

**Almanor Recreation Center**

**INITIAL STUDY**  
**and**  
**Proposed Mitigated Negative Declaration**

**June 2020**

**Lead Agency:**

Almanor Recreation and Park District  
P.O. Box 325  
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## Table of Contents

<b>I. PROJECT DESCRIPTION.....</b>	<b>1</b>
<b>II. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: .....</b>	<b>7</b>
<b>III. DETERMINATION .....</b>	<b>7</b>
<b>IV. EVALUATION OF ENVIRONMENTAL IMPACTS .....</b>	<b>8</b>
A. Aesthetics .....	9
B. Agriculture and Forest Resources:.....	10
C. Air Quality .....	12
D. Biological Resources .....	15
E. Cultural Resources .....	22
F. Energy .....	23
G. Geology/Soils .....	24
H. Greenhouse Gas Emissions .....	26
I. Hazards /Hazardous Materials.....	27
J. Hydrology/ Water Quality.....	29
K. Land Use and Planning.....	31
L. Mineral Resources .....	32
M. Noise .....	33
N. Population and Housing.....	34
O. Public Services .....	35
P. Recreation.....	36
Q. Transportation .....	37
R. Tribal Cultural Resources .....	38
S. Utilities and Service Systems .....	40
T. Wildfire .....	41
U. Mandatory Findings Of Significance .....	42
<b>V. REFERENCES .....</b>	<b>43</b>

## List of Figures

Figure 1 – Location Map.....	3
Figure 2 - Site Plan .....	5
Figure 3 – Draft Wetland Delineation Map .....	19

## List of Tables

Table 1 – Plumas County Ambient Air Quality Attainment Status.....	12
Table 2 - Northern Sierra Air Quality Management District Thresholds of Significance .....	14
Table 3 - CalEEMod Results Summary.....	14

## **List of Appendices**

- Appendix A** – CalEEMod Results
- Appendix B** – Biological Resource Assessment
- Appendix C** – Delineation of Waters of the United States
- Appendix D** – Cultural Resource Assessment
- Appendix E** – Tribal Consultation Letters



## **List of Acronyms**

AB	Assembly Bill
ARPD	Almanor Recreation and Park District
BMPs	Best Management Practices
BSA	Biological Survey Area
CBC	California Building Code
CEQA	California Environmental Quality Act
CFGC	California Fish and Game Commission
CNDDDB	California Natural Diversity Database
CVWQCB	Central Valley Regional Water Quality Control Board
CWHR	California Wildlife Habitat Relationships
dBA	decibel
DTSC	Department of Toxic Substances Control
EIR	Environmental Impact Report
ESA	Endangered Species Act
ESA	Environmentally Sensitive Area
FEMA	Federal Emergency Management Agency
FMMP	Farmland Mapping and Monitoring Program
ft	Feet
GHG	Greenhouse gas
LID	Low Impact Development
MBTA	Migratory Bird Treaty Act
MND	Mitigated Negative Declaration
MMRP	Mitigation Monitoring and Reporting Program
NRCS	Natural Resources Conservation Service
NPDES	National Pollution Discharge Elimination Permit
NEIC	Northeast Information Center
NSAQMD or Air District	northern Sierra Air Quality Management District
NOx	Oxides of Nitrogen
OWOTUS	Other Waters of the United States
PCC	Plumas County Code
PM	Parcel Map
PM <sub>2.5</sub>	Fine Particulate Matter
PM <sub>10</sub>	Respirable Particulate Matter
ROG	Reactive Organic Gases
RPW	Relatively Permanent Water
SNC	Sensitive Natural Community
sq ft	Square feet
SWPPP	Stormwater Pollution Prevention Plan
TNW	Traditional Navigable Waters
USACE or Corps	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service

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## INITIAL STUDY

### Almanor Recreation and Park District Environmental Coordination and Review

#### I. PROJECT DESCRIPTION

**A. Project Title:** Almanor Recreation Center

**B. Project Location:** The Project is located on the west side of Meadowbrook Loop in the unincorporated Town of Chester within Plumas County, California, Latitude 40.308129 Longitude -121.232379. (**Figure 1 – Location Map**).

**C. Applications:** Grading Permit (Plumas County)

**D. Assessor's Parcel Number(s) (APN):** 100-230-023, 100-230-024

**E. Project Size:** 3 acres

**F. General Plan Designation:**  
Resort and Recreation

**G. Zoning:**  
REC-P (Prime Recreation)

**H. Environmental Setting:**

The project site is located within Chester, a census-designated place, in Plumas County, California. Chester is located off of Lake Almanor and is situated at the interface between the Cascade mountain range and the Sierra Nevada mountain range. The northern portion of the Project site contains the existing Almanor Recreation Center buildings, asphalt driveway, and parking lot. The remainder of the Project site is dominated by Jeffrey pine forest with some large patches of open grassland, particularly in the southeastern corner of the site. There is minimal evidence of human disturbance in this portion of the site. A few small seasonal wetland swales occur within the southern portion of Project site and along the southwestern corner, and just offsite to the south, is a braided drainage (Stover Drainage Ditch). A few scattered black cottonwood trees and willows occur in and adjacent to the wetlands and drainage in the Project site. This drainage is a historic diversion ditch that has widened over time and become braided due to the presence of beavers upstream of the site. Land surrounding the Project site is dominated by open pine forest to the west, the Truman Collins Sports Field and parking lot to the north and commercial and residential buildings to the south and east.

**I. Project Description:**

The proposed project will occur in two phases of construction. The first phase of construction will occur in the northern half of the property and integrate with the existing building facilities. The second phase will occur in the southern half of the site.

Phase One

Within the Phase one area are existing buildings, which include a community building and the modular office building. Phase one of the development will include a community garden; covered picnic areas; a skate park, concrete play elements including a Ping-Pong table, benches, foosball, corn hole and chess/checkers; and other elements like landscaping, bicycle racks, storage, lighting and extended parking. A loop road will provide access to the parking and facilities with two entrances from Meadowbrook Loop. Approximately 35-40 parking spots will be formally established within the project area.

Phase Two

Phase two of the development will consist of a bicycle pump track, pickle ball courts, a restroom/concessionaire stand and other elements such as landscaping, benches, and lighting.

A natural area will be left as-is in the southwestern corner to avoid the existing stream channel. Impervious surfaces will be minimized using pervious alternatives, French drains, and a system of subsurface rock retention areas. Porous asphalt surfaces will be used in the curved one-way driveway restricted to a 15-18 foot width, with adjacent 45 degree parking stalls constructed of a pervious cellular confinement system using very thin-walled **6" tall plastic cells filled with compacted permeable crushed rock**. The lowest portions of designed swales within the pump track and skatepark will either be lined with a cobble gravel mixture or will have drains connected to French drains tied to a cellular confinement storage area. Storm water would subsequently be detained, allowing sediment to settle, or be filtered, prior to discharge into the permeable subsurface site soils. Park facilities will be open from 9 AM to 5 PM generally when winter and spring snows are not covering the ground and recreation surfaces and the curved driveway and parking areas have been snow-plowed.

The land in which phase two will occur has three seasonal swales and a stream. The stream will be avoided but the three seasonal swales will likely be impacted by the proposed pump track and pickle ball courts of the phase two development. Any fill or modification of the aquatic features at the site will require permits and authorizations from the U.S. Army Corps of Engineers, Central Valley Regional Water Quality Control Board and California Department of Fish and Wildlife. Phase one of the project will occur in an area that is void of any aquatic or wetland resources and therefore does not require the aforementioned permits.

The initial development task within the Phase one area will occur between the two existing buildings and will be funded by the Per Capita Program managed by the California Department of State Parks using Proposition 68 bond funds passed by voters in 2018. Each qualified recreation district in California is eligible for \$200,000. The award is expected to be available in the fall of 2020 and spending will need to be completed by 2025. Additional private and state grant funds are being solicited to include more development tasks within the Phase one area including timber harvesting, the curved driveway and adjacent parking. The purpose of the planned development is to expand recreation features in Chester to broaden the variety of activities and appeal to different age groups. This will benefit the physical and mental health of residents, as well as their visiting out-of-town friends and family, as well as area tourists.

**J. Public Agency Approvals:**

1. Northern Sierra Air Quality Management District – Dust Control Plan
2. Plumas County– Grading Permit, Building Permit, Project Approval, Site Development Permit
3. Regional Water Quality Control Board – NPDES and Water Quality Certification Permit (phase two)
4. U.S. Army Corps of Engineers – Clean Water Act §404 Permit (phase two)

**K. Applicants:** Almanor Recreation and Park District

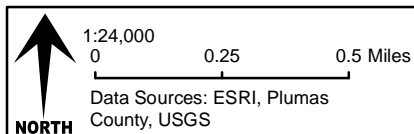
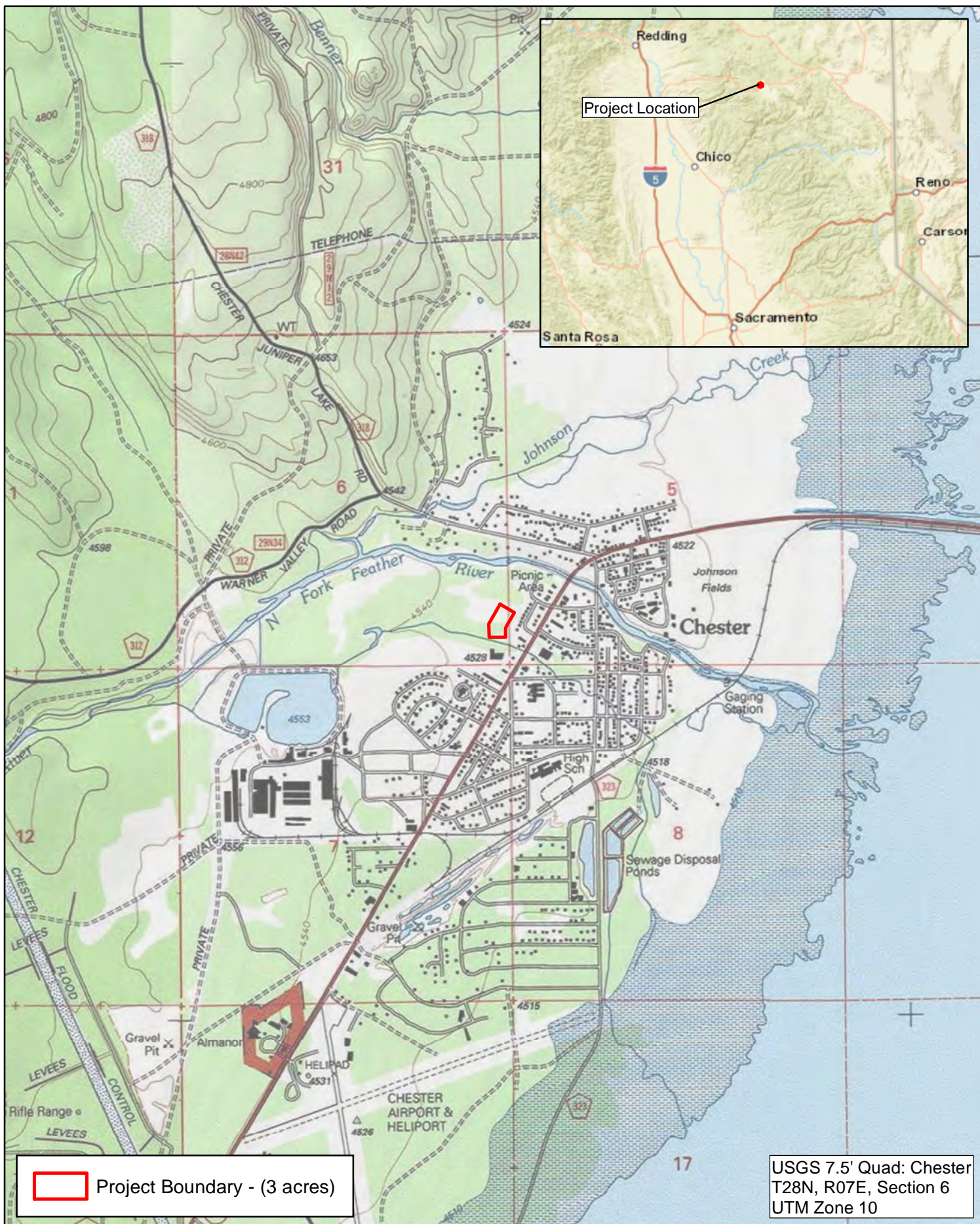
**L. Lead Agency Contact:**

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Almanor Recreation and Park District,  
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Chester, CA 96020  
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**M. 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, has consultation begun?**

Native American tribes traditionally and culturally affiliated with the project area have not requested consultation pursuant to Public Resources Code section 21080.3.1. In an effort to address the requirement to consult with Native American Tribes affiliated with the project area, ARPD Staff requested consultation with the eight Tribes identified on the NAHC contact list for Plumas County on May 15, 2020 and received one response from the Mooretown Rancheria indicating they are not aware of any known cultural resources on the site.

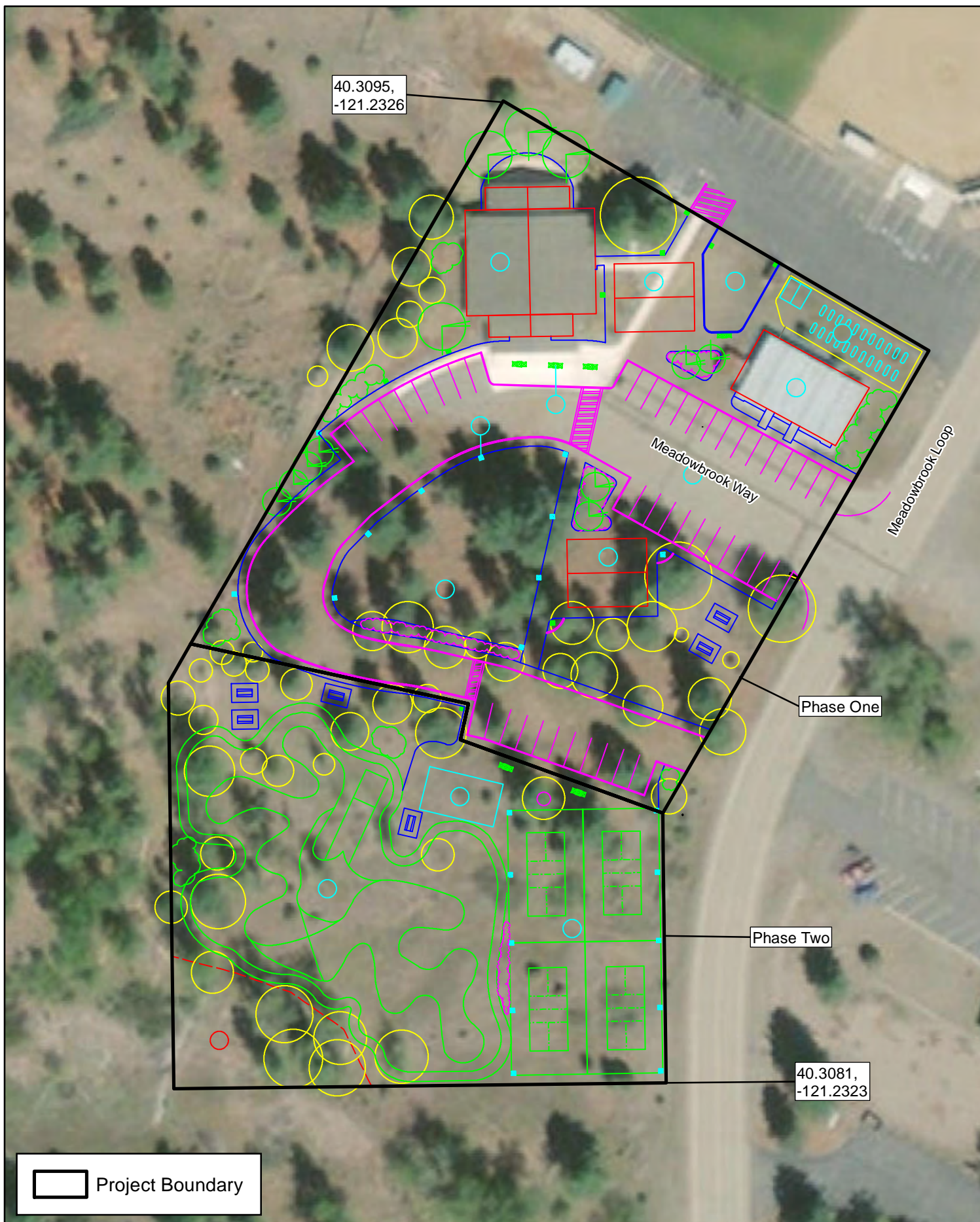




**Almanor Recreation Center  
Regional Location  
Figure 1**

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## II. 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.

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

## III. DETERMINATION

On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

- ☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

- ☐ I find that the proposed project MAY have a potentially significant impact or have a potentially significant impact unless mitigated, but at least one effect has been adequately analyzed in an earlier document pursuant to applicable legal standards, and has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT (EIR) 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, there WILL NOT be a significant effect in this case because all potentially significant effects have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards and 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. No further study is required.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name

#### IV. EVALUATION OF ENVIRONMENTAL IMPACTS

- Responses to the following questions and related discussion indicate if the proposed project will have or potentially have a significant adverse impact on the environment.
- A brief explanation is required for all answers except “No Impact” answers that are adequately supported by referenced information sources. 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 or general standards.
- 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.
- Once it has been 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 is at least one “Potentially Significant Impact” entry when the determination is made an EIR is required.
- Negative Declaration: “Less than Significant with Mitigation Incorporated” applies when the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less than Significant Impact.” The initial study will describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section 4, “Earlier Analysis,” may be cross-referenced).
- Earlier analyses may be used where, pursuant to tiering, a program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration [Section 15063(c)(3)(D)].
- Initial studies may incorporate references to information sources for potential impacts (e.g. the general plan or zoning ordinances, etc.). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated. A source list attached, and other sources used or individuals contacted are cited in the discussion.
- 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 significant.

#### **A. Aesthetics**

Except as provide in Public Resources Code Section 21099, would the project or its related activities:

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

#### **DISCUSSION:**

**A.1 - A.3. Less Than Significant Impact.** The proposed Almanor Recreation Center Project will change the current visual character of the undeveloped site. The project is located in northwest Chester. The site is located between Stover Ditch and the North Fork of the Feather River. The area to the east and south of the site is developed with commercial land uses. The land to the north is a recreational facility (Truman Collins Sports Field) and the area to the west is an undeveloped wooded area. The General Plan designation of the surrounding area is predominately *Commercial and Resort* and *Recreation*.

It is expected that the proposed development will complement the existing visual character of the vicinity. New light sources will be introduced to the site as part of the proposed project, including building-mounted light fixtures and ground-mounted light poles within the vehicle parking areas and around the facility. The proposed lighting will be consistent with lighting associated with existing recreational and commercial facilities in the area.

The proposed development will not have a substantial adverse effect on a scenic vista. Meadowbrook Loop is not designated as a state scenic highway nor are there any identified scenic resources including trees, rock outcroppings, and historic buildings, in the project area. It is anticipated that the project will have a **less than significant impact** on a scenic vista or scenic resource and would not substantially degrade the visual character or quality of the site and its surroundings.

**A.4. Less Than Significant Impact.** Park facilities will be open from 9 AM to 5 PM, seven days a week, which will introduce a new source of light and glare to the surrounding area. Minimal light spillage would occur from the project site to the surrounding roads and parcels. All proposed lighting would need to comply with PCC §9-2.411 (*Lighting facilities*). Therefore, the project would have a **less than significant impact** on light or glare that could affect day or nighttime views.

**MITIGATION:** None Required.

## B. Agriculture and Forest Resources:

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) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
1. 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?				X
2. Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
3. 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))?				X
4. Result in the loss of forest land or conversion of forest land to non-forest use?			X	
5. 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?				X

## DISCUSSION:

**B.1.–B.5. Less Than Significant Impact.** The project will not convert Prime or Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use. The California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program (FMMP) does not provide exclusive data for Plumas County, however it does collect and present data for the entire Sierra Valley, Which includes portions of Lassen, Plumas and Sierra Counties. The

proposed project site is not designated as Prime or Unique Farmland, or Farmland of Statewide Importance.

The project will not conflict with existing zoning for agricultural use or forest land and is not under a Williamson Act Contract. The project will result in the loss of forested land, through the removal of selected trees necessary for the development of the site, however several trees will remain. The site is **designated in the General Plan as "Resort and Recreation" and is therefore** planned for development. The project will result in **a less than significant impact** to agriculture and forest resources.

**MITIGATION**: None required.

### C. Air Quality

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Conflict with or obstruct implementation of the applicable air quality plan?			X	
2. 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?			X	
3. Expose sensitive receptors to substantial pollutant concentrations?			X	
4. Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?			X	

### DISCUSSION:

**C.1–3. Less Than Significant Impact.** The project consists of construction of a recreational facility on a portion of a 3 acre site. The project will neither conflict with nor obstruct implementation of the applicable air quality plan for the Northern Sierra Air Quality Management District (NSAQMD or Air District), nor will the project violate any air quality standard or contribute substantially to an existing or projected air quality violation. The project will not 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.

According to the California Air Resource Board, Plumas County is designated as a federal and state non-attainment area for particulate matter 2.5 microns and 10 microns (NSAQMD 2019).

**Table 1 – Plumas County Ambient Air Quality Attainment Status**

Pollutant	State	Federal
Particulate Matter (PM <sub>10</sub> )	Non-attainment	Unclassified
Particulate Matter (PM <sub>2.5</sub> ) (24-hr.)	Non-attainment	Unclassified/Attainment
Particulate Matter (PM <sub>2.5</sub> ) (Annual)	Non-attainment*	Unclassified/Attainment*

Source: Northern Sierra Air Quality Management District 2019 / \* =excluding the Portola Area

Potential air quality impacts related to development are separated into two categories:

- A. Temporary impacts resulting from construction-related activities (earth moving and heavy-duty vehicle emissions), and
- B. Long-term indirect source emission impacts related to ongoing operations, such as motor vehicle trips to access the site

#### Construction

Construction-related activities such as grading, and operation of construction vehicles would create a temporary increase in fugitive dust within the immediate vicinity of the project site and contribute temporarily to slight increases in vehicle emissions (ozone precursor emissions, such as reactive organic gases (ROG) and oxides of nitrogen (NOx), and fine particulate matter). Stationary equipment such as generators, spray booths, boilers, solvent tanks, fueling facilities, and a wide variety of other sources, may require an "Authority to Construct" and "Permit to Operate" from the Air

District. The Air District should be consulted by the ARPD prior to construction for additional information on these standard requirements.

With regard to fugitive dust, the majority of the particulate generated as a result of grading operations is anticipated to quickly settle. Under the Air District's Rule 226 (Preparation of a Dust Control Plan) all development projects that disturb more than 1 acre of natural surface area are required to minimize fugitive dust emissions by implementing Best Management Practices (BMPs) for dust control. These BMPs include but are not limited to the following:

Standard Dust Control Plan Conditions

1. Person responsible for ensuring that all adequate dust control measures are implemented in a timely and effective manner:

(Name)	(Phone Number)
2. All material excavated, stockpiled, or graded shall be sufficiently watered, treated, or covered to prevent fugitive dust from leaving the property boundaries and/or causing a public nuisance. Watering during summer months should occur at least twice daily, with complete coverage of disturbed areas.	
3. All areas with vehicle traffic shall be watered or have dust palliative applied as necessary to minimize dust emissions.	
4. All on-site vehicle traffic shall be limited to a speed of 15 mph on unpaved roads.	
5. All land clearing, grading, earth moving, or excavation activities on a project shall be suspended as necessary to prevent excessive windblown dust when winds are expected to exceed 20 mph.	
6. All inactive portions of the development site (excluding undisturbed portions of the site) shall be covered, seeded, or watered or otherwise stabilized until a suitable cover is established.	
7. All material transported off-site shall be either sufficiently watered or securely covered to prevent it being entrained in the air, and there must be a minimum of six (6) inches of freeboard in the bed of the transport vehicle.	
8. Paved streets adjacent to the project shall be swept or washed at the end of each day, or more frequently if necessary, to remove excessive accumulations or visibly raised areas of soil which may have resulted from activities at the project site.	
9. Prior to final occupancy, the applicant shall re-establish ground cover on the site through seeding and watering.	
Continuing the County and Air Districts practice of ensuring that grading plans include fugitive dust control plans, BMPs and compliance with existing NSAQMD rules will ensure that construction related dust impacts are minimized.	

Operation

Long-term air emissions impacts are associated with any change in permanent use of the project site by on-site stationary and off-site mobile sources that substantially increase vehicles trip emissions. . No Stationary sources of emissions are proposed as part of the project. Once completed, the proposed project would generate vehicles trips including maintenance workers and park visitors. The proposed project is located within a mixed land use area and would be accessible by walking and bicycling. There are no operational criterial pollutant screening criteria for operational impacts established by the Air District. Therefore long-term operation of the proposed project would not contribute substantially to an existing or projected air quality violation.

The Air **District's** Land Use Guidelines provides screening criteria for when a quantified air emissions analysis is required to assess and mitigate potential air quality impacts from non-exempt CEQA projects. Projects that fall below screening thresholds need only to implement best practices to ensure that operational air quality impacts remain less than significant. The screening criteria are as follows:

**Table 2 - Northern Sierra Air Quality Management District Thresholds of Significance**

	Level A Thresholds	
NOX	ROG	PM10
<24 lbs/day	<24 lbs/day	<79 lbs/day

	Level B Thresholds	
NOX	ROG	PM10
24-136 lbs/day	24-136 lbs/day	79-136 lbs/day

	Level C Thresholds	
NOX	ROG	PM10
>136 lbs/day	>136 lbs/day	>136 lbs/day

NOx, ROG and PM10 emissions must be mitigated to a level below significant. If emissions for NOx, ROG and PM10 exceeds 136 pounds per day (Level C), then there is a **significant** impact; below Level C is **potentially significant**.

The proposed project is approximately 3 acres in size and will result in greater than 1 acre of ground disturbance, therefore a California Emissions Estimator Model (CalEEMod) analysis was performed (see appendix A). The model output produced the following unmitigated construction emissions:

**Table 3 - CalEEMod Results Summary**

Overall Construction (Maximum Daily Emission)		
NOX	ROG	PM10
2.1 lbs/day	22.2 lbs/day	6.67 lbs/day

The maximum daily emissions are all below the Air District's Level A thresholds. Although no enhanced mitigation is required, implementing standard construction BMP's is still necessary to reduce potentially significant contributions to cumulative air quality impacts in the region. The Standard Dust Control Plan per the Air District's Rule 226 is considered a standard condition and not a mitigation measure. Due to the overall construction emissions model results falling below Level A thresholds, there is a **less than significant impact** in regards to criteria pollutants.

**C.4.-5. Less Than Significant Impact.** Apart from the potential for temporary odors associated with construction activities (i.e., paving operations), the proposed project will neither expose sensitive receptors to substantial pollutant concentrations, nor create significant objectionable odors. These potential impacts are short-term in nature and considered **less than significant**.



<b>D. Biological Resources</b>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species as listed and mapped in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		X		
2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?			X	
3. 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?		X		
4. 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?			X	
5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X	
6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?			X	

## **DISCUSSION:**

A Biological Resource Assessment (BRA) was prepared for the project site in March 2020 by Gallaway Enterprises (**Appendix B**). The purpose of the BRA is to document the current endangered, threatened, sensitive and rare species, and their critical habitats that occur in the biological survey area (BSA) of the project. Primary references consulted include species lists and information gathered using the United States Fish and Wildlife Service (USFWS) Information, Planning, and Conservation System (IPaC), California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDDB), the California Native Plant Society's (CNPS) list of rare and endangered plants, and literature review. A Draft Delineation of Jurisdictional Waters of the United States was also prepared for the project in March 2020 by Gallaway Enterprises (**Appendix C**). The surveys involved an examination of botanical resources, soils, hydrological features, and determination of wetland characteristics based on the United States Army Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory 1987) and other current regulations, manuals and interpretations of jurisdiction currently in effect. Since the proposed project will be developed in two phases the

discussion will include a review of the biological circumstances of each phase and associated mitigation measures.

**D.1. Less Than Significant with Mitigation Incorporated.** The special-status species with a potential to occur within the project area are Sierra Nevada yellow-legged frog, Cascades frog, and northern goshawk. The potential for Sierra Nevada yellow-legged frog and northern goshawk to occur is considered low and the potential for Cascades frog to occur is considered moderate.

#### Sierra Nevada Yellow-Legged Frog

Sierra Nevada yellow-legged frogs are federally listed as endangered under the ESA and state listed as threatened under the CESA. This is a medium-sized frog with a slim waist, long legs, smooth skin and webbing on the hind feet. The ridges on its sides are not distinct. It is variable in color, ranging from olive, yellowish or brown above with varying amounts of black or brown markings. It is pale orange to yellow below and underneath the hind legs. Sierra Nevada yellow-legged frogs are found in lakes, ponds, meadow streams, isolated pools, and sunny riverbanks at high elevations in the Sierra Nevada Mountains. Usually found in water or within a couple meters of water. Rarely occurs where predatory fishes have been introduced. Adults and tadpoles often spend the winter at the bottom of frozen lakes. Breeding occurs shortly after the snows have melted, usually between May and August. Egg clusters are laid in shallow water and left unattached in still waters but may be attached to vegetation in flowing waters. Egg-laying sites must be connected to permanent lakes or ponds that do not freeze to the bottom in winter, because the tadpoles must live in the water over winter. The decline has been attributed to many factors, including introduced non-native trout, airborne pollution, insufficient snowmelt to fill breeding ponds brought about by climate change, cattle grazing, ozone depletion, pollution from mining, public dumping, and chytrid fungus.

California Natural Diversity Database (CNDDDB) occurrence (#749) overlaps with the BSA. This occurrence was recorded in 1974. The exact location of this observation is unknown; thus, the occurrence was mapped at the center of Chester.

The section of riverine habitat (Stover Ditch) that runs through the southwestern corner of the BSA provides aquatic habitat when water is present. However, the drainage is shallow and most likely freezes all the way to the bottom in the winter, meaning there is no overwintering habitat present within the BSA for this species. The habitat suitability largely depends on the duration of the stream throughout the year and its connectivity with Lake Almanor or another large permanent water source. Due to these factors, there is low potential for the Sierra Nevada yellow-legged frog to occur within the BSA. The proposed project will have no impacts to the riverine habitat on-site, therefore there will be no impact to foothill yellow-legged frog as a result of the development of the proposed project.

#### Cascades Frog

Cascades frog is currently a California SSC and a candidate species listing as endangered pursuant to the CESA. This is a medium sized frog with a slim waist, long legs, smooth skin, and reduced webbing on the hind feet. They have raised ridges on the sides that are distinct, and their eyes are oriented outward. They can be brown, copper, tan to olive green above, yellowish below and on the back of the legs. Cascades frogs are typically found near water, such as small streams, wet meadows, ponds, and lakes, at higher elevations. Rarely found below 2,000 feet. They occur in areas covered by winter snow, hibernating throughout the winter buried in mud under several feet of water or in saturated areas around ponds. Breeding occurs soon after the snow melts, usually from March to August. Eggs are laid partly submerged in shallow water, not attached to vegetation. During post-breeding, active season cascades frogs can be found among herbaceous growth, often sedges or grass, under cut banks, or under rock and wood cover. Introduced sport fish, solar UV-B radiation, contaminants such as airborne environmental pollution and fungal pathogens, and loss of open meadow habitat due to fire suppression, have all been suggested as factors contributing to the decline of Cascade Frogs in California.

California Natural Diversity Database occurrence (#11) overlaps with the BSA. This occurrence was recorded in 1934. A specimen was collected from the North Fork of the Feather River above Chester, Ca. The exact location is unknown; thus, the occurrence was mapped at the center of Chester.

The section of riverine habitat that runs through the southwestern corner of the BSA provides suitable aquatic habitat when water is present. There is moderate potential for the Cascades frog to occur within the BSA. The proposed project will have no impacts to the riverine habitat on-site, therefore there will be no impact to Cascades frog as a result of the development of the proposed project.

#### Northern Goshawk

Northern goshawk (*Accipiter gentilis*) is listed as a California species of special concern. Northern goshawks are protected under the MBTA (16 USC §703) and CFGC §3503. Northern Goshawks prefer conifer and mixed hardwood-conifer forests for nesting that allow the large accipiter to fly with ease. Often the forests that support northern goshawks are more mature forests that have an open understory. Northern goshawks typically nest in large trees in the lower part of the tree. Habitat loss is the greatest threat to northern goshawks.

The nearest CNDDDB occurrence (#387) is approximately three miles northwest of the BSA. This occurrence was recorded in 2000, northeast of the confluence of the Feather River and Locherman Canyon Creek. An active nest was observed.

The mature Jeffery pines within the BSA provide suitable nesting trees for this species; the BSA abuts with the urban interface making the BSA less appealing as a nesting site. There is a low potential for northern goshawks to occur within the project site.

#### Migratory Birds, and Nesting Raptors

Migratory birds are protected in varying degrees under California Fish and Game Code, Section 3503.5, the Migratory Bird Treaty Act (MBTA), and CEQA. The project site provides suitable nesting habitat for a variety of avian species.

To avoid impacts to bird and raptor species, protected under the MBTA and the California Fish and Game Commission (CFGC), Mitigation Measure D.1 has been included.

With the mitigation measures proposed, potential impacts to species and habitat at the site will be **less than significant with mitigation incorporated**.

**D.2. Less Than Significant Impact.** No Sensitive Natural Communities (SNC) have been mapped within the BSA and the characteristics of the site do not indicate the presence of SNCs. The results of the BRA show that there is no riparian habitat within the project site.

Jeffrey pine forest dominates the habitat within the BSA. This forest was comprised of Jeffrey pine (*Pinus jeffreyi*) and a few scattered black cottonwoods (*Populus trichocarpa*) in the southern portion of the BSA. The value of the Jeffrey pine forest type as habitat for wildlife is large due to the food value of the Jeffrey pine seeds.

Three small seasonal wetland swales occur within the southern portion of the BSA. Seasonal swales are depressional features that function as low drainage pathways that typically connect to and help feed other wetlands or drainages. These types of wetland features are often small and are inundated with water for a short period of time.

#### Riverine

There is a section of riverine habitat in the southwestern corner of the BSA. This riverine habitat is part of the braided portion of a historic diversion ditch (Stover Ditch) that diverts water from the North Fork Feather River to Lake Almanor. The main channel of this ditch occurs just south of the BSA. The portion of the ditch that is within the BSA is shallow and is characterized by its highly vegetated low streambank. This riverine habitat provides food and water for a variety of wildlife species.

#### Urban

The existing Almanor Recreation Center buildings make up the northern portion of the BSA. In this area the vegetation composition was comprised of a few non-native shrubs and small Jeffrey pine. Urban habitat can present a mosaic of vegetation including primarily ornamental landscaping, but can also incorporate native tree species. Generalist and invasive species often occupy urban habitat such

as common raven, house sparrow, scrub jays and Brewer's blackbirds, as well as small to medium mammals such as raccoon, opossum, and striped skunk.

#### Barren

Barren habitat is typified by non-vegetated soil, rock, and gravel. Barren habitat occurs in the form of Meadowbrook Way and the Almanor Recreation Center parking lot within the BSA. The barren habitat type typically provides low quality habitat to wildlife. Some ground-nesting birds, such as killdeer (*Charadrius vociferus*), will nest in gravelly, barren substrate.

The proposed project will not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service, therefore there is a **less than significant impact**.

**D.3. Less Than Significant with Mitigation Incorporated.** A *Draft Delineation of Waters of the United States (Appendix C)* was prepared for the project site in March of 2020 by Gallaway Enterprises. The types of aquatic resources identified within the BSA are characterized as a Relatively Permanent Water (RPW) and seasonal swales. As shown on **Error! Reference source not found.** the survey area contains 0.074 acres of Waters of the U.S.

Phase one of the proposed project is void of any aquatic resources and therefore the development in phase one will have no impact to state or federally protected wetlands.

Phase two of the proposed project contains the RPW and the seasonal swales. Development of phase two would impact the three seasonal swales and avoid the RPW, named Stover Ditch. The proposed filling of the seasonal swales requires permits from the U.S. Army Corps of Engineers (USACE), and the Central Valley Regional Water Quality Control Board (CVRWQCB).

These state and federal permitting processes are anticipated to result in permits with specific conditions that will require compensation in the form of purchasing appropriate wetland credits at a certified mitigation bank. It is therefore not necessary for the ARPD to require offsite mitigation, separate from the requirement of the state and federal permitting agencies, for impacts of the project on biological resources, but the ARPD should verify that the state and federal permits have been obtained and any necessary compensatory mitigation is fulfilled prior to any grading of phase two of the project.

To ensure proper timing of any County approvals for grading or other site-disturbing activities, Mitigation Measure D.2, below will require the ARPD to obtain final permits from the U.S. Army Corps of Engineers and CVWQCB as a pre-condition for grading of the Phase two of the site. With this mitigation, potential impacts to biological resources at the site will be **less than significant with mitigation incorporated**.

**D.4- D.6 Less Than Significant Impact.** The project will not result in the fragmentation of an existing wildlife habitat nor conflict with any local policies or ordinances protecting biological resources. The project's impact would be **less than significant**.

**MITIGATION REQUIRED:** Mitigation Measures D.1. and D.2.

#### **MITIGATION D.1 (Biological Resources):**

To avoid impacts to avian species protected under the MBTA and the CFGC the following are recommended avoidance and minimization measures for migratory birds and raptors:

- Project activities including site grubbing and vegetation removal shall be initiated outside of the bird nesting season (March 15 – August 31).
- If Project activities cannot be initiated outside of the bird nesting season, then the following will occur:
  - A qualified biologist will conduct a pre-construction survey within 250 feet of the BSA, where accessible, within 7 days prior to the start of Project activities.

# Draft Delineation of Waters of the U.S.

## Other Waters

Label	Cowardin	Description	Location (Lat/Long)		Width (ft)*	Length (ft)	Area (sq ft)	Acres
OW01	R4	RPW	40.308127	-121.23315	21.0	88.2	1852.5	0.043
Other Waters Totals =						88.2	1852.5	0.043

\*Widths are represented as averages

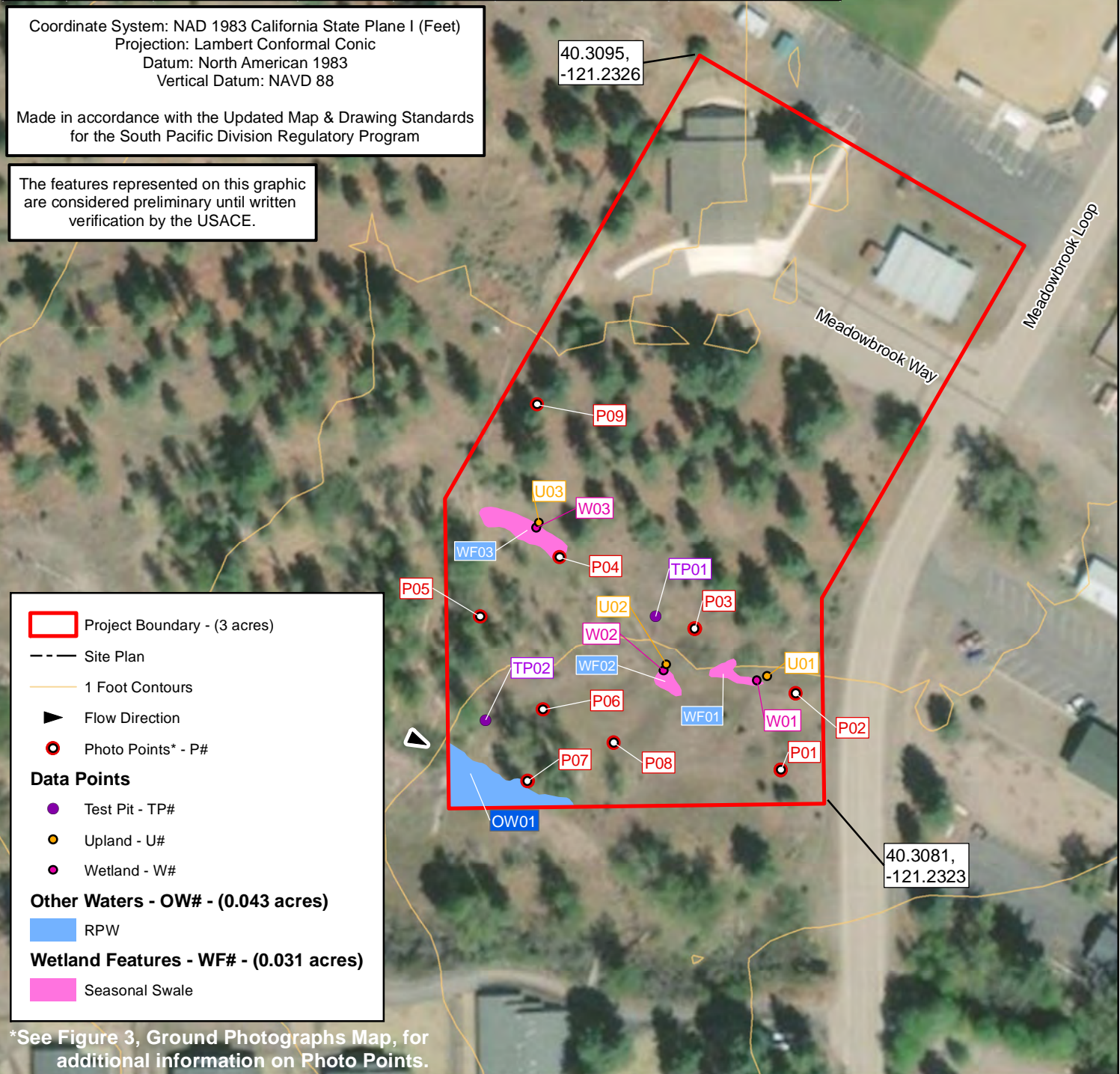
## Wetland Features

Label	Cowardin	Description	Location (Lat/Long)		Width (ft)*	Length (ft)	Area (sq ft)	Acres
WF01	PUB	Seasonal Swale	40.308313	-121.2325	NA	NA	279.4	0.006
WF02	PUB	Seasonal Swale	40.308299	-121.23266	NA	NA	219.5	0.005
WF03	PUB	Seasonal Swale	40.308591	-121.23302	NA	NA	852.8	0.020
Wetland Feature Totals =						NA	1351.7	0.031
Total Waters of the U.S. =						88.2	3204.2	0.074

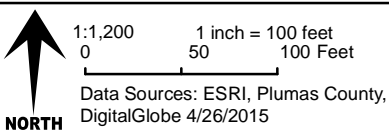
Coordinate System: NAD 1983 California State Plane I (Feet)  
Projection: Lambert Conformal Conic  
Datum: North American 1983  
Vertical Datum: NAVD 88

Made in accordance with the Updated Map & Drawing Standards  
for the South Pacific Division Regulatory Program

The features represented on this graphic  
are considered preliminary until written  
verification by the USACE.



\*See Figure 3, Ground Photographs Map, for  
additional information on Photo Points.



Almanor Recreation Center  
Draft Delineation of Waters of the U.S.  
Figure 3

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- If an active nest (i.e. containing egg[s] or young) is observed within the BSA or in an area adjacent to the BSA where impacts could occur, then a species protection buffer will 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 as determined by a qualified biologist. Nests shall be monitored by a qualified biologist once per week and a report submitted to the CEQA lead agency weekly.

**MITIGATION MONITORING D.1:** If initial ground disturbance is proposed to be conducted during the avian breeding season, Almanor Recreation and Parks District staff will require final copies of the required surveys documenting relief thereof, prior to any disturbances to the site. If active nests are encountered, the qualified biologist shall determine appropriate species protections buffers around active nests based on the species tolerance of disturbance, species type, nest location and activities that will be conducted near the nest. Construction activities shall be prohibited within the buffer zones until the young have fledged or the nest fails. Active nests shall be monitored once per week or as necessary and a report submitted to the Almanor Recreation and Park District weekly or as necessary.

**MITIGATION D.2 (Biological Resources):**

Phase one – Prior to ground disturbance in phase one, the boundary between phase one and phase two shall demarcated with Environmentally Sensitive Area (ESA) fencing to designate the work area and to prohibit construction activity in the wetlands area of phase two.

Phase two – Prior to issuance of a grading permit or any other approval that would directly result in disturbance to phase two, the ARPD shall confirm final copies of the permits and compensatory mitigation required by the U.S. Army Corps of Engineers, CVRWQCB and CDFW (if necessary), or copies of relevant correspondences documenting that no permit is required, as applicable. For phase two, prior to any ground disturbance in phase two, silt fencing and ESA fencing shall be installed to designate the work area and to prohibit construction or disturbance in the riverine habitat of Stover Ditch.

**MITIGATION MONITORING D.2:** Almanor Recreation and Park District Staff will ensure that measure to protect aquatic resource and verify permit authorizations are fulfilled prior to any grading or project related disturbance to the site.

<b>E. Cultural Resources</b> Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?		X		
2. Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?		X		
3. Disturb any human remains, including those interred outside of dedicated cemeteries?		X		

### **DISCUSSION:**

**E.1. – E.3. Less Than Significant with Mitigation Incorporated.** Based on the recommendations of an Archaeological Inventory Report by the Northeast Information Center (NEIC), a Report of Cultural Resources Assessment of the project site was conducted by Cate Davis, RPA, of Gallaway Enterprises (**Appendix D**). The investigation consisted of an on-site records search and document review at the NEIC. Maps and records on file at this facility were consulted, along with the National Register of Historic Places Listed Properties and Determined Eligible Properties, the California Register of Historical Places, the California Points of Historical Interest, the California Inventory of Historical Resources, the California Landmarks Registry, and the Directory of Properties in the Historic Property Data File. The records search resulting in no previously recorded cultural resources within the APE. Field survey of the project site took place on February 18, 2020. The entire parcel was covered using an intensive survey strategy consisting of close-spaced pedestrian transects. The extensive modification to the APE and surrounding areas makes the likelihood of intact cultural resources within the APE low. In the event that resources are inadvertently discovered, implementation of Mitigation Measure R.1 would reduce impacts to a **less than significant level with mitigation incorporated**. See Impact R.1 Tribal Cultural Resources for mitigation measure specifics.

**MITIGATION REQUIRED:** Mitigation Measure R.1



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

**DISCUSSION:**

**F.1. – F.2. No Impact.** The proposed project includes lighting to illuminate the facility during evenings as necessary and for general security. The proposed project will be built to the current California Building Energy Efficiency Standards and will therefore be consistent with State and local requirements for efficiency use of energy resources. There will be **no impact** with regard to energy resources.

**MITIGATION:** None required

<b>G. Geology/Soils</b>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
1. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:			X	
a. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				X
b. Strong seismic ground shaking?			X	
c. Seismic-related ground failure, including liquefaction?			X	
d. Landslides?			X	
2. Result in substantial soil erosion or the loss of topsoil?			X	
3. 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?			X	
4. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?			X	
5. 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, or is otherwise not consistent with the Chico Nitrate Action Plan or policies for sewer service control?				X
6. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X		

## **DISCUSSION:**

**G.1. Less Than Significant Impact.** The project site is located in an area considered as low for seismic hazard potential (Plumas County, 2013). Currently, there are no designated Alquist-Priolo Special Studies Zones within the Almanor Region. Two potentially active faults are located in the region, the Almanor Fault is located to the east of Lake Almanor and the Butte Creek Fault Zone is

located to the west of Chester. The risks associated with earthquakes, such as surface fault rupture within the County are considered low (Plumas County, 2013). Under existing regulations, all future structures will incorporate California Building Code (CBC) standards into the design and construction that are designed to minimize potential impacts associated with strong ground-shaking during an earthquake. Therefore, the project would result in a **less than significant impact**.

Liquefaction occurs in areas with shallow groundwater and recently deposited alluvium or poorly compacted fill. These characteristics are likely to be encountered in the vicinity of stream channels. Thus, portions of the project site may be prone to liquefaction during seismic events. As stated, all proposed structures will incorporate CBC standards into the design and construction that are designed to minimize potential impacts associated with liquefaction and unstable soils. Therefore, the project would result in a **less than significant impact**.

The project site is not located in an area of sloping topography that would result in a landslide risk. Potential soil instability in, and around the project site would not result in potentially significant impacts through the incorporation of appropriate development standards and adherence to all necessary permits and certifications. Therefore, the project would result in a **less than significant impact**.

**G.2.-4. Less Than Significant Impact.** The County's General Plan Environmental Impact Report identifies the County as having a moderate potential for soil erosion. Chester is not in an area mapped as having a high potential for erosion (GPEIR, 2012)

Development of the site will be subject to grading and building standards defined in the California Building Code (CBC), which describe appropriate measures used to reduce potential impacts resulting from unstable soils and soil shrink-swell. All projects disturbing greater than one acre must comply with and obtain coverage under the applicable National Pollution Discharge Elimination Permit (NPDES) from the Central Valley Regional Water Quality Control Board (CVRWQCB) per §402 of the Clean Water Act. The proponent will be required to prepare and implement Storm Water Pollution Prevention Plan (SWPPP) pursuant to CVRWQCB requirements. The SWPPP would require site specific, detailed measures to be incorporated into grading plans to control erosion and sedimentation. Furthermore, the ARPD and the Air District require implementation of all applicable fugitive dust control measures, which further reduces the potential for construction-generated erosion.

Therefore, prior to issuance of any grading or building permits, the ARPD would ensure that the proposed project has incorporated appropriate, site-specific construction and design standards per the **CBC and County's grading requirements**. As a result, potential future impacts relating to geology and soils are considered to be **less than significant**.

**G.5. No Impact.** No septic tanks or alternative waste water disposal systems are proposed for the subject property. All new structures will be connected to the Chester Public Utility District's sewer system. The project will result in **No Impact** relative to policies governing sewer service control.

**G.6. Less Than Significant with Mitigation Incorporated.** The project is not anticipated to cause a substantial adverse change in the significance, directly or indirectly destroy a unique paleontological resource or site, geological feature, or unique geological feature. However there is the potential for accidental discovery of paleontological resources. In the event that resources are inadvertently discovered, implementation of Mitigation Measure R.1 would reduce impacts to a less-than-significant level. See Impact R.1 Tribal Cultural Resources for mitigation measure specifics. Therefore, impacts would be considered **less than significant with mitigation incorporated**.

**MITIGATION REQUIRED:** Mitigation Measure R.1

H. Greenhouse Gas Emissions	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
1. Generate greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
2. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	

## **DISCUSSION:**

**H.1.-2. Less Than Significant Impact.** Greenhouse gases (GHGs) are recognized by wide consensus among the scientific community to contribute to global warming/climate change and associated environmental impacts because of their ability to trap heat in the atmosphere and affect climate. The major GHGs that are released from human activity include carbon dioxide, methane, and nitrous oxide (**Governor's Office of Planning and Research 2008**). **The primary sources of GHGs are vehicles** (including planes and trains), energy plants, and industrial and agricultural activities (such as dairies and hog farms).

California has demonstrated its intent to address global climate change through research, adaptation, and GHG inventory reductions. In response, the California Legislature enacted the California Global Warming Solutions Act of 2006 (AB 32, Health and Safety Code Section 38500 et seq.) to implement standards that will reduce GHG emissions to 1990 levels. In the act, the Legislature found that "[g]lobal warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California." Senate Bill 97, adopted in 2007, required the Governor's Office of Planning and Research to develop CEQA guidelines "for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions," and the Resources Agency certified and adopted the amendments to the guidelines on December 30, 2009. The Northern Sierra Air Quality Management District has not established guidelines for evaluating GHG emissions from proposed projects and does not have thresholds for assessing the significance of impacts.

Short-term GHG emissions would be generated during construction activities from the use of heavy equipment, which results in emission of diesel exhaust. Emissions from heavy equipment would contain GHGs; however, the total yield would be relatively minor compared to regional, state, and global emissions. Removal of forested areas can also alter CO<sub>2</sub> levels, but the limited amount of vegetation removed for this project would not have a noticeable impact.

The project would not result in significant increased traffic. Therefore, emissions associated with vehicles after project completion would be similar to current conditions. Emissions of GHGs resulting from construction activities would be short term and minor. While the project would have an incremental contribution within the context of the county and region, the individual impact is considered less than significant.

The project would not generate significant emissions of GHGs and, therefore, would not conflict with any applicable plans, policies, or regulations adopted for the purpose of reducing the emission of GHGs. This is considered a **less than significant impact**.

**MITIGATION:** None Required.

<b>I. Hazards /Hazardous Materials</b> Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
2. Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
3. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
4. 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?				X
5. 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?			X	
6. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
7. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			X	

## **DISCUSSION:**

**I.1. – I.2. Less Than Significant Impact.** Grading and construction activities may involve the limited transport, storage, usage, or disposal of hazardous materials, such as the fueling/servicing of construction equipment. However, such activity is short-term or one-time in nature and is subject to federal, State, and local health and safety requirements. Adherence to health and safety requirements would reduce the potential impacts associated with construction activities to less than significant.

Potentially hazardous materials such as petroleum products, pesticides, fertilizer, and other household hazardous products such as paint products, solvents, and cleaning products would be stored at the site. The transport, storage, handling, and retail sale of these substances are routinely conducted at such sites. All activity involving hazardous substances would be conducted in accordance with applicable local, State, and Federal safety standards. With adherence to the existing requirements

applicable the handling, storage and use of hazardous substances potential impacts associated with the use, transport, storage, and disposal of hazardous materials would be **less than significant**.

**I.3. Less Than Significant Impact.** The site is located within one-quarter mile of Chester Elementary School. Exhaust emissions and fugitive dust generated during construction activities would be reduced by adhering to the Standard Conditions of a Dust Control Plan identified in the Air Quality section of this document. The proposed project would not result in the generation, storage or transport of hazardous materials that would likely impact nearby schools. State and federal guidelines regulate land uses that may result in impacts to sensitive receptors through the potential release of toxic substances, including particulates. The proposed development would not generate potentially **significant impacts as a result of the proposed project's spatial relationship** to existing or proposed schools. As discussed, the proposed development would be required to adhere to standards and regulations that ensure **less than significant** potential impacts generated by proposed land uses in close proximity to schools.

**I.4. No Impact.** A search of the EnviroStor database managed by the Department of Toxic Substances Control resulted in negative findings for current or past cleanup sites within or adjacent to the proposed project site. The proposed project is considered to have **no impact**.

**I.5. Less Than Significant Impact.** The closest airport is the Rogers Field Airport in Chester, located approximately 1.25 miles southwest of the project site. The project site is not located in a compatibility zone of the Plumas County Airport Land Use Plan (Plumas County, 2008). The site is located beyond the 60 dB CNEL noise contour of the Rogers Field Airport. The location of the proposed project in relation to airport related safety and noise would be considered **less than significant**.

**I.6. No Impact.** Development of the proposed project would neither hinder the implementation, nor physically interfere with, emergency response or evacuation plans. Street designs and improvements will be adequate for ingress and egress of emergency response vehicles. The proposed project is considered to have **No Impact**.

**I.7. Less Than Significant Impact.** The project site is located in an area of very high fire risk and **within a State or Federal Responsibility Zone based on CalFire's** Fire Hazard Severity Zone Map produced in 2017. Any new development or redevelopment in areas at risk for wildland fire hazards would be required to comply with minimum standards for materials and material assemblies to provide a reasonable level of exterior wildfire exposure protection for buildings in wildland-urban interface areas as required by the 2019 California Fire Code. The proposed project is required to comply with all requirements to minimize the potential to expose the project to wildland fire risks and therefore this is considered a **less than significant impact**.

**MITIGATION:** None Required

<b>J. Hydrology/ Water Quality</b>	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
1. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			X	
2. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
3. 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:			X	
a. result in substantial erosion or siltation on- or off-site;			X	
b. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;			X	
c. 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			X	
d. impede or redirect flood flows?			X	
4. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				X
5. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	

## **DISCUSSION:**

**J.1. Less Than Significant Impact.** Impervious surfaces will be minimized using pervious alternatives, French drains, and a system of subsurface rock retention areas. Porous asphalt surfaces will be used in the curved one-way driveway restricted to a 15-18 foot width, with adjacent 45 degree parking stalls constructed of a pervious cellular confinement system using very thin-walled 6" tall plastic cells filled with compacted permeable crushed rock. The lowest portions of designed swales within the pump track and skate park will either be lined with a cobble gravel mixture or will have drains connected to French drains tied to a cellular confinement storage area storm water would subsequently be detained, allowing sediment to settle, or be filtered, prior to discharge into the permeable subsurface site soils.

Phase 2 of the proposed project will include fill of wetlands within the site. Through the CVRWQCB's permitting process, the project will be required to avoid, minimize, and/or compensate for potential discharges into regulated waterways.

Existing State permitting requirements by the CVRWQCB, along with storm water Low Impact Development (LID) requirements as outlined below will ensure that the project will not result in the violation of any water quality standards or waste discharge requirements. Due to the scope and nature of the proposed project it not expected that the project would degrade ground water quality. With these existing permitting and water quality requirements in place, potential impacts to water quality from the project are considered to be **less than significant**.

**J.2. Less Than Significant Impact.** There would be no new sources of groundwater extraction. With its limited size the project will not substantially deplete groundwater supplies or interfere substantially with groundwater recharge or sustainable groundwater management such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted). Therefore, the proposed project is anticipated to result to a level that is **less than significant**.

**J.3 (i)–(iv) Less Than Significant Impact.** The project would alter the existing drainage patterns at the site, however, it would not result in substantial erosion or siltation on- or off-site, or create excessive runoff because prior to construction the project would have to demonstrate compliance with State post-construction storm water management requirements including the General Construction Permit requirements of the NPDES, as well as, the preparation of a SWPPP that incorporates water quality control BMP's.

With the application of the existing regulations outlined above, the project will not substantially degrade water quality drainage systems or provide substantial additional sources of polluted runoff. Under existing State requirements for the project to implement BMPs and incorporate LID design standards, storm water impacts from anticipated future construction and operation of the project would be **less than significant**.

**J.4. No Impact.** The project site is not located in an area that is prone to seiche or tsunami. Risks associated with inundation by seiche or tsunami, would not occur beyond existing conditions. The project would result in **no impact**.

**J.5. Less than Significant Impact.** The implementation is the proposed project is not expected to substantially degrade water quality with the implementation of the SWPPP and BMPs. The project will not conflict or obstruct implementation of a water quality control plan or sustainable groundwater management plan. The impact to water quality will be **less than significant**.

**MITIGATION:** None Required



	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>K. Land Use and Planning</b> Would the project:				
1. Physically divide an established community?				X
2. 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?			X	

**DISCUSSION:**

**K.1. No Impact.** The project will not physically divide an established community. Therefore, the project is anticipated to have **no impact**.

**K.2. Less Than Significant Impact.** The proposed development of a recreational facility is consistent with the County's zoning code (Prime Recreation) and General Plan Land Use Designations (Resort and recreation) for the project, and would result in potential land use and planning impacts that would be **less than significant**.

**MITIGATION:** None Required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>L. Mineral Resources</b> Would the project:				
1. 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?				X
2. 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?				X

**DISCUSSION:**

**L.1.-2. No Impact.** There are no active mines and no known areas with mineral resource deposits in the vicinity of the project. The project would not result in the loss of availability of a known mineral resource or mineral resource recovery site. Mineral resources are not associated with the project or located on the project site. Therefore, the project would have **no impact** on mineral resources.

**MITIGATION:** None Required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>M. Noise</b> Would the project:				
1. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
2. Generation of excessive groundborne vibration or groundborne noise levels?			X	
3. 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?			X	

#### **DISCUSSION:**

**M.1. Less Than Significant Impact.** Construction and operational noise levels associated with the proposed project is not anticipated to create a substantial increase in the noise levels at the site or surrounding area. Therefore, noise exposure levels resulting from the project would be **less than significant**.

**M.2. Less Than Significant Impact.** There are no sources of excessive groundborne vibration or groundborne noise levels in the project vicinity. Any groundborne vibration due to construction at the site will be temporary in nature and cease once the project is constructed. Therefore, the impact from groundborne vibration will be **less than significant**.

**M.3. Less Than Significant Impact.** As mentioned in the Hazards/Hazardous Materials section above, the proposed project site is not located within an airport zone. The site is located beyond the 60 dB CNEL noise contour of the Rogers Field Airport which is considered a low risk noise environment. The proposed project implementation and operation would not expose people residing or working in the project area to excessive noise levels therefore, the impact is considered to be **less than significant**.

**MITIGATION:** None Required

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>N. Population and Housing</b> Would the project:				
1. 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)?				X
2. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

**DISCUSSION:**

**N.1.-N.2. No Impact.** The proposed project is a recreational development and would not induce substantial population growth, nor would it displace people or housing. Project impacts to population/housing are therefore considered to have **no impact**.

**MITIGATION:** None Required.

## O. Public Services

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

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Fire protection?			X	
Police protection?			X	
Schools?			X	
Parks?			X	
Other public facilities?			X	

## **DISCUSSION:**

**O.1.-5. Less Than Significant Impact.** The proposed development at the project site will require payment of development impact fees to partially offset the cost of new facilities for police, fire, parks, and other public services. With the payment of impact fees, impacts to public services are considered **less than significant**.

**MITIGATION:** None Required.

P. Recreation	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
2. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			X	

### **DISCUSSION:**

**P.1.-2. No Impact.** The proposed project would establish a new recreational use adjacent to existing baseball fields and it is not expected that the location and use of the recreation center would increase the use of or deteriorate the existing baseball facilities. The proposed project is not expected to increase the use of existing neighborhood and regional parks, but rather provide more recreational opportunities in the area, therefore **no impact** will occur.

**P.2. Less than Significant.** The development of the proposed project would have minor and mitigatable impacts on the environment, as detailed in this initial study which identifies potentially significant impacts and describes mitigation measures to maintain those impacts at a less than significant level. The potential for adverse physical effects on the environment is considered a **less than significant impact**.

**MITIGATION:** None Required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>Q. Transportation</b>				
Would the project:				
1. Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?			X	
2. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?			X	
3. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
4. Result in inadequate emergency access?			X	

## **DISCUSSION:**

**Q.1. Less Than Significant Impact.** No aspect of the proposed project has been identified to be in conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, nor will the project conflict with an applicable congestion management program or adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities or safety of such facilities. The proposed recreational use is consistent with the General Plan land use designation for the site. The General Plan analyzes circulation and traffic volumes in relation to the land use designations of the General Plan. Development of the recreational facility at the site will require payment of traffic impact fees, which constitute the project's fair share contribution toward addressing any traffic issues that arise as General Plan build-out occurs. The traffic increases associated with project are considered **less than significant**.

**Q.2. Less Than Significant Impact.** CEQA Guidelines 15064.3 establishes methods to determine the significant of transportation impacts through the metric of Vehicle Miles Traveled (VMT). For the purposes of this section, "vehicle miles traveled" refers to the amount and distance of automobile travel attributable to a project. The Plumas County Regional Transportation Plan estimates that VMT will increase minimally on Plumas County Roadways over the coming decades. VMT in Plumas County will increase at an estimated rate no greater than 1.0% annually between 2020 and 2040. Due to the small size of the proposed development and the anticipated use by local residents that don't need to travel far to access the site, this is considered a **less than significant impact**.

**Q.3.-4. Less Than Significant Impact.** Access to the proposed project would be via Meadowbrook Loop which is a lightly traveled road with good sight distances in both directions. This site access configuration would not increase hazards or incompatible uses, nor would it result in inadequate emergency access. Therefore, this impact is considered to be **less than significant**.

**MITIGATION:** None Required.

R. Tribal Cultural Resources	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
1. 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), or		X		
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.		X		

## **DISCUSSION:**

**R.1. Less Than Significant with Mitigation Incorporated.** Based on the recommendations of an Archaeological Inventory Report by the Northeast Information Center (NEIC), a Report of Cultural Resources Assessment of the project site was conducted by Cate Davis, RPA, of Gallaway Enterprises (**Appendix D**). The investigation consisted of an on-site records search and document review at the NEIC. Maps and records on file at this facility were consulted, along with the National Register of Historic Places Listed Properties and Determined Eligible Properties, the California Register of Historical Places, the California Points of Historical Interest, the California Inventory of Historical Resources, the California Landmarks Registry, and the Directory of Properties in the Historic Property Data File. A Sacred Lands File and Native American Contacts List Request to the Native American Heritage Commission (NAHC) were requested. NAHC responded to the request on indicating that NAHC files contain no listing for sacred lands in the vicinity of the proposed project site. On May 15, 2020, letters containing a Project description, a map location, and a request for information were sent to the eight contacts listed on the NAHC contact list. One response from Matthew Hatcher representing the Mooretown Rancheria was received indicating that the Mooretown Rancheria was not aware of any know cultural resources at the site.

Surface scrapes and the pedestrian survey failed to identify any cultural resources within the APE. The extensive modification to the APE and surrounding areas makes the likelihood of intact cultural resources within the APE low. In the event that resources are inadvertently discovered, Implementation of Mitigation Measure R.1 would reduce impacts to **less than significant with mitigation incorporated**.

**MITIGATION REQUIRED:** Mitigation Measure R.1.

**MITIGATION R.1. (Tribal Cultural Resources):** If during ground disturbing activities, any potentially paleontological, prehistoric, protohistoric, and/or historic cultural resources or tribal cultural



resources are encountered, the supervising contractor shall cease all work within 10 feet of the find (100 feet for human remains) and notify the ARPD. A professional archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology and being familiar with the archaeological record of Plumas County, shall be retained to evaluate the significance of the find. ARPD staff shall notify all local tribes on the consultation list maintained by the State of California Native American Heritage Commission, to provide local tribes the opportunity to monitor evaluation of the site. If human remains are uncovered, the project team shall notify the Plumas County Coroner pursuant to Section 7050.5 of California's Health and Safety Code. Site work shall not resume until the archaeologist conducts sufficient research, testing and analysis of the archaeological evidence to make a determination that the resource is either not cultural in origin or not potentially significant. If a potentially significant resource is encountered, the archaeologist shall prepare a mitigation plan for review and approval by the ARPD, including recommendations for total data recovery, Tribal monitoring, disposition protocol, or avoidance, if applicable. All measures determined by the ARPD to be appropriate shall be implemented pursuant to the terms of the archaeologist's report. The preceding requirement shall be incorporated into construction contracts and documents to ensure contractor knowledge and responsibility for the proper implementation.

**MITIGATION MONITORING R.1:** ARPD staff will verify that the above wording is included on construction plans. Should paleontological, prehistoric, protohistoric, and/or historic cultural resources or tribal cultural resources be encountered, the supervising contractor shall be responsible for reporting any such findings to ARPD staff and contacting a professional archaeologist or paleontologist in consultation with Planning staff, to evaluate the find.

## S. Utilities and Service Systems

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			X	
2. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	
3. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			X	
4. 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?			X	
5. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X	

## **DISCUSSION:**

**S.1.-S.3. Less Than Significant Impact.** The proposed project would connect to the area's existing potable water provided by Chester Public Utility District. The project would be required to install appropriate fire protection facilities, including hydrants and sprinkler systems. Gas, electric and telephone facilities are already present in the project area. All necessary utilities (water, storm drain, sewer, gas, phone or other communications, and electric facilities) are available near the site and extending them throughout the development will be required. The project would not exceed the capacity of wastewater treatment facilities. Utilities are available and adequate to serve the proposed development. Impacts regarding the provision of utilities and wastewater services are considered **less than significant**.

**S.4.-S.5. Less Than Significant Impact.** Available capacity exists within the solid waste disposal system in Plumas County which is served by the Lockwood landfill in Nevada, to accommodate waste generated by the project. . Recycling containers and service will be provided for the project as required by state law. This impact would be **less than significant**.

**MITIGATION:** None Required

## **T. Wildfire**

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Substantially impair an adopted emergency response plan or emergency evacuation plan?			X	
2. 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?			X	
3. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?			X	
4. 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?			X	

## **DISCUSSION:**

**T.1.-T.4. Less Than Significant Impact.** The Project site is identified as a very high fire hazard severity zone (VHFHSZ) by Cal Fire. The project site is served by the Chester Fire Department and is located in a State or Federal Responsibility Area pursuant to Fire Hazard Severity Zones in SRA map adopted by Cal Fire on March 12, 2009. The proposed project would have a **less than significant impact** on wildfire issues.

**MITIGATION:** None Required.

## U. Mandatory Findings Of Significance

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
1. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?			X	
2. 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)?			X	
3. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

## DISCUSSION:

**U. 1-3. Less Than Significant Impact.** The project does not have the potential to significantly degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory. Based on the preceding environmental analysis, the application of existing regulations and incorporation of identified mitigation measures will ensure that all potentially significant environmental impacts associated with the project, including those related to biological resources, cultural resources and hydrology would be minimized or avoided, and the project will not result in direct or indirect adverse effects on human beings or the environment, nor result in significant cumulative impacts. Cumulative impacts related to the build-out of the project area was analyzed in the County's 2035 General Plan. Therefore, with the incorporation of the identified mitigation measures, the project will result in a **less than significant impact**.

## **V. REFERENCES**

- California Department of Conservation, Division of Land Resource Protection. Farmland Mapping and Monitoring Program. Plumas County Important Farmland 2016
- California Building Standards Commission 2019, California Fire Code 2019
- DTSC. 2020. California Department of Toxic Substances Control. Hazardous Waste and Substances Sites List. [www.envirostar.dtsc.ca.gov](http://www.envirostar.dtsc.ca.gov). 2020.
- FEMA. 2020. Flood Insurance Rate Maps. 2020.
- Gallaway Enterprises. 2020. Biological Resource Assessment – Almanor Recreation and Park District Almanor Recreation Center Project.
- Gallaway Enterprises. 2020. Draft Delineation of Waters of the United States – Almanor Recreation and Park District Almanor Recreation Center Project.
- Mayer, K.E. and W.F. Laudenslayer. 1988. A Guide to Wildlife Habitats of California. California Department of Forestry and Fire Protection. Sacramento, CA.
- North Sierra Air Quality Management District, 2015, District Rules. Portola, CA
- North Sierra Air Quality Management District, 2019. Guidelines for Assessing And Mitigating Air Quality Impacts Of Land Use Projects, Portola, CA
- Plumas County. 2020. Plumas County Code  
[https://library.municode.com/ca/plumas\\_county/codes/code\\_of\\_ordinances](https://library.municode.com/ca/plumas_county/codes/code_of_ordinances) 2019.
- Plumas County, 2012. General Plan Draft Environmental Impact Report, Plumas County, CA
- Plumas County, 2012. 2035 General Plan, Plumas County, CA
- Plumas County, 2008. Plumas County Airport Land Use Plan, Plumas County, CA

## **Appendix A – CalEEMod Results**

Almanor Recreation Center - Chester - Plumas, CA - Northern Sierra AQMD Air District, Winter

**Almanor Recreation Center - Chester - Plumas, CA**  
**Northern Sierra AQMD Air District, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	3.00	Acre	3.00	130,680.00	0

**1.2 Other Project Characteristics**

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	72
Climate Zone	1			Operational Year	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

**1.3 User Entered Comments & Non-Default Data**

## Almanor Recreation Center - Chester - Plumas, CA - Northern Sierra AQMD Air District, Winter

Project Characteristics -

Land Use -

Energy Use -

Energy Mitigation -

Area Mitigation -

Off-road Equipment - reduced due to small site

Off-road Equipment - reduced due to small site

Off-road Equipment - reduced due to small site

Off-road Equipment - reduced due to small site

Off-road Equipment - reduced due to small site

Off-road Equipment -

Table Name	Column Name	Default Value	New Value
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblTripsAndVMT	WorkerTripNumber	8.00	15.00
tblTripsAndVMT	WorkerTripNumber	5.00	18.00
tblTripsAndVMT	WorkerTripNumber	10.00	15.00
tblTripsAndVMT	WorkerTripNumber	18.00	20.00

## 2.0 Emissions Summary

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Almanor Recreation Center - Chester - Plumas, CA - Northern Sierra AQMD Air District, Winter

## 2.1 Overall Construction (Maximum Daily Emission)

### Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	2.1053	22.2542	13.7693	0.0287	6.6756	1.0082	7.6838	3.4002	0.9275	4.3277	0.0000	2,785.5516	2,785.5516	0.7405	0.0000	2,796.0039
2021	1.7304	14.4139	13.2071	0.0286	0.5940	0.6061	1.2000	0.1608	0.5772	0.7379	0.0000	2,767.5140	2,767.5140	0.5701	0.0000	2,777.6884
Maximum	2.1053	22.2542	13.7693	0.0287	6.6756	1.0082	7.6838	3.4002	0.9275	4.3277	0.0000	2,785.5516	2,785.5516	0.7405	0.0000	2,796.0039

### Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	2.1053	22.2542	13.7693	0.0287	6.6756	1.0082	7.6838	3.4002	0.9275	4.3277	0.0000	2,785.5516	2,785.5516	0.7405	0.0000	2,796.0039
2021	1.7304	14.4139	13.2071	0.0286	0.5940	0.6061	1.2000	0.1608	0.5772	0.7379	0.0000	2,767.5140	2,767.5140	0.5701	0.0000	2,777.6884
Maximum	2.1053	22.2542	13.7693	0.0287	6.6756	1.0082	7.6838	3.4002	0.9275	4.3277	0.0000	2,785.5516	2,785.5516	0.7405	0.0000	2,796.0039

[illegible]

## Almanor Recreation Center - Chester - Plumas, CA - Northern Sierra AQMD Air District, Winter

**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.7600e-003	0.0000	3.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		6.6000e-004	6.6000e-004	0.0000		7.0000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.1782	1.0007	2.0354	4.4600e-003	0.3106	5.1500e-003	0.3158	0.0831	4.8500e-003	0.0880		450.6526	450.6526	0.0302		451.4064
<b>Total</b>	<b>0.1849</b>	<b>1.0007</b>	<b>2.0357</b>	<b>4.4600e-003</b>	<b>0.3106</b>	<b>5.1500e-003</b>	<b>0.3158</b>	<b>0.0831</b>	<b>4.8500e-003</b>	<b>0.0880</b>		<b>450.6533</b>	<b>450.6533</b>	<b>0.0302</b>	<b>0.0000</b>	<b>451.4071</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.7600e-003	0.0000	3.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		6.6000e-004	6.6000e-004	0.0000		7.0000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.1782	1.0007	2.0354	4.4600e-003	0.3106	5.1500e-003	0.3158	0.0831	4.8500e-003	0.0880		450.6526	450.6526	0.0302		451.4064
<b>Total</b>	<b>0.1849</b>	<b>1.0007</b>	<b>2.0357</b>	<b>4.4600e-003</b>	<b>0.3106</b>	<b>5.1500e-003</b>	<b>0.3158</b>	<b>0.0831</b>	<b>4.8500e-003</b>	<b>0.0880</b>		<b>450.6533</b>	<b>450.6533</b>	<b>0.0302</b>	<b>0.0000</b>	<b>451.4071</b>

## Almanor Recreation Center - Chester - Plumas, CA - Northern Sierra AQMD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail****Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/16/2020	9/11/2020	5	20	
2	Site Preparation	Site Preparation	9/12/2020	9/16/2020	5	3	
3	Grading	Grading	9/17/2020	9/24/2020	5	6	
4	Building Construction	Building Construction	9/25/2020	7/29/2021	5	220	
5	Paving	Paving	7/30/2021	8/12/2021	5	10	
6	Architectural Coating	Architectural Coating	8/13/2021	8/26/2021	5	10	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 3

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

**OffRoad Equipment**

## Almanor Recreation Center - Chester - Plumas, CA - Northern Sierra AQMD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	1	8.00	89	0.20
Grading	Excavators	1	8.00	158	0.38
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	6.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	2	6.00	132	0.36
Site Preparation	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

**Trips and VMT**

## Almanor Recreation Center - Chester - Plumas, CA - Northern Sierra AQMD Air District, Winter

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	3	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	55.00	21.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	11.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction****3.2 Demolition - 2020****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7427	17.0435	11.0860	0.0200		0.8700	0.8700		0.8162	0.8162		1,920.1256	1,920.1256	0.4669		1,931.7974
<b>Total</b>	<b>1.7427</b>	<b>17.0435</b>	<b>11.0860</b>	<b>0.0200</b>		<b>0.8700</b>	<b>0.8700</b>		<b>0.8162</b>	<b>0.8162</b>		<b>1,920.1256</b>	<b>1,920.1256</b>	<b>0.4669</b>		<b>1,931.7974</b>

## Almanor Recreation Center - Chester - Plumas, CA - Northern Sierra AQMD Air District, Winter

**3.2 Demolition - 2020****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0955	0.0786	0.6791	1.1800e-003	0.1232	1.0000e-003	0.1242	0.0327	9.2000e-004	0.0336		117.3610	117.3610	6.0000e-003		117.5111
<b>Total</b>	<b>0.0955</b>	<b>0.0786</b>	<b>0.6791</b>	<b>1.1800e-003</b>	<b>0.1232</b>	<b>1.0000e-003</b>	<b>0.1242</b>	<b>0.0327</b>	<b>9.2000e-004</b>	<b>0.0336</b>		<b>117.3610</b>	<b>117.3610</b>	<b>6.0000e-003</b>		<b>117.5111</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7427	17.0435	11.0860	0.0200		0.8700	0.8700		0.8162	0.8162	0.0000	1,920.1256	1,920.1256	0.4669		1,931.7974
<b>Total</b>	<b>1.7427</b>	<b>17.0435</b>	<b>11.0860</b>	<b>0.0200</b>		<b>0.8700</b>	<b>0.8700</b>		<b>0.8162</b>	<b>0.8162</b>	<b>0.0000</b>	<b>1,920.1256</b>	<b>1,920.1256</b>	<b>0.4669</b>		<b>1,931.7974</b>

## Almanor Recreation Center - Chester - Plumas, CA - Northern Sierra AQMD Air District, Winter

**3.2 Demolition - 2020****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0955	0.0786	0.6791	1.1800e-003	0.1232	1.0000e-003	0.1242	0.0327	9.2000e-004	0.0336		117.3610	117.3610	6.0000e-003		117.5111
<b>Total</b>	<b>0.0955</b>	<b>0.0786</b>	<b>0.6791</b>	<b>1.1800e-003</b>	<b>0.1232</b>	<b>1.0000e-003</b>	<b>0.1242</b>	<b>0.0327</b>	<b>9.2000e-004</b>	<b>0.0336</b>		<b>117.3610</b>	<b>117.3610</b>	<b>6.0000e-003</b>		<b>117.5111</b>

**3.3 Site Preparation - 2020****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0221	0.0000	6.0221	3.3102	0.0000	3.3102			0.0000			0.0000
Off-Road	1.2890	13.4374	6.4113	0.0116		0.6881	0.6881		0.6331	0.6331		1,128.1110	1,128.1110	0.3649		1,137.2324
<b>Total</b>	<b>1.2890</b>	<b>13.4374</b>	<b>6.4113</b>	<b>0.0116</b>	<b>6.0221</b>	<b>0.6881</b>	<b>6.7102</b>	<b>3.3102</b>	<b>0.6331</b>	<b>3.9433</b>		<b>1,128.1110</b>	<b>1,128.1110</b>	<b>0.3649</b>		<b>1,137.2324</b>

## Almanor Recreation Center - Chester - Plumas, CA - Northern Sierra AQMD Air District, Winter

**3.3 Site Preparation - 2020****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1146	0.0944	0.8149	1.4200e-003	0.1479	1.1900e-003	0.1491	0.0392	1.1000e-003	0.0403		140.8332	140.8332	7.2000e-003		141.0133
<b>Total</b>	<b>0.1146</b>	<b>0.0944</b>	<b>0.8149</b>	<b>1.4200e-003</b>	<b>0.1479</b>	<b>1.1900e-003</b>	<b>0.1491</b>	<b>0.0392</b>	<b>1.1000e-003</b>	<b>0.0403</b>		<b>140.8332</b>	<b>140.8332</b>	<b>7.2000e-003</b>		<b>141.0133</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.0221	0.0000	6.0221	3.3102	0.0000	3.3102			0.0000			0.0000
Off-Road	1.2890	13.4374	6.4113	0.0116		0.6881	0.6881		0.6331	0.6331	0.0000	1,128.1110	1,128.1110	0.3649		1,137.2324
<b>Total</b>	<b>1.2890</b>	<b>13.4374</b>	<b>6.4113</b>	<b>0.0116</b>	<b>6.0221</b>	<b>0.6881</b>	<b>6.7102</b>	<b>3.3102</b>	<b>0.6331</b>	<b>3.9433</b>	<b>0.0000</b>	<b>1,128.1110</b>	<b>1,128.1110</b>	<b>0.3649</b>		<b>1,137.2324</b>



## Almanor Recreation Center - Chester - Plumas, CA - Northern Sierra AQMD Air District, Winter

**3.3 Site Preparation - 2020****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1146	0.0944	0.8149	1.4200e-003	0.1479	1.1900e-003	0.1491	0.0392	1.1000e-003	0.0403		140.8332	140.8332	7.2000e-003		141.0133
<b>Total</b>	<b>0.1146</b>	<b>0.0944</b>	<b>0.8149</b>	<b>1.4200e-003</b>	<b>0.1479</b>	<b>1.1900e-003</b>	<b>0.1491</b>	<b>0.0392</b>	<b>1.1000e-003</b>	<b>0.0403</b>		<b>140.8332</b>	<b>140.8332</b>	<b>7.2000e-003</b>		<b>141.0133</b>

**3.4 Grading - 2020****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.0098	22.1756	11.4936	0.0234		1.0072	1.0072		0.9266	0.9266		2,270.9481	2,270.9481	0.7345		2,289.3099
<b>Total</b>	<b>2.0098</b>	<b>22.1756</b>	<b>11.4936</b>	<b>0.0234</b>	<b>6.5523</b>	<b>1.0072</b>	<b>7.5595</b>	<b>3.3675</b>	<b>0.9266</b>	<b>4.2941</b>		<b>2,270.9481</b>	<b>2,270.9481</b>	<b>0.7345</b>		<b>2,289.3099</b>

## Almanor Recreation Center - Chester - Plumas, CA - Northern Sierra AQMD Air District, Winter

**3.4 Grading - 2020****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0955	0.0786	0.6791	1.1800e-003	0.1232	1.0000e-003	0.1242	0.0327	9.2000e-004	0.0336		117.3610	117.3610	6.0000e-003		117.5111
<b>Total</b>	<b>0.0955</b>	<b>0.0786</b>	<b>0.6791</b>	<b>1.1800e-003</b>	<b>0.1232</b>	<b>1.0000e-003</b>	<b>0.1242</b>	<b>0.0327</b>	<b>9.2000e-004</b>	<b>0.0336</b>		<b>117.3610</b>	<b>117.3610</b>	<b>6.0000e-003</b>		<b>117.5111</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	2.0098	22.1756	11.4936	0.0234		1.0072	1.0072		0.9266	0.9266	0.0000	2,270.9481	2,270.9481	0.7345		2,289.3099
<b>Total</b>	<b>2.0098</b>	<b>22.1756</b>	<b>11.4936</b>	<b>0.0234</b>	<b>6.5523</b>	<b>1.0072</b>	<b>7.5595</b>	<b>3.3675</b>	<b>0.9266</b>	<b>4.2941</b>	<b>0.0000</b>	<b>2,270.9481</b>	<b>2,270.9481</b>	<b>0.7345</b>		<b>2,289.3099</b>

## Almanor Recreation Center - Chester - Plumas, CA - Northern Sierra AQMD Air District, Winter

**3.4 Grading - 2020****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0955	0.0786	0.6791	1.1800e-003	0.1232	1.0000e-003	0.1242	0.0327	9.2000e-004	0.0336		117.3610	117.3610	6.0000e-003		117.5111
<b>Total</b>	<b>0.0955</b>	<b>0.0786</b>	<b>0.6791</b>	<b>1.1800e-003</b>	<b>0.1232</b>	<b>1.0000e-003</b>	<b>0.1242</b>	<b>0.0327</b>	<b>9.2000e-004</b>	<b>0.0336</b>		<b>117.3610</b>	<b>117.3610</b>	<b>6.0000e-003</b>		<b>117.5111</b>

**3.5 Building Construction - 2020****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4652	12.9070	10.4985	0.0184		0.6908	0.6908		0.6582	0.6582		1,730.6565	1,730.6565	0.3569		1,739.5784
<b>Total</b>	<b>1.4652</b>	<b>12.9070</b>	<b>10.4985</b>	<b>0.0184</b>		<b>0.6908</b>	<b>0.6908</b>		<b>0.6582</b>	<b>0.6582</b>		<b>1,730.6565</b>	<b>1,730.6565</b>	<b>0.3569</b>		<b>1,739.5784</b>

## Almanor Recreation Center - Chester - Plumas, CA - Northern Sierra AQMD Air District, Winter

**3.5 Building Construction - 2020****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1054	2.6255	0.7808	5.9700e-003	0.1422	0.0140	0.1562	0.0409	0.0134	0.0543		624.5715	624.5715	0.0392		625.5516
Worker	0.3502	0.2883	2.4900	4.3400e-003	0.4518	3.6500e-003	0.4555	0.1198	3.3700e-003	0.1232		430.3237	430.3237	0.0220		430.8739
<b>Total</b>	<b>0.4555</b>	<b>2.9138</b>	<b>3.2708</b>	<b>0.0103</b>	<b>0.5940</b>	<b>0.0177</b>	<b>0.6116</b>	<b>0.1608</b>	<b>0.0168</b>	<b>0.1775</b>		<b>1,054.8951</b>	<b>1,054.8951</b>	<b>0.0612</b>		<b>1,056.4255</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4652	12.9070	10.4985	0.0184		0.6908	0.6908		0.6582	0.6582	0.0000	1,730.6565	1,730.6565	0.3569		1,739.5784
<b>Total</b>	<b>1.4652</b>	<b>12.9070</b>	<b>10.4985</b>	<b>0.0184</b>		<b>0.6908</b>	<b>0.6908</b>		<b>0.6582</b>	<b>0.6582</b>	<b>0.0000</b>	<b>1,730.6565</b>	<b>1,730.6565</b>	<b>0.3569</b>		<b>1,739.5784</b>

## Almanor Recreation Center - Chester - Plumas, CA - Northern Sierra AQMD Air District, Winter

**3.5 Building Construction - 2020****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.1054	2.6255	0.7808	5.9700e-003	0.1422	0.0140	0.1562	0.0409	0.0134	0.0543		624.5715	624.5715	0.0392		625.5516
Worker	0.3502	0.2883	2.4900	4.3400e-003	0.4518	3.6500e-003	0.4555	0.1198	3.3700e-003	0.1232		430.3237	430.3237	0.0220		430.8739
<b>Total</b>	<b>0.4555</b>	<b>2.9138</b>	<b>3.2708</b>	<b>0.0103</b>	<b>0.5940</b>	<b>0.0177</b>	<b>0.6116</b>	<b>0.1608</b>	<b>0.0168</b>	<b>0.1775</b>		<b>1,054.8951</b>	<b>1,054.8951</b>	<b>0.0612</b>		<b>1,056.4255</b>

**3.5 Building Construction - 2021****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3145	11.7562	10.2841	0.0184		0.5956	0.5956		0.5673	0.5673		1,730.7271	1,730.7271	0.3500		1,739.4760
<b>Total</b>	<b>1.3145</b>	<b>11.7562</b>	<b>10.2841</b>	<b>0.0184</b>		<b>0.5956</b>	<b>0.5956</b>		<b>0.5673</b>	<b>0.5673</b>		<b>1,730.7271</b>	<b>1,730.7271</b>	<b>0.3500</b>		<b>1,739.4760</b>

## Almanor Recreation Center - Chester - Plumas, CA - Northern Sierra AQMD Air District, Winter

**3.5 Building Construction - 2021****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0884	2.3997	0.6877	5.9200e-003	0.1422	6.9500e-003	0.1491	0.0409	6.6500e-003	0.0476		620.0716	620.0716	0.0376		621.0111
Worker	0.3275	0.2580	2.2353	4.2000e-003	0.4518	3.4800e-003	0.4553	0.1198	3.2100e-003	0.1231		416.7153	416.7153	0.0194		417.2013
<b>Total</b>	<b>0.4158</b>	<b>2.6577</b>	<b>2.9231</b>	<b>0.0101</b>	<b>0.5940</b>	<b>0.0104</b>	<b>0.6044</b>	<b>0.1608</b>	<b>9.8600e-003</b>	<b>0.1706</b>		<b>1,036.7869</b>	<b>1,036.7869</b>	<b>0.0570</b>		<b>1,038.2124</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3145	11.7562	10.2841	0.0184		0.5956	0.5956		0.5673	0.5673	0.0000	1,730.7271	1,730.7271	0.3500		1,739.4760
<b>Total</b>	<b>1.3145</b>	<b>11.7562</b>	<b>10.2841</b>	<b>0.0184</b>		<b>0.5956</b>	<b>0.5956</b>		<b>0.5673</b>	<b>0.5673</b>	<b>0.0000</b>	<b>1,730.7271</b>	<b>1,730.7271</b>	<b>0.3500</b>		<b>1,739.4760</b>

## Almanor Recreation Center - Chester - Plumas, CA - Northern Sierra AQMD Air District, Winter

**3.5 Building Construction - 2021****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0884	2.3997	0.6877	5.9200e-003	0.1422	6.9500e-003	0.1491	0.0409	6.6500e-003	0.0476		620.0716	620.0716	0.0376		621.0111
Worker	0.3275	0.2580	2.2353	4.2000e-003	0.4518	3.4800e-003	0.4553	0.1198	3.2100e-003	0.1231		416.7153	416.7153	0.0194		417.2013
<b>Total</b>	<b>0.4158</b>	<b>2.6577</b>	<b>2.9231</b>	<b>0.0101</b>	<b>0.5940</b>	<b>0.0104</b>	<b>0.6044</b>	<b>0.1608</b>	<b>9.8600e-003</b>	<b>0.1706</b>		<b>1,036.7869</b>	<b>1,036.7869</b>	<b>0.0570</b>		<b>1,038.2124</b>

**3.6 Paving - 2021****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0499	10.5638	12.0290	0.0184		0.5681	0.5681		0.5235	0.5235		1,766.6650	1,766.6650	0.5631		1,780.7414
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0499</b>	<b>10.5638</b>	<b>12.0290</b>	<b>0.0184</b>		<b>0.5681</b>	<b>0.5681</b>		<b>0.5235</b>	<b>0.5235</b>		<b>1,766.6650</b>	<b>1,766.6650</b>	<b>0.5631</b>		<b>1,780.7414</b>

## Almanor Recreation Center - Chester - Plumas, CA - Northern Sierra AQMD Air District, Winter

**3.6 Paving - 2021****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1191	0.0938	0.8128	1.5300e-003	0.1643	1.2700e-003	0.1656	0.0436	1.1700e-003	0.0448		151.5328	151.5328	7.0700e-003		151.7096
<b>Total</b>	<b>0.1191</b>	<b>0.0938</b>	<b>0.8128</b>	<b>1.5300e-003</b>	<b>0.1643</b>	<b>1.2700e-003</b>	<b>0.1656</b>	<b>0.0436</b>	<b>1.1700e-003</b>	<b>0.0448</b>		<b>151.5328</b>	<b>151.5328</b>	<b>7.0700e-003</b>		<b>151.7096</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0499	10.5638	12.0290	0.0184		0.5681	0.5681		0.5235	0.5235	0.0000	1,766.6650	1,766.6650	0.5631		1,780.7414
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
<b>Total</b>	<b>1.0499</b>	<b>10.5638</b>	<b>12.0290</b>	<b>0.0184</b>		<b>0.5681</b>	<b>0.5681</b>		<b>0.5235</b>	<b>0.5235</b>	<b>0.0000</b>	<b>1,766.6650</b>	<b>1,766.6650</b>	<b>0.5631</b>		<b>1,780.7414</b>



## Almanor Recreation Center - Chester - Plumas, CA - Northern Sierra AQMD Air District, Winter

**3.6 Paving - 2021****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1191	0.0938	0.8128	1.5300e-003	0.1643	1.2700e-003	0.1656	0.0436	1.1700e-003	0.0448		151.5328	151.5328	7.0700e-003		151.7096
<b>Total</b>	<b>0.1191</b>	<b>0.0938</b>	<b>0.8128</b>	<b>1.5300e-003</b>	<b>0.1643</b>	<b>1.2700e-003</b>	<b>0.1656</b>	<b>0.0436</b>	<b>1.1700e-003</b>	<b>0.0448</b>		<b>151.5328</b>	<b>151.5328</b>	<b>7.0700e-003</b>		<b>151.7096</b>

**3.7 Architectural Coating - 2021****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>0.2189</b>	<b>1.5268</b>	<b>1.8176</b>	<b>2.9700e-003</b>		<b>0.0941</b>	<b>0.0941</b>		<b>0.0941</b>	<b>0.0941</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</b>

## Almanor Recreation Center - Chester - Plumas, CA - Northern Sierra AQMD Air District, Winter

**3.7 Architectural Coating - 2021****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0655	0.0516	0.4471	8.4000e-004	0.0904	7.0000e-004	0.0911	0.0240	6.4000e-004	0.0246		83.3431	83.3431	3.8900e-003		83.4403
<b>Total</b>	<b>0.0655</b>	<b>0.0516</b>	<b>0.4471</b>	<b>8.4000e-004</b>	<b>0.0904</b>	<b>7.0000e-004</b>	<b>0.0911</b>	<b>0.0240</b>	<b>6.4000e-004</b>	<b>0.0246</b>		<b>83.3431</b>	<b>83.3431</b>	<b>3.8900e-003</b>		<b>83.4403</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
<b>Total</b>	<b>0.2189</b>	<b>1.5268</b>	<b>1.8176</b>	<b>2.9700e-003</b>		<b>0.0941</b>	<b>0.0941</b>		<b>0.0941</b>	<b>0.0941</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0193</b>		<b>281.9309</b>

Almanor Recreation Center - Chester - Plumas, CA - Northern Sierra AQMD Air District, Winter

**3.7 Architectural Coating - 2021****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0655	0.0516	0.4471	8.4000e-004	0.0904	7.0000e-004	0.0911	0.0240	6.4000e-004	0.0246		83.3431	83.3431	3.8900e-003		83.4403
<b>Total</b>	<b>0.0655</b>	<b>0.0516</b>	<b>0.4471</b>	<b>8.4000e-004</b>	<b>0.0904</b>	<b>7.0000e-004</b>	<b>0.0911</b>	<b>0.0240</b>	<b>6.4000e-004</b>	<b>0.0246</b>		<b>83.3431</b>	<b>83.3431</b>	<b>3.8900e-003</b>		<b>83.4403</b>

**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**

## Almanor Recreation Center - Chester - Plumas, CA - Northern Sierra AQMD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1782	1.0007	2.0354	4.4600e-003	0.3106	5.1500e-003	0.3158	0.0831	4.8500e-003	0.0880		450.6526	450.6526	0.0302		451.4064
Unmitigated	0.1782	1.0007	2.0354	4.4600e-003	0.3106	5.1500e-003	0.3158	0.0831	4.8500e-003	0.0880		450.6526	450.6526	0.0302		451.4064

## 4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	5.67	68.25	50.22	44,777	44,777
Total	5.67	68.25	50.22	44,777	44,777

## 4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	9.50	7.30	7.30	33.00	48.00	19.00	66	28	6

## 4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
City Park	0.441745	0.043228	0.239449	0.147556	0.039687	0.007004	0.014545	0.055644	0.001831	0.001022	0.005999	0.000606	0.001684

## 5.0 Energy Detail

## Almanor Recreation Center - Chester - Plumas, CA - Northern Sierra AQMD Air District, Winter

Historical Energy Use: Y

**5.1 Mitigation Measures Energy**

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

## Almanor Recreation Center - Chester - Plumas, CA - Northern Sierra AQMD Air District, Winter

**5.2 Energy by Land Use - NaturalGas****Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail****6.1 Mitigation Measures Area**

## Almanor Recreation Center - Chester - Plumas, CA - Northern Sierra AQMD Air District, Winter

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.7600e-003	0.0000	3.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		6.6000e-004	6.6000e-004	0.0000		7.0000e-004
Unmitigated	6.7600e-003	0.0000	3.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		6.6000e-004	6.6000e-004	0.0000		7.0000e-004

## 6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.7300e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.0000e-005	0.0000	3.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		6.6000e-004	6.6000e-004	0.0000		7.0000e-004
<b>Total</b>	<b>6.7600e-003</b>	<b>0.0000</b>	<b>3.1000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>6.6000e-004</b>	<b>6.6000e-004</b>	<b>0.0000</b>		<b>7.0000e-004</b>

## Almanor Recreation Center - Chester - Plumas, CA - Northern Sierra AQMD Air District, Winter

**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	6.7300e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	3.0000e-005	0.0000	3.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		6.6000e-004	6.6000e-004	0.0000		7.0000e-004
<b>Total</b>	<b>6.7600e-003</b>	<b>0.0000</b>	<b>3.1000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>6.6000e-004</b>	<b>6.6000e-004</b>	<b>0.0000</b>		<b>7.0000e-004</b>

**7.0 Water Detail****7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment****Fire Pumps and Emergency Generators**



## Almanor Recreation Center - Chester - Plumas, CA - Northern Sierra AQMD Air District, Winter

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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**Appendix B** – Biological Resource Assessment

# BIOLOGICAL RESOURCE ASSESSMENT

Terrestrial Wildlife and Botanical Resources

## **Almanor Recreation Center**

Chester, California

March 2020



Prepared for:

**Almanor Recreation and Park District**

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## Contents

INTRODUCTION .....	1
Purpose and Overview .....	1
Project Location and Environmental Setting .....	1
Project Description.....	4
METHODS .....	4
References Consulted .....	4
Special-Status Species .....	4
Critical Habitat .....	6
Sensitive Natural Communities.....	6
Waters of the United States .....	6
Habitat Assessments .....	6
RESULTS .....	7
Habitats .....	7
Critical Habitat .....	8
Sensitive Natural Communities.....	8
Waters of the United States .....	8
Special-Status Species .....	10
Endangered, Threatened, and Rare Plants .....	14
Long-Leaved Starwort .....	14
Long-Stiped Campion .....	15
Plumas Rayless Daisy .....	15
Suksdorf’s Milk-Vetch .....	16
Tufted Loosestrife .....	16
Endangered, Threatened, and Special-status Wildlife.....	17
Cascades Frog.....	17
Sierra Nevada Yellow-Legged Frog .....	17
Northern Goshawk.....	18
Migratory Birds and Raptors.....	19
REGULATORY FRAMEWORK.....	19
Federal .....	19

Federal Endangered Species Act.....	19
Migratory Bird Treaty Act .....	20
State of California .....	21
California Endangered Species Act .....	21
California Fish and Game Code (§3503.5).....	21
California Migratory Bird Protection Act .....	22
CDFW Incidental Take Permit .....	22
Rare and Endangered Plants.....	22
California Environmental Quality Act Guidelines §15380.....	23
CONCLUSIONS AND RECOMMENDATIONS.....	23
Endangered, Threatened, and Rare Plants .....	23
Endangered, Threatened, and Special-status Wildlife.....	24
Other Natural Resources.....	25
REFERENCES.....	26
LIST OF PREPARERS .....	27

## List of Figures

Figure 1. Regional Location.....	2
Figure 2. Biological Survey Area.....	3
Figure 3. CNDDDB Occurrences and Critical Habitat.....	5
Figure 4. Preliminary Assessment of Waters of the United States.....	9

## List of Tables

Table 1. Special-status species and their potential to occur in the BSA of the Almanor Recreation Center, Plumas County, CA .....	10
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## List of Appendices

Appendix A.....	Species Lists
Appendix B.....	Observed Plant Species List
Appendix C.....	Project Site Photos

# BIOLOGICAL RESOURCE ASSESSMENT

## Almanor Recreation Center

### Project Location:

Chester, California

Section 6, Township 28N, Range 7E

## INTRODUCTION

### Purpose and Overview

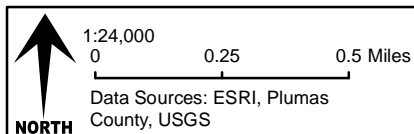
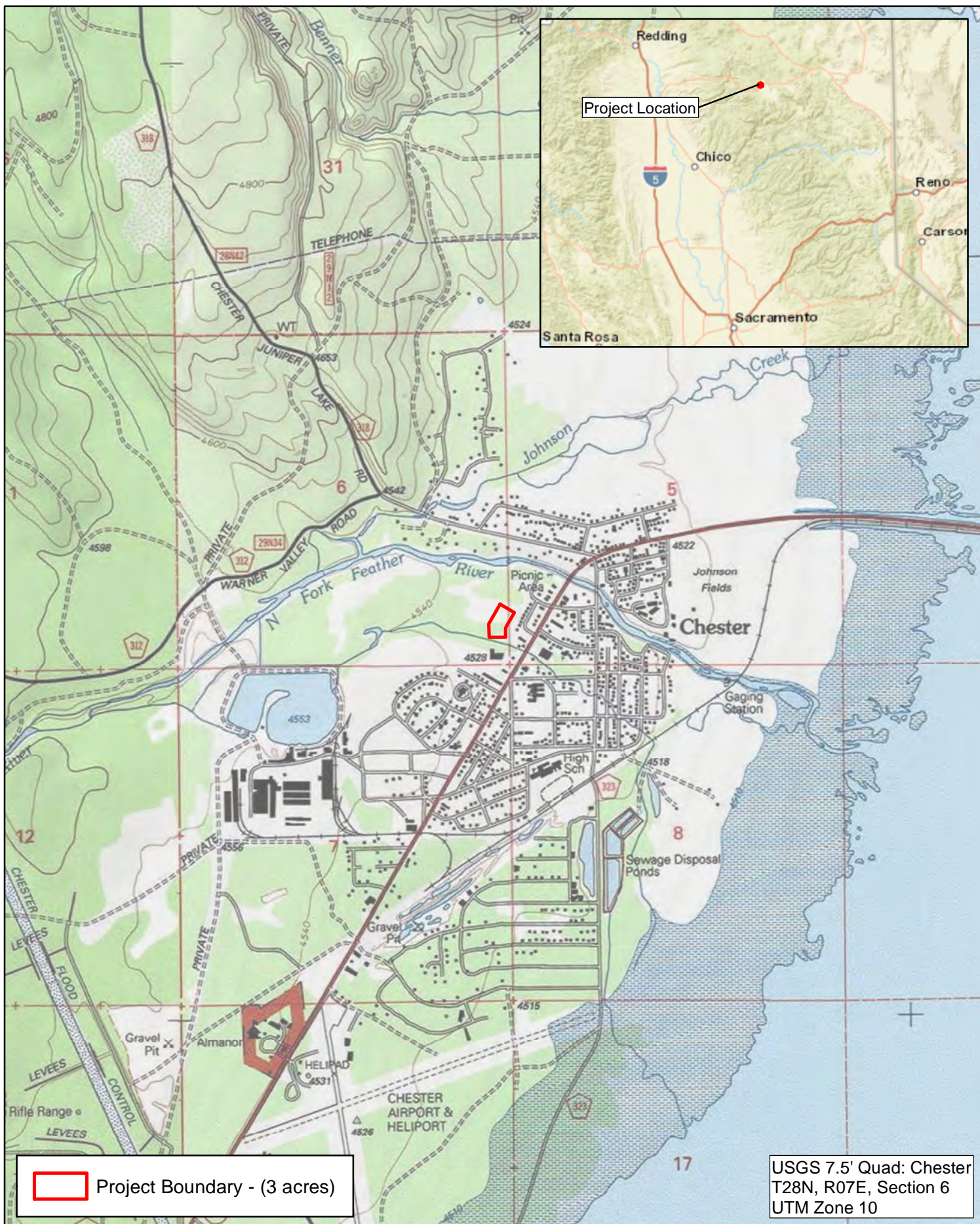
The purpose of this biological resource assessment (BRA) is to document the endangered, threatened, sensitive, and rare species and their habitats that occur or may occur in the biological survey area (BSA) of the Almanor Recreation Center (Project) area located within Chester, Plumas County, California (**Figure 1**). The Project area is located along the east side of Meadowbrook Loop. The Project area is approximately 3 acres.

The BSA is the area where biological surveys are conducted (**Figure 2**). Gallaway Enterprises conducted biological and botanical habitat assessments in the BSA to evaluate site conditions and potential for biological and botanical species to occur. Other primary references consulted include species lists and information gathered using United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation System (IPaC), California Department of Fish and Wildlife's (CDFW) Natural Diversity Database (CNDDDB), the California Native Plant Society's (CNPS) list of rare and endangered plants, and literature review. The results of the BRA are the findings of habitat assessments and surveys and recommendations for avoidance and minimization measures.

### Project Location and Environmental Setting

The BSA is located within Chester, a census-designated place, in Plumas County, California. Chester is located northwest of Lake Almanor and is situated at the interface between the Cascade mountain range and the Sierra Nevada mountain range. The northern portion of the BSA contains the existing Almanor Recreation Center buildings, asphalt driveway, and parking lot. The remainder of the BSA is dominated by Jeffrey pine forest with some large patches of open grassland, particularly in the southeastern corner of the site. There is minimal evidence of human disturbance in the southern portion of the site. Three small seasonal wetland swales occur within the southern portion of BSA. A portion of a braided drainage occurs along the southwestern corner of the BSA, the main section of the drainage flows just offsite to the south. This drainage is a historic diversion ditch that has widened over time and become braided due to the presence of beavers upstream of the site. A few scattered black cottonwood trees and willows occur in and adjacent to the wetlands and drainage in the BSA. Land surrounding the BSA is dominated by open Jeffrey pine forest to the west, the Almanor Recreation & Park to the north, commercial and residential buildings to the south and east.





Almanor Recreation Center  
Regional Location  
Figure 1







In the region where the BSA is located the average annual precipitation is 31.83 inches and the average snowfall is 127.8 inches, with an average annual temperature of 46.80° F (WRCC 2020). The site occurs at an average elevation of approximately 4,535 feet above sea level. The Project site is relatively flat with slopes ranging from 0 to 2 percent, however, within the forested portion of the Project site there was considerable micro-topography. Soils within the site were gravelly sandy loams with a deep restrictive layer occurring at more than 80 inches deep.

## Project Description

The proposed project consists of the development of additional recreational facilities.

## METHODS

### References Consulted

Gallaway Enterprises obtained lists of special-status species that occur in the vicinity of the BSA. The CNDDDB Geographic Information System (GIS) database was also consulted and showed special-status species within a 5-mile radius of the BSA (**Figure 3**). Other primary sources of information regarding the occurrence of federally listed threatened, endangered, proposed, and candidate species and their habitats within the BSA used in the preparation of this BRA are:

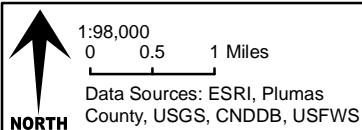
- The USFWS IPaC Official Species List for the Project area, February 19, 2020, Consultation Code 08ESMF00-2020-SLI-1075 (**Appendix A; Species Lists**);
- The results of a species record search of the CDFW CNDDDB RareFind 5 for the 7.5 minute United States Geological Survey (USGS) Chester, Almanor, Stover Mtn., and Humbug Valley quadrangles (**Appendix A; Species Lists**);
- The review of the CNPS Inventory of Rare and Endangered Vascular Plants of California for the 7.5 minute USGS Chester, Almanor, Stover Mtn., and Humbug Valley quadrangles (**Appendix A; Species Lists**);
- USFWS Critical Habitat Portal, February 18, 2020; and
- Results from the habitat assessments conducted by Gallaway Enterprises on November 6, 2019 and February 18, 2020. (**Appendix B; Observed Species List**).

### Special-Status Species

Special-status species that have potential to occur in the BSA are those that fall into one of the following categories:

- Listed as threatened or endangered, or are proposed or candidates for listing under the California Endangered Species Act (CESA, 14 California Code of Regulations 670.5) or the Federal Endangered Species Act (ESA, 50 Code of Federal Regulations 17.12);
- Listed as a Species of Special Concern (SSC) by CDFW or protected under the California Fish and Game Code (CFG) (e.g. Fully Protected species);





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- Ranked by the CNPS as 1A, 1B, or 2;
- Protected under the Migratory Bird Treaty Act (MBTA);
- Protected under the Bald and Golden Eagle Protection Act; or
- Species that are otherwise protected under policies or ordinances at the local or regional level as required by the California Environmental Quality Act (CEQA §15380).

## **Critical Habitat**

The ESA requires that critical habitat be designated for all species listed under the ESA. Critical habitat is designated for areas that provide essential habitat elements that enable a species survival and which are occupied by the species during the species listing under the ESA. Areas outside of the species range of occupancy during the time of its listing can also be determined as critical habitat if the agency decides that the area is essential to the conservation of the species.

The USFWS Critical Habitat Portal was accessed on February 18, 2020 to determine if critical habitat occurs within the BSA. Appropriate Federal Registers were also used to confirm the presence or absence of critical habitat.

## **Sensitive Natural Communities**

Sensitive Natural Communities (SNCs) are monitored by CDFW with the goal of preserving these areas of habitat that are rare or ecologically important. Many SNCs are designated as such because they represent a historical landscape and are typically preserved as valued components of California's diverse habitat assemblage.

## **Waters of the United States**

An aquatic resources assessment of the BSA was conducted by Gallaway Enterprises on November 6, 2019.

## **Habitat Assessments**

Habitat assessments were conducted by Gallaway Enterprises staff on November 6, 2019 and February 18, 2020. A wildlife habitat assessment was conducted by Biologist Samantha Morford. Senior Botanist Elena Gregg conducted a botanical habitat assessment within the BSA.

Habitat assessments for botanical and wildlife species were conducted to determine the suitable habitat elements for special-status species within the BSA. The habitat assessments were conducted by walking the entire BSA, where accessible, and recording observed species and specific habitat types and elements. If habitat was observed for special-status species it was then evaluated for quality based on vegetation composition and structure, physical features (e.g. soils, elevation), microclimate, surrounding area, presence of predatory species and available resources (e.g. prey items, nesting substrates), and land use patterns.

## RESULTS

### Habitats

#### Jeffrey Pine

Jeffrey pine forest dominates the habitat within the BSA. This forest was comprised of Jeffery pine (*Pinus jeffreyi*) and a few scattered black cottonwoods (*Populus trichocarpa*) in the southern portion of the BSA. The value of the Jeffrey pine forest type as habitat for wildlife is large due to the food value of the Jeffrey pine seeds. Pine seeds are included in the diet of more wildlife species than any other genus except oak. The bark and foliage also serve as important food sources for squirrels and mule deer (*Odocoileus hemionus*). Jeffrey pine provides essential nesting cover for several species such as nuthatches, brown creeper (*Certhia americana*), woodpeckers, and northern flying squirrel (*Glaucomys sabrinus*).

#### Annual Grassland

Large patches of annual grassland occur within the BSA, predominantly within the southeastern corner of the site. Some of the dominant plant species observed in the annual grassland habitat include cheatgrass (*Bromus tectorum*), small fescue (*Festuca microstachys*), yarrow (*Achillea millefolium*), blue wild rye (*Elymus glaucus*), whiskerbrush (*Leptosiphon ciliatus*), squirrel tail grass (*Elymus elymoides*), and California balsamroot (*Balsamorhiza hookeri*). A variety of ground nesting avian species, reptiles, and small mammals use grassland habitat for breeding, while many other wildlife species use it primarily for foraging or require other habitat characteristics such as rocky outcroppings, cliffs, caves, or ponds in order to find shelter and cover for escapement. Common species found utilizing this habitat type include western fence lizards (*Sceloporus occidentalis*), common garter snakes (*Thamnophis elegans*), California ground squirrels (*Otospermophilus beecheyi*), jackrabbits (*Lepus californicus*), and a variety of avian species.

#### Wetlands within Annual Grassland

Three small seasonal wetland swales occur within the southern portion of the BSA. Seasonal swales are depressional features that function as low drainage pathways that typically connect to and help feed other wetlands or drainages. These types of wetland features are often small and are inundated with water for a short period of time. The wetlands present were dominated by fowl bluegrass (*Poa palustris*), spike bentgrass (*Agrostis exarata*), rush (*Juncus sp.*), slender wheatgrass (*Elymus trachycaulus*) (FAC), sedge (*Carex sp.*) and hairy clover (*Trifolium microcephalum*). These seasonal wetland swales provide food and water for a variety of wildlife species.

#### Riverine

There is a section of riverine habitat in the southwestern corner of the BSA. This riverine habitat is part of the braided portion of a historic diversion ditch that diverts water from the North Fork Feather River to Lake Almanor. The main channel of this ditch occurs just south of the BSA. The portion of the ditch

that is within the BSA is shallow and is characterized by its highly vegetated low streambank. This riverine habitat provides food and water for a variety of wildlife species.

### **Urban**

The existing Almanor Recreation Center buildings make up the northern portion of the BSA. In this area the vegetation composition was comprised of a few non-native shrubs and small Jeffery pine. Urban habitat can present a mosaic of vegetation including primarily ornamental landscaping, but can also incorporate native tree species. Generalist and invasive species often occupy urban habitat such as common raven (*Corvus corax*), house sparrow (*Passer domesticus*), scrub jays (*Aphelocoma californica*) and Brewer's blackbirds (*Euphagus cyanocephalus*), as well as small to medium mammals such as raccoon (*Procyon lotor*), opossum (*Didelphis virginiana*), and striped skunk (*Mephitis mephitis*) (Mayer and Laudenslayer 1988).

### **Barren**

Barren habitat is typified by non-vegetated soil, rock, and gravel. Barren habitat occurs in the form of Meadowbrook Way and the Almanor Recreation Center parking lot within the BSA. The barren habitat type typically provides low quality habitat to wildlife. Some ground-nesting birds, such as killdeer (*Charadrius vociferus*), will nest in gravelly, barren substrate.

### **Critical Habitat**

There is no designated critical habitat within the BSA.

### **Sensitive Natural Communities**

No SNCs occur within the BSA.

### **Waters of the United States**

Gallaway Enterprises found evidence of three wetlands and one drainage that are potentially jurisdictional within the BSA (**Figure 4**). All features within the report should be considered jurisdictional until verified by the Army Corps of Engineers.

# Draft Delineation of Waters of the U.S.

## Other Waters

Label	Cowardin	Description	Location (Lat/Long)		Width (ft)*	Length (ft)	Area (sq ft)	Acres
OW01	R4	RPW	40.308127	-121.23315	21.0	88.2	1852.5	0.043
Other Waters Totals =						88.2	1852.5	0.043

\*Widths are represented as averages

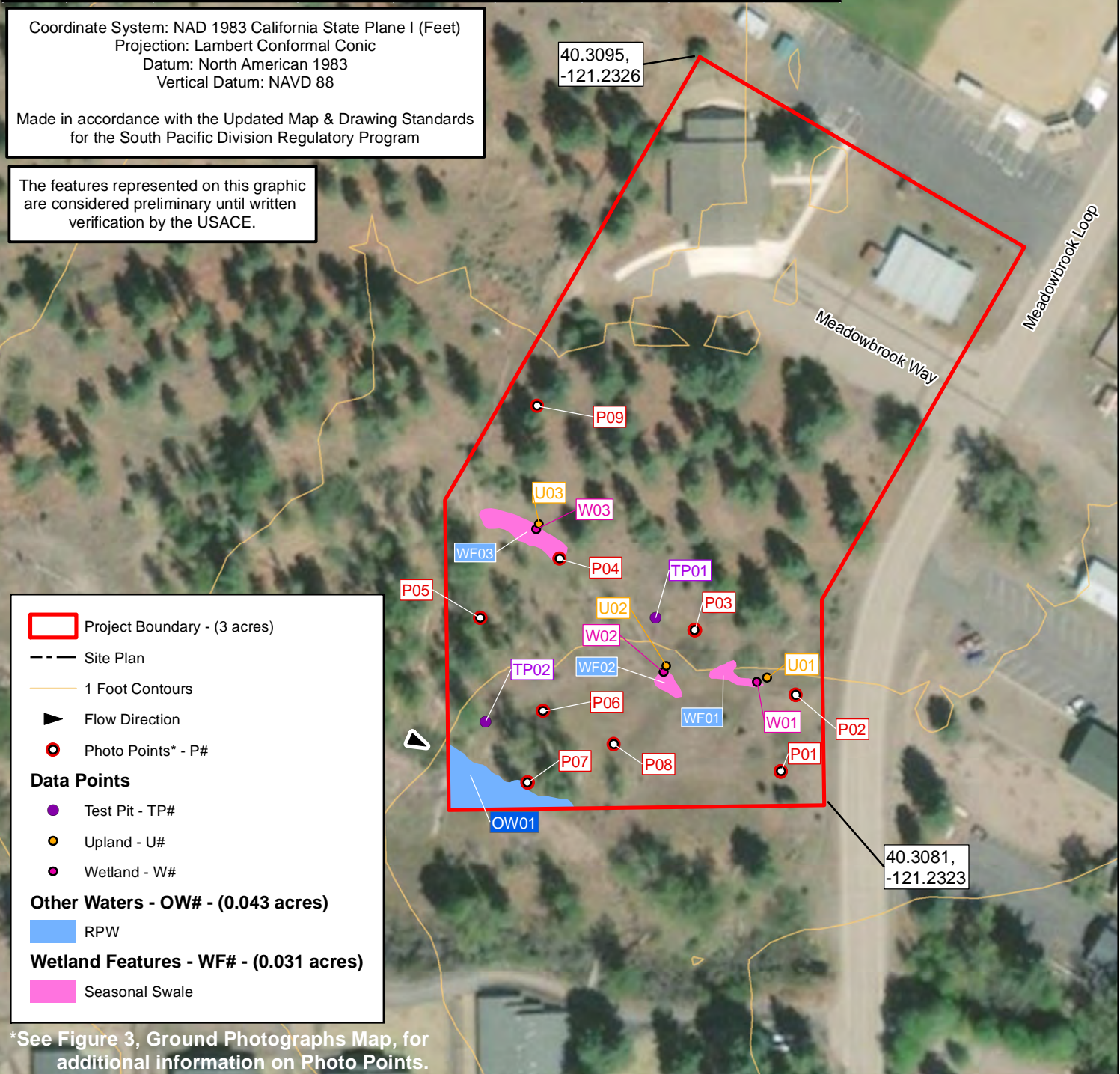
## Wetland Features

Label	Cowardin	Description	Location (Lat/Long)		Width (ft)*	Length (ft)	Area (sq ft)	Acres
WF01	PUB	Seasonal Swale	40.308313	-121.2325	NA	NA	279.4	0.006
WF02	PUB	Seasonal Swale	40.308299	-121.23266	NA	NA	219.5	0.005
WF03	PUB	Seasonal Swale	40.308591	-121.23302	NA	NA	852.8	0.020
Wetland Feature Totals =						NA	1351.7	0.031
Total Waters of the U.S. =						88.2	3204.2	0.074

Coordinate System: NAD 1983 California State Plane I (Feet)  
Projection: Lambert Conformal Conic  
Datum: North American 1983  
Vertical Datum: NAVD 88

Made in accordance with the Updated Map & Drawing Standards  
for the South Pacific Division Regulatory Program

The features represented on this graphic  
are considered preliminary until written  
verification by the USACE.



Project Boundary - (3 acres)

Site Plan

1 Foot Contours

Flow Direction

Photo Points\* - P#

### Data Points

Test Pit - TP#

Upland - U#

Wetland - W#

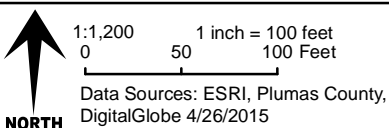
### Other Waters - OW# - (0.043 acres)

RPW

### Wetland Features - WF# - (0.031 acres)

Seasonal Swale

\*See Figure 3, Ground Photographs Map, for  
additional information on Photo Points.



Almanor Recreation Center  
Draft Delineation of Waters of the U.S.  
Figure 4

Delineation by: E. Gregg  
Map by: C. Davis

GE: #19-090 Map Date: 11/22/19

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## Special-Status Species

A summary of special-status species assessed for potential occurrence within the BSA based on the USFWS IPaC and CNDDDB species lists and the CNPS lists of rare and endangered plants within the USGS 7.5 minute Chester, Almanor, Stover Mtn., and Humbug Valley quadrangles, and their potential to occur within the BSA is described in **Table 1**. Potential for occurrence was determined by reviewing database queries from federal and state agencies, performing surveys, and evaluating habitat characteristics. Species were not included in the special-status species summary table if there are no CNDDDB occurrences within a five mile radius of the BSA and suitable habitat for the species is not present within the BSA or if the BSA is outside of the species known geographical or elevational range.

**Table 1. Special-status species and their potential to occur in the BSA of the Almanor Recreation Center, Plumas County, CA**

Common Name (Scientific Name)	Status Fed/State/CNPS	Associated Habitats	Potential for Occurrence
<b>PLANTS</b>			
<b>Cream-flowered bladderwort</b> ( <i>Utricularia ochroleuca</i> )	✓✓2B.2	Meadows seeps and marshes, including lake margins. (BP: Jun-Jul)	<u>None</u> . No suitable habitat within the BSA.
<b>Dwarf resin birch</b> ( <i>Betula glandulosa</i> )	✓✓2B.2	Bogs, fens and meadows. (BP: May-Jul)	<u>None</u> . No suitable habitat within the BSA.
<b>Flat-leaved bladderwort</b> ( <i>Utricularia intermedia</i> )	✓✓2B.2	Mesic meadows, lake margins, marshes, fens. (BP: [Jun] Jul-Aug)	<u>None</u> . No suitable habitat within the BSA.
<b>Lassen paintbrush</b> ( <i>Castilleja lasenensis</i> )	✓✓1B.3	Subalpine coniferous forest, meadows and seeps. Volcanic substrates. (BP: Jun-Sep)	<u>None</u> . No suitable habitat within the BSA.
<b>Long-leaved starwort</b> ( <i>Stellaria longifolia</i> )	✓✓2B.2	Moist areas. Bogs and fens, meadows and seeps, riparian woodland, upper montane coniferous forest. (BP: May-Aug)	<b>Low</b> . There is marginal habitat within the ordinary high water mark (OHWM) of the drainage within the BSA.



<b>Common Name</b> (Scientific Name)	<b>Status</b> Fed/State/CNPS	<b>Associated Habitats</b>	<b>Potential for Occurrence</b>
<b>Long-stiped campion</b> ( <i>Silene occidentalis</i> <i>ssp. longistipitata</i> )	_/_/1B.2	Chaparral, lower montane coniferous forest, upper montane coniferous forest. (BP: Jun-Aug)	<b>Low.</b> There is marginal habitat within the BSA.
<b>Marsh skullcap</b> ( <i>Scutellaria</i> <i>galericulata</i> )	_/_/2B.2	Swamps and wet places. (BP: Jun-Sep)	<b>None.</b> No suitable habitat within the BSA, not suitably wet.
<b>Plumas rayless daisy</b> ( <i>Erigeron</i> <i>lassenianus</i> var. <i>deficiens</i> )	_/_/1B.3	Lower montane coniferous forest. Gravelly, open sites. Sometimes on serpentine; sometimes on disturbed sites. (BP: Jun-Sep)	<b>Low.</b> There is marginal habitat within the gravelly sparsely vegetated areas along the eastern boundary of the BSA.
<b>Slender Orcutt grass</b> ( <i>Orcuttia tenuis</i> )	FT/SE/1B.1	Vernal pools, often in gravelly substrate. (BP: May-Sep [Oct])	<b>None.</b> There is no vernal pool habitat present within the BSA.
<b>Suksdorf's milk-vetch</b> ( <i>Astragalus</i> <i>pulsiferae</i> var. <i>suksdorfii</i> )	_/_/1B.2	Volcanic or clay soil; often gravelly or rocky. (BP: May-Aug)	<b>Low.</b> There is marginal habitat within the gravelly sparsely vegetated areas along the eastern boundary of the BSA.
<b>Tufted loosestrife</b> ( <i>Lysimachia</i> <i>thysiflora</i> )	_/_/2B.3	Mesic sites; known from lake margins, along streams and in wet meadows. (BP: May-Aug)	<b>Low.</b> There is marginal habitat within the OHWM of the drainage within the BSA.
<b>Watershield</b> ( <i>Brasenia schreberi</i> )	_/_/2B.3	Aquatic known from water bodies both natural and artificial in California. (BP: Jun-Sep)	<b>None.</b> No suitable habitat within the BSA.
<b>White-stemmed pondweed</b> ( <i>Potamogeton</i> <i>praelongus</i> )	_/_/2B.3	Deep water, lakes.	<b>None.</b> There is no suitable habitat present within the BSA.



Common Name (Scientific Name)	Status Fed/State/CNPS	Associated Habitats	Potential for Occurrence
<b>INVERTEBRATES</b>			
<b>Western bumble bee</b> ( <i>Bombus occidentalis</i> )	_/SC/_	Meadows and habitats with a diversity of flowering plant that bloom in July through August.	<u>None</u> . The BSA is dominated largely by monocots in the understory and would not be attractive to bees.
<b>FISH</b>			
<b>Steelhead</b> Central Valley DPS ( <i>Oncorhynchus mykiss</i> )	FT/_/_	Sacramento River and its tributaries.	<u>None</u> . BSA is outside of species known range.
<b>Delta smelt</b> ( <i>Hypomesus transpacificus</i> )	FT/SE/_	Found only from the San Pablo Bay upstream through the Delta.	<u>None</u> . The BSA is not within the range of Delta smelt.
<b>Amphibians</b>			
<b>Cascades frog</b> ( <i>Rana cascadae</i> )	_/SC, SSC/_	Montane aquatic habitats such as mountain lakes, small streams, and ponds in meadows; open coniferous forests. Standing water required for reproduction. Hibernates in mud on the bottom of lakes and ponds during the winter.	<b>Moderate</b> . The section of the riverine habitat that passes through the BSA may provide aquatic habitat for a portion of the year. There is one CNDDDB occurrence that overlaps with the BSA, #11, which was recorded in 1934.
<b>Sierra Nevada yellow-legged frog</b> ( <i>Rana sierrae</i> )	FE/ST/_	High elevation lakes, ponds, marshes, meadows, and streams. Adults can be found sitting on rocks along the shoreline where there was little or no vegetation.	<b>Low</b> . The section of the riverine habitat that passes through the BSA may provide aquatic habitat for a portion of the year. There is one CNDDDB occurrence that overlaps with the BSA, #749, which was recorded in 1975.
<b>California red-legged frog</b> ( <i>Rana draytonii</i> )	FT/SSC/_	Streams with consistent flow, slow side waters with cobble and boulders for oviposition.	<u>None</u> . BSA is outside of species known distribution.

Common Name (Scientific Name)	Status Fed/State/CNPS	Associated Habitats	Potential for Occurrence
<b>Southern long-toed salamander</b> ( <i>Ambystoma macrodactylum sigillatum</i> )	_/SSC/_	High elevation meadows and lakes in the Sierra Nevada, Cascade, and Klamath mountains. Aquatic larvae occur in ponds and lakes. Non-breeding adults are terrestrial, associated with mammal burrows and moist areas under logs and rocks.	<u>None</u> . The BSA does not provide suitable breeding habitat.
<b>BIRDS</b>			
<b>Bald eagle</b> ( <i>Haliaeetus leucocephalus</i> )	_/SE, FP/_	Coasts, large lakes and river systems, with open forests with large trees and snags.	<u>None</u> . There is no suitable foraging habitat within or adjacent to the BSA.
<b>Greater sandhill crane</b> ( <i>Antigone canadensis tabida</i> )	_/ST, FP/_	Prefers grain fields within 4 miles of a shallow body of water used as a communal roost site; irrigated pasture used as loafing sites.	<u>None</u> . There is no suitable habitat within or adjacent to the BSA.
<b>Northern goshawk</b> ( <i>Accipiter gentilis</i> )	_/SSC/_	Usually nests on north slopes, near water. Red fir, lodgepole pine, Jeffrey pine, and aspens are typical nest trees.	<u>Low</u> . There is marginally suitable nesting habitat within the BSA.
<b>Mammals</b>			
<b>Sierra Nevada red fox</b> ( <i>Vulpes vulpes necator</i> )	FC/ST/_	Use dense vegetation and rocky areas for cover and den sites. Prefer forests interspersed with meadows or alpine fell-fields.	<u>None</u> . There is no suitable habitat within or adjacent to the BSA.
<b>CODE DESIGNATIONS</b>			
FE or FT = Federally listed as Endangered or Threatened FC = Federal Candidate Species		<b>CNPS California Rare Plant Rank (CRPR):</b> <b>CRPR 1B</b> = Rare or Endangered in California or elsewhere	

<b>SE or ST</b> = State listed as Endangered or Threatened <b>SC</b> = State Candidate Species <b>SR</b> = State Rare Species <b>SSC</b> = State Species of Special Concern <b>FP</b> = State Fully Protected Species <b>SNC</b> = CDFW Sensitive Natural Community	<b>CRPR 2</b> = Rare or Endangered in California, more common elsewhere <b>CRPR 3</b> = More information is needed <b>CRPR 4</b> = Plants with limited distribution <b>0.1</b> = Seriously Threatened <b>0.2</b> = Fairly Threatened <b>0.3</b> = Not very Threatened
<p><b>Potential for Occurrence:</b> for plants it is considered the potential to occur during the survey period; for birds and bats it is considered the potential to breed, forage, roost, or over-winter in the BSA during migration. Any bird or bat species could fly over the BSA, but this is not considered a potential occurrence. The categories for the potential for occurrence include:</p> <p><b>None:</b> The species or natural community is known not to occur, and has no potential to occur in the BSA based on sufficient surveys, the lack suitable habitat, and/or the BSA is well outside of the known distribution of the species.</p> <p><b>Low:</b> Potential habitat in the BSA is sub-marginal and/or the species is known to occur in the vicinity of the BSA.</p> <p><b>Moderate:</b> Suitable habitat is present in the BSA and/or the species is known to occur in the vicinity of the BSA. Pre-construction surveys may be required.</p> <p><b>High:</b> Habitat in the BSA is highly suitable for the species and there are reliable records close to the BSA, but the species was not observed. Pre-construction surveys required, with the exception of indicators for foraging habitat.</p> <p><b>Known:</b> Species was detected in the BSA or a recent reliable record exists for the BSA.</p>	

The following special-status species have potential to occur within the BSA based on the presence of suitable habitat and/or known records of species occurrence within the vicinity of the BSA.

### **Endangered, Threatened, and Rare Plants**

A habitat assessment for special-status plant species was conducted within the BSA on November 6, 2019. No special-status plant species were observed during the field survey; however, the field survey was conducted outside of the blooming period for the all of the special status plants listed in **Table 1**. Suitable habitat was observed within the BSA for long-leaved starwort, long-stiped campion, Plumas rayless daisy, Suksdorf's milk-vetch, and tufted loosestrife. A complete list of plant species observed within the BSA can be found in **Appendix B**.

### **Long-Leaved Starwort**

Long-leaved starwort is a CNPS Rank 2B.2 rare plant. This plant is native to much of the northern half of the of the Northern Hemisphere. It grows in many types of moist habitat, including meadows, marshes, and roadsides. It prefers loamy or clay soils, grows poorly in sandy soils. Long-leaved starwort is a

rhizomatous perennial herb that produces a green and white flower during its blooming period in May through August.

#### **CNDDDB Occurrences**

The nearest CNDDDB occurrence (#15) is approximately 12 miles south of the BSA. This occurrence was recorded in 2013 in Big Springs, Humbug Valley. A population of approximately 20 plants were observed.

#### **Status of Long-Leaved Starwort occurring in the BSA**

The habitat within the OHWM of the drainage in the southwestern corner provides marginally suitable habitat for this species. There is a low potential for long-leaved starwort to occur within the southwestern corner of the BSA.

#### **Long-Stiped Campion**

Long-stiped campion is a CNPS Rank 1B.2 rare plant. This plant is native and endemic to California. It grows in chaparral and mountain forest habitats. Long-stiped campion is a perennial herb that produces white and pink flowers during its blooming period in June through August.

#### **CNDDDB Occurrences**

The nearest CNDDDB occurrence (#8) is approximately 10 miles south of the BSA. This occurrence was recorded in 2012 just north of Yellow Creek at the 27N04 road crossing. One plant was observed in 1999, however, no plants were observed during the 2012 survey of the area.

#### **Status of Long-Stiped Campion occurring in the BSA**

The Jeffery pine habitat within the BSA provides marginal habitat for this species. There is low potential for long-leaved starwort to occur within the BSA.

#### **Plumas Rayless Daisy**

Plumas rayless daisy is a CNPS Rank 1B.3 rare plants. This plant is native and endemic to Northern California. It grows in full sun to afternoon shade, in open mixed conifer forest and into the red fir forest, on gravelly, vernal moist flats and swales, both on and off serpentine. Plumas rayless daisy is a perennial herb with a woody root that produces yellow-orange flower heads without rays during its blooming period in June through September.

#### **CNDDDB Occurrences**

The nearest CNDDDB occurrence (#24) is approximately four miles south of the BSA. This occurrence was recorded in 2015, along Highway 89, 2.3 miles south-southeast of its junction with Highway 36. Plants were observed in along Highway 89 in 2001, however, follow up visit yielded negative results.

### **Status of Plumas Rayless Daisy occurring in the BSA**

The sections of open or sparsely vegetated gravelly areas along the eastern boundary of the BSA provides marginally suitable habitat for this species. There is a low potential for Plumas rayless daisy to occur within the BSA.

### **Suksdorf's Milk-Vetch**

Suksdorf's milk-vetch is a CNPS Rank 1B.2 rare plant. This plant is native to California and Washington. Suksdorf's milk-vetch can be found in volcanic or clay soil, often in gravelly or rocky areas. It is a perennial herb that blooms in May through August, producing small pink and white flowers.

### **CNDDDB Occurrences**

The nearest CNDDDB occurrence (#7) is approximately two miles southwest of the BSA. This occurrence was recorded in 2002 just east of Highway 36 at the Chester Airport. Approximately 50 plants were observed.

### **Status of Suksdorf's Milk-Vetch occurring in the BSA**

The sections of open or sparsely vegetated gravelly areas along the eastern boundary of the BSA provides marginally suitable habitat for this species. There is a low potential for Suksdorf's milk-vetch to occur within the BSA.

### **Tufted Loosestrife**

Tufted loosestrife is a CNPS Rank 2B.3 rare plant. This plant is native to large sections of the northern Northern Hemisphere. It grows in marshes, shorelines of lakes and ponds and occasionally along streams. Tufted loosestrife is an erect perennial herb growing up to 80 centimeters tall and bearing yellow flowers, sometimes dotted with purple. Its blooming period is May through August.

### **CNDDDB Occurrences**

The nearest CNDDDB occurrence (#1) is approximately seven miles southeast of the BSA. This occurrence was recorded in 1897 in Prattville, CA, the exact location is unknown.

### **Status of Tufted Loosestrife occurring in the BSA**

The habitat within the OHWM of the drainage in the southwestern corner provides marginally suitable habitat for this species. There is a low potential for tufted loosestrife to occur within the southwestern corner of the BSA.

## **Endangered, Threatened, and Special-status Wildlife**

A wildlife habitat assessment was conducted within the BSA on February 18, 2020. Suitable habitat was identified for cascades frog, Sierra Nevada yellow-legged frog, northern goshawk, and several avian species protected under the MBTA and CFGC. A complete list of wildlife species observed within the BSA can be found in **Appendix B**.

### **Cascades Frog**

Cascades frog is currently a California SSC and a candidate species listing as endangered pursuant to the CESA. This is a medium sized frog with a slim waist, long legs, smooth skin, and reduced webbing on the hind feet. They have raised ridges on the sides that are distinct, and their eyes are oriented outward. They can be brown, copper, tan to olive green above, yellowish below and on the back of the legs. Cascades frogs are typically found near water, such as small streams, wet meadows, ponds, and lakes, at higher elevations. Rarely found below 2,000 feet. They occur in areas covered by winter snow, hibernating throughout the winter buried in mud under several feet of water or in saturated areas around ponds. Breeding occurs soon after the snow melts, usually from March to August. Eggs are laid partly submerged in shallow water, not attached to vegetation. During post-breeding, active season cascades frogs can be found among herbaceous growth, often sedges or grass, under cut banks, or under rock and wood cover. Introduced sport fish, solar UV-B radiation, contaminants such as airborne environmental pollution and fungal pathogens, and loss of open meadow habitat due to fire suppression, have all been suggested as factors contributing to the decline of Cascade Frogs in California.

### **CNDDB Occurrences**

CNDDB occurrence (#11) overlaps with the BSA. This occurrence was recorded in 1934. A specimen was collected from the north fork of the Feather River above Chester, Ca. The exact location is unknown; thus, the occurrence was mapped at the center of Chester.

### **Status of Cascades Frog occurring in the BSA**

The section of riverine habitat that runs through the southwestern corner of the BSA provides suitable aquatic habitat when water is present. There is moderate potential for the Cascades frog to occur within the BSA.

### **Sierra Nevada Yellow-Legged Frog**

Sierra Nevada yellow-legged frogs are federally listed as endangered under the ESA and state listed as threatened under the CESA. This is a medium-sized frog with a slim waist, long legs, smooth skin and webbing on the hind feet. The ridges on its sides are not distinct. It is variable in color, ranging from olive, yellowish or brown above with varying amounts of black or brown markings. It is pale orange to yellow below and underneath the hind legs. Sierra Nevada yellow-legged frogs are found in lakes, ponds, meadow streams, isolated pools, and sunny riverbanks at high elevations in the Sierra Nevada

Mountains. Usually found in water or within a couple meters of water. Rarely occurs where predatory fishes have been introduced. Adults and tadpoles often spend the winter at the bottom of frozen lakes. Breeding occurs shortly after the snows have melted, usually between May and August. Egg clusters are laid in shallow water and left unattached in still waters but may be attached to vegetation in flowing waters. Egg-laying sites must be connected to permanent lakes or ponds that do not freeze to the bottom in winter, because the tadpoles must live in the water over winter. The decline has been attributed to many factors, including introduced non-native trout, airborne pollution, insufficient snowmelt to fill breeding ponds brought about by climate change, cattle grazing, ozone depletion, pollution from mining, public dumping, and chytrid fungus.

#### **CNDDDB Occurrences**

CNDDDB occurrence (#749) overlaps with the BSA. This occurrence was recorded in 1974. The exact location of this observation is unknown; thus, the occurrence was mapped at the center of Chester.

#### **Status of Sierra Nevada Yellow-Legged Frog occurring in the BSA**

The section of riverine habitat that runs through the southwestern corner of the BSA provides aquatic habitat when water is present. However, the drainage is shallow and most likely freezes all the way to the bottom in the winter, meaning there is no overwintering habitat present within the BSA for this species. The habitat suitability largely depends on the duration of the stream throughout the year and its connectivity with Lake Almanor or another large permanent water source. Due to these factors, there is low potential for the Sierra Nevada yellow-legged frog to occur within the BSA.

#### **Northern Goshawk**

Northern goshawk (*Accipiter gentilis*) is listed as a California species of special concern. Northern goshawks are protected under the MBTA (16 USC §703) and CFGC §3503. Northern Goshawks prefer conifer and mixed hardwood-conifer forests for nesting that allow the large accipiter to fly with ease. Often the forests that support northern goshawks are more mature forests that have an open understory. Northern goshawks typically nest in large trees in the lower part of the tree. Habitat loss is the greatest threat to northern goshawks.

#### **CNDDDB Occurrences**

The nearest CNDDDB occurrence (#387) is approximately three miles northwest of the BSA. This occurrence was recorded in 2000, northeast of the confluence of the Feather River and Locherman Canyon Creek. An active nest was observed.

#### **Status of Northern Goshawk occurring in the BSA**

The mature Jeffery pines within the BSA provide suitable nesting trees for this species; the BSA abuts with the urban interface making the BSA less appealing as a nesting site. There is a low potential for northern goshawks to occur within the BSA.

### **Migratory Birds and Raptors**

Nesting birds are protected under the MBTA (16 USC 703), the CFGC (§3503), and the California Migratory Bird Protection Act (CMBPA, AB 454). The MBTA (16 USC §703) prohibits the killing of migratory birds or the destruction of their occupied nests and eggs except in accordance with regulations prescribed by the USFWS. The bird species covered by the MBTA includes nearly all of those that breed in North America, excluding introduced (i.e. exotic) species (50 Code of Federal Regulations §10.13).

The CFGC (§3503.5) states that it is “unlawful to take, possess, or destroy any birds in the order Falconiformes (hawks, eagles, and falcons) or Strigiformes (owls) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.” Take includes the disturbance of an active nest resulting in the abandonment or loss of young. The CFGC (§3503) also states that “it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.”

The CMBPA amends the CFGC (§3513) to mirror the provisions of the MBTA and allow the State of California to enforce the prohibition of take or possession of any migratory nongame bird as designated in the federal MBTA, including incidental take. Activities that involve the removal of vegetation including trees, shrubs, grasses, and forbs or ground disturbance have the potential to affect bird species protected by the MBTA and the CFGC.

### **CNDDDB occurrences**

The majority of migratory birds and raptors protected under the MBTA and CFGC are not recorded on the CNDDDB because they are abundant and widespread.

### **Status of migratory birds and raptors occurring in the BSA**

There is suitable nesting habitat for a variety of avian species within and adjacent to the BSA.

## **REGULATORY FRAMEWORK**

The following describes federal, state, and local environmental laws and policies that may be relevant if the BSA were to be developed or modified.

### **Federal**

#### **Federal Endangered Species Act**

The United States Congress passed the ESA in 1973 to protect species that are endangered or threatened with extinction. The ESA is intended to operate in conjunction with the National



Environmental Policy Act (NEPA) to help protect the ecosystems upon which endangered and threatened species depend.

Under the ESA, species may be listed as either “endangered” or “threatened.” Endangered means a species is in danger of extinction throughout all or a significant portion of its range. Threatened means a species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range. All species of plants and animals, except non-native species and pest insects, are eligible for listing as endangered or threatened. The USFWS also maintains a list of “candidate” species. Candidate species are species for which there is enough information to warrant proposing them for listing, but that have not yet been proposed. “Proposed” species are those that have been proposed for listing but have not yet been listed.

The ESA makes it unlawful to “take” a listed animal without a permit. Take is defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct.” Through regulations, the term “harm” is defined as “an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering.”

### **Migratory Bird Treaty Act**

The MBTA (16 USC §703) prohibits the killing of migratory birds or the destruction of their occupied nests and eggs except in accordance with regulations prescribed by the USFWS. The bird species covered by the MBTA includes nearly all of those that breed in North America, excluding introduced (i.e. exotic) species (50 Code of Federal Regulations §10.13).

### **Clean Water Act, Section 401**

The Clean Water Act (§401) requires water quality certification and authorization for placement of dredged or fill material in wetlands and Other Waters of the United States. In accordance with the Clean Water Act (§401), criteria for allowable discharges into surface waters have been developed by the State Water Resources Control Board, Division of Water Quality. The resulting requirements are used as criteria in granting National Pollutant Discharge Elimination System (NPDES) permits or waivers, which are obtained through the Regional Water Quality Control Board (RWQCB) per the Clean Water Act (§402). Any activity or facility that will discharge waste (such as soils from construction) into surface waters, or from which waste may be discharged, must obtain an NPDES permit or waiver from the RWQCB. The RWQCB evaluates an NPDES permit application to determine whether the proposed discharge is consistent with the adopted water quality objectives of the basin plan.

### **Waters of the United States, Clean Water Act, Section 404**

The US Army Corps of Engineers (Corps) and the U.S. Environmental Protection Agency (EPA) regulate the discharge of dredged or fill material into jurisdictional waters of the United States, under the Clean

Water Act (§404). The term “waters of the United States” is an encompassing term that includes “wetlands” and “other waters.” Wetlands have been defined for regulatory purposes as follows: “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (33 CFR 328.3, 40 CFR 230.3). Wetlands generally include swamps, marshes, bogs, and similar areas.” other waters of the United States are seasonal or perennial water bodies, including lakes, stream channels, drainages, ponds, and other surface water features, that exhibit an ordinary high-water mark but lack positive indicators for one or more of the three wetland parameters (i.e., hydrophytic vegetation, hydric soil, and wetland hydrology) (33 CFR 328.4).

The Corps may issue either individual permits on a case-by-case basis or general permits on a program level. General permits are pre-authorized and are issued to cover similar activities that are expected to cause only minimal adverse environmental effects. Nationwide permits are general permits issued to cover particular fill activities. All nationwide permits have general conditions that must be met for the permits to apply to a particular project, as well as specific conditions that apply to each nationwide permit.

## **State of California**

### **California Endangered Species Act**

The California Endangered Species Act (CESA) is similar to the ESA but pertains to state-listed endangered and threatened species. The CESA requires state agencies to consult with the CDFW when preparing documents to comply with the California Environmental Quality Act (CEQA). The purpose is to ensure that the actions of the lead agency do not jeopardize the continued existence of a listed species or result in the destruction, or adverse modification of habitat essential to the continued existence of those species. In addition to formal listing under the federal and state endangered species acts, “species of special concern” receive consideration by CDFW. Species of special concern are those whose numbers, reproductive success, or habitat may be threatened.

### **California Fish and Game Code (§3503.5)**

The CFGC (§3503.5) states that it is “unlawful to take, possess, or destroy any birds in the order Falconiformes (hawks, eagles, and falcons) or Strigiformes (all owls except barn owls) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.” Take includes the disturbance of an active nest resulting in the abandonment or loss of young. The CFGC (§3503) also states that “it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.”

### **California Migratory Bird Protection Act**

The CMBPA amends the CFGC (§3513) to mirror the provisions of the MBTA and allow the State of California to enforce the prohibition of take or possession of any migratory nongame bird as designated in the federal MBTA, including incidental take.

Activities that involve the removal of vegetation including trees, shrubs, grasses, and forbs or ground disturbance have the potential to affect bird species protected by the MBTA and CFGC. Thus, vegetation removal and ground disturbance in areas with breeding birds should be conducted outside of the breeding season (approximately March 1 through August 31). If vegetation removal or ground-disturbing activities are conducted during the breeding season, then a qualified biologist must determine if there are any nests of bird species protected under the MBTA and CFGC present in the Project area prior to commencement of vegetation removal or ground-disturbing activities. If active nests are located or presumed present, then appropriate avoidance measures (e.g. spatial or temporal buffers) must be implemented.

### **Lake and Streambed Alteration Agreement, CFGC (§1602)**

The CDFW is a trustee agency that has jurisdiction under the CFGC (§1600 et seq.). The CFGC (§1602), requires that a state or local government agency, public utility, or private entity must notify CDFW if a proposed Project will “substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the department, or use any material from the streambeds... except when the department has been notified pursuant to Section 1601.” If an existing fish or wildlife resource may be substantially adversely affected by the activity, CDFW may propose reasonable measures that will allow protection of those resources. If these measures are agreeable to the parties involved, they may enter into an agreement with CDFW identifying the approved activities and associated mitigation measures.

### **CDFW Incidental Take Permit**

Incidental Take Permits (ITP) allow a permittee to take a CESA-listed species if such taking is incidental to, and not the purpose of, carrying out an otherwise lawful activity. These permits are most commonly issued for construction, utility, transportation, and other infrastructure-related projects. Permittees must implement species-specific minimization and avoidance measures, and fully mitigate the impacts of the project. (Fish & G. Code § 2081 (b); Cal. Code Regs., tit. 14, §§ 783.2-783.8)

### **Rare and Endangered Plants**

The CNPS maintains a list of plant species native to California with low population numbers, limited distribution, or otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. Potential impacts to populations of CNPS California Rare Plant Rank (CRPR) plants receive consideration under CEQA review. The CNPS CRPR categorizes plants as follows:

- Rank 1A: Plants presumed extinct in California;
- Rank 1B: Plants rare, threatened, or endangered in California or elsewhere;
- Rank 2A: Plants presumed extirpated or extinct in California, but not elsewhere;
- Rank 2B: Plants rare, threatened, or endangered in California, but more numerous elsewhere;
- Rank 3: Plants about which we need more information; and
- Rank 4: Plants of limited distribution.

The California Native Plant Protection Act (CFGF §1900-1913) prohibits the taking, possessing, or sale within the state of any plants with a state designation of rare, threatened, or endangered as defined by CDFW. An exception to this prohibition allows landowners, under specific circumstances, to take listed plant species, provided that the owners first notify CDFW and give the agency at least 10 days to retrieve (and presumably replant) the plants before they are destroyed. Fish and Game Code §1913 exempts from the ‘take’ prohibition “the removal of endangered or rare native plants from a canal, lateral channel, building site, or road, or other right of way.”

### **California Environmental Quality Act Guidelines §15380**

Although threatened and endangered species are protected by specific federal and state statutes, CEQA Guidelines §15380(d) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria. These criteria have been modeled based on the definition in the ESA and the section of the CFGF dealing with rare, threatened, and endangered plants and animals. The CEQA Guidelines (§15380) allows a public agency to undertake a review to determine if a significant effect on species that have not yet been listed by either the USFWS or CDFW (e.g. candidate species, species of concern) would occur. Thus, CEQA provides an agency with the ability to protect a species from a project’s potential impacts until the respective government agencies have an opportunity to designate the species as protected, if warranted.

## **CONCLUSIONS AND RECOMMENDATIONS**

### **Endangered, Threatened, and Rare Plants**

Based on the results of the habitat assessment there is no potential for botanical species listed as endangered or threatened by USFWS or CDFW to occur within the BSA; therefore, there will be no effects to federally or state listed botanical species or their habitat.

However, there is low potential for long-leaved starwort, a CNPS Rank 2B.2 plant, long-stiped campion, a CNPS Rank 1B.2 plant, Plumas rayless daisy, a CNPS Rank 1B.3 plant, Suksdorf’s milk-vetch, a CNPS Rank 1B.2 plant, and tufted loosestrife, a CNPS Rank 2B.3 plant, to occur within the BSA. Due to this potential, an official protocol-level survey for these species will be required to determine the presence

and extent of these species within the BSA. If impacts to these species are unavoidable, consultation with CDFW will be required prior to any construction activities or vegetation removal.

### **Endangered, Threatened, and Special-status Wildlife**

The following are the recommended minimization and mitigation measures to further reduce or eliminate Project-associated impacts to special-status wildlife species. These proposed measures may be amended or superseded by the Project-specific permits issued by the regulatory agencies.

#### ***Sierra Nevada Yellow-Legged Frog***

There is low potential for Sierra Nevada yellow-legged frogs to occur in the riverine habitat within the BSA. If their aquatic habitat will be impacted by the Project the following will be required: a protocol-level survey conducted by a qualified biologist for this species to determine the presence/absence of the species, an USFWS consultation and an ITP may need to be acquired.

#### ***Cascades Frog***

Due to the moderate potential cascades frogs to occur in the riverine habitat within the BSA, if their aquatic habitat will be impacted by the Project a protocol-level survey conducted by a qualified biologist for this species is recommended to determine their presence/absence. If Cascades frogs are determined to be present, consultation with the CDFW will be required.

#### ***Northern Goshawk and Migratory Birds and Raptors***

To avoid impacts to avian species protected under the MBTA and the CFGC the following are recommended avoidance and minimization measures for migratory birds and raptors:

- Project activities including site grubbing and vegetation removal shall be initiated outside of the bird nesting season (February 1 – August 31).
- If Project activities cannot be initiated outside of the bird nesting season, then the following will occur:
  - A qualified biologist will conduct a pre-construction survey within 250 feet of the BSA, where accessible, within 7 days prior to the start of Project activities.
  - If an active nest (i.e. containing egg[s] or young) is observed within the BSA or in an area adjacent to the BSA where impacts could occur, then a species protection buffer will 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 as determined by a qualified biologist. Nests shall be monitored by a qualified biologist once per week and a report submitted to the CEQA lead agency weekly.

## Other Natural Resources

### *Waters of the United States*

Gallaway Enterprises mapped four potentially jurisdictional features within the BSA. Impacts to these features may require a permit from the Corps, a stream alteration agreement from CDFW and a CWA section 401 water quality certification from the Central Valley RWQCB and compensatory mitigation. The Corps provides final determination by issuance of a jurisdictional determination on the location, extent and type of jurisdictional waters. We recommend that these features be avoided until after a formal delineation of waters of the U.S. is made, and if needed, permits from the Corps and Central Valley RWQCB are obtained.

Additionally, Gallaway Enterprises recommends a physical barrier such as orange environmentally sensitive area (ESA) fencing or silt fence be installed between the riverine habitat and areas of active construction to ensure avoidance is maintained.

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## LIST OF PREPARERS

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**Cate Reid.** GIS Analyst and Cultural Resource Specialist. M.A. in Anthropology with a specialization in GIS applications and land use studies, California State University, Chico. Mrs. Reid has over 5 years of experience working with GIS while incorporating surveying applications, analysis of datasets, and collection of field data in order to create professional quality graphics and reports.



## Appendix A: Species Lists



# United States Department of the Interior



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

In Reply Refer To:

February 19, 2020

Consultation Code: 08ESMF00-2020-SLI-1075

Event Code: 08ESMF00-2020-E-03414

Project Name: Almanor Recreation Center

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

## To Whom It May Concern:

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

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

[http://www.nwr.noaa.gov/protected\\_species/species\\_list/species\\_lists.html](http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html)

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

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

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

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

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

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

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

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

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Attachment(s):

- Official Species List

# Official Species List

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

This species list is provided by:

**Sacramento Fish And Wildlife Office**

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

(916) 414-6600

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## Project Summary

Consultation Code: 08ESMF00-2020-SLI-1075

Event Code: 08ESMF00-2020-E-03414

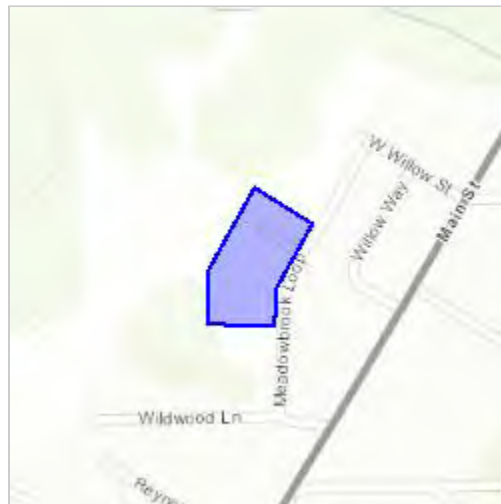
Project Name: Almanor Recreation Center

Project Type: DEVELOPMENT

Project Description: Development of additional recreational features.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/40.30877056158285N121.23256452987167W>



Counties: Plumas, CA

---

## Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on this species list.

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

## Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/2891">https://ecos.fws.gov/ecp/species/2891</a> Species survey guidelines: <a href="https://ecos.fws.gov/ipac/guideline/survey/population/205/office/11420.pdf">https://ecos.fws.gov/ipac/guideline/survey/population/205/office/11420.pdf</a>	Threatened

## Fishes

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

## Critical habitats

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

---



\*The database used to provide updates to the Online Inventory is under construction. [View updates and changes made since May 2019 here.](#)

## Plant List

38 matches found. [Click on scientific name for details](#)

### Search Criteria

Found in Quads 4012132, 4012122 4012123 and 4012133;

[Modify Search Criteria](#) [Export to Excel](#) [Modify Columns](#) [Modify Sort](#) [Display Photos](#)

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Listing Status	Federal Listing Status	Lowest Elevation	Highest Elevation
<a href="#">Astragalus pulsiferae var. suksdorfii</a>	Suksdorf's milk-vetch	Fabaceae	perennial herb	May-Aug	1B.2			1300 m	2000 m
<a href="#">Astragalus rattanii var. rattanii</a>	Rattan's milk-vetch	Fabaceae	perennial herb	Apr-Jul	4.3			30 m	825 m
<a href="#">Betula glandulosa</a>	dwarf resin birch	Betulaceae	perennial deciduous shrub	May-Jul	2B.2			1300 m	2300 m
<a href="#">Botrychium ascendens</a>	upswept moonwort	Ophioglossaceae	perennial rhizomatous herb	(Jun)Jul-Aug	2B.3			1115 m	3045 m
<a href="#">Botrychium crenulatum</a>	scalloped moonwort	Ophioglossaceae	perennial rhizomatous herb	Jun-Sep	2B.2			1268 m	3280 m
<a href="#">Botrychium minganense</a>	Mingan moonwort	Ophioglossaceae	perennial rhizomatous herb	Jul-Sep	2B.2			1455 m	2180 m
<a href="#">Brasenia schreberi</a>	watershield	Cabombaceae	perennial rhizomatous herb (aquatic)	Jun-Sep	2B.3			30 m	2200 m
<a href="#">Bulbostylis capillaris</a>	thread-leaved beakseed	Cyperaceae	annual herb	Jun-Aug	4.2			395 m	2075 m
<a href="#">Carex geyeri</a>	Geyer's sedge	Cyperaceae	perennial rhizomatous herb	May-Aug	4.2			1155 m	2195 m
<a href="#">Carex limosa</a>	mud sedge	Cyperaceae	perennial rhizomatous herb	Jun-Aug	2B.2			1200 m	2700 m
<a href="#">Castilleja lassenensis</a>	Lassen paintbrush	Orobanchaceae	perennial herb	Jun-Sep	1B.3			955 m	3120 m
<a href="#">Claytonia palustris</a>	marsh claytonia	Montiaceae	perennial herb	May-Oct	4.3			1000 m	2500 m
<a href="#">Cypripedium californicum</a>	California lady's-slipper	Orchidaceae	perennial rhizomatous herb	Apr-Aug(Sep)	4.2			30 m	2750 m
	clustered	Orchidaceae	perennial	Mar-Aug	4.2			100 m	2435 m



<a href="#"><u>Cypripedium fasciculatum</u></a>	lady's-slipper		rhizomatous herb							
<a href="#"><u>Diplacus pygmaeus</u></a>	Egg Lake monkeyflower	Phrymaceae	annual herb	May-Aug	4.2			500 m	1840 m	
<a href="#"><u>Drosera anglica</u></a>	English sundew	Droseraceae	perennial herb (carnivorous)	Jun-Sep	2B.3			1300 m	2255 m	
<a href="#"><u>Eleocharis parvula</u></a>	small spikerush	Cyperaceae	perennial herb	(Apr)Jun-Aug(Sep)	4.3			1 m	3020 m	
<a href="#"><u>Erigeron inornatus</u></a> <a href="#"><u>var. calidipetris</u></a>	hot rock daisy	Asteraceae	perennial herb	Jun-Sep	4.3			1100 m	1935 m	
<a href="#"><u>Erigeron lassenianus</u></a> <a href="#"><u>var. deficiens</u></a>	Plumas rayless daisy	Asteraceae	perennial herb	Jun-Sep	1B.3			1360 m	1980 m	
<a href="#"><u>Eriophorum gracile</u></a>	slender cottongrass	Cyperaceae	perennial rhizomatous herb (emergent)	May-Sep	4.3			1280 m	2900 m	
<a href="#"><u>Lupinus dalesiae</u></a>	Quincy lupine	Fabaceae	perennial herb	May-Aug	4.2			855 m	2500 m	
<a href="#"><u>Lycopus uniflorus</u></a>	northern bugleweed	Lamiaceae	perennial herb	Jul-Sep	4.3			5 m	2000 m	
<a href="#"><u>Lysimachia thyrsiflora</u></a>	tufted loosestrife	Myrsinaceae	perennial herb	May-Aug	2B.3			975 m	1675 m	
<a href="#"><u>Meesia triquetra</u></a>	three-ranked hump moss	Meesiaceae	moss	Jul	4.2			1300 m	2953 m	
<a href="#"><u>Meesia uliginosa</u></a>	broad-nerved hump moss	Meesiaceae	moss	Jul,Oct	2B.2			1210 m	2804 m	
<a href="#"><u>Orcuttia tenuis</u></a>	slender Orcutt grass	Poaceae	annual herb	May-Sep(Oct)	1B.1	CE	FT	35 m	1760 m	
<a href="#"><u>Packera eurycephala</u></a> <a href="#"><u>var. lewisrosei</u></a>	Lewis Rose's ragwort	Asteraceae	perennial herb	Mar-Jul(Aug-Sep)	1B.2			274 m	1890 m	
<a href="#"><u>Penstemon heterodoxus</u></a> <a href="#"><u>var. shastensis</u></a>	Shasta beardtongue	Plantaginaceae	perennial herb	May-Sep	4.3			1100 m	2400 m	
<a href="#"><u>Piperia colemanii</u></a>	Coleman's rein orchid	Orchidaceae	perennial herb	Jun-Aug	4.3			1200 m	2300 m	
<a href="#"><u>Scheuchzeria palustris</u></a>	American scheuchzeria	Scheuchzeriaceae	perennial rhizomatous herb (emergent)	Jul-Aug	2B.1			1370 m	2000 m	
<a href="#"><u>Scutellaria galericulata</u></a>	marsh skullcap	Lamiaceae	perennial rhizomatous herb	Jun-Sep	2B.2			0 m	2100 m	
<a href="#"><u>Sedum albomarginatum</u></a>	Feather River stonecrop	Crassulaceae	perennial herb	May-Jun	1B.2			260 m	1950 m	
<a href="#"><u>Silene occidentalis</u></a> <a href="#"><u>ssp. longistipitata</u></a>	long-stiped campion	Caryophyllaceae	perennial herb	Jun-Aug	1B.2			1000 m	2000 m	
<a href="#"><u>Silene occidentalis</u></a> <a href="#"><u>ssp. occidentalis</u></a>	Western campion	Caryophyllaceae	perennial herb	Jun-Aug	4.3			1230 m	2090 m	
<a href="#"><u>Stellaria obtusa</u></a>	obtuse starwort	Caryophyllaceae	perennial rhizomatous herb	May-Sep(Oct)	4.3			150 m	2290 m	
<a href="#"><u>Utricularia intermedia</u></a>	flat-leaved bladderwort	Lentibulariaceae	perennial stoloniferous herb (carnivorous) (aquatic)	(Jun)Jul-Aug	2B.2			1200 m	2700 m	
	lesser	Lentibulariaceae	perennial	(May-	4.2			800 m	2900 m	

[Utricularia minor](#)

bladderwort

stoloniferous herb  
(carnivorous)  
(aquatic)Jun)Jul-  
Aug[Utricularia  
ochroleuca](#)cream-  
flowered  
bladderwort

Lentibulariaceae

perennial  
stoloniferous herb

Jun-Jul 2B.2

1435 m 1440 m

**Suggested Citation**

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# Selected Elements by Common Name

## California Department of Fish and Wildlife

### California Natural Diversity Database



Query Criteria: Quad<span style='color:Red'> IS </span>(Chester (4012132)<span style='color:Red'> OR </span>Stover Mtn. (4012133)<span style='color:Red'> OR </span>Almanor (4012122)<span style='color:Red'> OR </span>Humbug Valley (4012123))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<b>American scheuchzeria</b> <i>Scheuchzeria palustris</i>	PMSCH02010	None	None	G5	S1	2B.1
<b>bald eagle</b> <i>Haliaeetus leucocephalus</i>	ABNKC10010	Delisted	Endangered	G5	S3	FP
<b>black-backed woodpecker</b> <i>Picoides arcticus</i>	ABNYF07090	None	None	G5	S2	
<b>broad-nerved hump moss</b> <i>Meesia uliginosa</i>	NBMUS4L030	None	None	G5	S3	2B.2
<b>Cascades frog</b> <i>Rana cascadae</i>	AAABH01060	None	Candidate Endangered	G3G4	S3	SSC
<b>Central Valley Drainage Resident Rainbow Trout Stream</b> <i>Central Valley Drainage Resident Rainbow Trout Stream</i>	CARA2421CA	None	None	GNR	SNR	
<b>cream-flowered bladderwort</b> <i>Utricularia ochroleuca</i>	PDLNT020E0	None	None	G4G5	S1	2B.2
<b>dwarf resin birch</b> <i>Betula glandulosa</i>	PDBET02030	None	None	G5	S2	2B.2
<b>Egg Lake monkeyflower</b> <i>Diplacus pygmaeus</i>	PDSCR1B2C0	None	None	G4	S3	4.2
<b>English sundew</b> <i>Drosera anglica</i>	PDDRO02010	None	None	G5	S2	2B.3
<b>Feather River stonecrop</b> <i>Sedum albomarginatum</i>	PDCRA0A030	None	None	G2	S2	1B.2
<b>flat-leaved bladderwort</b> <i>Utricularia intermedia</i>	PDLNT020A0	None	None	G5	S3	2B.2
<b>greater sandhill crane</b> <i>Antigone canadensis tabida</i>	ABNMK01014	None	Threatened	G5T4	S2	FP
<b>Lassen paintbrush</b> <i>Castilleja lassenensis</i>	PDSCR0D4L0	None	None	G3	S3	1B.3
<b>long-leaved starwort</b> <i>Stellaria longifolia</i>	PDCAR0X0M0	None	None	G5	S2	2B.2
<b>long-stiped campion</b> <i>Silene occidentalis ssp. longistipitata</i>	PDCAR0U161	None	None	G4T2Q	S2	1B.2
<b>marsh skullcap</b> <i>Scutellaria galericulata</i>	PDLAM1U0J0	None	None	G5	S2	2B.2
<b>Mingan moonwort</b> <i>Botrychium minganense</i>	PPOPH010R0	None	None	G4G5	S3	2B.2
<b>mud sedge</b> <i>Carex limosa</i>	PMCYP037K0	None	None	G5	S3	2B.2



# Selected Elements by Common Name

## California Department of Fish and Wildlife

### California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<b>North American porcupine</b> <i>Erethizon dorsatum</i>	AMAFJ01010	None	None	G5	S3	
<b>northern goshawk</b> <i>Accipiter gentilis</i>	ABNKC12060	None	None	G5	S3	SSC
<b>obscure bumble bee</b> <i>Bombus caliginosus</i>	IIHYM24380	None	None	G4?	S1S2	
<b>obtuse starwort</b> <i>Stellaria obtusa</i>	PDCAR0X0U0	None	None	G5	S4	4.3
<b>osprey</b> <i>Pandion haliaetus</i>	ABNKC01010	None	None	G5	S4	WL
<b>Plumas rayless daisy</b> <i>Erigeron lassenianus</i> var. <i>deficiens</i>	PDAST3M262	None	None	G3G4T2T3	S2S3	1B.3
<b>Quincy lupine</b> <i>Lupinus dalesiae</i>	PDFAB2B1A0	None	None	G3	S3	4.2
<b>scalloped moonwort</b> <i>Botrychium crenulatum</i>	PPOPH010L0	None	None	G4	S3	2B.2
<b>Sierra Nevada red fox</b> <i>Vulpes vulpes necator</i>	AMAJA03012	Candidate	Threatened	G5T1T2	S1	
<b>Sierra Nevada yellow-legged frog</b> <i>Rana sierrae</i>	AAABH01340	Endangered	Threatened	G1	S1	WL
<b>silver-haired bat</b> <i>Lasionycteris noctivagans</i>	AMACC02010	None	None	G5	S3S4	
<b>slender Orcutt grass</b> <i>Orcuttia tenuis</i>	PMPOA4G050	Threatened	Endangered	G2	S2	1B.1
<b>southern long-toed salamander</b> <i>Ambystoma macrodactylum sigillatum</i>	AAAAA01085	None	None	G5T4	S3	SSC
<b>steelhead - Central Valley DPS</b> <i>Oncorhynchus mykiss irideus</i> pop. 11	AFCHA0209K	Threatened	None	G5T2Q	S2	
<b>Suksdorf's milk-vetch</b> <i>Astragalus pulsiferae</i> var. <i>suksdorfii</i>	PDFAB0F782	None	None	G4T2	S2	1B.2
<b>three-ranked hump moss</b> <i>Meesia triquetra</i>	NBMUS4L020	None	None	G5	S4	4.2
<b>tufted loosestrife</b> <i>Lysimachia thyrsiflora</i>	PDPRI070S0	None	None	G5	S1?	2B.3
<b>upswept moonwort</b> <i>Botrychium ascendens</i>	PPOPH010S0	None	None	G3G4	S2	2B.3
<b>watershield</b> <i>Brasenia schreberi</i>	PDCAB01010	None	None	G5	S3	2B.3
<b>western bumble bee</b> <i>Bombus occidentalis</i>	IIHYM24250	None	Candidate Endangered	G2G3	S1	
<b>white-stemmed pondweed</b> <i>Potamogeton praelongus</i>	PMPOT030V0	None	None	G5	S2	2B.3



**Selected Elements by Common Name**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<b>willow flycatcher</b> <i>Empidonax traillii</i>	ABPAE33040	None	Endangered	G5	S1S2	

**Record Count: 41**

## Appendix B: Observed Plant Species List

Plant Species Observed within the BSA November 6, 2019	
Scientific Name	Common Name
<i>Achillea millefolium</i>	Yarrow
<i>Agrostis exarata</i>	Spike bentgrass
<i>Artemisia douglasiana</i>	California mugwort
<i>Balsamorhiza hookeri</i>	California balsamroot
<i>Bromus tectorum</i>	Cheatgrass
<i>Carex sp.</i>	Sedge
<i>Deschampsia danthonoides</i>	Annual hairgrass
<i>Elymus elymoides</i>	Squirrel tail grass
<i>Elymus glaucus</i>	Blue wildrye
<i>Elymus trachycaulus</i>	Slender wheatgrass
<i>Erigeron canadensis</i>	Canada horseweed
<i>Festuca microstachys</i>	Small fescue
<i>Juncus sp.</i>	Rush
<i>Leptosiphon ciliatus</i>	Whiskerbrush
<i>Navarretia intertexta</i>	Needle-leaved navarretia
<i>Pinus jeffreyi</i>	Jeffrey pine
<i>Poa palustris</i>	Fowl bluegrass
<i>Poa secunda</i>	Bluegrass
<i>Populus trichocarpa</i>	Black cottonwood
<i>Salix sp.</i>	Willow
<i>Trifolium microcephalum</i>	Hairy clover
<i>Verbascum blattaria</i>	Moth mullein
<i>Veronica peregrina ssp. xalapensis</i>	Purslane speedwell

Wildlife Species Observed within the BSA February 18, 2020	
Scientific Name	Common Name
<i>Corvus brachyrhynchos</i>	American crow
<i>Corvus corax</i>	Common raven
<i>Junco hyemalis</i>	Dark-eyed junco
<i>Sitta pygmaea</i>	Pygmy nuthatch



**Appendix C: Project Site Photos Taken November 6, 2019 and February 18, 2020**



Overview of the site from the northern boundary.



Overview of the site from just behind the northern tree line facing north.





Overview of the habitat types within the BSA.



Overview of the portion of the riverine habitat that falls within the BSA.

**Appendix C – Delineation of Waters of the United States**

**DRAFT DELINEATION OF JURISDICTIONAL WATERS  
OF THE UNITED STATES**

**Almanor Recreation Center**

Chester, California

**March 2020**



Prepared for:

**Almanor Recreation and Park District**

Attn: Carlos Espana

P.O. Box 325

Chester, CA 96020

Prepared by:

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(530) 332-9909

[www.gallawayenterprises.com](http://www.gallawayenterprises.com)



## Contents

Introduction and Project Location .....	1
Environmental Setting and Site Conditions .....	1
Survey Methodology.....	4
Determination of Hydrophytic Vegetation .....	4
Determination of Hydric Soils .....	6
Determination of Wetland Hydrology .....	6
Determination of Ordinary High Water Mark.....	7
Jurisdictional Boundary Determination and Acreage Calculation .....	7
Non-Jurisdictional Boundary Determination and Acreage Calculation .....	7
Results.....	7
Waters of the United States: Other Waters .....	8
Waters of the United States: Wetlands .....	8
Soils .....	10
Vegetation.....	10
Hydrology.....	10
Site Photos Taken on November 06, 2019.....	12
Glossary.....	14
References .....	18

## List of Tables and Figures

Table 1. Results Summary from the Draft Delineation of Waters of the United States for the Almanor Recreation Center. ....	8
Table 2. Soil Map Units, NRCS hydric soil designation, and approximate totals for the Almanor Recreation Center. ....	10
Figure 1 - Regional Location Map .....	2
Figure 2 - Project Location .....	3
Figure 3 - Photo Point Location Map .....	5
Figure 4 - Draft Delineation of Waters of the United States Map .....	9

## List of Appendices

Appendix A: .....	Wetland Delineation Data Sheets
Appendix B: .....	NRCS Soil Map and Soil Series Descriptions

# DRAFT DELINEATION OF JURISDICTIONAL WATERS OF THE UNITED STATES,

Almanor Recreation Center, Chester, California

## Introduction and Project Location

Gallaway Enterprises conducted a delineation of waters of the United States (WOTUS) and aquatic resources for the Almanor Recreation Center project (project) consisting of an approximately 3-acre survey area. The survey area is located within Chester, Plumas County, California (**Figure 1 and 2**). The survey area is located within the United States Geologic Survey (USGS) Chester Quadrangle, within Section 6, Township 28N, Range 7E. The project currently proposed on the site is the expansion of the existing recreation center.

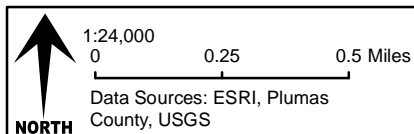
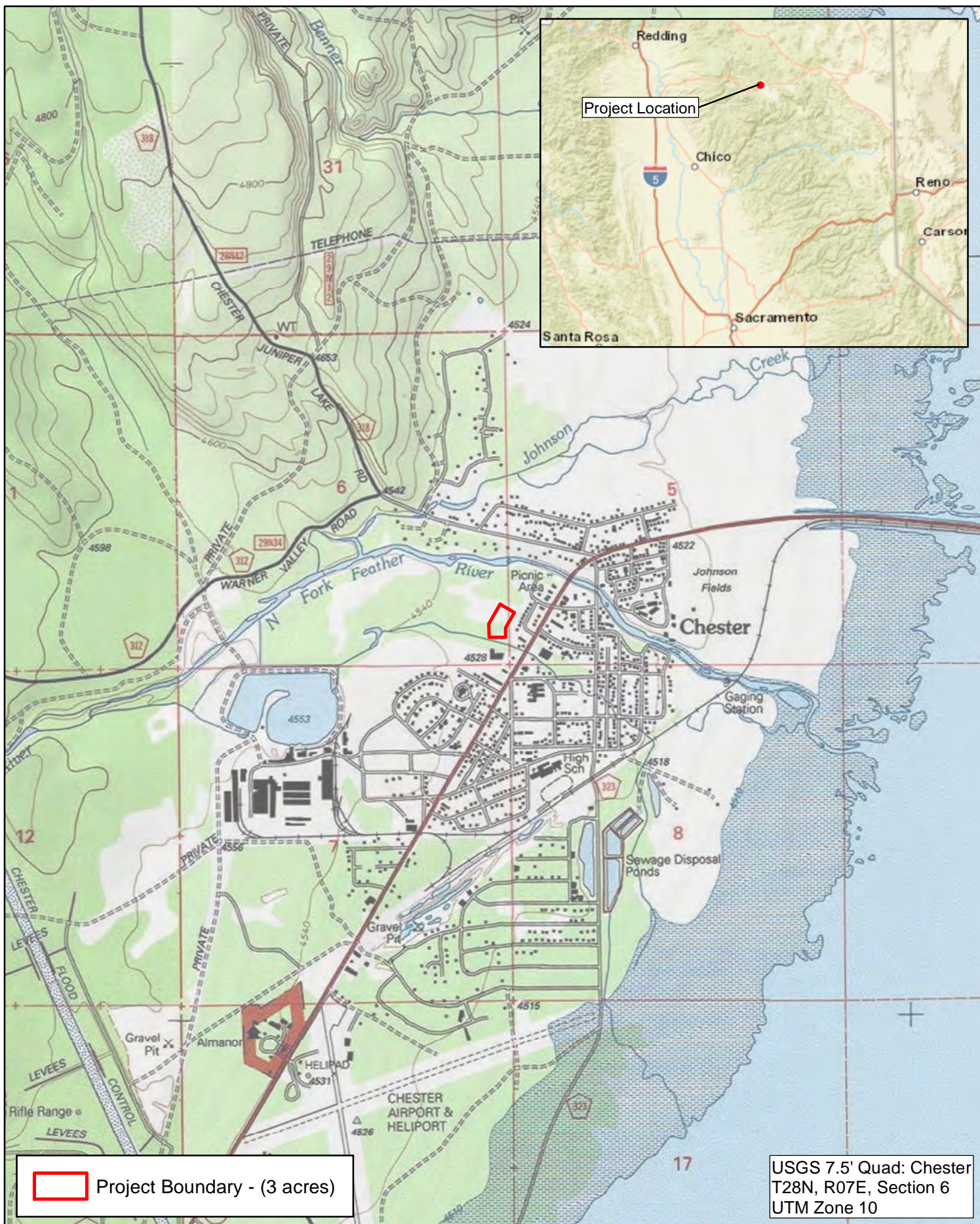
Access to the site is from CA-36 E/Antelope Blvd. Take CA-36 E/Antelope Blvd to the town of Chester. Turn left onto Meadow then turn right onto Meadowbrook Loop. Continue on Meadowbrook Loop for 0.1 miles and then turn left onto Meadowbrook Way, which is the small access road/driveway that is the entrance to the existing Almanor Recreation Center.

A survey of WOTUS was conducted on November 6, 2019, by senior botanist Elena Gregg. Data regarding the location and extent of wetlands and other waters of the United States were collected using a Trimble Geo Explorer 6000 Series GPS Receiver. The survey involved an examination of botanical resources, soils, hydrological features, and determination of wetland characteristics based on the *United States Army Corps of Engineers Wetlands Delineation Manual* (1987) (1987 Delineation Manual); the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region* (2010) (Western Mountains Manual); the *U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook* (2007); *A Guide to Ordinary High Water Mark (OHWM) Delineation for Non-Perennial Streams in the Western Mountains, Valleys and Coast Region of the United States* (2014); the *Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (2008), and the *State of California 2016 Wetland Plant List*. Gallaway Enterprises have prepared this report in compliance with the Minimum Standards for Acceptance of Aquatic Resources Delineation Reports (January 2016).

## Environmental Setting and Site Conditions

The survey area is located within Chester, a census-designated place, in Plumas County, California. Chester is located off of Lake Almanor and is situated at the interface between the Cascade mountain range and the Sierra Nevada mountain range. The northern portion of the Project site contains the existing Almanor Recreation Center buildings, asphalt driveway, and parking lot. The remainder of the Project site is dominated by Jeffrey pine forest with some large patches of open grassland, particularly in the southeastern corner of the site. There is minimal evidence of human disturbance in this portion of the site. A few small seasonal wetland swales occur within the southern portion of Project site and along the southwestern corner, and just offsite to the south, is a braided drainage. A few scattered black cottonwood trees and willows occur in and adjacent to the wetlands and drainage in the Project site. This drainage is a historic diversion ditch that has widened over time and become braided due to the presence of beavers upstream of the site. Land surrounding the Project site is dominated by open pine forest to the west, the Almanor Recreation & Park to the north and commercial and residential buildings to the south and east.





Almanor Recreation Center  
Regional Location  
Figure 1







In the region where the Project area is located the average annual precipitation is 31.83 inches and the average snowfall is 127.8 inches, with an average annual temperature of 46.80° F (WRCC 2020). The site occurs at an average elevation of approximately 4,535 feet above sea level. The Project site is relatively flat with slopes ranging from 0 to 2 percent, however, within the forested portion of the Project site there was considerable micro-topography. Soils within the site were gravelly sandy loams with a deep restrictive layer occurring at more than 80 inches deep.

## Survey Methodology

The entire survey area was traversed on-foot by Gallaway Enterprises staff on November 6, 2019 to identify any potentially jurisdictional features. The survey, mapping efforts, and report production were performed according to the valid legal definitions of WOTUS in effect on January 28, 2020. The boundaries of non-tidal, non-wetland waters, when present, were delineated at the ordinary high water mark (OHWM) as defined in 33 Code of Federal Regulations (CFR) 328.3. The OHWM represents the limit of United States Army Corps of Engineers (Corps) jurisdiction over non-tidal waters (e.g., streams and ponds) in the absence of adjacent wetlands (33 CFR 328.04) (Curtis, et. al. 2011). Historic aerial photographs available on Google Earth were analyzed prior to conducting the field visit. Areas identified as having potential wetland or unusual aerial signatures were assessed in the field to determine the current conditions.

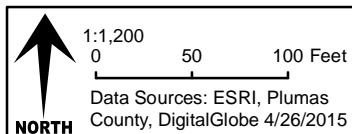
Field data were entered onto data sheets using the most current format (**Appendix A**). Wetland perimeters based on the 1987 Delineation Manual and the Western Mountains Manual were recorded and defined according to their topographic and hydrologic orientation. Sample points were established for each wetland and the corresponding upland zone. Test pit sampling was performed in areas displaying unusual aerial signatures, depressed topography and/or problem areas. Test pit sampling points involved physical sampling of soils and vegetation, and investigation regarding hydrological connectivity. Only areas exhibiting the necessary wetland parameters according to the 1987 Delineation Manual and Western Mountains Manual on the date surveyed were mapped as wetlands. Photographs were taken to show wetland features, test pit areas, and/or areas identified as having unusual aerial signatures. The locations of the photo points are depicted in **Figure 3** and the associated photographs are provided at the end of the report.

Many of the terms used throughout this report have specific meanings relating to the federal wetland delineation process. Term definitions are based on the Corps 1987 Delineation Manual; the Western Mountains Manual; *A Guide to Ordinary High Water Mark (OHWM) Delineation for Non-Perennial Streams in the Western Mountains, Valleys and Coast Region of the United States* (2014) and the Corps *Jurisdictional Determination Form Instructional Guidebook* (2007). The terms defined below have specific meaning relating to the delineation of WOTUS as prescribed by §404 of the Clean Water Act (CWA) and described in 33 CFR Part 328 and 40 CFR Parts 110, 112, and 116, and 122.

## Determination of Hydrophytic Vegetation

The presence of hydrophytic vegetation was determined using the methods outlined in the 1987 Delineation Manual and the Western Mountains Manual. Areas were considered to have positive indicators of hydrophytic vegetation if they pass the dominance test, meaning more than 50 percent of the dominant species are obligate wetland, facultative wetland and facultative plants. Plant species were identified to the lowest taxonomy possible. Plant indicator status was determined by reviewing the State of California 2016 Wetland Plant List for the Western Mountains Region. In situations where dominance can be misleading due to seasonality, the prevalence index will be used to determine hydrophytic status of the community surrounding sample sites.

Ground Photographs Table				
Label	Direction	Latitude	Longitude	Comment
P01	W & NW	40.308129	-121.232379	Project Overview
P02	W	40.308275	-121.232340	WF01
P03	W & NW	40.308400	-121.232591	TP01 & Upland
P04	NW	40.308539	-121.232927	W03
P05	E	40.308426	-121.233127	Upland w/ Mound Topo
P06	W	40.308248	-121.232972	TP02
P07	W	40.308112	-121.233012	OHWM
P08	N	40.308183	-121.232796	Upland Depression
P09	E	40.308831	-121.232980	Upland Depression



Almanor Recreation Center  
Ground Photographs Map  
Figure 3

### ***Plant indicator status categories:***

*Obligate wetland plants* (OBL) – plants that occur almost always (estimated probability 99%) in wetlands under normal conditions, but which may also occur rarely (estimated probability 1%) in non-wetlands.

*Facultative wetland plants* (FACW) - plants that usually occur (estimated probability 67% to 99%) in wetlands under normal conditions, but also occur (estimated probability 1% to 33%) in non-wetlands.

*Facultative plants* (FAC) – Plants with a similar likelihood (estimated probability 33% to 67%) of occurring in both wetlands and non-wetlands.

*Facultative upland plants* (FACU) – Plants that occur sometimes (estimated probability 1% to 33%) in wetlands, but occur more often (estimated probability 67% to 99%) in non-wetlands.

*Obligate upland plants* (UPL) – Plants that occur rarely (estimated probability 1%) in wetlands, but occur almost always (estimated probability 99%) in non-wetlands under natural conditions.

### **Determination of Hydric Soils**

Soil survey information was reviewed for the current site condition. Field samples were evaluated by using the Munsell soil color chart (2009 Edition), hand texturing, and assessing soil features (e.g. oxidized root channels, evidence of hardpan, Mn and Fe concretions). Information regarding local soil and series descriptions is provided in **Appendix B**. A number of test pits (**Appendix A**) were dug within portions of the site that demonstrated unusual aerial signatures or depressed topography but did not meet the wetland test parameters upon investigation in the field. The current Natural Resources Conservation Service (NRCS) *Field Indicators of Hydric Soils in the United States, Version 8.2* (NRCS 2018) was used in conjunction with the Western Mountains Manual to determine the presence of hydric soil indicators.

### **Determination of Wetland Hydrology**

Wetland hydrology was determined to be present if a site supported one or more of the following characteristics:

- Landscape position and surface topography (e.g. position of the site relative to an up-slope water source, location within a distinct wetland drainage pattern, and concave surface topography),
- Inundation or saturation for a long duration either inferred based on field indicators or observed during repeated site visits, and
- Residual evidence of ponding or flooding resulting in field indicators such as scour marks, sediment deposits, algal matting, surface soil cracks and drift lines.

The presence of water or saturated soil for approximately 12% or 14 consecutive days during the growing season typically creates anaerobic conditions in the soil, and these conditions affect the types of plants that can grow and the types of soils that develop (Wetland Training Institute 1995).

Historic aerial photographs were analyzed to look for primary and secondary wetland hydrology indicators of inundation or saturation. The historic aerial imagery reviewed was the public, readily available imagery provided on Google Earth. If aerial signatures demonstrated the presence of surface water on 5 or more of the historic aerial photographs viewed, inundation and a primary indicator of wetland hydrology was determined to be present. Saturation, a secondary indicator of wetland hydrology, was determined to be present if saturation, “darker patches within the field,” were observed on 5 or more of the 9 historic aerial photographs viewed.



## Determination of Ordinary High Water Mark

Gallaway utilized methods consistent with the Western Mountains Manual and *A Guide to Ordinary High Water Mark (OHWM) Delineation for Non-Perennial Streams in the Western Mountains, Valleys and Coast Region of the United States* (2014) to determine the OHWM. The lateral extents of non-tidal water bodies (e.g. intermittent and ephemeral streams) were based on the OHWM, which is “the line on the shore established by the fluctuations of water” (Corps 2005). The OHWM was determined based on the presence of breaks in slope, and changes in sediment and vegetation characteristics as well as other multiple observed physical characteristics of the area, which can include scour, multiple observed flow events (from current and historical aerial photos), shelving, and changes in the character of soil, presence of mature vegetation, drift and deposition, and topography. Due to the wide extent of some floodplains, riparian scrub areas characterized by hydric soils, hydrophytic vegetation, and hydrology may be included within the OHWM of a non-tidal water body (Curtis, et. al. 2011).

## Jurisdictional Boundary Determination and Acreage Calculation

The wetland-upland boundary was determined based on the presence or inference of positive indicators of all mandatory criteria. Soil samples were taken within wetland and upland areas. The site was traversed on foot to identify wetland features and boundaries. The spatial data obtained during the preparation of this wetland delineation was collected using a Trimble Geo Explorer 6000 Series GPS Receiver. No readings were taken with fewer than 5 satellites. Point data locations were recorded for at least 25 seconds at a rate of 1 position per second. Area and line data were recorded at a rate of 1 position per second while walking at a slow pace. All GPS data were differentially corrected for maximum accuracy. In some cases, when visual errors and degrees of precision are identified due to environmental factors negatively influencing the precision of the GPS instrument (i.e. dense tree cover, steep topography, and other factors affecting satellite connection) mapping procedures utilized available topographic and aerial imagery datasets in order to improve accuracy in feature alignment and location.

## Non-Jurisdictional Boundary Determination and Acreage Calculation

Areas were determined to be non-wetlands/non-jurisdictional if they did not meet the necessary wetland test parameters or were consistent with the description of non-jurisdictional features as presented in the Corps *Jurisdictional Determination Form Instructional Guidebook* (2007). There were a number of areas that exhibited depressed topography throughout the survey area, however, based on the visual assessment and data collected at these locations (**Appendix A**), the areas lacked the necessary wetland parameters and were not mapped as features.

The wetlands identified within the survey area are highly isolated due to the natural undulating micro-topography on the site and the presence of the adjacent Meadowbrook Loop roadway (**Figure 4**). Due to the highly isolated nature of the wetlands present, a significant nexus determination will need to be conducted by the Corps in order to determine the jurisdictional status of these wetlands.

## Results

**Table 1** Summarizes the area calculations for the pre-jurisdictional features within the survey area. A complete Draft Delineation of WOTUS map, utilizing a 1” to 100’ scale, is included as **Figure 4**.

**Table 1. Results Summary from the Draft Delineation of Waters of the United States for the Almanor Recreation Center.**

Draft Delineation of Waters of the U.S.						
Other Water Features						
Label	Cowardin	Description	Width (ft)	Length (ft)	Area (sq ft)	Acres
OW01	R4	RPW	21.0	88.2	1852.5	0.043
Other Water Totals =				88.2	1852.5	0.043
Wetland Features						
Label	Cowardin	Description	Width (ft)	Length (ft)	Area (sq ft)	Acres
WF01	PUB	Seasonal Swale	NA	NA	279.4	0.006
WF02	PUB	Seasonal Swale	NA	NA	219.5	0.005
WF03	PUB	Seasonal Swale	NA	NA	852.8	0.020
Wetland Feature Totals =				NA	1351.7	0.031
Total Waters of the U.S. =				88.2	3204.2	0.074

### Waters of the United States: Other Waters

There was one feature identified as an “other waters of the United States” (OW) within the survey area. Other waters of the United States are seasonal or perennial water bodies, including lakes, stream channels, ephemeral and intermittent drainages, ponds, and other surface water features that exhibit an ordinary high-water mark, but lack positive indicators for one or more of the three wetland parameters (hydrophytic vegetation, hydric soil, and wetland hydrology) (33 CFR 328.4). The boundaries of all other waters identified within the survey area were delineated based on the observed OHWM, including physical characteristics such as natural lines impressed on the bank, shelving, changes in the character of the soil, the destruction of terrestrial vegetation, debris lines and other appropriate indicators.

The one other water feature present within the Project site (**Figure 4**) has been identified as a Relatively Permanent Waters (RPW). Relatively Permanent Waters are defined as tributaries that typically flow for more than 3 months of the year and have a documented hydrologic connection to a Traditionally Navigable Water (TNW). The RPW within the survey area is a historic diversion ditch that diverts water from the North Fork Feather River to Lake Almanor. Flowing water was observed within the RPW during the November field visit. This other water features identified within the Project site was observed to contain appropriate morphology of bed, bank and scour.

### Waters of the United States: Wetlands

Three wetlands occur within the Project site, which have been characterized as seasonal swales (**Figure 4**). Seasonal swales are depressional features that function as low drainage pathways that typically connect to and help feed other wetland or drainage features. The wetlands exhibited all necessary wetland parameters (**Appendix A**).

The Project site had a considerable amount of micro-topography. Where depressed topography was present, but was found to lack wetland parameters when ground-truthed, representative test pits and/or photographs were taken (**Appendix A, Figure 4**). Photo points were taken at test pits, wetlands and other locations throughout the Project site to depict the current site conditions (**Figure 3**).

# Draft Delineation of Waters of the U.S.

## Other Waters

Label	Cowardin	Description	Location (Lat/Long)	Width (ft)*	Length (ft)	Area (sq ft)	Acres
OW01	R4	RPW	40.308127 -121.23315	21.0	88.2	1852.5	0.043
Other Waters Totals =					88.2	1852.5	0.043

\*Widths are represented as averages

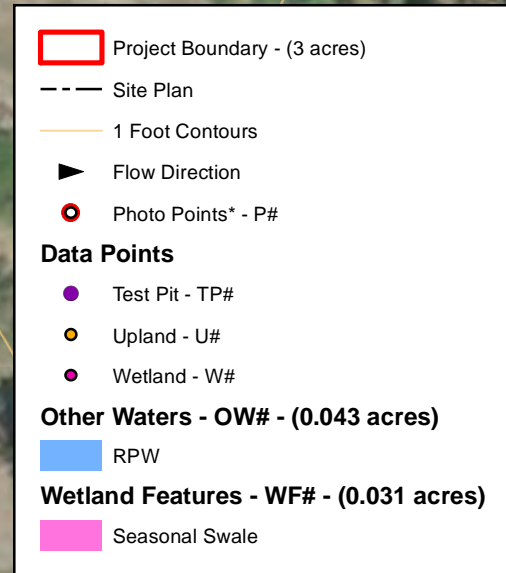
## Wetland Features

Label	Cowardin	Description	Location (Lat/Long)	Width (ft)*	Length (ft)	Area (sq ft)	Acres
WF01	PUB	Seasonal Swale	40.308313 -121.2325	NA	NA	279.4	0.006
WF02	PUB	Seasonal Swale	40.308299 -121.23266	NA	NA	219.5	0.005
WF03	PUB	Seasonal Swale	40.308591 -121.23302	NA	NA	852.8	0.020
Wetland Feature Totals =					NA	1351.7	0.031
Total Waters of the U.S. =					88.2	3204.2	0.074

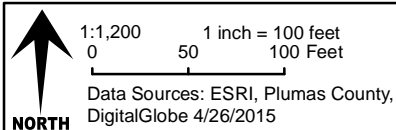
Coordinate System: NAD 1983 California State Plane I (Feet)  
Projection: Lambert Conformal Conic  
Datum: North American 1983  
Vertical Datum: NAVD 88

Made in accordance with the Updated Map & Drawing Standards  
for the South Pacific Division Regulatory Program

The features represented on this graphic  
are considered preliminary until written  
verification by the USACE.



\*See Figure 3, Ground Photographs Map, for  
additional information on Photo Points.



## Almanor Recreation Center Draft Delineation of Waters of the U.S. Figure 4

Delineation by: E. Gregg  
Map by: C. Davis

**gallaway**  
ENTERPRISES

GE: #19-090 Map Date: 11/22/19

## Soils

Gallaway collected soil data at various locations throughout the survey area. Field observations of soil characteristics included soil color, texture, structure, and the visual assessment of soil features (e.g. the presence, or absence of redoximorphic features and the depth of restrictive layers such as hardpans). Gallaway's soil texture evaluations rendered gravelly and sandy loams. Iron concentrations and depletions were found along root channels, pore spaces, and as soft masses in the soil matrix at varying depths within the surface horizons. Field observations of soil characteristics at the test pit sites are included in the data sheet forms presented in **Appendix A**.

The geographic region in which the survey area is found is often characterized as having a naturally occurring deep hardpan, or duripan. The depth of the hand dug soil pits were dug deep enough to determine or rule out the presence/absence of hydric soil indicators.

Gallaway queried the National Cooperative Soil Survey database to further evaluate the current soil conditions. A copy of the soil survey map and a description of mapped soil units for the Project site are included as **Appendix B**. The Project site contains one soil map unit. The map unit is listed below in **Table 2**. Based on Gallaway's review, the one soil map unit identified within the Project site contains only minor amounts of hydric components (8%). Within this soil, the hydric components are typically found in floodplains. A copy of the soil survey map and a description of mapped soil unit for the Project site are included as **Appendix B**.

**Table 2. Soil Map Units, NRCS hydric soil designation, and approximate totals for the Almanor Recreation Center.**

Map Unit Symbol	Map Unit Name	% Hydric Component in Map Unit	Landform of Hydric Component	% Map Unit in Survey Area
207	Forgay very gravelly sandy loam, 0 to 2 percent slopes	8	Floodplains	100%

## Vegetation

During the November site visit, the dominant vegetation within the wetlands present included fowl bluegrass (*Poa palustris*) (FAC), spike bentgrass (*Agrostis exarata*) (FACW), rush (*Juncus sp.*) (FACW), slender wheatgrass (*Elymus trachycaulus*) (FAC), sedge (*Carex sp.*) (FACW) and hairy clover (*Trifolium microcephalum*) (FAC). In the upland portions of the site, vegetation was dominated by an overstory canopy of Jeffrey pine (*Pinus jeffreyi*) (UPL) and a few scattered black cottonwoods (*Populus trichocarpa*) (FAC) in the southern portion of the project site and a sparse understory dominated by cheatgrass (*Bromus tectorum*) (UPL), small fescue (*Festuca microstachys*) (UPL), yarrow (*Achillea millefolium*) (FACU), blue wild rye (*Elymus glaucus*) (FACU), whiskerbrush (*Leptosiphon ciliatus*) (NL), squirrel tail grass (*Elymus elymoides*) (FACU), and California balsamroot (*Balsamorhiza hookeri*) (NL).

## Hydrology

Precipitation and localized runoff are the main hydrological inputs for the wetlands within the Project site. The RPW present is an unnamed historic diversion ditch that was constructed to divert water from the North Fork Feather River to Lake Almanor. The North Fork Feather River is a direct tributary of the Feather River, a TNW. The wetlands present within the survey area have no direct surface connection

with any other potentially jurisdictional WOTUS. They are highly isolated due to the undulating micro-topography and the presence of a road, Meadowbrook Loop, which has further isolated these wetlands.

Flowing water was observed within OW 01 during the November field visit.

Several test pit data points were collected in areas that had depressed topography. Based on test pit data collected at these locations (**Appendix A**), the areas lacked the necessary wetland parameters and were not mapped as features.



## Site Photos Taken on November 06, 2019



P 01 – Overview of site looking west



P 03 – TP01 looking west



P 01 – Overview of site looking northwest



P 03 – Overview of upland looking northwest



P 02 – WF01 looking west



P 04 – WF03 looking northwest (picture taken on an slightly mounded area that, in effect, isolates this feature)





P 05 – Typical upland with mounded micro-topography looking east



P 08 – Upland with swale-like topography looking north



P 06 – TP02 looking west



P 09 – Upland with swale-like topography looking east



P 07 – OHWM edge of OW01 looking west

## Glossary

**Abutting:** When referring to wetlands that are adjacent to a tributary, abutting defines those wetlands that are not separated from the tributary by an upland feature, such as a berm or dike.

**Adjacent:** Adjacent as used in “Adjacent to traditional navigable water,” is defined in Corps and EPA regulations as “bordering, contiguous, or neighboring.” Wetlands separated from other waters of the U.S. by man-made dikes or barriers, natural river berms, beach dunes and the like are ‘adjacent wetlands. A wetland “abuts” a tributary if it is not separated from the tributary by uplands, a berm, dike, or similar feature.

While all wetlands that meet the agencies' definitions are considered adjacent wetlands, only those adjacent wetlands that have a continuous surface connection because they directly abut the tributary (e.g., they are not separated by uplands, a berm, dike, or similar feature) are considered jurisdictional under the plurality standard. (CWA Jurisdiction Following *Rapanos v US* and *Carabell v US* 12-02-08).

The regulations define “adjacent” as follows: “[t]he term adjacent means bordering, contiguous, or neighboring. Wetlands separated from other waters of the United States by man-made dikes or barriers, natural river berms, beach dunes and the like are ‘adjacent wetlands.’” Under this definition, a wetland does not need to meet all criteria to be considered adjacent. The agencies consider wetlands to be bordering, contiguous, or neighboring, and therefore “adjacent” if at least one of following three criteria is satisfied:

- (1) There is an unbroken surface or shallow sub-surface hydrologic connection between the wetland and jurisdictional waters; or
- (2) The wetlands are physically separated from jurisdictional waters by “manmade dikes or barriers, natural river berms, beach dunes, and the like;” or,
- (3) Where a wetland’s physical proximity to a jurisdictional water is reasonably close, that wetland is “neighboring” and thus adjacent. For example, wetlands located within the riparian area or floodplain of a jurisdictional water will generally be considered neighboring, and thus adjacent. One test for whether a wetland is sufficiently proximate to be considered “neighboring” is whether there is a demonstrable ecological interconnection between the wetland and the jurisdictional waterbody. For example, if resident aquatic species (e.g., amphibians, reptiles, fish, mammals, or waterfowl) rely on both the wetland and the jurisdictional waterbody for all or part of their life cycles (e.g., nesting, rearing, feeding, etc.), that may demonstrate that the wetland is neighboring and thus adjacent. The agencies recognize that as the distance between the wetland and jurisdictional water increases, the potential ecological interconnection between the waters is likely to decrease.

The agencies will also continue to assert jurisdiction over wetlands “adjacent” to traditional navigable waters as defined in the agencies’ regulations. Under EPA and Corps regulations and as used in this guidance, “adjacent” means “bordering, contiguous, or neighboring.” Finding a continuous surface connection is not required to establish adjacency under this definition. The *Rapanos* decision does not affect the scope of jurisdiction over wetlands that are adjacent to traditional navigable waters. The agencies will assert jurisdiction over those adjacent wetlands that have a continuous surface connection with a relatively permanent, non-navigable tributary, without the legal obligation to make a significant nexus finding.

**Atypical situation (significantly disturbed):** In an atypical (significantly disturbed) situation, recent human activities or natural events have created conditions where positive indicators for hydrophytic vegetation, hydric soil, or wetland hydrology are not present or observable.

**Channel.** "An open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water" (Langbein and Iseri 1960:5).

**Channel bank.** The sloping land bordering a channel. The bank has steeper slope than the bottom of the channel and is usually steeper than the land surrounding the channel.

**Cobbles.** Rock fragments 7.6 cm (3 inches) to 25.4 cm (10 inches) in diameter.

**Debris flow.** A moving mass of rock fragments, soil, and mud where more than 50% of the particles are larger than sand-sized.

**Drift.** Organic debris oriented to flow direction(s) (larger than small twigs).

**Effective discharge.** Discharge that is capable of carrying a large proportion of sediment over time.

**Ephemeral stream.** An ephemeral stream has flowing water only during and for a short duration after, precipitation events in a typical year. Ephemeral streambeds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

**Facultative wetland (FACW).** Wetland indicator category; species usually occurs in wetlands (estimated probability 67–99%) but occasionally found in non-wetlands.

**Flat.** A level landform composed of unconsolidated sediments usually mud or sand. Flats may be irregularly shaped or elongate and continuous with the shore, whereas bars are generally elongate, parallel to the shore, and separated from the shore by water.

**Gravel.** A mixture composed primarily of rock fragments 2mm (0.08 inch) to 7.6 cm (3 inches) in diameter. Usually contains much sand.

**Growing season** The frost-free period of the year (see U.S. Department of Interior, National Atlas 1970:110-111 for generalized regional delineation).

**Herbaceous.** With the characteristics of an herb; a plant with no persistent woody stem above ground.

**Hydric soil.** Soil is hydric that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic (oxygen-depleted) conditions in its upper part (i.e., within the shallow rooting zone of herbaceous plants).

**Hydrophyte, hydrophytic.** Any plant growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content.

**Intermittent stream.** An intermittent stream has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow.

**Jurisdictional Wetland.** Sites that meet the definition of wetland provided below and that fall under COE regulations pursuant to Section 404 of the CWA are considered jurisdictional wetlands.

**Litter.** Organic debris oriented to flow direction(s) (small twigs and leaves).

**Man-induced wetlands.** A man-induced wetland is an area that has developed at least some characteristics of naturally occurring wetlands due to either intentional or incidental human activities.



**Mesophyte, mesophytic.** Any plant growing where moisture and aeration conditions lie between extremes. (Plants typically found in habitats with average moisture conditions, not usually dry or wet.)

**Non-Relatively Permanent Water:** A non-relatively permanent water (NRPW) is defined as a tributary that is not a TNW and that typically flows for periods for less than 3 months. NRPWs are jurisdictional when they have a documented significant nexus to TNWs. All NRPWs must also contain appropriate morphology of bed, bank and scour and be clearly connected to a TNW.

**Normal circumstances.** This term refers to the soil and hydrologic conditions that are normally present, without regard to whether the vegetation has been removed.

**Obligate hydrophytes.** Species that are found only in wetlands e.g., cattail (*Typha latifolia*) as opposed to ubiquitous species that grow either in wetland or on upland-e.g., red maple (*Acer rubrum*).

**Obligate wetland (OBL).** Wetland indicator category; species occurs almost always (estimated probability 99%) under natural conditions in wetlands.

**Other Waters of the United States.** Other waters of the United States are seasonal or perennial water bodies, including lakes, stream channels, drainages, ponds, and other surface water features, that exhibit an ordinary high-water mark but lack positive indicators for one or more of the three wetland parameters (hydrophytic vegetation, hydric soil, and wetland hydrology) (33 CFR 328.4).

**Palustrine** the Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean derived salts is below 0.5 parts per thousand. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2 m (6.6 feet) at low water; and (4) salinity due to ocean-derived salts is less than 0.5 parts per thousand.

**Perennial stream.** A perennial stream has flowing water year-round during atypical year. The water table is located above the stream bed for most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.

**Pioneer species.** A species that colonizes a previously uncolonized area.

**Ponded.** Ponding is a condition in which free water covers the soil surface (e.g., in a closed depression) and is removed only by percolation, evaporation, or transpiration.

**Problem area.** Problem areas are those where one or more wetland parameters may be lacking because of normal seasonal or annual variations in environmental conditions that result from causes other than human activities or catastrophic natural events.

**Relatively Permanent Waters of the U.S.** Non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months)

**Ruderals.** Disturbance-adapted herbaceous plant.

**Scour.** Soil and debris movement.

**Sheetflood.** Sheet of unconfined floodwater moving down a slope; a relatively low-frequency, high-magnitude event.

**Sheetflow.** Overland flow occurring in a continuous sheet; a relatively high-frequency, low-magnitude event.

**Shrub.** A woody plant which at maturity is usually less than 6 m(20 feet) tall and generally exhibits several erect, spreading, or prostrate stems and has a bushy appearance ; e.g., speckled alder (*Alnus rugosa*) or buttonbush (*Cephalanthus occidentalis*).

**Succession.** Changes in the composition or structure of an ecological community.

**Stone.** Rock fragments larger than 25 .4 cm (10 inches) but less than 60 .4 cm (24 inches).

**Traditional Navigable Waters (TNWs).** “[a]ll waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.” These waters are referred to in this guidance as traditional navigable waters. The traditional navigable waters include all of the “navigable waters of the United States,” as defined in 33 C.F.R. Part 329 and by numerous decisions of the federal courts, plus all other waters that are navigable-in-fact (for example, the Great Salt Lake, UT, and Lake Minnetonka, MN). Thus, the traditional navigable waters include, but are not limited to, the “navigable waters of the United States” within the meaning of Section 10 of the Rivers and Harbors Act of 1899 (also known as “Section 10 waters”).

**Tree.** A woody plant which at maturity is usually 6 m (20 feet) or more in height and generally has a single trunk, unbranched for 1 m or more above the ground, and a more or less definite crown; e.g., red maple (*Acer rubrum*), northern white cedar (*Thuja occidentalis*).

**Water table.** The upper surface of a zone of saturation . No water table exists where that surface is formed by an impermeable body (Langbein and Iseri 1960:21).

**Waters of the United States (WOTUS).** This is the encompassing term for areas under federal jurisdiction pursuant to Section 404 of the CWA. Waters of the United States are divided into “wetlands” and “other waters of the United States”.

**Watershed (drainage basin).** An area of land that drains to a single outlet and is separated from other watersheds by a divide.

**Wetland.** Wetlands are defined as “areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR 328.3 [b], 40 CFR 230.3). To be considered under federal jurisdiction, a wetland must support positive indicators for hydrophytic vegetation, hydric soil, and wetland hydrology.

**Woody plant.** A seed plant (gymnosperm or angiosperm) that develops persistent, hard, fibrous tissues, basically xylem; e.g., trees and shrubs.

**Xeric.** Relating or adapted to an extremely dry habitat

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## Appendix A: Wetland Delineation Data Sheets

# WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Almanor Recreation Center City/County: Chester, Plumas County Sampling Date: 11-06-19  
Applicant/Owner: Almanor Recreation and Park District State: CA Sampling Point: TP01  
Investigator(s): E. Gregg Section, Township, Range: Section 6, Township 28N, Range 7E  
Landform (hillslope, terrace, etc.): lake terrace Local relief (concave, convex, none): concave Slope (%): 0.8  
Subregion (LRR): MLRA 22B Lat: 40.308425 Long: -121.232689 Datum: NAD 83  
Soil Map Unit Name: Forgay very gravelly sandy loam, 0 to 2 percent slopes NWI classification: PEM1C  
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 type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" 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: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
_____ = Total Cover			
Sapling/Shrub Stratum (Plot size: _____)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
Herb Stratum (Plot size: <u>3x2 ft</u> )			
1. <u>Poa palustris</u>	<u>55</u>	<u>Yes</u>	<u>FAC</u>
2. <u>Artemisia douglasiana</u>	<u>15</u>	<u>No</u>	<u>FACW</u>
3. <u>Elymus trachycaulus</u>	<u>10</u>	<u>No</u>	<u>FAC</u>
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
_____ = Total Cover			
Woody Vine Stratum (Plot size: _____)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
_____ = Total Cover			
% Bare Ground in Herb Stratum <u>20</u>			
Remarks:			

**Dominance Test worksheet:**  
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)  
**Prevalence Index worksheet:**  
Total % Cover of: \_\_\_\_\_ Multiply by: \_\_\_\_\_  
OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_  
FACW species 15 x 2 = 30  
FAC species 65 x 3 = 195  
FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_  
UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_  
Column Totals: 80 (A) 225 (B)  
Prevalence Index = B/A = 2.81  
**Hydrophytic Vegetation Indicators:**  
☐ 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
☒ 3 - Prevalence Index is ≤3.0<sup>1</sup>  
☐ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
☐ 5 - Wetland Non-Vascular Plants<sup>1</sup>  
☐ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  
**Hydrophytic Vegetation Present?** Yes ☒ No ☐

# SOIL

Sampling Point: \_\_\_\_\_

## 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 <sup>1</sup>	Loc <sup>2</sup>		
0-8	7.5YR 2.5/2	100					very gravelly loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: 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) ( <b>except MLRA 1</b> ) |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                          |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Dark Surface (F6)                           |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Depleted Dark Surface (F7)                        |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          | <input type="checkbox"/> Redox Depressions (F8)                            |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- |   |
|---|
| <input type="checkbox"/> 2 cm Muck (A10)                  |
| <input type="checkbox"/> Red Parent Material (TF2)        |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Other (Explain in Remarks)       |

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

### Restrictive Layer (if present):

Type: n/a  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No ☒

### Remarks:

Soil pit dug deep enough to determine the presence/absence of hydric soil indicators. No hydric soil indicators met.

# HYDROLOGY

## Wetland Hydrology Indicators:

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

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Water-Stained Leaves (B9) ( <b>except MLRA 1, 2, 4A, and 4B</b> ) |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Salt Crust (B11)  |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Invertebrates (B13)                                       |
| <input type="checkbox"/> Water Marks (B1)                          | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)  |
| <input type="checkbox"/> Sediment Deposits (B2)                    | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)                     |
| <input type="checkbox"/> Drift Deposits (B3)                       | <input type="checkbox"/> Presence of Reduced Iron (C4)                                     |
| <input type="checkbox"/> Algal Mat or Crust (B4)                   | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)                        |
| <input type="checkbox"/> Iron Deposits (B5)                        | <input type="checkbox"/> Stunted or Stressed Plants (D1) ( <b>LRR A</b> )                  |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Other (Explain in Remarks)  |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) |  |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)   |  |

### Secondary Indicators (2 or more required)

- |   |
|---|
| <input type="checkbox"/> Water-Stained Leaves (B9) ( <b>MLRA 1, 2, 4A, and 4B</b> ) |
| <input checked="" type="checkbox"/> Drainage Patterns (B10)                         |
| <input type="checkbox"/> Dry-Season Water Table (C2)                                |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)                  |
| <input checked="" type="checkbox"/> Geomorphic Position (D2)                        |
| <input type="checkbox"/> Shallow Aquitard (D3)                                      |
| <input type="checkbox"/> FAC-Neutral Test (D5)                                      |
| <input type="checkbox"/> Raised Ant Mounds (D6) ( <b>LRR A</b> )                    |
| <input type="checkbox"/> Frost-Heave Hummocks (D7)                                  |

### Field Observations:

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

Wetland Hydrology Present? Yes ☒ No \_\_\_\_\_

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

N/A

### Remarks:

Some drainage patterns were evident and the area was a swale-like depression.

# WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Almanor Recreation Center City/County: Chester, Plumas County Sampling Date: 11-06-19  
 Applicant/Owner: Almanor Recreation and Park District State: CA Sampling Point: TP02  
 Investigator(s): E. Gregg Section, Township, Range: Section 6, Township 28N, Range 7E  
 Landform (hillslope, terrace, etc.): lake terrace Local relief (concave, convex, none): slightly concave Slope (%): 0.8  
 Subregion (LRR): MLRA 22B Lat: 40.30823 Long: -121.233115 Datum: NAD 83  
 Soil Map Unit Name: Forgay very gravelly sandy loam, 0 to 2 percent slopes NWI classification: N/A

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	<b>Dominance Test worksheet:</b> 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)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species <u>100</u> x 4 = <u>400</u> UPL species _____ x 5 = _____ Column Totals: <u>100</u> (A) <u>400</u> (B)  Prevalence Index = B/A = <u>4.00</u>
<b>Sapling/Shrub Stratum (Plot size: _____)</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
<b>Herb Stratum (Plot size: 5x5 ft)</b> 1. <u>Elymus glaucus</u> <u>100</u> Yes <u>FACU</u> 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ _____ = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b> 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>				
Remarks:				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> 5 - Wetland Non-Vascular Plants <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

# SOIL

Sampling Point: \_\_\_\_\_

## 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 <sup>1</sup>		
0-8	10YR 2/2	98	5YR 5/8	2	C	PL	loam

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: 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) ( <b>except MLRA 1</b> ) |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                          |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Dark Surface (F6)                           |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Depleted Dark Surface (F7)                        |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          | <input type="checkbox"/> Redox Depressions (F8)                            |

## Indicators for Problematic Hydric Soils<sup>3</sup>:

- |   |
|---|
| <input type="checkbox"/> 2 cm Muck (A10)                  |
| <input type="checkbox"/> Red Parent Material (TF2)        |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Other (Explain in Remarks)       |

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

## Restrictive Layer (if present):

Type: n/a  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No ☒

## Remarks:

Soil pit dug deep enough to determine the presence/absence of hydric soil indicators. No hydric soil indicators met.

# HYDROLOGY

## Wetland Hydrology Indicators:

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

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Water-Stained Leaves (B9) ( <b>except MLRA 1, 2, 4A, and 4B</b> ) |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Salt Crust (B11)  |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Invertebrates (B13)                                       |
| <input type="checkbox"/> Water Marks (B1)                          | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)  |
| <input type="checkbox"/> Sediment Deposits (B2)                    | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)                     |
| <input type="checkbox"/> Drift Deposits (B3)                       | <input type="checkbox"/> Presence of Reduced Iron (C4)                                     |
| <input type="checkbox"/> Algal Mat or Crust (B4)                   | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)                        |
| <input type="checkbox"/> Iron Deposits (B5)                        | <input type="checkbox"/> Stunted or Stressed Plants (D1) ( <b>LRR A</b> )                  |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Other (Explain in Remarks)  |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) |  |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)   |  |

### Secondary Indicators (2 or more required)

- |   |
|---|
| <input type="checkbox"/> Water-Stained Leaves (B9) ( <b>MLRA 1, 2, 4A, and 4B</b> ) |
| <input type="checkbox"/> Drainage Patterns (B10)                                    |
| <input type="checkbox"/> Dry-Season Water Table (C2)                                |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)                  |
| <input checked="" type="checkbox"/> Geomorphic Position (D2)                        |
| <input type="checkbox"/> Shallow Aquitard (D3)                                      |
| <input type="checkbox"/> FAC-Neutral Test (D5)                                      |
| <input type="checkbox"/> Raised Ant Mounds (D6) ( <b>LRR A</b> )                    |
| <input type="checkbox"/> Frost-Heave Hummocks (D7)                                  |

## Field Observations:

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

Wetland Hydrology Present? Yes \_\_\_\_\_ No ☒

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

N/A

## Remarks:

Area was a slight/shallow closed depression but wetland hydrology not present due to the lack of other indicators.

# WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Almanor Recreation Center City/County: Chester, Plumas County Sampling Date: 11-06-19  
 Applicant/Owner: Almanor Recreation and Park District State: CA Sampling Point: W01  
 Investigator(s): E. Gregg Section, Township, Range: Section 6, Township 28N, Range 7E  
 Landform (hillslope, terrace, etc.): lake terrace Local relief (concave, convex, none): concave Slope (%): 0.5  
 Subregion (LRR): MLRA 22B Lat: 40.3083 Long: -121.232437 Datum: NAD 83  
 Soil Map Unit Name: Forgay very gravelly sandy loam, 0 to 2 percent slopes NWI classification: PEM1C

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: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species <u>5</u> x 1 = <u>5</u> FACW species <u>85</u> x 2 = <u>170</u> FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>90</u> (A) <u>175</u> (B)  Prevalence Index = B/A = <u>1.94</u>
<b>Sapling/Shrub Stratum (Plot size: _____)</b> 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
<b>Herb Stratum (Plot size: 3x2 ft _____)</b> 1. <u>Carex sp.</u> 40 Yes FACW 2. <u>Deschampsia danthonioides</u> 20 Yes FACW 3. <u>Juncus sp.</u> 15 No FACW 4. <u>Navarretia intertexta</u> 10 No FACW 5. <u>Veronica peregrina</u> 5 No OBL 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ _____ = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b> 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum <u>10</u>				
Remarks:				<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants <sup>1</sup> ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

# SOIL

Sampling Point: \_\_\_\_\_

## 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 <sup>1</sup>		
0-4	10YR 3/2	70	5YR 5/8	15	C	PL	gravelly loam
	10YR 4/1	15					
4-10	10YR 2/2	95	5YR 5/8	3	C	PL	very gravelly loam
	10YR 4/1	2					

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: 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) ( <b>except MLRA 1</b> ) |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                          |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Dark Surface (F6)                           |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Depleted Dark Surface (F7)                        |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          | <input checked="" type="checkbox"/> Redox Depressions (F8)                 |

## Indicators for Problematic Hydric Soils<sup>3</sup>:

- |   |
|---|
| <input type="checkbox"/> 2 cm Muck (A10)                  |
| <input type="checkbox"/> Red Parent Material (TF2)        |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Other (Explain in Remarks)       |

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

## Restrictive Layer (if present):

Type: n/a  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

## Remarks:

Soil pit dug deep enough to determine the presence/absence of hydric soil indicators.

# HYDROLOGY

## Wetland Hydrology Indicators:

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

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Water-Stained Leaves (B9) ( <b>except MLRA 1, 2, 4A, and 4B</b> ) |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Salt Crust (B11)  |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Invertebrates (B13)                                       |
| <input type="checkbox"/> Water Marks (B1)                          | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)  |
| <input type="checkbox"/> Sediment Deposits (B2)                    | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)                     |
| <input type="checkbox"/> Drift Deposits (B3)                       | <input type="checkbox"/> Presence of Reduced Iron (C4)                                     |
| <input type="checkbox"/> Algal Mat or Crust (B4)                   | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)                        |
| <input type="checkbox"/> Iron Deposits (B5)                        | <input type="checkbox"/> Stunted or Stressed Plants (D1) ( <b>LRR A</b> )                  |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Other (Explain in Remarks)  |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) |  |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)   |  |

### Secondary Indicators (2 or more required)

- |   |
|---|
| <input type="checkbox"/> Water-Stained Leaves (B9) ( <b>MLRA 1, 2, 4A, and 4B</b> ) |
| <input checked="" type="checkbox"/> Drainage Patterns (B10)                         |
| <input type="checkbox"/> Dry-Season Water Table (C2)                                |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)                  |
| <input checked="" type="checkbox"/> Geomorphic Position (D2)                        |
| <input type="checkbox"/> Shallow Aquitard (D3)                                      |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)                           |
| <input type="checkbox"/> Raised Ant Mounds (D6) ( <b>LRR A</b> )                    |
| <input type="checkbox"/> Frost-Heave Hummocks (D7)                                  |

## Field Observations:

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

Wetland Hydrology Present? Yes ☒ No ☐

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

N/A

## Remarks:

Area was a distinct depression and exhibited swale-like characteristics with drainage patterns evident.



# WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Almanor Recreation Center City/County: Chester, Plumas County Sampling Date: 11-06-19  
 Applicant/Owner: Almanor Recreation and Park District State: CA Sampling Point: U01  
 Investigator(s): E. Gregg Section, Township, Range: Section 6, Township 28N, Range 7E  
 Landform (hillslope, terrace, etc.): lake terrace Local relief (concave, convex, none): sloped Slope (%): 1.5  
 Subregion (LRR): MLRA 22B Lat: 40.308309 Long: -121.232412 Datum: NAD 83  
 Soil Map Unit Name: Forgay very gravelly sandy loam, 0 to 2 percent slopes NWI classification: PEM1C  
 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	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</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>33.3</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species <u>30</u> x 3 = <u>90</u> FACU species <u>50</u> x 4 = <u>200</u> UPL species _____ x 5 = _____ Column Totals: <u>80</u> (A) <u>290</u> (B)  Prevalence Index = B/A = <u>3.63</u>
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants <sup>1</sup> ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
_____ = Total Cover				
Herb Stratum (Plot size: <u>3x3 ft</u> )				
1. <u>Poa secunda</u>	<u>30</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Trifolium microcephalum</u>	<u>30</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Erigeron canadensis</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>20</u>				
Remarks:				

# SOIL

Sampling Point: \_\_\_\_\_

## 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 <sup>1</sup>		
0-1	10YR 3/2	95	5YR 5/8	2	C	PL	gravelly loam
	10YR 4/1	3					
1-8	10YR 3/2	98	5YR 5/8	2	C	PL	very gravelly loam

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: 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) ( <b>except MLRA 1</b> ) |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                          |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Dark Surface (F6)                           |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Depleted Dark Surface (F7)                        |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          | <input type="checkbox"/> Redox Depressions (F8)                            |

## Indicators for Problematic Hydric Soils<sup>3</sup>:

- |   |
|---|
| <input type="checkbox"/> 2 cm Muck (A10)                  |
| <input type="checkbox"/> Red Parent Material (TF2)        |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Other (Explain in Remarks)       |

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

## Restrictive Layer (if present):

Type: n/a  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No ☒

## Remarks:

Soil pit dug deep enough to determine the presence/absence of hydric soil indicators. No hydric soil indicators met.

# HYDROLOGY

## Wetland Hydrology Indicators:

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

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Water-Stained Leaves (B9) ( <b>except MLRA 1, 2, 4A, and 4B</b> ) |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Salt Crust (B11)  |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Invertebrates (B13)                                       |
| <input type="checkbox"/> Water Marks (B1)                          | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)  |
| <input type="checkbox"/> Sediment Deposits (B2)                    | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)                     |
| <input type="checkbox"/> Drift Deposits (B3)                       | <input type="checkbox"/> Presence of Reduced Iron (C4)                                     |
| <input type="checkbox"/> Algal Mat or Crust (B4)                   | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)                        |
| <input type="checkbox"/> Iron Deposits (B5)                        | <input type="checkbox"/> Stunted or Stressed Plants (D1) ( <b>LRR A</b> )                  |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Other (Explain in Remarks)  |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) |  |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)   |  |

### Secondary Indicators (2 or more required)

- |   |
|---|
| <input type="checkbox"/> Water-Stained Leaves (B9) ( <b>MLRA 1, 2, 4A, and 4B</b> ) |
| <input checked="" type="checkbox"/> Drainage Patterns (B10)                         |
| <input type="checkbox"/> Dry-Season Water Table (C2)                                |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)                  |
| <input type="checkbox"/> Geomorphic Position (D2)                                   |
| <input type="checkbox"/> Shallow Aquitard (D3)                                      |
| <input type="checkbox"/> FAC-Neutral Test (D5)                                      |
| <input type="checkbox"/> Raised Ant Mounds (D6) ( <b>LRR A</b> )                    |
| <input type="checkbox"/> Frost-Heave Hummocks (D7)                                  |

## Field Observations:

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

Wetland Hydrology Present? Yes \_\_\_\_\_ No ☒

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

N/A

## Remarks:

Some evidence of drainage patterns observed but wetland hydrology not present. Area was sloped.

# WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Almanor Recreation Center City/County: Chester, Plumas County Sampling Date: 11-06-19  
Applicant/Owner: Almanor Recreation and Park District State: CA Sampling Point: W02  
Investigator(s): E. Gregg Section, Township, Range: Section 6, Township 28N, Range 7E  
Landform (hillslope, terrace, etc.): lake terrace Local relief (concave, convex, none): concave Slope (%): 0.5  
Subregion (LRR): MLRA 22B Lat: 40.30832 Long: -121.23267 Datum: NAD 83  
Soil Map Unit Name: Forgay very gravelly sandy loam, 0 to 2 percent slopes NWI classification: N/A

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: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
_____ = Total Cover			
Sapling/Shrub Stratum (Plot size: _____)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			
Herb Stratum (Plot size: <u>3x3 ft</u> )			
1. <u>Juncus sp.</u>	<u>50</u>	<u>Yes</u>	<u>FACW</u>
2. <u>Carex sp.</u>	<u>40</u>	<u>Yes</u>	<u>FACW</u>
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
_____ = Total Cover			
Woody Vine Stratum (Plot size: _____)			
1. _____	_____	_____	_____
2. _____	_____	_____	_____
_____ = Total Cover			
% Bare Ground in Herb Stratum <u>10</u>			
Remarks:			

**Dominance Test worksheet:**  
Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)  
Total Number of Dominant Species Across All Strata: 2 (B)  
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)  
**Prevalence Index worksheet:**  
Total % Cover of: \_\_\_\_\_ Multiply by: \_\_\_\_\_  
OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_  
FACW species 90 x 2 = 180  
FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_  
FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_  
UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_  
Column Totals: 90 (A) 180 (B)  
Prevalence Index = B/A = 2.00  
**Hydrophytic Vegetation Indicators:**  
☒ 1 - Rapid Test for Hydrophytic Vegetation  
☒ 2 - Dominance Test is >50%  
☒ 3 - Prevalence Index is ≤3.0<sup>1</sup>  
\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
\_\_\_\_ 5 - Wetland Non-Vascular Plants<sup>1</sup>  
\_\_\_\_ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)  
<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  
**Hydrophytic Vegetation Present?** Yes ☒ No ☐

# SOIL

Sampling Point: \_\_\_\_\_

## 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 <sup>1</sup>		
0-4	10YR 3/2	70	5YR 5/8	15	C	PL	gravelly loam
	10YR 4/1	15					
4-10	10YR 2/2	92	5YR 5/8	3	C	PL	very gravelly loam
	10YR 4/1	5					

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: 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) ( <b>except MLRA 1</b> ) |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                          |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Dark Surface (F6)                           |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Depleted Dark Surface (F7)                        |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          | <input checked="" type="checkbox"/> Redox Depressions (F8)                 |

## Indicators for Problematic Hydric Soils<sup>3</sup>:

- |   |
|---|
| <input type="checkbox"/> 2 cm Muck (A10)                  |
| <input type="checkbox"/> Red Parent Material (TF2)        |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Other (Explain in Remarks)       |

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

## Restrictive Layer (if present):

Type: n/a  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes ☒ No ☐

## Remarks:

Soil pit dug deep enough to determine the presence/absence of hydric soil indicators.

# HYDROLOGY

## Wetland Hydrology Indicators:

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

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Water-Stained Leaves (B9) ( <b>except MLRA 1, 2, 4A, and 4B</b> ) |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Salt Crust (B11)  |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Invertebrates (B13)                                       |
| <input type="checkbox"/> Water Marks (B1)                          | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)  |
| <input type="checkbox"/> Sediment Deposits (B2)                    | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)                     |
| <input type="checkbox"/> Drift Deposits (B3)                       | <input type="checkbox"/> Presence of Reduced Iron (C4)                                     |
| <input checked="" type="checkbox"/> Algal Mat or Crust (B4)        | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)                        |
| <input type="checkbox"/> Iron Deposits (B5)                        | <input type="checkbox"/> Stunted or Stressed Plants (D1) ( <b>LRR A</b> )                  |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Other (Explain in Remarks)  |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) |  |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)   |  |

### Secondary Indicators (2 or more required)

- |   |
|---|
| <input type="checkbox"/> Water-Stained Leaves (B9) ( <b>MLRA 1, 2, 4A, and 4B</b> ) |
| <input checked="" type="checkbox"/> Drainage Patterns (B10)                         |
| <input type="checkbox"/> Dry-Season Water Table (C2)                                |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)                  |
| <input checked="" type="checkbox"/> Geomorphic Position (D2)                        |
| <input type="checkbox"/> Shallow Aquitard (D3)                                      |
| <input checked="" type="checkbox"/> FAC-Neutral Test (D5)                           |
| <input type="checkbox"/> Raised Ant Mounds (D6) ( <b>LRR A</b> )                    |
| <input type="checkbox"/> Frost-Heave Hummocks (D7)                                  |

## Field Observations:

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

Wetland Hydrology Present? Yes ☒ No ☐

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

N/A

## Remarks:

Area was a distinct depression. There was some evidence of drainage patterns with drift/debris lines and evidence of overland sheetflow.

# WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Almanor Recreation Center City/County: Chester, Plumas County Sampling Date: 11-06-19  
 Applicant/Owner: Almanor Recreation and Park District State: CA Sampling Point: U02  
 Investigator(s): E. Gregg Section, Township, Range: Section 6, Township 28N, Range 7E  
 Landform (hillslope, terrace, etc.): lake terrace Local relief (concave, convex, none): convex Slope (%): 0.8  
 Subregion (LRR): MLRA 22B Lat: 40.308332 Long: -121.232663 Datum: NAD 83  
 Soil Map Unit Name: Forgay very gravelly sandy loam, 0 to 2 percent slopes NWI classification: N/A

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 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	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</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>100</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species <u>5</u> x 2 = <u>10</u> FAC species <u>100</u> x 3 = <u>300</u> FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>105</u> (A) <u>310</u> (B)  Prevalence Index = B/A = <u>2.95</u>
<b>Sapling/Shrub Stratum</b> (Plot size: <u>3x3 ft</u> )				
1. <u>Salix sp.</u>	<u>5</u>	<u>No</u>	<u>FACW</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants <sup>1</sup> ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
_____ = Total Cover				
<b>Herb Stratum</b> (Plot size: <u>3x3 ft</u> )				
1. <u>Poa palustris</u>	<u>100</u>	<u>Yes</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover	<u>100</u>			
<b>Woody Vine Stratum</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>				
Remarks:				

## SOIL

Sampling Point: \_\_\_\_\_

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

Depth (inches)	Matrix		Redox Features			Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%					
0-8	10YR 2/2	97	5YR 5/8	3	C	PL		loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.

<sup>2</sup>Location: 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) ( <b>except MLRA 1</b> ) |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                          |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Dark Surface (F6)                           |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Depleted Dark Surface (F7)                        |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          | <input type="checkbox"/> Redox Depressions (F8)                            |

### Indicators for Problematic Hydric Soils<sup>3</sup>:

- |   |
|---|
| <input type="checkbox"/> 2 cm Muck (A10)                  |
| <input type="checkbox"/> Red Parent Material (TF2)        |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Other (Explain in Remarks)       |

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

### Restrictive Layer (if present):

Type: n/a  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No ☒

### Remarks:

Soil pit dug deep enough to determine the presence/absence of hydric soil indicators. No hydric soil indicators met.

## HYDROLOGY

### Wetland Hydrology Indicators:

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

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Water-Stained Leaves (B9) ( <b>except MLRA 1, 2, 4A, and 4B</b> ) |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Salt Crust (B11)  |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Invertebrates (B13)                                       |
| <input type="checkbox"/> Water Marks (B1)                          | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)  |
| <input type="checkbox"/> Sediment Deposits (B2)                    | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)                     |
| <input type="checkbox"/> Drift Deposits (B3)                       | <input type="checkbox"/> Presence of Reduced Iron (C4)                                     |
| <input type="checkbox"/> Algal Mat or Crust (B4)                   | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)                        |
| <input type="checkbox"/> Iron Deposits (B5)                        | <input type="checkbox"/> Stunted or Stressed Plants (D1) ( <b>LRR A</b> )                  |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Other (Explain in Remarks)  |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) |  |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)   |  |

#### Secondary Indicators (2 or more required)

- |   |
|---|
| <input type="checkbox"/> Water-Stained Leaves (B9) ( <b>MLRA 1, 2, 4A, and 4B</b> ) |
| <input checked="" type="checkbox"/> Drainage Patterns (B10)                         |
| <input type="checkbox"/> Dry-Season Water Table (C2)                                |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)                  |
| <input type="checkbox"/> Geomorphic Position (D2)                                   |
| <input type="checkbox"/> Shallow Aquitard (D3)                                      |
| <input type="checkbox"/> FAC-Neutral Test (D5)                                      |
| <input type="checkbox"/> Raised Ant Mounds (D6) ( <b>LRR A</b> )                    |
| <input type="checkbox"/> Frost-Heave Hummocks (D7)                                  |

### Field Observations:

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

Wetland Hydrology Present? Yes \_\_\_\_\_ No ☒

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

N/A

### Remarks:

Some evidence of drainage patterns observed but wetland hydrology not present due to the lack of other indicators. Area was not part of the adjacent depression and was actually convex.

# WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Almanor Recreation Center City/County: Chester, Plumas County Sampling Date: 11-06-19  
 Applicant/Owner: Almanor Recreation and Park District State: CA Sampling Point: W03  
 Investigator(s): E. Gregg Section, Township, Range: Section 6, Township 28N, Range 7E  
 Landform (hillslope, terrace, etc.): lake terrace Local relief (concave, convex, none): concave Slope (%): 0.5  
 Subregion (LRR): MLRA 22B Lat: 40.308596 Long: -121.232985 Datum: NAD 83  
 Soil Map Unit Name: Forgay very gravelly sandy loam, 0 to 2 percent slopes NWI classification: PEM1C  
 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: _____)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test worksheet:</b> 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)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species <u>45</u> x 2 = <u>90</u> FAC species <u>55</u> x 3 = <u>165</u> FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: <u>100</u> (A) <u>255</u> (B)  Prevalence Index = B/A = <u>2.55</u>
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	<b>Hydrophytic Vegetation Indicators:</b> <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants <sup>1</sup> ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: <u>3x2 ft</u> )				
1. <u>Agrostis exarata</u>	<u>45</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Poa palustris</u>	<u>35</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Trifolium microcephalum</u>	<u>15</u>	<u>No</u>	<u>FAC</u>	
4. <u>Elymus trachycaulus</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>				
Remarks:				



## SOIL

Sampling Point: \_\_\_\_\_

[illegible]

## 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"/> Water-Stained Leaves (B9) ( <b>except MLRA 1, 2, 4A, and 4B</b> )	<input type="checkbox"/> Water-Stained Leaves (B9) ( <b>MLRA 1, 2, 4A, and 4B</b> )
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) ( <b>LRR A</b> )	<input type="checkbox"/> Raised Ant Mounds (D6) ( <b>LRR A</b> )
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		
<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
N/A		
Remarks:		
Area was a distinct closed depression with swale-like characteristics including drainage patterns.		

# WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Almanor Recreation Center City/County: Chester, Plumas County Sampling Date: 11-06-19  
 Applicant/Owner: Almanor Recreation and Park District State: CA Sampling Point: U03  
 Investigator(s): E. Gregg Section, Township, Range: Section 6, Township 28N, Range 7E  
 Landform (hillslope, terrace, etc.): lake terrace Local relief (concave, convex, none): sloped Slope (%): 1.5  
 Subregion (LRR): MLRA 22B Lat: 40.308605 Long: -121.232978 Datum: NAD 83  
 Soil Map Unit Name: Forgay very gravelly sandy loam, 0 to 2 percent slopes NWI classification: N/A

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	<b>Dominance Test worksheet:</b> 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)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species <u>65</u> x 4 = <u>260</u> UPL species _____ x 5 = _____ Column Totals: <u>65</u> (A) <u>260</u> (B) Prevalence Index = B/A = <u>4.00</u>
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: <u>4x4 ft</u> )				<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants <sup>1</sup> ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Poa secunda</u>	<u>35</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Elymus glaucus</u>	<u>30</u>	<u>Yes</u>	<u>FACU</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>35</u>				
Remarks:				

# SOIL

Sampling Point: \_\_\_\_\_

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

Depth (inches)	Matrix		Redox Features			Loc <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>			
0-1	10YR 3/2	99	5YR 5/8	1	C	PL	gravelly loam	
1-8	10YR 3/2	100					very gravelly loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: 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) ( <b>except MLRA 1</b> ) |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                          |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3)                              |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Dark Surface (F6)                           |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Depleted Dark Surface (F7)                        |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          | <input type="checkbox"/> Redox Depressions (F8)                            |

## Indicators for Problematic Hydric Soils<sup>3</sup>:

- |   |
|---|
| <input type="checkbox"/> 2 cm Muck (A10)                  |
| <input type="checkbox"/> Red Parent Material (TF2)        |
| <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Other (Explain in Remarks)       |

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

## Restrictive Layer (if present):

Type: n/a  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No ☒

## Remarks:

Soil pit dug deep enough to determine the presence/absence of hydric soil indicators. No hydric soil indicators met.

# HYDROLOGY

## Wetland Hydrology Indicators:

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

- |  |  |
|--|--|
| <input type="checkbox"/> Surface Water (A1)                        | <input type="checkbox"/> Water-Stained Leaves (B9) ( <b>except MLRA 1, 2, 4A, and 4B</b> ) |
| <input type="checkbox"/> High Water Table (A2)                     | <input type="checkbox"/> Salt Crust (B11)  |
| <input type="checkbox"/> Saturation (A3)                           | <input type="checkbox"/> Aquatic Invertebrates (B13)                                       |
| <input type="checkbox"/> Water Marks (B1)                          | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)  |
| <input type="checkbox"/> Sediment Deposits (B2)                    | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)                     |
| <input type="checkbox"/> Drift Deposits (B3)                       | <input type="checkbox"/> Presence of Reduced Iron (C4)                                     |
| <input type="checkbox"/> Algal Mat or Crust (B4)                   | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)                        |
| <input type="checkbox"/> Iron Deposits (B5)                        | <input type="checkbox"/> Stunted or Stressed Plants (D1) ( <b>LRR A</b> )                  |
| <input type="checkbox"/> Surface Soil Cracks (B6)                  | <input type="checkbox"/> Other (Explain in Remarks)  |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) |  |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)   |  |

### Secondary Indicators (2 or more required)

- |   |
|---|
| <input type="checkbox"/> Water-Stained Leaves (B9) ( <b>MLRA 1, 2, 4A, and 4B</b> ) |
| <input type="checkbox"/> Drainage Patterns (B10)                                    |
| <input type="checkbox"/> Dry-Season Water Table (C2)                                |
| <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)                  |
| <input type="checkbox"/> Geomorphic Position (D2)                                   |
| <input type="checkbox"/> Shallow Aquitard (D3)                                      |
| <input type="checkbox"/> FAC-Neutral Test (D5)                                      |
| <input type="checkbox"/> Raised Ant Mounds (D6) ( <b>LRR A</b> )                    |
| <input type="checkbox"/> Frost-Heave Hummocks (D7)                                  |

## Field Observations:

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

Wetland Hydrology Present? Yes \_\_\_\_\_ No ☒

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

N/A

## Remarks:

No wetland hydrology indicators observed. Area was sloped and slightly convex.

## Appendix B: NRCS Soils Map and Soil Series Description



United States  
Department of  
Agriculture

**NRCS**

Natural  
Resources  
Conservation  
Service

A product of the National  
Cooperative Soil Survey,  
a joint effort of the United  
States Department of  
Agriculture and other  
Federal agencies, State  
agencies including the  
Agricultural Experiment  
Stations, and local  
participants

# **Custom Soil Resource Report for Susanville Area, Parts of Lassen and Plumas Counties, California**

**Almanor Recreation Center**



January 28, 2020

# Preface

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Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist ([http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2\\_053951](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951)).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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# Contents

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<b>Preface</b> .....	2
<b>How Soil Surveys Are Made</b> .....	5
<b>Soil Map</b> .....	8
Soil Map.....	9
Legend.....	10
Map Unit Legend.....	12
Map Unit Descriptions.....	12
Susanville Area, Parts of Lassen and Plumas Counties, California.....	14
207—Forgay very gravelly sandy loam, 0 to 2 percent slopes.....	14
<b>References</b> .....	16

# How Soil Surveys Are Made

---

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

## Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

# Soil Map

---

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

# Custom Soil Resource Report Soil Map



# Custom Soil Resource Report

## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

### Special Point Features

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot

 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

### Water Features

 Streams and Canals

### Transportation

 Rails


 Interstate Highways

 US Routes

 Major Roads

 Local Roads

### Background

 Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Susanville Area, Parts of Lassen and Plumas Counties, California

Survey Area Data: Version 10, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 31, 2010—Sep 14, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background



## MAP LEGEND

## MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
207	Forgay very gravelly sandy loam, 0 to 2 percent slopes	3.0	100.0%
<b>Totals for Area of Interest</b>		<b>3.0</b>	<b>100.0%</b>

## Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

## Susanville Area, Parts of Lassen and Plumas Counties, California

### 207—Forgay very gravelly sandy loam, 0 to 2 percent slopes

#### Map Unit Setting

*National map unit symbol:* jc8h  
*Elevation:* 4,500 to 5,200 feet  
*Mean annual precipitation:* 30 to 40 inches  
*Mean annual air temperature:* 43 to 48 degrees F  
*Frost-free period:* 60 to 80 days  
*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Forgay and similar soils:* 85 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Forgay

##### Setting

*Landform:* Alluvial fans  
*Landform position (two-dimensional):* Toeslope  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Alluvium derived from mixed rocks

##### Typical profile

*H1 - 0 to 11 inches:* extremely gravelly sandy loam  
*H2 - 11 to 40 inches:* extremely gravelly coarse sandy loam  
*H3 - 40 to 60 inches:* stratified extremely gravelly loamy coarse sand to very gravelly sandy loam

##### Properties and qualities

*Slope:* 0 to 2 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Somewhat excessively drained  
*Runoff class:* Very low  
*Capacity of the most limiting layer to transmit water (Ksat):* High (2.00 to 6.00 in/hr)  
*Depth to water table:* About 42 to 60 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Available water storage in profile:* Very low (about 2.0 inches)

##### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 6s  
*Hydrologic Soil Group:* A  
*Hydric soil rating:* No

#### Minor Components

##### Mountmed

*Percent of map unit:* 8 percent  
*Landform:* Flood plains

## Custom Soil Resource Report

*Hydric soil rating:* Yes

### **Urban land**

*Percent of map unit:* 7 percent

*Landform:* Alluvial fans

*Hydric soil rating:* No

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**Appendix D – Cultural Resource Assessment**

## **CULTURAL REOSURCE ASSESSMENT**

### **Cultural Resources Inventory and Evaluation Report**

#### **Almanor Recreation Center**

Chester, California

**April 2020**



Prepared for:

**Almanor Recreation and Park District**

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**CONFIDENTIALITY STATEMENT**

Cultural resources can be damaged or destroyed through disclosure of information regarding their locations. This document contains sensitive information regarding the nature and location of cultural resources and should not be disclosed to the general public or unauthorized persons. Under the California Public Records Act Chapter 6254.10 and Section 304 of the National Historic Preservation Act, information pertaining to cultural resources is exempt from disclosure to the general public.

## Summary of Findings

Gallaway Enterprises conducted a cultural resources investigation for the Almanor Recreation Center (Project), located within the United States Geological Survey (USGS) "Chester, CA" quadrangle Section 06 of Township 28N, Range 07E. The Project is located within the Chester, a census designated place in Plumas County, Ca.

Cultural resources identification efforts for this report included a field survey, Native American consultation, and archival research. Archival research consisted of a record search at the Northeast Information Center (NEIC); additional archival research included a review of historic maps, General Land Office patents, historic aerial imagery, the National Register of Historic Places, California Historical Landmark Listing, and California Points of Historic Interest. The Native American Heritage Commission was informed of the Project and returned a finding of no previously recorded cultural resources in the Project. The record search conducted at the NEIC, resulted in a finding of no previously recorded cultural resources within the Project and no cultural inventory reports that included the Project area of potential effects (APE). An intensive level pedestrian survey was conducted covering the entire Project to identify previously unrecorded cultural resources. The pedestrian survey resulted in a negative finding for cultural resources.

# CONTENTS

1	INTRODUCTION .....	1
1.1	Purpose and Overview .....	1
1.1.1	Project Location and Environment .....	1
1.1.2	Project Description .....	4
1.1.3	Undertaking.....	4
2	REGULATORY FRAMEWORK .....	4
2.1	State of California.....	4
2.1.1	California Environmental Quality Act (CEQA).....	4
2.2	Federal.....	5
2.2.1	Section 106 – National Historic Preservation Act.....	5
3	NATIVE AMERICAN CONSULTATION .....	6
4	CULTURAL CONTEXT .....	7
4.1	Prehistory.....	7
4.2	Ethnography.....	7
4.3	Historic.....	8
5	METHODS .....	8
5.1	Archival Research .....	8
5.2	Field Methods .....	9
6	RESULTS.....	9
6.1	Archival Research Results.....	9
6.2	Survey Results .....	9
7	CONCLUSIONS AND RECOMMENDATIONS .....	13
7.1	Conclusions.....	13
7.2	Recommendations .....	13
7.2.1	Inadvertent Finds.....	13
7.2.2	Human Remains.....	13
9	REFERENCES .....	15
10	LIST OF PREPARERS and PROFESSIONAL QUALIFICATIONS .....	17

## FIGURES

Figure 1. Regional Location.....	2
Figure 2. Project Location .....	3
Figure 3. Archaeological Survey Coverage.....	11
Figure 4. Project overview showing access road and ramp.....	12
Figure 5. Existing structure on site .....	12

## APPENDICES

Appendix A.....	Draft Delineation of Waters of the U.S.
Appendix B.....	Outreach
Appendix C.....	Northeast Information Center Record Search Forms

# Cultural RESOURCE ASSESSMENT

## Almanor Recreation Center

### Chester, California

#### **Project Location:**

Chester, California

Township 28N; Range 07E, Section 06

Chester CA 7.5' USGS Quadrangle

## **1 INTRODUCTION**

Gallaway Enterprises conducted cultural resource assessment for the Almanor Recreation Center Project (Project) consisting of an approximately 3-acre property site. The Project site is located within Chester, a census designated place, in Plumas County, California. The project is located in the United States Geologic Survey (USGS) Chester Quadrangle, Section 06, Township 28N, Range 7E (**Figure 1 and 2**).

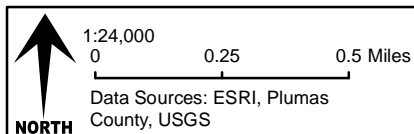
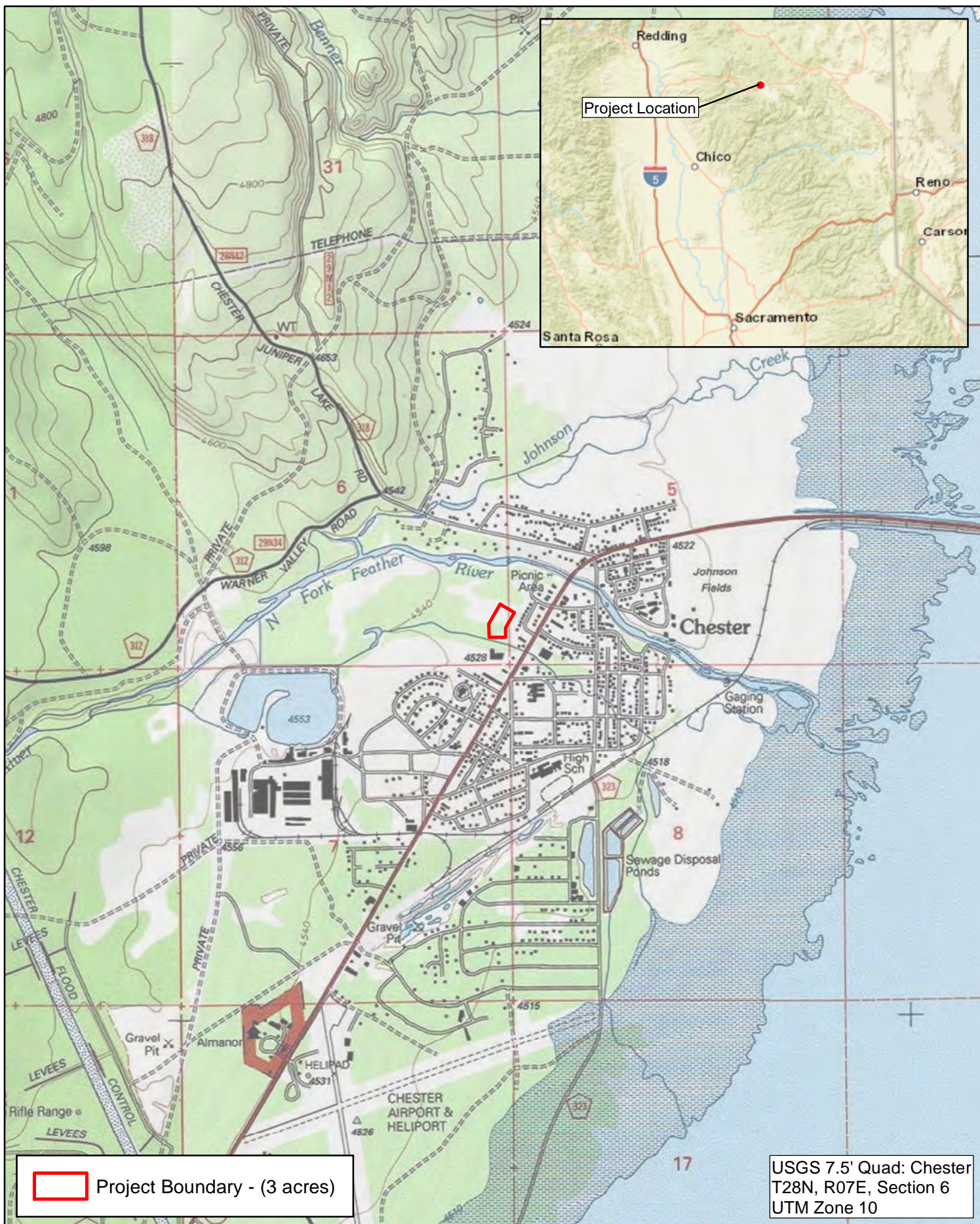
The cultural resource assessment consists of an archival records search, a pedestrian survey of the entire Project and Native American outreach. This cultural resource investigation was designed to identify any cultural resources that occur within the Project and potential eligibility for the National Register of Historic Places (NRHP) and/or California Register of Historical Resources (CRHR). Additionally, this report is designed to assess potential impacts to any historic properties that occur within the Project.

### **1.1 Purpose and Overview**

#### **1.1.1 Project Location and Environment**

The survey area is located within Chester, a census-designated place, in Plumas County, California. Chester is located off of Lake Almanor and is situated at the interface between the Cascade mountain range and the Sierra Nevada mountain range. The northern portion of the Project site contains the existing Almanor Recreation Center buildings, asphalt driveway, and parking lot. The remainder of the Project site is dominated by Jeffrey pine forest with some large patches of open grassland, particularly in the southeastern corner of the site. There is minimal evidence of human disturbance in this portion of the site. A few small seasonal wetland swales occur within the southern portion of Project site and along the southwestern corner, and just offsite to the south, is a braided drainage. A few scattered black cottonwood





Almanor Recreation Center  
Regional Location  
Figure 1





trees and willows occur in and adjacent to the wetlands and drainage in the Project site.

This drainage is a historic diversion ditch that has widened over time and become braided due to the presence of beavers upstream of the site. Land surrounding the Project site is dominated by open pine forest to the west, the Almanor Recreation & Park to the north and commercial and residential buildings to the south and east.

In the region where the Project area is located the average annual precipitation is 31.83 inches and the average snowfall is 127.8 inches, with an average annual temperature of 46.80° F (WRCC 2020). The site occurs at an average elevation of approximately 4,535 feet above sea level. The Project site is relatively flat with slopes ranging from 0 to 2 percent, however, within the forested portion of the Project site there was considerable micro-topography. Soils within the site were gravelly sandy loams with a deep restrictive layer occurring at more than 80 inches deep.

### **1.1.2 Project Description**

The area of potential effects (APE) consists of the entire 3-acre property. The proposed project consists of the development of additional recreational facilities.

### **1.1.3 Undertaking**

Proposed Project activities may require issuance of Section 404 permit. A Draft Wetland Delineation Assessment was completed for this Project (see attached Draft Wetland Delineation map, Appendix A). Identification of potential waters of the U.S. revealed the potential for project related impacts to jurisdictional waters. Since Project activities may result in impacts to waters of the U.S., the Project proponent must meet the requirements of Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act, and therefore, is seeking a permit from the U.S. Army Corps of Engineers (Corps), Sacramento District. The Corps is the designated lead federal agency for compliance with Section 106 of the National Historic Preservation Act (NHPA).

## **2 REGULATORY FRAMEWORK**

The following describes federal, state, and local environmental laws and policies that require the implementation of a cultural resources assessment and preservation practices. Management of cultural resources in California is guided largely by CEQA.

### **2.1 State of California**

#### **2.1.1 California Environmental Quality Act (CEQA)**

Significant effects to archaeological resources must be evaluated under CEQA (Sections 21083.2 and 21084.1) and the CEQA Guidelines (California Code of Regulations Title 14, Section 15064.5). Should it be determined that a Project would result in significant impacts to historical resources, alternative mitigation measures must be considered and the lead agency may require reasonable effort to be made for the preservation of historical resources. The definition of historical resources includes any object,

site, district, or location that a lead agency determines to be historically significant. In accordance with CEQA (public resource code, Sections 21084.1 and 15064.5), historical resources include:

- Any resource listed, or determined eligible for listing, in the California Register of Historical Resources (CRHR), Properties listed in or determined eligible to be listed in the National Register of Historic Places (NRHP),
- A resource included in the local register of historical resources, defined in in PRC 5020.1,
- Any site, building, area, structure, place, record, or manuscript the lead agency determines to be historically significant as define by section 15064.5 of CEQA guidelines.

Listing in the California Register is guided by pubic resources code 5024.1. These requirements are listed below:

1. The site is not associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States (Criterion 1).
2. The site is not associated with the lives of persons important to local, California or national history (Criterion 2).
3. The site does not embody the distinctive characteristics of a type, period, region or method of construction or represents the work of a master or possesses high artistic values (Criterion 3). The site is highly disturbed and no longer possesses integrity.
4. This site has not yielded, nor has the potential to yield, information important to the prehistory or history of the local area, California or the nation (Criterion 4). The standing structures have been demolished and the refuse of the site appears to be a secondary deposit and lacking integrity.

In September of 2014, the California Legislature passed Assembly Bill (AB) 52, which added provisions to the PRC regarding the evaluation of impacts on tribal cultural resources under CEQA, and consultation requirements with California Native American tribes. In particular, AB 52 now requires lead agencies to analyze project impacts on “tribal cultural resources” separately from archaeological resources (PRC Section 21074; 21083.09). The Bill defines “tribal cultural resources” in a new section of the PRC (Section 21074). AB 52 also requires lead agencies to engage in additional consultation procedures with respect to California Native American tribes (PRC Section 21080.3.1, 21080.3.2, 21082.3). Finally, AB 52 requires the Office of Planning and Research to update Appendix G of the CEQA Guidelines by July 1, 2016 to provide sample questions regarding impacts to tribal cultural resources (PRC Section 21083.09). The provisions only apply to projects that have a notice of preparation (NOP) filed on or after July 1, 2015.

## **2.2 Federal**

### **2.2.1 Section 106 – National Historic Preservation Act**

Section 106 of the National Historic Preservation Act of 1966 (16 U.S Code 470) requires Federal agencies to take into account effects of undertakings on historic properties and afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on such undertakings

prior to issuance or authorization of any permit under Section 404 of the Clean Water Act. A Historic property includes any prehistoric or historic districts, sites, buildings, structures, objects, sacred sites, and traditional cultural places that are included or eligible for the National Register of Historic Places. This term includes artifacts, records, and remains that are related to and located within such properties (36 C.F.R. §800.16 (I)(1)).

The guidelines for execution of Section 106, found at 36 CFR 800, detail the process of inventory, evaluation, and consultation requirements to satisfy the federal agency requirements. Determination of NRHP eligibility for cultural resource identified within the APE is guided by 36 CFR 60.4. These requirements are listed below:

- a) are associated with events that may have made a significant contribution to the broad patterns of our history; or
- b) are associated with the lives of significant persons from our past; or
- c) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- d) that have yielded, or may be likely to yield, information important in prehistory or history. (Sec. 60.4 Criteria for evaluation)

### **3 NATIVE AMERICAN CONSULTATION**

Native American outreach for this Project was conducted to elicit knowledge or concern of potential cultural resources that could be affected by the Project undertaking. A letter was sent to the NAHC Commission on February 5, 2020, requesting a sacred lands search and a contact list of Native American parties with interest or ties to the Project site. The sacred lands search identifies any sacred sites, or burials known within the Project site. The search returned no listed sites within the Project APE (see Appendix B).

The contact list identified several tribes with connections to the Project site. All parties were informed, by letter February 19, 2020, of the Project undertaking and location so that they may contribute any information regarding sites or areas of cultural significance within the APE and voice any concerns. The interested parties were asked to respond within 14 days of receiving the project notification. One response was received by letter from Matthew Hatcher, THPO for the Mooretown Rancheria. Mr. Hatcher stated the tribe has no concern about the project, though he did request notification should any cultural resources or human remains be uncovered during project related activity.

Follow up phone calls were made on March 16, 2020 to all parties who had not responded to the written notification letter (see Appendix B). One response was received via telephone by Darrel Cruz. He stated this was not Washoe Tribe Territory and to defer to the local tribe.



## 4 CULTURAL CONTEXT

### 4.1 Prehistory

Prehistoric occupation in the of the northern Sierra dates to the Paleo-Indian period (9000-6000 BC) and archaeology of prehistory in the vicinity of the Project can be dated as far back the as the Archaic period (6,000 BC – 500 AD). The following is summarized from Kowta (1988), Elsasser (1978), Compas et. al. (2001).

The Paleo-Indian Period (9000 BC – 6000 BC) is characterized by a reliance on big game hunting. The fluted point and Great Basin Stemmed points are characteristic of this period. Populations were highly mobile and organized into small groups.

The Archaic Period (6000 BC – 500 AD) is marked by a shift in subsistence from big game to a more general subsistence reliance. A shift in subsistence strategies is closely tied to the shift in climate in this period to a more arid climate. More emphasis is placed on the processing of plant resources evidenced by the appearance of ground stone and milling stations.

The Middle and Upper Archaic Periods are the first for which a substantial amount of archaeological evidence exists in the vicinity of the project. These periods are best characterized by two stylistically unique assemblages, the Martis (2500 BC – 500 AD) and Mesilla (1000 BC – 1 AD) assemblages. The Martis complex is characterized by wide stemmed points, scrapers, blades, milling stones, manos, and the introduction of mortar and pestle. The Mesilla Complex is similarly marked by the milling stone, pestle and mortar, and manos. Additionally the Mesilla complex is characterized by the introduction of the atlatl and dart and large, heavy stemmed and side notched points.

The Emergent Period (500 AD – Contact) is characterized by Gunther Stemmed, Cottonwood, Triangular, and Desert Side Notched points. It is hypothesized that the Gunther series marks the movement of the Maidu into the region.

### 4.2 Ethnography

The project site is located within Chester situated off Lake Almanor. Lake Almanor, originally known as Big Meadows, was home to the Northeastern Maidu, also known as Maidu. The Maidu are one of three Penutian speaking Maidu groups including the Northwestern Maidu, and the Southern Maidu.

The Northeastern Maidu inhabited mountain valleys including Mountain Meadows, Big Meadows, Butt, American, Indian, Genesee, and Clover Valleys. In valleys where weather permitted, settlements were yearlong. There was no private ownership of land but people generally lived within their own valleys. According to ethnographic data, Big Meadows was home to at least 10 villages (Dixon 1905; Kroeber 1976; Riddell 1974). The Northeastern Maidu were hunters and gatherers that lived in year round settlements in the Big Meadows (Riddell 1978; Kroeber 1925). Villages comprised of around 100 people

or less. Settlements comprised of several structures including earth covered, semi-subterranean dwellings, dance houses, and sweat houses (Riddell 1978).

Plant resources were often gathered and stored for winter months. Game animals were caught using nets, snares, or arrows while fishing was done through nets and traps. Subsistence included acorns, salmon, deer, rabbits, and several fowl. In winter months the Maidu would travel into the mountains for hunting and gathering.

### **4.3 Historic**

Plumas County was formed in 1854 from a portion of Butte County. The first known recorded historic use of the region by European-Americans occurred during the late 1820s and early 1830s when the trapping expeditions of Jedediah Strong Smith, Peter Skene Ogden, and the Hudson Bay Company entered the Sacramento Valley (Petersen 1965). In 1848 upon the discovery of gold in Coloma, and additionally by Reading (in Clear Creek), large populations traveled to northern California and the population in the region grew rapidly.

Mining required the support of various industries including the lumber industry which quickly grew in Plumas County. Lumber was required for a variety of activities related to mining including sluices, flumes, dams, ditches, and mills, in addition to support facilities and towns that grew up around the mining industry. While mining remained the main industry in northern California until the 1890s, as mining began to decline the lumber industry continued to grow and shift in focus to export rather than local purposes. In 1895 a branch of the Central Pacific Railroad, the Sierra Valley Railroad came into Plumas County aiding in the export of lumber from the region.

The lumber industry would become a major industry for Chester, where the project is located. Habitation in the area of Chester is recorded as early as 1855 with ranchers using the land of Big Meadows. A post office was established in Chester in 1894 (McKenzie 1973). The first stage of the dam for Lake Almanor was completed in 1914 and Big Meadows was flooded to the edge of the town. The Collins Pine mill was completed in 1941, producing lumber as early as 1943 (Masson 1988; Kyle 2002). The Collins Pine mill was in use until 2001 until it was replaced by a new sawmill.

## **5 METHODS**

### **5.1 Archival Research**

A record search at the Northeast Information Center (NEIC) at California State University, Chico, was performed on February 4, 2020. The search included all previously recorded cultural resources and reports within a ½ mile radius of the Project. The record search was conducted to determine if any portion of the Project has been previously surveyed and if any cultural resources have been previously

recorded within the Project. In addition to the record search and various historical maps, topographic quadrangles, land grants, and patents, Gallaway Enterprises reviewed the following resources:

- National Register of Historic Places (NRHP)
- California Register of Historic Resources (CRHR)
- General Land Office Plat maps and land patents
- Historic United States Geological Survey (USGS) topographic maps
- Historic Aerials

## 5.2 Field Methods

An intensive-level pedestrian survey was conducted on February 18, 2020, by Gallaway Enterprises archaeologist Catherine Davis, M.A., RPA. The field survey was conducted in compliance with the California Environmental Quality Act (CEQA; Pub. Res. Code §21000 et seq.), and the National Historic Preservation Act of 1966, Section 106 (16 U.S. Code 470). The entire Project was surveyed in 2-5 meter transects to identify presence or absence of historic resources and to evaluate the significance of any identified archaeological resources.

## 6 RESULTS

### 6.1 Archival Research Results

No resources were listed on the NRHP or the CRHR within the project APE. Historic aerial imagery dating to 1973 shows the project area as undeveloped mix of pine woodland and open grassland. Historic USGS topo maps indicate the area was undeveloped dating as far back as 1955 (USGS). Land adjacent to the project was developed as early as 1955 indicating the potential for historic assemblages within the project boundary. The recreation center that comprises a portion of the northern project boundary was developed after the formation of the Almanor Recreation and Park District (ARPD) was formed in 2000. In 1998 aerial imagery a structure is present in a now barren part of the project site. This structure was not present in prior aerial imagery and is no longer standing.

The record search at the NEIC resulted in a finding of seven cultural resources or inventory studies overlapping portions of the APE. Of the seven cultural resource reports overlapping the APE, three have cultural resource survey areas that overlap portion of the APE. Five cultural resources have been recorded within a half mile of the project; these include three historic resources and one diffuse lithic scatter. All cultural resources lie just within the half mile search radius; no cultural resources have been recorded in property close to, or adjacent, to the project APE.

### 6.2 Survey Results

On February 18, 2020 Catherine Davis, M.A., RPA conducted an intensive level pedestrian survey of the entire Project (see **Figure 3**). The pedestrian survey was designed to survey for and record any cultural resources present in the Project. The project is bounded by open grassland, pine, and a drainage to the



south, pine woodland to the west and a parking lot and baseball diamonds to the north. The weather sunny with no cloud coverage and surface soil was damp due to recent weather. Ground visibility ranged from fair to good. Due to the small size of the project the entire APE was surveyed in 2 to 5 meter transects (**Figure 3**).

Ground surface was manipulated throughout the project with access roads and local use of the site (**Figure 4**). In the center of the site a ramp has been built through the dirt access road. The northern portion of the site is currently built environment consisting of a parking lot and two building associated with the recreation center (**Figure 5**). Trash was present along the portion of the project that abuts the roadway but very little trash was noted within the project. Fragments of discarded building related material was also present in the project site. This is comprised of corrugated metal roofing and three pieces of plywood, no other cultural material was noted. Spoil piles were present along the southern boundary of the parking lot within the project site.

No historic or prehistoric sites were identified during the survey.





Figure 4. Project overview showing access road and ramp



Figure 5. Existing structure on site



## **7 CONCLUSIONS AND RECOMMENDATIONS**

### **7.1 Conclusions**

The pedestrian survey resulted in a finding of no cultural resource present within the Project. A record search at the NEIC resulted in no previously recorded cultural resources within the Project APE and Native American outreach failed to return any information of culturally sensitive resources.

In consideration of these findings, Gallaway Enterprises proposes the development Project would not impact any historic properties. Field work and the corresponding record search are not infallible and the previously described research and field methods are not designed to test the presence of subsurface remains. In the event of an inadvertent discovery of cultural resources or human remains during Project related activities, Gallaway Enterprises recommends the following actions.

### **7.2 Recommendations**

#### **7.2.1 Inadvertent Finds**

In accordance with CEQA Guideline §15064.5 (f), should any previously unknown historic or prehistoric resources, including but not limited to charcoal, obsidian or chert flakes, grinding bowls, shell fragments, bone, pockets of dark, friable soils, glass, metal, ceramics, wood, privies, trash deposits or similar debris, be discovered during ground disturbing activities, work within 25 feet of these materials should be stopped until a qualified professional archaeologist has an opportunity to evaluate the potential significance of the find and to consult with the lead agency about what appropriate mitigation would be appropriate to protect the resource.

#### **7.2.2 Human Remains**

In the event that human remains, or possible human remains, are encountered during Project-related ground disturbance, in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, that the remains are not subject to the provisions of §27492 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in §5097.98 of the Public Resources Code.

#### California Public Resource Code 5097

Public Resource Code 5097 outlines the protection of Native American cultural resources. Should Native American sites or burials be discovered during Project construction not on federal land, it is necessary to comply with State laws and fall within the jurisdiction of the Native American Heritage Commission (NAHC) (PRC 5097).

The County Coroner, upon recognizing the remains as being of Native American origin, is responsible to contact the NAHC within 24 hours. The Commission has various powers and duties, including the appointment of a Most Likely Descendant (MLD) to the Project. The MLD, or in lieu of the MLD, the NAHC, has the responsibility to provide guidance as to the ultimate disposition of any Native American remains.

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## 10 LIST OF PREPARERS and PROFESSIONAL QUALIFICATIONS

**Catherine Davis.** Cultural Resource Specialist. Master of Arts in Anthropology with a specialization in Archaeology, California State University, Chico. Ms. Davis is a Registered Professional Archaeologist (RPA) obtaining this certification in 2016. In addition she meets the requirements of *The Secretary of Interior's Standards and Guidelines* for Archaeology. Miss. Davis has over 5 years of experience surveying, recording, and excavating prehistoric and historic sites in North America and northern California. Ms. Davis performed the archival research, Native American outreach, field survey, and prepared this report.

# Appendix A

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Draft Delineation of Waters of the U.S.

# Draft Delineation of Waters of the U.S.

## Other Waters

Label	Cowardin	Description	Location (Lat/Long)		Width (ft)*	Length (ft)	Area (sq ft)	Acres
OW01	R4	RPW	40.308127	-121.23315	21.0	88.2	1852.5	0.043
Other Waters Totals =						88.2	1852.5	0.043

\*Widths are represented as averages

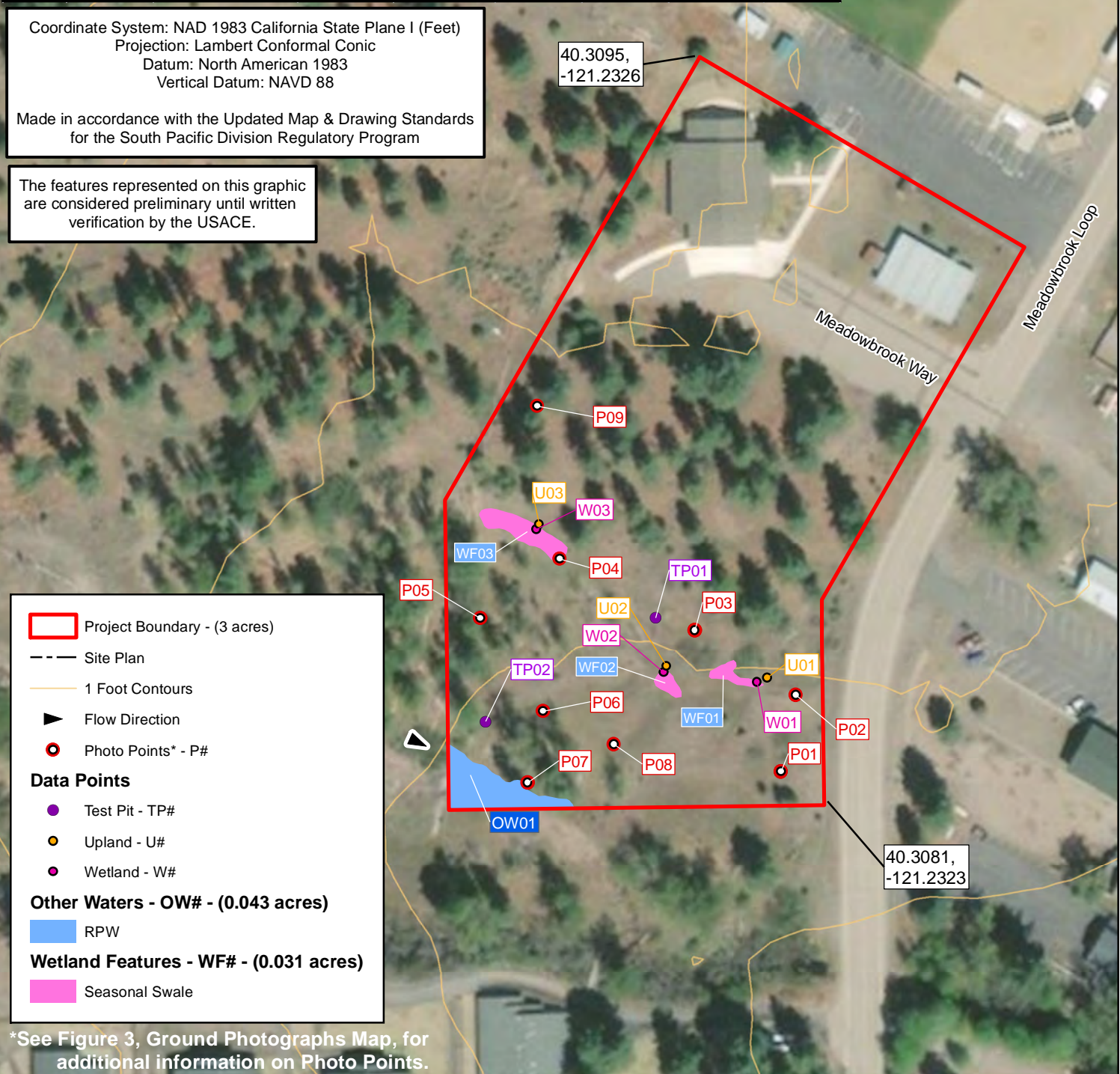
## Wetland Features

Label	Cowardin	Description	Location (Lat/Long)		Width (ft)*	Length (ft)	Area (sq ft)	Acres
WF01	PUB	Seasonal Swale	40.308313	-121.2325	NA	NA	279.4	0.006
WF02	PUB	Seasonal Swale	40.308299	-121.23266	NA	NA	219.5	0.005
WF03	PUB	Seasonal Swale	40.308591	-121.23302	NA	NA	852.8	0.020
Wetland Feature Totals =						NA	1351.7	0.031
Total Waters of the U.S. =						88.2	3204.2	0.074

Coordinate System: NAD 1983 California State Plane I (Feet)  
Projection: Lambert Conformal Conic  
Datum: North American 1983  
Vertical Datum: NAVD 88

Made in accordance with the Updated Map & Drawing Standards  
for the South Pacific Division Regulatory Program

The features represented on this graphic  
are considered preliminary until written  
verification by the USACE.



Project Boundary - (3 acres)

Site Plan

1 Foot Contours

Flow Direction

Photo Points\* - P#

### Data Points

Test Pit - TP#

Upland - U#

Wetland - W#

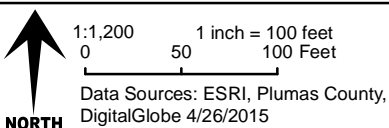
### Other Waters - OW# - (0.043 acres)

RPW

### Wetland Features - WF# - (0.031 acres)

Seasonal Swale

\*See Figure 3, Ground Photographs Map, for  
additional information on Photo Points.



Almanor Recreation Center  
Draft Delineation of Waters of the U.S.  
Figure 4

Delineation by: E. Gregg  
Map by: C. Davis

GE: #19-090 Map Date: 11/22/19

**gallaway**  
ENTERPRISES

# Appendix B

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Outreach

Native American Consultation Log						
Native American Party Consulted	Party Contacted	Type of Consultation	Date	Follow Up Consultation	Date	Response
Estom Yumeka Maidu Tribe of the Enterprise Rancheria	Glenda Nelson	Notification Letter	2/19/2020	Phone Call	3/16/2020	No Response
Greenville Rancher/a of Maidu Indians	Kyle Self	Notification Letter	2/19/2020	Phone Call	3/16/2020	Consultation Requested
Mooretown Rancheria of Maidu Indians	Benjamin Clark	Notification Letter	2/19/2020	NA	NA	No Known cultural Resources within APE
Mooretown Rancheria of Maidu Indians	Guy Taylor	Notification Letter	2/19/2020	NA	NA	No Known cultural Resources within APE
Susanville Indian Rancheria	Deana Bovee	Notification Letter	2/19/2020	Phone Call	3/16/2020	No Response
Tsi Akim Maidu	Grayson Coney	Notification Letter	2/19/2020	Phone Call	3/16/2020	No Response
United Auburn Indian Community of the Auburn Rancheria	Gene Whitehouse	Notification Letter	2/19/2020	Phone Call	3/16/2020	No Response
Washoe Tribe of Nevada and California	Darrel Cruz	Notification Letter	2/19/2020	Phone Call	3/16/2020	Deferred to local tribe

Mooretown Rancheria of Maidu Indians		
Matthew Hatcher	530.533.3625	<a href="mailto:matthew.hatcher@mooretown.org">matthew.hatcher@mooretown.org</a>

## Sacred Lands File & Native American Contacts List Request

### NATIVE AMERICAN HERITAGE COMMISSION

1550 Harbor Blvd, Suite 100  
West Sacramento, CA 95501  
(916) 373-3710  
(916) 373-5471 – Fax  
[nahc@nahc.ca.gov](mailto:nahc@nahc.ca.gov)

*Information Below is Required for a Sacred Lands File Search*

Project: \_\_\_\_\_

County: \_\_\_\_\_

USGS Quadrangle

Name: \_\_\_\_\_

Township: \_\_\_\_\_ Range: \_\_\_\_\_ Section(s): \_\_\_\_\_

Company/Firm/Agency:

\_\_\_\_\_  
Contact Person: \_\_\_\_\_

Street Address: \_\_\_\_\_

City: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: \_\_\_\_\_ Extension: \_\_\_\_\_

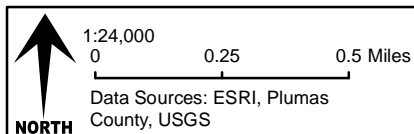
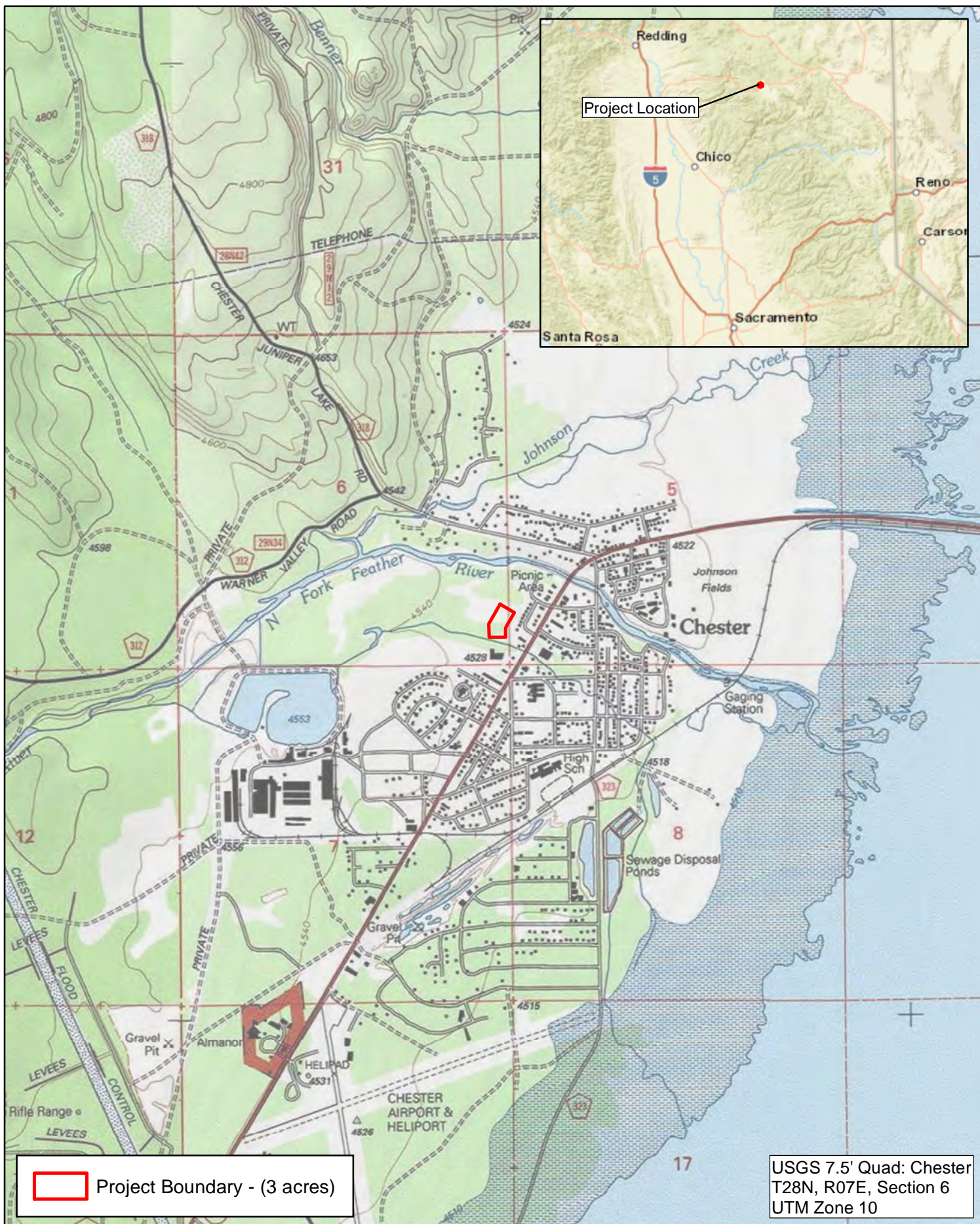
Fax: \_\_\_\_\_

Email: \_\_\_\_\_

Project Description:

\_\_\_\_ Project Location Map is attached





**Almanor Recreation Center  
Regional Location  
Figure 1**



**NATIVE AMERICAN HERITAGE COMMISSION**

February 12, 2020

Catherine Davis

Gallaway Enterprises

Via Email to: cate@gallawayenterprises.com

CHAIRPERSON  
**Laura Miranda**  
Luiseño

VICE CHAIRPERSON  
**Reginald Pagaling**  
Chumash

SECRETARY  
**Merri Lopez-Keifer**  
Luiseño

PARLIAMENTARIAN  
**Russell Attebery**  
Karuk

COMMISSIONER  
**Marshall McKay**  
Wintun

COMMISSIONER  
**William Mungary**  
Paiute/White Mountain  
Apache

COMMISSIONER  
**Joseph Myers**  
Pomo

COMMISSIONER  
**Julie Tumamait-  
Stenslie**  
Chumash

COMMISSIONER  
**[Vacant]**

EXECUTIVE SECRETARY  
**Christina Snider**  
Pomo

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[nahc@nahc.ca.gov](mailto:nahc@nahc.ca.gov)  
[NAHC.ca.gov](http://NAHC.ca.gov)

**Re: Almanor Recreation Center, Plumas County**

Dear Ms. Davis:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: [Nancy.Gonzalez-Lopez@nahc.ca.gov](mailto:Nancy.Gonzalez-Lopez@nahc.ca.gov).

Sincerely,

Nancy Gonzalez-Lopez  
Cultural Resources Analyst

Attachment

Native American Heritage Commission  
Native American Contact List  
Plumas County  
2/12/2020

**Estom Yumeka Maidu Tribe of  
the Enterprise Rancheria**

Glenda Nelson, Chairperson  
2133 Monte Vista Avenue                      Maidu  
Oroville, CA, 95966  
Phone: (530) 532 - 9214  
Fax: (530) 532-1768  
info@enterpriserancheria.org

**Greenville Rancheria of Maidu  
Indians**

Kyle Self, Chairperson  
P.O. Box 279                                      Maidu  
Greenville, CA, 95947  
Phone: (530) 284 - 7990  
Fax: (530) 284-6612  
kself@greenvillerancheria.com

**Mooretown Rancheria of Maidu  
Indians**

Guy Taylor,  
#1 Alverda Drive                              KonKow  
Oroville, CA, 95966                      Maidu  
Phone: (530) 533 - 3625

**Mooretown Rancheria of Maidu  
Indians**

Benjamin Clark, Chairperson  
#1 Alverda Drive                              KonKow  
Oroville, CA, 95966                      Maidu  
Phone: (530) 533 - 3625  
Fax: (530) 533-3680  
frontdesk@mooretown.org

**Susanville Indian Rancheria**

Deana Bovee, Chairperson  
745 Joaquin Street                              Maidu  
Susanville, CA, 96130                      Paiute  
Phone: (530) 257 - 6264                      Pit River  
Fax: (530) 257-7986                      Washoe  
dovee@sir-nsn.gov

**Tsi Akim Maidu**

Grayson Coney, Cultural Director  
P.O. Box 510                                      Maidu  
Browns Valley, CA, 95918  
Phone: (530) 383 - 7234  
tsi-akim-maidu@att.net

**United Auburn Indian  
Community of the Auburn  
Rancheria**

Gene Whitehouse, Chairperson  
10720 Indian Hill Road                      Maidu  
Auburn, CA, 95603                      Miwok  
Phone: (530) 883 - 2390  
Fax: (530) 883-2380  
bguth@auburnrancheria.com

**Washoe Tribe of Nevada and  
California**

Darrel Cruz, Cultural Resources  
Department  
919 Highway 395 North                      Washoe  
Gardnerville, NV, 89410.  
Phone: (775) 265 - 8600  
darrel.cruz@washoetribe.us

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Almanor Recreation Center, Plumas County.

# **gallaway** **ENTERPRISES**

117 Meyers Street • Suite 120 • Chico CA 95928 • 530-332-9909

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February 19, 2020

Deana Bovee, Chairperson  
Susanville Indian Rancheria  
745 Joaquin Street  
Susanville, CA, 96130

**RE: Almanor Recreation Center, Chester, California**

Dear Ms. Bovee,

Gallaway Enterprises has been requested to conduct an archaeological survey of the Almanor Recreation Center Project (Project) consisting of approximately 3 acres. The Project is located in Chester, Plumas County, California, Latitude 40°18'30.50"N, Longitude 121°13'59.23"W, within the United States Geological Survey (USGS) 7.5' "Chester, CA" quadrangle, Township 28N, Range 07E, Section 6. The proposed project involves the expansion of the Almanor Recreation Center's facilities to include pickle ball courts, a skate park, restrooms, food concession and approximately 75 parking spaces.

Gallaway Enterprises is contacting the Susanville Indian Rancheria to aid in the identification of any cultural resources within the project boundary or any initial concerns with the proposed project. Please notify us within 14 days with any pertinent information you may have regarding the project location. We value your assistance and look forward to your response. Please contact Catherine Davis at Gallaway Enterprises with any questions or concerns you may have. Thank you for your attention to this matter.

Sincerely,

Catherine Davis, M. A., RPA  
Gallaway Enterprises, Inc.  
530.332.9909 ext. 206  
Cate@gallawayenterprises.com  
117 Meyers St. Suite 120  
Chico, Ca. 95928

Encl. *Almanor Recreation Center Project Location Map.*



## *Mooretown Rancheria*

*#1 Alverda Drive*

*Oroville, CA 95966*

*(530) 533-3625 Office*

*(530) 533-3680 Fax*

February 25, 2020

Ms. Catherine Davis, M.A., RPA  
Gallaway Enterprises  
117 Myers St. Suite 120  
Chico, CA 95928

Re: Almanor Recreation Center Project - Chester, Plumas Co, CA

Dear Ms. Davis:

Thank you for your letter dated, February 19, 2020 seeking information regarding the Almanor Recreation Center Project in Plumas County, California. Based on the information provided, the Mooretown Rancheria is not aware of any known cultural resources on this site. However, as the project progresses, if any new information or human remains are found, we do have a process to protect such important and sacred artifacts (especially near rivers or streams).

Please contact the following individuals if tribal cultural items or Native American human remains are found:

THPO  
Mooretown Rancheria  
#1 Alverda Drive  
Oroville, CA 95966  
(530) 533-3625 Office  
(530) 533-3680 Fax  
E-mail: [matthew.hatcher@mooretown.org](mailto:matthew.hatcher@mooretown.org)

Thank you for providing us with this notice and opportunity to comment.

Sincerely,

Matthew Hatcher  
Tribal Historic Preservation Officer

*"Concow - Maidu"*

# Appendix C

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Northeast Information Center Record Search Forms



Northeast Center of the  
California Historical Resources  
Information System

BUTTE  
GLENN  
LASSEN  
MODOC  
PLUMAS  
SHASTA

SIERRA  
SISKIYOU  
SUTTER  
TEHAMA  
TRINITY

123 West 6th Street, Suite 100  
Chico CA 95928  
Phone (530) 898-6256  
neinfocntr@csuchico.edu

ACCESS AGREEMENT

I.C. File #: W20-17

I, the undersigned, have been granted access to historical resources information on file at the Northeast Information Center of the California Historical Resources Information System.

☒ I understand that any CHRIS Confidential Information I receive shall not be disclosed to individuals who do not qualify for access to such information, as specified in Section III (A-E) of the CHRIS Information Center Rules of Operation Manual, or in publicly distributed documents without written consent of the Information Center Coordinator.

☒ I agree to submit historical Resource Records and Reports based in part on the CHRIS information released under this Access Agreement to the Information Center within sixty (60) calendar days of completion.

☒ I agree to pay for CHRIS services provided under this Access Agreement within sixty (60) calendar days of receipt of billing.

☒ I understand that failure to comply with this Access Agreement shall be grounds for denial of access to CHRIS Information.

Print Name: Cate Davis Date: 2/4/20 Signature: [Signature]

Affiliation: Galloway Enterprises

Address: 117 Meyers St Suite 120 City/State/Zip: Chico, Ca.

Billing Address (if different): \_\_\_\_\_

Office#: (530) 332-9909 Cell#: \_\_\_\_\_ Email: cate@gallowayenterprises.com

Project Name: Almanor Recreation Center

Purpose of Access: Record Search

County: Plumas Township/Range/Section: T28N; R07E, Sec 6

USGS 7.5' Quad: Chester

**STAFF USE ONLY**

Time: 1/2 hr. break In-House Fees: 1 hours @ \$100.00/hour \$100.00

IN: 9:52 Staff Charges: \_\_\_\_\_ hours @ \$40.00/hour \$\_\_\_\_\_

OUT: 11:19 Photocopy Charges: 202 copies @ \$0.15/page \$30.30

Kyle Piorey Other: \_\_\_\_\_ \$\_\_\_\_\_  
Information Center Staff

Backlog ( ) \_\_\_\_\_ TOTAL: \$130.30

\*\*\* THIS IS NOT AN INVOICE \*\*\*

**Appendix E** – Tribal Consultation Letters





# Mooretown Rancheria

#1 Alverda Drive

Oroville, CA 95966

(530) 533-3625 Office

(530) 533-3680 Fax

May 21, 2020

Mr. Carlos España

Coordinator

Almanor Recreation and Park District

101 Meadowbrook Loop

P.O. Box 325

Chester, CA 96020

Re: Proposed (SB 18/ AB 52 Expansion) Project - LOCATION, COUNTY, CA

Dear Mr. NAME:

Thank you for your letter dated, May 14, 2020, seeking information regarding the proposed Almanor Recreation Facilities Expansion project in Plumas County, California. Based on the information provided, the Mooretown Rancheria is not aware of any known cultural resources on this site. However, as the project progresses, if any new information or human remains are found, we do have a process to protect such important and sacred artifacts (especially near rivers or streams).

Please contact the following individuals if tribal cultural items or Native American human remains are found:

THPO

Mooretown Rancheria

#1 Alverda Drive

Oroville, CA 95966

(530)533-3625 Office

(530)533-3680 Fax

E-mail; [matthew.hatcher@mooretown.org](mailto:matthew.hatcher@mooretown.org)

Thank you for providing us with this notice and opportunity to comment.

Sincerely,

Matthew Hatcher

Tribal Historic Preservation Officer

Mooretown Rancheria

Matthew Hatcher

Tribal Historic  
Preservation Officer

(530) 533-3625 Office

(530) 693-7720 Cell

[matthew.hatcher@mooretown.org](mailto:matthew.hatcher@mooretown.org)



#1 Alverda Drive  
Oroville, CA 95966

'oncow - 'Maidu"

Received 6/2/20