vernal pools, seeps, meadows and sinks, marshes or swamps, riparian woodlands, on slopes near drainages, closed cone coniferous forest, north coast coniferous forest, redwood forest, lower montane coniferous forest, and broad-leafed upland forest.

Occurrences of special-status plants within a five-mile radius of the point roughly representing the center of the Property are described in detail. Occurrence distance from the Property is estimated from this center point (Attachment 1, Figure 6).

Adobe Lily (*Fritillaria pluriflora*). CNPS List 1B.

The adobe-lily is a bulbiferous herb of the lily family. It produces an erect stem reaching heights between four and twenty inches. It has up to ten thick, long, oval-shaped leaves with wavy margins, most of which are clustered at ground level. This species can be found in Butte, Colusa, Glenn, Lake, Napa, Solano, Tehama, and Yolo Counties. It occurs in chaparral, cismontane woodlands, and valley and foothill grassland habitats, often in adobe soils. The nodding flower has bright pink tepals each 0.4 to 1.6 inches long that bloom from February to April. At the center of the flower is a pinkish to yellowish nectary and bright yellow anthers. It is threatened by grazing, off road vehicle traffic, development, mining, and horticultural collecting.

The CNDDDB listed three occurrences (Occurrence # 37, 34 and 118) of adobe lily within a 5-mile radius of the Property. Occurrence #37 encompasses the Property; however, this occurrence

does not contain specific locality data, and is considered historic as it was recorded in 1929. The grassland within the Property may provide suitable habitat for this species. For these reasons, adobe lily has a moderate potential to occur on the Property.

Butte County Meadowfoam (*Limnanthes floccosa* ssp. *californica*). State and Federal Endangered. CNPS List 1B.

Butte County meadowfoam is a member of the genus *Limnanthes* in the meadowfoam family (*Limnanthaceae*). It is one of three subspecies of woolly meadowfoam (*Limnanthes floccosa*). Butte County meadowfoam is a decumbent to erect, densely hairy annual herb with white cup-shaped flowers and papillate fruit. It occurs on the edges of vernal pools and blooms between March and May.

Nine CNDDDB occurrences of this species have occurred within five miles of the Property; two occurrences (Occurrence #44 and #36) are located immediately east of the Property. The closest occurrence (Occurrence #44) is the Airport West population, located just north of the Airport Access Road where it crosses the Chico Municipal Airport property. Hundreds of plants were recorded in rocky vernal streams between 1988 and 2008. The second closest occurrence (Occurrence #36) is dated to 2018 when tens of thousands of plants were reported in a similar cobbly vernal pool/swale complex south of the Chico Municipal Airport. Additionally, the Property is located just west of USFWS critical habitat Unit: BUTTE 2, and a few miles south of Unit: BUTTE 1 for Butte County meadowfoam (Attachment 1, Figure 7). Suitable habitat for Butte County meadowfoam exists within the vernal pool-like wetlands found within the Property. For these reasons Butte County meadowfoam has a high potential to occur on the Property. The survey performed for this report consisted of a reconnaissance survey performed outside the identified blooming period of this species (March-May) and therefore, a follow up survey should be conducted during the respective blooming season.

6.3 Wildlife Survey Results

6.3.1 General Wildlife Species and Habitats

A complete list of wildlife species observed within the Property can be found in Attachment 2, Table 1. Wildlife species commonly occurring within habitat types present on the Property are discussed below:

Ruderal Grassland

The ruderal grassland habitat provides many foraging opportunities for a wide range of species. Passerine species observed during the survey include black phoebe (*Sayornis nigricans*), song sparrow (*Melospiza melodia*), and white-crowned sparrow (*Zonotrichia leucophrys*). Other avian

species observed include American crow (*Corvus brachyrhynchos*), Anna's hummingbird (*Calypte anna*), and turkey vulture (*Cathartes aura*).

The American kestrel (*Falco sparverius*) and red-tailed hawk (*Buteo jamaicensis*) were the only raptor species observed during the survey, however the grassland habitat could potentially be utilized for foraging by other species including white-tailed kite (*Elanus leucurus*), red-shouldered hawk (*Buteo lineatus*), and Cooper's hawk (*Accipiter cooperii*).

Black-tailed jackrabbit (*Lepus californicus*) was observed foraging during the October survey. Extensive burrow colonies created by small mammals including but not limited to Botta's pocket gopher (*Thomomys bottae*) and various vole species (*Microtus spp.*) were also observed. Other mammals such as coyote (*Canis latrans*), raccoon (*Procyon lotor*) and mule deer (*Odocoileus hemionus*) may also occur the Property.

The cover from the grassland habitat and the extensive burrows may offer suitable habitat for various reptile species, such as western fence lizards (*Sceloporus occidentalis*), Pacific gopher snake (*Pituophis catenifer catenifer*) and California king snake (*Lampropeltis californiae*).

Ephemeral Drainage

In the ephemeral drainage, during the wet months similar species to seasonal wetlands are expected to occur, while during the dry months similar species to the grassland habitat are expected to occur.

The drainages lack deep plunge pools and therefore may not be suitable for amphibians that require this habitat feature for breeding.

Seasonal Wetland

The seasonal wetlands offer suitable habitat for various wildlife species. During the wet months, the inundated wetlands can offer foraging habitat for avian species including but not limited to killdeer (*Charadrius vociferous*), great blue heron (*Ardea herodias*), great egret (*Ardea alba*) and various duck species.

The wetlands could also offer suitable habitat for special status invertebrates including vernal pool fairy shrimp, vernal pool tadpole shrimp, and California linderiella.

Seasonal Swale

In the seasonal swales, similar species to seasonal wetlands are expected to occur during the wet months, whereas during the dry months similar species to the grassland habitat are expected to occur.

BIRDS

Red-shouldered Hawk (*Buteo lineatus*). State Protected.

The red-shouldered hawk is a medium-sized, slender *Buteo* with long legs and a long tail and is smaller than the red-tailed hawk. Upperparts are dark with pale spotting, and rusty-reddish feathers on the wing create the distinctive shoulder patch. The tail has several wide, dark bars; the intervening narrow stripes and the tip of the tail are white, and there is variation in the number of tail bars among adults and juveniles. The habitat that the red-shouldered hawk prefers varies from bottomland hardwoods and riparian areas to upland deciduous or mixed deciduous-conifer forest, and almost always includes some form of water, such as a swamp, marsh, river, or pond. In the west, the red-shouldered hawk sometimes occurs in coniferous forests, and has been expanding its range of occupied habitats to include various woodlands, including stands of eucalyptus trees amid urban sprawl. They typically place their nests in a broad-leaved tree (occasionally in a conifer), below the forest canopy but toward the tree top, usually in the crotch of the main trunk. Nest trees are often near a pond, stream, or swamp, and can be in suburban neighborhoods or parks. These hawks eat mostly small mammals, lizards, snakes, and amphibians. They also eat toads, snakes, and crayfish. They occasionally eat birds, sometimes from bird feeders; recorded prey includes sparrows, starlings, and doves.

CNDDDB does not track occurrences of the red-shouldered hawk. The large trees present along the southern Property boundary and those found just outside the boundary, across Hicks Lane may offer suitable nesting habitat. In addition, foraging opportunities occur throughout the Property in the annual grassland habitat. Given the information above the red-shouldered hawk has high potential to occur on the Property in a nesting and foraging capacity.

Red-Tailed Hawk (*Buteo jamaicensis*). State Protected.

The red-tailed hawk is a large *Buteo* that is distinct due to the red color of its tail feathers in contrast to the brown color of its body. Not all red-tailed hawks exhibit the distinct coloration on their tail and gradations may occur especially in young birds. Red-tailed hawks hunt rodents by soaring over grassland habitat. Nest trees for red-tailed hawks are usually tall trees with a well-developed canopy that includes a strong branching structure on which to build a nest.

CNDDDB does not track occurrences of the red-tailed hawk. However, a red-tailed hawk was observed foraging on the Property during the November 2019 survey. The large trees present within and around the Property offer suitable nesting habitat. In addition, foraging opportunities occur throughout the Property. Given the information above the red-tailed hawk has high potential to occur on the Property in a nesting capacity and is present in a foraging capacity.

White-tailed Kite (*Elanus leucurus*). Federal Species of Concern, CDFW: Fully Protected.

The white-tailed kite is falcon-shaped with a long white tail. This raptor has black patches on the shoulders that are highly visible while the bird is flying or perching. White-tailed kites forage in annual grasslands, farmlands, orchards, chaparral, and at the edges of marshes and meadows. They are found nesting in trees and shrubs such as willows (*Salix sp.*), California sycamore (*Platanus racemosa*), and coast live oak (*Quercus agrifolia*) often near marshes, lakes, rivers, or ponds. This raptor often hovers while inspecting the ground below for prey. The White-tailed Kite eats mainly small mammals, as well as some birds, lizards, and insects. Annual grasslands are considered good foraging habitat for white-tailed kites, which will forage in human-impacted areas.

CNDDDB did not list the white-tailed kite as occurring within the vicinity of the Property. However, the large trees present within and surrounding the Property offer suitable nesting habitat. In addition, foraging opportunities occur throughout the Property in the grassland habitat. Given the information above the white-tailed kite has high potential to occur on the Property in a nesting and foraging capacity.

Cooper's Hawk (*Accipiter cooperii*). State Protected.

Coppers' hawk is a medium to large-size raptor, reaching an average of 28-34 in wingspan. They are distinctive for the black and white horizontal banding on the elongated tail, blue gray head, back and upper wings. Additional markings include rusty red horizontal barring on a white breast, a large square head, and long yellow legs and feet.

CNDDDB did not list any occurrences of the Cooper's hawk. The large trees present along the southern Property boundary, adjacent to ED3, may offer somewhat suitable nesting habitat. In addition, foraging opportunities occur throughout the Property. Given the information above, the Cooper's hawk has moderate potential to occur on the Property in a nesting and foraging capacity.

Burrowing Owl (*Athene cunicularia*). Federal Species of Special Concern, California Species of Special Concern.

The U.S. Fish and Wildlife Service has identified the burrowing owl is as a "candidate" species. Candidate species are animals and plants that may warrant official listing as threatened or endangered, but there is no conclusive data to give them this protection at the present time. As a candidate species, burrowing owls receive no legal protection under the Endangered Species Act (ESA). However, this species does receive some legal protection from the U.S. through the Migratory Bird Treaty Act, which forbids the destruction of the birds and active nests. In California, the burrowing owl considered a "species of special concern."

Burrowing owls are ground dwelling members of the owl family and are small brown to tan colored birds with bold spots and barring. Burrowing owls generally require open annual grassland habitats in which to nest, but can be found on abandoned lots, roads, airports, and other urban areas. Burrowing owls generally use abandoned California ground squirrel holes for their nesting burrow, but are also known to use pipes or other debris for nesting purposes. Burrowing owls prefer annual grassland habitats with low vegetative cover. The breeding season for burrowing owls occurs from March through August. Burrowing owls often nest in loose colonies about 100 yards apart. They lay three to twelve eggs from mid-May to early June. The female incubates the clutch for about 28 days, while the male provides her with food. The young owls begin appearing at the burrow's entrance two weeks after hatching and leave the nest to hunt for insects on their own after about 45 days. The chicks can fly well at six weeks old.

CNDDDB listed three occurrences (Occurrence #304, 305, 730) of burrowing owl within five miles of the Property. The closest occurrence (Occurrence #304) was observed immediately south of the Property where two adults were observed in a burrow in 1998. The area is historically known to provide suitable habitat for burrowing owls. The Property has suitable ruderal grassland habitat for burrowing owl, and while numerous burrows were observed at the site, ground squirrels were absent. The burrows present on site were made by small mammals including pocket gophers and voles, which are inadequate for burrowing owls. For these reasons the burrowing owl has a low potential to occur on the Property in nesting and foraging capacity and is not likely to occur.

Swainson's Hawk (*Buteo swainsoni*). State Threatened.

The Swainson's hawk is a raptor that is slightly smaller than the red-tailed hawk with wings that taper slightly toward the outer wing tip. This hawk has a brown bib that covers its head and extends down the chest. The leading portion of the wing is light in color. In flight, this bird has an inverse color pattern in comparison to a red-tailed hawk. This hawk has three potential color morphs---light, intermediate and dark. Swainson's hawks are summer migrants to the Central Valley and Delta region where they nest within larger-sized trees.

Commonly, the Swainson's hawk builds platform nests in tall mature trees, often in the first fork of the tree-built with sticks, twigs and branches with green leaves. (blue gum, valley oak, live oak, pine, or other tall tree stands) These raptors require nearby foraging habitat such as annual grasslands, alfalfa fields, grain fields and even row crops.

CNDDDB listed one occurrence of Swainson's hawk (Occurrence #1724) within the vicinity of the Property. This occurrence is located approximately 5 miles west of the Property where a nest was found in a valley oak above Rock Creek in 2009. The trees along the southern boundary of the Property may be too small for Swainson's hawks, as they characteristically prefer large, mature trees. However, there are potentially suitable nesting trees within 1,000 feet of the

Property. In addition, foraging opportunities occur across the Property. Given the information above the Swainson's hawk has moderate potential to occur on the Property in a foraging and nesting capacity.

American Kestrel (*Falco sparverius*). State Protected.

The American kestrel is the smallest of raptor species and is distinct due to the black barring on its face. The female kestrel is slightly larger than the male bird and is differentiated by its brown and red coloration. The male kestrel is slightly smaller than the female and has gray wing patches near the top of the wing. Kestrels favor open areas with short ground vegetation and sparse trees. You'll find them in meadows, grasslands, deserts, parks, farm fields, cities, and suburbs. Kestrels utilize cavities in trees and structures for nesting and hunt small rodents and birds.

The CNDDDB did not list any occurrences of the American kestrel within a 5-mile radius of the Property. However, an American kestrel was observed foraging on the Property during the survey. The habitats within the Property provide suitable foraging opportunities and the trees along the southern Property boundary and surrounding the site may provide suitable nesting habitat. For these reasons, the American kestrel is present in a foraging capacity and has a high potential to occur in a nesting capacity.

MAMMALS

Special-status Bats

Bats (Order - *Chiroptera*) are the only mammals capable of "true" flight. They are nocturnal feeders and locate their prey, which consists of small to medium sized insects by echolocation. Bats consume vast amounts of insects making them very effective pest control agents. They may eat as much as their weight in insects per day. Maternity roosts comprised of only females, may be found in buildings or mine shafts with temperatures up to 40 degrees Celsius and a high percentage of humidity to ensure rapid growth in the young. Female bats give birth to only one or two young annually and roost in small or large numbers. Males may live singly or in small groups, but scientists are still unsure of the whereabouts of most males in summer.

Special-status bats with the potential to occur on the Property are listed below:

- Pallid bat (*Antrozous pallidus*)
- Hoary Bat (*Lasiurus cinereus*)

CNDDDB listed the pallid bat (Occurrence #132) and hoary bat (Occurrence #18) as occurring within the 5-mile radius of the Property. Both occurrences were recorded approximately four

miles south of the Property. The large eucalyptus trees on the southern boundary of the Property could potentially offer roosting sites for foliage roosting species, such as the hoary bat. The grassland, seasonal wetlands and swales, and ephemeral drainages may provide an array of insects, allowing for abundant foraging opportunities. Given the above information, multiple species of bats have a moderate potential to occur on the Property in roosting and foraging capacity.

INVERTEBRATES

Special-status invertebrates with the potential to occur on the Property are listed below:

- California linderiella (*Linderiella occidentalis*)
- Vernal pool fairy shrimp (*Branchinecta lynchi*)
- Vernal pool tadpole shrimp (*Lepidurus packardi*)

Vernal Pool Tadpole Shrimp (*Lepidurus packardi*). Federally Endangered.

This small crustacean (two inches at adulthood) belongs to the family *Triopsidae*. It has a large carapace resembling a shield that covers nearly the entire body. Two long appendages project from the last abdominal segment. They are found in clear to turbid vernal pools and grass bottomed swales in unplowed grasslands, climbing over objects or moving along the bottom. The diet is made up of organic matter, fairy shrimp, and other invertebrates. During the summer and fall, the vernal pool tadpole shrimp becomes encysted in the dry sediments of vernal pools, becoming active after winter rains.

Vernal Pool Fairy Shrimp (*Branchinecta lynchi*). Federally Threatened.

The vernal pool fairy shrimp is approximately three quarters of an inch in length. This species inhabits seasonal wetlands such as alkaline pools, intermittent drainages, drainage ditches, oxbows, stock ponds, and vernal pools and swales. Like other shrimp, eggs become encysted during dry periods and hatch when seasonal wetlands refill.

California Linderiella (*Linderiella occidentalis*). Federal Species of Special Concern.

Found in the same vernal pool habitats as the fairy shrimp, California linderiella occur in clear vernal pools and lakes. They are tolerant of a wide range of conditions withstanding turbid conditions and pH levels between 6.1 and 8.5. They are able to tolerate temperature conditions from 41° to 85° F. Like the fairy shrimp, eggs become encysted during dry conditions and hatch when the vernal pools refill.

The CNDDDB listed nine occurrences of vernal pool fairy shrimp, ten occurrences of vernal pool tadpole shrimp, and two occurrences (Occurrence #110 and 269) of California linderiella within

a 5-mile radius of the Property. Occurrence #146 for vernal pool tadpole shrimp and Occurrence #269 for California linderiella are both immediately adjacent to the Property. The Property contains suitable habitat for these species considering the presence of a vernal pool complex (SW1) that is hydrologically connected to the vernal pools and swales associated with CNDDDB Occurrences #146 and 269. Additionally, the Property is just west of USFWS critical habitat Unit: VERFS 7F and VERTS 3F for vernal pool fairy shrimp and vernal pool tadpole shrimp, respectively (Attachment 1, Figure 7). For these reasons, California linderiella, vernal pool fairy shrimp, and vernal pool tadpole shrimp have a high potential to occur on the Property.

7.0 CONCLUSIONS

7.1 Wetlands

Results of the biological resource analysis survey conducted by Olberding Environmental indicate that the Property contains wetlands/waters that may be considered jurisdictional by the Army Corps of Engineers, RWQCB or CDFW. The Property has three ephemeral drainages, three seasonal wetlands, one of which is a large complex of vernal pool-like features. These areas showed positive indicators of wetland soils, hydrology, and vegetation. If any project related activities are to occur within these features, an Army Corps of Engineers jurisdictional delineation would be required. The Property also contains two potentially non-jurisdictional seasonal swales.

7.2 Special-status Plants

Two special-status plant species, adobe lily and Butte County meadowfoam, were determined to have a high potential to occur on the Property. This plant's potential to occur on the Property was based on the presence of suitable habitats, soil types, nearby USFWS critical habitat units, and nearby and recent CNDDDB occurrences. Suitable habitat for this species occurs within the seasonal wetland habitat.

7.3 Special-status Wildlife

Foraging or Nesting Raptor/Passerine Species – A total of six bird species were identified as having potential to occur on the Property. Four species including red-shouldered hawk, red-tailed hawk, white-tailed kite, American kestrel and Cooper's hawk had a high potential to occur in a foraging and nesting capacity. Swainson's hawk had a moderate potential to occur in a foraging and nesting capacity. The red-tailed hawk and American kestrel were observed foraging on the Property during the survey.

Special-Status Mammals – Given the presence of suitable onsite habitat; the pallid bat and hoary bat have a moderate potential to occur on the Property in a foraging and roosting capacity. No immediate signs were present during the initial survey but the large eucalyptus trees along the southern Property boundary could provide roosting habitat.

Special-Status Invertebrates – Three invertebrate species, California linderiella, vernal pool tadpole shrimp, and vernal pool fairy shrimp, have been identified as having a high potential to occur on the Property. Multiple CNDDDB occurrences and USFWS designated critical habitat of vernal pool fairy and tadpole shrimp are recorded in the vicinity of the Property. The Property contains suitable habitat in the seasonal wetlands, especially SW1 which is a complex of vernal-pool like features.

8.0 RECOMMENDATIONS

- **Corps and State Regulated Wetlands/Waters** – Jurisdictional wetlands and waters potentially regulated under the authority of the Corps, RWQCB, and CDFW are present on the Property. Fill of these regulated features may require authorization under Sections 404 and 401 of the Clean Water Act (CWA) and authorization under Section 1600 of the Fish and Wildlife Code. A Corps wetland delineation should be prepared to document the actual extent of jurisdictional features if any construction activity could result in impacts to wetlands/waters. If the wetlands/waters are deemed jurisdictional and construction activities are proposed that could impact these features, permits must be obtained prior to construction. Setbacks from the wetlands/water features may be required to protect habitat quality and to protect water quality. Permitting to allow impacts to wetlands/waters features may also require mitigation.
- **Rare Plant Survey** – A rare plant survey of the Property in accordance with CDFW and CNPS guidelines should be required prior to construction. The survey should be scheduled to coincide with the identified blooming or identification periods for those species having potential to occur (March or April). Any rare, threatened, or endangered plant species, including but not limited to those listed in Attachment 2, Table 2, should be identified and mapped. If any of these species are found, consultation with the USFWS and/or CDFW may be required regarding appropriate mitigation.
- **Special Status Invertebrate Survey** – A special status invertebrate (branchiopods) survey of the Property in accordance with USFWS Guidelines should be conducted by a permitted biologist during the wet season prior to construction. Because of differing climatic conditions occurring throughout the range of the listed large branchiopods sampling frequency and termination differ for the three survey zones (A-C). The Property falls under Survey Zone A (Southern Oregon, Sacramento Valley, San Francisco Bay

Area, North Coast Ranges, Northern Sierra Valley Foothills, Cascade Range foothills, and South Coast Ranges).

- All potential habitat must be adequately sampled at 14-day intervals after initial inundation of habitat.
 - Sampling will continue within each potential habitat until it dries or a minimum of 90 consecutive days of inundation has occurred.
 - Sampling will be reinstated within 14 days of an individual habitat drying and inundating during the same wet season.
- **Pre-Construction Avian Survey** – If project construction-related activities would take place during the nesting season (February through August), preconstruction surveys for nesting passerine birds and raptors (birds of prey) within the Property and the large trees within the adjacent area should be conducted by a competent biologist 14 days prior to the commencement of the tree removal or site grading activities. If any bird listed under the Migratory Bird Treaty Act is found to be nesting within the project site or within the area of influence, an adequate protective buffer zone should be established by a qualified biologist to protect the nesting site. This buffer shall be a minimum of 75 feet from the project activities for passerine birds, and a minimum of 200 feet for raptors. The distance shall be determined by a competent biologist based on the site conditions (topography, if the nest is in a line of sight of the construction and the sensitivity of the birds nesting). The nest site(s) shall be monitored by a competent biologist periodically to see if the birds are stressed by the construction activities and if the protective buffer needs to be increased. Once the young have fledged and are flying well enough to avoid project construction zones (typically by August), the project can proceed without further regard to the nest site(s).
 - **Erosion Control** – Grading and excavation activities could expose soil to increased rates of erosion during construction periods. During construction, runoff from the Property could adversely affect aquatic life within the adjacent water features. Surface water runoff could remove particles of fill or excavated soil from the site, or could erode soil down-gradient, if the flow were not controlled. Deposition of eroded material in adjacent water features could increase turbidity, thereby endangering aquatic life, and reducing wildlife habitat. Implementation of appropriate mitigation measures would ensure that impacts to aquatic organisms would be avoided or minimized. Mitigation measures may include best management practices (BMP's) such as hay bales, silt fencing, placement of straw mulch and hydro seeding of exposed soils after construction as identified in the Storm Water Pollution Prevention Plan (SWPPP).

9.0 LITERATURE CITED

California Department of Fish and Wildlife (CDFW) Natural Diversity Data Base. 2019. Computer listings and map locations of historic and current recorded occurrences of special-status species and natural communities of special concern for USGS 7.5-minute quadrangle map: Richardson Springs. Accessed on November 12th, 2019.

_____.2019a. California Wildlife Habitat Relationships.
<https://www.wildlife.ca.gov/Data/CWHR/Wildlife-Habitats>

_____.2019b. Special animals.
<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406&inline>

_____.2019c. State and federally listed Endangered, Threatened, and Rare plants of California. <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109390&inline>

California Native Plant Society (CNPS). 2019. Inventory of Rare and Endangered Plants (online edition, v6-04d1). California Native Plant Society. Sacramento, CA. Accessed on November 12th, 2019 from <https://www.cnps.org/rare-plants/cnps-inventory-of-rare-plants>

CEQA. 2019. The California Environmental Quality Act. Appendix G, Environmental Checklist Form. Accessed on November 12th, 2019. Available online at http://resources.ca.gov/ceqa/guidelines/Appendix_G.html

Ehrlich, P.R., D.S. Dobkin, and D. Wheye. 1988. The Birder's Handbook: a field guide to the natural history of North American birds. Simon & Schuster, Inc., New York. 785 pp.

The Jepson Manual: Vascular Plants of California, Second Edition, Thoroughly Revised and Expanded. University of California Press, Berkeley, CA. 2012. 1400 pp.

Holland (1986) Preliminary Description of the Natural Communities of California. CDFW.

Mayer, K. E. and Laudenslayer W.F. 1988. A Guide to Wildlife Habitats of California. California.

Natural Resources Conservation Service (NRCS). 2019. United States Department of Agriculture. Web Soil Survey. Accessed on November 12th, 2019. Available on-line at <http://websoilsurvey.nrcs.usda.gov>

Pierce, Robert J. 1995. Wetland Delineation Lecture Notes. Wetland Training Institute, Inc., Poolesville, MD. WTI 95-2. 200pp.

- Sawyer, J.O., T. Keeler-Wolf, and J. Evens. 2009. A manual of California vegetation. 2nd Ed. California Native Plant Society, Sacramento, CA.
- Skinner, M. W. and B. M. Pavlik (eds.). 1994. Inventory of rare and endangered vascular plants of California. California Native Plant Society Special Publication No. 1 (5th edition). California Native Plant Society, Sacramento, CA. 338 pp.
- Sibley, D.A. 2000. The Sibley Guide to Birds. Alfred Knopf, New York.
- Sibley, C.G., and B.L. Munroe, Jr. 1990. Distribution and taxonomy of birds of the world. Yale University Press, New Haven and London. 1111 pp.
- United States Fish and Wildlife Service (USFWS). 2019a. Endangered and threatened plant and animal species. Accessed on November 12th, 2019. <https://ecos.fws.gov/ecp0/reports/species-listed-by-state-report?state=CA&status=listed>
- _____. 2019b. Endangered and threatened wildlife and plants; review of plant and animal taxa that are Candidates or Proposed for listing as Endangered or Threatened; annual notice of findings on recycled petitions; annual description of progress on listing actions; proposed rule. Federal Register 64(205): 57534-57547.
- _____. 2007. Bald Eagle Management Guidelines and Conservation Measures. The Bald and Golden Eagle Protection Act. Accessed on November 12th, 2019. Available on-line at <http://www.fws.gov/northeast/ecologicalservices/pdf/NationalBaldEagleManagementGuidelines.pdf>.
- _____. 2006. Endangered and Threatened Wildlife and Plants: Designation of Critical Habitat for the California Red-Legged Frog, and Special Rule Exemption Associated with Final Listing for Existing Routine Ranching Activities; Final Rule. Federal Register 71: 19244-19346.
- _____. 2004. Endangered and Threatened Wildlife and Plants: Determination of Threatened Status for the California Tiger Salamander; and Special Rule Exemption for Existing Routine Ranching Activities; Final Rule. Federal Register 69: 47212-47248.

ATTACHMENTS

ATTACHMENT 1 FIGURES

- Figure 1 Regional Map**
- Figure 2 Vicinity Map**
- Figure 3 USGS Quadrangle Map**
- Figure 4 Aerial Photograph**
- Figure 5 CNDDDB Map of Special Status Wildlife**
- Figure 6 CNDDDB Map of Special Status Plants**
- Figure 7 USFWS Designated Critical Habitat**
- Figure 8 Soils Map**
- Figure 9 Photo Location Map**
- Figure 10 Habitat Map**
- Figure 11 Jurisdictional Delineation Map**



C:\Users\Frank\Google Drive\Olberding\Hicks Lane\MXD's\Fig1 Regional Hicks Ln 11-11-19.mxd

**Figure 1: Regional Map
Hicks Lane Property
Butte County, CA**



193 Blue Ravine Road, Ste. 165
Folsom, California 95630
Phone: (916) 985-1188

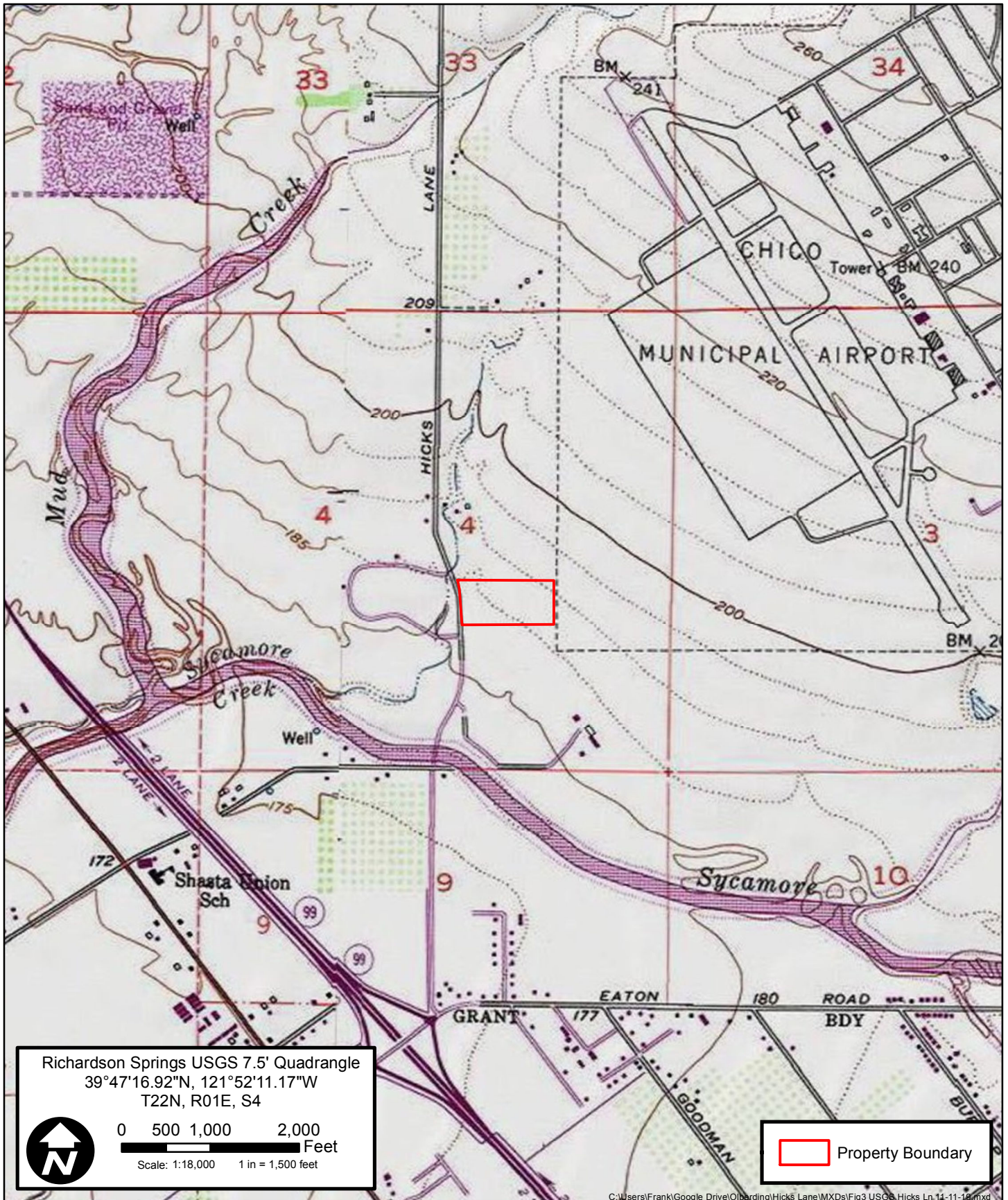


C:\Users\Frank\Google Drive\Olberding\Hicks Lane\MXD\Fig2 Vicinity Hicks Ln 11-11-19.mxd

**Figure 2: Vicinity Map
Hicks Lane Property
Butte County, CA**



193 Blue Ravine Road, Ste. 165
Folsom, California 95630
Phone: (916) 985-1188



C:\Users\Frank\Google Drive\Olberding\Hicks Lane\MXD\Fig3 USGS Hicks Ln 11-11-19.mxd

**Figure 3: USGS Topographic Map
 Hick's Lane Property
 Butte County, CA**



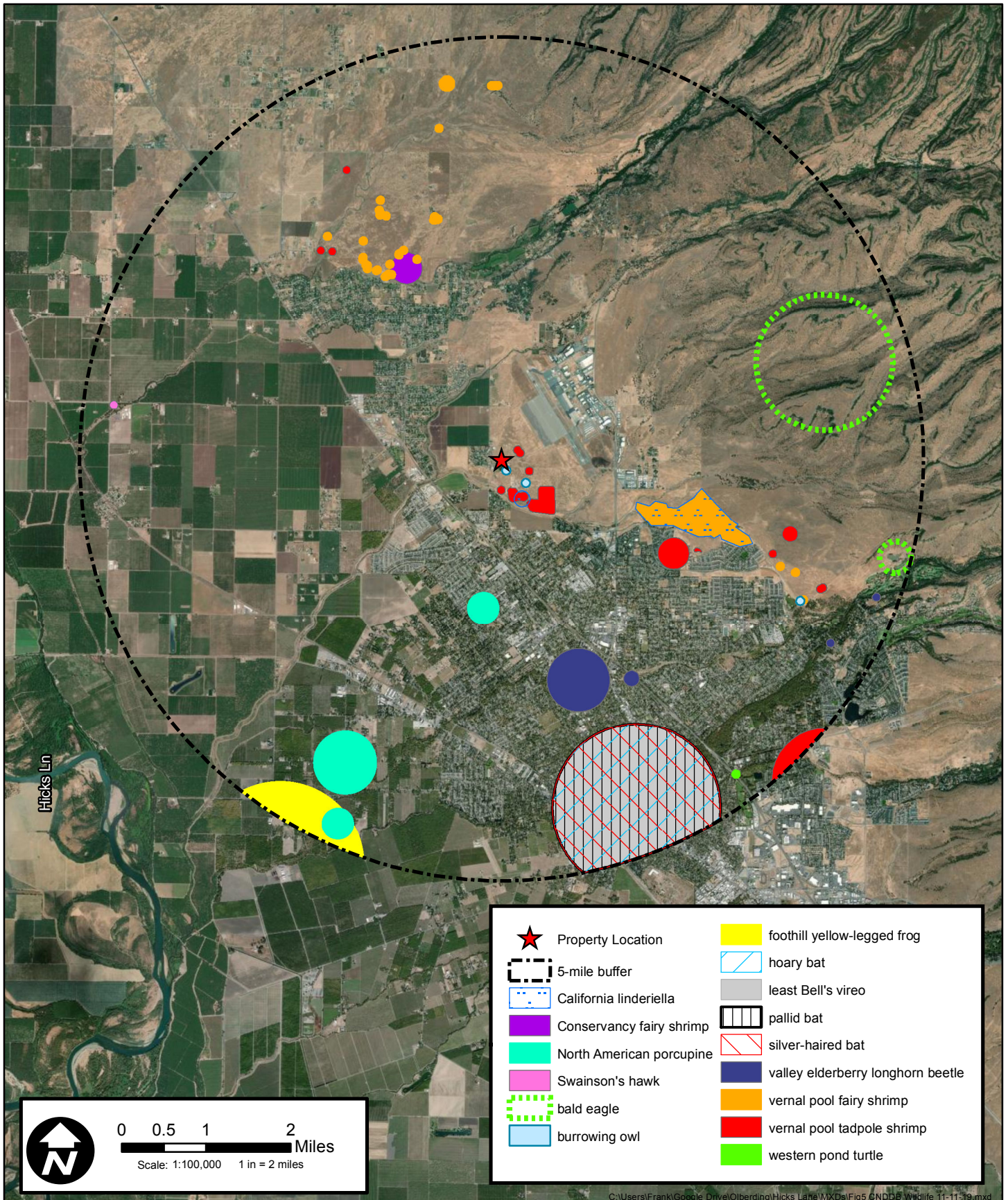
193 Blue Ravine Road, Ste. 165
 Folsom, California 95630
 Phone: (916) 985-1188



**Figure 4: Aerial Map
Hicks Lane Property
Butte County, CA**

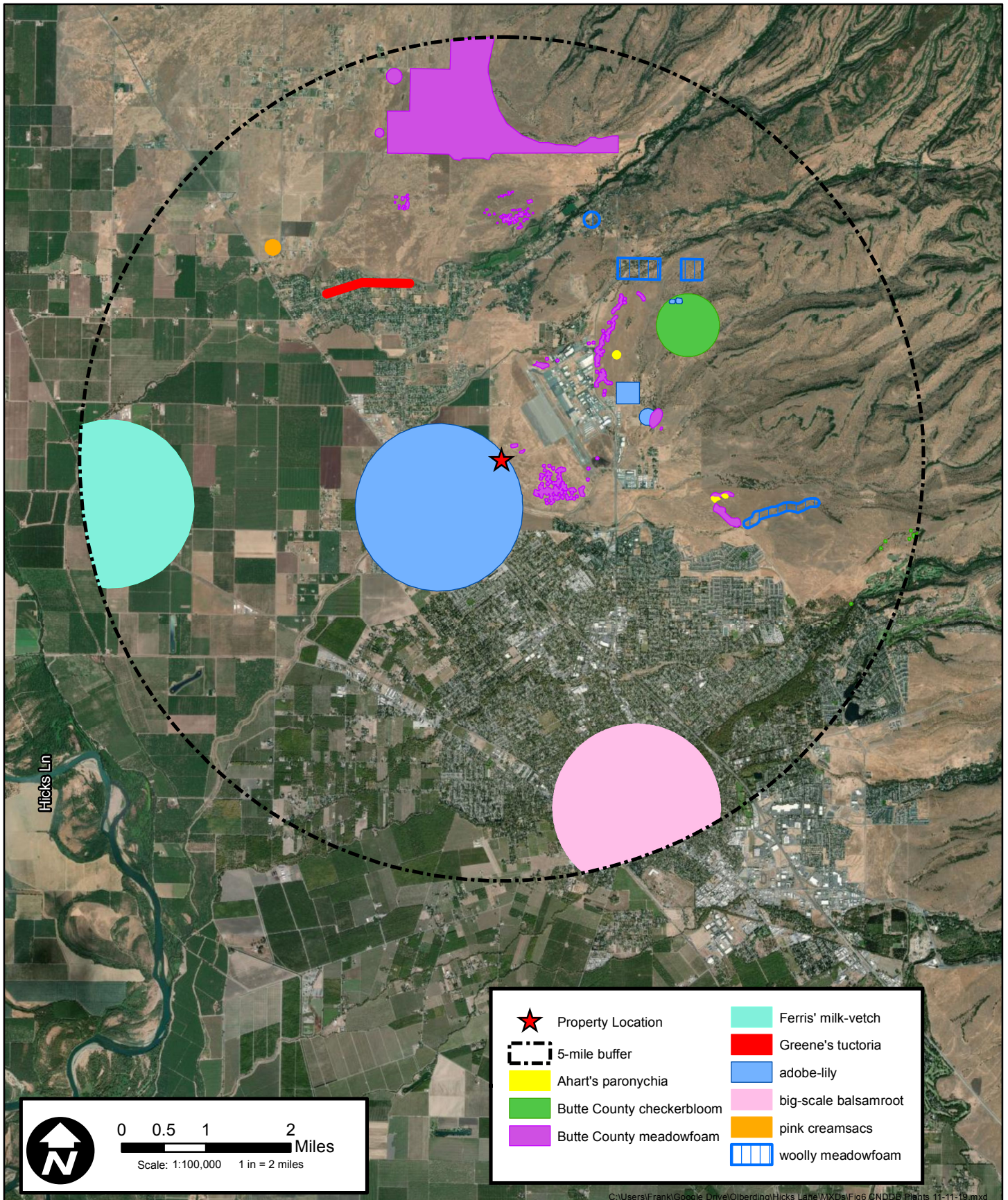


193 Blue Ravine Road, Ste. 165
Folsom, California 95630
Phone: (916) 985-1188



193 Blue Ravine Road, Ste. 165
 Folsom, California 95630
 Phone: (916) 985-1188

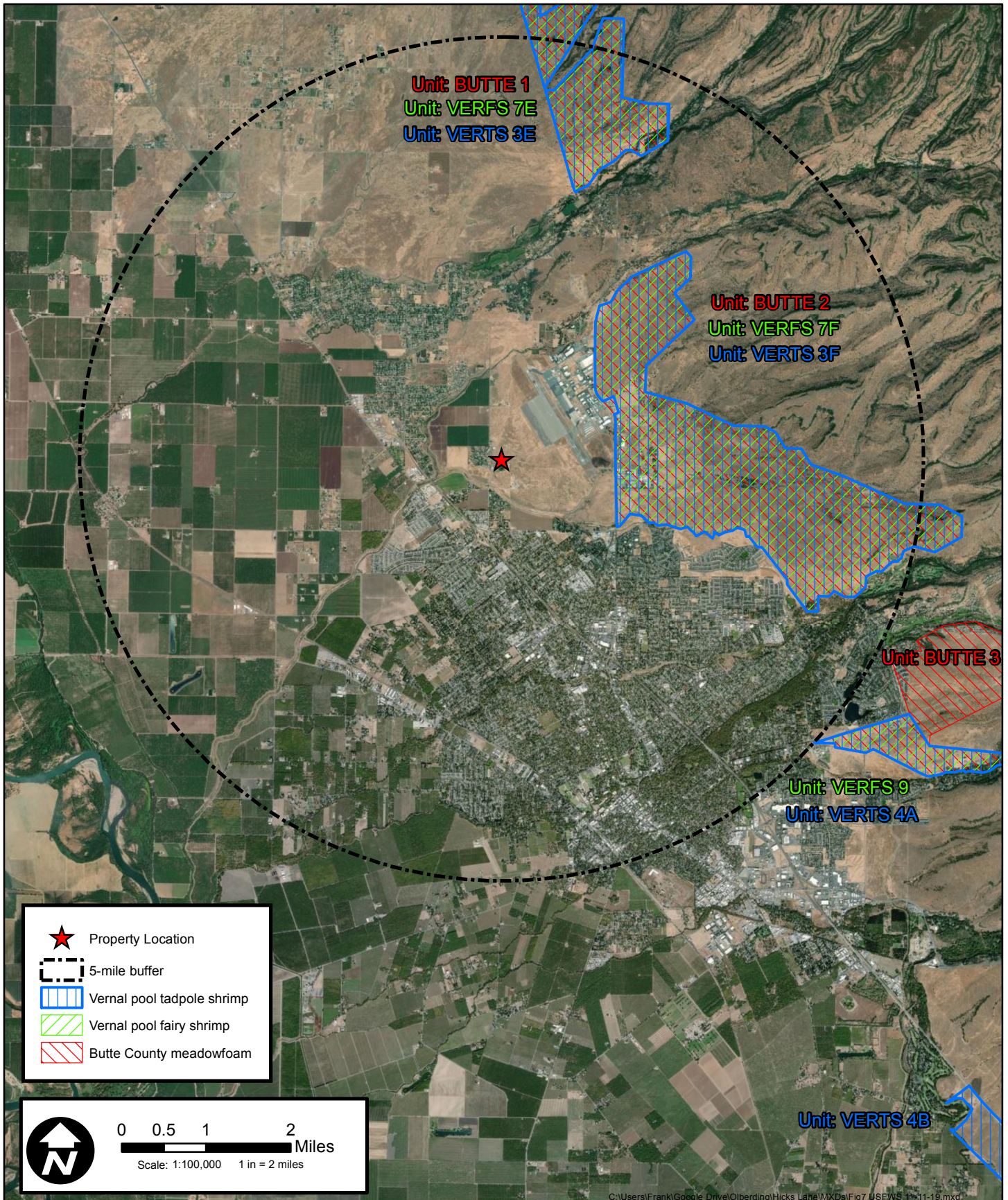
**Figure 5: CNDDDB Wildlife Map
 Hicks Lane Property
 Butte County, CA**



**Figure 6: CNDDDB Plants Map
Hicks Lane Property
Butte County, CA**



193 Blue Ravine Road, Ste. 165
Folsom, California 95630
Phone: (916) 985-1188



**Figure 7: USFWS Designated Critical Habitat Map
Hicks Lane Property
Butte County, CA**



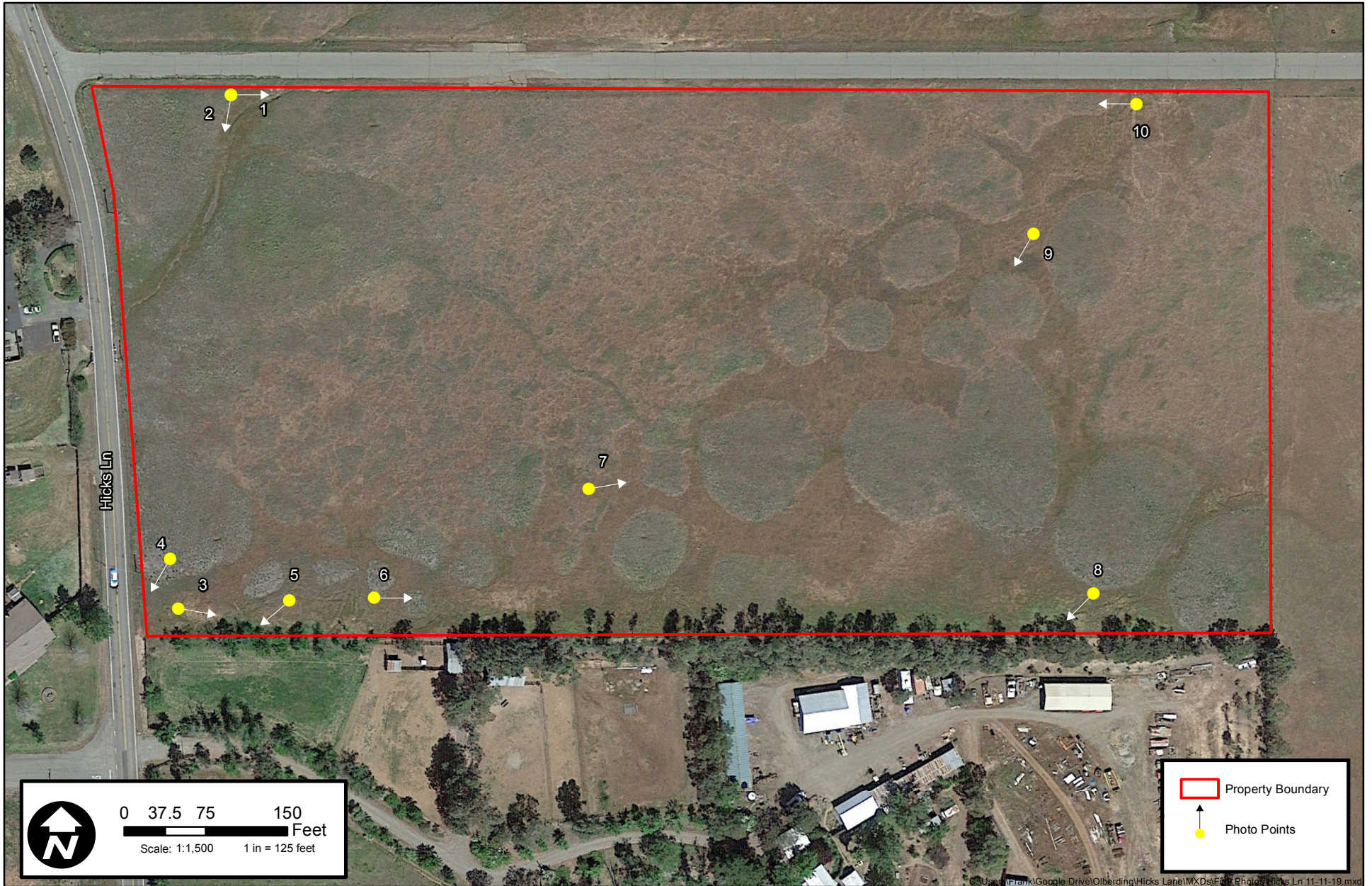
193 Blue Ravine Road, Ste. 165
Folsom, California 95630
Phone: (916) 985-1188



193 Blue Ravine Road, Ste. 165
Folsom, California 95630
Phone: (916) 985-1188

**Figure 8: Soils Map
Hicks Lane Property
Butte County, CA**

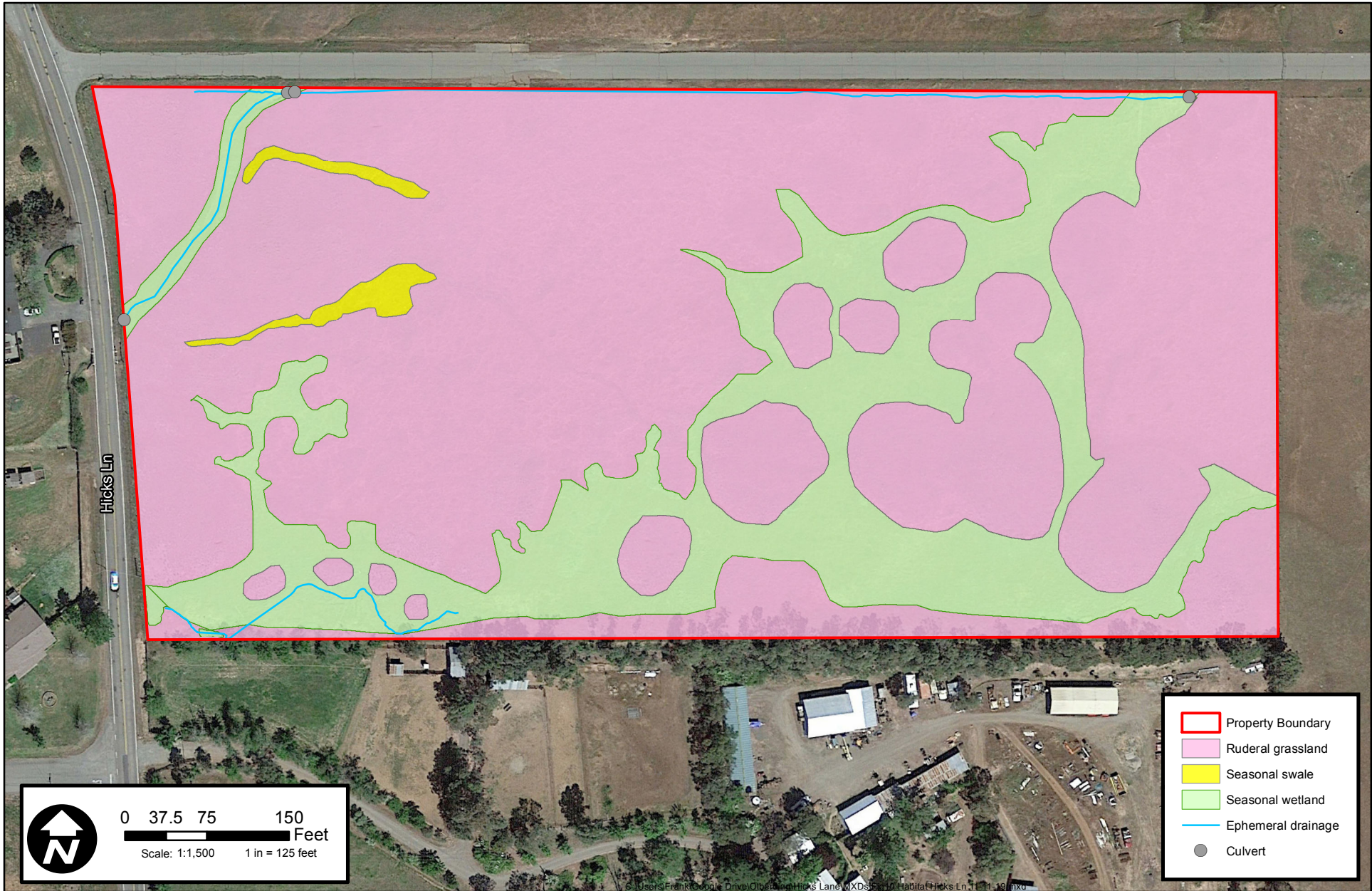
Map Revision Date: 11/13/2019



**Figure 9: Photo Locations Map
Hicks Lane Property
Butte County, CA**



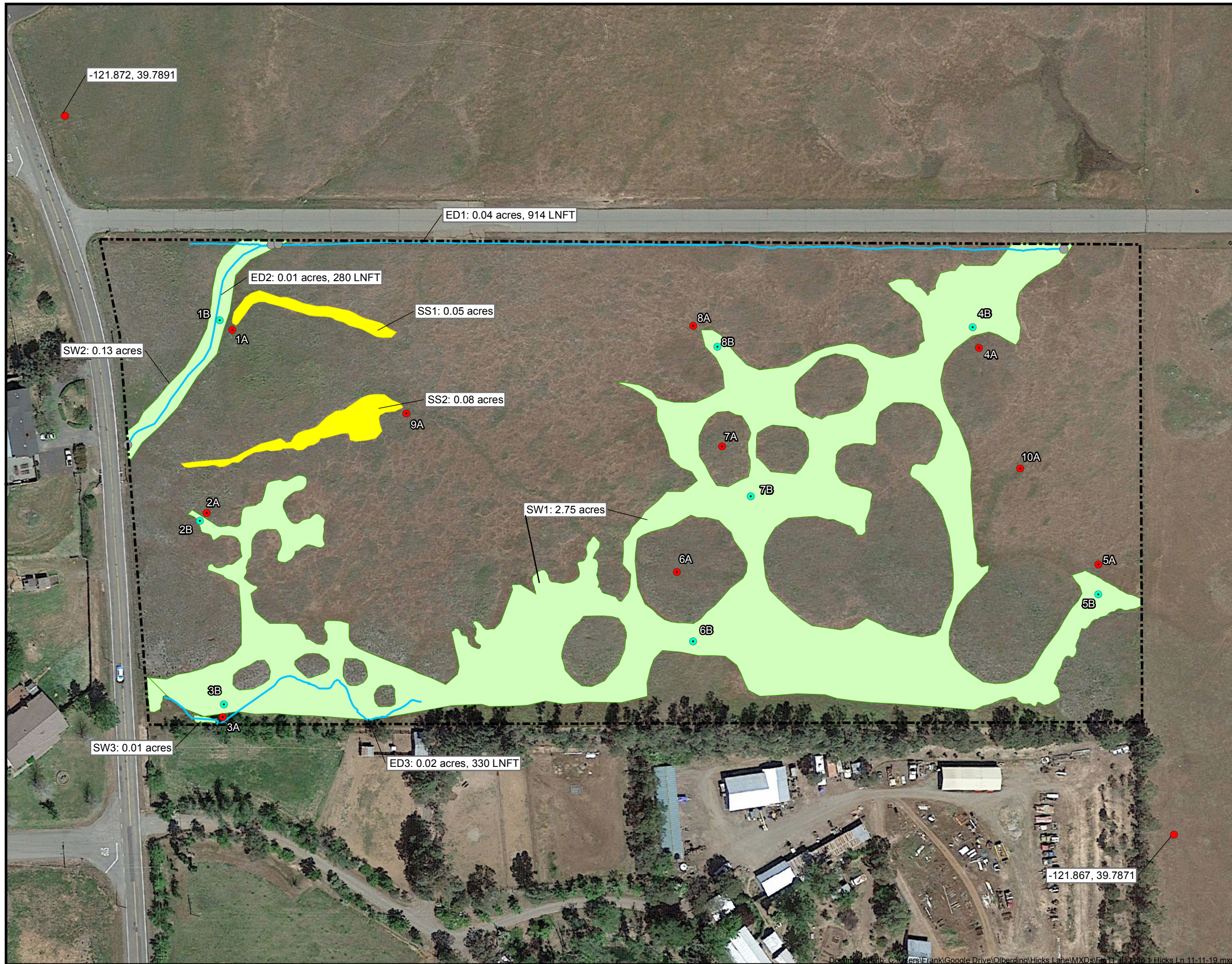
193 Blue Ravine Road, Ste. 165
Folsom, California 95630
Phone: (916) 985-1188



**Figure 10: Habitat Map
Hicks Lane Property
Butte County, CA**



193 Blue Ravine Road, Ste. 165
Folsom, California 95630
Phone: (916) 985-1188

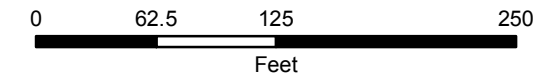
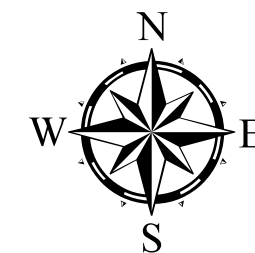


OLBERDING
-ENVIRONMENTAL-

193 Blue Ravine Rd., Ste. 165
Folsom, CA 95630
Phone: (916) 985-1188

Figure 11:
Jurisdictional Delineation Map
Hicks Lane Property
Butte County, California

- Property Boundary
- Map Reference
- Upland Sample Points
- Wetland Sample Points
- Culvert
- Jurisdictional Features**
- Seasonal Wetlands (2.89 acres)
- Ephemeral drainage (0.07 acres, 1524 linear feet)
- Non-Jurisdictional Features**
- Seasonal Swales (0.13 acres)



Scale: 1:1,200 1 in = 100 feet

Coordinate System:
NAD 1983 2011 StatePlane California III FIPS 0403 Ft US
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Units: Foot US

Map Revision Date: 11/20/2019

Made in accordance with the Updated Map and Drawing Standards for the South Pacific Division Regulatory Program, as amended on February 10, 2016, by: Jason Deters, Project Manager Enforcement and Special Projects Unit U.S. Army Corps of Engineers South Pacific Division Sacramento District, Regulatory Division 1325 J Street, Room 1350 Sacramento, California 95814-2922

ATTACHMENT 2
TABLES

Table 1
Plant and Wildlife Species Observed
Within/Adjacent to the Survey Area

Table 1

Wildlife Species Observed Within/Adjacent to the Survey Area

Scientific Name	Common Name
Plant Species Observed	
<i>Amaranthus albus</i>	Tumbleweed (FACU)
<i>Amaranthus californicus</i>	California amaranth (FACW)
<i>Amaranthus palmeri</i>	Carelessweed (FACW)
<i>Avena fatua</i>	Wild oat (UPL)
<i>Brassica nigra</i>	Black mustard
<i>Bromus hordeaceus</i>	Soft chess (FACU)
<i>Centaurea solstitialis</i>	Yellow star thistle
<i>Centromadia fitchii</i>	Spikeweed (FACU)
<i>Clarkia sp.</i>	Clarkia
<i>Croton setiger</i>	Turkey mullein
<i>Cyperus eragrostis</i>	Tall flatsedge (FACW)
<i>Deschampsia danthonioides</i>	Annual hairgrass (FACW)
<i>Epilobium ciliatum</i>	Slender willowherb (FACW)
<i>Eryngium castrense</i>	Great valley button celery (OBL)
<i>Eucalyptus globulus</i>	Blue gum
<i>Festuca perennis</i>	Italian rye grass (FAC)
<i>Heliotropium europaeum</i>	European heliotrope
<i>Kickxia elatine</i>	Sharp leaf fluellin (UPL)
<i>Lactuca serriola</i>	Prickly lettuce (FACU)
<i>Polygonum aviculare</i>	Prostrate knotweed (FAC)
<i>Populus fremontii</i>	Fremont cottonwood (FAC)
<i>Polypogon interruptus</i>	Ditch beardgrass (FACW)
<i>Physalis lancifolia</i>	Narrow leaf tomatillo
<i>Rumex crispus</i>	Curly dock (FAC)
<i>Taeniatherum caput-medusae</i>	Medusa head
<i>Trichostema lanceolatum</i>	Vinegarweed (FACU)
<i>Trifolium spp.</i>	Clover
<i>Triteleia laxa</i>	Ithuriel's spear
<i>Verbascum virgatum</i>	Twiggy mullein
Animal Species Observed	
Birds	
<i>Buteo jamaicensis</i>	Red-tailed hawk
<i>Calypte anna</i>	Anna's hummingbird
<i>Cathartes aura</i>	Turkey vulture
<i>Colaptes auratus</i>	Northern flicker
<i>Falco sparverius</i>	American kestrel
<i>Melospiza melodia</i>	Song sparrow

Table 1

Wildlife Species Observed Within/Adjacent to the Survey Area

Scientific Name	Common Name
<i>Sayornis nigricans</i>	Black phoebe
<i>Zonotrichia leucophrys</i>	White-crowned sparrow
Mammals	
<i>Lepus californicus</i>	Black-tailed jack rabbit
<i>Microtus sp.</i>	Vole (burrows)

Table 2

Special-Status Species for the Richardson Springs, Campbell Mound, Cohasset, Paradise West, Hamlin Canyon, Chico, Ord Ferry, Nord, and Richardson Springs NW 7.5 Minute Quadrangle Maps

Table 2

Special-Status Species for the Richardson Springs, Campbell Mound, Cohasset, Paradise West, Hamlin Canyon, Chico, Ord Ferry, Nord, and Richardson Springs NW 7.5 Minute Quadrangle Maps¹

Common Name/Scientific Name	Status (Fed/State/CNPS) ²	Blooming or Survey Period	Habitats of Occurrence	Potential on Site	Status on Site**
PLANTS					
Depauperate Milk-Vetch (<i>Astragalus pauperculus</i>)	-/-/4.3	March – June	Vernally mesic, volcanic habitats in chaparral, cismontane woodland, and valley and foothill grassland.	Low Suitable habitat present	Not likely to occur
Big-Scale Balsamroot (<i>Balsamorhiza macrolepis</i> var. <i>macrolepis</i>)	-/-/1B	March – June	Chaparral, cismontane woodland, and valley and foothills grasslands, sometimes in serpentinite outcrops.	Low No suitable habitat present	Presumed absent
Butte County Calycadenia (<i>Calycadenia oppositifolia</i>)	-/-/4.2	April – June	Openings in chaparral, cismontane woodland, lower montane coniferous forest, meadows and seeps, and valley and foothill grasslands. Volcanic, granitic or serpentine soils.	Low No suitable habitat present	Presumed absent
Butte County Morning-Glory (<i>Calystegia atriplicifolia</i> ssp. <i>buttensis</i>)	-/-/4.2	May – July	Chaparral, lower montane coniferous forest, valley and foothill grasslands in rocky soils. Sometimes roadside.	Low No suitable habitat present	Presumed absent
Dissected-Leaved Toothwort (<i>Cardamine pachystigma</i> var. <i>dissectifolia</i>)	-/-/1B	February – May	Chaparral and lower montane coniferous forest, usually in serpentine or rocky soils.	Low No suitable habitat present	Presumed absent
Pink Creamsacs (<i>Castilleja rubicundula</i> var. <i>rubicundula</i>)	-/-/1B	April – June	Chaparral (openings), cismontane woodland, meadows and seeps, valley and foothill grassland. Serpentine.	Low No suitable habitat present	Presumed absent
White-Stemmed Clarkia (<i>Clarkia gracilis</i> ssp. <i>albicaulis</i>)	-/-/1B	May – July	Chaparral and cismontane woodland. Sometimes serpentine.	Low No suitable habitat present	Presumed absent

Table 2

Special-Status Species for the Richardson Springs, Campbell Mound, Cohasset, Paradise West, Hamlin Canyon, Chico, Ord Ferry, Nord, and Richardson Springs NW 7.5 Minute Quadrangle Maps¹

Common Name/Scientific Name	Status (Fed/State/CNPS)²	Blooming or Survey Period	Habitats of Occurrence	Potential on Site	Status on Site**
Marsh Claytonia (<i>Claytonia palustris</i>)	-/-/4.3	May - October	Mesic meadows and seeps, marshes and swamps, and upper montane coniferous forest.	Low Suitable habitat present	Not likely to occur
Ahart's Buckwheat (<i>Eriogonum umbellatum</i> var. <i>ahartii</i>)	-/-/1B	June – September	Chaparral and cismontane woodland. Serpentinite, slopes and openings.	Low No suitable habitat present	Presumed absent
Shield-Bracted Monkeyflower (<i>Erythranthe glaucescens</i>)	-/-/4.3	February – August	Serpentine seeps, sometimes streambanks, in chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland.	Low No suitable habitat present	Presumed absent
Hoover's Spurge (<i>Euphorbia hooveri</i>)	T/-/1B	July – September	Vernal pools.	Suitable habitat present No nearby CNDDB	Not likely to occur
Butte County Fritillary (<i>Fritillaria eastwoodiae</i>)	-/-/3.2	March – June	Chaparral, cismontane woodland, and openings in lower montane coniferous forest. Sometimes serpentinite.	Low No suitable habitat present	Presumed absent
Adobe Lily (<i>Fritillaria pluriflora</i>)	-/-/1B	February – April	Chaparral, cismontane woodland, valley and foothill grassland. Often on adobe soils.	Moderate Suitable habitat present	May occur
Hogwallow Starfish (<i>Hesperervax caulescens</i>)	-/-/4.2	March – June	Valley and foothill grasslands with mesic, clay soils. Shallow vernal pools. Sometimes in alkaline environments.	Suitable habitat present No nearby CNDDB	Not likely to occur

Table 2

Special-Status Species for the Richardson Springs, Campbell Mound, Cohasset, Paradise West, Hamlin Canyon, Chico, Ord Ferry, Nord, and Richardson Springs NW 7.5 Minute Quadrangle Maps¹

Common Name/Scientific Name	Status (Fed/State/CNPS)²	Blooming or Survey Period	Habitats of Occurrence	Potential on Site	Status on Site**
Woolly Rose-Mallow (<i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i>)	-/-1B	June – September	Freshwater marshes and swamps. Often in riprap on sides of levees.	Low Suitable habitat present	Not likely to occur
California Satintail (<i>Imperata brevifolia</i>)	-/-2B	September – May	Mesic areas in chaparral, coastal scrub, Mojavean desert scrub, meadows and seeps (often alkali), and riparian scrub.	Low No suitable habitat present	Presumed absent
Red Bluff Dwarf Rush (<i>Juncus leiospermus</i> var. <i>leiospermus</i>)	-/-1B	March – June	Vernally mesic areas in chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, vernal pools.	Suitable habitat present No nearby CNDDDB	Not likely to occur
Humboldt Lily (<i>Lilium humboldtii</i> ssp. <i>humboldtii</i>)	-/-4.2	May – July	Openings in chaparral, cismontane woodland, and lower montane coniferous forest.	Low No suitable habitat present	Presumed absent
Butte County Meadowfoam (<i>Limnanthes floccosa</i> ssp. <i>californica</i>)	E/E/1B	March – May	Mesic valley and foothill grassland, vernal pools.	High Suitable habitat present	May occur
Woolly Meadowfoam (<i>Limnanthes floccosa</i> ssp. <i>floccosa</i>)	-/-4.2	March – May	Vernally mesic areas in chaparral, cismontane woodland, valley and foothill grassland, and vernal pools.	Low Suitable habitat present	Not likely to occur
Tehama Navarretia (<i>Navarretia heterandra</i>)	-/-4.3	April – June	Mesic valley and foothill grassland, vernal pools.	Suitable habitat present No nearby CNDDDB	Not likely to occur

Table 2

Special-Status Species for the Richardson Springs, Campbell Mound, Cohasset, Paradise West, Hamlin Canyon, Chico, Ord Ferry, Nord, and Richardson Springs NW 7.5 Minute Quadrangle Maps¹

Common Name/Scientific Name	Status (Fed/State/CNPS)²	Blooming or Survey Period	Habitats of Occurrence	Potential on Site	Status on Site**
Ahart's Paronychia (<i>Paronychia ahartii</i>)	-/-/1B	February – June	Cismontane woodland, valley and foothill grassland, vernal pools.	Suitable habitat present No nearby CNDDDB	Not likely to occur
Bidwell's Knotweed (<i>Polygonum bidwelliae</i>)	-/-/4.3	April – June	Volcanic soils in chaparral, cismontane woodland, and valley and foothill grassland.	Low No suitable habitat present	Presumed absent
California Beaked-Rush (<i>Rhynchospora californica</i>)	-/-/1B	May – July	Bogs and fens, lower montane coniferous forest, meadows and seeps, and freshwater marshes and swamps.	Low No suitable habitat present	Presumed absent
Butte County Checkerbloom (<i>Sidalcea robusta</i>)	-/-/1B	April – June	Chaparral, and cismontane woodland.	Low No suitable habitat present	Presumed absent
Greene's Tuctoria (<i>Tuctoria greenei</i>)	E/R/1B	May – July	Vernal pools.	Suitable habitat present No nearby CNDDDB	Not likely to occur
BIRDS					
Golden Eagle (<i>Aquila chrysaetos</i>)	-/CP/SC	February – August	Nests in cliff-walled canyons and tall trees in open areas. (Nesting and wintering) Rolling foothills mountain areas, sage-juniper flats, and desert.	Low No suitable habitat present	Presumed absent

Table 2

Special-Status Species for the Richardson Springs, Campbell Mound, Cohasset, Paradise West, Hamlin Canyon, Chico, Ord Ferry, Nord, and Richardson Springs NW 7.5 Minute Quadrangle Maps¹

Common Name/Scientific Name	Status (Fed/State/CNPS)²	Blooming or Survey Period	Habitats of Occurrence	Potential on Site	Status on Site**
Burrowing Owl (<i>Athene cunicularia</i>)	SOC/-/SC	February – August	Dry open annual or perennial grassland, desert and scrubland. Uses abandoned mammal burrows for nesting.	Low Suitable habitat present	Not likely to occur
Red-shouldered Hawk (<i>Buteo lineatus</i>)	-/CP/-	February – August	Forages in variety of semi-developed habitats including orchards. Forages in woodlands and riparian areas. Nests in riparian habitat but also eucalyptus groves.	High Suitable habitat present	May occur
Red-tailed Hawk (<i>Buteo jamaicensis</i>)	-/CP/-	February – August	Various grassland habitats, urban land, oak woodlands with grassland for foraging.	High Suitable habitat present	Present in foraging capacity
Swainson's Hawk (<i>Buteo swainsoni</i>)	-/T/-	February – October	Nests in riparian areas and in oak savannah near foraging areas. Forages in alfalfa and grain fields with rodent populations.	Moderate Suitable habitat present	May occur
White-tailed Kite (<i>Elanus leucurus</i>)	SOC/CP/FP	February – August	Various grassland habitats, urban land, oak woodlands with grassland for foraging.	High Suitable habitat present	May occur

Table 2

Special-Status Species for the Richardson Springs, Campbell Mound, Cohasset, Paradise West, Hamlin Canyon, Chico, Ord Ferry, Nord, and Richardson Springs NW 7.5 Minute Quadrangle Maps¹

Common Name/Scientific Name	Status (Fed/State/CNPS)²	Blooming or Survey Period	Habitats of Occurrence	Potential on Site	Status on Site**
American Peregrine Falcon (<i>Falco peregrinus anatum</i>)	-/CP/-	February – August	Nests near wetlands, lakes, rivers, or other water. On cliffs, banks, dunes, mounds, and human-made structures.	Low No suitable habitat present	Presumed absent
American Kestrel (<i>Falco sparverius</i>)	-/CP/-	February – August	Various grassland habitats, urban land, oak woodlands with grassland for foraging.	High Suitable habitat present	Present in foraging capacity
California Condor (<i>Gymnogyps californianus</i>)	E/E/FP	February - August	Nesting habitats range from scrubby chaparral to forested mountain regions up to about 6,000 feet elevation. Foraging areas are in open grasslands and can be far from primary nesting sites.	Low No suitable habitat present	Presumed absent
Bald Eagle (<i>Haliaeetus leucocephalus</i>)	-/E/FP	January – July	Wetland habitats such as coasts, rivers, lakes or marshes. Uses large mature conifers or hardwood trees for nesting.	Low No suitable habitat present	Presumed absent
Yellow-Breasted Chat (<i>Icteria virens</i>)	-/SSC	Breeding (February – August)	Breeds in areas of dense shrubbery, including abandoned farm fields, clearcuts, powerline corridors, fencerows, forest edges and openings, swamps, and edges of streams and ponds. Its habitat often includes blackberry bushes. In arid regions of the West it is frequently found in shrubby habitats along rivers.	Low No suitable habitat present	Presumed absent

Table 2

Special-Status Species for the Richardson Springs, Campbell Mound, Cohasset, Paradise West, Hamlin Canyon, Chico, Ord Ferry, Nord, and Richardson Springs NW 7.5 Minute Quadrangle Maps¹

Common Name/Scientific Name	Status (Fed/State/CNPS)²	Blooming or Survey Period	Habitats of Occurrence	Potential on Site	Status on Site**
California Black Rail (<i>Laterallus jamaicensis coturniculus</i>)	-/T/FP	February – July	Inhabits shallow salt and freshwater marshes. Nests in upland areas of salt marshes, shallow freshwater marshes, wet meadows and flooded grassy vegetation.	Low No suitable habitat present	Presumed absent
Osprey (<i>Pandion halietus</i>)	-/-/WL	February - August	Inhabit areas near bodies of water such as saltmarshes, rivers, ponds, reservoirs and estuaries. Large nests are places on open poles, channel markers, or dead trees and are often over water.	Low No suitable habitat present	Presumed absent
Rufous Hummingbird (<i>Selasphorus rufus</i>)	-/-/-	Migration	Breeds in open or shrubby areas, forest openings, yards, parks and sometimes in forests, thickets and swamps. During migration, inhabit mountain meadows.	Low No suitable habitat present	Presumed absent
Yellow Warbler (<i>Setophaga petechia</i>)	-/-/SSC	February – August	(Nesting) Riparian plant associations, prefers willows, cottonwoods, aspens, sycamores, and alders for nesting and foraging. Also nests in montane shrubbery in open conifer forests.	Low No suitable habitat present	Presumed absent
Great Gray Owl (<i>Strix nebulosa</i>)	-/E/-	February - August	Pine and fir forests adjacent to montane meadows between 2,500 and 7,500 feet. In California and Oregon during the winter months, owls often move downslope into oak woodlands and lower elevation mixed deciduous and evergreen forests.	Low No suitable habitat present	Presumed absent

Table 2

Special-Status Species for the Richardson Springs, Campbell Mound, Cohasset, Paradise West, Hamlin Canyon, Chico, Ord Ferry, Nord, and Richardson Springs NW 7.5 Minute Quadrangle Maps¹

Common Name/Scientific Name	Status (Fed/State/CNPS)²	Blooming or Survey Period	Habitats of Occurrence	Potential on Site	Status on Site**
California Spotted Owl (<i>Strix occidentalis occidentalis</i>)	-/-/SSC	February - August	Older forests that contain structural characteristics necessary for nesting, roosting, and foraging. Nests are typically found in areas of high canopy cover, with a multi-layered canopy, old decadent trees, a high number of large trees, and coarse downed woody debris	Low No suitable habitat present	Presumed absent
INVERTEBRATES					
Conservancy Fairy Shrimp (<i>Branchinecta conservatio</i>)	E/-/-	Once every two weeks within two weeks of pool inundation, continuing until pool has been inundated for a minimum of 90 continuous days (usually December – May)	Large, cool-water vernal pools with moderately turbid water.	Suitable habitat present No nearby CNDDDB	Not likely to occur
Vernal Pool Fairy Shrimp (<i>Branchinecta lynchi</i>)	T/-/-	Once every two weeks within two weeks of pool inundation, continuing until pool has been inundated for a minimum of 90 continuous days (usually December – May)	Vernal pools, seasonal wetlands that fill with water during fall and winter rains and dry up in spring and summer.	Moderate Suitable habitat present	May occur

Table 2

Special-Status Species for the Richardson Springs, Campbell Mound, Cohasset, Paradise West, Hamlin Canyon, Chico, Ord Ferry, Nord, and Richardson Springs NW 7.5 Minute Quadrangle Maps¹

Common Name/Scientific Name	Status (Fed/State/CNPS) ²	Blooming or Survey Period	Habitats of Occurrence	Potential on Site	Status on Site**
Vernal Pool Tadpole Shrimp <i>(Lepidurus packardii)</i>	E/-/-	Once every two weeks within two weeks of pool inundation, continuing until pool has been inundated for a minimum of 90 continuous days (usually December – May)	Turbid vernal pools and swales in Sacramento Valley. Grass bottomed swales of unplowed grasslands.	High Suitable habitat present	May occur
California Linderiella <i>(Linderiella occidentalis)</i>	-/-/-	Once every two weeks within two weeks of pool inundation, continuing until pool has been inundated for a minimum of 90 continuous days (usually December – May)	Shallow to deep vernal pools with clear to turbid water.	High Suitable habitat present	May occur
MAMMALS					
Pallid Bat <i>(Antrozous pallidus)</i>	-/SC/-	N/A	Forages in grasslands, shrublands, deserts, forests, and woodlands. Most common in open, dry habitats. Roosts in rock crevices, caves, tree hollows, and buildings. Roosts must protect bats from high temperatures; very sensitive to disturbance of roosting sites.	Moderate Suitable habitat present	May occur

Table 2

Special-Status Species for the Richardson Springs, Campbell Mound, Cohasset, Paradise West, Hamlin Canyon, Chico, Ord Ferry, Nord, and Richardson Springs NW 7.5 Minute Quadrangle Maps¹

Common Name/Scientific Name	Status (Fed/State/CNPS)²	Blooming or Survey Period	Habitats of Occurrence	Potential on Site	Status on Site**
North American Porcupine (<i>Erethizon dorsatum</i>)	-/-	Resident	Coniferous and mixed forests. Occasionally shrublands, tundra and desert.	Low No suitable habitat present	Presumed absent
Western Mastiff Bat (<i>Eumops perotis californicus</i>)	-/-/SSC	Resident	Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees, and tunnels.	Low No suitable habitat present	Presumed absent
Silver-Haired Bat (<i>Lasionycteris noctivagans</i>)	-/-	Resident	Forested areas. Solitary roosters can be found in small tree hollows, under tree bark, in buildings, rock crevices, wood piles, and cliff faces.	Low Suitable habitat present	Not likely to occur
Hoary Bat (<i>Lasiurus cinereus</i>)	-/-	Resident	Prefers open habitats or habitat mosaics with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees near water. Feeds mainly on moths.	Moderate Suitable habitat present	May occur
Yuma Myotis (<i>Myotis yumanensis</i>)	-/-	Resident	Optimal habitats are open forests and woodlands with sources of water over which to feed. Maternal colonies occur in caves, mines, buildings or crevices.	Low Suitable habitat present	Not likely to occur
Fisher – West Coast DPS (<i>Pekania pennanti</i>)	-/T/SSC	Resident	Late-successional coniferous or mixed forests that contain relatively large diameter trees, high canopy closure, large trees with cavities, and large downed wood.	Low No suitable habitat present	Presumed absent

Table 2

Special-Status Species for the Richardson Springs, Campbell Mound, Cohasset, Paradise West, Hamlin Canyon, Chico, Ord Ferry, Nord, and Richardson Springs NW 7.5 Minute Quadrangle Maps¹

Common Name/Scientific Name	Status (Fed/State/CNPS)²	Blooming or Survey Period	Habitats of Occurrence	Potential on Site	Status on Site**
AMPHIBIAN					
Foothill Yellow-Legged Frog <i>(Rana boylei)</i>	SOC/-/SC	Year-round resident	Partially-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Need cobble for egg-laying.	Low N suitable habitat present	Not likely to occur
REPTILE					
Western Pond Turtle <i>(Emys marmorata)</i>	-/-/SC	March – October	Aquatic turtle needs permanent water in ponds, streams, irrigation ditches. Nests on sandy banks or grassy fields.	Low No suitable habitat present	Presumed absent

Table 2

Special-Status Species for the Richardson Springs, Campbell Mound, Cohasset, Paradise West, Hamlin Canyon, Chico, Ord Ferry, Nord, and Richardson Springs NW 7.5 Minute Quadrangle Maps¹

Common Name/Scientific Name	Status (Fed/State/CNPS) ²	Blooming or Survey Period	Habitats of Occurrence	Potential on Site	Status on Site**
<p>1. Special-status plants and animals as reported by the California Natural Diversity Data Base, California Native Plant Society, and other background research Nov. 2019</p> <p>2. Order of Codes for Plants - Fed/State/CNPS Order of Codes for Animals - Fed/State/CDFW</p> <p>Codes:</p> <p>SOC - Federal Species of Concern SC - California Species of Special Concern E - Federally/State Listed as an Endangered Species T - Federally/State Listed as a Threatened Species C - Species listed as a Candidate for Federal Threatened or Endangered Status R - Rare D - Delisted CP- California protected FP - State Fully Protected DFG: SC California Special Concern species 1B - California Native Plant Society considers the plant Rare, Threatened, or Endangered in California and elsewhere. 1A - CNPS Plants presumed extinct in California. 2 - CNPS Plants Rare, Threatened or Endangered in California, but more common elsewhere. 3 - CNPS Plants on a review list to find more information about a particular species. 4 - CNPS Plants of limited distribution - a watch list.</p>					

ATTACHMENT 3
SITE PHOTOGRAPHS



1. Facing east, photo shows the two culverts flow underneath the Airport Access Road on the northern Property boundary. These culverts feed ephemeral drainage ED2 within the Property.



2. Facing south, photo shows the cobble-lined channel of ephemeral drainage ED2, in the northwestern corner of the Property. This feature is immediately surrounded by seasonal wetland SW2 – both of these features are most likely jurisdictional as they showed evidence of all three wetland criteria.



3. Facing southeast, photo shows the beginning of ephemeral drainage ED3, near the southern Property boundary. This feature, like ED2, is cobble-lined and contained clear evidence of hydrology: biotic crust, which is visible in the photo.



4. Facing southwest, photo shows the western-most extent of seasonal wetland SW1. This feature was mostly bare, but several senesced individuals of hydrophytic plant species were observed, such as great valley button celery.



5. Facing southwest, photo shows the confluence of ED3 and seasonal wetland SW3, which lies underneath the trees shown in the top right corner of the photo.



6. Facing west, photo shows an overview of the southern portion of the Property. The large eucalyptus trees delineate the southern boundary, and one of the vernal pool-like features associated with SW1 can be seen in the bottom right corner of the photo.



7. Facing east, photo shows SW1. This feature is characterized by a mosaic of upland mounds and vernal pool- and swale-like wetlands. The darker patches seen within the photo show the rock and cobble basins of the wetland.



8. Facing southwest, photo shows a swale-like section of SW1. Cobble and biotic crust can be seen within the wetland, which are clear indicators of hydrology.



9. Facing southeast, photo shows the cobble-bottomed vernal pool-like section of SW1 within the northeastern portion of the Property.



10. Facing west, photo shows the Airport Access Road that delineates the northern Property boundary. Ephemeral drainage ED1 can be seen on the left-hand side of the access road.

ATTACHMENT 4
ARID WEST DATA SHEETS

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Hicks Lane Property City/County: /Butte Sampling Date: 11/12/19
 Applicant/Owner: State: CA Sampling Point: 1A
 Investigator(s): Olberding Env. Section, Township, Range:
 Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%):
 Subregion (LRR): Lat: Long: Datum:
 Soil Map Unit Name: NWI classification:
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover		Prevalence Index worksheet: <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Total % Cover of :</td> <td style="text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of :	Multiply by:	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
Total % Cover of :	Multiply by:																			
OBL species _____	x1 = _____																			
FACW species _____	x2 = _____																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
Sapling/Shrub Stratum (Plot size: _____)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
Herb Stratum (Plot size: _____)																				
1. <u>Taeniatherum caput-medusae</u>	<u>95</u>	<u>yes</u>	<u>NL (UPL)</u>																	
2. <u>Festuca perennis</u>	<u>5</u>	<u>no</u>	<u>FAC</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover																		
Woody Vine Stratum (Plot size: _____)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
% Bare Ground in Herb Stratum _____	% Cover of Biotic Crust _____																			
Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																				
Remarks:																				

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (Moist)	%	Type ¹	Loc ²		
0-6	5YR 3/3	100	_____	_____	_____	_____	Rocky loam	_____
6-12	_____	_____	_____	_____	_____	_____	_____	Very rocky
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

¹Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Duripan

Depth (Inches): 6

Remarks:

Hydric Soils Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
------------------------------	------------------------------	--

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)	
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)	

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Remarks:

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Hicks Lane Property City/County: /Butte Sampling Date: 11/12/19
 Applicant/Owner: State: CA Sampling Point: 1B
 Investigator(s): Olberding Env. Section, Township, Range:
 Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%):
 Subregion (LRR): Lat: Long: Datum:
 Soil Map Unit Name: NWI classification:
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
50% = _____, 20% = _____	_____	= Total Cover		Prevalence Index worksheet: Total % Cover of : _____ Multiply by: OBL species _____ x1 = _____ FACW species _____ x2 = _____ FAC species _____ x3 = _____ FACU species _____ x4 = _____ UPL species _____ x5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% = _____, 20% = _____	_____	= Total Cover		
Herb Stratum (Plot size: _____)				
1. <u>Eryngium castrense</u>	<u>30</u>	<u>yes</u>	<u>OBL</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Festuca perennis</u>	<u>10</u>	<u>yes</u>	<u>FAC</u>	
3. <u>Heliotropium europaeum</u>	<u>10</u>	<u>yes</u>	<u>NL (UPL)</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
50% = <u>25</u> , 20% = <u>10</u>	<u>50</u>	= Total Cover		
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____	_____	_____	_____	
50% = _____, 20% = _____	_____	= Total Cover		
% Bare Ground in Herb Stratum _____	% Cover of Biotic Crust <u>50</u>			
Remarks:				

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (Moist)	%	Type ¹	Loc ²		
0-6	5YR 3/3	50	5YR 5/8	50	C	M	Rocky loam	Prominent redox
6-12	_____	_____	_____	_____	_____	_____	_____	Very rocky
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

¹Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
 Type: Duripan
 Depth (Inches): 6

Hydric Soils Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)	
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)	
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)	

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Hicks Lane Property City/County: /Butte Sampling Date: 11/12/19
 Applicant/Owner: State: CA Sampling Point: 2A
 Investigator(s): Olberding Env. Section, Township, Range:
 Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%):
 Subregion (LRR): Lat: Long: Datum:
 Soil Map Unit Name: NWI classification:
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover		Prevalence Index worksheet: <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Total % Cover of :</td> <td style="text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of :	Multiply by:	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
Total % Cover of :	Multiply by:																			
OBL species _____	x1 = _____																			
FACW species _____	x2 = _____																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
Sapling/Shrub Stratum (Plot size: _____)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
Herb Stratum (Plot size: _____)																				
1. <u>Taeniatherum caput-medusae</u>	<u>75</u>	<u>yes</u>	<u>NL (UPL)</u>																	
2. <u>Avena fatua</u>	<u>25</u>	<u>yes</u>	<u>UPL</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
50% = _____, 20% = _____	<u>100</u>	= Total Cover																		
Woody Vine Stratum (Plot size: _____)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
% Bare Ground in Herb Stratum _____	% Cover of Biotic Crust _____																			
Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																				
Remarks:																				

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (Moist)	%	Type ¹	Loc ²		
0-6	5YR 3/3	100	_____	_____	_____	_____	Rocky loam	_____
6-12	_____	_____	_____	_____	_____	_____	_____	Very rocky
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

¹Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) **(LRR C)**
- 1 cm Muck (A9) **(LRR D)**
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) **(LRR C)**
- 2 cm Muck (A10) **(LRR B)**
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Duripan

Depth (Inches): 6

Hydric Soils Present?

Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

- | | | |
|--|--|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> Water Marks (B1) (Riverine) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) | <input type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) | <input type="checkbox"/> Drift Deposits (B3) (Riverine) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7) | <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Hicks Lane Property City/County: /Butte Sampling Date: 11/12/19
 Applicant/Owner: State: CA Sampling Point: 2B
 Investigator(s): Olberding Env. Section, Township, Range:
 Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%):
 Subregion (LRR): Lat: Long: Datum:
 Soil Map Unit Name: NWI classification:
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u> </u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
50% = <u> </u> , 20% = <u> </u>	<u> </u>	= Total Cover		Prevalence Index worksheet: <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Total % Cover of :</u></td> <td style="text-align: center;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species <u> </u></td> <td>x1 = <u> </u></td> </tr> <tr> <td>FACW species <u> </u></td> <td>x2 = <u> </u></td> </tr> <tr> <td>FAC species <u> </u></td> <td>x3 = <u> </u></td> </tr> <tr> <td>FACU species <u> </u></td> <td>x4 = <u> </u></td> </tr> <tr> <td>UPL species <u> </u></td> <td>x5 = <u> </u></td> </tr> <tr> <td>Column Totals: <u> </u> (A)</td> <td><u> </u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u> </u></td> </tr> </table>	<u>Total % Cover of :</u>	<u>Multiply by:</u>	OBL species <u> </u>	x1 = <u> </u>	FACW species <u> </u>	x2 = <u> </u>	FAC species <u> </u>	x3 = <u> </u>	FACU species <u> </u>	x4 = <u> </u>	UPL species <u> </u>	x5 = <u> </u>	Column Totals: <u> </u> (A)	<u> </u> (B)	Prevalence Index = B/A = <u> </u>	
<u>Total % Cover of :</u>	<u>Multiply by:</u>																			
OBL species <u> </u>	x1 = <u> </u>																			
FACW species <u> </u>	x2 = <u> </u>																			
FAC species <u> </u>	x3 = <u> </u>																			
FACU species <u> </u>	x4 = <u> </u>																			
UPL species <u> </u>	x5 = <u> </u>																			
Column Totals: <u> </u> (A)	<u> </u> (B)																			
Prevalence Index = B/A = <u> </u>																				
Sapling/Shrub Stratum (Plot size: <u> </u>)																				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
50% = <u> </u> , 20% = <u> </u>	<u> </u>	= Total Cover																		
Herb Stratum (Plot size: <u> </u>)																				
1. <u>Taeniatherum caput-medusae</u>	<u>50</u>	<u>yes</u>	<u>NL (UPL)</u>																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
50% = <u>25</u> , 20% = <u>10</u>	<u>50</u>	= Total Cover																		
Woody Vine Stratum (Plot size: <u> </u>)																				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
50% = <u> </u> , 20% = <u> </u>	<u> </u>	= Total Cover																		
% Bare Ground in Herb Stratum <u> </u>	% Cover of Biotic Crust <u>50</u>																			
Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																				
Remarks: <u>Vernally wet conditions allows for upland vegetation to establish late in the year, after wetland dries</u>																				

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (Moist)	%	Type ¹	Loc ²		
0-6	5YR 6/3	25	5YR 5/8	75	C	M	Rocky loam	Prominent redox
6-12	_____	_____	_____	_____	_____	_____	_____	Extremely rocky
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

¹Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) **(LRR C)**
- 1 cm Muck (A9) **(LRR D)**
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) **(LRR C)**
- 2 cm Muck (A10) **(LRR B)**
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Duripan

Depth (Inches): 6

Hydric Soils Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Hicks Lane Property City/County: /Butte Sampling Date: 11/12/19
 Applicant/Owner: State: CA Sampling Point: 3A
 Investigator(s): Olberding Env. Section, Township, Range:
 Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%):
 Subregion (LRR): Lat: Long: Datum:
 Soil Map Unit Name: NWI classification:
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover		Prevalence Index worksheet: <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Total % Cover of :</td> <td style="text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of :	Multiply by:	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
Total % Cover of :	Multiply by:																			
OBL species _____	x1 = _____																			
FACW species _____	x2 = _____																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
Sapling/Shrub Stratum (Plot size: _____)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
Herb Stratum (Plot size: _____)																				
1. <u>Taeniatherum caput-medusae</u>	<u>90</u>	<u>yes</u>	<u>NL (UPL)</u>																	
2. <u>Festuca perennis</u>	<u>5</u>	<u>no</u>	<u>FAC</u>																	
3. <u>Lactuca serriola</u>	<u>5</u>	<u>no</u>	<u>FACU</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover																		
Woody Vine Stratum (Plot size: _____)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
% Bare Ground in Herb Stratum _____	% Cover of Biotic Crust _____																			
Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																				
Remarks:																				

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (Moist)	%	Type ¹	Loc ²		
0-6	5YR 3/3	100	_____	_____	_____	_____	Rocky loam	_____
6-12	_____	_____	_____	_____	_____	_____	_____	Very rocky
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

¹Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Duripan

Depth (Inches): 6

Remarks:

Hydric Soils Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
------------------------------	---

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)	
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)	
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)	

Field Observations:

Surface Water Present?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input type="checkbox"/>	Depth (inches): _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Hicks Lane Property City/County: /Butte Sampling Date: 11/12/19
 Applicant/Owner: State: CA Sampling Point: 3B
 Investigator(s): Olberding Env. Section, Township, Range:
 Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%):
 Subregion (LRR): Lat: Long: Datum:
 Soil Map Unit Name: NWI classification:
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u> </u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
50% = <u> </u> , 20% = <u> </u>	<u> </u>	= Total Cover		Prevalence Index worksheet: <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Total % Cover of :</u></td> <td style="text-align: center;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species <u> </u></td> <td>x1 = <u> </u></td> </tr> <tr> <td>FACW species <u> </u></td> <td>x2 = <u> </u></td> </tr> <tr> <td>FAC species <u> </u></td> <td>x3 = <u> </u></td> </tr> <tr> <td>FACU species <u> </u></td> <td>x4 = <u> </u></td> </tr> <tr> <td>UPL species <u> </u></td> <td>x5 = <u> </u></td> </tr> <tr> <td>Column Totals: <u> </u> (A)</td> <td><u> </u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u> </u></td> </tr> </table>	<u>Total % Cover of :</u>	<u>Multiply by:</u>	OBL species <u> </u>	x1 = <u> </u>	FACW species <u> </u>	x2 = <u> </u>	FAC species <u> </u>	x3 = <u> </u>	FACU species <u> </u>	x4 = <u> </u>	UPL species <u> </u>	x5 = <u> </u>	Column Totals: <u> </u> (A)	<u> </u> (B)	Prevalence Index = B/A = <u> </u>	
<u>Total % Cover of :</u>	<u>Multiply by:</u>																			
OBL species <u> </u>	x1 = <u> </u>																			
FACW species <u> </u>	x2 = <u> </u>																			
FAC species <u> </u>	x3 = <u> </u>																			
FACU species <u> </u>	x4 = <u> </u>																			
UPL species <u> </u>	x5 = <u> </u>																			
Column Totals: <u> </u> (A)	<u> </u> (B)																			
Prevalence Index = B/A = <u> </u>																				
Sapling/Shrub Stratum (Plot size: <u> </u>)																				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
50% = <u> </u> , 20% = <u> </u>	<u> </u>	= Total Cover																		
Herb Stratum (Plot size: <u> </u>)																				
1. <u>Taeniatherum caput-medusae</u>	<u>45</u>	<u>yes</u>	<u>NL (UPL)</u>																	
2. <u>Festuca perennis</u>	<u>5</u>	<u>no</u>	<u>FAC</u>																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
50% = <u>25</u> , 20% = <u>10</u>	<u>50</u>	= Total Cover																		
Woody Vine Stratum (Plot size: <u> </u>)																				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
50% = <u> </u> , 20% = <u> </u>	<u> </u>	= Total Cover																		
% Bare Ground in Herb Stratum <u> </u>	% Cover of Biotic Crust <u>50</u>																			
Hydrophytic Vegetation Indicators: <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																				
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																				
Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																				
Remarks: <u>Vernally wet conditions allows for upland vegetation to establish late in the year, after wetland dries</u>																				

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (Moist)	%	Type ¹	Loc ²		
0-6	5YR 5/3	90	5YR 5/8	10	C	M	Rocky loam	Somewhat faint redox
6-12	_____	_____	_____	_____	_____	_____	_____	Extremely rocky
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

¹Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
 Type: Duripan
 Depth (Inches): 6

Hydric Soils Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Water Marks (B1) (Riverine)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> Sediment Deposits (B2) (Riverine)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Drift Deposits (B3) (Riverine)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input checked="" type="checkbox"/> Drainage Patterns (B10)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Crayfish Burrows (C8)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Shallow Aquitard (D3)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> FAC-Neutral Test (D5)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Hicks Lane Property City/County: /Butte Sampling Date: 11/12/19
 Applicant/Owner: State: CA Sampling Point: 4A
 Investigator(s): Olberding Env. Section, Township, Range:
 Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%):
 Subregion (LRR): Lat: Long: Datum:
 Soil Map Unit Name: NWI classification:
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover		Prevalence Index worksheet: <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Total % Cover of :</td> <td style="text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of :	Multiply by:	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
Total % Cover of :	Multiply by:																			
OBL species _____	x1 = _____																			
FACW species _____	x2 = _____																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
Sapling/Shrub Stratum (Plot size: _____)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
Herb Stratum (Plot size: _____)																				
1. <u>Taeniatherum caput-medusae</u>	70	yes	NL (UPL)	Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																
2. <u>Avena fatua</u>	10	yes	UPL																	
3. <u>Lactuca serriola</u>	10	yes	FACU																	
4. <u>Croton setiger</u>	10	no	NL (UPL)																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
50% = <u>50</u> , 20% = <u>20</u>	100	= Total Cover																		
Woody Vine Stratum (Plot size: _____)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
% Bare Ground in Herb Stratum _____	% Cover of Biotic Crust _____																			
Remarks:																				

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (Moist)	%	Type ¹	Loc ²		
0-6	5YR 3/3	100	_____	_____	_____	_____	Rocky loam	_____
6-12	_____	_____	_____	_____	_____	_____	_____	Very rocky
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

¹Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- | | |
|--|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | |

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Duripan

Depth (Inches): 6

Hydric Soils Present?

Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Hicks Lane Property City/County: /Butte Sampling Date: 11/12/19
 Applicant/Owner: State: CA Sampling Point: 4B
 Investigator(s): Olberding Env. Section, Township, Range:
 Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%):
 Subregion (LRR): Lat: Long: Datum:
 Soil Map Unit Name: NWI classification:
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u> </u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across All Strata: 1 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)																
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
50% = <u> </u> , 20% = <u> </u>	<u> </u>	= Total Cover		Prevalence Index worksheet: <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Total % Cover of :</u></td> <td style="text-align: center;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species <u> </u></td> <td>x1 = <u> </u></td> </tr> <tr> <td>FACW species <u> </u></td> <td>x2 = <u> </u></td> </tr> <tr> <td>FAC species <u> </u></td> <td>x3 = <u> </u></td> </tr> <tr> <td>FACU species <u> </u></td> <td>x4 = <u> </u></td> </tr> <tr> <td>UPL species <u> </u></td> <td>x5 = <u> </u></td> </tr> <tr> <td>Column Totals: <u> </u> (A)</td> <td><u> </u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u> </u></td> </tr> </table>	<u>Total % Cover of :</u>	<u>Multiply by:</u>	OBL species <u> </u>	x1 = <u> </u>	FACW species <u> </u>	x2 = <u> </u>	FAC species <u> </u>	x3 = <u> </u>	FACU species <u> </u>	x4 = <u> </u>	UPL species <u> </u>	x5 = <u> </u>	Column Totals: <u> </u> (A)	<u> </u> (B)	Prevalence Index = B/A = <u> </u>	
<u>Total % Cover of :</u>	<u>Multiply by:</u>																			
OBL species <u> </u>	x1 = <u> </u>																			
FACW species <u> </u>	x2 = <u> </u>																			
FAC species <u> </u>	x3 = <u> </u>																			
FACU species <u> </u>	x4 = <u> </u>																			
UPL species <u> </u>	x5 = <u> </u>																			
Column Totals: <u> </u> (A)	<u> </u> (B)																			
Prevalence Index = B/A = <u> </u>																				
Sapling/Shrub Stratum (Plot size: <u> </u>)																				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
50% = <u> </u> , 20% = <u> </u>	<u> </u>	= Total Cover																		
Herb Stratum (Plot size: <u> </u>)																				
1. <u>Deschampsia danthonioides</u>	<u>50</u>	<u>yes</u>	<u>FACW</u>																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
50% = <u>25</u> , 20% = <u>10</u>	<u>50</u>	= Total Cover																		
Woody Vine Stratum (Plot size: <u> </u>)																				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
50% = <u> </u> , 20% = <u> </u>	<u> </u>	= Total Cover																		
% Bare Ground in Herb Stratum <u> </u>	% Cover of Biotic Crust <u>50</u>																			
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				
Remarks:																				

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (Moist)	%	Type ¹	Loc ²		
0-6	5YR 6/4	25	5YR 5/8	75	C	M	Rocky loam	Prominent redox
6-12	_____	_____	_____	_____	_____	_____	_____	Extremely rocky
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

¹Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) **(LRR C)**
- 1 cm Muck (A9) **(LRR D)**
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) **(LRR C)**
- 2 cm Muck (A10) **(LRR B)**
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Duripan

Depth (Inches): 6

Hydric Soils Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Hicks Lane Property City/County: /Butte Sampling Date: 11/12/19
 Applicant/Owner: State: CA Sampling Point: 5A
 Investigator(s): Olberding Env. Section, Township, Range:
 Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%):
 Subregion (LRR): Lat: Long: Datum:
 Soil Map Unit Name: NWI classification:
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover		Prevalence Index worksheet: <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Total % Cover of :</td> <td style="text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of :	Multiply by:	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
Total % Cover of :	Multiply by:																			
OBL species _____	x1 = _____																			
FACW species _____	x2 = _____																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
Sapling/Shrub Stratum (Plot size: _____)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
Herb Stratum (Plot size: _____)																				
1. <u>Taeniatherum caput-medusae</u>	<u>50</u>	<u>yes</u>	<u>NL (UPL)</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Avena fatua</u>	<u>30</u>	<u>yes</u>	<u>UPL</u>																	
3. <u>Lactuca serriola</u>	<u>10</u>	<u>yes</u>	<u>FACU</u>																	
4. <u>Croton setiger</u>	<u>10</u>	<u>yes</u>	<u>NL (UPL)</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover																		
Woody Vine Stratum (Plot size: _____)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
% Bare Ground in Herb Stratum _____	% Cover of Biotic Crust _____																			
Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																				
Remarks:																				

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (Moist)	%	Type ¹	Loc ²		
0-6	5YR 3/3	100	_____	_____	_____	_____	Rocky loam	_____
6-12	_____	_____	_____	_____	_____	_____	_____	Very rocky
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

¹Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) **(LRR C)**
- 1 cm Muck (A9) **(LRR D)**
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) **(LRR C)**
- 2 cm Muck (A10) **(LRR B)**
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Duripan

Depth (Inches): 6

Hydric Soils Present?

Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Hicks Lane Property City/County: /Butte Sampling Date: 11/12/19
 Applicant/Owner: State: CA Sampling Point: 5B
 Investigator(s): Olberding Env. Section, Township, Range:
 Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%):
 Subregion (LRR): Lat: Long: Datum:
 Soil Map Unit Name: NWI classification:
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u> </u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
50% = <u> </u> , 20% = <u> </u>	<u> </u>	= Total Cover		Prevalence Index worksheet: <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Total % Cover of :</u></td> <td style="text-align: center;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species <u> </u></td> <td>x1 = <u> </u></td> </tr> <tr> <td>FACW species <u> </u></td> <td>x2 = <u> </u></td> </tr> <tr> <td>FAC species <u> </u></td> <td>x3 = <u> </u></td> </tr> <tr> <td>FACU species <u> </u></td> <td>x4 = <u> </u></td> </tr> <tr> <td>UPL species <u> </u></td> <td>x5 = <u> </u></td> </tr> <tr> <td>Column Totals: <u> </u> (A)</td> <td><u> </u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u> </u></td> </tr> </table>	<u>Total % Cover of :</u>	<u>Multiply by:</u>	OBL species <u> </u>	x1 = <u> </u>	FACW species <u> </u>	x2 = <u> </u>	FAC species <u> </u>	x3 = <u> </u>	FACU species <u> </u>	x4 = <u> </u>	UPL species <u> </u>	x5 = <u> </u>	Column Totals: <u> </u> (A)	<u> </u> (B)	Prevalence Index = B/A = <u> </u>	
<u>Total % Cover of :</u>	<u>Multiply by:</u>																			
OBL species <u> </u>	x1 = <u> </u>																			
FACW species <u> </u>	x2 = <u> </u>																			
FAC species <u> </u>	x3 = <u> </u>																			
FACU species <u> </u>	x4 = <u> </u>																			
UPL species <u> </u>	x5 = <u> </u>																			
Column Totals: <u> </u> (A)	<u> </u> (B)																			
Prevalence Index = B/A = <u> </u>																				
Sapling/Shrub Stratum (Plot size: <u> </u>)																				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
50% = <u> </u> , 20% = <u> </u>	<u> </u>	= Total Cover																		
Herb Stratum (Plot size: <u> </u>)																				
1. <u>Deschampsia danthonioides</u>	<u>25</u>	<u>yes</u>	<u>FACW</u>																	
2. <u>Festuca perennis</u>	<u>25</u>	<u>yes</u>	<u>FAC</u>																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
50% = <u>25</u> , 20% = <u>10</u>	<u>50</u>	= Total Cover																		
Woody Vine Stratum (Plot size: <u> </u>)																				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
50% = <u> </u> , 20% = <u> </u>	<u> </u>	= Total Cover																		
% Bare Ground in Herb Stratum <u> </u>	% Cover of Biotic Crust <u>50</u>																			
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				
Remarks:																				

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (Moist)	%	Type ¹	Loc ²		
0-6	5YR 6/4	25	5YR 5/8	75	C	M	Rocky loam	Prominent redox
6-12	_____	_____	_____	_____	_____	_____	_____	Extremely rocky
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

¹Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) **(LRR C)**
- 1 cm Muck (A9) **(LRR D)**
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) **(LRR C)**
- 2 cm Muck (A10) **(LRR B)**
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Duripan

Depth (Inches): 6

Hydric Soils Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Hicks Lane Property City/County: /Butte Sampling Date: 11/12/19
 Applicant/Owner: State: CA Sampling Point: 6A
 Investigator(s): Olberding Env. Section, Township, Range:
 Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%):
 Subregion (LRR): Lat: Long: Datum:
 Soil Map Unit Name: NWI classification:
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u> </u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
50% = <u> </u> , 20% = <u> </u>	<u> </u>	= Total Cover		Prevalence Index worksheet: <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Total % Cover of :</td> <td style="text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species <u> </u></td> <td>x1 = <u> </u></td> </tr> <tr> <td>FACW species <u> </u></td> <td>x2 = <u> </u></td> </tr> <tr> <td>FAC species <u> </u></td> <td>x3 = <u> </u></td> </tr> <tr> <td>FACU species <u> </u></td> <td>x4 = <u> </u></td> </tr> <tr> <td>UPL species <u> </u></td> <td>x5 = <u> </u></td> </tr> <tr> <td>Column Totals: <u> </u> (A)</td> <td><u> </u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u> </u></td> </tr> </table>	Total % Cover of :	Multiply by:	OBL species <u> </u>	x1 = <u> </u>	FACW species <u> </u>	x2 = <u> </u>	FAC species <u> </u>	x3 = <u> </u>	FACU species <u> </u>	x4 = <u> </u>	UPL species <u> </u>	x5 = <u> </u>	Column Totals: <u> </u> (A)	<u> </u> (B)	Prevalence Index = B/A = <u> </u>	
Total % Cover of :	Multiply by:																			
OBL species <u> </u>	x1 = <u> </u>																			
FACW species <u> </u>	x2 = <u> </u>																			
FAC species <u> </u>	x3 = <u> </u>																			
FACU species <u> </u>	x4 = <u> </u>																			
UPL species <u> </u>	x5 = <u> </u>																			
Column Totals: <u> </u> (A)	<u> </u> (B)																			
Prevalence Index = B/A = <u> </u>																				
Sapling/Shrub Stratum (Plot size: <u> </u>)																				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
50% = <u> </u> , 20% = <u> </u>	<u> </u>	= Total Cover																		
Herb Stratum (Plot size: <u> </u>)																				
1. <u>Taeniatherum caput-medusae</u>	<u>50</u>	<u>yes</u>	<u>NL (UPL)</u>																	
2. <u>Avena fatua</u>	<u>30</u>	<u>yes</u>	<u>UPL</u>																	
3. <u>Lactuca serriola</u>	<u>10</u>	<u>yes</u>	<u>FACU</u>																	
4. <u>Croton setiger</u>	<u>10</u>	<u>yes</u>	<u>NL (UPL)</u>																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover																		
Woody Vine Stratum (Plot size: <u> </u>)																				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
50% = <u> </u> , 20% = <u> </u>	<u> </u>	= Total Cover																		
% Bare Ground in Herb Stratum <u> </u>	% Cover of Biotic Crust <u> </u>																			
Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																				
Remarks:																				

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (Moist)	%	Type ¹	Loc ²		
0-6	5YR 3/3	100	_____	_____	_____	_____	Rocky loam	_____
6-12	_____	_____	_____	_____	_____	_____	_____	Very rocky
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

¹Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) **(LRR C)**
- 1 cm Muck (A9) **(LRR D)**
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) **(LRR C)**
- 2 cm Muck (A10) **(LRR B)**
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Duripan

Depth (Inches): 6

Hydric Soils Present?

Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

- | | | |
|--|--|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> Water Marks (B1) (Riverine) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) | <input type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) | <input type="checkbox"/> Drift Deposits (B3) (Riverine) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7) | <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Hicks Lane Property City/County: /Butte Sampling Date: 11/12/19
 Applicant/Owner: State: CA Sampling Point: 6B
 Investigator(s): Olberding Env. Section, Township, Range:
 Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%):
 Subregion (LRR): Lat: Long: Datum:
 Soil Map Unit Name: NWI classification:
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u> </u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
50% = <u> </u> , 20% = <u> </u>	<u> </u>	= Total Cover		Prevalence Index worksheet: <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Total % Cover of :</u></td> <td style="text-align: center;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species <u> </u></td> <td>x1 = <u> </u></td> </tr> <tr> <td>FACW species <u> </u></td> <td>x2 = <u> </u></td> </tr> <tr> <td>FAC species <u> </u></td> <td>x3 = <u> </u></td> </tr> <tr> <td>FACU species <u> </u></td> <td>x4 = <u> </u></td> </tr> <tr> <td>UPL species <u> </u></td> <td>x5 = <u> </u></td> </tr> <tr> <td>Column Totals: <u> </u> (A)</td> <td><u> </u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u> </u></td> </tr> </table>	<u>Total % Cover of :</u>	<u>Multiply by:</u>	OBL species <u> </u>	x1 = <u> </u>	FACW species <u> </u>	x2 = <u> </u>	FAC species <u> </u>	x3 = <u> </u>	FACU species <u> </u>	x4 = <u> </u>	UPL species <u> </u>	x5 = <u> </u>	Column Totals: <u> </u> (A)	<u> </u> (B)	Prevalence Index = B/A = <u> </u>	
<u>Total % Cover of :</u>	<u>Multiply by:</u>																			
OBL species <u> </u>	x1 = <u> </u>																			
FACW species <u> </u>	x2 = <u> </u>																			
FAC species <u> </u>	x3 = <u> </u>																			
FACU species <u> </u>	x4 = <u> </u>																			
UPL species <u> </u>	x5 = <u> </u>																			
Column Totals: <u> </u> (A)	<u> </u> (B)																			
Prevalence Index = B/A = <u> </u>																				
Sapling/Shrub Stratum (Plot size: <u> </u>)																				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
50% = <u> </u> , 20% = <u> </u>	<u> </u>	= Total Cover																		
Herb Stratum (Plot size: <u> </u>)																				
1. <u>Polypogon interruptus</u>	<u>25</u>	<u>yes</u>	<u>FACW</u>																	
2. <u>Festuca perennis</u>	<u>25</u>	<u>yes</u>	<u>FAC</u>																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
50% = <u>25</u> , 20% = <u>10</u>	<u>50</u>	= Total Cover																		
Woody Vine Stratum (Plot size: <u> </u>)																				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
50% = <u> </u> , 20% = <u> </u>	<u> </u>	= Total Cover																		
% Bare Ground in Herb Stratum <u> </u>	% Cover of Biotic Crust <u>50</u>																			
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				
Remarks:																				

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (Moist)	%	Type ¹	Loc ²		
0-6	5YR 6/4	25	5YR 5/8	75	C	M	Rocky loam	Prominent redox
6-12	_____	_____	_____	_____	_____	_____	_____	Extremely rocky
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

¹Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) **(LRR C)**
- 1 cm Muck (A9) **(LRR D)**
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) **(LRR C)**
- 2 cm Muck (A10) **(LRR B)**
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Duripan

Depth (Inches): 6

Hydric Soils Present?

Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Hicks Lane Property City/County: /Butte Sampling Date: 11/12/19
 Applicant/Owner: State: CA Sampling Point: 7A
 Investigator(s): Olberding Env. Section, Township, Range:
 Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%):
 Subregion (LRR): Lat: Long: Datum:
 Soil Map Unit Name: NWI classification:
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover		Prevalence Index worksheet: <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Total % Cover of :</td> <td style="text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of :	Multiply by:	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
Total % Cover of :	Multiply by:																			
OBL species _____	x1 = _____																			
FACW species _____	x2 = _____																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
Sapling/Shrub Stratum (Plot size: _____)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
Herb Stratum (Plot size: _____)																				
1. <u>Taeniatherum caput-medusae</u>	<u>60</u>	<u>yes</u>	<u>NL (UPL)</u>																	
2. <u>Avena fatua</u>	<u>20</u>	<u>yes</u>	<u>UPL</u>																	
3. <u>Lactuca serriola</u>	<u>10</u>	<u>yes</u>	<u>FACU</u>																	
4. <u>Croton setiger</u>	<u>10</u>	<u>yes</u>	<u>NL (UPL)</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover																		
Woody Vine Stratum (Plot size: _____)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
% Bare Ground in Herb Stratum _____	% Cover of Biotic Crust _____																			
Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																				
Remarks:																				

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (Moist)	%	Type ¹	Loc ²		
0-6	5YR 3/3	100	_____	_____	_____	_____	Rocky loam	_____
6-12	_____	_____	_____	_____	_____	_____	_____	Very rocky
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

¹Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) **(LRR C)**
- 1 cm Muck (A9) **(LRR D)**
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) **(LRR C)**
- 2 cm Muck (A10) **(LRR B)**
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Duripan

Depth (Inches): 6

Hydric Soils Present?

Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Hicks Lane Property City/County: /Butte Sampling Date: 11/12/19
 Applicant/Owner: State: CA Sampling Point: 7B
 Investigator(s): Olberding Env. Section, Township, Range:
 Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%):
 Subregion (LRR): Lat: Long: Datum:
 Soil Map Unit Name: NWI classification:
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u> </u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66</u> (A/B)																
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
50% = <u> </u> , 20% = <u> </u>	<u> </u>	= Total Cover		Prevalence Index worksheet: <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Total % Cover of :</u></td> <td style="text-align: center;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species <u> </u></td> <td>x1 = <u> </u></td> </tr> <tr> <td>FACW species <u> </u></td> <td>x2 = <u> </u></td> </tr> <tr> <td>FAC species <u> </u></td> <td>x3 = <u> </u></td> </tr> <tr> <td>FACU species <u> </u></td> <td>x4 = <u> </u></td> </tr> <tr> <td>UPL species <u> </u></td> <td>x5 = <u> </u></td> </tr> <tr> <td>Column Totals: <u> </u> (A)</td> <td><u> </u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u> </u></td> </tr> </table>	<u>Total % Cover of :</u>	<u>Multiply by:</u>	OBL species <u> </u>	x1 = <u> </u>	FACW species <u> </u>	x2 = <u> </u>	FAC species <u> </u>	x3 = <u> </u>	FACU species <u> </u>	x4 = <u> </u>	UPL species <u> </u>	x5 = <u> </u>	Column Totals: <u> </u> (A)	<u> </u> (B)	Prevalence Index = B/A = <u> </u>	
<u>Total % Cover of :</u>	<u>Multiply by:</u>																			
OBL species <u> </u>	x1 = <u> </u>																			
FACW species <u> </u>	x2 = <u> </u>																			
FAC species <u> </u>	x3 = <u> </u>																			
FACU species <u> </u>	x4 = <u> </u>																			
UPL species <u> </u>	x5 = <u> </u>																			
Column Totals: <u> </u> (A)	<u> </u> (B)																			
Prevalence Index = B/A = <u> </u>																				
Sapling/Shrub Stratum (Plot size: <u> </u>)																				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
50% = <u> </u> , 20% = <u> </u>	<u> </u>	= Total Cover																		
Herb Stratum (Plot size: <u> </u>)																				
1. <u>Taeniatherum caput-medusae</u>	<u>10</u>	<u>yes</u>	<u>NL (UPL)</u>																	
2. <u>Festuca perennis</u>	<u>25</u>	<u>yes</u>	<u>FAC</u>																	
3. <u>Eryngium castrense</u>	<u>10</u>	<u>yes</u>	<u>OBL</u>																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
50% = <u>22.5</u> , 20% = <u>9</u>	<u>45</u>	= Total Cover																		
Woody Vine Stratum (Plot size: <u> </u>)																				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
50% = <u> </u> , 20% = <u> </u>	<u> </u>	= Total Cover																		
% Bare Ground in Herb Stratum <u> </u>	% Cover of Biotic Crust <u>55</u>																			
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				
Remarks:																				

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (Moist)	%	Type ¹	Loc ²		
0-6	5YR 6/4	25	5YR 5/8	75	C	M	Rocky loam	Prominent redox
6-12	_____	_____	_____	_____	_____	_____	_____	Extremely rocky
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

¹Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input checked="" type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
 Type: Duripan
 Depth (Inches): 6

Hydric Soils Present? Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)	
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)	
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)	
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)	
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)	

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Hicks Lane Property City/County: /Butte Sampling Date: 11/12/19
 Applicant/Owner: State: CA Sampling Point: 8A
 Investigator(s): Olberding Env. Section, Township, Range:
 Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%):
 Subregion (LRR): Lat: Long: Datum:
 Soil Map Unit Name: NWI classification:
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover		Prevalence Index worksheet: <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Total % Cover of :</td> <td style="text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of :	Multiply by:	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
Total % Cover of :	Multiply by:																			
OBL species _____	x1 = _____																			
FACW species _____	x2 = _____																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
Sapling/Shrub Stratum (Plot size: _____)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
Herb Stratum (Plot size: _____)																				
1. <u>Taeniatherum caput-medusae</u>	<u>60</u>	<u>yes</u>	<u>NL (UPL)</u>																	
2. <u>Avena fatua</u>	<u>20</u>	<u>yes</u>	<u>UPL</u>																	
3. <u>Lactuca serriola</u>	<u>10</u>	<u>yes</u>	<u>FACU</u>																	
4. <u>Croton setiger</u>	<u>10</u>	<u>yes</u>	<u>NL (UPL)</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover																		
Woody Vine Stratum (Plot size: _____)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
% Bare Ground in Herb Stratum _____	% Cover of Biotic Crust _____																			
Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																				
Remarks:																				

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (Moist)	%	Type ¹	Loc ²		
0-6	5YR 3/3	100	_____	_____	_____	_____	Rocky loam	_____
6-12	_____	_____	_____	_____	_____	_____	_____	Very rocky
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

¹Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- | | |
|--|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | |

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Duripan

Depth (Inches): 6

Hydric Soils Present?

Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Hicks Lane Property City/County: /Butte Sampling Date: 11/12/19
 Applicant/Owner: State: CA Sampling Point: 8B
 Investigator(s): Olberding Env. Section, Township, Range:
 Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%):
 Subregion (LRR): Lat: Long: Datum:
 Soil Map Unit Name: NWI classification:
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u> </u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)																
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
50% = <u> </u> , 20% = <u> </u>	<u> </u>	= Total Cover		Prevalence Index worksheet: <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;"><u>Total % Cover of :</u></td> <td style="text-align: center;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species <u> </u></td> <td>x1 = <u> </u></td> </tr> <tr> <td>FACW species <u> </u></td> <td>x2 = <u> </u></td> </tr> <tr> <td>FAC species <u> </u></td> <td>x3 = <u> </u></td> </tr> <tr> <td>FACU species <u> </u></td> <td>x4 = <u> </u></td> </tr> <tr> <td>UPL species <u> </u></td> <td>x5 = <u> </u></td> </tr> <tr> <td>Column Totals: <u> </u> (A)</td> <td><u> </u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u> </u></td> </tr> </table>	<u>Total % Cover of :</u>	<u>Multiply by:</u>	OBL species <u> </u>	x1 = <u> </u>	FACW species <u> </u>	x2 = <u> </u>	FAC species <u> </u>	x3 = <u> </u>	FACU species <u> </u>	x4 = <u> </u>	UPL species <u> </u>	x5 = <u> </u>	Column Totals: <u> </u> (A)	<u> </u> (B)	Prevalence Index = B/A = <u> </u>	
<u>Total % Cover of :</u>	<u>Multiply by:</u>																			
OBL species <u> </u>	x1 = <u> </u>																			
FACW species <u> </u>	x2 = <u> </u>																			
FAC species <u> </u>	x3 = <u> </u>																			
FACU species <u> </u>	x4 = <u> </u>																			
UPL species <u> </u>	x5 = <u> </u>																			
Column Totals: <u> </u> (A)	<u> </u> (B)																			
Prevalence Index = B/A = <u> </u>																				
Sapling/Shrub Stratum (Plot size: <u> </u>)																				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
50% = <u> </u> , 20% = <u> </u>	<u> </u>	= Total Cover																		
Herb Stratum (Plot size: <u> </u>)																				
1. <u>Taeniatherum caput-medusae</u>	<u>30</u>	<u>yes</u>	<u>NL (UPL)</u>																	
2. <u>Festuca perennis</u>	<u>30</u>	<u>yes</u>	<u>FAC</u>																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
50% = <u>30</u> , 20% = <u>12</u>	<u>60</u>	= Total Cover																		
Woody Vine Stratum (Plot size: <u> </u>)																				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
50% = <u> </u> , 20% = <u> </u>	<u> </u>	= Total Cover																		
% Bare Ground in Herb Stratum <u> </u>	% Cover of Biotic Crust <u>40</u>																			

Hydrophytic Vegetation Indicators:

Dominance Test is >50%

Prevalence Index is ≤3.0¹

Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes No

Remarks: Sample point is located on fringe of wetland where annual upland species have established due to the short hydroperiod of the wetland

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (Moist)	%	Type ¹	Loc ²		
0-6	5YR 6/4	25	5YR 5/8	75	C	M	Rocky loam	Prominent redox
6-12	_____	_____	_____	_____	_____	_____	_____	Extremely rocky
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

¹Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) **(LRR C)**
- 1 cm Muck (A9) **(LRR D)**
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) **(LRR C)**
- 2 cm Muck (A10) **(LRR B)**
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Duripan

Depth (Inches): 6

Hydric Soils Present?

Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input checked="" type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Hicks Lane Property City/County: /Butte Sampling Date: 11/12/19
 Applicant/Owner: State: CA Sampling Point: 9A
 Investigator(s): Olberding Env. Section, Township, Range:
 Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%):
 Subregion (LRR): Lat: Long: Datum:
 Soil Map Unit Name: NWI classification:
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:																
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover		Prevalence Index worksheet: <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Total % Cover of :</td> <td style="text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of :	Multiply by:	OBL species _____	x1 = _____	FACW species _____	x2 = _____	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
Total % Cover of :	Multiply by:																			
OBL species _____	x1 = _____																			
FACW species _____	x2 = _____																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
Sapling/Shrub Stratum (Plot size: _____)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
Herb Stratum (Plot size: _____)																				
1. <u>Taeniatherum caput-medusae</u>	<u>60</u>	<u>yes</u>	<u>NL (UPL)</u>	Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																
2. <u>Avena fatua</u>	<u>20</u>	<u>yes</u>	<u>UPL</u>																	
3. <u>Lactuca serriola</u>	<u>10</u>	<u>yes</u>	<u>FACU</u>																	
4. <u>Croton setiger</u>	<u>10</u>	<u>yes</u>	<u>NL (UPL)</u>																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover																		
Woody Vine Stratum (Plot size: _____)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
50% = _____, 20% = _____	_____	= Total Cover																		
% Bare Ground in Herb Stratum _____	% Cover of Biotic Crust _____																			
Remarks:																				

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (Moist)	%	Type ¹	Loc ²		
0-6	5YR 3/3	100	_____	_____	_____	_____	Rocky loam	_____
6-12	_____	_____	_____	_____	_____	_____	_____	Very rocky
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

¹Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) **(LRR C)**
- 1 cm Muck (A9) **(LRR D)**
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Vernal Pools (F9)

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) **(LRR C)**
- 2 cm Muck (A10) **(LRR B)**
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Duripan

Depth (Inches): 6

Hydric Soils Present?

Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

- | | | |
|--|--|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> Water Marks (B1) (Riverine) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) | <input type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) | <input type="checkbox"/> Drift Deposits (B3) (Riverine) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Crayfish Burrows (C8) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Thin Muck Surface (C7) | <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> FAC-Neutral Test (D5) |

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project Site: Hicks Lane Property City/County: /Butte Sampling Date: 11/12/19
 Applicant/Owner: State: CA Sampling Point: 10A
 Investigator(s): Olberding Env. Section, Township, Range:
 Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%):
 Subregion (LRR): Lat: Long: Datum:
 Soil Map Unit Name: NWI classification:
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u> </u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:	
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Number of Dominant Species That Are OBL, FACW, or FAC:	<u>0</u> (A)
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Total Number of Dominant Species Across All Strata:	<u>4</u> (B)
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>0</u> (A/B)
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
50% = <u> </u> , 20% = <u> </u>	<u> </u>	= Total Cover			
<u>Sapling/Shrub Stratum (Plot size: <u> </u>)</u>				Prevalence Index worksheet:	
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Total % Cover of :	Multiply by:
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	OBL species <u> </u>	x1 = <u> </u>
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	FACW species <u> </u>	x2 = <u> </u>
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	FAC species <u> </u>	x3 = <u> </u>
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	FACU species <u> </u>	x4 = <u> </u>
50% = <u> </u> , 20% = <u> </u>	<u> </u>	= Total Cover		UPL species <u> </u>	x5 = <u> </u>
<u>Herb Stratum (Plot size: <u> </u>)</u>				Column Totals: <u> </u> (A)	<u> </u> (B)
1. <u>Taeniatherum caput-medusae</u>	<u>60</u>	<u>yes</u>	<u>NL (UPL)</u>	Prevalence Index = B/A = <u> </u>	
2. <u>Avena fatua</u>	<u>20</u>	<u>yes</u>	<u>UPL</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
3. <u>Lactuca serriola</u>	<u>10</u>	<u>yes</u>	<u>FACU</u>		
4. <u>Croton setiger</u>	<u>10</u>	<u>yes</u>	<u>NL (UPL)</u>		
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
50% = <u>50</u> , 20% = <u>20</u>	<u>100</u>	= Total Cover			
<u>Woody Vine Stratum (Plot size: <u> </u>)</u>				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>		
50% = <u> </u> , 20% = <u> </u>	<u> </u>	= Total Cover			
% Bare Ground in Herb Stratum <u> </u>	% Cover of Biotic Crust <u> </u>				
Remarks:					

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (Moist)	%	Type ¹	Loc ²		
0-6	5YR 3/3	100	_____	_____	_____	_____	Rocky loam	_____
6-12	_____	_____	_____	_____	_____	_____	_____	Very rocky
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____	_____

¹Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- | | |
|--|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | |

Indicators for Problematic Hydric Soils³:

- 1 cm Muck (A9) (LRR C)
- 2 cm Muck (A10) (LRR B)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Duripan

Depth (Inches): 6

Hydric Soils Present?

Yes No

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: