

**APPENDIX A**  
**GEOTECHNICAL REPORT**

# GEOTECHNICAL INVESTIGATION

## Markleeville Pump Station and Pipeline Alpine County, California

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**GEOCON PROJECT NO. S1965-05-01**

**JANUARY 2021**

# GEOCON

CONSULTANTS, INC.

G E O T E C H N I C A L ■ E N V I R O N M E N T A L ■ M A T E R I A L S



Project No. S1965-05-01  
January 12, 2021

VIA ELECTRONIC EMAIL

Gabriel Rodell, PE  
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Subject: GEOTECHNICAL INVESTIGATION  
MARKLEEVILLE SEWER PUMP STATION AND PIPELINE  
MARKLEEVILLE, ALPINE COUNTY, CALIFORNIA

Mr. Rodell:

In accordance with your authorization of our proposal (Geocon Proposal No. LS-20-93, dated April 7, 2020), we have prepared this geotechnical investigation report for Markleeville Sewer Pump Station and Pipeline project located in Alpine County, California. The project consists of constructing a new pump station and installing a new pipeline in the Town of Markleeville.

The accompanying report presents our findings, conclusions, and recommendations regarding the geotechnical aspects of designing and constructing the project as presently proposed. In our opinion, the project is feasible from a geotechnical viewpoint provided our recommendations are incorporated into the design and construction of the project.

Please contact us if you have any questions concerning the contents of this report or if we may be of further service.

Respectfully Submitted,

**GEOCON CONSULTANTS, INC.**

Victor M Guardado, EIT  
Senior Staff Engineer

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## GEOTECHNICAL INVESTIGATION

### 1.0 PURPOSE AND SCOPE

This report presents the results of our geotechnical investigation for the proposed sewer pump station and pipeline installation for the Town of Markleeville in Alpine County, California. The exact location of the pump station has not been determined but will likely be located on the north/east side of State Route 89 (SR-89) and north/west of the Markleeville Creek. The approximate location of the project is depicted on the Vicinity Map, Figure 1.

The purpose of our geotechnical investigation was to evaluate subsurface soil and geologic conditions encountered at the project site and provide conclusions and recommendations relative to the geotechnical aspects of designing and constructing the project as presently proposed.

To aid in preparing this report, we reviewed the following foundation report previously prepared by the State of California – Department of Transportation (Caltrans): *Foundation Report for Markleeville Creek Bridge (Replace)*, prepared by Caltrans, Office of Geotechnical Design-North, Geotechnical Services-MS5, Division of Engineering Services (File No. 10-Alp-89-PM 14.69), dated March 4, 2020. We have referenced selected subsurface information from this study in preparing this report.

We performed the following scope of services:

- Performed a limited geologic and geotechnical literature review to aid in determining the geologic and geotechnical conditions present at the site. A list of referenced material is included in Section 9.0 of this report.
- Discussed the preliminary project design and details with the Client (Bennett Engineering) to evaluate exploration locations.
- Reviewed the referenced foundation report prepared by Caltrans.
- Notified subscribing utility companies via Underground Service Alert at least two working days (as required by law) prior to performing exploratory borings at the site.
- Prepared an application and obtained an encroachment permit from Alpine County.
- Provided traffic control measures for our borings within the County right-of-way in accordance with the Alpine County encroachment permit.
- Advanced 3 exploratory borings (B1 through B3) with a truck-mounted drill rig equipped with hollow-stem augers. Borings were advanced to refusal depths ranging from approximately 7 feet on the south end of the project to 14 feet on the northern portion of the project.
- Upon completion, the exploratory borings were backfilled with the soil cuttings.
- Logged the exploratory borings in accordance with the Unified Soil Classification System (USCS).
- Obtained relatively undisturbed and disturbed soil samples from the exploratory borings.
- Performed laboratory tests to evaluate pertinent geotechnical parameters.
- Prepared this report summarizing our findings, conclusions, and recommendations regarding the geotechnical aspects of designing and constructing improvements as presently proposed.

Approximate locations of our exploratory borings are shown on the Site Plan, Figure 2. Details of our field exploration program including exploratory boring logs are presented in Appendix A. Details of our laboratory testing program and test results are summarized in Appendix B. Appendix C presents the *Tunnelman's Ground Classification of Soils* chart.

## **2.0 SITE AND PROJECT DESCRIPTION**

The project consists of constructing a new sewer pump station and installing a new pipeline in the Town on Markleeville. The new pump station will likely be located on the north side of SR-89 west of Markleeville Creek and south of Millberry Creek – the exact location has yet to be determined. In addition, a new pipeline will be installed beginning from the pump station and extend southwest, cross under SR-89 and Markleeville Creek, and terminate near Laramie Street on the southern portion of the project. The pipeline will likely be installed using conventional cut-and-cover construction techniques; however, some locations may require trenchless installation methods (such as horizontal directional drilling), particularly at the creek and SR-89 crossings. Planned excavation depths for the pipeline were not available for our review as of the date of this report. The current site configuration and approximate locations and alignment of the proposed improvements is shown on the Site Plan, Figure 2.

## **3.0 SOIL AND GEOLOGIC CONDITIONS**

We identified soil conditions by observing and sampling exploratory borings, performing geologic reconnaissance, and reviewing the referenced geologic literature (Section 9.0). Soil conditions at the site generally consist of undocumented fill and/or alluvial soil overlying volcanic bedrock. Soil descriptions provided below include the USCS symbol where applicable.

### **3.1 Regional and Local Geology**

The site is located near the eastern boundary of the Sierra Nevada Geomorphic Province with the Basin and Range Geomorphic Province to the east. The Sierra Nevada Province is a northwest trending mountain range over 400 miles long, ranging from 40 to 100 miles wide. Elevations in the province range from a low of approximately 400 feet to 14,496 feet above mean sea level (MSL) at Mt. Whitney, the highest point in the conterminous United States.

Rocks encountered in the Sierra Nevada are generally divided into two broad groupings: the older Subjacent Series (400 million to 150 million years), consisting of ocean-derived metasedimentary and metavolcanic bedrock and granitic plutonic bedrock, and the younger Superjacent Series (55 million years to present), which consists of sedimentary and volcanic materials that have been deposited on the older bedrock. Uplift along normal faults of the Sierra Nevada frontal fault zone on the eastern side of the range began in mid-Miocene and has resulted in a steep rugged face. Lake Tahoe, to the north of the project site, is within a down faulted block. The closest granitic rocks are mapped approximately 2½ miles west of the project site (United States Geological Survey [USGS], 1984).

Based on the *Geologic Map of the Markleeville 15-minute Quadrangle, Alpine County, California* (USGS, 1984), the project site is underlain by Holocene flood plain alluvium (map symbol, Qfp) and Pleistocene-age glacial outwash gravel deposits (map symbol, Qog). The project site is also in the vicinity of Auto-brecciated andesite flows of Markleeville (map symbol, Taa) and Relief Peak Formation (map symbol, Trp). Figure 3 is a portion of the geologic map that includes the project site. Figure 4 is a geologic cross-section along the project alignment.

### **3.2 Fill**

We encountered approximately 9 feet of undocumented fill in Boring B2. The fill generally consists of medium dense silty sand with gravel (SM) and silty gravel with sand (GM).

### **3.3 Alluvium (Qfp)**

We encountered alluvium in Borings B1 and B3 starting from the ground surface to depths ranging from approximately 7 to 9 feet, respectively. The alluvial soils generally consist of loose to medium dense poorly graded sand with gravel (SP), poorly graded sand with silt and gravel (SP-SM), silty sand (SM), and silty sand with gravel (SM). In general, the alluvial soils are predominantly granular (sands and gravels) interbedded in a silty matrix.

### **3.4 Miocene Relief Peak Formation (Trp)**

The Miocene Relief Peak Formation consists of varied andesitic and basaltic volcanic deposits including volcanic breccia, lava flows, breccias, and lahars (volcanic mud flows). Below the fill in Boring B2, we encountered completely weathered volcanic breccia, which generally excavates as medium dense silty gravel (GM) with fine to coarse angular gravel with cobbles.

Below the alluvium in Boring B1 and B3 and below the weathered volcanic breccia in Boring B2, we encountered refusal in completely to moderately weathered andesite at depths ranging from approximately 7 to 14 feet. This volcanic formation consists of hard, intensely to moderately fractured, fine-grained crystalline rock. Weathering generally decreases with depth and we anticipate difficult excavation conditions in this volcanic formation.

Soil and rock conditions described in the previous paragraphs are generalized. The exploratory boring logs included in Appendix A detail soil type, color, moisture, consistency, and USCS classification of the soils encountered at specific locations and elevations. A generalized geologic cross-section of the project site and alignment is presented as Figure 4.



## 4.0 GROUNDWATER

We encountered groundwater in our borings (B1 through B3) at depths ranging from approximately 5½ to 9 feet during our investigation performed on July 9, 2020.

Review of Caltrans' Log of Test Borings (LOTBs) for previously performed borings in May 2018 and August 2019, indicates groundwater was encountered at depths ranging from approximately 6 to 14½ feet near the east and west abutments of the Markleeville Creek Bridge.

We expect groundwater/seepage is strongly influenced by the nearby creeks (Markleeville Creek and Millberry Creek) and may develop at variable depths generally at the contacts between surficial soils (alluvium and fill, where present) and formational materials (bedrock), especially during winter and spring. Seepage can also occur within formational material based on the degree of weathering, fracturing, jointing, and bedding. It should be noted that fluctuations in the level of groundwater may occur due to variations in precipitation, temperature, and other factors. Depth to groundwater can also vary significantly due to localized pumping, irrigation practices, and seasonal fluctuations. Therefore, it is possible that groundwater may be higher or lower than the levels observed during this investigation.

## 5.0 SEISMICITY AND GEOLOGIC HAZARDS

### 5.1 Regional Active Faults

Based on our research, analyses, and observations, the site is not located on any known "active" earthquake fault trace. In addition, the site is not contained within an Alquist-Priolo Earthquake Fault Zone. Therefore, we consider the potential for ground rupture due to onsite active faulting to be low. In order to determine the distance of known active faults within 30 miles of the site, we used the 2013 Caltrans Fault Database KML overlay file for Google Earth. Principal references used within the 2013 Caltrans Fault Database are the Jennings and Bryant Fault Activity Map of California (2010) and The Working Group on California Earthquake Predictions (WGCEP), Uniform California Earthquake Rupture Forecast Version 3. Results are summarized in Table 5.1.

**TABLE 5.1  
REGIONAL ACTIVE FAULTS**

<b>Fault Name</b>	<b>Approximate Distance from Site (miles)</b>	<b>Maximum Moment Magnitude, <math>M_w</math></b>
Carson Range (Genoa)	1.8	7.2
Slinkard Valley	10.7	6.8
East Carson Valley Fault Zone	10.8	6.6
Antelope Valley	11.6	7.0
West Tahoe	20.2	7.0
Smith Valley Fault System (Central)	21.1	7.4
West Walker River Fault Zone	25.2	6.4
Carson City	25.9	6.5
Smith Valley Fault System (South)	26.4	7.4

## **5.2 Ground Shaking**

We used the United States Geological Survey (USGS) *Unified Hazard Tool* (<https://earthquake.usgs.gov/hazards/interactive/>) to determine the deaggregated seismic source parameters including controlling magnitude and fault distance. The USGS estimated modal magnitude is 7.1 and the estimated Peak Ground Acceleration (PGA) for the Maximum Considered Earthquake (MCE) with a 2,475-year return period is 0.85g.

While listing PGA is useful for comparison of potential effects of fault activity in a region, other considerations are important in seismic design, including frequency and duration of motion and soil conditions underlying the site. The site could be subjected to ground shaking in the event of an earthquake along the faults mentioned above or other area faults.

## **5.3 Liquefaction**

Liquefaction is a phenomenon in which saturated cohesionless soils are subject to a temporary loss of shear strength due to pore pressure buildup under the cyclic shear stresses associated with intense earthquakes. Primary factors that trigger liquefaction are: moderate to strong ground shaking (seismic source), relatively clean, loose granular soils (primarily poorly graded sands and silty sands), and saturated soil conditions (shallow groundwater). Due to the increasing overburden pressure with depth, liquefaction of granular soils is generally limited to the upper 50 feet of a soil profile.

Site soils are predominately medium dense silty sands and stiff silt overlying shallow volcanic bedrock. Based on subsurface conditions encountered in our borings, we expect the potential for liquefaction to be low. However, should liquefaction occur locally within the shallow alluvium, we expect any liquefaction-induced settlement would not adversely impact the proposed pump station and pipeline and we do not recommend any special design measures or mitigation with respect to liquefaction.

## **5.4 Expansive Soil**

Based on conditions observed in our borings and given the predominately granular nature of the alluvium, soil likely possesses low plasticity and corresponding low expansion potential when subjected to moisture variations. Mitigation and special design measures are not necessary for this project.

## **5.5 Soil Corrosion Potential**

Selected soil bulk samples were analyzed for soil corrosion parameters (minimum resistivity, pH, chloride, and sulfate content). Results are presented in Appendix B.

## 6.0 CONCLUSIONS AND RECOMMENDATIONS

### 6.1 General

- 6.1.1 No soil or geologic conditions were encountered during our investigation that would preclude construction of the proposed project as planned, provided the recommendations contained in this report are incorporated into the design and construction of the project.
- 6.1.2 The primary geotechnical constraints identified in our investigation are (1) the presence of undocumented fill on the order of 9 feet thick in Boring B2, which is a potential location for the proposed sewer pump station and (2) the presence of relatively shallow volcanic bedrock at depths as shallow as approximately 7 feet. Since we do not know the placement and compaction history of the fill, remedial grading in form of removal and replacement as engineered fill may be required, depending on the depth of the pump station wet well. Specific recommendations are provided in this report. Additionally, the presence of shallow bedrock may impact project excavations and trenchless construction.
- 6.1.3 Conclusions and recommendations presented herein are based on our review of the referenced literature, analysis of data obtained from our field exploration program, laboratory testing program, and our understanding of proposed improvements at this time.
- 6.1.4 We should review the project plans as they develop further, provide engineering consultation as needed during final design, and perform geotechnical observation and testing services during construction.

### 6.2 Code-Based Seismic Design Parameters (2019 CBC)

- 6.2.1 We understand that seismic design of the pump station will be performed in accordance with the provisions of the 2019 *California Building Code* (2019 CBC), the seismic provisions of which are based on the American Society of Civil Engineers (ASCE)/Structural Engineering Institute (SEI) publication: *ASCE/SEI 7-16, Minimum Design Loads and Associated Criteria for Buildings and Other Structures* (ASCE/SEI, 2017). We used the *Structural Engineers Association of California* (SEAOC) and *Office of Statewide Health Planning and Development* (OSHPD) web application *Seismic Design Maps* (<https://seismicmaps.org/>) to evaluate site-specific seismic design parameters in accordance with ASCE 7-16. For seismic design purposes, sites are classified as Site Class “A” through “F” as follows:

- Site Class A – Hard Rock;
- Site Class B – Rock;
- Site Class C – Very Dense Soil and Soft Rock;
- Site Class D – Stiff Soil;

- Site Class E – Soft Clay Soil; and
- Site Class F – Soils Requiring Site Response Analysis.

Based on the subsurface conditions at the site, the site may be classified as Site Class “C” per Table 20.3-1 of ASCE/SEI 7-16. For the purposes of evaluating code-based seismic parameters for design, we assumed a seismic Risk Category III (per the CBC) for the project. Results are summarized in Table 6.2.1.

**TABLE 6.2.1  
ASCE 7-16 SEISMIC DESIGN PARAMETERS  
SITE CLASS “C” – VERY DENSE SOIL AND SOFT ROCK**

Parameter	Value	ASCE 7-16 Reference
MCE <sub>R</sub> Ground Motion Spectral Response Acceleration – Class B (short), S <sub>S</sub>	1.826g	Figure 22-1
MCE <sub>R</sub> Ground Motion Spectral Response Acceleration – Class B (1 sec), S <sub>1</sub>	0.623g	Figure 22-2
Site Coefficient, F <sub>A</sub>	1.2	Table 11.4-1
Site Coefficient, F <sub>V</sub>	1.4	Table 11.4-2
Site Class Modified MCE <sub>R</sub> Spectral Response Acceleration (short), S <sub>MS</sub>	2.191g	Eq. 11.4-1
Site Class Modified MCE <sub>R</sub> Spectral Response Acceleration (1 sec), S <sub>M1</sub>	0.872g	Eq. 11.4-2
5% Damped Design Spectral Response Acceleration (short), S <sub>DS</sub>	1.461g	Eq. 11.4-3
5% Damped Design Spectral Response Acceleration (1 sec), S <sub>D1</sub>	0.581	Eq. 11.4-4

6.2.2 Table 6.2.2 presents additional seismic design parameters for projects with Seismic Design Categories of D through F in accordance with ASCE 7-16 for the mapped maximum considered geometric mean (MCE<sub>G</sub>).

**TABLE 6.2.2  
ASCE 7-16 SITE ACCELERATION DESIGN PARAMETERS**

Parameter	Value	ASCE 7-16 Reference
Mapped MCE <sub>G</sub> Peak Ground Acceleration, PGA	0.797g	Figure 22-7
Site Coefficient, F <sub>PGA</sub>	1.2	Table 11.8-1
Site Class Modified MCE <sub>G</sub> Peak Ground Acceleration, PGAM	0.956g	Section 11.8.3 (Eq. 11.8-1)



6.2.3 Conformance to the criteria presented in Tables 6.2.1 and 6.2.2 for seismic design does not constitute any kind of guarantee or assurance that significant structural damage or ground failure will not occur if a maximum level earthquake occurs. The primary goal of seismic design is to protect life and not to avoid structural damage, as such design may be economically prohibitive.

**6.3 Excavation Characteristics / Rippability**

6.3.1 Excavation characteristics will vary at the site depending on location and excavation depths. Table 6.3.1 summarizes anticipated excavation characteristics in each geologic material identified at the site.

**TABLE 6.3.1  
ANTICIPATED EXCAVATION CHARACTERISTICS**

<b>Geologic Unit<sup>1</sup></b>	<b>Excavation Characteristics</b>
Fill / Alluvium (Qf / Qfp)	Existing fill and alluvium generally consists of a mixture of silt, sand, gravel, and cobbles. We anticipate standard to moderate excavation effort with conventional, heavy-duty grading equipment. The presence of oversize rock (greater than 6 inches in maximum dimension) will increase excavation difficulty. Significant sloughing and caving during excavation should be expected.
Miocene Relief Peak Formation (Trp)	Underlying the fill and alluvium, we encountered drilling refusal in Miocene-age volcanic bedrock. Degree of weathering ranges from completely to moderately weathered and generally decreases with depth. Moderate to heavy ripping will likely be required in this formation. In our investigation, bedrock was as shallow as 7 feet below the ground surface in Boring B1 but could be shallower at different locations. Use of a dozer-mounted impact ripper may be required for deeper excavations. We expect this formation to break down to cobble- and small boulder-sized fragments (12 to 24 inches) when excavated; however, zones of less weathered rock are likely common and are more resistant to breaking down. Therefore, it is possible that large boulder-sized fragments (24 inches and larger) may be generated.

6.3.2 Because of predominant granular nature of the fill and alluvial soils at the project site, sidewall caving and sloughing is likely during excavations. These conditions may require flattening/sloping back trench sidewalls, or enhanced shoring to maintain a stable trench. General temporary excavation sloping and shoring recommendations are provided herein.

6.3.3 Shallow groundwater/seepage is likely within the fill and alluvium, especially in close proximity to the creeks. Groundwater control/dewatering will likely be required for portions of the project. If grading and earthwork occurs during or after the wet season (typically winter and spring), during snowmelt periods, or in periods of precipitation, in-place and excavated soil will likely be wet. Earthwork operations in these conditions will likely be

difficult with low productivity. Often, a period of at least one month of warm and dry weather is necessary to allow the site to dry sufficiently so that heavy grading equipment can operate effectively. Conversely, during dry summer and fall months, dry soils may require additional grading effort (discing, mixing, or other means) to attain proper moisture conditioning.

#### **6.4 Materials for Fill**

- 6.4.1 Excavated soils generated from cut operations at the site are suitable for use as fill in structural areas (pump station building pad), provided they do not contain deleterious matter, organic material, or rock/cementations larger than 6 inches in maximum dimension. Excavated soil may require screening to remove rock larger than 6 inches.
- 6.4.2 Import material for use as fill should be primarily granular (similar to site soils) with an Expansion Index less than 20, a Plasticity Index less than 15, and be free of organic material, construction debris, and not contain rock or cementations larger than 6 inches in greatest dimension. Import soil should contain a sufficient amount of fines (generally 15% or more) to reduce caving potential when excavated.
- 6.4.3 Environmental characteristics and corrosion potential of import soil materials should also be considered. Proposed import materials should be sampled, tested, and approved by Geocon prior to its transportation to the site.

#### **6.5 Building Pad Grading**

- 6.5.1 All earthwork operations should be observed, and all fills tested for recommended compaction and moisture content by a representative of Geocon.
- 6.5.2 References to relative compaction and optimum moisture content in this report are based on the latest American Society for Testing and Materials (ASTM) D1557 Test Procedure. Structural building pad areas should be considered as areas extending a minimum of 5 feet horizontally beyond the outside dimensions of buildings, including footings and overhangs carrying structural loads.
- 6.5.3 Prior to commencing grading, a pre-construction conference with representatives of the client, grading contractor, and Geocon should be held at the site. Site preparation, soil handling, and/or the grading plans should be discussed at the pre-construction conference.
- 6.5.4 Site preparation should begin with removal of existing vegetation, underground utilities/structures in conflict with the proposed improvements, and debris. Existing underground utilities and overlying trench backfill, if encountered, should be completely removed to expose undisturbed soil. Excavations or depressions resulting from site clearing operations, or other existing excavations or depressions, should be restored with engineered fill in accordance with the recommendations of this report.

- 6.5.5 At the time of our investigation, site vegetation primarily consisted of trees, grasses, and shrubs/bushes. If encountered, tree roots larger than 1 inch in diameter should be completely removed. Smaller roots may be left in-place as conditions warrant, as determined by a representative of Geocon. Surface vegetation consisting of grasses and other similar vegetation should be removed within the pump station building and equipment areas by stripping to a sufficient depth to remove organic-rich topsoil. Stripping depths will likely range from approximately 1 to 2 inches. The actual stripping depth should be determined based on site conditions prior to grading. Material generated during stripping is not suitable for use within 5 feet of the pump station building pad but may be placed in landscaped or non-structural areas or exported from the site.
- 6.5.6 If the pump station will be located near Boring B2 location, the existing undocumented fill within structural pad area as defined in Section 6.5.2 may require removal. If the pump station wet well invert elevation is shallower than 9 feet (estimated depth of fill), the fill should be removed to at least 2 feet below the proposed wet well invert elevation. If the wet well invert elevation is deeper than 9 feet, additional removal will not be required. The excavated soil may be reused as general fill, provided it meets the requirements of Section 6.4 of this report. If the pump station will be located near Boring B3 location, over-excavation of the native alluvial soil within the structural pad area is not necessary.
- 6.5.7 After site preparation and over-excavation, the bottom of cut areas, areas left at-grade, and areas to receive fill should be scarified at least 12 inches, uniformly moisture-conditioned at optimum moisture content, and compacted to at least 90% relative compaction. Scarification and re-compaction operations should be performed in the presence of our representative to evaluate performance of the subgrade under compaction equipment loading and to identify any areas that may require additional removals.
- 6.5.8 Engineered fill should be compacted in horizontal lifts not exceeding 8 inches (loose thickness) and brought to final design elevations. Each lift should be moisture-conditioned at or slightly above optimum moisture content and compacted to at least 90% relative compaction.
- 6.5.9 The top 12 inches of building pads and final flatwork subgrade, whether completed at-grade, by excavation or by filling should be uniformly moisture-conditioned at or above optimum moisture content and compacted to at least 90% relative compaction.

## **6.6 Foundations**

- 6.6.1 Provided the pump station pad is graded in accordance with the recommendations of this report, the proposed pump station building may be supported on conventional shallow foundations bearing on engineered fill or undisturbed native soil.

- 6.6.2 Foundations may consist of continuous perimeter strip footings or spread footings. Perimeter strip footings should be continuous around the entire perimeter of the structure without breaks or discontinuities. Strip footings should be at least 12 inches wide and spread footings should be at least 18 inches square. All footings should be embedded at least 18 inches below lowest adjacent pad grade.
- 6.6.3 Underground utilities running parallel to footings should not be constructed in the zone of influence of footings. The zone of influence may be taken to be the area beneath the footing and within a 1:1 plane extending out and down from the bottom of the footing.
- 6.6.4 Continuous footings should be reinforced with at least four No. 4 reinforcement bars – two each placed near the top and bottom of the footing to allow footings to span isolated soil irregularities. The reinforcement recommended above is for soil characteristics only and is not intended to replace reinforcement required for structural considerations. The project structural engineer should evaluate the need for additional reinforcement.
- 6.6.5 Foundations proportioned as recommended above may be designed for an allowable soil bearing capacity of 2,500 pounds per square foot (psf) for combined dead plus live loads. This value may be increased by one-third to evaluate all loads, including wind or seismic forces.
- 6.6.6 The allowable passive pressure used to resist lateral movement of the footings may be assumed to be equal to a fluid weighing 350 pounds per cubic foot (pcf). The allowable coefficient of friction to resist sliding is 0.35 for concrete against soil. Combined passive resistance and friction may be utilized for design, provided that the frictional resistance is reduced by 50%.
- 6.6.7 Foundations designed in accordance with the recommendations above should experience total settlement of less than one inch and differential settlement of ½ inch or less over a distance of 50 feet. The majority of settlement will be immediate and occur as the building is constructed.
- 6.6.8 A Geocon representative should observe foundation excavations prior to placing reinforcing steel or concrete to observe that the exposed soil conditions are consistent with those anticipated. If unanticipated soil conditions are encountered, foundation modifications may be required.

## **6.7 Temporary Excavations**

- 6.7.1 Excavations intended for worker entry must conform to the local governing agency standards. Temporary excavations must meet Cal/OSHA requirements as appropriate. Excavation sloping, benching, the use of trench shields, and the placement of spoils should conform to applicable Cal/OSHA standards. The contractor should have a Cal/OSHA-approved “competent person” onsite during excavation to evaluate excavation conditions, evaluate the appropriate Cal/OSHA soil type, and to make appropriate recommendations



where necessary. It is the contractor's responsibility to provide sufficient and safe excavation support as well as protecting nearby utilities, structures, and other improvements which may be damaged by earth movements.

- 6.7.2 Excavations should be performed carefully to avoid damaging existing underground utilities and adjacent structures. Adjacent improvements should be monitored by the contractor so that excavation methods and support systems can be modified in a timely manner, if surface deflections are observed.
- 6.7.3 Some project excavations may be adjacent to other existing utilities. The condition of existing utility backfill is not known and there is a potential for existing backfill (particularly granular backfill) adjacent to excavations which can cause excavation sidewall instability and sloughing. The contractor should be aware of the potential for sloughing (and possibly caving/undermining of adjacent ground surface or improvements) and have equipment readily available to flatten slopes or install shoring if necessary.
- 6.7.4 Where portable safety shields (trench boxes) are used to protect workers, trench side walls are not directly supported. Thus, the use of a shield should be limited to open areas to minimize the potential of effects on adjacent improvements or ground surface settlement behind the shield. Trench shields should be sized to minimize clearance between the shield and trench side walls. Unsupported trenches should be backfilled immediately after removing the shield.
- 6.7.5 Shoring should be used in areas where temporary slopes must be steeper than those required by Cal/OSHA or where the presence of adjacent improvements prohibits sloping. Design of shoring systems is the responsibility of the contractor. Shoring systems should be inspected daily during construction by qualified contractor personnel. If excessive movement or slippage is noted, the bracing system should be strengthened before personnel are allowed to enter the excavation.

## **6.8 Dewatering Considerations**

- 6.8.1 Groundwater was encountered in each of our borings during our investigation on July 9, 2020. Depth to groundwater in our borings ranged from approximately 5½ to 9 feet. Given the granular nature of fill and alluvium at the site, we expect the fill/alluvium to be highly permeable and transmissive to groundwater flow.
- 6.8.2 Based on our observations, significant groundwater/seepage will likely be present within trench excavation depths along the project alignment and dewatering will likely be required. Typical dewatering systems consist of periodically spaced wells augmented with sump pumps within excavations.

- 6.8.3 We expect that groundwater/seepage will primarily occur within the fill/alluvium. It is also possible the groundwater/seepage intrusion may come through fractures in the bedrock. We anticipate that several, closely spaced well points will be necessary to effectively dewater excavations.
- 6.8.4 Alternatively, along some portions of the trench excavation, it may be possible to effectively control groundwater by sloping excavation bottoms to periodically-spaced sumps with high capacity pumps. In this case, a 1- to 2-foot-thick layer of freely draining gravel or crushed rock on the excavation bottom would enable groundwater to flow toward the sump as well as provide a working pad.
- 6.8.5 Dewatering systems should be designed and operated by a qualified dewatering contractor with local experience and reviewed by Geocon.

## **6.9 Trench Bottom / Bearing Conditions / Foundation for Pipeline**

- 6.9.1 Based on conditions encountered in our borings, soil exposed at the base of the proposed pipeline are generally suitable for support of the pipe. If the pipeline depth will extend into the underlying bedrock, trench bottoms may be rough due to irregular rock fracturing patterns and gravel/crushed rock infilling may be necessary to level the trench bottom.
- 6.9.2 Groundwater/seepage could create unstable trench excavation bottoms in alluvial soil. Generally, some form of trench subgrade stabilization (special foundation treatment) will be necessary if wet and unstable soils are exposed. Typical mitigation alternatives include over-excavation and replacement with a crushed gravel mat wrapped in geosynthetic filter fabric to provide a stable bottom for support of the pipe. Trench filter fabric should conform to the standards of the local governing agency.
- 6.9.3 Geocon should be contacted to provide additional recommendations if unsuitable material extends to depths in excess of 3 feet below the pipeline invert. In extreme cases, pier or pile support, or other structural support, may be necessary.
- 6.9.4 The weight of pipe, contents, and compacted backfill above the pipe will not result in a significant increase in load over present overburden. Provided any unstable trench bottoms are mitigated or if the pipeline is supported on bedrock, pipeline settlement should be negligible. Pipeline buoyancy in trenches allowed to become filled with groundwater should be considered.

## **6.10 Pipe Loading Design Criteria**

6.10.1 Trench loading is typically computed using Marston's Formula in accordance with ASCE *Manual of Engineering Practice No. 60/WPCF Manual of Practice No. FD-5*. Trench loading will depend on depth of cover, total unit weight of compacted backfill, and surface loading, and installation conditions. We recommend using the following geotechnical values in trench loading calculations:

- Average backfill total unit weight = 130 pounds per cubic foot
- Settlement Ratio ( $r_{sd}$ ) factor = 0.7
- $k\mu'$  factor = 0.11

Traffic loading, load factors, and other parameters should be determined by the design engineer.

## **6.11 Pipe Bedding and Trench Backfill**

6.11.1 Per Section 10.19-3 of the *Alpine County Development Standards*, bedding and backfill materials shall conform to the Caltrans Standard Specifications Section 19-3 *Structure Excavation and Backfill*, as applicable. Per Section 10.19-5.1 of the *Alpine County Development Standards* bedding material shall be placed a minimum of six (6) inches below the pipeline.

6.11.2 Per Section 10.19-5.2 of the *Alpine County Development Standards*, excavated soil generated from project excavations may be used for trench backfill at the discretion of the County Director in unimproved areas.

6.11.3 Trench backfill should be mechanically compacted. Flooding or jetting is not recommended. In general, backfill should be placed in lifts of 8 inches or less in loose thickness and moisture-conditioned at or above optimum moisture content. Each lift should be compacted to at least 90% relative compaction based on ASTM D1557 test method. Within paved areas, the top 24 inches of backfill, 95% relative compaction is required (*Alpine County Development Standards*, Section 10.19-5.2).

## **6.12 Trench Plugs**

6.12.1 Assuming a granular composition of pipeline bedding and trench backfill material, this may provide a preferential path for groundwater flow. Where the pipeline is constructed in sloping ground, trench plugs should be constructed at periodic intervals to reduce flow of groundwater through granular trench bedding and backfill material. Trench plugs should consist of lean concrete, or controlled density fill. Trench plugs must be at least 12-inches-thick and be keyed at least 12 inches into trench bottom and walls. A typical trench plug detail is presented as Figure 5. Trench plugs should be constructed at the interval shown in Table 6.12.1.

**TABLE 6.12.1  
MAXIMUM SPACING FOR TRENCH PLUGS**

Trench Slope (%)	Maximum Spacing (ft)
< 5	1,000
5 - 15	500
15 - 25	300
25 - 35	200
35 - 100	100
> 100	50

**6.13 Trenchless Construction Considerations**

- 6.13.1 We understand that bore-and-jack or horizontal directional drilling (HDD) trenchless methods are being considered at the Markleeville Creek and SR-89 crossings. The decision on which type of trenchless technology method and equipment to be used on this project should be the responsibility of the contractor specializing in trenchless construction based on their means and methods and experience with similar projects and soil/rock/groundwater conditions.
  
- 6.13.2 Planned excavation depths for the pipeline are unknown as of the date of this report, however; we note the potential for groundwater intrusion, unstable pit sidewalls (flowing sands), difficult excavation conditions due to the presence cobbles, boulders, and shallow bedrock, and mixed face conditions. Mixed face conditions are excavations that are partially in rock and partially in soil and often presents difficulties for trenchless construction. Contractors should be aware of these potential conditions and how they can impact trenchless construction.
  
- 6.13.3 If groundwater is encountered, the conditions at the bottom of the entry/exit pits will likely be wet and unstable and may require stabilization. The method of stabilizing pit bottoms should be evaluated and chosen by the contractor. Typical treatments include placing crushed-rock underlain by a geotextile filter fabric that meets the standard requirements of the local governing agency.
  
- 6.13.4 Tunneling terminology is often used for evaluating subsurface conditions for trenchless construction projects. The *Tunnelman’s Ground Classification of Soils* was first proposed by Terzaghi in 1950 and later modified by Heuer in 1974. A copy of the *Tunnelman’s Ground Classification of Soils* is presented in Appendix C. According to this terminology, and based on our borings, alluvial soils along the project alignment are likely classified mostly as “Flowing” where soils are mostly silt, sand, and gravel observed below the water table and without enough clay content to provide significant cohesion. The contractor should consider these conditions when developing their pipeline installation program.



- 6.13.5 Granular alluvial soils anticipated to be encountered during trenchless operations are classified as generally being loose to medium dense poorly graded sand with gravel (SP), poorly graded sand with silt and gravel (SP-SM), silty sand (SM), silty sand with gravel (SM), silty gravel (GM), and silty gravel with sand (GM). Fines contents in the granular soils range from approximately 6% to 40%.
- 6.13.6 We estimate that allowable horizontal bearing pressures for jacking will be on the order of 2,000 psf. Allowable wall pressures for jacking can be re-evaluated when more details regarding the access pit excavation support design are available and provided to Geocon for review.
- 6.13.7 All bore-and-jack operations should conform to the Alpine County construction specifications as appropriate.

## **7.0 FURTHER GEOTECHNICAL SERVICES**

### **7.1 Plan and Specification Review**

We should review the improvement plans and specifications prior to final design submittal to assess whether our recommendations have been properly implemented and evaluate if additional analysis and/or recommendations are required.

### **7.2 Testing and Observation Services**

The recommendations provided in this report are based on the assumption that we will continue as Geotechnical Engineer of Record throughout the construction phase. It is important to maintain continuity of geotechnical interpretation and confirm that field conditions encountered during construction are similar to those anticipated during design. Testing and observation services by the Geotechnical Engineer of Record are necessary to verify that construction has been performed in accordance with this report, approved plans, and specifications. If we are not retained for these services, we cannot assume any responsibility for other's interpretation of our recommendations or the future performance of the project.

## **8.0 LIMITATIONS AND UNIFORMITY OF CONDITIONS**

The recommendations of this report pertain only to the site investigated and are based upon the assumption that the soil conditions do not deviate from those disclosed in the investigation. If any variations or undesirable conditions are encountered during construction, or if the proposed construction will differ from that anticipated herein, we should be notified so that supplemental recommendations can be given.

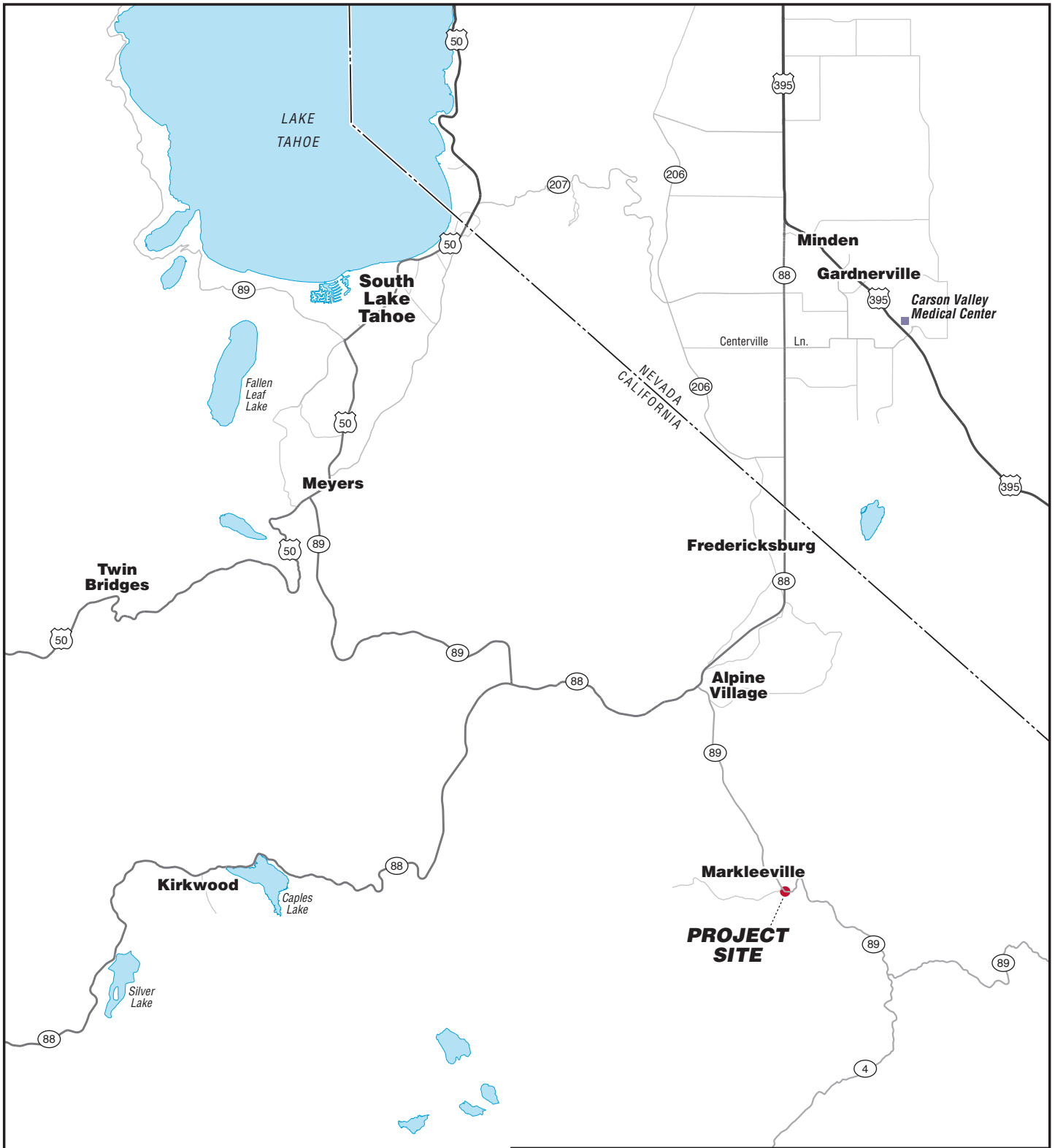
This report is issued with the understanding that it is the responsibility of the owner or their representative to ensure that the information and recommendations contained herein are brought to the attention of the design team for the project and incorporated into the plans and specifications and the necessary steps are taken to see that the contractor and subcontractors carry out such recommendations in the field.

The recommendations contained in this report are preliminary until verified during construction by representatives of our firm. Changes in the conditions of a property can occur with the passage of time, whether they are due to natural processes or the works of man on this or adjacent properties. Additionally, changes in applicable or appropriate standards may occur, whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated partially or wholly by changes outside our control. Therefore, this report is subject to review and should not be relied upon after a period of three years.

Our professional services were performed, our findings obtained, and our recommendations prepared in accordance with generally accepted geotechnical engineering principles and practices used in the site area at this time. No warranty is provided, express or implied.

## 9.0 REFERENCES

1. Alpine County, *Alpine County Development Standards*, October 7, 2014.
2. American Society of Civil Engineers (ASCE) *Manual of Engineering Practice No. 60/WPCF Manual of Practice No. FD-5*.
3. ASCE, *ASCE/SEI 7-16, Minimum Design Loads and Associated Criteria for Buildings and Other Structures*, 2017.
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6. Cal/OSHA, *Pocket Guide to the Construction Industry*, November 2015.
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10. Heuer, R.E., *Important Ground Parameters in Soft Ground Tunneling, Subsurface Exploration for Underground Excavation and Heavy Construction*, New England College, Henniker, New Hampshire, American Society of Civil Engineers, New York, 1974.
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13. United States Geological Survey (USGS), 2008 Unified Hazard Tool <https://earthquake.usgs.gov/hazards/interactive/>.
14. Unpublished reports, aerial photographs, and maps on file with Geocon.



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Markleeville Pump Station and Pipeline

Alpine County,  
California

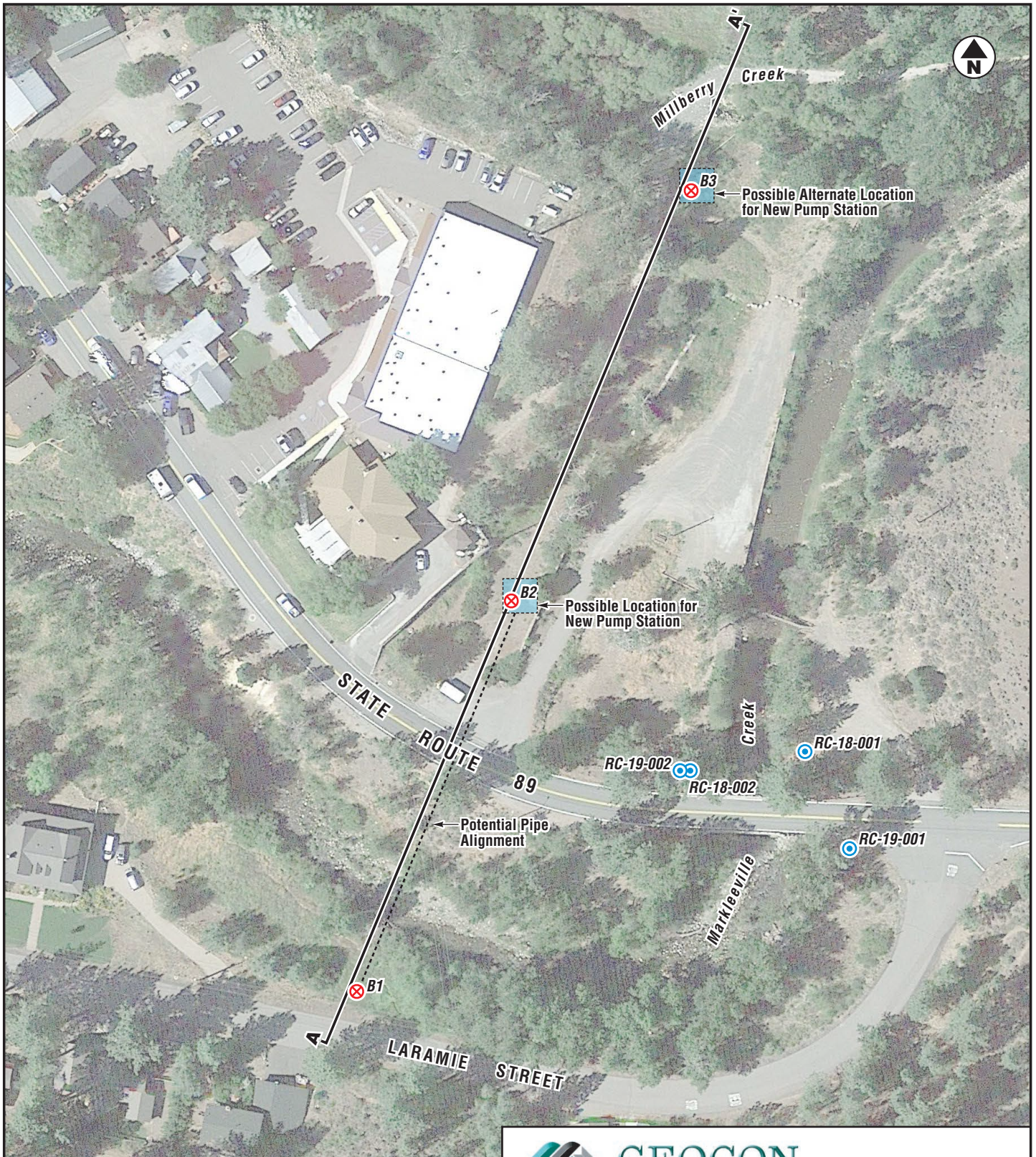
**VICINITY MAP**

S1965-05-01

January 2021

Figure 1





- LEGEND:
- B1** ⊗ Approximate Boring Location
  - RC-18-001** ⊙ Approximate Boring Location (Caltrans, 2018 & 2019)
  - A** — **A'** Approximate Cross-Section Location (Figure 4)



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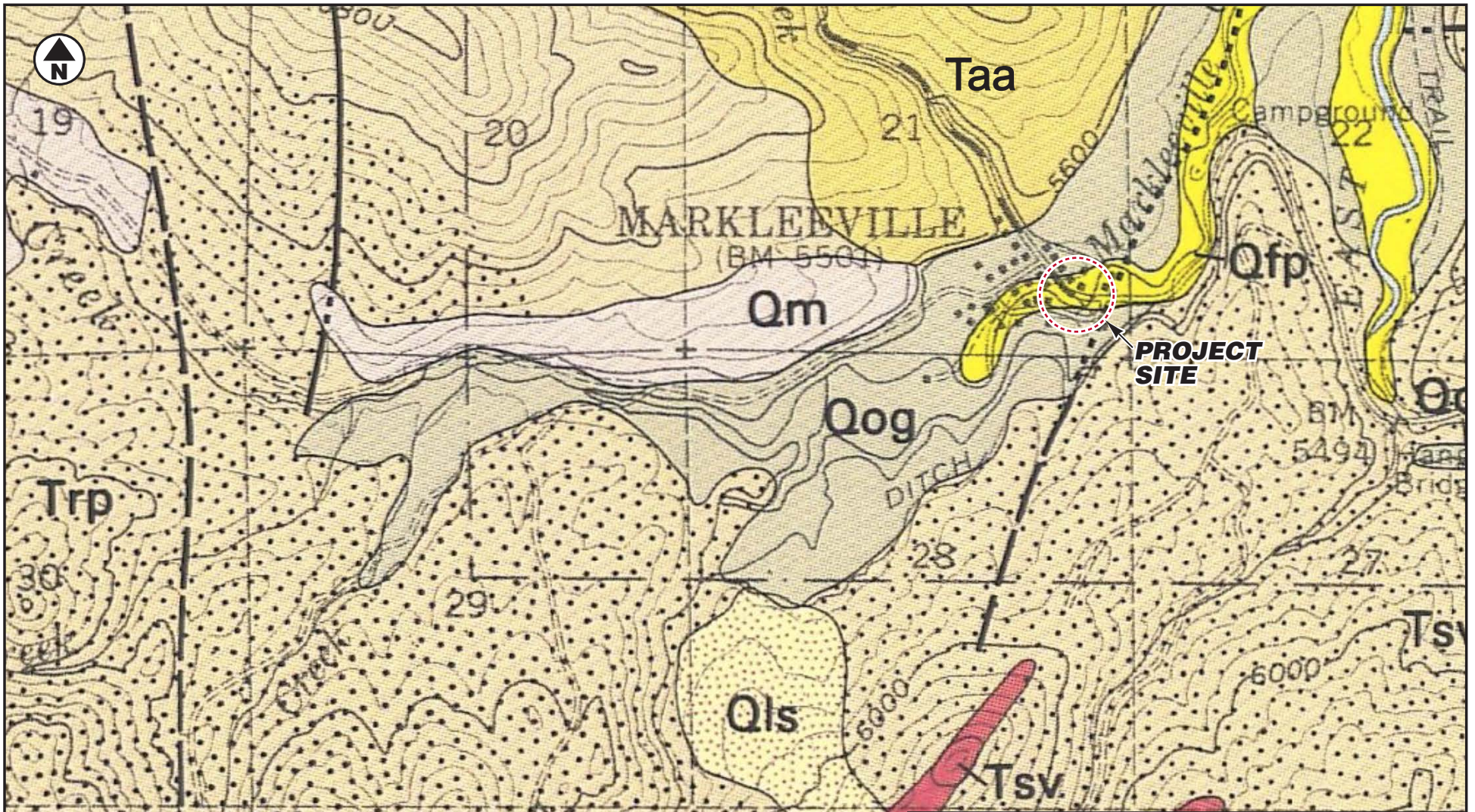
**Markleeville Pump Station and Pipeline**

Alpine County,  
California

**SITE PLAN**

S1965-05-01	January 2021	Figure 2
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Ref: USGS, Geologic Map of the Markleeville 15-minute Quadrangle, Alpine County, California, 1984

- Qfp Flood plain alluvium (Holocene)
- Qm Glacial moraine deposits, undivided (Pleistocene)
- Qog Outwash-gravel deposits (Pleistocene)
- Qls Landslide deposits, undivided (Holocene)
- Tsv Silicified volcanic rocks (Pliocene)
- Taa Autobrecciated andesite flows of Markleeville (Miocene)
- Trp Relief Peak Formation (Miocene)



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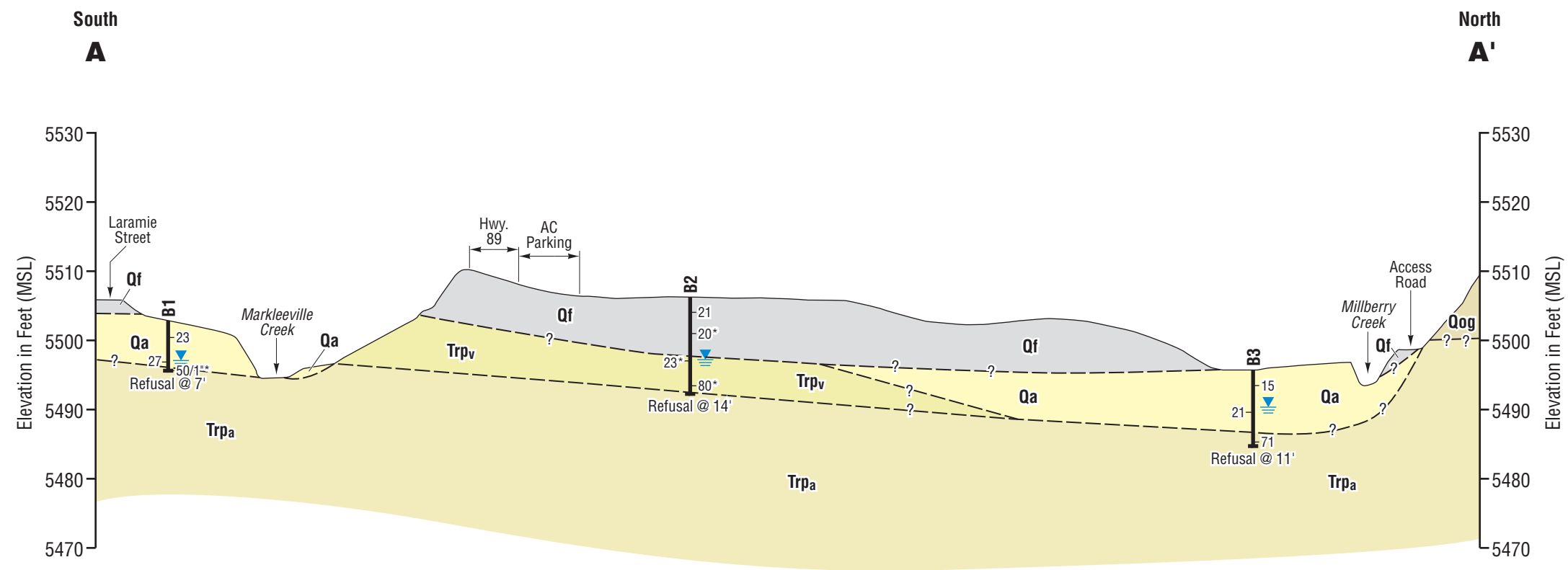
**GEOLOGIC MAP**





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



January 2021

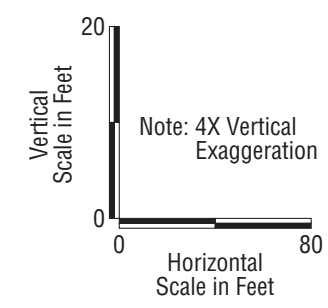
Figure 3






 Boring Location  
 50/1\*\* Blow Counts (California Modified Sampler/\*\* SPT Sampler)  
 --- Geologic Contact  
 Groundwater

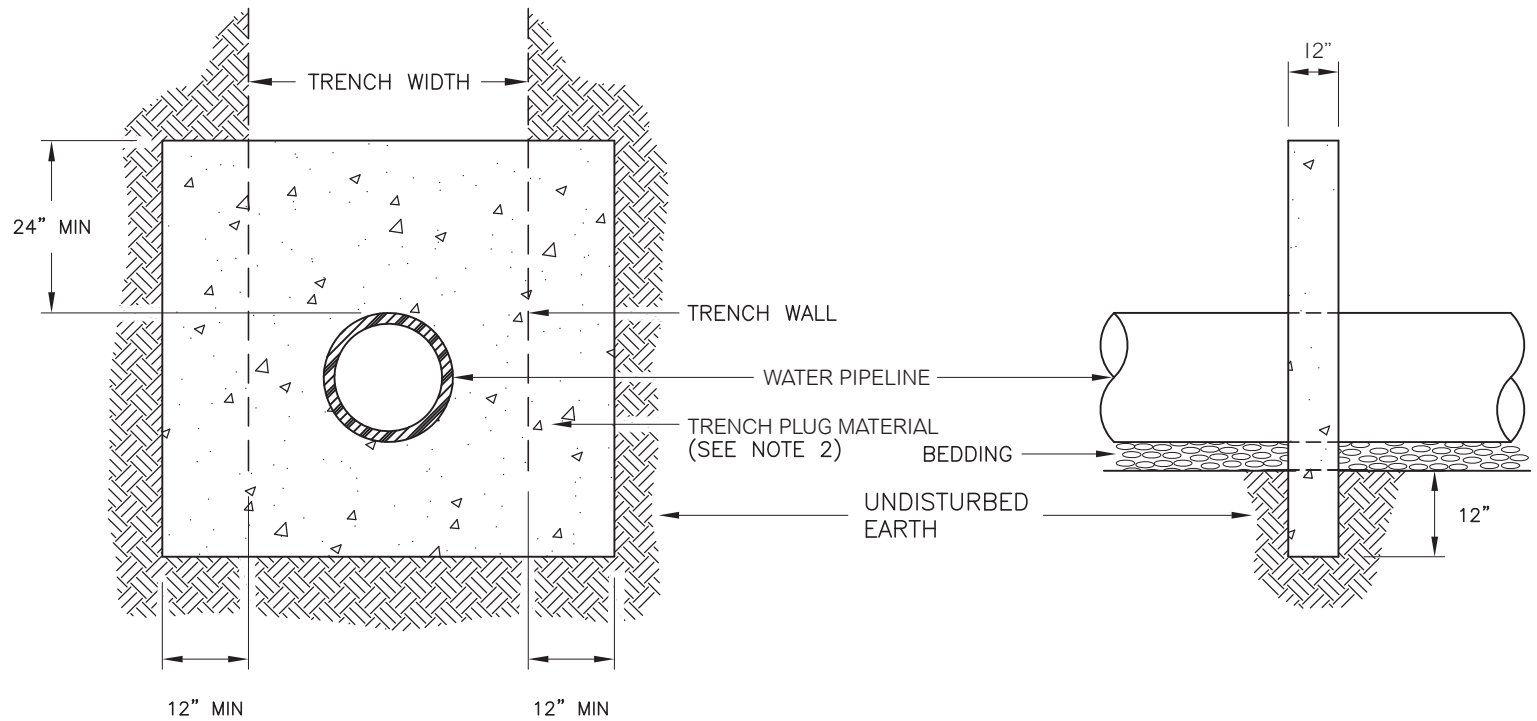
 **Qf** Fill  
 **Qa** Alluvium  
 **Qog** Glacial outwash gravels  
 **Trpv** Relief Peak Formation – volcanic breccia  
 **Trpa** Relief Peak Formation – andesite flow



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<b>CROSS-SECTION A - A'</b>		
S1965-05-01	January 2021	Figure 4

This figure depicts generalized subsurface conditions inferred from our explorations and is intended for use as an aid for design. Actual subsurface conditions, including groundwater depths/elevations, may vary. Please refer to the Boring Logs (Appendix A) for detailed subsurface conditions encountered at each boring location.





**NOTES:**

1. TOP OF PLUG TO EXTEND INTO INTERMEDIATE BACKFILL 12" MINIMUM OF TOP OF GROUND WATER HGL, WHICHEVER IS LESS.
2. TRENCH PLUG MATERIAL MAY CONSIST OF LOW-PERMEABILITY LEAN CONCRETE, OR LOW-PERMEABILITY CONTROLLED DENSITY FILL (CDF).



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**TYPICAL TRENCH PLUG DETAIL**

S1965-05-01

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Figure 5

APPENDIX

A

## **APPENDIX A**

### **FIELD INVESTIGATION**

Our geotechnical and geologic field exploration program was performed on July 9, 2020 and consisted of drilling three (3) exploratory borings (B1 through B3) to characterize soil and rock conditions at the site. The approximate locations of the borings are shown on the Site Plan, Figure 2.

Exploratory borings were performed using a truck-mounted CME-55 HT drill rig equipped with 7-inch outside diameter (OD) hollow-stem augers. Sampling was accomplished using a 140-pound, rotating cathead hammer with a 30-inch drop. Samples were obtained with a 3.0-inch OD, split-spoon (California Modified) sampler and 2.0-inch OD Standard Penetration Test (SPT) sampler. The number of blows required to drive the samplers the last 12 inches (or portion thereof) of the 18-inch sampling interval were recorded on the boring logs.

Subsurface conditions encountered in the borings were visually examined, classified and logged in general accordance with the American Society for Testing and Materials (ASTM) Practice for Description and Identification of Soils (Visual-Manual Procedure D2488-90). This system uses the Unified Soil Classification System (USCS) for soil designations. The logs depict soil and geologic conditions encountered and depths at which samples were obtained. The logs also include our interpretation of the conditions between sampling intervals. Therefore, the logs contain both observed and interpreted data. We determined the lines designating the interface between soil materials on the logs using visual observations, excavation characteristics and other factors. The transition between materials may be abrupt or gradual. Where applicable, the field logs were revised based on subsequent laboratory testing. A Key to Logs is presented as Figure A1 and logs of Borings B1 through B3 are presented as Figures A2 through A4.

## UNIFIED SOIL CLASSIFICATION

MAJOR DIVISIONS			TYPICAL NAMES	
COARSE-GRAINED SOILS MORE THAN HALF IS COARSER THAN NO. 200 SIEVE	GRAVELS MORE THAN HALF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE SIZE	CLEAN GRAVELS WITH LITTLE OR NO FINES	GW	WELL GRADED GRAVELS WITH OR WITHOUT SAND, LITTLE OR NO FINES
		GRAVELS WITH OVER 12% FINES	GP	POORLY GRADED GRAVELS WITH OR WITHOUT SAND, LITTLE OR NO FINES
			GM	SILTY GRAVELS, SILTY GRAVELS WITH SAND
		GC	CLAYEY GRAVELS, CLAYEY GRAVELS WITH SAND	
	SANDS MORE THAN HALF COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE SIZE	CLEAN SANDS WITH LITTLE OR NO FINES	SW	WELL GRADED SANDS WITH OR WITHOUT GRAVEL, LITTLE OR NO FINES
		SANDS WITH OVER 12% FINES	SP	POORLY GRADED SANDS WITH OR WITHOUT GRAVEL, LITTLE OR NO FINES
			SM	SILTY SANDS WITH OR WITHOUT GRAVEL
		SC	CLAYEY SANDS WITH OR WITHOUT GRAVEL	
FINE-GRAINED SOILS MORE THAN HALF IS FINER THAN NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT 50% OR LESS	ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTS WITH SANDS AND GRAVELS	
		CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, CLAYS WITH SANDS AND GRAVELS, LEAN CLAYS	
		OL	ORGANIC SILTS OR CLAYS OF LOW PLASTICITY	
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50%	MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS, FINE SANDY OR SILTY SOILS, ELASTIC SILTS	
		CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS	
		OH	ORGANIC CLAYS OR CLAYS OF MEDIUM TO HIGH PLASTICITY	
	HIGHLY ORGANIC SOILS	PT	PEAT AND OTHER HIGHLY ORGANIC SOILS	

## BEDDING SPACING DESCRIPTIONS

THICKNESS/SPACING	DESCRIPTOR
GREATER THAN 10 FEET	MASSIVE
3 TO 10 FEET	VERY THICKLY BEDDED
1 TO 3 FEET	THICKLY BEDDED
3 1/4-INCH TO 1 FOOT	MODERATELY BEDDED
1 1/4-INCH TO 3 1/4-INCH	THINLY BEDDED
3/4-INCH TO 1 1/4-INCH	VERY THINLY BEDDED
LESS THAN 3/4-INCH	LAMINATED

## STRUCTURE DESCRIPTIONS

CRITERIA	DESCRIPTION
ALTERNATING LAYERS OF VARYING MATERIAL OR COLOR WITH LAYERS AT LEAST 1/2-INCH THICK	STRATIFIED
ALTERNATING LAYERS OF VARYING MATERIAL OR COLOR WITH LAYERS LESS THAN 1/2-INCH THICK	LAMINATED
BREAKS ALONG DEFINITE PLANES OF FRACTURE WITH LITTLE RESISTANCE TO FRACTURING	FISSURED
FRACTURE PLANES APPEAR POLISHED OR GLOSSY, SOMETIMES STRIATED	SLICKENSIDED
COHESIVE SOIL THAT CAN BE BROKEN DOWN INTO SMALLER ANGULAR LUMPS WHICH RESIST FURTHER BREAKDOWN	BLOCKY
INCLUSION OF SMALL POCKETS OF DIFFERENT SOIL, SUCH AS SMALL LENSES OF SAND SCATTERED THROUGH A MASS OF CLAY	LENSED
SAME COLOR AND MATERIAL THROUGHOUT	HOMOGENOUS

## CEMENTATION/INDURATION DESCRIPTIONS

FIELD TEST	DESCRIPTION
CRUMBLES OR BREAKS WITH HANDLING OR LITTLE FINGER PRESSURE	WEAKLY CEMENTED/INDURATED
CRUMBLES OR BREAKS WITH CONSIDERABLE FINGER PRESSURE	MODERATELY CEMENTED/INDURATED
WILL NOT CRUMBLE OR BREAK WITH FINGER PRESSURE	STRONGLY CEMENTED/INDURATED

## IGNEOUS/METAMORPHIC ROCK STRENGTH DESCRIPTIONS

FIELD TEST	DESCRIPTION
MATERIAL CRUMBLES WITH BARE HAND	WEAK
MATERIAL CRUMBLES UNDER BLOWS FROM GEOLOGY HAMMER	MODERATELY WEAK
1/2-INCH INDENTATIONS WITH SHARP END FROM GEOLOGY HAMMER	MODERATELY STRONG
HAND-HELD SPECIMEN CAN BE BROKEN WITH ONE BLOW FROM GEOLOGY HAMMER	STRONG
HAND-HELD SPECIMEN CAN BE BROKEN WITH COUPLE BLOWS FROM GEOLOGY HAMMER	VERY STRONG
HAND-HELD SPECIMEN CAN BE BROKEN WITH MANY BLOWS FROM GEOLOGY HAMMER	EXTREMELY STRONG

## IGNEOUS/METAMORPHIC ROCK WEATHERING DESCRIPTIONS

DEGREE OF DECOMPOSITION	FIELD RECOGNITION	ENGINEERING PROPERTIES
SOIL	DISCOLORED, CHANGED TO SOIL, FABRIC DESTROYED	EASY TO DIG
COMPLETELY WEATHERED	DISCOLORED, CHANGED TO SOIL, FABRIC MAINLY PRESERVED	EXCAVATED BY HAND OR RIPPING (Saprolite)
HIGHLY WEATHERED	DISCOLORED, HIGHLY FRACTURED, FABRIC ALTERED AROUND FRACTURES	EXCAVATED BY HAND OR RIPPING, WITH SLIGHT DIFFICULTY
MODERATELY WEATHERED	DISCOLORED, FRACTURES, INTACT ROCK-NOTICEABLY WEAKER THAN FRESH ROCK	EXCAVATED WITH DIFFICULTY WITHOUT EXPLOSIVES
SLIGHTLY WEATHERED	MAY BE DISCOLORED, SOME FRACTURES, INTACT ROCK-NOT NOTICEABLY WEAKER THAN FRESH ROCK	REQUIRES EXPLOSIVES FOR EXCAVATION, WITH PERMEABLE JOINTS AND FRACTURES
FRESH	NO DISCOLORATION, OR LOSS OF STRENGTH	REQUIRES EXPLOSIVES

## IGNEOUS/METAMORPHIC ROCK JOINT/FRACTURE DESCRIPTIONS

FIELD TEST	DESCRIPTION
NO OBSERVED FRACTURES	UNFRACTURED/UNJOINTED
MAJORITY OF JOINTS/FRACTURES SPACED AT 1 TO 3 FOOT INTERVALS	SLIGHTLY FRACTURED/JOINTED
MAJORITY OF JOINTS/FRACTURES SPACED AT 4-INCH TO 1 FOOT INTERVALS	MODERATELY FRACTURED/JOINTED
MAJORITY OF JOINTS/FRACTURES SPACED AT 1-INCH TO 4-INCH INTERVALS WITH SCATTERED FRAGMENTED INTERVALS	INTENSELY FRACTURED/JOINTED
MAJORITY OF JOINTS/FRACTURES SPACED AT LESS THAN 1-INCH INTERVALS; MOSTLY RECOVERED AS CHIPS AND FRAGMENTS	VERY INTENSELY FRACTURED/JOINTED

## BORING/TRENCH LOG LEGEND

	PENETRATION RESISTANCE						
	SAND AND GRAVEL			SILT AND CLAY			
	RELATIVE DENSITY	BLOWS PER FOOT (SPT)*	BLOWS PER FOOT (MOD-CAL)*	CONSISTENCY	BLOWS PER FOOT (SPT)*	BLOWS PER FOOT (MOD-CAL)*	COMPRESSIVE STRENGTH (tsf)
No Recovery	VERY LOOSE	0 - 4	0 - 6	VERY SOFT	0 - 2	0 - 3	0 - 0.25
Shelby Tube Sample	LOOSE	5 - 10	7 - 16	SOFT	3 - 4	4 - 6	0.25 - 0.50
Bulk Sample	MEDIUM DENSE	11 - 30	17 - 48	MEDIUM STIFF	5 - 8	7 - 13	0.50 - 1.0
SPT Sample	DENSE	31 - 50	49 - 79	STIFF	9 - 15	14 - 24	1.0 - 2.0
Modified California Sample	VERY DENSE	OVER 50	OVER 79	VERY STIFF	16 - 30	25 - 48	2.0 - 4.0
Groundwater Level (At Completion)				HARD	OVER 30	OVER 48	OVER 4.0
Groundwater Level (Seepage)							

\*NUMBER OF BLOWS OF 140 LB HAMMER FALLING 30 INCHES TO DRIVE LAST 12 INCHES OF AN 18-INCH DRIVE

## MOISTURE DESCRIPTIONS

FIELD TEST	APPROX. DEGREE OF SATURATION, S (%)	DESCRIPTION
NO INDICATION OF MOISTURE; DRY TO THE TOUCH	S < 25	DRY
SLIGHT INDICATION OF MOISTURE	25 <= S < 50	DAMP
INDICATION OF MOISTURE; NO VISIBLE WATER	50 <= S < 75	MOIST
MINOR VISIBLE FREE WATER	75 <= S < 100	WET
VISIBLE FREE WATER	100	SATURATED

## QUANTITY DESCRIPTIONS

APPROX. ESTIMATED PERCENT	DESCRIPTION
< 5%	TRACE
5 - 10%	FEW
11 - 25%	LITTLE
26 - 50%	SOME
> 50%	MOSTLY

## GRAVEL/COBBLE/BOULDER DESCRIPTIONS

CRITERIA	DESCRIPTION
PASS THROUGH A 3-INCH SIEVE AND BE RETAINED ON A NO. 4 SIEVE (#4 TO 3")	GRAVEL
PASS A 12-INCH SQUARE OPENING AND BE RETAINED ON A 3-INCH SIEVE (3"-12")	COBBLE
WILL NOT PASS A 12-INCH SQUARE OPENING (> 12")	BOULDER

## LABORATORY TEST KEY

CP - COMPACTION CURVE (ASTM D1557)	R - R-VALUE (CTM 301)
CR - CORROSION ANALYSIS (CTM 422, 643, 417)	SE - SAND EQUIVALENT (CTM 217)
DS - DIRECT SHEAR (ASTM D3080)	TXCU - CONSOLIDATED UNDRAINED TRIAXIAL (ASTM D4767)
EI - EXPANSION INDEX (ASTM D4829)	TXUU - UNCONSOLIDATED UNDRAINED TRIAXIAL (ASTM D2850)
GSA - GRAIN SIZE ANALYSIS (ASTM D422)	UC - UNCONFINED COMPRESSIVE STRENGTH (ASTM D2166)
MC - MOISTURE CONTENT (ASTM D2216)	
PI - PLASTICITY INDEX (ASTM D4318)	



**GEOCON**  
CONSULTANTS, INC.

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PHONE 916.852.9118 - FAX 916.852.9132

**KEY TO LOGS**

Figure A1

DEPTH IN FEET	SAMPLE INTERVAL & RECOVERY	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B1			PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)	ADDITIONAL TESTS
					ELEV. (MSL.) _____	DATE COMPLETED <u>7/9/2020</u>	ENG./GEO. <u>J. Pfeiffer</u>				
MATERIAL DESCRIPTION											
0	B1-Bulk			SP	<b>ALLUVIUM</b> Loose, dry, grayish brown, Poorly graded SAND with gravel, fine to coarse sand, fine to coarse gravel, round to sub-round gravel, few cobble to 10"						
1	B1-1.5		SM								
2	B1-2.0				Medium dense, dry, dark brown, Silty SAND, trace fine roots, micaceous, fine to medium sand, trace coarse sand, trace fine gravel	23	107.4	10.5			
3											
4											
5	B1-5.5			SM	Medium dense, wet, brown, Silty SAND with gravel, fine to medium sand, fine to coarse gravel						
6	B1-6.0					27	119.4	16.7			
7	NR				- hard/rocky drilling, auger grinding	50/1"					
REFUSAL AT 7 FEET GROUNDWATER ENCOUNTERED AT 6 FEET BACKFILLED WITH SOIL CUTTINGS											

Figure A2, Log of Boring, page 1 of 1



SAMPLE SYMBOLS					
	... SAMPLING UNSUCCESSFUL		... STANDARD PENETRATION TEST		... DRIVE SAMPLE (UNDISTURBED)
	... DISTURBED OR BAG SAMPLE		... CHUNK SAMPLE		... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE INTERVAL & RECOVERY	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	<b>BORING B2</b>			PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)	ADDITIONAL TESTS
					ELEV. (MSL.) _____	DATE COMPLETED <u>7/9/2020</u>	ENG./GEO. <u>J. Pfeiffer</u>				
MATERIAL DESCRIPTION											
0				SM	<b>FILL</b> Medium dense, dry to damp, dark brown, Silty SAND with gravel, fine gravel						
1	B2-1.5										
2	B2-2.0						21	117.3	10.5		
3											
4				GM	Medium dense, damp, multicolored: brown, pink, white, Silty GRAVEL with Sand, fine to coarse gravel, angular gravel						
5	B2-5.0										
6					- rocky/hard drilling, rig chatter to 9'						
7											
8											
9	B2-9.0			GM	<b>VOLCANIC BRECCIA</b> Completely Weathered volcanic rock, excavates as: Medium dense, wet, Silty GRAVEL, fine to coarse gravel, angular gravel and cobble		23				
10											
11											
12											
13	B2-13.0				<b>ANDESITE</b> Hard, dark gray, fine crystalline rock fragments in sampler, angular		80				
14					REFUSAL AT 14 FEET GROUNDWATER ENCOUNTERED AT 9 FEET BACKFILLED WITH SOIL CUTTINGS						

Figure A3, Log of Boring, page 1 of 1



SAMPLE SYMBOLS		
<input type="checkbox"/>	... SAMPLING UNSUCCESSFUL	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	... STANDARD PENETRATION TEST	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	... DRIVE SAMPLE (UNDISTURBED)	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	... DISTURBED OR BAG SAMPLE	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	... CHUNK SAMPLE	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	... WATER TABLE OR SEEPAGE	

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE INTERVAL & RECOVERY	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	<b>BORING B3</b>			PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)	ADDITIONAL TESTS
					ELEV. (MSL.) _____	DATE COMPLETED <u>7/9/2020</u>	ENG./GEO. <u>J. Pfeiffer</u>				
<b>MATERIAL DESCRIPTION</b>											
0	B3-Bulk			SM	<b>ALLUVIUM</b> Medium dense, dry, grayish brown, Silty SAND with gravel, fine to coarse gravel, round gravel						
1											
2	B3-2.0			SM	Medium dense, damp, dark brown, reddish brown and gray, Silty SAND, trace fine gravel, micaceous	15	103.4	20.8			
3											
4				SP-SM	Medium dense, moist, gray, Poorly graded SAND with Silt and Gravel, fine to coarse gravel, sub-round to round gravel						
5	B3-5.5					- wet					
6	B3-6.0					21	117.3	17.9			
7											
8					<b>ANDESITE</b> Completely to Highly Weathered volcanic rock, greenish gray						
9											
10	B3-10.0					71					
11	B3-10.5					- moderately weathered, hard					
REFUSAL AT 11 FEET GROUNDWATER ENCOUNTERED AT 5.5 FEET BACKFILLED WITH SOIL CUTTINGS											

Figure A4, Log of Boring, page 1 of 1



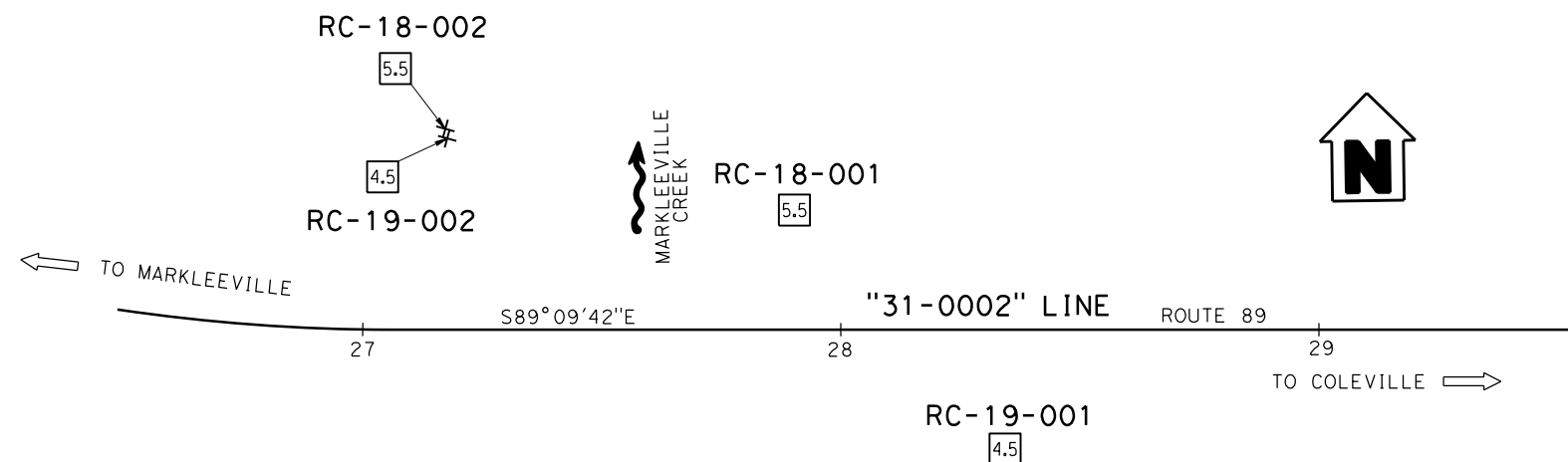
SAMPLE SYMBOLS		
	... SAMPLING UNSUCCESSFUL	
	... DISTURBED OR BAG SAMPLE	
	... STANDARD PENETRATION TEST	
	... CHUNK SAMPLE	

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

**BENCH MARK**

BM 301 Elev 5506.108  
West Side HWY 89  
N 2022144.838  
E 7195995.825  
NAVD88

BM 302 Elev 5508.698  
West Side HWY 89  
N 2022172.272  
E 7195537.012  
NAVD 88



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
DDDD	CCCC	RRRR	PPPP	????	####

Professional Geologist: *William R. Little*  
DATE: 4-15-20  
No. 7473  
Exp. 3-31-21  
PLANS APPROVAL DATE: \_\_\_\_\_  
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This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, & Presentation Manual (2010 Edition).  
See 2018 Standard Plans A10F and A10G for Soil Legend, and A10H for Rock Legend.

**BOREHOLE LOCATION TABLE**

HOLE ID	"B" LINE		
	Station	Offset	Rt/Lt
RC-18-001	27+90.30	25.0'	L+
RC-18-002	27+17.73	42.0'	L+
RC-19-001	28+34.32	25.0'	R+
RC-19-002	27+17.68	40.0'	L+

**PLAN**  
1" = 20'



**PROFILE**

Horiz: Not to Scale  
Vert: 1" = 10'

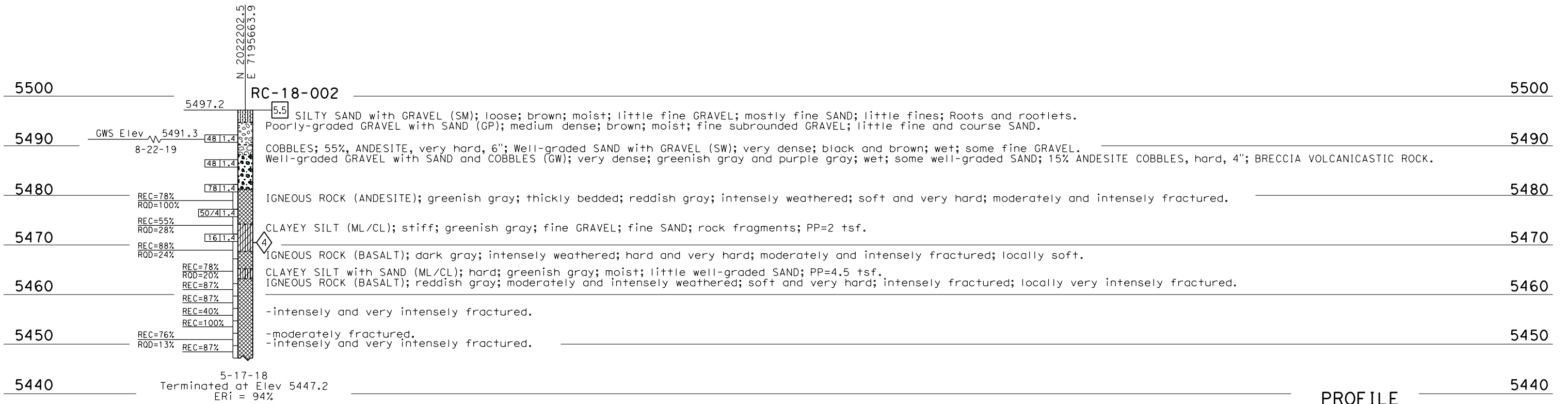
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FUNCTIONAL SUPERVISOR:		DRAWN BY: M. Taha		DEPARTMENT OF TRANSPORTATION		BRIDGE No. 31-0028		<b>LOG OF TEST BORINGS 1 OF 4</b>	
NAME: R. Mahallati		CHECKED BY: A. Barrie		FIELD INVESTIGATION BY: NAME: W. Little		POST MILE 14.69			
OGS CIVIL LOG OF TEST BORINGS SHEET (ENGLISH) (REVISION 6/28/2018)		DATE PLOTTED => 4/16/2020		TIME PLOTTED => 9:54:20 AM		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3650	
		FILE => ...\\31-0028-s-1g+b01.dgn		USERNAME => "s133973"		PROJECT NUMBER & PHASE: 1013000091		CONTRACT No.: 10-0X7504	
								DISREGARD PRINTS BEARING EARLIER REVISION DATES	
								REVISION DATES	
								SHEET 17 OF 20	



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
DDDD	CCCC	RRRR	PPPP	????	####
William R. Little PROFESSIONAL GEOLOGIST			4-15-20	DATE	
William Little No. 7473 Exp. 3-31-21			PROFESSIONAL GEOLOGIST STATE OF CALIFORNIA		
PLANS APPROVAL DATE					
<i>The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.</i>					

FOR PLAN VIEW, SEE  
"LOG OF TEST BORINGS 1 OF 4"

This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, & Presentation Manual (2010 Edition).  
See 2018 Standard Plans A10F and A10G for Soil Legend, and A10H for Rock Legend.



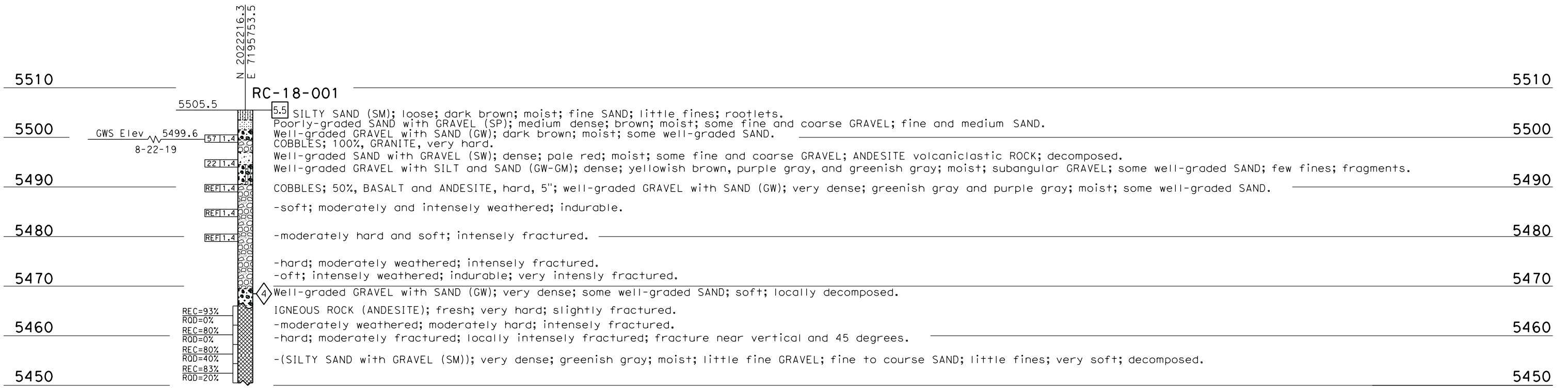
**PROFILE**  
Horiz: Not to Scale  
Vert: 1" = 10'

<b>ENGINEERING SERVICES</b>		<b>GEOTECHNICAL SERVICES</b>		<b>STATE OF CALIFORNIA</b>		<b>DIVISION OF ENGINEERING SERVICES</b>		<b>MARKLEEVILLE CREEK BRIDGE (REPLACE)</b>	
FUNCTIONAL SUPERVISOR:		DRAWN BY: S. Jiang		FIELD INVESTIGATION BY:		BRIDGE No. 31-0028		<b>LOG OF TEST BORINGS 2 OF 4</b>	
NAME: R. Mahallati		CHECKED BY: A. Barrie		NAME: X. Zheng		POST MILE 14.69			
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								12-17-19 3-09-20	
								SHEET 18 OF 20	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
DDDD	CCCC	RRRR	PPPP	????	####
William R. Little PROFESSIONAL GEOLOGIST			4-15-20 DATE		
PLANS APPROVAL DATE _____					
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FOR PLAN VIEW, SEE  
"LOG OF TEST BORINGS 1 OF 4"

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5-16-18  
Terminated at Elev 5450.5  
ERi = 94%

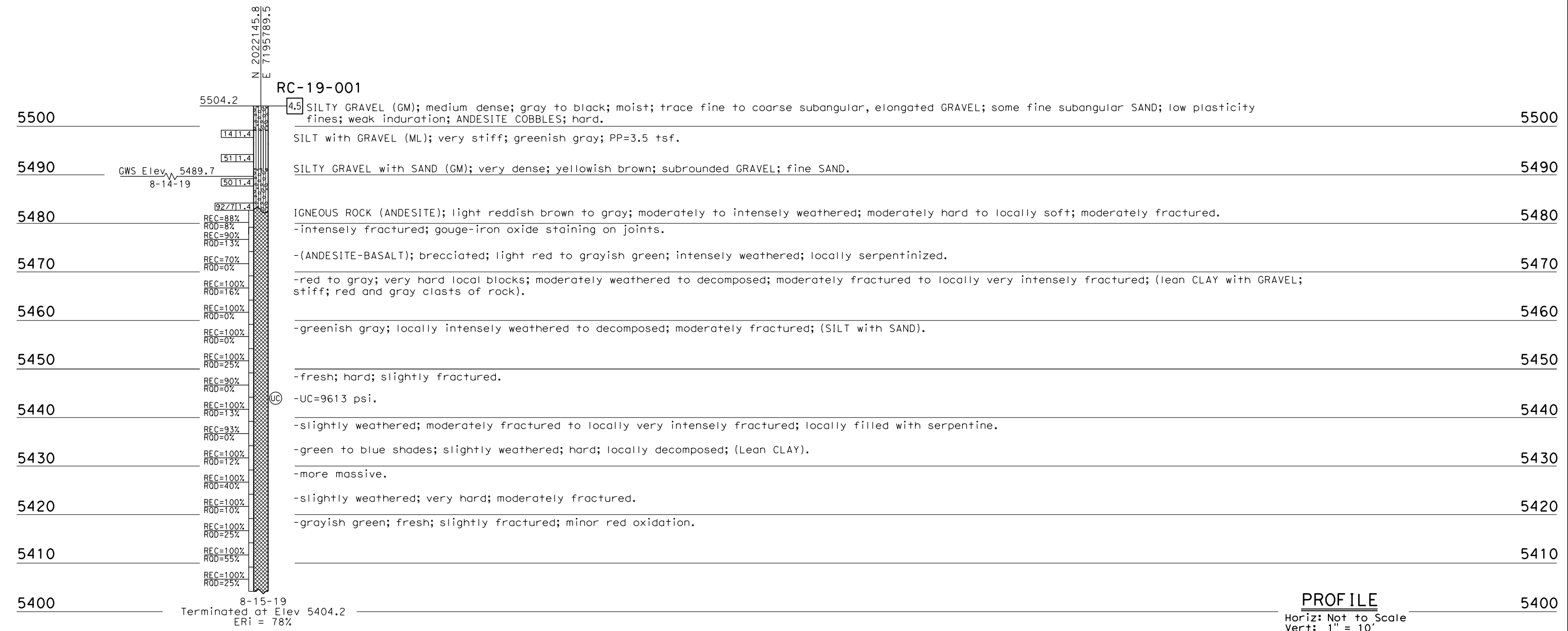
**PROFILE**  
Horiz: Not to Scale  
Vert: 1" = 10'

<b>ENGINEERING SERVICES</b>		<b>GEOTECHNICAL SERVICES</b>		<b>STATE OF CALIFORNIA</b>		<b>DIVISION OF ENGINEERING SERVICES</b>		<b>MARKLEEVILLE CREEK BRIDGE (REPLACE)</b>	
FUNCTIONAL SUPERVISOR: NAME: R. Mahallati		DRAWN BY: S. Jiang CHECKED BY: A. Barrie		FIELD INVESTIGATION BY: NAME: X. Zheng		<b>DESIGN BRANCH 11</b>		<b>LOG OF TEST BORINGS 3 OF 4</b>	
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								12-17-19	3-09-20
								SHEET 19	OF 20

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
DDDD	CCCC	RRRR	PPPP	????	####
William R. Little PROFESSIONAL GEOLOGIST			4-15-20 DATE		
PLANS APPROVAL DATE _____					
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FOR PLAN VIEW, SEE  
"LOG OF TEST BORINGS 1 OF 4"

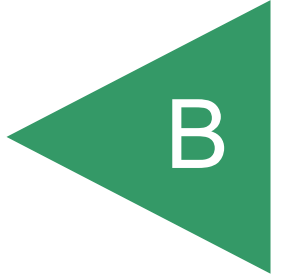
This LOTB sheet was prepared in accordance with the Caltrans Soil & Rock Logging, Classification, & Presentation Manual (2010 Edition).  
See 2018 Standard Plans A10F and A10G for Soil Legend, and A10H for Rock Legend.



**PROFILE**  
Horiz: Not to Scale  
Vert: 1" = 10'

<b>ENGINEERING SERVICES</b>		<b>GEOTECHNICAL SERVICES</b>		<b>STATE OF CALIFORNIA</b>		<b>DIVISION OF ENGINEERING SERVICES</b>		<b>MARKLEEVILLE CREEK BRIDGE (REPLACE)</b>	
FUNCTIONAL SUPERVISOR: NAME: R. Mahallati		DRAWN BY: M. Taha CHECKED BY: A. Barrie		FIELD INVESTIGATION BY: NAME: W. Little		BRIDGE No. 31-0028		<b>LOG OF TEST BORINGS 4 OF 4</b>	
				DEPARTMENT OF TRANSPORTATION		DESIGN BRANCH 11			
OGS CIVIL LOG OF TEST BORINGS SHEET (ENGLISH) (REVISION 6/28/2018)		DATE PLOTTED => 4/16/2020 FILE => ...\\31-0028-s-1g+b04.dgn		TIME PLOTTED => 9:56:34 AM USERNAME => "s133973"		ORIGINAL SCALE IN INCHES FOR REDUCED PLANS		UNIT: 3650 PROJECT NUMBER & PHASE: 1013000091	
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								REVISION DATES 10-14-19 11-29-19 12-10-19	
								SHEET 20 OF 20	

APPENDIX



## APPENDIX B

### LABORATORY TESTING PROGRAM

Laboratory tests were performed in accordance with generally accepted test methods of the American Society for Testing and Materials (ASTM) or other suggested procedures. Selected soil samples were tested for their in-place dry density and moisture content, grain size distribution, corrosion potential, shear strength, and moisture-density relationship. The results of the laboratory tests are presented on the following pages.

**TABLE B1**  
**SOIL CORROSION PARAMETER TEST RESULTS**  
**(CALIFORNIA TEST METHODS 643, 417 AND 422**  
**ASTM TEST METHODS D1498M AND 9031M)**

Sample No.	Sample Depth (feet)	pH	Minimum Resistivity (ohm-cm)	Chloride (ppm)	Sulfate (ppm)
B3-Bulk	0-4	6.2	2,120	7.6	44.5

Notes: ppm = parts per million ND = below detection limits of 0.05

Caltrans considers a site corrosive to foundation elements if one or more of the following conditions exist for the representative soil samples at the site:

- The pH is equal to or less than 5.5.
- The resistivity is equal to or less than 1,100 ohm-cm.
- Chloride concentration is equal to or greater than 500 parts per million (ppm).
- Sulfate concentration is equal to or greater than 1,500 ppm.

According to the 2019 California Building Code Section 1904.1 which refers to the durability requirements of American Concrete Institute (ACI) 318 (Chapter 4), Type II cement may be used where soluble sulfate levels in soil are below 2,000 ppm.

Sample ID	Depth (feet)	Liquid Limit	Plastic Limit	Plasticity Index	Expansion Index	%<#200 Sieve	Water Content (%)	Dry Density (pcf)
B1-2	2					37.6	10.5	107.4
B1-6	6					21.8	16.7	119.4
B1-6.5	6.5						11.7	
B2-2	2					22.6	10.5	117.3
B2-5	5					15.4	7.4	
B3-2	2						20.8	103.4
B3-2.5	2.5					38.8		
B3-6	6					5.9	17.9	117.3

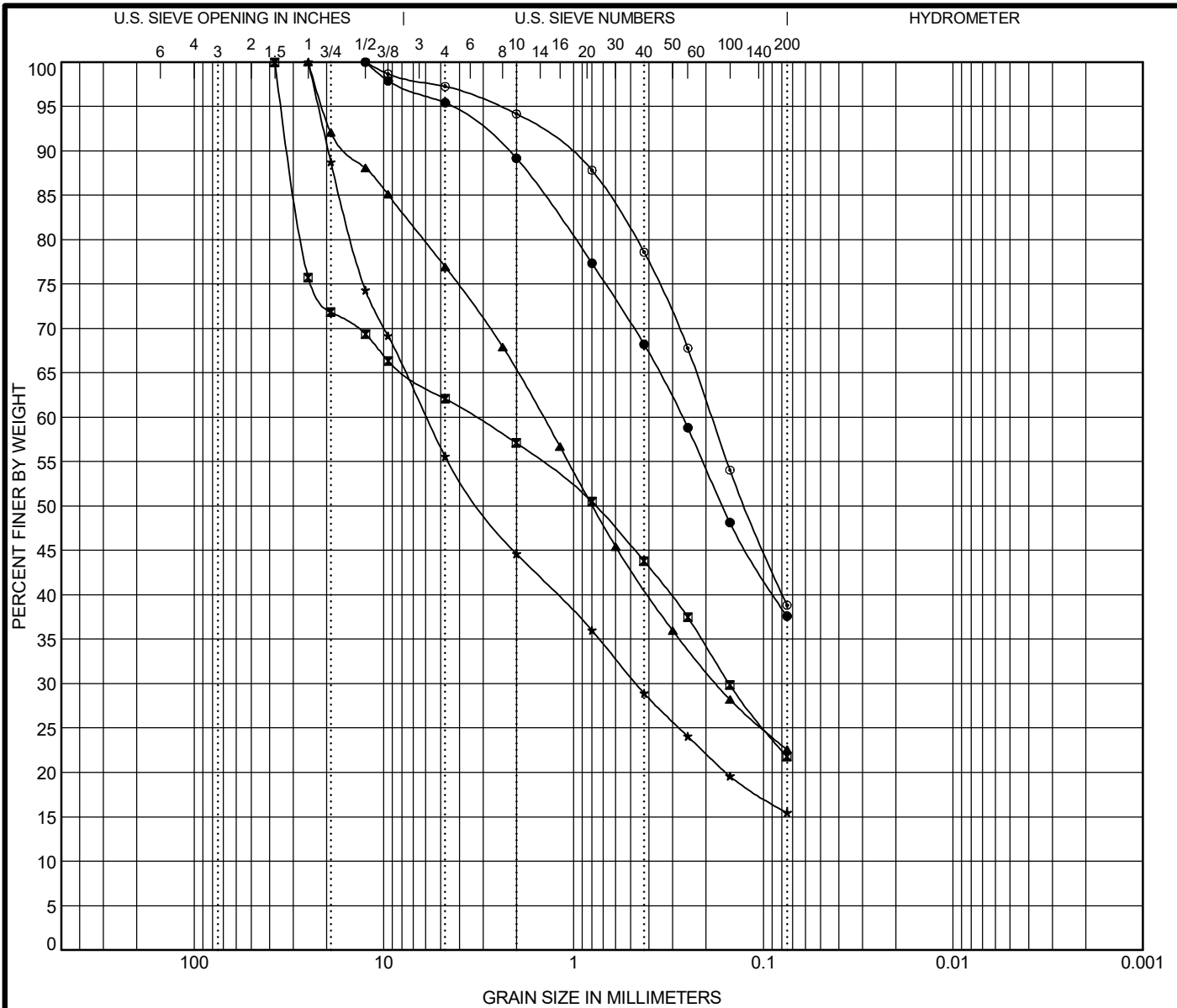
US LAB SUMMARY GEOTECH 2 WITH EL COLUMN - S1965-05-01 MARKLEEVILLE PUMP STATION.GPJ US LAB.GDT 8/24/20



Geocon Consultants, Inc.  
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 Rancho Cordova, CA 95742  
 Telephone: 916-852-9118

**Summary of Laboratory Results**


Project: Markleeville Pump Station and Pipeline  
 Location: Markleeville, CA  
 Number: S1965-05-01  
 Figure: B1



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Sample No.	Classification	LL	PL	PI	Cc	Cu
● B1-2	SILTY SAND (SM)					
☒ B1-6	SILTY SAND WITH GRAVEL (SM)					
▲ B2-2	SILTY SAND WITH GRAVEL (SM)					
★ B2-5	SILTY GRAVEL WITH SAND (GM)					
◎ B3-2.5	SILTY SAND (SM)					

Sample No.	D100	D50	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B1-2	12.5	0.164			4.6	57.8	37.6	
☒ B1-6	37.5	0.764	0.152		37.9	40.3	21.8	
▲ B2-2	25	0.789	0.176		23.1	54.4	22.6	
★ B2-5	25	3.06	0.469		44.4	40.1	15.4	
◎ B3-2.5	12.5	0.125			2.7	58.4	38.8	

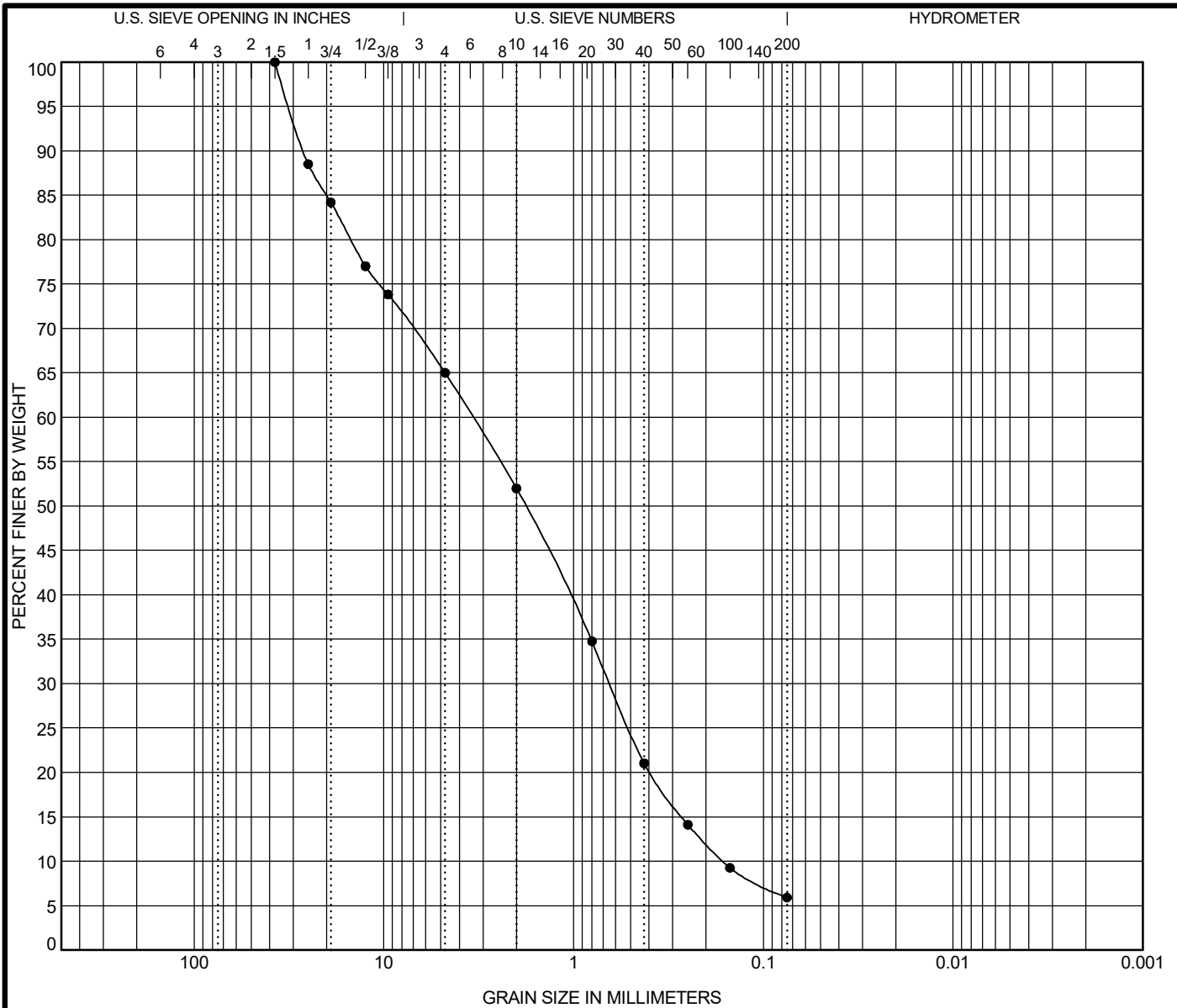


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Telephone: 916-852-9118

**GRAIN SIZE DISTRIBUTION (ASTM D422, D6913)**

Project: Markleeville Pump Station and Pipeline  
Location: Markleeville, CA  
Number: S1965-05-01  
Figure: B1


GRAIN SIZE COPY 2 S1965-05-01 MARKLEEVILLE PUMP STATION.GPJ US LAB.GDT 8/27/20



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Sample No.	Classification	LL	PL	PI	Cc	Cu
● B3-6	POORLY GRADED SAND WITH SILT AND GRAVEL (SP-SM)				0.75	21.0

Sample No.	D100	D50	D30	D10	%Gravel	%Sand	%Silt	%Clay
● B3-6	37.5	1.799	0.642	0.162	35.0	59.1	5.9	



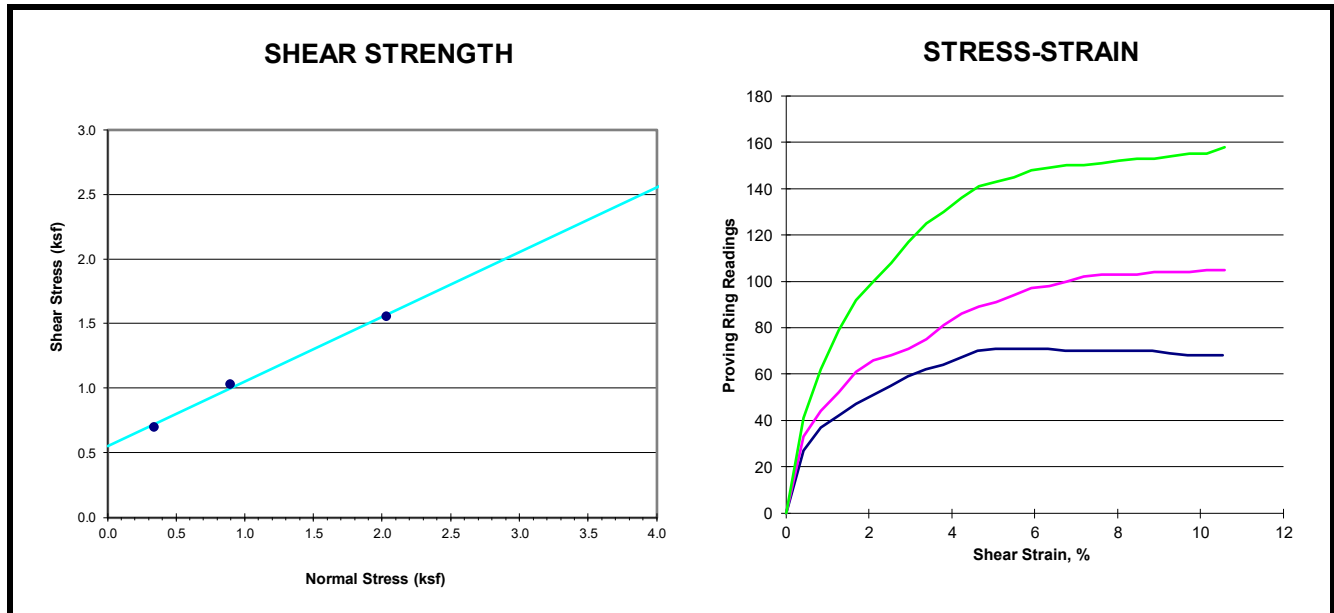
**Geocon Consultants, Inc.**  
3160 Gold Valley Drive, Suite 800  
Rancho Cordova, CA 95742  
Telephone: 916-852-9118

**GRAIN SIZE DISTRIBUTION (ASTM D422, D6913)**

Project: Markleeville Pump Station and Pipeline  
Location: Markleeville, CA  
Number: S1965-05-01  
Figure: B1

GRAIN SIZE COPY 2 S1965-05-01 MARKLEEVILLE PUMP STATION.GPJ US LAB.GDT 8/27/20





**Sample Description**

Boring Number	B1
Sample Depth (feet)	5.50
Material Description	Dark Brown Silty SAND with Gravel

**Initial Conditions at Start of Test**


Sample ID (psf)	338	890	2030
Height (inch)	1.00	1.00	1.00
Diameter (inch)	2.375	2.375	2.375
Moisture Content (%)	25.4	26.0	26.5
Wet Density (pcf)	128.8	126.3	126.6
Dry Density (pcf)	102.7	100.2	100.1
Estimated Specific Gravity	2.65	2.65	2.65
Saturation (%)	110.0	105.8	107.8

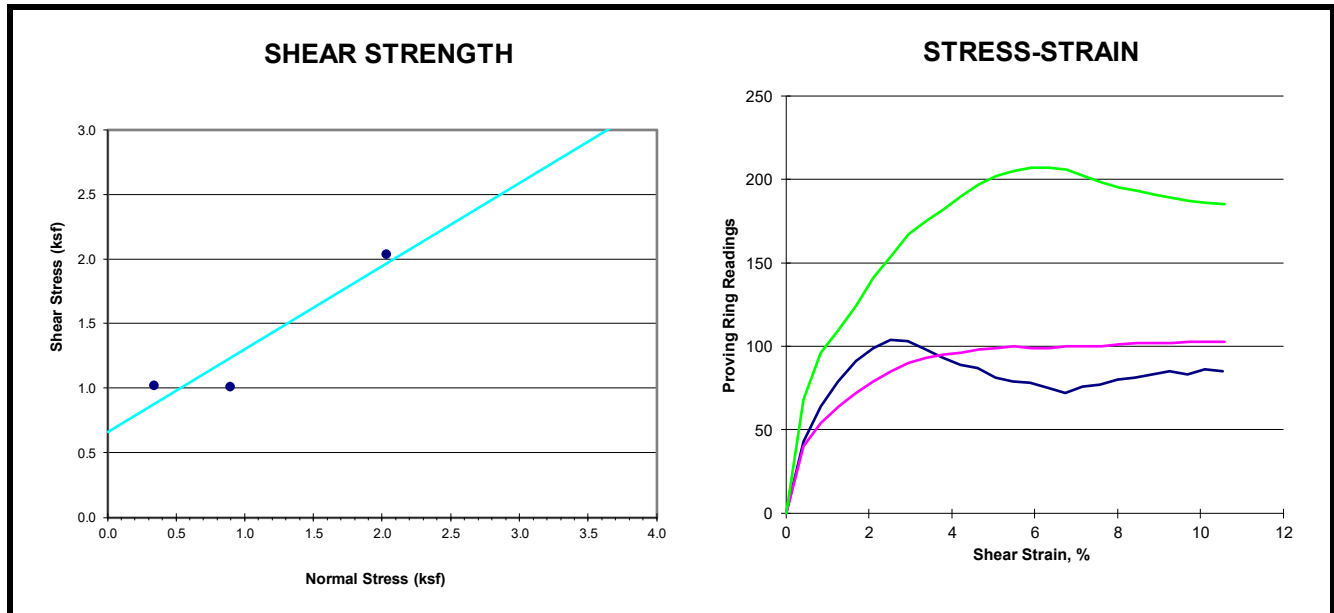
**Shear Test Conditions**

	338	890	2030
Strain Rate (%/min)	0.211	0.211	0.211
Major Principle Stress at Failure (psf)	700	1035	1558
Strain at Failure (%)	5.05	10.11	10.53

**Test Results**

$\phi$ , degrees	<b>26.6</b>
c, psf	<b>555</b>

 <p>Geocon Consultants, Inc. 3160 Gold Valley Drive, Suite 800 Rancho Cordova, California 95742 Telephone: (916) 852-9118 Fax: (916) 852-9132</p>	<p><b>Direct Shear Strength Test (ASTM D3080)</b></p> <p><b>Project:</b> Markleeville Pump Station and Pipeline <b>Location:</b> Markleeville, CA <b>Number:</b> S1965-05-01 <b>Figure:</b> B4</p>
--	--



**Sample Description**

Boring Number	B2
Sample Depth (feet)	2.00
Material Description	Dark Grayish brown Silty SAND w/ Grave

**Initial Conditions at Start of Test**


Sample ID (psf)	338	890	2030
Height (inch)	1.00	1.00	1.00
Diameter (inch)	2.375	2.375	2.375
Moisture Content (%)	9.9	10.6	10.9
Wet Density (pcf)	132.1	126.6	130.1
Dry Density (pcf)	120.2	114.5	117.3
Estimated Specific Gravity	2.65	2.65	2.65
Saturation (%)	70.1	63.0	70.5

**Shear Test Conditions**

Strain Rate (%/min)	0.421	0.421	0.421
Major Principle Stress at Failure (psf)	1026	1016	2041
Strain at Failure (%)	2.53	9.68	5.89

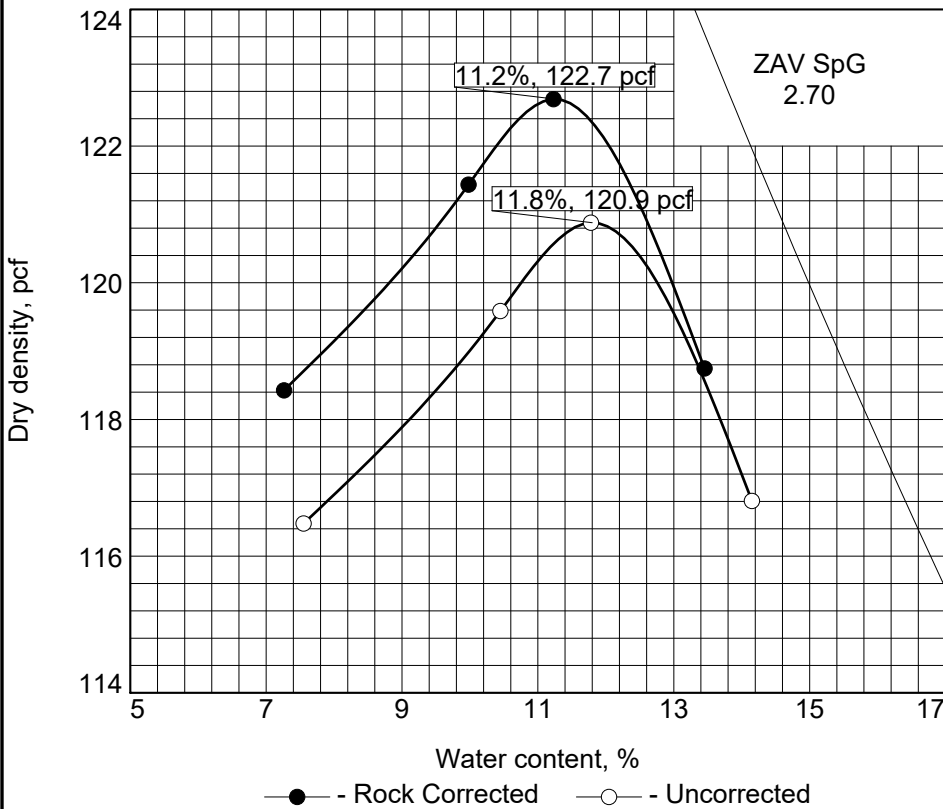
**Test Results**

$\phi$ , degrees	<b>32.8</b>
c, psf	<b>660</b>

 <p>Geocon Consultants, Inc. 3160 Gold Valley Drive, Suite 800 Rancho Cordova, California 95742 Telephone: (916) 852-9118 Fax: (916) 852-9132</p>	<p><b>Direct Shear Strength Test (ASTM D3080)</b></p> <p><b>Project:</b> Markleeville Pump Station <b>Location:</b> Markleeville, CA <b>Number:</b> S1965-05-01 <b>Figure:</b> B5</p>
--	---

# COMPACTION TEST REPORT

**Curve No.**  
**1**



**Test Specification:**

ASTM 1557 Method A 2020 Mold PM1  
ASTM D4718-15 Oversize Corr. Applied to Each Test Point

**Preparation Method** \_\_\_\_\_

**Hammer Wt.** \_\_\_\_\_ 10 \_\_\_\_\_

**Hammer Drop** \_\_\_\_\_ 18 \_\_\_\_\_

**Number of Layers** \_\_\_\_\_ 5 \_\_\_\_\_

**Blows per Layer** \_\_\_\_\_ 25 \_\_\_\_\_

**Mold Size** \_\_\_\_\_ 0.03336 cu. ft. \_\_\_\_\_

**Test Performed on Material**

**Passing** \_\_\_\_\_ #4 \_\_\_\_\_ **Sieve**

**NM** \_\_\_\_\_ **LL** \_\_\_\_\_ **PI** \_\_\_\_\_

**Sp.G. (ASTM D 854)** \_\_\_\_\_ 2.7 \_\_\_\_\_

**%>#4** \_\_\_\_\_ 6.2 \_\_\_\_\_ **%<No.200** \_\_\_\_\_

**USCS** \_\_\_\_\_ **AASHTO** \_\_\_\_\_

**Date Sampled** \_\_\_\_\_

**Date Tested** \_\_\_\_\_ 7/16/2020 \_\_\_\_\_

**Tested By** \_\_\_\_\_ JH \_\_\_\_\_

**TESTING DATA**

	1	2	3	4	5	6
<b>WM + WS</b>	3985.0	4031.0	4004.0	3882.0		
<b>WM</b>	1986.4	1986.4	1986.4	1986.4		
<b>WW + T #1</b>	2456.0	2500.0	2473.0	2351.0		
<b>WD + T #1</b>	2267.1	2284.8	2223.1	2218.1		
<b>TARE #1</b>	459.0	458.0	457.0	458.0		
<b>WW + T #2</b>						
<b>WD + T #2</b>						
<b>TARE #2</b>						
<b>MOISTURE</b>	10.0	11.2	13.5	7.3		
<b>DRY DENSITY</b>	121.4	122.7	118.7	118.4		

ROCK CORRECTED TEST RESULTS	UNCORRECTED	Material Description
Maximum dry density = 122.7 pcf	120.9 pcf	Very Dark Brown Silt
Optimum moisture = 11.2 %	11.8 %	
<b>Project No.</b> S1965-05-01 <b>Client:</b> <b>Project:</b> Markleeville Pump Station and Pipeline  ○ <b>Depth:</b> 0'-4' <b>Sample Number:</b> B1 Bulk		<b>Remarks:</b>  _____  _____
<b>GEOCON CONSULTANTS, INC.</b>		<b>Checked by:</b> MR <b>Title:</b> Lab Manager  _____ _____

# COMPACTION TEST REPORT

**Curve No.**  
**2**

**Test Specification:**

ASTM 1557 Method B 2020 Mold PM1  
ASTM D4718-15 Oversize Corr. Applied to  
Each Test Point

**Preparation Method** \_\_\_\_\_

**Hammer Wt.** \_\_\_\_\_ 10 \_\_\_\_\_

**Hammer Drop** \_\_\_\_\_ 18 \_\_\_\_\_

**Number of Layers** \_\_\_\_\_ 5 \_\_\_\_\_

**Blows per Layer** \_\_\_\_\_ 25 \_\_\_\_\_

**Mold Size** \_\_\_\_\_ 0.03336 cu. ft. \_\_\_\_\_

**Test Performed on Material**

**Passing** \_\_\_\_\_ 3/8 in. \_\_\_\_\_ **Sieve**

**NM** \_\_\_\_\_ **LL** \_\_\_\_\_ **PI** \_\_\_\_\_

**Sp.G. (ASTM D 854)** \_\_\_\_\_ 2.7 \_\_\_\_\_

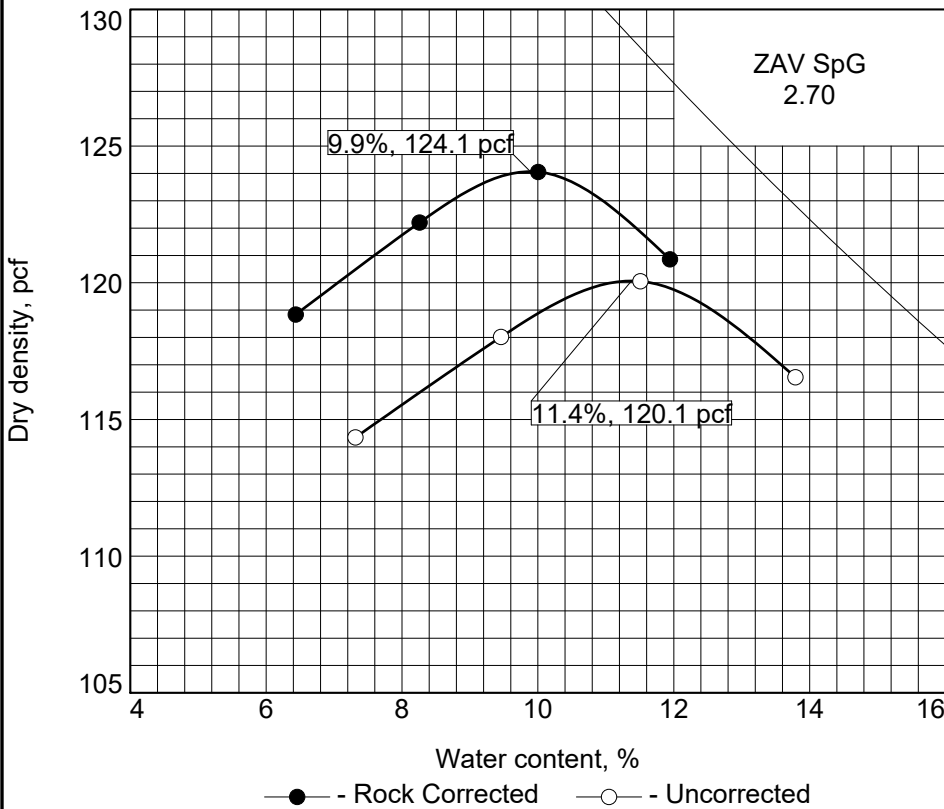
**%>3/8 in.** \_\_\_\_\_ 15 \_\_\_\_\_ **%<No.200** \_\_\_\_\_

**USCS** \_\_\_\_\_ **AASHTO** \_\_\_\_\_

**Date Sampled** \_\_\_\_\_

**Date Tested** \_\_\_\_\_ 7/23/20 \_\_\_\_\_

**Tested By** \_\_\_\_\_ AD \_\_\_\_\_

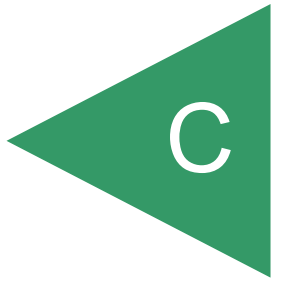


**TESTING DATA**

	1	2	3	4	5	6
<b>WM + WS</b>	4012.0	3993.0	3941.0	3843.0		
<b>WM</b>	1986.3	1986.3	1986.3	1986.3		
<b>WW + T #1</b>	2264.0	2226.0	2177.0	2062.0		
<b>WD + T #1</b>	2055.2	1983.6	2008.7	1936.0		
<b>TARE #1</b>	241.0	226.0	229.0	213.0		
<b>WW + T #2</b>						
<b>WD + T #2</b>						
<b>TARE #2</b>						
<b>MOISTURE</b>	10.0	11.9	8.3	6.4		
<b>DRY DENSITY</b>	124.1	120.9	122.2	118.8		

ROCK CORRECTED TEST RESULTS	UNCORRECTED	Material Description
Maximum dry density = 124.1 pcf	120.1 pcf	Greyish brown sandy lean clay
Optimum moisture = 9.9 %	11.4 %	
<b>Project No.</b> S1965-05-01 <b>Client:</b> <b>Project:</b> Markleeville Pump Station and Pipeline  ○ <b>Depth:</b> 0-4' <b>Sample Number:</b> B3 Bulk, Curve 2		<b>Remarks:</b>  _____  <b>Checked by:</b> MR <b>Title:</b> Lab Manager
<b>GEOCON CONSULTANTS, INC.</b>		Figure B7

APPENDIX



## APPENDIX C

### Tunnelman's Ground Classification of Soils

*(Terzaghi, 1950, Modified by Heuer, 1974)*

Classification		Behavior	Typical Soil Names	Site Soil Types
Firm		Heading can be advanced without initial support, and final lining can be constructed before ground starts to move.	Loess above water table; hard clay, marl, cement sand and gravel when not highly stressed.	Firm soils were observed in some of our borings
Raveling	Slow raveling	Chunks or flakes of material begin to drop out of the arch or walls sometime after the ground has been exposed, due to loosening or to overstress and "brittle" fracture (ground separates or breaks along distinct surfaces, opposed to squeezing ground). In fast raveling ground, the process starts within a few minutes; otherwise, the ground is slow raveling.	Residual soils or sand with small amounts of binder may be fast raveling below the water table, slow raveling above. Stiff fissured clays may be slow or fast raveling depending upon degree of overstress.	Slow raveling soils were observed in our borings.  Groundwater was not encountered in our borings
	Fast raveling			
Squeezing		Ground squeezes or extrudes plastically into tunnel, without visible fracturing or loss of continuity, and without perceptible increase in water content. Ductile, plastic yield and flow due to overstress.	Ground with low frictional strength. Rate of squeeze depends on degree of overstress. Occurs at shallow to medium depth in clay of very soft to medium consistency. Stiff to hard clay under high cover may move in combination of raveling at excavation surface and squeezing at depth behind surface.	Squeezing soils were not observed in our borings.
Running	Cohesive, running	Granular materials without cohesion are unstable at a slope greater than their angle of repose ( $\pm 30^{\circ}$ - $35^{\circ}$ ). When exposed at steeper slopes they run like granulated sugar or dune sand until the slope flattens to the angle of repose.	Clean, dry granular materials. Apparent cohesion in moist sand, or weak cementation in any granular soil, may allow the material to stand for a brief period of raveling before it breaks down and runs. Such behavior is cohesive-running.	Cohesive running soils were not observed in our borings.
	Running			Potentially running soils were observed in some of our borings
Flowing		A mixture of soil and water flows into the tunnel like a viscous fluid. The material can enter the tunnel from the invert as well as from the face, crown, and walls, and can flow for great distances, completely filling the tunnel in some cases.	Below water table in silt, sand or gravel without enough clay content to give significant cohesion and plasticity. May also occur in sensitive clay when such material is disturbed.	Flowing soils were not encountered in our borings. Groundwater was not encountered in our borings.
Swelling		Ground absorbs water, increases in volume, and expands slowly into the tunnel.	Highly pre-consolidated clay with plasticity index in excess of about 30, generally containing significant percentages of montmorillonite.	Potentially swelling soils not observed in our borings



Project No. S1965-05-01  
June 3, 2021

Gabriel Rodell, PE  
Bennett Engineering Services  
1082 Sunrise Avenue, Suite 100  
Roseville, California 95661

Subject: GEOTECHNICAL REPORT ADDENDUM  
MARKLEEVILLE SEWER PUMP STATION AND PIPELINE  
MARKLEEVILLE, ALPINE COUNTY, CALIFORNIA

Reference: *Geotechnical Investigation, Markleeville Sewer Pump Station and Pipeline, Markleeville, Alpine County, California* (Geocon Project No. S1965-05-01), January 12, 2021.

Mr. Rodell:

As requested, we have prepared this geotechnical report addendum for the Markleeville Sewer Pump Station and Pipeline project located in Alpine County, California.

We prepared this addendum to provide geotechnical recommendations for fill slope construction for the pump station building pad. We understand that the fill slope embankment will abut the existing fill embankment of the adjacent State Route 89 (SR-89). The information contained in this addendum is intended to supplement the information contained in Section 6.5 in the referenced geotechnical report with respect building pad grading. The remaining discussion, recommendations, and limitations from our original report remain valid.

Permanent cut and fill slopes should be constructed no steeper than 2H:1V (horizontal to vertical). To mitigate potential erosion, slopes should be vegetated as soon as possible, and surface drainage should be directed away from the tops of slopes.

To increase stability and provide a stable foundation for the engineered fill slope, we recommend that a keyway be cut into the bottom of excavation at the toe of the engineered fill slope. In general, the keyway should be at least 20 feet wide and extend at least 3 feet into competent, undisturbed soil or weathered bedrock. The actual depth of the keyway should be evaluated during construction by a Geocon representative. Keyway backslopes should be no flatter than 1H:1V. The engineered fill should be benched into the adjacent embankment material (SR-89) as the fill is placed. Benches should roughly parallel the slope contours and extend at least 3 feet into the existing embankment. Keyway and benching construction criteria may need revision during construction based on actual conditions encountered in the field.

Our services were performed in accordance with engineering principles generally accepted at this time and location. We make no warranty, express or implied.

Please contact us if you have any questions concerning the contents of this Addendum.

Respectfully Submitted,

**GEOCON CONSULTANTS, INC.**

Victor M. Guardado, EIT  
Senior Staff Engineer

Jeremy, J. Zorne, PE, GE  
Senior Engineer



**APPENDIX B**  
**ENVIRONMENTAL DOCUMENTS**



# Markleeville Sewer Pump Station Relocation and Improvements Project

Addendum to the  
Markleeville Creek Floodplain Restoration Project, Alpine County  
Initial Study/Mitigated Negative Declaration  
State Clearinghouse No. 2015032034

Lead Agency:

Markleeville Public Utility District  
PO Box 222 Markleeville, CA 96120  
Contact: Dave Harden, PE, District Engineer  
916.771.6144

Prepared by:

Ascent Environmental  
Contact: Suzanne Enslow, Project Manager

March 8, 2021



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# LIST OF ABBREVIATIONS

APE	area of potential effects
APN	Assessor's Parcel Numbers
AWG	Alpine Watershed Group
bgs	below ground surface
CAAQS	California ambient air quality standards
Cal EPA	California Environmental Protection Agency
CalEEMod	California Emissions Estimator Model
CDF	California Department of Forestry
CEQA	California Environmental Quality Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRHR	California Register of Historical Resources
EAP	Energy Action Plan
EPA	U.S. Environmental Protection Agency
GBUAPCD	Great Basin Unified Air Pollution Control District
GBVAB	Great Basin Valleys Air Basin
GHG	greenhouse gas
IS	Initial Study
IS/MND	Initial Study/Mitigated Negative Declaration
MND	Mitigated Negative Declaration
MPUD	Markleeville Public Utility District
NAAQS	national ambient air quality standards
NHPA	National Historic Preservation Act
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
PM <sub>10</sub>	respirable particulate matter with an aerodynamic diameter less than or equal to 10 microns
PM <sub>2.5</sub>	fine particulate matter with an aerodynamic diameter less than or equal to 2.5 microns in diameter
PRC	Public Resources Code
ROW	right-of-way
RWQCB	Regional Water Quality Control Board
SR	State Route
SRF	State Revolving Fund
SWPPP	stormwater pollution prevention plan

SWRCB	State Water Resources Control Board
USACE	U.S. Army Corps of Engineers
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

# 1 PROJECT INFORMATION

**Project title:** Markleeville Sewer Pump Station Relocation and Improvements Project

**Project location:** Project is located in Alpine County, California in the town of Markleeville on the north side of State Route (SR) 89. The site is included on the Markleeville U.S. Geological Survey (USGS) Quadrangle map, NE ¼ of the SE ¼ of Section 21, T10N, R20E MDBM

**Lead agency's name and address:** Markleeville Public Utility District  
PO Box 222 Markleeville, CA 96120

**Contact person:** Dave Harden, PE, District Engineer, 916-771-6144

**Project sponsor's name and address:** Same as Lead Agency, above.

**Location of administrative record:** Same as Lead Agency, above.

**Previously Adopted Initial Study and Mitigated Negative Declaration:**

This addendum documents that none of the conditions described in Section 15162 of the State California Environmental Quality Act (CEQA) Guidelines calling for preparation of a subsequent negative declaration have occurred and the project will not have any significant effects that were not previously discussed in the Markleeville Creek Floodplain Restoration Project Alpine County, California Initial Study/Mitigated Negative Declaration (IS/MND) (February 2014). A Notice of Determination documenting adoption of an MND and approval of the project was filed on June 29, 2015 (State Clearinghouse No. 2015032034) (referred to as "2015 IS/MND" throughout this addendum). The Markleeville Creek Floodplain Restoration Project includes sewer system modifications, as well as channel and floodplain restoration and improved public access facilities. Alpine County's 2015 IS/MND is available for review online at: <https://www.alpinecountyca.gov/407/Current-Projects>.

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## 2 INTRODUCTION

### 2.1 PURPOSE OF THIS ADDENDUM

Alpine County, in coordination with the Markleeville Public Utility District (MPUD) and the Alpine Watershed Group (AWG), approved the *Markleeville Creek Floodplain Restoration Project* in 2015, which is a priority floodplain restoration project for the Upper Carson River Watershed (2015 Project). The goal of the 2015 Project is to restore the natural form and function of Markleeville Creek at the site of the former U.S. Forest Service (USFS) Markleeville Guard Station. The 2015 Project has three major elements: sewer system modifications, floodplain restoration, and public access improvements, all of which are important in achieving the project objectives. The sequence of these elements is vital to ensure that the floodplain restoration can utilize the entire footprint of disturbed ground. Thus, the sewer system modifications must occur first, followed concurrently by public access facilities and floodplain restoration. The approved 2015 Project will remove the floodwalls and artificial fill material, re-vegetate all disturbed areas, and will provide community benefits including sewer infrastructure modifications and public access for recreation such as walking paths, interpretive signage, picnicking and parking. Alpine County, as lead agency under CEQA, prepared an Initial Study (IS) for the project in 2014, adopted a Mitigated Negative Declaration (MND), and filed a Notice of Determination in 2015 (State Clearinghouse No. 2015032034) (referred to as "2015 IS/MND" throughout this addendum).

Since 2015, the Markleeville Creek Floodplain Restoration Project has been split into two separate and distinct projects, with separate funding sources:

- ▶ *Markleeville Sewer Pump Station Relocation and Improvements Project*, led by MPUD, to be funded by Clean Water State Revolving Fund (SRF) financing; and
- ▶ *Markleeville Creek Floodplain Restoration Project*, which includes the floodplain restoration and the public access facilities, led by AWG.

The *Markleeville Sewer Pump Station Relocation and Improvements Project* ("Sewer Improvement Project" or "project") is the focus of this addendum. As stated above, the sewer system improvements need to be completed first to allow for the subsequent floodplain restoration and public access improvements. MPUD is responsible for the sewer system modifications, which consistent with the 2015 Project evaluated in the 2015 IS/MND, includes the demolition and removal or abandonment of on-site sewer facilities in the floodplain and construction of replacement facilities including an access road, sewer manholes, sewer piping, and a pump station that is accessible to maintenance vehicles at all times regardless of weather conditions. The current project site plan for the sewer system improvements has simply been refined based on detailed engineering of the sewer facilities and avoidance of potential environmental impacts. The Sewer Improvement Project has independent utility, extending the lifespan of MPUD facilities, improving reliability and accessibility, and protecting water quality by moving sewer facilities out of the floodplain.

The purpose of this addendum is to describe MPUD's current design for the *Markleeville Sewer Pump Station Relocation and Improvements Project*, which has been revised to avoid trenching across Markleeville Creek and to avoid work near the Markleeville Courthouse, and to update the CEQA document, which is over five years old, to address current CEQA Guidelines. The evaluation in this addendum addresses whether changes to the project, changes to the project site or vicinity, or new information are so substantial that they would require major revisions to the previous CEQA document. As documented in this addendum, no subsequent CEQA document is necessary for the project.

## 2.1.1 State CEQA Guidelines Regarding an Addendum

If, after certification of an EIR or adoption of a MND, minor technical changes or additions are necessary or none of the conditions described in CEQA Guidelines Section 15162 calling for the preparation of a subsequent EIR or MND have occurred, an addendum to the EIR or MND may be prepared.

Public Resources Code (PRC) Section 21166 and Sections 15162 through 15163 of the State CEQA Guidelines describe the conditions under which subsequent document would be prepared. In summary, when an EIR has been certified or a MND adopted for a project, no subsequent document shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in light of the whole record, one or more of the following:

- ▶ substantial changes are proposed in the project that will require major revisions of the previous EIR or MND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- ▶ substantial changes occur with respect to the circumstances under which the project is undertaken that will require major revisions of the previous EIR or MND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
- ▶ new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR or MND was certified as complete was adopted, shows any of the following:
  - the project will have one or more significant effects not discussed in the previous EIR or MND;
  - significant effects previously examined will be substantially more severe than shown in the previous EIR or MND;
  - mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
  - mitigation measures or alternatives that are considerably different from those analyzed in the previous EIR or MND would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Section 15164 of the CEQA Guidelines provides that a lead agency may prepare an addendum to a previously certified EIR or adopted MND if some changes or additions are necessary, but none of the conditions described above for Section 15162 calling for preparation of a subsequent document have occurred. CEQA allows lead agencies to restrict review of modifications to a previously approved project to the incremental effects associated with the proposed modifications, compared against the anticipated effects of the previously approved project at build-out.

As described in Chapter 3, "Project Description," and Chapter 4, "Coverage Under the 2015 IS/MND," none of the conditions described above from Section 15162 calling for preparation of a subsequent document have occurred. Therefore, the differences between the approved 2015 Project, as evaluated in Alpine County's 2015 IS/MND, and the Sewer Improvement Project now being considered by MPUD constitute changes consistent with CEQA Guidelines Section 15164 that may be addressed in an addendum to the 2015 IS/MND.

## 2.2 CLEAN WATER STATE REVOLVING FUND

The Clean Water SRF program offers low cost financing for a wide variety of water quality projects. In California, administration of the SRF program has been delegated by the United States Environmental Protection Agency (EPA) to the State Water Resources Control Board (SWRCB). In turn, the SWRCB requires all projects being considered under the SRF program to comply with CEQA and certain federal environmental protection laws and regulations (federal cross-cutter regulations), including the Federal Endangered Species Act (Section 7), the National Historic Preservation Act (Section 106), Environmental Justice (Executive Order 12898), and the General Conformity Rule for

the Clean Air Act, among others. Collectively, the SWRCB refers to these requirements as “CEQA-Plus.” This addendum will support MPUD’s SRF Financial Assistance Application Environmental Package (as revised 12/2019) and compliance with SWRCB CEQA-Plus requirements, per the Clean Water State Revolving Fund Program State Environmental Review Process (SWRCB 2017). In addition, the SRF Financial Assistance Application Environmental Package requires that the project’s CEQA document is less than five years old at the time a financing agreement is executed for the project. Because the Alpine County MND was adopted in 2015, although it evaluated the Sewer Improvement Project now being considered, it would be over five years old at the time of funding. Therefore, the evaluation of current site conditions, regulations, and project elements in this addendum will also serve to update the 2015 IS/MND, ensuring the CEQA review for the Markleeville Sewer Pump Station Relocation and Improvements Project is less than five years old.

## 2.3 ANTICIPATED PERMITS AND APPROVALS

Table 2.1 lists the anticipated agency reviews, permits, and approvals that would be necessary to implement the project.

**Table 2-1 Anticipated Permits and Approvals**

Agency	Regulation	Permit/Action
Markleeville Public Utility District	California Environmental Quality Act, Section 15000 et seq. MPUD Ordinances	Addendum to the Alpine County 2015 MND Inspection Agreement
California Department of Transportation		ROW Encroachment Permit
State Water Resources Control Board	State Revolving Fund Environmental Compliance Federal Cross-Cutter Regulations	SRF Environmental Form
California Regional Water Quality Control Board (Lahontan Water Board)	Clean Water Act, Section 401	NPDES Construction
California State Office of Historic Preservation	National Historic Preservation Act, Section 106	Compliance with Section 106
Great Basin Unified Air Pollution Control District		Construction Permit
Private Landowner - MPUD Easement Holder		Possible modification to easement
California Department of Fish and Wildlife	California Fish and Game Code	Streambed Alteration Agreement for impacts on fish and wildlife resources due to riparian habitat removal
US Army Corps of Engineers	Section 404 of Clean Water Act	Section 404 permit for fill of federally protected wetlands
Lahontan Regional Water Quality Control Board	Section 401 of Clean Water Act	Section 401 Water Quality Certification for fill or waters of the state (including wetlands)

## 2.4 ORGANIZATION OF THE ADDENDUM

This addendum uses a modified checklist format to document that the site-specific activities for the Markleeville Sewer Pump Station Relocation and Improvements Project are adequately addressed by the 2015 IS/MND pursuant to Section 15164(b) of the State CEQA Guidelines, which states that “an addendum to an adopted negative declaration may be prepared if only minor technical changes or additions are necessary or none of the conditions described in Section 15162 calling for the preparation of a subsequent EIR or negative declaration have occurred.” The

checklist is set up to document that none of the conditions described in CEQA Guidelines Section 15162 calling for the preparation of a subsequent MND have occurred and an addendum to the 2015 IS/MND may be prepared (per CEQA Guidelines Section 15164).

The organization of project-specific environmental analysis in this addendum follows the organization of Alpine County's 2015 IS/MND (specifically the IS/MND Volume I, dated February 2014); however, it avoids excessive repetition of information and issues that were disclosed in the 2015 IS/MND and that require no further analysis. Instead, this addendum evaluates the more detailed project-level information specific to the Markleeville Sewer Pump Station Relocation and Improvements Project to document that the project activities are covered by the Alpine County 2015 IS/MND and that no subsequent MND is required.

This addendum is organized into the following chapters:

**Chapter 1 – Project Information:** provides a summary of information about the Sewer Improvement Project, including project location, lead agency, and contact information.

**Chapter 2 – Introduction:** summarizes the purpose of the addendum, the 2015 IS/MND, and this document's organization.

**Chapter 3 – Project Description:** includes a description of all elements of the Markleeville Sewer Pump Station Relocation and Improvements Project, focusing on those elements that differ from the 2015 Project.

**Chapter 4 – Coverage under the 2015 IS/MND:** describes the consistency of the Sewer Improvement Project with the 2015 IS/MND and includes an environmental checklist for each resource topic. This section of the addendum analyzes the potential effects on the existing physical environment from implementation of the proposed modifications, as compared to the approved 2015 Project. This analysis has been prepared to determine whether any of the conditions described above that would require preparation of a subsequent or supplemental MND would occur as a result of the project modification.

**Chapter 5 – Applicable 2015 IS/MND Mitigation Measures:** lists adopted mitigation measures from the 2015 IS/MND that are applicable to, and would be required for, the Sewer Improvement Project.

**Chapter 6 - References:** lists references used in the preparation of this document.

## 3 PROJECT DESCRIPTION

### 3.1 LOCATION

The Markleeville Sewer Pump Station Relocation and Improvements Project site is located in the town of Markleeville, Alpine County, California (Figure 3-1). Markleeville is approximately 8 miles southwest of the Nevada border and 20 miles south of Lake Tahoe. The project site is located on the north side of State Route (SR) 89, and found on the Markleeville USGS Quadrangle map, NE ¼ of the SE ¼ of Section 21, T10N, R20E MDBM.

The project site is located immediately east of the Alpine County Administration Center along Markleeville Creek near its confluence with Millberry Creek. Land uses to the west are commercial and public institutional in downtown Markleeville, while those to the south are residential. Land uses to the north and east are a mix of rural agricultural, public institutional (the wastewater treatment plant), and open space/recreation.

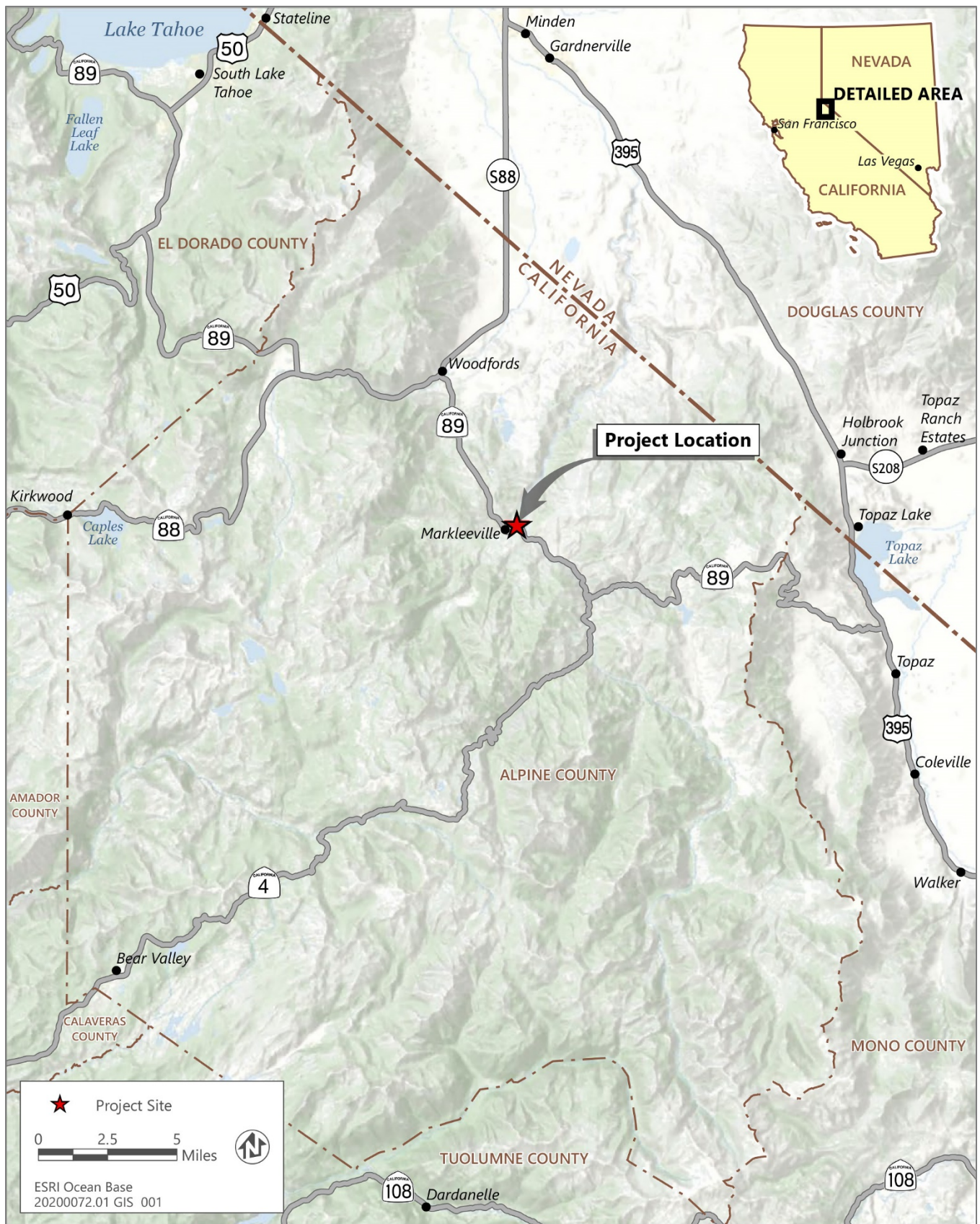
### 3.2 PROJECT SITE

The project site covers approximately 4.5 acres (see Figure 3-2), that formerly housed the USFS Markleeville Guard Station. The site includes Markleeville Creek and immediate adjacent areas downstream of the SR 89 bridge and Millberry Creek downstream of the MPUD access road to its confluence with Markleeville Creek. The parcels within the project boundary are primarily owned by the County (Assessor's Parcel Numbers [APNs] 002-280-002-0, 002-280-003-0, 002-280-005-0, 002-280-006-0, and include a portion of a private parcel along the MPUD access road (002-260-002-0). The MPUD holds access easements along all pipelines and a blanket access easement that includes the access road. The southern portion of the project site is at and may include portions of the Caltrans right-of-way (ROW) along SR 89.

### 3.3 PROJECT BACKGROUND

The project site is prone to seasonal flooding and has been highly altered since the 1930s to reduce flooding risk and allow for development on the site. Alterations have included rock floodwalls installed to isolate the floodplain and clearing and grading of the area. Despite these alterations, the site remains subject to significant and repeated flooding during major storm events, having been inundated at least five times from 1937 to 2005. Following a flood in 1997, additional rock gabion slope stabilization measures were completed along the left bank of Markleeville Creek to protect the road, sewer force main, and the USFS campground waterline. However, while the site is protected during 2- and 5-year events, it remains vulnerable to inundation during 10-year or greater events. During flooding conditions, the MPUD access road provides limited access to large vehicles. Some sewage infrastructure is completely inaccessible during flooding events, including several of the existing sewer manholes and the MPUD sewer pump station. Equipment failure or other maintenance issues that could not be resolved during an impassable flood could result in creek contamination.

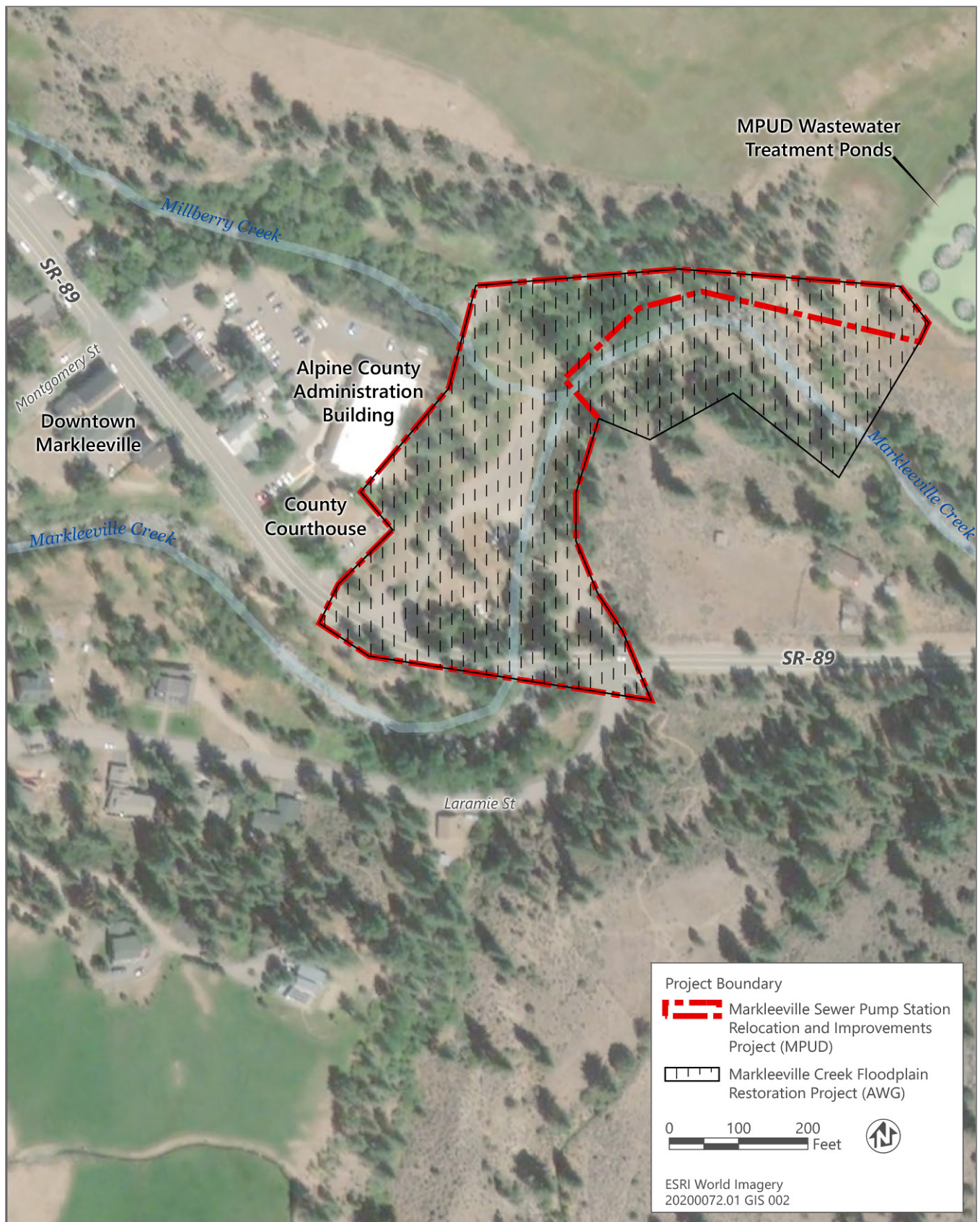
The sewer infrastructure modifications are needed to extend the lifespan of MPUD sewer facilities; improve reliability; provide safer year-round accessibility; and reduce the probability of water quality risks posed by continued exposure of the aging pipes, manholes, and pump station to flooding. Changes to the sewer system infrastructure on the project site are a necessary prerequisite for implementation of the remainder of the previously-approved 2015 project: AWG's Markleeville Creek Floodplain Restoration Project, which includes the floodplain restoration and the public access facilities.



Source: adapted by Ascent Environmental in 2020

Figure 3-1 Project Location





Source: Data received from Bennett Engineering in 2020

**Figure 3-2** Project Area

## 3.4 PROJECT OBJECTIVES

Consistent with the project objectives stated in the 2015 IS/MND, the objectives of the Markleeville Sewer Pump Station Relocation and Improvements Project are to:

- ▶ relocate key sewer system infrastructure out of the floodplain;
- ▶ reduce the potential for sewer system overflows;
- ▶ replace aging pipes, manholes and pump stations to extend their lifespan;
- ▶ reduce the threat of water quality impairments from flooding, leaks or spills; and
- ▶ provide safe access to sewer system infrastructure during all weather conditions.

## 3.5 PROJECT ELEMENTS

Consistent with the MPUD sewer system modifications evaluated in the 2015 IS/MND, the project includes replacement and relocation of sewer pipelines; construction of a new pump station along the new pipeline alignment; and modification of the access road location, profile, and drainage facilities. All new surface sewer facilities would be constructed 1 to 2 feet above the projected 100-year flood level to prevent future inundation. Figure 3-3 shows the current site plan of the proposed sewer system modifications, which is consistent with the plan evaluated in the 2015 IS/MND, but refined based additional engineering, avoidance of a historic wall near the Markleeville Courthouse, and avoidance of trenching across Markleeville Creek.

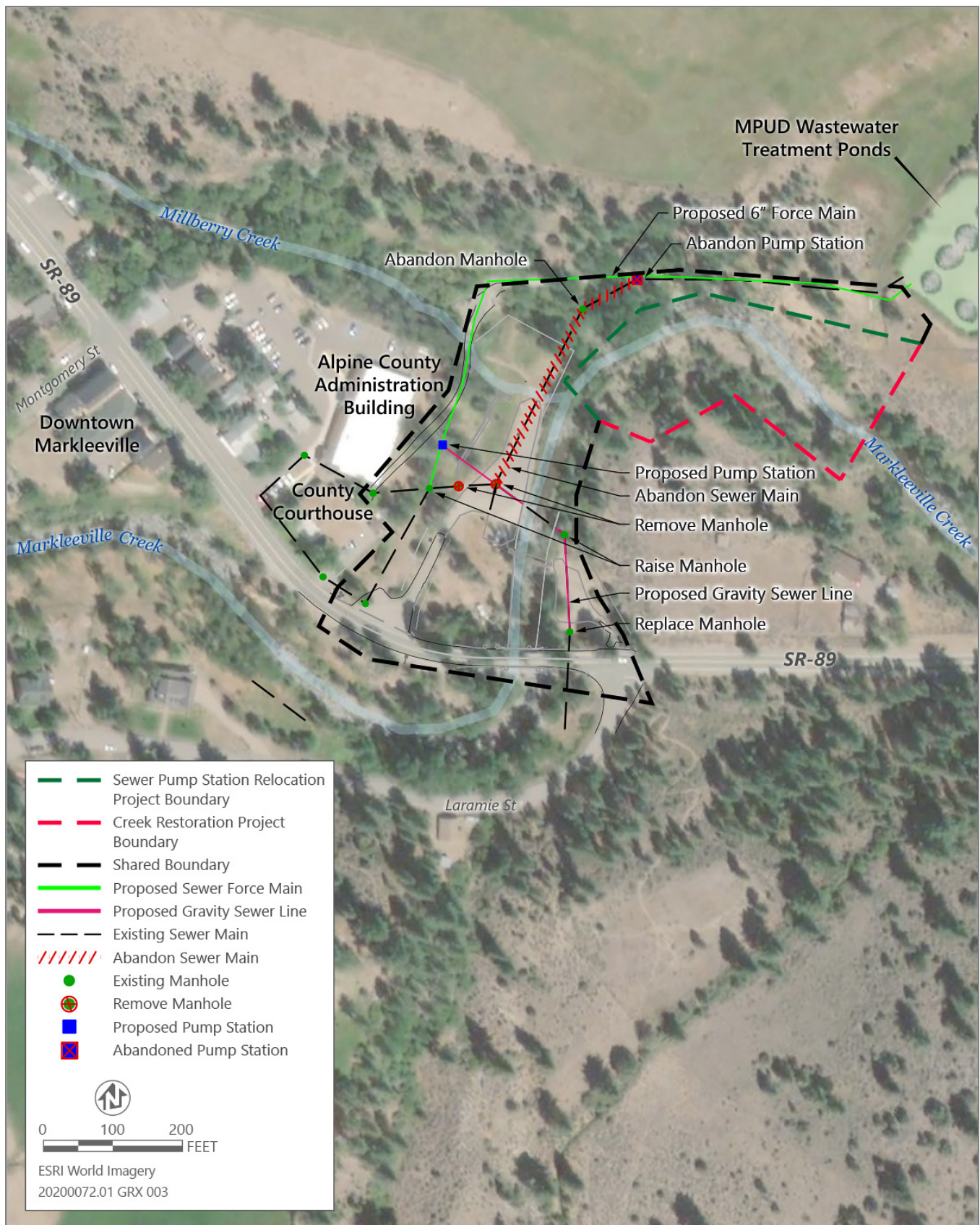
### 3.5.1 Replacement and Relocation of Sewer infrastructure

The project would involve the abandonment, removal, and replacement of various sewer pipelines and manholes. Abandonment of selected infrastructure would be consistent with federal and state regulations. With the exception of the 8-inch concrete-encased steel gravity pipe that crosses Markleeville Creek, which would remain in use, no infrastructure located within 2 feet of the finished grade would be abandoned in place. Selected infrastructure would be removed and properly disposed offsite, including any special disposal measures for asbestos-lined concrete pipes. Based on the site history, it is possible that some remnant infrastructure or materials could be present within the site. Any remnant infrastructure or materials would be inspected, removed, and disposed of safely.

The specific abandonment, removal, and replacement of sewer infrastructure includes the following elements.

- ▶ Decommission, abandon, and remove the existing sewer pump station, including the removal of all equipment and backfilling the pump station and screening manhole per industry standards.
- ▶ Abandon in place approximately 380 feet of existing 8-inch gravity sewer pipe that connects to the existing sewer pump station to the west of Markleeville Creek. The abandonment would be done by cutting the pipe ends, filling the pipe with concrete, and capping both ends of the pipe. The pipe is at a depth of approximately 7.5 feet below ground surface (bgs).
- ▶ Remove and replace two manholes west of Markleeville Creek.
- ▶ Remove approximately 150 feet of gravity sewer pipe and replace with new 8-inch PVC gravity sewer pipe west of Markleeville Creek at a depth of 5 to 15 feet below finished grade.
- ▶ Remove approximately 160 feet of gravity sewer pipe and replace with new 8-inch PVC gravity sewer pipe east of Markleeville Creek at a depth of 5 to 10 feet below finished grade.
- ▶ Replace one standard sewer manhole and one sewer drop manhole east of Markleeville Creek.





**Figure 3-3 Sewer System Modifications**

- ▶ Remove approximately 390 feet of existing force main along the MPUD access road and install approximately 865 feet of new force main pipe using open trench methods. The new force main from the pump station to the wastewater treatment facility would be upsized from 6-inch pipe to 8-inch pipe to account for additional head loss and future development.
- ▶ The single manhole located within the 100-year floodplain (east of Markleeville Creek) would be raised a minimum of 12 inches above the 100-year floodplain elevation and fitted with a watertight lid.

### 3.5.2 New Pump Station

Construction of the new pump station would occur along the MPUD access road and new force main alignment. The new pump station would:

- ▶ Be located outside the 100-year floodplain boundary and at a finished elevation above the maximum projected 100-year flood level. The wet well structure would have a depth of approximately 30 feet below grade.
- ▶ Be located in an area that provides the necessary hydraulic grade for conveyance from gravity sewers to the pump station.
- ▶ Meet Hydraulic Design Institute specifications with pumping capacity greater than or equal to that of the existing pump station to account for additional head loss and planned future development. Pump station design would include provisions for maintaining the storage time-to-overflow in the event of a pump station failure or malfunction. Currently, time-to-overflow is a minimum of six hours during peak flow conditions, which is provided by a combination of wet well volume and lower collection piping and manholes. To maintain this time buffer, the new pump station wet well diameter or depth would be increased for storage. This improvement would provide additional safeguards and reliability for sewer function and maintain the response time necessary to procure emergency equipment and contractors in the event of a major failure or blockage.
- ▶ Provide sufficient space for MPUD operations staff and/or emergency vehicles to access and maintain the system during all weather conditions. The new pump station may have down-cast security lighting and security fencing.
- ▶ Back up generator may be installed at the new pump station location (budget permitting).

As stated above, the existing pump station would be decommissioned, abandoned, and removed, including the removal of all equipment and backfilling the pump station and screening manhole per industry standards. This would occur after the new pump station and force main are installed and operational.

### 3.5.3 Access Road Modifications

The MPUD access road modifications would focus on improving year-round accessibility during all weather conditions. The road modifications would:

- ▶ Relocate the MPUD access road entry point to be co-located with the proposed parking lot at the southwest corner of the site to allow for a lower gradient profile and to eliminate the need for maintenance vehicles to travel between the neighboring Alpine County courthouse and administration buildings.
- ▶ Modify the road profile and cross section to reduce the maximum road profile slope and to create a more uniform standard cross section that is approximately 12 feet wide with two percent crown and minimum cover of three feet over the new sewer.

### 3.5.4 Construction

Construction is anticipated to begin in summer of 2022 or 2023 depending on funding and occur over the span of approximately 20 weeks. Initial site preparation would consist of vegetation removal and clearing around work areas. Construction crews would consist of approximately ten personnel (i.e., 3 to 6 construction personnel, 1 construction

supervisor, 2 electrical/mechanical personnel, and 1 inspector) at peak construction. Construction personnel would access the site via SR 89. No closure of SR 89 nor other local streets would be required. Construction equipment, materials, and vehicle staging would occur on the project site.

Construction activities would be limited to 8:00 a.m. to 6:00 p.m. Monday through Friday and 9:00 a.m. to 3:00 p.m. on weekends to comply with the Alpine County Code construction noise exemption and minimize disruption to the community.

Construction equipment would include:

- ▶ One (1) excavator for the entire duration of the project;
- ▶ One (1) large bore drill rig for one week during construction of the new pump station;
- ▶ Twenty (20) dump truck trips for select backfill material and off-haul/disposal of materials;
- ▶ One (1) watering truck; and
- ▶ Four (4) materials-delivery trucks.

All construction equipment would be properly maintained and fitted with operational noise control devices, per manufacturer specifications. Equipment idling would be prohibited when equipment is not in use.

Construction would be performed in conformance with an approved stormwater pollution prevention plan (SWPPP), which shall include but not be limited to a description of best management practices to be implemented, dewatering and diversion requirements, site-specific erosion control devices.

While construction would be scheduled during a low flow time of year to minimize the potential for saturated soils and shallow groundwater, it is possible that subsurface flow would be intercepted. This would require implementation of an approved dewatering plan including proper pre-treatment of any pumped water prior to discharge.

The project would include temporary re-vegetation measures to ensure that any ground disturbance would be stabilized during the interim period before the separate floodplain restoration project begins. If floodplain restoration is not planned to occur within two growing seasons, the project would implement permanent re-vegetation in all areas where direct ground disturbance occurred.

### 3.5.5 Sewer System Monitoring and Maintenance

The MPUD would perform routine and any emergency inspections and repairs of the sewer system infrastructure, consistent with their current operating procedures and governing regulations. The project would not require additional staff.

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## 4 COVERAGE UNDER THE 2015 IS/MND

The MPUD has determined that, in accordance with PRC Section 21166 and Section 15164 of the State CEQA Guidelines, minor technical changes or additions to Alpine County's 2014 IS/MND and adopted 2015 MND (2015 IS/MND) are necessary to address the refined site plan for the *Markleeville Sewer Pump Station Relocation and Improvements Project*, which was approved as part of the *Markleeville Creek Floodplain Restoration Project*. An addendum to an adopted MND is prepared when changes to a project are required, and the changes:

- ▶ will not result in any new significant environmental effects, and/or
- ▶ will not substantially increase the severity of previously identified effects.

The environmental analysis evaluates whether, for each environmental resource topic (e.g., land use, traffic, air quality), there are any changes in the project or the circumstances under which it would be undertaken that would result in new or substantially more severe environmental impacts than considered in the 2015 IS/MND. The column headings in the environmental checklist are defined as follows:

- ▶ Impact Examined in the 2015 MND?: "Yes" is stated where the potential impacts of the project were examined in the 2015 IS/MND. This document summarizes and cross references the relevant analysis in the 2015 IS/MND.
- ▶ Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?: This question is answered with a "yes" or "no," as substantiated by the discussion provided below the table. If the response is "yes," additional CEQA analysis is required.
- ▶ Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?: This question is answered with a "yes" or "no," as substantiated by the discussion provided below the table. If the response is "yes," additional CEQA analysis is required.
- ▶ Do Mitigation Measures in the 2015 IS/MND Address and Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?: This question is answered with a "yes," "no," or "N/A," as substantiated by the discussion provided below the table. The answer N/A indicates there was no potential impact under the 2015 IS/MND and the project does not change the impact conclusion as adopted in 2015. The 2015 IS/MND mitigation measures are summarized and cross referenced, as necessary. To ensure proper implementation of the 2015 IS/MND mitigation measures, clarification and prescriptive directions have been provided herein. The mitigation measures applicable to the project are also summarized in Chapter 5 of this addendum.

The "Discussion" section in each resource topic provides substantiation of each impact conclusion. The bold impact conclusions for each checklist question are consistent with the conclusions of the 2015 IS/MND.

## 4.1 AESTHETICS

Section 3.1 of the 2015 IS/MND evaluates the impacts of the project on aesthetics.

### 4.1.1 Environmental Checklist and Discussion

Aesthetics	Impact Examined in 2015 IS/MND?	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Do Mitigation Measures in the 2015 IS/MND Address / Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?
Would the Project...				
a) Have a substantial adverse effect on a scenic vista?	Yes	No	No	N/A
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	Yes	No	No	N/A
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	Yes	No	No	N/A
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Yes	No	No	N/A

- a) **No Impact.** The project site is located in downtown Markleeville, adjacent to commercial and institutional buildings, SR 89, and Markleeville and Miller Creeks. The project site has been previously disturbed and does not provide views of a scenic vista. Project construction would temporarily alter the visual character of the project site; however, the infrastructure would primarily be underground and the aboveground pump station would be similar to current conditions and located near the Alpine County Administration building to the west. Therefore, the project would not adversely affect the visual character of the site and the project would have no impact on a scenic vista. Therefore, the project would not result in a new or substantially more severe impact on a scenic vista, and no mitigation would be required.
- b) **Less than Significant.** As discussed in the 2015 IS/MND, SR 89 located within Alpine County is a designated state scenic highway. The project would temporarily disrupt views from SR 89 in Markleeville due to construction equipment and site disturbance. However, the project would result in underground sewer infrastructure and the above-ground pump station would be similar to current conditions and located near the Alpine County Administration building to the west. Thus, the project elements would not alter the views of drivers on SR 89, nor would the project degrade or damage existing scenic resources along SR 89. The project would not result in a new or substantially more severe impact, this impact would remain less than significant, and no mitigation would be required.
- c) **Less than Significant.** Consistent with the 2015 IS/MND, although the project would temporarily disrupt the existing visual character of the project site due to construction equipment and site disturbance, the project would not permanently degrade the visual character of the project site. The project would result in underground sewer infrastructure and the new pump station would be similar to current conditions and located near the Alpine County

Administration building to the west. Therefore, the project would not result in a new or substantially more severe impact, this impact would remain less than significant, and no mitigation would be required.

- d) **No Impact.** As discussed in the 2015 IS/MND, there would be no impact with respect to light or glare. Construction activities would occur during daylight hours and would not require nighttime lighting. Construction equipment is unlikely to have reflective surfaces and would not be a substantial source of glare in the area. The new pipelines would be underground, and consistent with current conditions of the sewer pump station, the new pump station building would not be constructed with glare-inducing materials. The new facilities would have limited exterior security lighting, which would be shielded and downcast to prevent light pollution on surrounding residences and the night sky. The project would not result in a new or substantially more severe impact and no mitigation would be required.

## 4.2 AGRICULTURAL AND FORESTRY RESOURCES

Section 3.2 of the 2015 IS/MND evaluates the impacts of the project on agricultural and forestry resources.

### 4.2.1 Environmental Checklist and Discussion

Agricultural & Forestry Resources	Impact Examined in 2015 IS/MND?	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Do Mitigation Measures in the 2015 IS/MND Address / Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?
Would the Project...				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	Yes	No	No	N/A
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	Yes	No	No	N/A
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	Yes	No	No	N/A
d) Result in the loss of forest or agricultural land or conversion of forest land to non-forest use?	Yes	No	No	N/A
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	Yes	No	No	N/A

- a) **No Impact.** Alpine County is not included in the area mapped pursuant to the California Department of Conservation’s Farmland Mapping and Monitoring Program (DOC 2016). As such, no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance is designated along the project alignment or within the project area. In addition, the project site is an existing disturbed site in Markleeville that is not in agricultural use. Consistent with the 2015 IS/MND, the project would not 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 Department of Conservation, to non-agricultural use. Therefore, the project would not result in a new or substantially more severe impact, and no mitigation would be required.
- b) **No Impact.** Consistent with the 2015 IS/MND, the project would not conflict with existing zoning for agricultural use or a Williamson Act contract and there is no land under Williamson Act contract within the project site. Therefore, the project would not result in a new or substantially more severe impact, and no mitigation would be required.



- c,d) **No Impact.** Consistent with the 2015 IS/MND, the project would not occur on designated forest land and would not convert forest land to a non-forest land use. Consistent with the 2015 IS/MND, the project would not 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 for Timberland Production(as defined by Government Code section 51104(g)). Additionally, as discussed above under criteria a) and b), the project site is not located on agricultural land and would not result in the conversion of agricultural land to a non-agricultural land use. Therefore, the project would not result in a new or substantially more severe impact, and no mitigation would be required.
- e) **No Impact.** Consistent with the 2015 IS/MND, because the project involves relocating and improving existing sewer infrastructure and facilities on the project site, the project would not involve any changes that could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use. Therefore, the project would not result in a new or substantially more severe impact, and no mitigation would be required.

## 4.3 AIR QUALITY

Section 3.3 of the 2015 IS/MND evaluates the impacts of the project on air quality.

### 4.3.1 Environmental Checklist and Discussion

Air Quality	Impact Examined in 2015 IS/MND?	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Do Mitigation Measures in the 2015 IS/MND Address / Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?
Would the Project...				
a) Conflict with or obstruct implementation of the applicable air quality plan?	Yes	No	No	N/A
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	Yes	No	No	Yes
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	Yes	No	No	N/A
d) Expose sensitive receptors to substantial pollutant concentrations?	Yes	No	No	N/A
e) Create objectionable odors affecting a substantial number of people?	Yes	No	No	N/A

The Project is located in Alpine County, which is in the northernmost section of the Great Basin Valleys Air Basin (GBVAB). The Great Basin Unified Air Pollution Control District (GBUAPCD) is the regional agency responsible for air quality planning within the GBVAB, which includes ensuring that the GBVAB is in compliance or moving towards compliance with the national ambient air quality standards (NAAQS) and California ambient air quality standards (CAAQS). The U.S. Environmental Protection Agency established NAAQS for six criteria air pollutants, which are known to be harmful to human health and the environment: carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter (which is categorized into respirable particulate matter with an aerodynamic diameter less than or equal to 10 microns [PM<sub>10</sub>] and fine particulate matter with an aerodynamic diameter less than or equal to 2.5 microns in diameter [PM<sub>2.5</sub>]), nitrogen dioxide, and sulfur dioxide. The State of California has established the CAAQS for these six pollutants, as well as for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. Alpine County's designation with respect to the CAAQS and NAAQS has not changed since adoption of the 2015 MND. Alpine County is currently designated as nonattainment with respect to the CAAQS for PM<sub>10</sub>. The prominent sources of PM<sub>10</sub> in Alpine County are controlled burns and wildfires. The region is designated as in attainment unclassifiable with respect to the NAAQS and CAAQS for all other pollutants (CARB 2019).

GBUAPCD has not established significance criteria for the evaluation of air quality impacts under CEQA. However, GBUAPCD implements rules and regulations within their jurisdiction, including Rule 401, which regulates fugitive dust emissions generated by construction activities.

The 2015 IS/MND determined that operational emissions associated would be indirect and associated with the replacement of the pump station, which would have all new electrically powered equipment tied into the local utilities power supply. After project construction is completed, operational emissions from the project would be similar, if not

less than, existing conditions. Therefore, the analysis below, consistent with the analysis in the 2015 IS/MND, focuses on emissions generated by project-related construction activity.

- a) **No Impact.** No new air quality plans have been developed or implemented since adoption of the 2015 MND. As discussed in the 2015 IS/MND, GBUAPCD has developed four distinct air quality plans that are being implemented in specific locations within the GBVAB. None of these plans apply to locations in Alpine County, where the project is located. For this reason, the 2015 IS/MND concluded that there would be no impact regarding compliance with applicable air quality plans. The project would not result in a new or substantially more severe impact, and no mitigation would be required.
- b) **Less than Significant with Mitigation.** As discussed above and in the 2015 IS/MND, Alpine County is designated as nonattainment with respect to the CAAQS for PM<sub>10</sub>. The 2015 IS/MND determined that project construction would generate short-term, intermittent PM<sub>10</sub> emissions, which could result in a potentially significant impact.

#### Mitigation Measure AQ-1 (per page 3-30 of the 2015 IS/MND)

Implementation of the air quality protection measures described in Section 2.5.17, "Air Quality Protection," of the 2015 IS/MND are required to ensure that the project does not violate any standard or contribute substantially to an existing or projected air quality violation. Air quality protection during project construction would be required to ensure particulate matter (i.e., fugitive dust) emissions would be limited. The following fugitive dust control measures, as outlined in the GBUAPCD's Rule 401, shall be implemented during construction. MPUD shall take reasonable precautions to prevent visible particulate matter from being airborne, under normal wind conditions, beyond the property from which the emission originates. Reasonable precautions include, but are not limited to:

- ▶ Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;
- ▶ Application of asphalt, water, or suitable chemicals on dirt roads, material stockpiles, and other surfaces which can give rise to airborne dusts;
- ▶ Installation and use of hoods, fans, and fabric filters, to enclose and vent the handling of dusty materials. Adequate contaminant methods shall be employed during such handling operations;
- ▶ Use of water, chemicals, chuting, venting, or other precautions to prevent particulate matter from becoming airborne in handling dusty materials to open stockpiles and mobile equipment; and
- ▶ Maintenance of roadways in a clean condition.

With implementation of the required GBUAPCD's Rule 401 air quality protection measures, the project would result in less than significant short-term, intermittent PM<sub>10</sub> emissions. Therefore, the project would not violate any standard or contribute substantially to an existing or projected air quality violation, would not result in a new or substantially more severe impact with implementation of the mitigation required in the 2015 IS/MND, and no additional mitigation is required.

- c) **No Impact.** As discussed under criterion b), project construction would generate short-term, intermittent emissions of PM<sub>10</sub>, which is currently designated nonattainment in Alpine County with respect to the CAAQS. However, implementation of the required air quality protection measures (per Section 2.5.17, "Air Quality Protection," of the 2015 IS/MND) during construction would minimize particulate matter and fugitive dust emissions, and construction emissions would be short-term and intermittent. For these same reasons, the 2015 IS/MND concluded that the project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard. The project would not result in a new or substantially more severe impact, and no additional mitigation would be required.
- d) **No Impact.** Sensitive receptors are generally considered to include those land uses where exposure to pollutants could result in health-related risks to sensitive individuals. Residential dwellings, schools, hospitals, playgrounds, and similar facilities are of primary concern because of the presence of individuals particularly sensitive to

pollutants, such as children and the elderly, and the potential for these individuals to experience increased and prolonged exposure to pollutants. The closest sensitive receptors to the project site are single-family residences located south of the project site on the opposite side of SR 89. These residences are located 230 feet or further from where project construction activity would occur, which provides a buffer distance for any pollutants emitted during construction to dissipate. Additionally, as discussed in the 2015 IS/MND, the project would not generate any permanent, long-term substantial pollutant concentrations because project operation would result in very limited emissions. The project would not result in a new or substantially more severe impact, and no mitigation would be required.

- e) **Less than Significant.** As discussed in the 2015 IS/MND, the project involves modifications to existing sewer infrastructure, resulting in improvements to the sewer system that would reduce the potential for future sewer system overflows that could create objectionable odors. Thus, the project would provide a long-term net benefit. Any odors generated by construction equipment or activities would be temporary and localized, and thus, would not affect nearby land uses for an extended period of time or affect a substantial number of people. The project would not result in a new or substantially more severe impact, and no mitigation would be required.

## 4.4 BIOLOGICAL RESOURCES

Section 3.4 of the 2015 IS/MND evaluates the impacts of the project on biological resources.

### 4.4.1 Environmental Checklist and Discussion

Biological Resources	Impact Examined in 2015 IS/MND?	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Do Mitigation Measures in the 2015 IS/MND Address / Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?
Would the Project...				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	Yes	No	No	Yes
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	Yes	No	No	Yes
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Yes	No	No	Yes
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	Yes	No	No	Yes
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Yes	No	No	N/A
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	Yes	No	No	N/A

- a) **Less than Significant with Mitigation.** The 2015 IS/MND evaluated impacts on special-status species and concluded that there was a potentially significant impact related to special-status plants, special-status wildlife, as well as raptors and migratory birds protected by California Fish and Game Code and the Migratory Bird Treaty Act.

New biological database searches were conducted for the Markleeville Sewer Pump Station Relocation Project. The California Natural Diversity Database (CNDDDB), California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants, and U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) records were reviewed for special-status wildlife and plants in September and November of 2020 (CNDDDB 2020,

CNPS 2020, USFWS 2020). No additional special-status species or other changes were identified in the USFWS search results (USFWS 2020). The CNDDDB and CNPS inventory searches were increased from a search of the Markleeville USGS quadrangle to a search of the nine USGS quadrangles surrounding the project site (i.e., Freel Peak, Woodfords, Carters Station, Carson Pass, Markleeville, Heenan Lake, Wolf Creek, Ebbetts Pass, Pacific Valley; CNDDDB 2020, CNPS 2020). The updated records search results are included in Appendix A. Based on a review of database search results, documented species ranges, and habitat within the project site as confirmed during a site visit by an Ascent Environmental biologist on October 2, 2020, nine special-status plant species and 10 special-status wildlife species may occur on the project site (CNDDDB 2020, CNPS 2020).

**Special-Status Plants**

The nine special-status plant species that may occur on the project site are: mountain bent grass, upswept moonwort, Davy’s sedge, porcupine sedge, Liddon’s sedge, western valley sedge, marsh willowherb, Blandow’s bog moss, and alder buckthorn (Table 4-1, CNDDDB 2020, CNPS 2020). Habitat suitable for these species (i.e. creeks, seeps, scrub, forest) is present near Markleeville Creek and in undeveloped areas of the project site. Consistent with the 2015 IS/MND, no special-status plants were observed during biological reconnaissance survey of the project site.

**Table 4-1 Special-Status Plant Species Known to Occur in the Vicinity of the Project Site and Potential for Occurrence in the Project Site**

Species	Listing Status <sup>1</sup> Federal	Listing Status <sup>1</sup> State	CRPR	Habitat	Potential for Occurrence
Mountain bent grass <i>Agrostis humilis</i>	—	—	2B.3	Alpine boulder and rock field, meadows and seeps, subalpine coniferous forest. Sometimes on calcareous substrates. 5,003–11,155 feet in elevation. Blooms July–September.	May occur. The project site contains seep habitat potentially suitable for this species.
Upswept moonwort <i>Botrychium ascendens</i>	—	—	2B.3	Grassy fields or conifer forests near springs and creeks, meadows and seeps. 4,920–10,712 feet in elevation. Blooms July–August.	May occur. The project site contains conifer forest habitat near creeks (i.e., Markleeville Creek) that may be suitable for this species.
Davy's sedge <i>Carex davyi</i>	—	—	1B.3	Subalpine coniferous forest, upper montane coniferous forest, typically in dry, sparse meadows. 4,790–10,597 feet in elevation. Blooms May–August.	May occur. The project site contains forest habitat potentially suitable for this species.
Porcupine sedge <i>Carex hystericina</i>	—	—	2B.1	Wet places, such as stream edges. 1,985–3,150 feet in elevation. Blooms May–June.	May occur. The project site contains creek habitat (i.e., Markleeville Creek) and associated wet areas potentially suitable for this species.
Mud sedge <i>Carex limosa</i>	—	—	2B.2	In floating bogs and soggy meadows and edges of lakes. 4,495–9,154 feet in elevation. Blooms June–August.	Not expected to occur. The project site does not contain bog, meadow, or lake habitat.
Liddon's sedge <i>Carex petasata</i>	—	—	2B.3	Broadleafed upland forest, lower montane coniferous forest, meadows and seeps, pinyon and juniper woodland. 2,740–9,941 feet in elevation. Blooms May–July.	May occur. The project site contains forest and seep habitat potentially suitable for this species.
Western valley sedge <i>Carex vallicola</i>	—	—	2B.3	Great Basin scrub, meadows, and seeps. Mesic sites. 5,003–9,203 feet in elevation. Blooms July–August.	May occur. The project site contains scrub and seep habitat potentially suitable for this species.

Species	Listing Status <sup>1</sup> Federal	Listing Status <sup>1</sup> State	CRPR	Habitat	Potential for Occurrence
Alpine dusty maidens <i>Chaenactis douglasii</i> var. <i>alpina</i>	—	—	2B.3	Open, subalpine to alpine gravel and crevices; granitic substrate. 7,749–11,007 feet in elevation. Blooms July–September.	Not expected to occur. The project site does not contain gravel or rocky crevice habitat suitable for this species.
Fell-fields claytonia <i>Claytonia megarhiza</i>	—	—	2B.3	In the crevices between rocks, rocky or gravelly soil. 8,530–10,942 feet in elevation. Blooms July–September.	Not expected to occur. The project site is outside of the elevation range of this species.
Great Basin claytonia <i>Claytonia umbellata</i>	—	—	2B.3	Subalpine coniferous forest. Talus slopes, stony flats, crevices. 5,594–11,483 feet in elevation. Blooms May–August.	Not expected to occur. The project site does not contain talus slope habitat.
Fiddleleaf hawksbeard <i>Crepis runcinata</i>	—	—	2B.2	Moist, alkaline valley bottoms. 1,247–10,203 feet in elevation. Blooms May–August.	Not expected to occur. The project site does not contain alkaline valley bottom habitat suitable for this species.
Subalpine cryptantha <i>Cryptantha crymophila</i>	—	—	1B.3	Subalpine coniferous forest. On dry talus of volcanic formation. 8,793–10,810 feet in elevation. Blooms July–August.	Not expected to occur. The project site does not contain talus slope habitat and is outside of the elevation range of this species.
Tahoe draba <i>Draba asterophora</i> var. <i>asterophora</i>	—	—	1B.2	On open talus slopes, rock outcrops, and crevices. On decomposed granite. 9,088–11,499 feet in elevation. Blooms July–August.	Not expected to occur. The project site does not contain talus slope or rock outcrop habitat and is outside of the elevation range of this species.
Tall draba <i>Draba praealta</i>	—	—	2B.3	Mesic sites. 8,202–11,204 feet in elevation. Blooms July–August.	Not expected to occur. The project site is outside of the elevation range of this species.
Scribner's wheat grass <i>Elymus scribneri</i>	—	—	2B.3	On rocky slopes. 9,514–13,780 feet in elevation. Blooms July–August.	Not expected to occur. The project site is outside of the elevation range of this species.
Marsh willowherb <i>Epilobium palustre</i>	—	—	2B.3	Mesic sites. 5,430–7,710 feet in elevation. Blooms July–August.	May occur. The project site contains mesic habitat associated with Markleeville Creek potentially suitable for this species.
Jack's wild buckwheat <i>Eriogonum luteolum</i> var. <i>saltuarium</i>	—	—	1B.2	Sandy, granitic substrates. 5,577–7,874 feet in elevation. Blooms July–September.	Not expected to occur. The project site does not contain sandy, rocky habitat and is outside of the known range of this species.
Carson Valley monkeyflower <i>Erythranthe carsonensis</i>	—	—	1B.1	Granitic openings. 4,856–4,856 feet in elevation. Blooms April–June.	Not expected to occur. The project site is outside of the known range of this species.
Blandow's bog moss <i>Helodium blandowii</i>	—	—	2B.3	Moss growing on damp soil, especially under willows among leaf litter. 6,109–8,858 feet in elevation.	May occur. The project site contains damp soil habitat and willows.
Robbins' pondweed <i>Potamogeton robbinsii</i>	—	—	2B.3	Deep water, lakes. 5,020–10,827 feet in elevation. Blooms July–August.	Not expected to occur. The project site does not contain lake habitat.

Species	Listing Status <sup>1</sup> Federal	Listing Status <sup>1</sup> State	CRPR	Habitat	Potential for Occurrence
Alder buckthorn <i>Rhamnus alnifolia</i>	—	—	2B.2	Mesic sites. 4,692–7,005 feet in elevation. Blooms May–July.	May occur. The project site contains mesic habitat associated with Markleeville Creek potentially suitable for this species.
Water bulrush <i>Schoenoplectus subterminalis</i>	—	—	2B.3	Montane lake margins, in shallow water. 2,461–7,382 feet in elevation. Blooms June–August.	Not expected to occur. The project site does not contain montane lake habitat.
Cream-flowered bladderwort <i>Utricularia ochroleuca</i>	—	—	2B.2	Mesic sites, including lake margins. 4,298–7,710 feet in elevation. Blooms June–July.	Not expected to occur. The project site is outside of the known range of this species.
Golden violet <i>Viola purpurea</i> ssp. <i>aurea</i>	—	—	2B.2	Great Basin scrub, pinyon-juniper woodland. Dry, sandy slopes. 3,281–8,202 feet in elevation. Blooms April–June.	Not expected to occur. The project site is outside of the known range of this species.

Notes: CRPR = California Rare Plant Rank; CESA = California Endangered Species Act; CEQA = California Environmental Quality Act; ESA = Endangered Species Act; NPPA = Native Plant Protection Act

<sup>1</sup> Legal Status Definitions

California Rare Plant Ranks:

- 1A Plant species that are presumed extirpated or extinct because they have not been seen or collected in the wild in California for many years. A plant is extinct if it no longer occurs anywhere. A plant that is extirpated from California has been eliminated from California but may still occur elsewhere in its range.
- 1B Plant species considered rare or endangered in California and elsewhere (protected under CEQA, but not legally protected under ESA or CESA).
- 2B Plant species considered rare or endangered in California but more common elsewhere (protected under CEQA, but not legally protected under ESA or CESA).

Threat Ranks:

- 0.1 Seriously threatened in California (over 80% of occurrences threatened; high degree and immediacy of threat)
- 0.2 Moderately threatened in California (20-80% occurrences threatened; moderate degree and immediacy of threat)
- 0.3 Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

Sources: CNDDDB 2020; CNPS 2020

Due to the potential for special-status plant species to occur on the project site, project construction disturbance has the potential to result in a potentially significant impact on special-status plants.

**Mitigation Measure BIO-1 - Pre-construction plant survey within the project disturbance footprint shall be conducted a qualified biologist to identify any special status plants and create construction exclusion areas.**

**Mitigation Measure BIO-1a – Conduct Special-Status Plant Surveys and Implement Avoidance Measures and Mitigation**

- ▶ Prior to implementation of project activities and during the period when special-status plant species with potential to occur in the project site (Table 4-2) are most identifiable (generally, the blooming period of flowering plants or sporophyte period of bryophytes), a qualified botanist will conduct protocol-level surveys for special-status plants within the project site following survey methods from the CDFW Protocols for Surveying and Evaluating Impacts on Special Status Native Plant Populations and Natural Communities (CDFW 2018). The qualified botanist will 1) be knowledgeable about plant taxonomy, 2) be familiar with plants of the Sierra Nevada region, including special-status plants and sensitive natural communities, 3) have experience conducting floristic botanical field surveys as described in CDFW 2018, 4) be familiar with the *California Manual of Vegetation* (Sawyer et al. 2009 or current version, including updated natural communities data at <http://vegetation.cnps.org/>), and 5) be familiar with federal and state statutes and regulations related to plants and plant collecting.



- ▶ If special-status plants are not found, the botanist will document the findings in a letter report to MPUD and no further mitigation will be required.
- ▶ If special-status plant species are found, the occupied habitat will be avoided completely, if feasible (i.e., project objectives can still be met). This may include establishing a no-disturbance buffer around the plant population and demarcation of this buffer by a qualified botanist using flagging or high-visibility construction fencing. The size of the buffer will be determined by the qualified botanist and will be large enough to avoid direct or indirect impacts on the plant.

**Table 4-2 Typical Blooming Period for Special-Status Plants that May Occur within the Project Site<sup>1</sup>**

Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mountain bent grass							X	X	X			
Upswept moonwort							X	X				
Davy's sedge					X	X	X	X				
Porcupine sedge					X	X						
Liddon's sedge					X	X	X					
Western valley sedge							X	X				
Marsh willowherb							X	X				
Blandow's bog moss <sup>2</sup>	—	—	—	—	—	—	—	—	—	—	—	—
Alder buckthorn					X	X	X					

<sup>1</sup> Blooming periods vary annually based on annual climatic variation and across species range. It is essential to base survey timing on current conditions in the survey year and it is recommended that reference populations are visited to verify species are identifiable during the survey period.

<sup>2</sup> Non-blooming bryophyte species

Source: Data compiled by Ascent Environmental in 2021; CNPS 2020

- ▶ If special-status plants are found during rare plant surveys and cannot be avoided, MPUD will consult with CDFW or U.S. Fish and Wildlife Service (USFWS), as appropriate depending on species status, to determine the compensation necessary to achieve no net loss of occupied habitat or individuals. Mitigation measures may include, but are not limited to, preserving and enhancing existing populations, creating off-site populations on mitigation sites through seed collection or transplantation at a 1:1 ratio, and restoring or creating suitable habitat in sufficient quantities to achieve no net loss of occupied habitat or individuals. Potential mitigation sites could include suitable locations within or outside of the project site. MPUD will develop and implement a site-specific mitigation strategy describing how unavoidable losses of special-status plants will be compensated. Success criteria for preserved and compensatory populations will include:
  - The extent of occupied area and plant density (number of plants per unit area) in compensatory populations will be equal to or greater than the affected occupied habitat.
  - Compensatory and preserved populations will be self-producing. Populations will be considered self-producing when:
    - plants reestablish annually for a minimum of five years with no human intervention such as supplemental seeding; and
    - reestablished and preserved habitats contain an occupied area and flower density comparable to existing occupied habitat areas in similar habitat types in the project vicinity.
  - If off-site mitigation includes dedication of conservation easements, purchase of mitigation credits, or other off-site conservation measures, the details of these measures will be included in the mitigation plan, including information on responsible parties for long-term management, conservation easement holders, long-term management requirements, success criteria such as those listed above and other details, as appropriate to target the preservation of long-term viable populations.

Implementation of 2015 IS/MND Mitigation Measures BIO-1 and BIO-1a, which would require protocol-level special-status plant surveys and protection measures if special-status plants are identified prior to implementation of project activities would reduce impacts on special-status plant species to less than significant. The findings of the 2015 IS/MND remain valid and no additional mitigation is required.

**Special-Status Wildlife**

Special-status wildlife that may occur or are known to occur on the project site are Lahontan cutthroat trout, mountain sucker, mountain whitefish, pallid bat, ringtail, Sierra Nevada mountain beaver, Sierra Nevada snowshoe hare, Townsend’s big-eared bat, western red bat, and western white-tailed jackrabbit (Table 4-3, CNDDDB 2020, USFWS 2020). Additionally, as identified in the 2015 IS/MND, nesting birds protected by California Fish and Game Code and the federal Migratory Bird Treaty Act may also occur on the project site.

Three special-status fish have potential to occur or are known to occur in the portion of Markleeville Creek within the project site: Lahontan cutthroat trout, mountain sucker, and mountain whitefish (Table 4-3). Experts, including the UC Davis Center for Watershed Sciences, U.S. Forest Service, CDFW, and the National Oceanic and Atmospheric Administration, have established the range for Lahontan cutthroat trout, which currently includes Markleeville, and the portion of Markleeville Creek within the project site (BIOS 2014). Lahontan cutthroat trout are known to occur in the East Fork Carson River and there are no significant barriers to aquatic movement between the East Fork Carson River and Markleeville Creek, which feeds into the East Fork Carson River approximately 1.6 miles northeast of the project site. No in-water work is proposed in Markleeville Creek; however, project activities in the vicinity of the creek could result in inadvertent introduction of silt or other materials into the creek, potentially affecting water quality, which could result in adverse effects on special-status fish. The 2015 IS/MND Hydrology and Water Quality section identified temporary erosion/runoff best management control measures (e.g., straw wattles, straw bales, secondary containment for storage of fuel and oil), which would reduce potential impacts on special-status fish to less than significant.

**Table 4-3 Special-Status Wildlife Species Known to Occur in the Vicinity of the Project Site and Potential for Occurrence in the Project Site**

Species	Listing Status <sup>1</sup> Federal	Listing Status <sup>1</sup> State	Habitat	Potential for Occurrence
<b>Amphibians and Reptiles</b>				
Northern leopard frog <i>Lithobates pipiens</i>	–	SSC	Native range is east of Sierra Nevada-Cascade Crest. Near permanent or semi-permanent water in a variety of habitats. Highly aquatic species. Shoreline cover, submerged and emergent aquatic vegetation are important habitat characteristics.	Not expected to occur. The project site is outside of the known range of this species.
Sierra Nevada yellow-legged frog <i>Rana sierrae</i>	FE	ST	Always encountered within a few feet of water. Tadpoles may require 2 to 4 years to complete their aquatic development.	Not expected to occur. The project site is outside of the known range of this species.
Southern long-toed salamander <i>Ambystoma macrodactylum sigillatum</i>	–	SSC	High elevation wet meadows and lakes in the Sierra Nevada, Cascade, and Klamath mountains. Aquatic larvae occur in ponds and lakes. Outside of breeding season adults are terrestrial and associated with underground burrows of mammals and moist areas under logs and rocks.	Not expected to occur. The project site does not contain wet meadow, lake, or pond habitat suitable for this species.

Species	Listing Status <sup>1</sup> Federal	Listing Status <sup>1</sup> State	Habitat	Potential for Occurrence
Southern mountain yellow-legged frog <i>Rana muscosa</i>	FE	SE	Federal listing refers to populations in the San Gabriel, San Jacinto and San Bernardino Mountains (southern DPS). Northern DPS was determined to warrant listing as endangered, April 2014, effective June 30, 2014. Always encountered within a few feet of water. Tadpoles may require 2 - 4 years to complete their aquatic development.	Not expected to occur. The project site is outside of the known range of this species.
Yosemite toad <i>Anaxyrus canorus</i>	FT	SSC	Vicinity of wet meadows in central High Sierra, 6,400 to 11,300 feet in elevation. Primarily montane wet meadows; also in seasonal ponds associated with lodgepole pine and subalpine conifer forest.	Not expected to occur. The project site does not contain wet meadow or seasonal pond habitat suitable for this species.
<b>Birds</b>				
Bald eagle <i>Haliaeetus leucocephalus</i>	FD	SE FP	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	Not expected to occur. The project site does not contain large, old growth trees or snags suitable for this species.
Black swift <i>Cypseloides niger</i>	-	SSC	Coastal belt of Santa Cruz and Monterey County; central and southern Sierra Nevada; San Bernardino and San Jacinto Mountains. Breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons and sea-bluffs above the surf; forages widely	Not expected to occur. The project site does not contain cliff or canyon habitat suitable for this species.
California spotted owl <i>Strix occidentalis</i>	-	SSC	Mixed conifer forest, often with an understory of black oaks and other deciduous hardwoods. Canopy closure greater than 40 percent. Most often found in deep-shaded canyons, on north-facing slopes, and within 300 meters of water.	Not expected to occur. The forest habitat within the project is generally not characterized by high canopy closure or late seral forest features (e.g., old growth trees and snags, coarse woody debris).
Golden eagle <i>Aquila chrysaetos</i>	-	FP	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	Not expected to occur. The project site does not contain large trees or snags suitable for this species.
Great gray owl <i>Strix nebulosa</i>	-	SE	Resident of mixed conifer or red fir forest habitat, in or on edge of meadows. Requires large diameter snags in a forest with high canopy closure, which provide a cool sub-canopy microclimate.	Not expected to occur. The project site does not contain large trees or snags suitable for this species.
Northern goshawk <i>Accipiter gentilis</i>	-	SSC	Within, and in vicinity of, coniferous forest. Uses old nests and maintains alternate sites. Usually nests on north slopes, near water. Red fir, lodgepole pine, Jeffrey pine, and aspens are typical nest trees.	Not expected to occur. The project site does not contain large trees or snags suitable for this species.

Species	Listing Status <sup>1</sup> Federal	Listing Status <sup>1</sup> State	Habitat	Potential for Occurrence
Purple martin <i>Progne subis</i>	–	SSC	Inhabits woodlands, low elevation coniferous forest of Douglas-fir, ponderosa pine, and Monterey pine. Nests in old woodpecker cavities mostly, also in human-made structures. Nest often located in tall, isolated tree/snag.	Not expected to occur. The project site is outside of the known range of this species.
Willow flycatcher <i>Empidonax traillii</i>	–	SE	Inhabits extensive thickets of low, dense willows on edge of wet meadows, ponds, or backwaters; 2,000-8,000 feet elevation. Requires dense willow thickets for nesting/roosting. Low, exposed branches are used for singing posts/hunting perches.	Not expected to occur. Riparian habitat associated with Markleeville Creek does not provide sufficient cover or the habitat components (e.g., meadow, marsh) preferred by this species.
<b>Fish</b>				
California golden trout <i>Oncorhynchus mykiss aguabonita</i>	–	SSC	Native to Kern Plateau in wide, shallow, and exposed streams with little riparian vegetation. Transplanted within and outside of California beyond native range. Stream bottoms of sand, gravel, and some cobble. Water is clear and usually cold, but summer temperatures can vary from 3 to 22 Celsius.	Not expected to occur. The project site is outside of the known range of this species.
Lahontan cutthroat trout <i>Oncorhynchus clarkii henshawi</i>	FT	–	Historically in all accessible cold waters of the Lahontan Basin in a wide variety of water temperatures and conditions. Cannot tolerate presence of other salmonids. Requires gravel riffles in streams for spawning.	May occur. The project site is within the current range of Lahontan cutthroat trout and the portion of Markleeville Creek in the project site provides habitat potentially suitable for this species (BIOS 2014).
Mountain sucker <i>Catostomus platyrhynchus</i>	–	SSC	Restricted to the Lahontan drainage system and the north fork of the Feather River. Generally occupy pool-like habitats. Abundance greatest in areas with dense cover.	Known to occur. Mountain sucker has been documented within Markleeville Creek (CNDDDB 2020).
Mountain whitefish <i>Prosopium williamsoni</i>	–	SSC	Mountain whitefish in California inhabit clear, cold streams and rivers at elevations of 4,500–7,600 feet. While they are known to occur in a few natural lakes (e.g., Lake Tahoe), there are few records from reservoirs. In streams, they are generally associated with large pools (i.e., less than 3 feet deep) or deep runs.	Known to occur. Mountain whitefish has been documented within Markleeville Creek (CNDDDB 2020).

Species	Listing Status <sup>1</sup> Federal	Listing Status <sup>1</sup> State	Habitat	Potential for Occurrence
<b>Invertebrates</b>				
Western bumble bee <i>Bombus occidentalis</i>	–	SC	Bumble bees have three basic habitat requirements: suitable nesting sites for the colonies, availability of nectar and pollen from floral resources throughout the duration of the colony period (spring, summer, and fall), and suitable overwintering sites for the queens.	Not expected to occur. The project site is within the historic range of this species and there is one historic (1948) occurrence of the species within approximately 8 miles north of the project site (CNDDDB 2020). However, western bumble bee has recently undergone a decline in abundance and distribution and is no longer present across much of its historic range. In California, western bumble bee populations are currently largely restricted to high elevation sites in the northern Sierra Nevada and a few locations on the northern California coast (Xerces Society 2018).
<b>Mammals</b>				
American badger <i>Taxidea taxus</i>	–	SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils, and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Not expected to occur. While the project site has some areas containing scrub or forest habitat, these areas are surrounded by development (e.g., buildings, roads), and unlikely to provide contiguous habitat suitable for American badger.
California wolverine <i>Gulo</i>	–	ST FP	Found in the north coast mountains and the Sierra Nevada. Found in a wide variety of high elevation habitats. Needs water source. Uses caves, logs, burrows for cover and den area. Hunts in more open areas. Can travel long distances.	Not expected to occur. While the project site is located within the historic range of this species, the only known wolverine in California was last detected in Tahoe National Forest near Truckee. This detection is a significant distance from the project site (i.e., greater than 50 miles) and the likelihood of this individual dispersing to the project site is extremely low.
Fisher - West Coast DPS <i>Pekania pennanti</i>	FE	SSC	Uses cavities, snags, logs and rocky areas for cover and denning. Needs large areas of mature, dense forest. Endangered status applies to Southern Sierra DPS.	Not expected to occur. Fisher is considered to be extirpated from most of the northern and central Sierra Nevada (Zielinski et al. 1995; Sweitzer et al. 2015) and has not been detected within or in the vicinity of the project site since the late 1970s (CNDDDB 2020).
Pallid bat <i>Antrozous pallidus</i>	–	SSC	Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	May occur. The project site contains trees that may provide roost habitat potentially suitable for this species.
Ringtail <i>Bassariscus astutus</i>	–	FP	Riparian habitats, forest habitats, and shrub habitats in lower to middle elevations. Hollow trees, logs, snags, cavities in talus and other rocky areas, and other recesses are used for cover. Usually found within 0.6 mile of a permanent water source.	May occur. The riparian habitat associated with Markleeville Creek and forest habitat within the project site may provide habitat potentially suitable for ringtail.
Sierra Nevada mountain beaver <i>Aplodontia rufa californica</i>	–	SSC	Dense growth of small deciduous trees and shrubs, wet soil, and abundance of forbs in the Sierra Nevada and east slope. Needs dense understory for food and cover. Burrows into soft soil. Needs abundant supply of water.	May occur. Riparian habitat potentially suitable for Sierra Nevada mountain beaver is present along Markleeville Creek.

Species	Listing Status <sup>1</sup> Federal	Listing Status <sup>1</sup> State	Habitat	Potential for Occurrence
Sierra Nevada red fox <i>Vulpes necator</i>	FC	ST	Historically found from the Cascades down to the Sierra Nevada. Found in a variety of habitats from wet meadows to forested areas. Use dense vegetation and rocky areas for cover and den sites. Prefer forests interspersed with meadows or alpine fell-fields.	Not expected to occur. The project site may be within the historic range of Sierra Nevada red fox; however, only two small populations of the species are currently known: one near Lassen Peak and one near Sonora Pass. This species is currently unlikely to occur in the vicinity of the project site.
Sierra Nevada snowshoe hare <i>Lepus americanus tahoensis</i>	-	SSC	Boreal riparian areas in the Sierra Nevada. Thickets of deciduous trees in riparian areas and thickets of young conifers.	May occur. The project site contains deciduous tree thicket habitat and nearby riparian habitat potentially suitable for this species.
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	-	SCC	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	May occur. The project site contains bridges and buildings that may provide roost habitat potentially suitable for this species.
Western red bat <i>Lasiurus blossevillii</i>	-	SSC	Roosts primarily in foliage of trees, 2-40 feet above ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	May occur. The project site contains trees that may provide roost habitat potentially suitable for this species.
Western white-tailed jackrabbit <i>Lepus townsendii</i>	-	SSC	Open areas with scattered shrubs and exposed flat-topped hills with open stands of trees, brush, and herbaceous understory.	May occur. The project site contains brush and forest habitat potentially suitable for this species.

Notes: CNDDDB = California Natural Diversity Database; CEQA = California Environmental Quality Act

<sup>1</sup> Legal Status Definitions

**Federal:**

FE Federally Listed as Endangered (legally protected)

FT Federally Listed as Threatened (legally protected)

FC Federal Candidate for listing (legally protected)

FD Federally Delisted

**State:**

FP Fully protected (legally protected)

SSC Species of special concern (no formal protection other than CEQA consideration)

SE State Listed as Endangered (legally protected)

ST State Listed as Threatened (legally protected)

SC State Candidate for listing (legally protected)

Sources: CNDDDB 2020; Sweitzer et al. 2015; USFWS 2020; Xerces 2018; Zielinski et al. 1995

Due to the potential for special-status wildlife species to occur on the project site, project construction disturbance has the potential to result in a potentially significant impact on special-status plants.

**Mitigation Measure BIO-2 - Pre-construction wildlife and amphibian surveys of the disturbance footprint would be conducted by qualified biologists to identify any special status wildlife and amphibian species present, designate exclusion zones, and/or perform removals.**

**Mitigation Measure BIO-2a: Implement Limited Operating Period or Conduct Focused Surveys for Ringtail**

- ▶ To minimize the potential for loss of ringtail and active ringtail dens, project activities (e.g., tree removal, other vegetation removal, ground disturbance, staging) within habitat potentially suitable for ringtail (i.e., forest habitat, scrub habitat, riparian habitat) will be conducted outside of the ringtail maternity season (not well defined, but approximately April 15–July 31), if feasible.
- ▶ If the limited operating period is not feasible, and construction activities would occur from April 15–July 31, additional preconstruction surveys would be required. No more than 30 days before initiation of project activities, within potentially suitable ringtail habitat, a qualified biologist with experience conducting ringtail surveys will conduct a focused survey for potential ringtail dens (e.g., hollow trees, snags, rock crevices) within the project site. The qualified biologist will document sightings of individual ringtails, as well as potential dens.
- ▶ If individuals or potential or occupied dens are not found, the qualified biologist will submit a letter report summarizing the results of the survey to MPUD, and further mitigation will not be required.
- ▶ If ringtails are identified or if potential dens are located, an appropriate method will be used by the qualified wildlife biologist to confirm whether a ringtail is occupying the den. This may include use of remote field cameras, track plates, or hair snares. Other devices, such as a fiber optic scope, may be utilized to determine occupancy.
  - If potential dens are not occupied, the entrances will be temporarily blocked so that no other animals occupy the project site during project activities, but only after it has been fully inspected. The blockage will be removed once the project activities are completed.
  - If a den is found to be occupied by a ringtail, a no-disturbance buffer will be established around the occupied den. The no-disturbance buffer will include the den tree (or other structure) plus a suitable buffer as determined by the biologist in coordination with CDFW. Project activities in the no-disturbance buffer will be avoided until the den is unoccupied as determined by the qualified wildlife biologist in coordination with CDFW.

**Mitigation Measure BIO-2b: Conduct Preconstruction Surveys for Sierra Nevada Mountain Beaver and Implement Protective Buffers**

- ▶ No more than 30 days prior to any ground disturbance or vegetation removal activities within 200 feet of Markleeville Creek, a preconstruction survey for Sierra Nevada mountain beaver will be conducted by a qualified biologist familiar with the species. Surveys would consist of burrow searches within habitat suitable for the species.
- ▶ If individuals or occupied burrows are not found, the qualified biologist will submit a letter report summarizing the results of the survey to MPUD, and further mitigation will not be required.
- ▶ If active breeding/burrow sites are identified within 250 feet of project activities, MPUD will implement a limited operating period during the Sierra Nevada mountain beaver breeding season (February 1–July 31) during which no ground disturbance, vegetation or tree removal, or staging activities will occur within 250 feet of the identified burrow. The limited operating period, area within which it is implemented (e.g., 250-foot buffer), and activities allowed or prohibited within the limited operating period may be adjusted through consultation with CDFW.

**Mitigation Measure BIO-2c: Conduct Preconstruction Surveys for Sierra Nevada Snowshoe Hare and Western White-Tailed Jackrabbit and Implement Protective Buffers**

- ▶ No more than 30 days prior to any ground disturbance or vegetation removal activities during the Sierra Nevada snowshoe hare and western white-tailed jackrabbit breeding season (February 1–July 31), a preconstruction survey for nests of both species will be conducted by a qualified biologist familiar with the species. Surveys would consist of walking transects to determine whether active nests of either species are present within suitable habitat areas of the project site (e.g., scrub, forest).
- ▶ If individuals or active nests are not found, the qualified biologist will submit a letter report summarizing the results of the survey to MPUD, and further mitigation will not be required.
- ▶ If active nests are identified, MPUD will implement a limited operating period during the Sierra Nevada snowshoe hare and western white-tailed jackrabbit breeding season (February 1–July 31) during which no ground disturbance, vegetation or tree removal, or staging activities will occur within 250 feet of the identified nest. The limited operating period, area within which it is implemented (e.g., 250-foot buffer), and activities allowed or prohibited within the limited operating period may be adjusted through consultation with CDFW.

**Mitigation Measure BIO-2d: Conduct Focused Special-Status Bat Surveys and Implement Avoidance Measures**

- ▶ In the early planning stages of the project, a qualified biologist familiar with bats and bat ecology and experienced in conducting bat surveys will conduct surveys for bat roosts in suitable habitat (e.g., large trees, crevices, cavities, exfoliating bark, bridges, unoccupied buildings) within and adjacent to the project site.
- ▶ If no evidence of bat roosts is found, the qualified biologist will submit a letter report summarizing the results of the survey to MPUD, and no further study will be required.
- ▶ If evidence of bat roosts is observed, the species and number of bats using the roost will be determined. Bat detectors shall be used if deemed necessary to supplement survey efforts by the qualified biologist.
- ▶ A no-disturbance buffer of 250 feet will be established around active pallid bat, Townsend's big-eared bat, or western red bat roosts, and project activities will not occur within this buffer until after the roosts are unoccupied.
- ▶ If roosts of pallid bat, Townsend's big-eared bat, or western red bat are determined to be present and must be removed, the bats will be excluded from the roosting site before the tree, building, or other structure is removed. A program addressing compensation, exclusion methods, and roost removal procedures will be developed in consultation with CDFW before implementation. Exclusion methods may include use of one-way doors at roost entrances (bats may leave but not reenter) or sealing roost entrances when the site can be confirmed to contain no bats. Exclusion from active maternity roosts will not occur while females in maternity colonies are nursing young. Exclusion efforts may be restricted during other periods of sensitive activity (e.g., during hibernation). The loss of each roost (if any) will be replaced in consultation with CDFW and may require construction and installation of bat boxes suitable to the bat species and colony size excluded from the original roosting site. If determined necessary during consultation with CDFW, replacement roosts will be implemented before bats are excluded from the original roost sites. Once the replacement roosts are constructed and a qualified biologist confirms that bats are not present in the original roost site, the roost tree, building, or other structure may be removed or sealed to prevent bats from reentering.

**Mitigation Measure BIO-3 - Impacts to active nests will be avoided by the establishment and maintenance of buffers around the nests. The appropriate size and shape of the buffers will be determined by a qualified biologist in consultation with the CDFW, and may vary depending on the nest location, nest stage, and construction activity. No project activity will occur within the buffer area until the biologist confirms that the nest is no longer active. Monitoring will be conducted to confirm that the Project activities are not resulting in detectable adverse effects to the active nests.**



### Mitigation Measure BIO-3a: Conduct Focused Surveys for Special-Status Birds and Other Native Nesting Birds and Implement Protective Buffers

- ▶ To minimize the potential for loss of special-status bird species, raptors, and other native birds, project activities (e.g., tree removal, other vegetation removal, ground disturbance, staging) will be conducted during the nonbreeding season (approximately September 1-January 31, as determined by a qualified biologist), if feasible. If project activities are conducted during the nonbreeding season, no further mitigation will be required.
- ▶ Within 14 days before the onset of project activities during the breeding season (approximately February 1 through August 31, as determined by a qualified biologist), a qualified biologist familiar with birds of California and with experience conducting nesting bird surveys will conduct focused surveys for special-status birds, other nesting raptors, and other native birds and will identify active nests within 500 feet of the project site (where accessible).
- ▶ Impacts on nesting birds will be avoided by establishing appropriate buffers around active nest sites identified during focused surveys to prevent disturbance to the nest. Project activity will not commence within the buffer areas until a qualified biologist has determined that the young have fledged, the nest is no longer active, or reducing the buffer will not likely result in nest abandonment. A qualified biologist will determine the appropriate buffer size for non-raptor nests after a site- and nest-specific analysis. Buffers typically will be 500 feet for raptors and 100 feet for non-raptor species. Factors to be considered for determining buffer size will include presence of natural buffers provided by vegetation or topography, nest height above ground, baseline levels of noise and human activity, species sensitivity, and proposed project activities. The size of the buffer may be adjusted if a qualified biologist determines that such an adjustment would not be likely to adversely affect the nest. Any buffer reduction for a special-status species will require consultation with CDFW. Periodic monitoring of the nest by a qualified biologist during project activities will be required if the activity has potential to adversely affect the nest, the buffer has been reduced, or if birds within active nests are showing behavioral signs of agitation (e.g., standing up from a brooding position, flying off the nest) during project activities, as determined by the qualified biologist.

Mitigation Measures BIO-2 and BIO-3 from the 2015 IS/MND require preconstruction surveys for special-status species and protection of active nests. These mitigation measures are further defined by Mitigation Measures BIO-2a through BIO-2d and BIO-3a. Mitigation Measure BIO-3a requires preconstruction surveys for special-status birds and other birds protected by California Fish and Game Code and the Migratory Bird Treaty Act and protective measures if active nests are identified in the project site. Mitigation Measure BIO-2a requires a limited operating period for ringtail and preconstruction surveys and avoidance measures if the limited operating period is not feasible. Mitigation Measure BIO-2b requires preconstruction surveys for Sierra Nevada mountain beaver and avoidance of active burrows, if detected. Mitigation Measure BIO-2c requires preconstruction surveys for Sierra Nevada snowshoe hare and western white-tailed jackrabbit and avoidance of active nests, if detected. Mitigation Measure BIO-2d requires preconstruction surveys for special-status bat roosts and avoidance of active roosts, if detected. With implementation of these mitigation measures, the project would result in a less-than-significant impact on special-status wildlife species. The findings of the 2015 IS/MND remain valid and no additional mitigation is required.

- b) **Less than Significant with Mitigation.** As discussed in the 2015 IS/MND, riparian habitats have high value for many riparian and aquatic species; providing water, thermal cover, migration corridors, and diverse nesting and feeding opportunities for numerous species. Riparian habitat occurs along the Markleeville Creek stream margins and dense mature willow scrub is found along Millberry Creek. Some project elements, including access road modifications and replacement and relocation of sewer infrastructure could result in removal or disturbance of riparian habitat.

### Mitigation Measure BIO-4: Implement Avoidance Measures and Compensate for Unavoidable Impacts on Riparian Habitat

- ▶ Before implementation of project activities, riparian habitats previously mapped during preparation of the 2015 IS/MND will be flagged or fenced with brightly visible construction flagging and/or fencing under the direction of a qualified biologist and no project activities (e.g., vegetation removal, ground disturbance, staging) will

occur within these areas. Foot traffic by personnel will also be limited in these areas to prevent the introduction of invasive or weedy species or inadvertent crushing of plants. Periodic inspections during construction will be conducted by the monitoring biologist to maintain the integrity of exclusion fencing/flagging throughout the period of construction involving ground disturbance.

If riparian habitat in the project site cannot be avoided, the following measures will be implemented:

- ▶ A Streambed Alteration Notification will be submitted to CDFW, pursuant to Section 1602 of the California Fish and Game Code. If proposed project activities are determined to be subject to CDFW jurisdiction, MPUD will abide by the measures to protect fish and wildlife resources, required by any executed agreement, prior to any vegetation removal or activity that may affect the resource. Measures to protect fish and wildlife resources shall include, at a minimum, a combination of the following mitigation.
- ▶ MPUD will compensate for the loss of riparian habitat such that no net loss of habitat function and values occurs by:
  - restoring riparian habitat function and value within the project site;
  - restoring degraded riparian habitat outside of the project site;
  - purchasing riparian habitat credits at a CDFW-approved mitigation bank; or
  - preserving existing riparian habitat of equal or better value to the affected riparian habitat through a conservation easement at a sufficient ratio to offset the loss of riparian habitat function (at least 1:1).
- ▶ MPUD will prepare and implement a Compensatory Mitigation Plan that will include the following:
  - For preserving existing riparian habitat outside of the project site in perpetuity, the Compensatory Mitigation Plan will include a summary of the proposed compensation lands (e.g., the number and type of credits, location of mitigation bank or easement), parties responsible for the long-term management of the land, and the legal and funding mechanism for long-term conservation (e.g., holder of conservation easement or fee title).
  - For restoring or enhancing riparian habitat within the project site or outside of the project site, the Compensatory Mitigation Plan will include a description of the proposed habitat improvements, success criteria that demonstrate the performance standard of maintained habitat function has been met, legal and funding mechanisms, and parties responsible for long-term management and monitoring of the restored or enhanced habitat.
  - Compensatory mitigation may be satisfied through compliance with permit conditions, or other authorizations obtained by MPUD (e.g., Lake and Streambed Alteration Agreement), if these requirements are equally or more effective than the mitigation identified above.

Compliance with state law (e.g., Section 1602 of California Fish and Game Code), as identified in the 2015 IS/MND, as well as implementation of Mitigation Measure BIO-4, which requires avoidance of riparian habitat or permitting and compensation for unavoidable, permanent loss of riparian habitat, would reduce impacts on riparian habitat to less than significant. The findings of the 2015 IS/MND remain valid and no additional mitigation is required.

- c) **Less than Significant with Mitigation.** The 2015 IS/MND evaluated impacts on federally protected wetlands and waters, including a delineation of aquatic resources within the project site during which two wetland features were identified in addition to Markleeville Creek and Millberry Creek. Implementation of the project, including access road modifications and replacement and relocation of sewer infrastructure may result in impacts on the two wetland features identified in the 2015 IS/MND.

### Mitigation Measure BIO-5: Implement Avoidance Measures and Compensate for Unavoidable Impacts on Wetlands

- ▶ Before implementation of project activities, a qualified biologist will mark the jurisdictional boundaries of the onsite wetlands with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway).
- ▶ Project activities (e.g., ground disturbance, vegetation removal, staging) will be prohibited within the wetland boundaries. The qualified biologist will periodically inspect the materials demarcating the wetland boundaries to confirm that they are intact and visible, and wetland impacts are being avoided.
- ▶ If it is determined that fill of waters of the United States would result from project implementation, authorization for such fill will be secured from U.S. Army Corps of Engineers (USACE) through the Section 404 permitting process. Any waters of the United States that would be affected by the project will be replaced or restored on a no-net-loss basis in accordance with the applicable USACE mitigation guidelines in place at the time of construction. In association with the Section 404 permit (if applicable) and prior to the issuance of any grading permit, Section 401 Water Quality Certification from the Lahontan Regional Water Quality Control Board (RWQCB) will be obtained.
- ▶ If it is determined that fill of waters of the state, including state-protected wetlands, cannot be avoided, MPUD will submit an application for discharges of dredged or fill material to the Lahontan RWQCB before commencing activity that may result in discharge of dredged or fill material to waters of the state. MPUD will not commence any activity in waters of the state until permitted by the Lahontan RWQCB and MPUD will implement all protection measures and comply with all conditions of the permit.
- ▶ MPUD will restore all waters of the state following completion of project construction. A draft restoration plan outlining design, implementation, assessment, and maintenance for restoring temporary disturbance areas will be submitted to the Lahontan RWQCB with the application for discharge of dredged or fill material to waters of the state and will be implemented as approved by the Lahontan RWQCB.
- ▶ If any waters of the state cannot be restored on site, MPUD will implement a compensatory mitigation plan resulting in no net loss of the overall abundance, diversity, and condition of aquatic resources based on an assessment of the affected watershed. MPUD may compensate for loss of waters of the state by purchasing credits from a RWQCB-approved mitigation bank or in-lieu fee program, or through restoration or establishment of wetlands or non-wetland waters comparable to those affected by the project.

Compliance with state and federal law, as identified in the 2015 IS/MND, as well as implementation of Mitigation Measure BIO-5 which requires wetland avoidance or permitting and compensation for unavoidable loss of wetlands would reduce impacts on state or federally protected wetlands to less than significant. The findings of the 2015 IS/MND remain valid and no additional mitigation is required.

- d) **Less than Significant.** The 2015 IS/MND evaluated impacts on wildlife corridors and concluded that the project would have a less-than-significant impact because project implementation would not result in any physical obstructions that would inhibit wildlife movement, and would not remove, degrade, or otherwise interfere with the stream-associated wildlife corridor along Markleeville Creek. Potential impacts on wildlife movement resulting from project construction activities would be temporary. Additionally, there are no known native wildlife nursery sites within the project site. The project would not result in any new or substantially more severe impacts than those identified in the previously adopted 2015 IS/MND. The findings of the 2015 IS/MND remain valid and no mitigation is required.

- e) **Less than Significant with Mitigation.** The Alpine County General Plan Conservation Element contains goals and policies related to protection and conservation of wetlands; threatened, rare, or endangered plant species; sensitive, threatened, rare, or endangered wildlife species; and important deer migration routes (Alpine County 2003). Consistent with the 2015 IS/MND, the project would result in temporary construction disturbance and then would result in sewer facilities relocated outside of the floodplain. The project would not conflict with local policies or ordinances protecting biological resources and the project would have a less-than-significant impact. Further, implementation of 2015 IS/MND Mitigation Measures BIO-1, BIO-2, BIO-2a-BIO-2d, BIO-3, BIO-3a, BIO-4, and BIO-5 would result in compliance with all of the general plan policies pertaining to biological resources. Thus, the findings of the 2015 IS/MND remain valid and no additional mitigation is required.
- f) **No Impact.** As discussed in the 2015 IS/MND, the project would not have an effect on an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or adopted biological resources recovery or conservation plans of any federal or state agency because the project site is not within the coverage area of any such plan. Therefore, there are no new significant impacts or substantially more severe impacts that would occur pertaining to conflicts with adopted conservation plants. The findings of the 2015 IS/MND remain valid and no mitigation is required.

## CONCLUSION

Since approval of the 2015 IS/MND, the project has been focused on the sewer pump station relocation project and new biological database searches were conducted, resulting in identification of several additional special-status species with potential to occur on the project site. Additional mitigation measures have been identified to further define the 2015 IS/MND mitigation measures and because of updated records searches and recent surveys of the project site. Implementation of the mitigation measures would reduce potential project impacts to less-than-significant levels. Therefore, the conclusions of the 2015 IS/MND remain valid and approval of the project would not result in new significant or substantially more severe significant impacts on biological resources.

## 4.5 ARCHAEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCES

Section 3.5, "Cultural Resources," of the 2015 IS/MND evaluates the impacts of the project on archaeological, historical, and tribal cultural resources.

### 4.5.1 Environmental Checklist and Discussion

Archaeological, Historical, & Tribal Cultural Resources	Impact Examined in 2015 IS/MND?	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Do Mitigation Measures in the 2015 IS/MND Address / Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?
Would the Project...				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	Yes	No	No	Yes
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	Yes	No	No	Yes
c) Disturb any human remains, including those interred outside of formal cemeteries?	Yes	No	No	Yes
d) Cause a substantial adverse change in the significance of a Tribal Cultural Resource as defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
1) Listed or eligible for listing 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	No	No	No	Yes
2) 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.				

The 2015 IS/MND was based on a cultural resources investigation (Cardno ENTRIX 2014). Although site conditions have not changed since 2015, due to the passage of time, an updated cultural resources inventory was conducted in 2020 by Natural Investigations Company (NIC) in compliance with Section 21083.2 of the CEQA statutes, Section 15064.5 of the CEQA Guidelines, and Section 106 of the federal National Historic Preservation Act (NHPA) (NIC 2020). The 2020 Cultural Resources Inventory Report includes a cultural resources literature search, Sacred Lands File search, paleontological sensitivity analysis, intensive pedestrian survey of the area of potential effects (APE), and an inventory report (NIC 2020).

- a) **Less than Significant with Mitigation.** Consistent with the 2015 IS/MND, the project would result in a less-than-significant impact to historical resources as defined in CEQA Section 15064.5. Two cultural resources have been previously recorded within the APE, the Markleeville Creek Bridge (P-02-000473) and the former Markleeville Guard House (P-02-000488). Both have been previously evaluated and recommended as ineligible for listing in the National Register of Historic Places (NRHP)/California Register of Historical Resources (CRHR). The bridge remains in place and is in active use. The project would result in no impact to the bridge. The former Markleeville Guard House has been almost completely destroyed. All associated standing structures have been demolished and removed. Among the few related features that remains in place are five rock walls (Walls #2-6), a pedestrian bridge over Markleeville Creek, and a cement sidewalk and drainage. Neither of these resources constitutes an historic property as defined under NHPA Section 300308, an historical resource as defined under CEQA Section 15064.5, unique archaeological resource as defined under CEQA Section 21083.2(g), or Native American cultural resource (NIC 2020).

As required by **Mitigation Measure CR-1, "Prepare a Section 106 Cultural Resources Inventory and Evaluation Report and/or Historic Properties Survey Report, Historic Properties Evaluation Report, and Archaeological Survey Report,"** of the 2015 IS/MND, the 2020 cultural resources inventory was prepared in compliance with Section 106 of the federal NHPA and evaluated potential project effects on the Markleeville Guard House and the Markleeville Creek Bridge. Neither of these resources constitutes an historic property as defined under NHPA Section 300308 or an historical resource as defined under CEQA Section 15064.5. Furthermore, consistent with **Mitigation Measure CR-2, "Avoidance and Protection Measures for Rock Wall #1 of the National Register Listed Alpine County Courthouse,"** of the 2015 IS/MND, the project site boundary does not include, and the project would avoid, Wall #1 associated with the National-Register-listed Alpine County Courthouse.

With implementation of Mitigation Measures CR-1 and CR-2, the project would result in a less-than-significant impact to historical resources, including the Markleeville Guard Station, the Markleeville Creek Bridge, and Wall #1 through avoidance of the bridge and Wall #1, and because the project would not impact the remnant features of the Guard Station. Therefore, no new or substantially more severe impacts would occur and no additional mitigation would be required.

- b) **Less than Significant with Mitigation.** Consistent with the 2015 IS/MND, no archaeological artifacts, objects, or sites, have been identified within the project area. Given the relatively late historical development of the Project vicinity beginning with the construction of the Markleeville Guard House in the 1930s, long after organized municipal trash collection was established, the sensitivity for subsurface archaeological remains from the historic period is estimated to be low.

Similarly, the negative results of the California Historical Resources Information System (CHRIS) and Sacred Lands File (SLF) searches for prehistoric cultural resources within the APE, along with the negative results of Native American outreach efforts, suggest that the potential for subsurface indigenous resources is also low. This potential is reduced further by the extent of past ground disturbance from construction, not only of the Guard Station, but also of utility and flood-management related infrastructure, as well as by the deposition of up to three feet of nonnative fill at the location. Taken together, these factors suggest that the overall sensitivity of the project site for intact subsurface archaeological is low (NIC 2020).

While it is unlikely that previously unrecorded archaeological deposits would be discovered during construction for the proposed project, the possibility exists that project construction could result in exposure and impacts to unknown significant unique resources. This would be a potentially significant impact.

#### **Mitigation Measure CR-3—Construction Crew Education/Tailboard Meeting and Accidental Discovery of Archaeological Resources Procedures**

Prior to the start of construction, MPUD will ensure that all construction personnel, including construction forepersons and field supervisors receive training by a qualified professional archaeologist, as defined by the Secretary of the Interior, and who is experienced in teaching non-specialists, to ensure they can recognize cultural resources materials in the event any are discovered during construction.

Furthermore, to avoid any potential adverse effect from the proposed project on accidentally discovered buried historical resources as defined in CEQA Guidelines Section 15064.5(a)(c), MPUD will distribute a cultural resources "ALERT" sheet to the project's prime contractor; to any project subcontractor (including firms providing services such as demolition, excavation, grading, etc.), or utilities firms involved in soils disturbing activities within the project site. The ALERT sheet provides workers notice that cultural resources may be encountered during excavation and instructions on what to do if evidence of an archaeological site is encountered. Prior to any soils disturbing activities being undertaken, each contractor is responsible for ensuring that the "ALERT" sheet is circulated to all field personnel, including: machine operators, field crew, supervisory personnel, etc. The prime contractor will provide MPUD with a signed affidavit from the responsible parties (prime contractor, subcontractor[s], and utilities firms) confirming that all field personnel have received copies of the ALERT Sheet.

Should any indication of an archaeological resource be encountered during any soils disturbing activity of the project, the contractor will immediately notify MPUD and suspend any soils disturbing activities within 150 feet of the discovery until the find can be assessed by a qualified professional archaeologist, the qualified professional will determine what additional measures should be undertaken.

The qualified professional archaeologist will advise MPUD as to whether the discovery is an archaeological resource, retains sufficient integrity, and it of potential scientific, historical, and/or cultural significance. If an archaeological resource is present, the archaeological consultant will identify and evaluate the archaeological resource. The archaeological consultant will make a recommendation as to what action, if any, is warranted. Based on this information, if warranted, specific additional measures may be implemented.

Measures might include: preservation in situ of the archaeological resource; an archaeological monitoring program; and/or an archaeological testing program. MPUD may also require that a site security program be implemented if the resource is at risk from vandalism, looting, or other damaging actions.

The archaeological consultant will submit a final report that evaluates the historical significance of any discovered archaeological resource and describes the archaeological and historical research methods employed in the archaeological monitoring/data recovery program(s) undertaken. Information that may put at risk any archaeological resource will be provided in a separate removable insert within the final report.

Copies of the final report will be sent to Alpine County and the Central California Information Center, along with copies of any formal recordation forms (CA DPR 523 series) and/or documentation for nomination to the NRHP/CRHR. In instances of high public interest or interpretive value, Alpine County may require a different final report content, format and distribution from that presented above.

Implementation of Mitigation Measure CR-3 would reduce the impact of inadvertent discovery of archaeological resources to a less-than-significant level through evaluation, preservation in place, archaeological test excavation, and/or archaeological data recovery. Therefore, no new or substantially more severe impacts would occur and no additional mitigation would be required.

- c) **Less than Significant with Mitigation.** Consistent with the 2015 IS/MND, no human remains have been identified within the project area as result of the records search, archaeological fieldwork, or through consultation with the NAHC and interested Native American tribes. However, construction of the project could result in the inadvertent discovery of human remains associated with unrecorded archaeological deposits. Disturbance of human remains would be a significant impact.

#### **Mitigation Measure CR-4—Preserve Human Remains if Encountered**

If human remains are encountered during construction, MPUD will notify the Alpine County Coroner immediately, as required by California PRC Code §5097.98. A qualified professional archaeologist will also be contacted immediately. If the County Coroner determines that the remains are Native American, the Coroner will then contact the NAHC, pursuant to Section 7050.5[c] of the California Health and Safety Code.

There will be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie human remains until the County Coroner has determined that no investigation of the cause of death is required or if remains are Native American. If the remains are of Native American in origin:

- ▶ Within 24 hours of notification, the NAHC will identify a Native American “most likely descendant” (MLD) to make a recommendation regarding appropriate treatment of the human remains.
- ▶ If the identified MLD fails to make a recommendation within 48 hours of being notified, Alpine County will work with the NAHC to determine appropriate means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods, as provided in PRC Section 5097.98.

Compliance with California Health and Safety Code Sections 7050.5 and PRC Section 5097, as required by Mitigation Measure CR-4, would provide an opportunity to avoid or minimize the disturbance of human remains, and to treat with appropriate dignity, any discovery of human remains and any associated grave goods, as provided in PRC Section 5097.98. Therefore, this impact would be less than significant. No new or substantially more severe impacts would occur and no additional mitigation would be required.

- d) **Less than Significant with Mitigation.** The project area is located within the lands historically occupied by the Washoe; however, there are no known tribal cultural resources within the project area. The NAHC was contacted to request a search of their Sacred Lands File for traditional cultural resources within or near the project site. The reply from the NAHC, dated September 25, 2020, identified that the search failed to indicate the presence of Native American cultural resources in the project area (NIC 2020). The Washoe tribe indicated no knowledge of cultural resources that may be affected by the project, nor any concerns about the project at this time (NIC 2020). In addition, see discussion of historical resources, archaeological resources, and human remains in a) through c), above, which would be less-than-significant impacts with implementation of Mitigation Measures CR-1 through CR-4. The project-related potential to impact tribal cultural resources would be less than significant and no additional mitigation is required.



## 4.6 ENERGY

Energy was not evaluated in the 2015 IS/MND because this environmental resource topic was not required by CEQA until 2019. To address the current CEQA Guidelines, this addendum includes analysis of the project's energy impacts.

### 4.6.1 Environmental Checklist and Discussion

Energy	Impact Examined in 2015 IS/MND?	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Do Mitigation Measures in the 2015 IS/MND Address / Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?
Would the Project...				
a) Result in unnecessary, inefficient, and wasteful use of energy?	No	No	No	N/A
b) Conflict, or create an inconsistency, with any applicable plan, policy, or regulation adopted for the purpose of avoiding or mitigating environmental effects related to energy use?	No	No	No	N/A

The primary forms of energy consumed in Alpine County are electricity and propane, as well as automotive fuels for transportation (gasoline and diesel). In Markleeville, electricity is supplied by the Pacific Gas and Electric Company (PG&E) and propane is supplied by several regional providers operating from nearby areas such as Gardnerville and South Lake Tahoe (Alpine County 2016).

In 2016, Alpine County adopted an Energy Action Plan (EAP), which set a goal to reduce electricity use in 2025 by 17 percent and propane use by 9 percent compared to the business-as-usual forecast. The EAP focuses on three energy use sectors: residential, non-residential, and municipal (Alpine County 2016). Because the project consists of improvements to sewer infrastructure, the following EAP goals and strategies relating to municipal energy use would apply to the project:

- ▶ **GOAL 4.** Increase energy efficiency in municipal structures and operations.
  - **Strategy 4.1.** Increase the energy efficiency of existing municipal structures.

The Alpine County General Plan and Alpine County Code also contain goals, policies, and codes related to energy use and efficiency. However, none are applicable to the project, as they predominantly focus on the energy consumption and the efficiency of residential land uses and new land use development projects.

- a) **Less than Significant.** Energy, primarily diesel and gasoline, would be consumed during project construction to operate construction equipment and transport construction materials. Gasoline would also be consumed for worker commutes. Levels of construction-related fuel consumption were estimated based on equipment assumptions consistent with the California Emissions Estimator Model (CalEEMod) Version 2016.3.2 computer program (CalEEMod) (CAPCOA 2016) and fuel consumption factors derived from the California Air Resources Board's Emission Factor (CARB 2017). See Appendix B for detailed calculations. An estimated 608 gallons of gasoline and 14,853 gallons of diesel would be consumed during project construction, accounting for both on-site equipment use and off-site vehicle travel for worker commutes and haul trips. This one-time energy expenditure required to construct the project would be nonrecoverable. However, energy needs for project construction would be temporary and would not require additional capacity or increase peak or base period demands for electricity or other forms of energy.

Project operation would require electricity to power various components of the sewer system, including water pumps and security lighting. However, the new facilities would replace existing aging facilities, and thus, would likely be more energy efficient. Additionally, the project would not generate an increase in vehicle trips during operation because the project would not involve any land use development or require an increase in employees. Thus, the project would not appreciably increase the amount of gasoline and diesel consumption associated with employee trips or maintenance activities during operation.

The project would be beneficial for the community of Markleeville because these sewer system modifications would improve and relocate Markleeville's aging sewer system outside of the floodplain, thus avoiding future inundation by flooding and making sewer infrastructure safer and more accessible for maintenance. For these reasons, the project would not result in the inefficient, wasteful, or unnecessary consumption of energy resources during project construction or operation. This impact would be less than significant.

- b) **Less than Significant.** As discussed above, the Alpine County EAP is the local plan that provides a roadmap for expanding energy efficiency, water efficiency, and renewable energy efforts already underway in the County. The project would be consistent with all applicable EAP goals and strategies, particularly Goal 4 and Strategy 4.1, because the project would increase energy efficiency in existing municipal structures (i.e., sewer system facilities). Thus, the project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. This impact would be less than significant.

## 4.7 GEOLOGY, SOILS, AND SEISMICITY

Section 3.6 of the 2015 IS/MND evaluates the impacts of the project on geology, soils, and seismicity.

### 4.7.1 Environmental Checklist and Discussion

Geology, Soils, & Seismicity	Impact Examined in 2015 IS/MND?	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Do Mitigation Measures in the 2015 IS/MND Address / Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?
Would the Project...				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	Yes	No	No	N/A
ii) Strong seismic ground shaking?	Yes	No	No	N/A
iii) Seismic-related ground failure, including liquefaction?	Yes	No	No	N/A
iv) Landslides?	Yes	No	No	N/A
b) Result in substantial soil erosion or the loss of topsoil?	Yes	No	No	N/A
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	Yes	No	No	N/A
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	Yes	No	No	N/A
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	Yes	No	No	N/A
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Yes	No	No	N/A
a) <b>Less than Significant.</b> As discussed in the 2015 IS/MND, the new sewer infrastructure would be built to meet all applicable regulations for minimizing risks related to earthquakes and ground shaking, including building codes for the maximum expected earthquake intensity (Zone 4). Additionally, the risks of liquefaction and landslide in the project area are considered low, and the project would not modify the project site or surrounding area in a way that would increase risks. The project would not result in a new or substantially more severe impact, and no mitigation would be required.				

- b) **Less than Significant.** Project construction would result in ground disturbance to remove and install new sewer infrastructure and improve site access. However, ground disturbance would be limited, and no substantial loss of topsoil would be required to implement the project. Additionally, the project would result in decreased erosion because MPUD access road modifications would result in improved drainage and sewer facilities would be moved out of the floodplain. The project would not result in a new or substantially more severe impact, and no mitigation would be required.
- c) **No Impact.** Consistent with the 2015 IS/MND, the project would not create cuts or place fill in areas of landslide, lateral spreading, subsidence, or liquefaction. The project would not result in a new or substantially more severe impact, and no mitigation would be required.
- d) **No Impact.** Consistent with the 2015 IS/MND, the project would not locate paved parking or sewer infrastructure facilities on expansive soils. The project would not result in a new or substantially more severe impact, and no mitigation would be required.
- e) **No Impact.** Consistent with the 2015 IS/MND, the project would not install septic or other alternative waste water systems for the disposal of wastewater. The project would not result in a new or substantially more severe impact, and no mitigation would be required.
- e) **No Impact.** No paleontological resources or unique geological features have been previously documented within or near the project site and the underlying Quaternary (2.5 million years ago to present) alluvium has not yielded significant paleontological remains. Additionally, these alluvial sediments have been extensively disturbed during past construction-related activities. Taken together these factors suggest that the project site has low paleontological resource sensitivity based on SVP criteria (NIC 2020). Consistent with the 2015 IS/MND (Section 3.5, page 3-61), no geologic strata that would contain paleontological resources exist at the site; therefore, the project would not directly or indirectly destroy a unique paleontological resource, site, or unique geologic feature and there would be no impact. The project would not result in a new or substantially more severe impact, and no mitigation would be required.

## 4.8 GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Section 3.7 of the 2015 IS/MND evaluates the impacts of the project on greenhouse gas emissions and climate change.

### 4.8.1 Environmental Checklist and Discussion

Greenhouse Gas Emissions	Impact Examined in 2015 IS/MND?	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Do Mitigation Measures in the 2015 IS/MND Address / Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?
Would the Project...				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Yes	No	No	N/A
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose or reducing the emissions of greenhouse gases?	Yes	No	No	N/A

- a) **Less than Significant.** Consistent with the 2015 IS/MND, the project would generate greenhouse gases (GHGs) from equipment and vehicles during construction. However, these emissions would be temporary and the project would not create any long-term sources of GHG emissions. The operation of the relocated sewer pump station would be more efficient than existing facilities. Thus, the project would not result in a new or substantially more severe impact, and no mitigation would be required.
- b) **No Impact.** Alpine County has not developed or adopted a climate action plan or other plan for reducing local GHG emissions. Thus, consistent with the 2015 IS/MND, the project would not conflict with any GHG reduction plans, policies, or regulations. The project would not result in a new or substantially more severe impact, and no mitigation would be required.

## 4.9 HAZARDS AND HAZARDOUS MATERIALS

Section 3.8 of the 2015 IS/MND evaluates the impacts of the project related to hazards and hazardous materials.

### 4.9.1 Environmental Checklist and Discussion

Hazards & Hazardous Materials	Impact Examined in 2015 IS/MND?	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Do Mitigation Measures in the 2015 IS/MND Address / Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?
Would the Project...				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Yes	No	No	N/A
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Yes	No	No	N/A
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Yes	No	No	N/A
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	Yes	No	No	N/A
e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard for people residing or working in the Project area?	Yes	No	No	N/A
f) For a Project within the vicinity of a private airstrip, would the Project result in a safety hazard for people residing or working in the Project area?	Yes	No	No	N/A
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Yes	No	No	N/A
h) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	Yes	No	No	N/A
<p>a) <b>Less than Significant.</b> Construction activities would involve the use of hazardous materials, such as fuels, solvents, gasoline, asphalt, and oil, and operation of the water treatment plant would continue to involve hazardous materials. The transport, storage, and use of hazardous materials could potentially expose and adversely affect workers, the public, or the environment as a result of improper handling or use, accident, environmentally unsound disposal methods, fire, explosion, or other emergencies, resulting in adverse health or environmental effects.</p>				

The California Highway Patrol and Caltrans are responsible for enforcing regulations related to the transportation of hazardous materials on local roadways, and the use of these materials is regulated by the California Department of Toxic Substances Control, as outlined in CCR Title 22. MWC and its construction contractors would be required to comply with the California Environmental Protection Agency's (Cal EPA's) Unified Program, which protects Californians from hazardous waste and hazardous materials by ensuring consistency throughout the state regarding the implementation of administrative requirements, permits, inspections, and enforcement at the local regulatory level. Regulated activities would be managed by the Alpine County Health Department, which is the Cal EPA-designated Certified Unified Program Agency, and in accordance with the regulations included in the Unified Program (e.g., hazardous materials release response plans and inventories, California Uniform Fire Code hazardous material management plans and inventories). Such compliance would reduce the potential for accidental release of hazardous materials during project construction.

MPUD is required to comply with existing laws and regulations regarding the transportation, storage, use, and disposal of hazardous materials in relation to the sewer system. These regulations are specifically designed to protect the public health and the environment and must be adhered to during project construction and operation. Compliance with applicable regulations would ensure that this impact would be less than significant. Therefore, the project would not result in a new or substantially more severe impact, and no mitigation would be required.

- b) **Less than Significant.** As discussed in the 2015 IS/MND, in a) above, and c) below, there are no existing hazardous materials sites within the project site; however, project construction and operation would involve the transport, storage, use, and disposal of hazardous materials. MPUD is required to comply with existing laws and regulations regarding the transportation, use, and disposal of hazardous materials in relation to construction and operation of the sewer system. These regulations are specifically designed to protect the public health and the environment and must be adhered to during project construction and operation. Furthermore, the 2015 IS/MND project specifications also included methods and measures to properly remove and dispose of any asbestos concrete pipe segments. Compliance with applicable regulations would ensure that this impact would be less than significant. The project would not result in a new or substantially more severe impact, and no mitigation would be required.
- c) **No Impact.** Consistent with the 2015 IS/MND, hazardous materials and waste would not be handled within 0.25 mile of an existing or proposed school as a result of the project. Therefore, the project would not result in a new or substantially more severe impact, and no mitigation would be required.
- d) **No Impact.** Consistent with the 2015 IS/MND, no portion of the project site is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (CalEPA 2021). Therefore, the project would not result in a new or substantially more severe impact, and no mitigation would be required.
- e) **No Impact.** Consistent with the 2015 IS/MND, the project site is not located in an airport land use plan or within two miles of a public or public use airport. Alpine County Airport is the closest airport and is located approximately 2.5 miles north of the project site. Therefore, the project would not result in a new or substantially more severe impact, and no mitigation would be required.
- f) **No Impact.** Consistent with the 2015 IS/MND, the project would not be located in the vicinity of a private airstrip. Therefore, the project would not result in a new or substantially more severe impact, and no mitigation would be required.
- g) **Less than Significant.** As discussed in the 2015 IS/MND, the project would improve the accessibility, reliability, and safety of sewer infrastructure in Markleeville, which would not interfere with emergency response or evacuation in Markleeville. The project would not result in additional vehicle trips that could affect emergency response times. Additionally, the only road that would be modified for the project would be the on-site unpaved MPUD access road, and access road modifications would improve year-round access for MPUD vehicles, resulting in improved emergency access. Therefore, the project would not result in a new or substantially more severe impact, and no mitigation would be required.
- h) **Less than Significant.** As discussed in the 2015 IS/MND, the project would not involve the construction of new structures (i.e., residences, schools) that would result in a substantial in human exposure to wildland fire hazards.

Since adoption of the 2015 MND, the CEQA Guidelines have added wildfire as a separate environmental resource topic with several new Appendix G criteria. This section is addressed in Section 1.1.19, "Wildfire," of this Addendum.

## 4.10 HYDROLOGY AND WATER QUALITY

Section 3.9 of the 2015 IS/MND evaluates the impacts of the project on hydrology and water quality.

### 4.10.1 Environmental Checklist and Discussion

Hydrology & Water Quality	Impact Examined in 2015 IS/MND?	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Do Mitigation Measures in the 2015 IS/MND Address / Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?
Would the Project...				
a) Violate any water quality standards or waste discharge requirements?	Yes	No	No	Yes
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge 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 land uses for which permits have been granted)?	Yes	No	No	N/A
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	Yes	No	No	N/A
d) Substantially alter the exiting drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	Yes	No	No	N/A
e) 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?	Yes	No	No	N/A
f) Otherwise substantially degrade water quality?	Yes	No	No	N/A
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	Yes	No	No	N/A
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	Yes	No	No	N/A
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	Yes	No	No	N/A
j) Inundation by seiche, tsunami, or mudflow?	Yes	No	No	N/A
k) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	No	No	No	N/A



- a) **Less than Significant with Mitigation.** Construction. Consistent with the 2015 IS/MND, project construction would result in short-term risks to water quality from ground disturbance and the use of heavy equipment, resulting in a potentially significant impact.

**Mitigation Measure HYRO-1** (page 3-77 of the 2015 IS/MND)

Temporary erosion/runoff best management control measures would be implemented during construction to minimize storm water pollution resulting from erosion and sediment migration from the construction, borrow, and staging areas. These temporary control measures would include implementing construction staging in a manner that minimizes the amount of area disturbed at any one time; secondary containment for storage of fuel and oil; and the management of stockpiles and disturbed areas by means of earth berms, diversion ditches, straw wattles, straw bales, silt fences, gravel filters, mulching, re-vegetation, and temporary covers as appropriate. Erosion and storm water pollution control measures would be consistent with the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities requirements, and would be included in a site specific Storm Water Pollution Prevention Plan (SWPPP).

After completion of construction activities, the temporary facilities would be demobilized and site restoration measures would be implemented to minimize soil erosion. Site restoration measures for areas disturbed by construction activities, including the borrow area and laydown/staging areas, may include regrading, reseeding, construction of permanent diversion ditches, use of straw wattles and bales, application of straw mulch, and other measures deemed appropriate to meet all applicable erosion control requirements.

Implementation of Mitigation Measure HYDRO-1 would be required to ensure that project construction would not violate any water quality standards or waste discharge requirements. Therefore, project construction would not violate standards or contribute substantially to an existing or projected air quality violation, would not result in a new or substantially more severe impact, and no additional mitigation is required.

Operation. As described in 2015 IS/MND, the proposed replacement of aging sewer infrastructure with newer, more reliable infrastructure would prevent leaks or other infrastructure failures, and improving the alignment, profile, and drainage of the MPUD access road would reduce erosion and sedimentation potential. The project would not result in a new or substantially more severe impact, and no additional mitigation would be required.

- b) **Less than Significant.** The project would involve construction, replacement, and relocation of sewer facilities outside of the floodplain and would not result in any new demand for water or groundwater. The replacement facilities would not increase impervious surface such that groundwater recharge would be altered. Therefore, the project would not interfere with groundwater recharge. Consistent with the 2015 IS/MND, the project would not create increased demand for groundwater, substantially interfere with groundwater recharge, or result in lower water tables. The project would not result in a new or substantially more severe impact, and no additional mitigation would be required.
- c,d,e) **Less than Significant.** As described in the 2015 IS/MND, the project would modify drainage patterns of the site, but not in a manner that would result in substantial erosion, siltation, increased runoff, or flooding on- or off-site. Modifications to the MPUD access road would improve site drainage to reduce erosion potential. The project would not increase impervious surfaces on-site, and areas disturbed during construction would be stabilized. Thus, the project would not increase runoff or result in flooding that would exceed the capacity of stormwater drainage systems. The project would not result in a new or substantially more severe impact, and no additional mitigation would be required.
- f) **No Impact.** Consistent with the 2015 IS/MND and as discussed further under criterion a), the project would not result in any substantial temporary or permanent risks to water quality. The project would not result in a new or substantially more severe impact, and no additional mitigation would be required.

- g,i) **No Impact.** Consistent with the 2015 IS/MND, the project would not develop housing or other structures that would result in more people working or visiting the area. Thus, the project would not expose people or structures to significant risk due to flooding. The project would not result in a new or substantially more severe impact, and no additional mitigation would be required.
- h) **Less than Significant.** Consistent with the 2015 IS/MND, the project would temporarily disturb the floodplain during project construction. However, the project would remove sewer facilities from the 100-year floodplain, reducing impediments to flood flows. The project would not result in a new or substantially more severe impact, and no additional mitigation would be required.
- j) **No Impact.** The project site is not subject to inundation by seiche, tsunami, or mudflow because the project site is generally flat and is not located near any large water bodies. The project would not result in a new or substantially more severe impact, and no additional mitigation would be required.
- k) **Less than Significant.** The project site is within the jurisdiction of the Lahontan RWQCB, which has developed a Water Quality Control Plan for the Lahontan Region (Lahontan RWQCB 2019). Alpine County has also established a groundwater management plan (Alpine County 2006). The project would not conflict with or obstruct implementation of either of these plans because the project would result in long-term benefits to water quality by removing sewer facilities from the floodplain and, as discussed further under criterion b), would not substantially affect nearby groundwater supplies. For these reasons, this impact would be less than significant. Although this impact was not examined in the 2015 IS/MND, the project would not result in a new significant impact, and no additional mitigation would be required.

## 4.11 LAND USE AND PLANNING

Section 3.10 of the 2015 IS/MND evaluates the impacts of the project related to land use and planning.

### 4.11.1 Environmental Checklist and Discussion

Land Use & Planning	Impact Examined in 2015 IS/MND?	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Do Mitigation Measures in the 2015 IS/MND Address / Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?
Would the Project...				
a) Physically divide an established community?	Yes	No	No	N/A
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	Yes	No	No	N/A

- a) **No Impact.** Consistent with the 2015 IS/MND, the project would not create any barriers that would divide an established community. The project would not result in a new or substantially more severe impact, and no additional mitigation would be required.
- b) **Less than Significant.** The project would not involve changing the land use of the project site. Thus, consistent with the 2015 IS/MND, the project would not conflict with any applicable plans, policies, or regulations regarding the land use of the site. The project would not result in a new or substantially more severe impact, and no additional mitigation would be required.

## 4.12 MINERAL RESOURCES

Section 3.11, of the 2015 IS/MND evaluates the impacts of the project on mineral resources.

### 4.12.1 Environmental Checklist and Discussion

Mineral Resources	Impact Examined in 2015 IS/MND?	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Do Mitigation Measures in the 2015 IS/MND Address / Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?
Would the Project...				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	Yes	No	No	N/A
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	Yes	No	No	N/A

a,b) **No Impact.** Surface Mining and Reclamation Act Mineral Land Classification Report data is not available for Alpine County (DOC 2020). Within the county, known or suspected mineral deposits, primarily sand and gravel, have been identified by the California Division of Mines and Geology. These deposits are protected by appropriate land use designations and buffers identified within the County’s Land Use Map (Alpine County 2017). However, no mineral resources of regional, statewide, or local importance, including sand and gravel, are known to be present in the project site or vicinity. Additionally, the project would not involve the removal of large amounts of soil or earth. Therefore, the project would not result in the loss of availability of any known mineral resource of value. The project would not result in a new or substantially more severe impact, and no additional mitigation would be required.

## 4.13 NOISE

Section 3.12 of the 2015 IS/MND evaluates the impacts of the project related to noise.

### 4.13.1 Environmental Checklist and Discussion

Noise	Impact Examined in 2015 IS/MND?	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Do Mitigation Measures in the 2015 IS/MND Address / Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?
Would the Project...				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	Yes	No	No	N/A
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	Yes	No	No	N/A
c) A substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project?	Yes	No	No	N/A
d) A substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project?	Yes	No	No	N/A
e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?	Yes	No	No	N/A
f) For a Project within the vicinity of a private airstrip, would the Project expose people residing or working in the Project area to excessive noise levels?	Yes	No	No	N/A

a,c,d) **Less than Significant. Construction Noise.** As discussed in the 2015 IS/MND, construction noise would be temporary. The nearest noise-sensitive receptors are single-family residences located across SR 89 and approximately 230 feet or further from where project construction activity would occur. These residences are relatively distant from the project site and are separated from the project site by the highway, which would help to attenuate project-related construction noise at these receptors. Construction hours would be limited to 8 a.m. to 6 p.m., Monday through Friday, and 9 a.m. to 3 p.m. on weekends, pursuant to the construction noise exemption specified in Section 18.68.090.F.1 of the Alpine County Code. Because of the temporary and intermittent nature of construction noise and because construction activity would occur during the county's exempt daytime hours, the project would not result in a new or substantially more severe impact, and no additional mitigation would be required.

**Operational Noise.** Consistent with the 2015 IS/MND, the project would not modify any long-term sources of noise. The types of operational, noise-generating equipment used would be similar to the types of equipment currently used in existing on-site facilities. Additionally, the replacement facilities would be located in land designated as open space north of SR 89, which is not a noise-sensitive area. The nearest noise-sensitive receptors, located approximately 230 feet across SR 89, are not close enough to the proposed facilities to result

in the exposure of residences to disruptive noise that would exceed county standards. The project would not result in a new or substantially more severe impact, and no additional mitigation would be required.

- b) **Less than Significant.** Consistent with the 2015 IS/MND, the project would not generate any long-term sources of groundborne vibration. While some construction activities would generate vibration, it would not have the potential to cause structural damage or human annoyance. Any vibration-generating construction activity would be short-term, would occur during the less sensitive daytime hours, and would be of low intensity. Project construction would not also require the use of vibration-intensive equipment such as pile drivers. Rather, project construction would use equipment that generates lower levels of ground vibration, such as excavators and dump trucks. These types of common construction equipment do not generate substantial levels of ground vibration that could result in structural damage or human annoyance, except at extremely close distances, which would not occur as part of the project. The project would not result in a new or substantially more severe impact, and no additional mitigation would be required.
- e,f) **No Impact.** The project is not located within an airport land use plan or within two miles of a public airport or public use airport. Additionally, the project is not located within two miles of a private airstrip. Alpine County Airport is the closest airport and is located approximately 2.5 miles north of the project site. The project would also not include any new land uses where people would live or work. The project would not result in a new or substantially more severe impact, and no additional mitigation would be required.

## 4.14 POPULATION AND HOUSING

Section 3.13 of the 2015 IS/MND evaluates the impacts of the project on population and housing.

### 4.14.1 Environmental Checklist and Discussion

Population & Housing	Impact Examined in 2015 IS/MND?	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Do Mitigation Measures in the 2015 IS/MND Address / Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?
Would the Project...				
a) Induce substantial 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)?	Yes	No	No	N/A
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	Yes	No	No	N/A
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	Yes	No	No	N/A

a) **No Impact.** Consistent with the 2015 IS/MND, the project would not increase MPUD Staff and would not increase the capacity of the wastewater system, and thus, would not indirectly support population growth or increase housing demand in Markleeville. The project would not result in a new or substantially more severe impact, and no additional mitigation would be required.

b,c) **No Impact.** Consistent with the 2015 IS/MND, no housing units exist on the project site. The project would not displace any existing housing units or people, nor would the project construct any housing. The project would not result in a new or substantially more severe impact, and no additional mitigation would be required.

## 4.15 PUBLIC SERVICES

Section 3.14 of the 2015 IS/MND evaluates the impacts of the project on public services.

### 4.15.1 Environmental Checklist and Discussion

Public Services	Impact Examined in 2015 IS/MND?	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Do Mitigation Measures in the 2015 IS/MND Address / Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?
Would the Project...				
a) 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:				
i) Fire protection?	Yes	No	No	N/A
ii) Police protection?	Yes	No	No	N/A
iii) Schools?	Yes	No	No	N/A
iv) Parks?	Yes	No	No	N/A
v) Other public facilities?	Yes	No	No	N/A

- a) **Less than Significant.** Consistent with the 2015 IS/MND, the project would have no impact on population and would not increase the demand for school services or substantially modify the need for fire protection services or police protection in Markleeville. The project would not result in a new or substantially more severe impact, and no additional mitigation would be required.



## 4.16 RECREATION

Section 3.15 of the 2015 IS/MND evaluates the impacts of the project on recreation.

### 4.16.1 Environmental Checklist and Discussion

Recreation	Impact Examined in 2015 IS/MND?	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Do Mitigation Measures in the 2015 IS/MND Address / Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?
Would the Project...				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	Yes	No	No	N/A
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	Yes	No	No	N/A

- a) **No Impact.** Consistent with the 2015 IS/MND, the project would have no impact on population and would not modify the use or demand of existing local or regional parks or other recreational facilities. The project would not result in a new or substantially more severe impact, and no additional mitigation would be required.
- b) **Less than Significant.** The sewer infrastructure improvements would remove facilities from the floodplain, improving water quality, but would other have no impact on the development of new recreational facilities, nor require expansion of existing recreational facilities. The project would not result in a new or substantially more severe impact, and no additional mitigation would be required.

## 4.17 TRANSPORTATION AND TRAFFIC

Section 3.16 of the 2015 IS/MND evaluates the impacts of the project on transportation and traffic.

### 4.17.1 Environmental Checklist and Discussion

TRANSPORTATION & TRAFFIC	Impact Examined in 2015 IS/MND?	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Do Mitigation Measures in the 2015 IS/MND Address / Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?
Would the Project...				
a) Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	Yes	No	No	N/A
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards established by the county congestion management agency for designated roads and highways?	Yes	No	No	N/A
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	No	N/A	N/A	N/A
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Yes	No	No	N/A
e) Result in inadequate emergency access?	Yes	No	No	N/A
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	Yes	No	No	N/A
g) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	No	No	No	N/A

- a,b) **No Impact.** Consistent with the 2015 IS/MND, the project would not conflict with any congestion management programs or plans, ordinances, or policies regarding Markleeville’s circulation system. The project would not result in a new or substantially more severe impact, and no additional mitigation would be required.
- c) **No Impact.** Consistent with the 2015 IS/MND, the project would not change air traffic patterns. The Alpine County Airport is the closest airport to the project site and is located approximately 2.5 miles to the north. The project would have no effect on the number of flights or the operation of the airport because the project would not result in increased visitation to the project site. The project would not result in a new or substantially more severe impact, and no additional mitigation would be required.

- d) **Less than Significant.** Consistent with the 2015 IS/MND, the project would improve the existing MPUD access road to improve the configuration and drainage. All site modifications related to driveway design would meet Caltrans standards for size, angle, and sight lines. The project would not result in a new or substantially more severe impact, and no additional mitigation would be required.
- e) **Less than Significant.** Consistent with the 2015 IS/MND, the project would improve emergency access because modifications to the existing MPUD access road alignment, profile, and drainage would make the route safer and more reliable year-round. Additionally, relocation of sewer facilities outside of the floodplain would eliminate the need for maintenance or emergency vehicles to enter inundated areas of the site during flooding events. The project would not result in a new or substantially more severe impact, and no additional mitigation would be required.
- f) **No Impact.** The project would not alter any public transit facilities, bikeways, or pedestrian facilities. Thus, the project would not result in a new or substantially more severe impact, and no additional mitigation would be required.
- g) **Less than Significant.** Temporary construction activities would result in a temporary increase in vehicle trips to the project site during construction by workers and equipment. However, the project would not alter existing land uses, would not generate new residents or businesses, and the minor increase in system maintenance activities would not appreciably alter the vehicle miles traveled. This is a less-than-significant impact and no mitigation is required.

## 4.18 UTILITIES AND SERVICE SYSTEMS

Section 3.17 of the 2015 IS/MND evaluates the impacts of the project on utilities and service systems.

### 4.18.1 Environmental Checklist and Discussion

UTILITIES & SERVICE SYSTEMS	Impact Examined in 2015 IS/MND?	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Do Mitigation Measures in the 2015 IS/MND Address / Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?
Would the Project...				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	Yes	No	No	N/A
b) Require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction of which could cause significant environmental effects?	No	No	No	N/A
c) Have sufficient water supplies available to serve the Project from existing entitlements and resources, or are new or expanded entitlements needed?	Yes	No	No	N/A
d) 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 providers existing commitments?	Yes	No	No	N/A
e) 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?	Yes	No	No	N/A
f) Comply with federal, state, and local statutes and regulations related to solid waste?	Yes	No	No	N/A

- a) **No Impact.** The project would not alter population, housing, nor commercial or recreational facilities that would require increased wastewater services. The project itself does not require wastewater services, but rather would move sewer infrastructure out of the floodplain. Consistent with the 2015 IS/MND, the project would not alter MPUD's ability to meet wastewater treatment requirements. The project would not result in a new or substantially more severe impact, and no additional mitigation would be required.
- b) **Less than Significant.** Since adoption of the 2015 IS/MND, the CEQA Appendix G questions have been revised to include impacts related to the relocation or construction of new or expended electric power, natural gas, and telecommunications facilities. Despite having not been examined in the 2015 IS/MND, the project would not result in a new significant impact regarding these types of facilities because the project would not increase demand for electric power, natural gas, or telecommunications.

Consistent with the 2015 IS/MND, the project would extend the life span and reliability of Markleeville's aging wastewater facilities. However, it would not expand capacity or modify the service area of the wastewater system. The direct environmental effects of construction and operation of the modified sewer system are evaluated throughout the 2015 IS/MND, and the appropriate coverage of the project in that document is validated in this addendum.

The project would result in improvements to Markleeville's stormwater drainage system because the project would involve modifying the MPUD access road to improve drainage and relocating sewer facilities out of the floodplain. In this way, the project would improve on-site drainage patterns and reduce impediments to stormwater flows.

The project would not result in a new or substantially more severe impact regarding water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, and no additional mitigation would be required.

- c) **Less than Significant.** Consistent with the 2015 IS/MND, the project would require water during construction for dust control. However, this demand would be short-term and would not require substantial quantities of water. The relocation of sewer infrastructure would not result in a long-term increase in water demand. The project would not result in a new or substantially more severe impact, and no additional mitigation would be required.
- d) **No Impact.** Consistent with the 2015 IS/MND, the project would not require wastewater services but would provide wastewater services for the community. The project would not result in a new or substantially more severe impact, and no additional mitigation would be required.
- e,f) **Less than Significant.** Consistent with the 2015 IS/MND, the project would require disposal of waste material during construction. However, waste generated by the project would be minimal and would not be in excess of State or local standards. All waste would be disposed consistent with all federal, State, and local regulatory standards. The project would not result in a new or substantially more severe impact, and no additional mitigation would be required.

## 4.19 WILDFIRE

Section 3.8 of the 2015 IS/MND evaluates the impacts of the project related to hazards and hazardous materials, which includes risks related to wildland fires. However, wildfire as a distinct environmental resource topic was not evaluated in the 2015 IS/MND because this topic was not required by CEQA until 2019. Therefore, this addendum includes a full analysis of wildfire impacts.

### 4.19.1 Environmental Checklist and Discussion

WILDFIRE	Impact Examined in 2015 IS/MND?	Do Proposed Changes Involve New or Substantially More Severe Significant Impacts?	Do Any New Circumstances Involve New or Substantially More Severe Significant Impacts?	Do Mitigation Measures in the 2015 IS/MND Address / Resolve Impacts, Including Impacts That Would Otherwise be New or Substantially More Severe?
Would the Project...				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	No	No	No	N/A
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	No	No	No	N/A
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	No	No	No	N/A
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	No	No	No	N/A

Section 3.8, "Hazards and Hazardous Materials," of the 2015 IS/MND evaluated impacts of the project related to wildfire hazard. However, since adoption of the 2015 MND, the CEQA Guidelines have added wildfire as a distinct environmental resource topic with several new Appendix G criteria that vary from the single wildfire-related criterion included in the 2015 IS/MND. For these reasons, this addendum includes a full analysis of wildfire impacts to reflect the current CEQA Guidelines.

The majority of the project site and surrounding area is within the State Responsibility Area (SRA) and is within a very-high fire hazard severity zone (CAL FIRE 2020). Alpine County is currently preparing a Wildfire Risk Mitigation Plan to reduce wildfire risk and protect important resources in the county (Alpine County 2020). In 2009, a Community Wildfire Protection Plan was prepared to include recommendations for mitigating wildland fire threats to property. The document includes mitigation such as identifying wildland urban interface areas, reduce fire fuels, and develop partnerships to reduce fire risk (Alpine County 2018).

The California Department of Forestry (CDF) is responsible for providing wildland fire protection on all State and private timberlands, watersheds, and rangelands in Alpine County. The CDF contracts out this responsibility to USFS. In general, the USFS is adequately prepared to protect developed areas. However, Forest Service fire fighters are not equipped, trained, or legally permitted to fight structural fires. The County is served by volunteer fire departments located in the population centers of the county for structural fire protection. Fire protection in Markleeville is

provided by Eastern Alpine Fire and Rescue Volunteer Fire Department (Woodfords Fire Department). Alpine County Fire Station #92 and Woodfords Fire Station are located along Hot Springs Road, adjacent to downtown Markleeville.

- a) **Less than Significant.** The project would not require any road closures or result in delays along any emergency evacuation or response routes. Therefore, the project could not impair an adopted emergency response plan or emergency evacuation plan. The project would result in a less-than-significant impact on emergency access and no mitigation would be required.
- b) **Less than Significant.** The project site is located in a historic floodplain, which does not have a steep incline. As discussed in the 2015 IS/MND, project would not involve construction of new structures that would result in increased human exposure to wildfire hazards. Thus, the project would not result in the uncontrolled spread of a wildfire or the exposure of project occupants to pollutant concentrations from a wildfire. The project would result in a less-than-significant impact and no mitigation would be required.
- c) **Less than Significant.** Temporary construction activity could involve limited risk of fire due to equipment and vehicles used during construction as well as certain worker behavior, such as smoking and disposing of cigarettes or parking vehicles on dry vegetation. However, once operational, the relocated sewer infrastructure would not exacerbate existing fire risk. As discussed in the 2015 IS/MND, the project would not involve new structures (i.e., residences, schools) that would result in a substantial in human exposure to wildland fire hazards. Therefore, the project would result in a less-than-significant impact and no mitigation would be required.
- d) **Less than Significant.** As discussed in Section 4.10, "Hydrology and Water Quality," runoff occurs naturally within the project area and flooding events have occurred historically and are likely to occur in the future. However, the project would improve the drainage patterns on-site and relocate sewer infrastructure out of the flood zone, which would decrease potential exposure of people and structures to significant risks as a result of runoff, post-fire slope instability, or drainage changes. Additionally, the project site does not have steep slopes. For these reasons, the project would result in a less-than-significant impact and no mitigation would be required.

## 4.19.2 Conclusion

As described in Chapter 3 of this document, "Project Description," and Chapter 4, "Coverage Under the 2015 IS/MND," none of the conditions described in CEQA Guidelines Section 15162 calling for preparation of a subsequent document have occurred. As documented throughout the environmental checklist and discussion, changes to the approved 2015 Project in connection with the Markleeville Sewer Pump Station Relocation and Improvements Project and any altered conditions since adoption of the MND in 2015 would:

- ▶ not result in any new significant environmental effects, and
- ▶ not substantially increase the severity of previously identified significant effects.

In addition, no new information of substantial importance has arisen that shows that:

- ▶ the Project would have new significant effects,
- ▶ the Project would have substantially more severe effects,
- ▶ mitigation measures or alternatives previously found to be infeasible would in fact be feasible, or
- ▶ mitigation measures or alternatives that are considerably different from those analyzed in the EIR would substantially reduce one or more significant effects on the environment.

Therefore, the differences between the approved project as evaluated in the 2015 IS/MND, and the sewer system modifications now being considered constitute changes consistent with CEQA Guidelines Section 15164. Through this addendum, MPUD has determined that no subsequent negative declaration is required for the Markleeville Sewer Pump Station Relocation and Improvements Project.

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## 5 MITIGATION MEASURES

The following mitigation measures were adopted upon approval of the 2015 MND and would be applicable to the mitigation of impacts associated with the Markleeville Sewer Pump Station Relocation and Improvements Project. To support proper implementation of the adopted mitigation measures, additional clarification and prescriptive measures have been provided herein.

### 5.1 AIR QUALITY

#### Mitigation Measure AQ-1 (per page 3-30 of the 2015 IS/MND)

The following fugitive dust control measures, as outlined in the GBUAPCD's Rule 401, shall be implemented during construction to ensure that particulate matter (i.e., fugitive dust) emissions would be limited. MPUD shall take reasonable precautions to prevent visible particulate matter from being airborne, under normal wind conditions, beyond the property from which the emission originates. Reasonable precautions include, but are not limited to:

- ▶ Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;
- ▶ Application of asphalt, water, or suitable chemicals on dirt roads, material stockpiles, and other surfaces which can give rise to airborne dusts;
- ▶ Installation and use of hoods, fans, and fabric filters, to enclose and vent the handling of dusty materials. Adequate contaminant methods shall be employed during such handling operations;
- ▶ Use of water, chemicals, chuting, venting, or other precautions to prevent particulate matter from becoming airborne in handling dusty materials to open stockpiles and mobile equipment; and
- ▶ Maintenance of roadways in a clean condition.

### 5.2 BIOLOGICAL RESOURCES

**Mitigation Measure BIO-1: A pre-construction plant survey within the project disturbance footprint shall be conducted a qualified biologist to identify any special status plants and create construction exclusion areas.**

#### Mitigation Measure BIO-1a: Conduct Special-Status Plant Surveys and Implement Avoidance Measures and Mitigation

- ▶ Prior to implementation of project activities and during the period when special-status plant species with potential to occur in the project site (Table 4-2) are most identifiable (generally, the blooming period of flowering plants or sporophyte period of bryophytes), a qualified botanist will conduct protocol-level surveys for special-status plants within the project site following survey methods from the CDFW Protocols for Surveying and Evaluating Impacts on Special Status Native Plant Populations and Natural Communities (CDFW 2018). The qualified botanist will 1) be knowledgeable about plant taxonomy, 2) be familiar with plants of the Sierra Nevada region, including special-status plants and sensitive natural communities, 3) have experience conducting floristic botanical field surveys as described in CDFW 2018, 4) be familiar with the *California Manual of Vegetation* (Sawyer et al. 2009 or current version, including updated natural communities data at <http://vegetation.cnps.org/>), and 5) be familiar with federal and state statutes and regulations related to plants and plant collecting.
- ▶ If special-status plants are not found, the botanist will document the findings in a letter report to MPUD and no further mitigation will be required.
- ▶ If special-status plant species are found, the occupied habitat will be avoided completely, if feasible (i.e., project objectives can still be met). This may include establishing a no-disturbance buffer around the plant population and demarcation of this buffer by a qualified botanist using flagging or high-visibility construction fencing. The size of

the buffer will be determined by the qualified botanist and will be large enough to avoid direct or indirect impacts on the plant.

**Table 4-2 Typical Blooming Period for Special-Status Plants that May Occur within the Project Site<sup>1</sup>**

Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mountain bent grass												
Upswept moonwort												
Davy's sedge												
Porcupine sedge												
Liddon's sedge												
Western valley sedge												
Marsh willowherb												
Blandow's bog moss <sup>2</sup>	-	-	-	-	-	-	-	-	-	-	-	-
Alder buckthorn												

<sup>1</sup> Blooming periods vary annually based on annual climatic variation and across species range. It is essential to base survey timing on current conditions in the survey year and it is recommended that reference populations are visited to verify species are identifiable during the survey period.

<sup>2</sup> Non-blooming bryophyte species

Source: Data compiled by Ascent Environmental in 2021; CNPS 2020

- ▶ If special-status plants are found during rare plant surveys and cannot be avoided, MPUD will consult with CDFW or U.S. Fish and Wildlife Service (USFWS), as appropriate depending on species status, to determine the compensation necessary to achieve no net loss of occupied habitat or individuals. Mitigation measures may include, but are not limited to, preserving and enhancing existing populations, creating off-site populations on mitigation sites through seed collection or transplantation at a 1:1 ratio, and restoring or creating suitable habitat in sufficient quantities to achieve no net loss of occupied habitat or individuals. Potential mitigation sites could include suitable locations within or outside of the project site. MPUD will develop and implement a site-specific mitigation strategy describing how unavoidable losses of special-status plants will be compensated. Success criteria for preserved and compensatory populations will include:
  - The extent of occupied area and plant density (number of plants per unit area) in compensatory populations will be equal to or greater than the affected occupied habitat.
  - Compensatory and preserved populations will be self-producing. Populations will be considered self-producing when:
    - plants reestablish annually for a minimum of five years with no human intervention such as supplemental seeding; and
    - reestablished and preserved habitats contain an occupied area and flower density comparable to existing occupied habitat areas in similar habitat types in the project vicinity.
  - If off-site mitigation includes dedication of conservation easements, purchase of mitigation credits, or other off-site conservation measures, the details of these measures will be included in the mitigation plan, including information on responsible parties for long-term management, conservation easement holders, long-term management requirements, success criteria such as those listed above and other details, as appropriate to target the preservation of long-term viable populations.

**Mitigation Measure BIO-2: Pre-construction wildlife and amphibian surveys of the disturbance footprint shall be conducted by qualified biologists to identify any special status wildlife and amphibian species present, designate exclusion zones, and/or perform removals.**

### **Mitigation Measure BIO-2a: Implement Limited Operating Period or Conduct Focused Surveys for Ringtail**

- ▶ To minimize the potential for loss of ringtail and active ringtail dens, project activities (e.g., tree removal, other vegetation removal, ground disturbance, staging) within habitat potentially suitable for ringtail (i.e., forest habitat, scrub habitat, riparian habitat) will be conducted outside of the ringtail maternity season (not well defined, but approximately April 15–July 31), if feasible.
- ▶ If the limited operating period is not feasible, and construction activities would occur from April 15–July 31, additional preconstruction surveys would be required. No more than 30 days before initiation of project activities, within potentially suitable ringtail habitat, a qualified biologist with experience conducting ringtail surveys will conduct a focused survey for potential ringtail dens (e.g., hollow trees, snags, rock crevices) within the project site. The qualified biologist will document sightings of individual ringtails, as well as potential dens.
- ▶ If individuals or potential or occupied dens are not found, the qualified biologist will submit a letter report summarizing the results of the survey to MPUD, and further mitigation will not be required.
- ▶ If ringtails are identified or if potential dens are located, an appropriate method will be used by the qualified wildlife biologist to confirm whether a ringtail is occupying the den. This may include use of remote field cameras, track plates, or hair snares. Other devices, such as a fiber optic scope, may be utilized to determine occupancy.
  - If potential dens are not occupied, the entrances will be temporarily blocked so that no other animals occupy the project site during project activities, but only after it has been fully inspected. The blockage will be removed once the project activities are completed.
  - If a den is found to be occupied by a ringtail, a no-disturbance buffer will be established around the occupied den. The no-disturbance buffer will include the den tree (or other structure) plus a suitable buffer as determined by the biologist in coordination with CDFW. Project activities in the no-disturbance buffer will be avoided until the den is unoccupied as determined by the qualified wildlife biologist in coordination with CDFW.

### **Mitigation Measure BIO-2b: Conduct Preconstruction Surveys for Sierra Nevada Mountain Beaver and Implement Protective Buffers**

- ▶ No more than 30 days prior to any ground disturbance or vegetation removal activities within 200 feet of Markleeville Creek, a preconstruction survey for Sierra Nevada mountain beaver will be conducted by a qualified biologist familiar with the species. Surveys would consist of burrow searches within habitat suitable for the species.
- ▶ If individuals or occupied burrows are not found, the qualified biologist will submit a letter report summarizing the results of the survey to MPUD, and further mitigation will not be required.
- ▶ If active breeding/burrow sites are identified within 250 feet of project activities, MPUD will implement a limited operating period during the Sierra Nevada mountain beaver breeding season (February 1–July 31) during which no ground disturbance, vegetation or tree removal, or staging activities will occur within 250 feet of the identified burrow. The limited operating period, area within which it is implemented (e.g., 250-foot buffer), and activities allowed or prohibited within the limited operating period may be adjusted through consultation with CDFW.

### **Mitigation Measure BIO-2c: Conduct Preconstruction Surveys for Sierra Nevada Snowshoe Hare and Western White-Tailed Jackrabbit and Implement Protective Buffers**

- ▶ No more than 30 days prior to any ground disturbance or vegetation removal activities during the Sierra Nevada snowshoe hare and western white-tailed jackrabbit breeding season (February 1–July 31), a preconstruction survey for nests of both species will be conducted by a qualified biologist familiar with the species. Surveys would consist of walking transects to determine whether active nests of either species are present within suitable habitat areas of the project site (e.g., scrub, forest).
- ▶ If individuals or active nests are not found, the qualified biologist will submit a letter report summarizing the results of the survey to MPUD, and further mitigation will not be required.

- ▶ If active nests are identified, MPUD will implement a limited operating period during the Sierra Nevada snowshoe hare and western white-tailed jackrabbit breeding season (February 1–July 31) during which no ground disturbance, vegetation or tree removal, or staging activities will occur within 250 feet of the identified nest. The limited operating period, area within which it is implemented (e.g., 250-foot buffer), and activities allowed or prohibited within the limited operating period may be adjusted through consultation with CDFW.

#### **Mitigation Measure BIO-2d: Conduct Focused Special-Status Bat Surveys and Implement Avoidance Measures**

- ▶ In the early planning stages of the project, a qualified biologist familiar with bats and bat ecology and experienced in conducting bat surveys will conduct surveys for bat roosts in suitable habitat (e.g., large trees, crevices, cavities, exfoliating bark, bridges, unoccupied buildings) within and adjacent to the project site.
- ▶ If no evidence of bat roosts is found, the qualified biologist will submit a letter report summarizing the results of the survey to MPUD, and no further study will be required.
- ▶ If evidence of bat roosts is observed, the species and number of bats using the roost will be determined. Bat detectors shall be used if deemed necessary to supplement survey efforts by the qualified biologist.
- ▶ A no-disturbance buffer of 250 feet will be established around active pallid bat, Townsend’s big-eared bat, or western red bat roosts, and project activities will not occur within this buffer until after the roosts are unoccupied.
- ▶ If roosts of pallid bat, Townsend’s big-eared bat, or western red bat are determined to be present and must be removed, the bats will be excluded from the roosting site before the tree, building, or other structure is removed. A program addressing compensation, exclusion methods, and roost removal procedures will be developed in consultation with CDFW before implementation. Exclusion methods may include use of one-way doors at roost entrances (bats may leave but not reenter) or sealing roost entrances when the site can be confirmed to contain no bats. Exclusion from active maternity roosts will not occur while females in maternity colonies are nursing young. Exclusion efforts may be restricted during other periods of sensitive activity (e.g., during hibernation). The loss of each roost (if any) will be replaced in consultation with CDFW and may require construction and installation of bat boxes suitable to the bat species and colony size excluded from the original roosting site. If determined necessary during consultation with CDFW, replacement roosts will be implemented before bats are excluded from the original roost sites. Once the replacement roosts are constructed and a qualified biologist confirms that bats are not present in the original roost site, the roost tree, building, or other structure may be removed or sealed to prevent bats from reentering.

**Mitigation Measure BIO-3: Impacts to active nests will be avoided by the establishment and maintenance of buffers around the nests. The appropriate size and shape of the buffers will be determined by a qualified biologist in consultation with the CDFW, and may vary depending on the nest location, nest stage, and construction activity. No project activity will occur within the buffer area until the biologist confirms that the nest is no longer active. Monitoring will be conducted to confirm that the Project activities are not resulting in detectable adverse effects to the active nests.**

#### **Mitigation Measure BIO-3a: Conduct Focused Surveys for Special-Status Birds and Other Native Nesting Birds and Implement Protective Buffers**

- ▶ To minimize the potential for loss of special-status bird species, raptors, and other native birds, project activities (e.g., tree removal, other vegetation removal, ground disturbance, staging) will be conducted during the nonbreeding season (approximately September 1–January 31, as determined by a qualified biologist), if feasible. If project activities are conducted during the nonbreeding season, no further mitigation will be required.
- ▶ Within 14 days before the onset of project activities during the breeding season (approximately February 1 through August 31, as determined by a qualified biologist), a qualified biologist familiar with birds of California and with experience conducting nesting bird surveys will conduct focused surveys for special-status birds, other nesting raptors, and other native birds and will identify active nests within 500 feet of the project site (where accessible).
- ▶ Impacts on nesting birds will be avoided by establishing appropriate buffers around active nest sites identified during focused surveys to prevent disturbance to the nest. Project activity will not commence within the buffer areas

until a qualified biologist has determined that the young have fledged, the nest is no longer active, or reducing the buffer will not likely result in nest abandonment. A qualified biologist will determine the appropriate buffer size for non-raptor nests after a site- and nest-specific analysis. Buffers typically will be 500 feet for raptors and 100 feet for non-raptor species. Factors to be considered for determining buffer size will include presence of natural buffers provided by vegetation or topography, nest height above ground, baseline levels of noise and human activity, species sensitivity, and proposed project activities. The size of the buffer may be adjusted if a qualified biologist determines that such an adjustment would not be likely to adversely affect the nest. Any buffer reduction for a special-status species will require consultation with CDFW. Periodic monitoring of the nest by a qualified biologist during project activities will be required if the activity has potential to adversely affect the nest, the buffer has been reduced, or if birds within active nests are showing behavioral signs of agitation (e.g., standing up from a brooding position, flying off the nest) during project activities, as determined by the qualified biologist.

#### **Mitigation Measure BIO-4: Implement Avoidance Measures and Compensate for Unavoidable Impacts on Riparian Habitat**

- ▶ Before implementation of project activities, riparian habitats previously mapped during preparation of the 2015 IS/MND will be flagged or fenced with brightly visible construction flagging and/or fencing under the direction of a qualified biologist and no project activities (e.g., vegetation removal, ground disturbance, staging) will occur within these areas. Foot traffic by personnel will also be limited in these areas to prevent the introduction of invasive or weedy species or inadvertent crushing of plants. Periodic inspections during construction will be conducted by the monitoring biologist to maintain the integrity of exclusion fencing/flagging throughout the period of construction involving ground disturbance.

If riparian habitat in the project site cannot be avoided, the following measures will be implemented:

- ▶ A Streambed Alteration Notification will be submitted to CDFW, pursuant to Section 1602 of the California Fish and Game Code. If proposed project activities are determined to be subject to CDFW jurisdiction, MPUD will abide by the measures to protect fish and wildlife resources, required by any executed agreement, prior to any vegetation removal or activity that may affect the resource. Measures to protect fish and wildlife resources shall include, at a minimum, a combination of the following mitigation.
  - ▶ MPUD will compensate for the loss of riparian habitat such that no net loss of habitat function and values occurs by:
    - restoring riparian habitat function and value within the project site;
    - restoring degraded riparian habitat outside of the project site;
    - purchasing riparian habitat credits at a CDFW-approved mitigation bank; or
    - preserving existing riparian habitat of equal or better value to the affected riparian habitat through a conservation easement at a sufficient ratio to offset the loss of riparian habitat function (at least 1:1).
  - ▶ MPUD will prepare and implement a Compensatory Mitigation Plan that will include the following:
    - For preserving existing riparian habitat outside of the project site in perpetuity, the Compensatory Mitigation Plan will include a summary of the proposed compensation lands (e.g., the number and type of credits, location of mitigation bank or easement), parties responsible for the long-term management of the land, and the legal and funding mechanism for long-term conservation (e.g., holder of conservation easement or fee title).
    - For restoring or enhancing riparian habitat within the project site or outside of the project site, the Compensatory Mitigation Plan will include a description of the proposed habitat improvements, success criteria that demonstrate the performance standard of maintained habitat function has been met, legal and funding mechanisms, and parties responsible for long-term management and monitoring of the restored or enhanced habitat.
    - Compensatory mitigation may be satisfied through compliance with permit conditions, or other authorizations obtained by MPUD (e.g., Lake and Streambed Alteration Agreement), if these requirements are equally or more effective than the mitigation identified above.

### **Mitigation Measure BIO-5: Implement Avoidance Measures and Compensate for Unavoidable Impacts on Wetlands**

- ▶ Before implementation of project activities, a qualified biologist will mark the jurisdictional boundaries of the onsite wetlands with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway).
- ▶ Project activities (e.g., ground disturbance, vegetation removal, staging) will be prohibited within the wetland boundaries. The qualified biologist will periodically inspect the materials demarcating the wetland boundaries to confirm that they are intact and visible, and wetland impacts are being avoided.
- ▶ If it is determined that fill of waters of the United States would result from project implementation, authorization for such fill will be secured from U.S. Army Corps of Engineers (USACE) through the Section 404 permitting process. Any waters of the United States that would be affected by the project will be replaced or restored on a no-net-loss basis in accordance with the applicable USACE mitigation guidelines in place at the time of construction. In association with the Section 404 permit (if applicable) and prior to the issuance of any grading permit, Section 401 Water Quality Certification from the Lahontan RWQCB will be obtained.
- ▶ If it is determined that fill of waters of the state, including state-protected wetlands, cannot be avoided, MPUD will submit an application for discharges of dredged or fill material to the Lahontan RWQCB before commencing activity that may result in discharge of dredged or fill material to waters of the state. MPUD will not commence any activity in waters of the state until permitted by the Lahontan RWQCB and MPUD will implement all protection measures and comply with all conditions of the permit.
- ▶ MPUD will restore all waters of the state following completion of project construction. A draft restoration plan outlining design, implementation, assessment, and maintenance for restoring temporary disturbance areas will be submitted to the Lahontan RWQCB with the application for discharge of dredged or fill material to waters of the state and will be implemented as approved by the Lahontan RWQCB.
- ▶ If any waters of the state cannot be restored on site, MPUD will implement a compensatory mitigation plan resulting in no net loss of the overall abundance, diversity, and condition of aquatic resources based on an assessment of the affected watershed. MPUD may compensate for loss of waters of the state by purchasing credits from a RWQCB-approved mitigation bank or in-lieu fee program, or through restoration or establishment of wetlands or non-wetland waters comparable to those affected by the project.

## **5.3 ARCHAEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCES**

### **Mitigation Measure CR-1: Prepare a Section 106 Cultural Resources Inventory and Evaluation Report and/or Historic Properties Survey Report, Historic Properties Evaluation Report, and Archaeological Survey Report**

Consistent with Mitigation Measure CR-1, "Prepare a Section 106 Cultural Resources Inventory and Evaluation Report and/or Historic Properties Survey Report, Historic Properties Evaluation Report, and Archaeological Survey Report," of the 2015 IS/MND, an updated cultural resources inventory was conducted in 2020 by Natural Investigations Company in compliance with Section 21083.2 of the CEQA statutes, Section 15064.5 of the CEQA Guidelines, and Section 106 of the federal National Historic Preservation Act (NHPA). The 2020 Cultural Resources Inventory Report includes a cultural resources literature search, Sacred Lands File search, paleontological sensitivity analysis, intensive pedestrian survey of the area of potential effects (APE), and an inventory report (NIC 2020).

### **Mitigation Measure CR-2: Avoidance and Protection Measures for Rock Wall #1 of the National Register Listed Alpine County Courthouse**

Consistent with Mitigation Measure CR-2, "Avoidance and Protection Measures for Rock Wall #1 of the National Register Listed Alpine County Courthouse," of the 2015 IS/MND, the project site boundary has been revised. The sewer improvements project boundary does not include Wall #1 associated with the National-Register-listed Alpine County Courthouse. Wall #1 would be avoided and protected.

### **Mitigation Measure CR-3: Construction Crew Education/Tailboard Meeting and Accidental Discovery of Archaeological Resources Procedures**

Prior to the start of construction, MPUD will ensure that all construction personnel, including construction forepersons and field supervisors receive training by a qualified professional archaeologist, as defined by the Secretary of the Interior, and who is experienced in teaching non-specialists, to ensure they can recognize cultural resources materials in the event any are discovered during construction.

Furthermore, to avoid any potential adverse effect from the proposed project on accidentally discovered buried historical resources as defined in CEQA Guidelines Section 15064.5(a)(c), MPUD will distribute a cultural resources ALERT sheet to the project's prime contractor; to any project subcontractor (including firms providing services such as demolition, excavation, grading, etc.), or utilities firms involved in soils disturbing activities within the project site. The ALERT sheet provides workers notice that cultural resources may be encountered during excavation and instructions on what to do if evidence of an archaeological site is encountered. Prior to any soils disturbing activities being undertaken, each contractor is responsible for ensuring that the ALERT sheet is circulated to all field personnel, including: machine operators, field crew, supervisory personnel, etc. The prime contractor will provide MPUD with a signed affidavit from the responsible parties (prime contractor, subcontractor[s], and utilities firms) confirming that all field personnel have received copies of the ALERT Sheet.

Should any indication of an archaeological resource be encountered during any soils disturbing activity of the project, the contractor will immediately notify MPUD and suspend any soils disturbing activities within 150 feet of the discovery until the find can be assessed by a qualified professional archaeologist, the qualified professional will determine what additional measures should be undertaken.

The qualified professional archaeologist will advise MPUD as to whether the discovery is an archaeological resource, retains sufficient integrity, and it of potential scientific, historical, and/or cultural significance. If an archaeological resource is present, the archaeological consultant will identify and evaluate the archaeological resource. The archaeological consultant will make a recommendation as to what action, if any, is warranted. Based on this information, if warranted, specific additional measures may be implemented.

Measures might include: preservation in situ of the archaeological resource; an archaeological monitoring program; and/or an archaeological testing program. MPUD may also require that a site security program be implemented if the resource is at risk from vandalism, looting, or other damaging actions.

The archaeological consultant will submit a final report that evaluates the historical significance of any discovered archaeological resource and describes the archaeological and historical research methods employed in the archaeological monitoring/data recovery program(s) undertaken. Information that may put at risk any archaeological resource will be provided in a separate removable insert within the final report.

Copies of the final report will be sent to Alpine County and the Central California Information Center, along with copies of any formal recordation forms (CA DPR 523 series) and/or documentation for nomination to the NRHP/CRHR. In instances of high public interest or interpretive value, Alpine County may require a different final report content, format and distribution from that presented above.

### **Mitigation Measure CR-4: Preserve Human Remains if Encountered**

If human remains are encountered during construction, MPUD will notify the Alpine County Coroner immediately, as required by California PRC Code §5097.98. A qualified professional archaeologist will also be contacted immediately. If the County Coroner determines that the remains are Native American, the Coroner will then contact the NAHC, pursuant to Section 7050.5[c] of the California Health and Safety Code.

There will be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie human remains until the County Coroner has determined that no investigation of the cause of death is required or if remains are Native American. If the remains are of Native American in origin:

- ▶ Within 24 hours of notification, the NAHC will identify a Native American "most likely descendant" (MLD) to make a recommendation regarding appropriate treatment of the human remains.

- ▶ If the identified MLD fails to make a recommendation within 48 hours of being notified, Alpine County will work with the NAHC to determine appropriate means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods, as provided in PRC Section 5097.98.

## 5.4 HYDROLOGY AND WATER QUALITY

### Mitigation Measure HYRO-1 (per page 3-77 of the 2015 IS/MND)

Temporary erosion/runoff best management control measures will be implemented during construction to minimize storm water pollution resulting from erosion and sediment migration from the construction, borrow, and staging areas. These temporary control measures will include implementing construction staging in a manner that minimizes the amount of area disturbed at any one time; secondary containment for storage of fuel and oil; and the management of stockpiles and disturbed areas by means of earth berms, diversion ditches, straw wattles, straw bales, silt fences, gravel filters, mulching, re-vegetation, and temporary covers as appropriate. Erosion and storm water pollution control measures will be consistent with NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities requirements, and will be included in a site specific SWPPP.

After completion of construction activities, the temporary facilities will be demobilized and site restoration measures will be implemented to minimize soil erosion. Site restoration measures for areas disturbed by construction activities, including the borrow area and laydown/staging areas, may include regrading, reseeding, construction of permanent diversion ditches, use of straw wattles and bales, application of straw mulch, and other measures deemed appropriate to meet all applicable erosion control requirements.



## 6 REFERENCES

### 6.1 INTRODUCTION

No references are used in this chapter.

### 6.2 AGRICULTURAL AND FORESTRY RESOURCES

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CARB. See California Air Resources Board.

### 6.4 BIOLOGICAL RESOURCES

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## 6.5 ARCHAEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCES

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CARB. See California Air Resources Board.

## 6.7 GEOLOGY, SOILS, AND SEISMICITY

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## 6.8 HAZARDS AND HAZARDOUS MATERIALS

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# Appendix A

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Biological Research Data Results



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



**Query Criteria:** Quad</span> IS </span>(Freel Peak (3811978)</span> OR </span>Woodfords (3811977)</span></span> OR </span>Carters Station (3811976)</span></span> OR </span>Carson Pass (3811968)</span></span> OR </span>Markleeville (3811967)</span></span> OR </span>Heenan Lake (3811966)</span></span> OR </span>Wolf Creek (3811956)</span></span> OR </span>Ebbetts Pass (3811957)</span></span> OR </span>Pacific Valley (3811958))

<b>Map Index Number:</b> A1052	<b>EO Index:</b> 102613
<b>Key Quad:</b> Freel Peak (3811978)	<b>Element Code:</b> AAAAA01085
<b>Occurrence Number:</b> 434	<b>Occurrence Last Updated:</b> 2016-07-11

<b>Scientific Name:</b> <i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b> southern long-toed salamander
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5T4	
<b>State:</b> S3	

<b>General Habitat:</b> HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.	<b>Micro Habitat:</b> AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.
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<b>Last Date Observed:</b> 2015-08-11	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2015-08-11	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-LAKE TAHOE BMU	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
PONDS 1.5 TO 1.8 MILES WEST OF ARMSTRONG PASS, NORTH OF HELL HOLE, SOUTH OF SOUTH LAKE TAHOE.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

275 LARVAE FOUND ON 21 AUG 2000, 79 ON 7 AUG 2012, 86 ON 27 JUN 2013, 7 ADULTS ON 7 JUL 2014, 105 LARVAE BETWEEN 22 AND 23 JUN 2015, AND 6 LARVAE FOUND ON 11 AUG 2015.

<b>PLSS:</b> T12N, R18E, Sec. 36, SW (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 27
<b>UTM:</b> Zone-11 N4302778 E244391	<b>Latitude/Longitude:</b> 38.83671 / -119.94485	<b>Elevation (feet):</b> 8,200

<b>County Summary:</b>	<b>Quad Summary:</b>
El Dorado	Freel Peak (3811978)

**Sources:**

FEL08D0001	FELLERS, G. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - MULTI-SPECIES EXCEL DATABASE OF AMPHIBIAN OCCURRENCES FROM 1992-2008 2008-09-29
USFNDD0002	U.S. FOREST SERVICE-REGION 5 - NATURAL RESOURCE INFORMATION SYSTEM (NRIS) ANIMAL RECORDS FROM CALIFORNIA NATIONAL FORESTS XXXX-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database

**Map Index Number:** 74604**EO Index:** 102614**Key Quad:** Freel Peak (3811978)**Element Code:** AAAAAA01085**Occurrence Number:** 435**Occurrence Last Updated:** 2016-10-11**Scientific Name:** *Ambystoma macrodactylum sigillatum***Common Name:** southern long-toed salamander**Listing Status:** **Federal:** None**Rare Plant Rank:****State:** None**Other Lists:** CDFW\_SSC-Species of Special Concern**CNDDB Element Ranks:** **Global:** G5T4**State:** S3**General Habitat:**

HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.

**Micro Habitat:**

AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

**Last Date Observed:** 2015-08-11**Occurrence Type:** Natural/Native occurrence**Last Survey Date:** 2015-08-11**Occurrence Rank:** Unknown**Owner/Manager:** USFS-LAKE TAHOE BMU**Trend:** Unknown**Presence:** Presumed Extant**Location:**

HELL HOLE MEADOW ALONG TROUT CREEK TRIBUTARY, ABOUT 4 MILES SE OF MEYERS, SOUTH OF LAKE TAHOE.

**Detailed Location:****Ecological:****Threats:****General:**

1 SUBADULT AND 11 LARVAE FOUND ON 19 AUG 1997, 1 ADULT ON 13 JUN 2000, 1 LARVA ON 7 AUG 2012, 5 SUBADULTS ON 27 JUN 2013, 1 SUBADULT ON 13 AUG 2014 AND 7 LARVAE ON 11 AUG 2015.

**PLSS:** T11N, R18E, Sec. 01, W (M)**Accuracy:** specific area**Area (acres):** 44**UTM:** Zone-11 N4301753 E244356**Latitude/Longitude:** 38.82748 / -119.94486**Elevation (feet):** 8,350**County Summary:****Quad Summary:**

El Dorado

Freel Peak (3811978)

**Sources:**

- FEL08D0001 FELLERS, G. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - MULTI-SPECIES EXCEL DATABASE OF AMPHIBIAN OCCURRENCES FROM 1992-2008 2008-09-29
- OSB01U0002 OSBOURN, M. (U.S. GEOLOGICAL SURVEY) - SCIENTIFIC COLLECTING REPORT OF SPECIMENS CAPTURED OR SALVAGED 2001-01-31
- USFNDD0002 U.S. FOREST SERVICE-REGION 5 - NATURAL RESOURCE INFORMATION SYSTEM (NRIS) ANIMAL RECORDS FROM CALIFORNIA NATIONAL FORESTS XXXX-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A1055	<b>EO Index:</b> 102615
<b>Key Quad:</b> Freel Peak (3811978)	<b>Element Code:</b> AAAAAA01085
<b>Occurrence Number:</b> 436	<b>Occurrence Last Updated:</b> 2016-07-11

<b>Scientific Name:</b> <i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b> southern long-toed salamander
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5T4	
<b>State:</b> S3	

<b>General Habitat:</b> HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.	<b>Micro Habitat:</b> AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.
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<b>Last Date Observed:</b> 2000-08-22	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2000-08-22	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-LAKE TAHOE BMU	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
UNNAMED POND 1.3 MILES NORTH OF THOMPSON PEAK, NE OF FREEL MEADOWS, SOUTH OF LAKE TAHOE.

**Detailed Location:**  
0.15 MILE NORTH OF USFS TRAIL 19E00.

**Ecological:**

**Threats:**

**General:**  
125 LARVAE FOUND ON 22 AUG 2000.

<b>PLSS:</b> T11N, R18E, Sec. 12, W (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 5
<b>UTM:</b> Zone-11 N4300359 E244891	<b>Latitude/Longitude:</b> 38.81509 / -119.9382	<b>Elevation (feet):</b> 9,025

<b>County Summary:</b> El Dorado	<b>Quad Summary:</b> Freel Peak (3811978)
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**Sources:**  
FEL08D0001 FELLERS, G. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - MULTI-SPECIES EXCEL DATABASE OF AMPHIBIAN OCCURRENCES FROM 1992-2008 2008-09-29





# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A1063	<b>EO Index:</b> 102623
<b>Key Quad:</b> Freel Peak (3811978)	<b>Element Code:</b> AAAAAA01085
<b>Occurrence Number:</b> 439	<b>Occurrence Last Updated:</b> 2016-07-12

<b>Scientific Name:</b> <i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b> southern long-toed salamander
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5T4	
<b>State:</b> S3	

<b>General Habitat:</b> HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.	<b>Micro Habitat:</b> AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.
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<b>Last Date Observed:</b> 2001-07-24	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2001-07-24	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-LAKE TAHOE BMU	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
GRASS LAKE, SOUTH OF HIGHWAY 89, NW OF LUTHER PASS, SOUTH OF SOUTH LAKE TAHOE.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

DETECTED ON 24 JULY 2001.

<b>PLSS:</b> T11N, R18E, Sec. 14 (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 51
<b>UTM:</b> Zone-11 N4297980 E242631	<b>Latitude/Longitude:</b> 38.79302 / -119.96331	<b>Elevation (feet):</b> 7,700

**County Summary:**

El Dorado

**Quad Summary:**

Freel Peak (3811978)

**Sources:**  
CRI16D0001 CRIPE, K. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - GIS DATA ASSEMBLED FOR UPDATES TO THE CALIFORNIA AMPHIBIAN AND REPTILE SPECIES OF SPECIAL CONCERN LIST 2016-05-06



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



**Map Index Number:** A1068

**EO Index:** 102628

**Key Quad:** Freel Peak (3811978)

**Element Code:** AAAAAA01085

**Occurrence Number:** 444

**Occurrence Last Updated:** 2016-07-12

**Scientific Name:** *Ambystoma macrodactylum sigillatum*

**Common Name:** southern long-toed salamander

**Listing Status:** **Federal:** None

**Rare Plant Rank:**

**State:** None

**Other Lists:** CDFW\_SSC-Species of Special Concern

**CNDDDB Element Ranks:** **Global:** G5T4

**State:** S3

**General Habitat:**

HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.

**Micro Habitat:**

AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

**Last Date Observed:** 2003-06-13

**Occurrence Type:** Natural/Native occurrence

**Last Survey Date:** 2003-06-13

**Occurrence Rank:** Unknown

**Owner/Manager:** USFS-TOIYABE NF

**Trend:** Unknown

**Presence:** Presumed Extant

**Location:**

POND BETWEEN WEST FORK CARSON RIVER & HIGHWAY 88, 1.3 ROAD MILES SW OF HIGHWAY 89, HOPE VALLEY, TOIYABE NATIONAL FOREST.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

2 LARVAE FOUND ON 13 JUNE 2003.

**PLSS:** T11N, R18E, Sec. 25, SW (M)

**Accuracy:** 80 meters

**Area (acres):** 5

**UTM:** Zone-11 N4295097 E244813

**Latitude/Longitude:** 38.7677 / -119.93715

**Elevation (feet):** 7,100

**County Summary:**

**Quad Summary:**

Alpine

Freel Peak (3811978)

**Sources:**

DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A1077	<b>EO Index:</b> 102644
<b>Key Quad:</b> Carson Pass (3811968)	<b>Element Code:</b> AAAAA01085
<b>Occurrence Number:</b> 453	<b>Occurrence Last Updated:</b> 2016-07-12

<b>Scientific Name:</b> <i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b> southern long-toed salamander
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5T4	
<b>State:</b> S3	

<b>General Habitat:</b> HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.	<b>Micro Habitat:</b> AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.
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<b>Last Date Observed:</b> 2003-07-02	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2003-07-02	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
POND 0.7 MILE SOUTH OF HOPE VALLEY CAMPGROUND, WEST OF WEST FORK CARSON RIVER, TOIYABE NATIONAL FOREST.

**Detailed Location:**  
ON THE WEST SIDE OF BLUE LAKES ROAD, 2.4 MILES SOUTH OF ITS INTERSECTION WITH HIGHWAY 88.

**Ecological:**

**Threats:**

**General:**  
79 LARVAE FOUND ON 2 JULY 2003.

<b>PLSS:</b> T10N, R19E, Sec. 7, SE (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 5
<b>UTM:</b> Zone-11 N4289885 E245723	<b>Latitude/Longitude:</b> 38.72106 / -119.92477	<b>Elevation (feet):</b> 7,200

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Carson Pass (3811968)
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**Sources:**  
DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A1078	<b>EO Index:</b> 102645
<b>Key Quad:</b> Carson Pass (3811968)	<b>Element Code:</b> AAAAA01085
<b>Occurrence Number:</b> 454	<b>Occurrence Last Updated:</b> 2016-07-12

<b>Scientific Name:</b> <i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b> southern long-toed salamander
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5T4	
<b>State:</b> S3	

**General Habitat:**

HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.

**Micro Habitat:**

AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

<b>Last Date Observed:</b> 2003-06-10	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2003-06-10	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**

POND 2.2 MILES EAST OF RED LAKE PEAK, 2.6 AIR MILES NE OF HIGHWAY 88 AT CARSON PASS, TOIYABE NATIONAL FOREST.

**Detailed Location:****Ecological:****Threats:****General:**

25 LARVAE FOUND ON 10 JUNE 2003.

<b>PLSS:</b> T10N, R18E, Sec. 13, NE (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 5
<b>UTM:</b> Zone-11 N4289011 E243775	<b>Latitude/Longitude:</b> 38.71264 / -119.94683	<b>Elevation (feet):</b> 7,600

**County Summary:**

Alpine

**Quad Summary:**

Carson Pass (3811968)

**Sources:**

DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



**Map Index Number:** A1081

**EO Index:** 102648

**Key Quad:** Carson Pass (3811968)

**Element Code:** AAAAAA01085

**Occurrence Number:** 457

**Occurrence Last Updated:** 2016-07-12

**Scientific Name:** *Ambystoma macrodactylum sigillatum*

**Common Name:** southern long-toed salamander

**Listing Status:** **Federal:** None

**Rare Plant Rank:**

**State:** None

**Other Lists:** CDFW\_SSC-Species of Special Concern

**CNDDDB Element Ranks:** **Global:** G5T4

**State:** S3

**General Habitat:**

HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.

**Micro Habitat:**

AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

**Last Date Observed:** 2003-07-01

**Occurrence Type:** Natural/Native occurrence

**Last Survey Date:** 2003-07-01

**Occurrence Rank:** Unknown

**Owner/Manager:** USFS-TOIYABE NF

**Trend:** Unknown

**Presence:** Presumed Extant

**Location:**

TWO PONDS, 2.9 AIR MILES ENE OF HIGHWAY 88 AT CARSON PASS, EAST OF RED LAKE, TOIYABE NATIONAL FOREST.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

25 LARVAE FOUND ON 1 JULY 2003.

**PLSS:** T10N, R19E, Sec. 18, SW (M)

**Accuracy:** specific area

**Area (acres):** 10

**UTM:** Zone-11 N4288345 E244615

**Latitude/Longitude:** 38.70689 / -119.93693

**Elevation (feet):** 7,700

**County Summary:**

**Quad Summary:**

Alpine

Carson Pass (3811968)

**Sources:**

DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	A1092	<b>EO Index:</b>	102660
<b>Key Quad:</b>	Carson Pass (3811968)	<b>Element Code:</b>	AAAAA01085
<b>Occurrence Number:</b>	463	<b>Occurrence Last Updated:</b>	2016-07-13

<b>Scientific Name:</b>	<i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b>	southern long-toed salamander
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> None	<b>Rare Plant Rank:</b>	
<b>CNDDB Element Ranks:</b>	<b>Global:</b> G5T4 <b>State:</b> S3	<b>Other Lists:</b>	CDFW_SSC-Species of Special Concern

**General Habitat:**

HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.

**Micro Habitat:**

AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

<b>Last Date Observed:</b>	2003-07-02	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2003-07-02	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	USFS-TOIYABE NF	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**

POND 3.5 AIR MILES EAST OF CARSON PASS, NE OF FAITH VALLEY, EAST OF BLUE LAKES ROAD, TOIYABE NATIONAL FOREST.

**Detailed Location:**

0.3 MILE SSW OF PEAK 8062.

**Ecological:****Threats:****General:**

18 LARVAE FOUND ON 2 JULY 2003.

<b>PLSS:</b>	T10N, R19E, Sec. 19, SE (M)	<b>Accuracy:</b>	80 meters	<b>Area (acres):</b>	5
<b>UTM:</b>	Zone-11 N4287003 E245632	<b>Latitude/Longitude:</b>	38.6951 / -119.92476	<b>Elevation (feet):</b>	7,800

**County Summary:**

Alpine

**Quad Summary:**

Carson Pass (3811968)

**Sources:**

DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



**Map Index Number:** A1094

**EO Index:** 102662

**Key Quad:** Carson Pass (3811968)

**Element Code:** AAAAA01085

**Occurrence Number:** 464

**Occurrence Last Updated:** 2016-07-13

**Scientific Name:** *Ambystoma macrodactylum sigillatum*

**Common Name:** southern long-toed salamander

**Listing Status:** **Federal:** None

**Rare Plant Rank:**

**State:** None

**Other Lists:** CDFW\_SSC-Species of Special Concern

**CNDDDB Element Ranks:** **Global:** G5T4

**State:** S3

**General Habitat:**

HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.

**Micro Habitat:**

AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

**Last Date Observed:** 2003-07-02

**Occurrence Type:** Natural/Native occurrence

**Last Survey Date:** 2003-07-02

**Occurrence Rank:** Unknown

**Owner/Manager:** USFS-TOIYABE NF

**Trend:** Unknown

**Presence:** Presumed Extant

**Location:**

POND 4.1 AIR MILES EAST OF CARSON PASS, NE OF FAITH VALLEY, EAST OF BLUE LAKES ROAD, TOIYABE NATIONAL FOREST.

**Detailed Location:**

0.6 MILE SE OF PEAK 8062.

**Ecological:**

**Threats:**

**General:**

9 LARVAE FOUND ON 2 JULY 2003.

**PLSS:** T10N, R19E, Sec. 20, SE (M)

**Accuracy:** 80 meters

**Area (acres):** 5

**UTM:** Zone-11 N4287031 E246741

**Latitude/Longitude:** 38.69567 / -119.91203

**Elevation (feet):** 8,100

**County Summary:**

**Quad Summary:**

Alpine

Carson Pass (3811968)

**Sources:**

DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A1097	<b>EO Index:</b> 102665	
<b>Key Quad:</b> Carson Pass (3811968)	<b>Element Code:</b> AAAAA01085	
<b>Occurrence Number:</b> 465	<b>Occurrence Last Updated:</b> 2016-07-13	

<b>Scientific Name:</b> <i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b> southern long-toed salamander
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5T4	
<b>State:</b> S3	

<b>General Habitat:</b> HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.	<b>Micro Habitat:</b> AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.
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<b>Last Date Observed:</b> 2013-07-17	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2013-07-17	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-ELDORADO NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
POND ON SOUTH SIDE OF HIGHWAY 88, 0.5 ROAD MILE WEST OF CARSON PASS, EAST OF CAPLES LAKE, ELDORADO NATIONAL FOREST.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

LARVAE DETECTED ON 17 JULY 2013.

<b>PLSS:</b> T10N, R18E, Sec. 22, SW (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 5
<b>UTM:</b> Zone-11 N4287057 E239377	<b>Latitude/Longitude:</b> 38.69376 / -119.99661	<b>Elevation (feet):</b> 8,500

**County Summary:**

Alpine

**Quad Summary:**

Carson Pass (3811968)

**Sources:**

USFNDD0002 U.S. FOREST SERVICE-REGION 5 - NATURAL RESOURCE INFORMATION SYSTEM (NRIS) ANIMAL RECORDS FROM CALIFORNIA NATIONAL FORESTS XXXX-XX-XX





# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 14483	<b>EO Index:</b> 102670	
<b>Key Quad:</b> Carson Pass (3811968)	<b>Element Code:</b> AAAAAA01085	
<b>Occurrence Number:</b> 468	<b>Occurrence Last Updated:</b> 2016-07-13	

<b>Scientific Name:</b> <i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b> southern long-toed salamander
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5T4	
<b>State:</b> S3	

**General Habitat:**

HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.

**Micro Habitat:**

AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

<b>Last Date Observed:</b> 1957-09-05	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1957-09-05	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**

FAITH VALLEY, ABOUT 3 MILES EAST OF CARSON PASS, TOIYABE NATIONAL FOREST.

**Detailed Location:****Ecological:****Threats:****General:**

17 LARVAE COLLECTED ON 5 SEP 1957.

<b>PLSS:</b> T10N, R19E, Sec. 30 (M)	<b>Accuracy:</b> 3/5 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4285663 E245073	<b>Latitude/Longitude:</b> 38.68288 / -119.93068	<b>Elevation (feet):</b> 7,500

**County Summary:**

Alpine

**Quad Summary:**

Carson Pass (3811968)

**Sources:**

AND57S0010 ANDERSON, J. - MVZ #69795, 69796, 69797, 69798, 69799, 69800, 69801, 69802, 69803, 69804, 69805, 69806, 69807, 69808, 69809, 69810 & 69811 COLLECTED FROM FAITH VALLEY, 9 MI W MARKLEEVILLE 1957-09-05



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



**Map Index Number:** A1124

**EO Index:** 102692

**Key Quad:** Carson Pass (3811968)

**Element Code:** AAAAAA01085

**Occurrence Number:** 478

**Occurrence Last Updated:** 2016-07-14

**Scientific Name:** *Ambystoma macrodactylum sigillatum*

**Common Name:** southern long-toed salamander

**Listing Status:** **Federal:** None

**Rare Plant Rank:**

**State:** None

**Other Lists:** CDFW\_SSC-Species of Special Concern

**CNDDDB Element Ranks:** **Global:** G5T4

**State:** S3

**General Habitat:**

HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.

**Micro Habitat:**

AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

**Last Date Observed:** 2003-08-27

**Occurrence Type:** Natural/Native occurrence

**Last Survey Date:** 2003-08-27

**Occurrence Rank:** Unknown

**Owner/Manager:** USFS-TOIYABE NF

**Trend:** Unknown

**Presence:** Presumed Extant

**Location:**

POND 0.5 MILE NE OF LOST LAKES, 4 MILES SE OF CARSON PASS, MOKELUMNE WILDERNESS, TOIYABE NATIONAL FOREST.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

6 LARVAE FOUND ON 27 AUGUST 2003.

**PLSS:** T09N, R19E, Sec. 7, NW (M)

**Accuracy:** 1/10 mile

**Area (acres):** 18

**UTM:** Zone-11 N4282178 E244059

**Latitude/Longitude:** 38.65122 / -119.94105

**Elevation (feet):** 8,100

**County Summary:**

**Quad Summary:**

Alpine

Carson Pass (3811968)

**Sources:**

DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	A1130	<b>EO Index:</b>	102698
<b>Key Quad:</b>	Carson Pass (3811968)	<b>Element Code:</b>	AAAAA01085
<b>Occurrence Number:</b>	482	<b>Occurrence Last Updated:</b>	2016-07-14

<b>Scientific Name:</b>	<i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b>	southern long-toed salamander
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> None	<b>Rare Plant Rank:</b>	
<b>CNDDB Element Ranks:</b>	<b>Global:</b> G5T4 <b>State:</b> S3	<b>Other Lists:</b>	CDFW_SSC-Species of Special Concern

**General Habitat:**  
HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.

**Micro Habitat:**  
AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

<b>Last Date Observed:</b>	2002-09-17	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2002-09-17	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	USFS-ELDORADO NF	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**  
POND 0.9 MILE WEST OF UPPER BLUE LAKE CAMPGROUND, NW OF UPPER BLUE LAKE, MOKELUMNE WILDERNESS, ELDORADO NATIONAL FOREST.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

110 LARVAE FOUND ON 17 SEP 2002.

<b>PLSS:</b>	T09N, R18E, Sec. 11, NW (M)	<b>Accuracy:</b>	80 meters	<b>Area (acres):</b>	5
<b>UTM:</b>	Zone-11 N4281207 E241273	<b>Latitude/Longitude:</b>	38.64167 / -119.97266	<b>Elevation (feet):</b>	8,700

**County Summary:**

Alpine

**Quad Summary:**

Carson Pass (3811968)

**Sources:**

DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A1136	<b>EO Index:</b> 102704
<b>Key Quad:</b> Carson Pass (3811968)	<b>Element Code:</b> AAAAAA01085
<b>Occurrence Number:</b> 487	<b>Occurrence Last Updated:</b> 2016-07-14

<b>Scientific Name:</b> <i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b> southern long-toed salamander
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5T4	
<b>State:</b> S3	

<b>General Habitat:</b> HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.	<b>Micro Habitat:</b> AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.
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<b>Last Date Observed:</b> 2010-07-01	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2010-07-01	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-ELDORADO NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
POND 0.6 MILE SW OF UPPER BLUE LAKE CAMPGROUND, JUST INSIDE OF MOKELUMNE WILDERNESS, ELDORADO NATIONAL FOREST.

**Detailed Location:**  
0.8 MILE NORTH OF GRANITE LAKE.

**Ecological:**

**Threats:**

**General:**

14 LARVAE FOUND ON 23 JULY 2009. 4 ADULTS FOUND ON 1 JULY 2010.

<b>PLSS:</b> T09N, R18E, Sec. 14, NE (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 5
<b>UTM:</b> Zone-11 N4280026 E242156	<b>Latitude/Longitude:</b> 38.6313 / -119.96209	<b>Elevation (feet):</b> 8,350

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Carson Pass (3811968)
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**Sources:**  
DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	A1137	<b>EO Index:</b>	102705
<b>Key Quad:</b>	Markleeville (3811967)	<b>Element Code:</b>	AAAAA01085
<b>Occurrence Number:</b>	488	<b>Occurrence Last Updated:</b>	2016-07-14

<b>Scientific Name:</b>	<i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b>	southern long-toed salamander
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> None	<b>Rare Plant Rank:</b>	
<b>CNDDB Element Ranks:</b>	<b>Global:</b> G5T4 <b>State:</b> S3	<b>Other Lists:</b>	CDFW_SSC-Species of Special Concern

**General Habitat:**  
HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.

**Micro Habitat:**  
AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

<b>Last Date Observed:</b>	2003-09-10	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2003-09-10	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	USFS-TOIYABE NF	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**  
UNNAMED POND ABOUT 1.3 MILE ESE OF JEFF DAVIS PEAK, MOKELUMNE WILDERNESS, TOIYABE NATIONAL FOREST.

**Detailed Location:**  
0.5 MILE WEST OF THE CONFLUENCE JEFF DAVIS CREEK AND PLEASANT VALLEY CREEK.

**Ecological:**

**Threats:**

**General:**  
65 LARVAE FOUND ON 10 SEP 2003.

<b>PLSS:</b> T09N, R19E, Sec. 15, E (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 5
<b>UTM:</b> Zone-11 N4279948 E250063	<b>Latitude/Longitude:</b> 38.63287 / -119.87134	<b>Elevation (feet):</b> 7,900

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Markleeville (3811967)
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**Sources:**  
DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



**Map Index Number:** A1138

**EO Index:** 102706

**Key Quad:** Markleeville (3811967)

**Element Code:** AAAAAA01085

**Occurrence Number:** 489

**Occurrence Last Updated:** 2016-07-14

**Scientific Name:** *Ambystoma macrodactylum sigillatum*

**Common Name:** southern long-toed salamander

**Listing Status:** **Federal:** None

**Rare Plant Rank:**

**State:** None

**Other Lists:** CDFW\_SSC-Species of Special Concern

**CNDDDB Element Ranks:** **Global:** G5T4

**State:** S3

**General Habitat:**

HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.

**Micro Habitat:**

AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

**Last Date Observed:** 2003-09-11

**Occurrence Type:** Natural/Native occurrence

**Last Survey Date:** 2003-09-11

**Occurrence Rank:** Unknown

**Owner/Manager:** USFS-TOIYABE NF

**Trend:** Unknown

**Presence:** Presumed Extant

**Location:**

PONDS 2 MILES EAST OF JEFF DAVIS PEAK, MOKELUMNE WILDERNESS, TOIYABE NATIONAL FOREST.

**Detailed Location:**

IN 7 PONDS, FROM ABOUT 0.2 TO 0.9 MILE SOUTH OF THE CONFLUENCE OF PLEASANT VALLEY CREEK AND JEFF DAVIS CREEK.

**Ecological:**

**Threats:**

**General:**

91 LARVAE FOUND BETWEEN 10 JULY 2003 AND 11 SEPTEMBER 2003.

**PLSS:** T09N, R19E, Sec. 14 (M)

**Accuracy:** specific area

**Area (acres):** 34

**UTM:** Zone-11 N4279371 E250932

**Latitude/Longitude:** 38.62791 / -119.86116

**Elevation (feet):** 7,600

**County Summary:**

Alpine

**Quad Summary:**

Ebbetts Pass (3811957), Markleeville (3811967)

**Sources:**

DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A1150	<b>EO Index:</b> 102720
<b>Key Quad:</b> Carson Pass (3811968)	<b>Element Code:</b> AAAAAA01085
<b>Occurrence Number:</b> 492	<b>Occurrence Last Updated:</b> 2016-07-18

<b>Scientific Name:</b> <i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b> southern long-toed salamander
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5T4	
<b>State:</b> S3	

<b>General Habitat:</b> HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.	<b>Micro Habitat:</b> AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.
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<b>Last Date Observed:</b> 2003-07-16	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2003-07-16	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
PONDS 1.2 MI EAST OF UPPER BLUE LAKE DAM, BETWEEN PACIFIC CREST TRAIL AND BORDER RUFFIAN FLAT, TOIYABE NATIONAL FOREST.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

15 LARVAE FOUND ON 16 JULY 2003.

<b>PLSS:</b> T09N, R19E, Sec. 17, SW (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 9
<b>UTM:</b> Zone-11 N4279560 E245939	<b>Latitude/Longitude:</b> 38.6282 / -119.91852	<b>Elevation (feet):</b> 8,500

**County Summary:**

Alpine

**Quad Summary:**

Carson Pass (3811968)

**Sources:**  
DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A1162	<b>EO Index:</b> 102730
<b>Key Quad:</b> Pacific Valley (3811958)	<b>Element Code:</b> AAAAAA01085
<b>Occurrence Number:</b> 493	<b>Occurrence Last Updated:</b> 2016-10-11

<b>Scientific Name:</b> <i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b> southern long-toed salamander
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5T4	
<b>State:</b> S3	

<b>General Habitat:</b> HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.	<b>Micro Habitat:</b> AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.
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<b>Last Date Observed:</b> 2003-07-17	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2003-07-17	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-ELDORADO NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
POND 0.5 MILE SW OF MIDDLE CREEK CAMPGROUND, SOUTH OF UPPER BLUE LAKE, ELDORADO NATIONAL FOREST.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

10 EGG MASSES FOUND ON 17 JULY 2003.

<b>PLSS:</b> T09N, R18E, Sec. 13, SE (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 5
<b>UTM:</b> Zone-11 N4278932 E243753	<b>Latitude/Longitude:</b> 38.62192 / -119.94336	<b>Elevation (feet):</b> 8,200

**County Summary:**

Alpine

**Quad Summary:**

Pacific Valley (3811958)

**Sources:**  
WIL03D0001 WILLIAMS, J. (U.S. FOREST SERVICE-ELDORADO NATIONAL FOREST) - GEODATABASE FILE CONTAINING ATTRIBUTE TABLE OF HERP 2002-2003 SURVEY OBSERVATIONS, ELDORADO NATIONAL FOREST. 2003-XX-XX





# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



**Map Index Number:** A1165

**EO Index:** 102732

**Key Quad:** Pacific Valley (3811958)

**Element Code:** AAAAAA01085

**Occurrence Number:** 494

**Occurrence Last Updated:** 2016-10-11

**Scientific Name:** *Ambystoma macrodactylum sigillatum*

**Common Name:** southern long-toed salamander

**Listing Status:** **Federal:** None

**Rare Plant Rank:**

**State:** None

**Other Lists:** CDFW\_SSC-Species of Special Concern

**CNDDB Element Ranks:** **Global:** G5T4

**State:** S3

**General Habitat:**

HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.

**Micro Habitat:**

AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

**Last Date Observed:** 2003-07-17

**Occurrence Type:** Natural/Native occurrence

**Last Survey Date:** 2003-07-17

**Occurrence Rank:** Unknown

**Owner/Manager:** USFS-ELDORADO NF

**Trend:** Unknown

**Presence:** Presumed Extant

**Location:**

POND 0.9 MILE SW OF MIDDLE CREEK CAMPGROUND, SOUTH OF UPPER BLUE LAKE, ELDORADO NATIONAL FOREST.

**Detailed Location:**

ALONG USFS TRAIL 18E08, ABOUT 0.5 MILE EAST OF GRANITE LAKE.

**Ecological:**

SMALL ALPINE POND.

**Threats:**

**General:**

3 LARVAE DETECTED ON 16 JULY 1992. 2 LARVAE AND 200 EGG MASSES FOUND ON 17 JULY 2003.

**PLSS:** T09N, R18E, Sec. 13, S (M)

**Accuracy:** 80 meters

**Area (acres):** 5

**UTM:** Zone-11 N4278598 E243058

**Latitude/Longitude:** 38.61871 / -119.95121

**Elevation (feet):** 8,500

**County Summary:**

**Quad Summary:**

Alpine

Pacific Valley (3811958)

**Sources:**

BIL92F0001 BILYEU, G. - FIELD SURVEY FORM FOR AMBYSTOMA MACRODACTYLUM SIGILLATUM 1992-07-16

WIL03D0001 WILLIAMS, J. (U.S. FOREST SERVICE-ELDORADO NATIONAL FOREST) - GEODATABASE FILE CONTAINING ATTRIBUTE TABLE OF HERP 2002-2003 SURVEY OBSERVATIONS, ELDORADO NATIONAL FOREST. 2003-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A1173	<b>EO Index:</b> 102739
<b>Key Quad:</b> Pacific Valley (3811958)	<b>Element Code:</b> AAAAA01085
<b>Occurrence Number:</b> 500	<b>Occurrence Last Updated:</b> 2016-07-18

<b>Scientific Name:</b> <i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b> southern long-toed salamander
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5T4	
<b>State:</b> S3	

<b>General Habitat:</b> HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.	<b>Micro Habitat:</b> AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.
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<b>Last Date Observed:</b> 2011-09-18	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2011-09-18	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
PONDS BETWEEN TAMARACK LAKE AND HELLHOLE LAKE, 2 MILES EAST OF LOWER BLUE LAKE, TOIYABE NATIONAL FOREST.

**Detailed Location:**  
NE OF PACIFIC CREST TRAIL.

**Ecological:**

**Threats:**

**General:**

22 LARVAE FOUND BETWEEN 7 AND 9 JUL 2003. 1 LARVA FOUND ON 5 JUL 2005. 13 LARVAE FOUND ON 18 SEP 2011.

<b>PLSS:</b> T09N, R19E, Sec. 21, S (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 18
<b>UTM:</b> Zone-11 N4278084 E247975	<b>Latitude/Longitude:</b> 38.6155 / -119.89462	<b>Elevation (feet):</b> 7,900

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Pacific Valley (3811958)
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**Sources:**  
DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	A1177	<b>EO Index:</b>	102742
<b>Key Quad:</b>	Pacific Valley (3811958)	<b>Element Code:</b>	AAAAA01085
<b>Occurrence Number:</b>	501	<b>Occurrence Last Updated:</b>	2016-07-18

<b>Scientific Name:</b>	<i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b>	southern long-toed salamander
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> None	<b>Rare Plant Rank:</b>	
<b>CNDDDB Element Ranks:</b>	<b>Global:</b> G5T4 <b>State:</b> S3	<b>Other Lists:</b>	CDFW_SSC-Species of Special Concern

**General Habitat:**

HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.

**Micro Habitat:**

AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

<b>Last Date Observed:</b>	2005-07-31	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2005-07-31	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	PVT, USFS-TOIYABE NF	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**

3 PONDS EAST OF LOWER BLUE LAKE, WEST OF TAMARACK LAKE, TOIYABE NATIONAL FOREST.

**Detailed Location:**

ALONG BLUE LAKES ROAD, 1 POND ON SOUTH SIDE OF ROAD ABOUT 0.08 MILE AND 2 PONDS ON NORTH SIDE ABOUT 0.5 MILE NORTH OF INTERSECTION WITH USFS ROAD 9N01.

**Ecological:****Threats:****General:**

LARVA COLLECTED ON 1 SEP 1982. DETECTED ON 26 SEPT 2001. 1 LARVA FOUND 17 JULY 2003. DETECTED ON 31 JUL 2005.

<b>PLSS:</b> T09N, R19E, Sec. 20 (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b>	22
<b>UTM:</b> Zone-11 N4277950 E245865	<b>Latitude/Longitude:</b> 38.61369 / -119.91878	<b>Elevation (feet):</b>	8,100

**County Summary:**

Alpine

**Quad Summary:**

Pacific Valley (3811958)

**Sources:**

CRI16D0001	CRIFE, K. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - GIS DATA ASSEMBLED FOR UPDATES TO THE CALIFORNIA AMPHIBIAN AND REPTILE SPECIES OF SPECIAL CONCERN LIST 2016-05-06
DFW16D0001	CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25
ENG82S0024	ENG, L. - CAS #178425 COLLECTED FROM POND 0.3 MI E OF BLUE LAKE CAMPGROUND JUST W OF BLUE LAKE RD 1982-09-01



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A1191	<b>EO Index:</b> 102756
<b>Key Quad:</b> Pacific Valley (3811958)	<b>Element Code:</b> AAAAAA01085
<b>Occurrence Number:</b> 502	<b>Occurrence Last Updated:</b> 2016-07-19

<b>Scientific Name:</b> <i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b> southern long-toed salamander
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5T4	
<b>State:</b> S3	

**General Habitat:**

HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.

**Micro Habitat:**

AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

<b>Last Date Observed:</b> 2001-08-09	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2001-08-09	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**

POND ON EAST SIDE OF TAMARACK LAKE, EAST OF LOWER BLUE LAKE, TOIYABE NATIONAL FOREST.

**Detailed Location:****Ecological:****Threats:****General:**

100 LARVAE FOUND ON 9 AUG 2001.

<b>PLSS:</b> T09N, R19E, Sec. 28, NW (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 5
<b>UTM:</b> Zone-11 N4277457 E247485	<b>Latitude/Longitude:</b> 38.60971 / -119.90001	<b>Elevation (feet):</b> 7,900

**County Summary:**

Alpine

**Quad Summary:**

Pacific Valley (3811958)

**Sources:**

DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	A1197	<b>EO Index:</b>	102763
<b>Key Quad:</b>	Ebbetts Pass (3811957)	<b>Element Code:</b>	AAAAA01085
<b>Occurrence Number:</b>	506	<b>Occurrence Last Updated:</b>	2016-07-19

<b>Scientific Name:</b>	<i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b>	southern long-toed salamander
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> None	<b>Rare Plant Rank:</b>	
<b>CNDDB Element Ranks:</b>	<b>Global:</b> G5T4 <b>State:</b> S3	<b>Other Lists:</b>	CDFW_SSC-Species of Special Concern

**General Habitat:**  
HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.

**Micro Habitat:**  
AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

<b>Last Date Observed:</b>	2013-07-22	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2013-07-22	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	USFS-TOIYABE NF	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**  
WET MEADOWS RESERVOIR, ABOUT 2 MILES WEST OF RAYMOND PEAK, TOIYABE NATIONAL FOREST.

**Detailed Location:**  
AT WET MEADOWS RESERVOIR, AT ONE POND JUST NE AND AT TWO PONDS JUST SOUTH OF RESERVOIR.

**Ecological:**

**Threats:**

**General:**

1 LARVA FOUND ON 9 AUG 2001, 1 LARVA ON 11 JUL 2003, 45 LARVAE FOUND ON 22 JUL 2013.

<b>PLSS:</b> T09N, R19E, Sec. 27, NE (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 46
<b>UTM:</b> Zone-11 N4276862 E250325	<b>Latitude/Longitude:</b> 38.60516 / -119.86722	<b>Elevation (feet):</b> 8,000

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine	Ebbetts Pass (3811957)

**Sources:**  
DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A1200	<b>EO Index:</b> 102766
<b>Key Quad:</b> Pacific Valley (3811958)	<b>Element Code:</b> AAAAA01085
<b>Occurrence Number:</b> 507	<b>Occurrence Last Updated:</b> 2016-10-11

<b>Scientific Name:</b> <i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b> southern long-toed salamander
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5T4	
<b>State:</b> S3	

<b>General Habitat:</b> HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.	<b>Micro Habitat:</b> AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.
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<b>Last Date Observed:</b> 2013-07-06	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2013-07-06	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS, PVT	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
PONDS ABOUT 0.5 MILE NORTH OF LITTLE INDIAN VALLEY, AT BOUNDARY OF ELDORADO AND TOIYABE NATIONAL FORESTS.

**Detailed Location:**  
AT LILY PAD LAKE AND 7 PONDS SOUTH OF THE PACIFIC CREST TRAIL, ON BOTH SIDES OF SUNSET LAKE ROAD.

**Ecological:**  
**Threats:**

**General:**  
LARVAE COLLECTED IN 1941. DETECTED ON 30 MAY 1992, 5 SEP 1999, 17 AUG 2000, 31 AUG 2001, 26 SEP 2001, AND 31 JUL 2005. 180 LARVAE FOUND BETWEEN 6 AND 9 AUG 2001, 1 EGG MASS ON 1 JUN 2012, 1 LARVA ON 6 JUL 2013.

<b>PLSS:</b> T09N, R19E, Sec. 28, E (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 39
<b>UTM:</b> Zone-11 N4276701 E248712	<b>Latitude/Longitude:</b> 38.60325 / -119.88567	<b>Elevation (feet):</b> 7,900

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Pacific Valley (3811958)
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- Sources:**
- CAL41S0002 CALHOUN, A. - CAS-SU #6409, 6410, 6411, 6412, 6413, 6414, 6415, 6416, 6417, 6418 & 6419 COLLECTED FROM 3 MI FROM BLUE LAKE NEAR LILY POOL, ON ROAD TO SUNSET LAKE 1941-08-12
  - CRI16D0001 CRIPE, K. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - GIS DATA ASSEMBLED FOR UPDATES TO THE CALIFORNIA AMPHIBIAN AND REPTILE SPECIES OF SPECIAL CONCERN LIST 2016-05-06
  - DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25
  - ELL92F0030 ELLIOT, G. & A. MCCREADY - FIELD SURVEY FORM FOR AMBYSTOMA MACRODACTYLUM SIGILLATUM 1992-05-30
  - ELL92F0031 ELLIOT, G. & A. MCCREADY - FIELD SURVEY FORM FOR AMBYSTOMA MACRODACTYLUM SIGILLATUM 1992-05-30
  - USFNDD0002 U.S. FOREST SERVICE-REGION 5 - NATURAL RESOURCE INFORMATION SYSTEM (NRIS) ANIMAL RECORDS FROM CALIFORNIA NATIONAL FORESTS XXXX-XX-XX



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	A1202	<b>EO Index:</b>	102768
<b>Key Quad:</b>	Pacific Valley (3811958)	<b>Element Code:</b>	AAAAA01085
<b>Occurrence Number:</b>	508	<b>Occurrence Last Updated:</b>	2016-07-19

<b>Scientific Name:</b>	<i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b>	southern long-toed salamander
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> None	<b>Rare Plant Rank:</b>	
<b>CNDDB Element Ranks:</b>	<b>Global:</b> G5T4 <b>State:</b> S3	<b>Other Lists:</b>	CDFW_SSC-Species of Special Concern

**General Habitat:**  
HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.

**Micro Habitat:**  
AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

<b>Last Date Observed:</b>	2012-06-01	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2012-06-01	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	USFS-TOIYABE NF	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**  
POND 0.8 MILE SE OF LOWER BLUE LAKE CAMPGROUND, WEST OF TAMARACK LAKE, TOIYABE NATIONAL FOREST.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

5 LARVAE FOUND ON 15 JUL 2003, 1 LARVA ON 6 JUL 2005, 1 LARVA ON 9 JUN 2009, AND 1 LARVA FOUND ON 1 JUN 2012.

<b>PLSS:</b> T09N, R19E, Sec. 29, NW (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 5
<b>UTM:</b> Zone-11 N4277114 E246382	<b>Latitude/Longitude:</b> 38.60631 / -119.91254	<b>Elevation (feet):</b> 8,300

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Pacific Valley (3811958)
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**Sources:**  
DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	A1203	<b>EO Index:</b>	102769
<b>Key Quad:</b>	Pacific Valley (3811958)	<b>Element Code:</b>	AAAAA01085
<b>Occurrence Number:</b>	509	<b>Occurrence Last Updated:</b>	2016-10-11

<b>Scientific Name:</b>	<i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b>	southern long-toed salamander
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> None	<b>Rare Plant Rank:</b>	
<b>CNDDB Element Ranks:</b>	<b>Global:</b> G5T4 <b>State:</b> S3	<b>Other Lists:</b>	CDFW_SSC-Species of Special Concern

**General Habitat:**  
HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.

**Micro Habitat:**  
AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

<b>Last Date Observed:</b>	2003-07-15	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2003-07-15	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	PVT	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**  
POND BETWEEN THE EAST END OF TWIN LAKE AND THE SE END OF LOWER BLUE LAKE, NEAR MOKELUMNE WILDERNESS.

**Detailed Location:**  
NORTH OF USFS ROAD 9N01, ABOUT 0.7 MILE WEST OF ITS INTERSECTION WITH BLUE LAKES ROAD.

**Ecological:**

**Threats:**

**General:**

LARVAE DETECTED ON 24 JUL 2001. 1 LARVA FOUND ON 15 JUL 2003.

<b>PLSS:</b> T09N, R19E, Sec. 30, NW (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 5
<b>UTM:</b> Zone-11 N4277293 E244698	<b>Latitude/Longitude:</b> 38.60744 / -119.93192	<b>Elevation (feet):</b> 8,150

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine	Pacific Valley (3811958)

**Sources:**

USFNDD0002	U.S. FOREST SERVICE-REGION 5 - NATURAL RESOURCE INFORMATION SYSTEM (NRIS) ANIMAL RECORDS FROM CALIFORNIA NATIONAL FORESTS XXXX-XX-XX
WIL03D0001	WILLIAMS, J. (U.S. FOREST SERVICE-ELDORADO NATIONAL FOREST) - GEODATABASE FILE CONTAINING ATTRIBUTE TABLE OF HERP 2002-2003 SURVEY OBSERVATIONS, ELDORADO NATIONAL FOREST. 2003-XX-XX





# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A1205	<b>EO Index:</b> 102771
<b>Key Quad:</b> Pacific Valley (3811958)	<b>Element Code:</b> AAAAAA01085
<b>Occurrence Number:</b> 510	<b>Occurrence Last Updated:</b> 2016-07-19

<b>Scientific Name:</b> <i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b> southern long-toed salamander
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5T4	
<b>State:</b> S3	

<b>General Habitat:</b> HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.	<b>Micro Habitat:</b> AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.
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<b>Last Date Observed:</b> 1992-07-29	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1992-07-29	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-ELDORADO NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
WEST OF MEADOW LAKE AND EAST OF TWIN LAKE, ELDORADO NATIONAL FOREST.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

LARVAE DETECTED IN THIS VICINITY ON 29 JUL 1992.

<b>PLSS:</b> T09N, R18E, Sec. 25, NW (M)	<b>Accuracy:</b> 1/5 mile	<b>Area (acres):</b> 70
<b>UTM:</b> Zone-11 N4277241 E242659	<b>Latitude/Longitude:</b> 38.60639 / -119.95529	<b>Elevation (feet):</b> 8,000

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Pacific Valley (3811958)
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**Sources:**  
USFNDD0002 U.S. FOREST SERVICE-REGION 5 - NATURAL RESOURCE INFORMATION SYSTEM (NRIS) ANIMAL RECORDS FROM CALIFORNIA NATIONAL FORESTS XXXX-XX-XX



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	A1206	<b>EO Index:</b>	102772
<b>Key Quad:</b>	Pacific Valley (3811958)	<b>Element Code:</b>	AAAAA01085
<b>Occurrence Number:</b>	511	<b>Occurrence Last Updated:</b>	2016-07-19

<b>Scientific Name:</b>	<i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b>	southern long-toed salamander
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> None	<b>Rare Plant Rank:</b>	
<b>CNDDB Element Ranks:</b>	<b>Global:</b> G5T4 <b>State:</b> S3	<b>Other Lists:</b>	CDFW_SSC-Species of Special Concern

**General Habitat:**

HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.

**Micro Habitat:**

AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

<b>Last Date Observed:</b>	2002-09-18	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2002-09-18	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	PVT	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**

PONDS SW OF MEADOW LAKE, ABOUT 2 MILES SSW OF DEADWOOD PEAK, NEAR MOKELUMNE WILDERNESS.

**Detailed Location:**

ONE POND JUST SE OF THE MEADOW LAKE DAM AND ANOTHER ABOUT 0.2 MILE SW OF THE DAM.

**Ecological:****Threats:****General:**

LARVAE DETECTED IN BOTH PONDS ON 24 JUL 2001. 3 LARVAE FOUND IN THE NE POND ON 18 SEP 2002.

<b>PLSS:</b> T09N, R18E, Sec. 26 (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 10
<b>UTM:</b> Zone-11 N4276428 E241049	<b>Latitude/Longitude:</b> 38.5986 / -119.97346	<b>Elevation (feet):</b> 7,838

**County Summary:**

Alpine

**Quad Summary:**

Pacific Valley (3811958)

**Sources:**

DFW16D0001	CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25
USFNDD0002	U.S. FOREST SERVICE-REGION 5 - NATURAL RESOURCE INFORMATION SYSTEM (NRIS) ANIMAL RECORDS FROM CALIFORNIA NATIONAL FORESTS XXXX-XX-XX



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	A1207	<b>EO Index:</b>	102773
<b>Key Quad:</b>	Pacific Valley (3811958)	<b>Element Code:</b>	AAAAA01085
<b>Occurrence Number:</b>	512	<b>Occurrence Last Updated:</b>	2016-07-19

<b>Scientific Name:</b>	<i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b>	southern long-toed salamander
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> None	<b>Rare Plant Rank:</b>	
<b>CNDDB Element Ranks:</b>	<b>Global:</b> G5T4 <b>State:</b> S3	<b>Other Lists:</b>	CDFW_SSC-Species of Special Concern

<b>General Habitat:</b>	<b>Micro Habitat:</b>
HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.	AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

<b>Last Date Observed:</b>	2012-08-19	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2012-08-19	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	USFS-ELDORADO NF	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**  
PONDS IN DEADWOOD CANYON 0.3 TO 0.8 MILE WEST OF DEADWOOD LAKE, MOKELUMNE WILDERNESS, ELDORADO NATIONAL FOREST.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

DETECTED IN 1996, 2000, AND 2001. 135 LARVAE AND 1 ADULT FOUND IN 2002, 106 LARVAE IN 2003, 197 LARVAE AND 32 METAMORPHS IN 2008, 1 ADULT IN 2010, AND 17 LARVAE FOUND IN 2012.

<b>PLSS:</b>	T09N, R18E, Sec. 28, S (M)	<b>Accuracy:</b>	specific area	<b>Area (acres):</b>	29
<b>UTM:</b>	Zone-10 N4276679 E761179	<b>Latitude/Longitude:</b>	38.6002 / -120.00091	<b>Elevation (feet):</b>	8,400

**County Summary:**

Alpine

**Quad Summary:**

Pacific Valley (3811958), Mokelumne Peak (3812051)

**Sources:**

- DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25
- USFNDD0002 U.S. FOREST SERVICE-REGION 5 - NATURAL RESOURCE INFORMATION SYSTEM (NRIS) ANIMAL RECORDS FROM CALIFORNIA NATIONAL FORESTS XXXX-XX-XX



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b> 44936	<b>EO Index:</b> 102774
<b>Key Quad:</b> Pacific Valley (3811958)	<b>Element Code:</b> AAAAAA01085
<b>Occurrence Number:</b> 513	<b>Occurrence Last Updated:</b> 2016-07-19

<b>Scientific Name:</b> <i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b> southern long-toed salamander
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5T4	
<b>State:</b> S3	

<b>General Habitat:</b>	<b>Micro Habitat:</b>
HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.	AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

<b>Last Date Observed:</b> 2003-08-28	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2003-08-28	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-ELDORADO NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
DEADWOOD LAKE, ABOUT A MILE WEST OF MEADOW LAKE, MOKELUMNE WILDERNESS.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

2 LARVAE FOUND ON 14 AUG 2002. 1 ADULT FOUND ON 28 AUG 2003.

<b>PLSS:</b> T09N, R18E, Sec. 27, SW (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 2
<b>UTM:</b> Zone-11 N4276773 E239539	<b>Latitude/Longitude:</b> 38.60126 / -119.99089	<b>Elevation (feet):</b> 8,550

**County Summary:**

Alpine

**Quad Summary:**

Pacific Valley (3811958)

**Sources:**

DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	A1242	<b>EO Index:</b>	102810
<b>Key Quad:</b>	Pacific Valley (3811958)	<b>Element Code:</b>	AAAAA01085
<b>Occurrence Number:</b>	534	<b>Occurrence Last Updated:</b>	2016-07-20

<b>Scientific Name:</b>	<i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b>	southern long-toed salamander
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> None	<b>Rare Plant Rank:</b>	
<b>CNDDDB Element Ranks:</b>	<b>Global:</b> G5T4 <b>State:</b> S3	<b>Other Lists:</b>	CDFW_SSC-Species of Special Concern

**General Habitat:**  
HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.

**Micro Habitat:**  
AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

<b>Last Date Observed:</b>	2013-07-06	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2013-07-06	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	USFS-ELDORADO NF	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**  
VICINITY OF DEER CREEK AND LITTLE INDIAN VALLEY, 0.8 TO 1.2 MILES SW OF SUMMIT LAKE, ELDORADO NATIONAL FOREST.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

LARVAE DETECTED IN 1994, 1995, 1996, 2000, AND 2007. LARVAE AND ADULTS FOUND IN 2001. 280 LARVAE FOUND IN 2002, 35 LARVAE IN 2008, 2 SUBADULTS AND 41 LARVAE IN 2009, 2 ADULTS IN 2010, AND 53 LARVAE FOUND IN 2013.

<b>PLSS:</b> T09N, R19E, Sec. 33, NE (M)	<b>Accuracy:</b> non-specific area	<b>Area (acres):</b> 41
<b>UTM:</b> Zone-11 N4275632 E248740	<b>Latitude/Longitude:</b> 38.59364 / -119.88496	<b>Elevation (feet):</b> 7,800

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine	Pacific Valley (3811958)

**Sources:**

DFW16D0001	CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25
USFNDD0002	U.S. FOREST SERVICE-REGION 5 - NATURAL RESOURCE INFORMATION SYSTEM (NRIS) ANIMAL RECORDS FROM CALIFORNIA NATIONAL FORESTS XXXX-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A1243	<b>EO Index:</b> 102811
<b>Key Quad:</b> Pacific Valley (3811958)	<b>Element Code:</b> AAAAAA01085
<b>Occurrence Number:</b> 535	<b>Occurrence Last Updated:</b> 2016-07-21

<b>Scientific Name:</b> <i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b> southern long-toed salamander
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5T4	
<b>State:</b> S3	

**General Habitat:**

HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.

**Micro Habitat:**

AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

<b>Last Date Observed:</b> 2013-07-06	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2013-07-06	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-ELDORADO NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**

POND 1.2 MILES NNE OF CONFLUENCE OF DEER CREEK AND BLUE CREEK, 1 MILE EAST OF CLOVER VALLEY, ELDORADO NATIONAL FOREST.

**Detailed Location:****Ecological:****Threats:****General:**

50 LARVAE FOUND ON 27 SEP 2002. 101 LARVAE FOUND ON 6 JUL 2013.

<b>PLSS:</b> T09N, R19E, Sec. 33, NW (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 5
<b>UTM:</b> Zone-11 N4275327 E247389	<b>Latitude/Longitude:</b> 38.59051 / -119.90034	<b>Elevation (feet):</b> 8,200

**County Summary:**

Alpine

**Quad Summary:**

Pacific Valley (3811958)

**Sources:**

DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



**Map Index Number:** A1244

**EO Index:** 102812

**Key Quad:** Pacific Valley (3811958)

**Element Code:** AAAAAA01085

**Occurrence Number:** 536

**Occurrence Last Updated:** 2016-07-21

**Scientific Name:** *Ambystoma macrodactylum sigillatum*

**Common Name:** southern long-toed salamander

**Listing Status:** **Federal:** None

**Rare Plant Rank:**

**State:** None

**Other Lists:** CDFW\_SSC-Species of Special Concern

**CNDDDB Element Ranks:** **Global:** G5T4

**State:** S3

**General Habitat:**

HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.

**Micro Habitat:**

AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

**Last Date Observed:** 2001-07-02

**Occurrence Type:** Natural/Native occurrence

**Last Survey Date:** 2001-07-02

**Occurrence Rank:** Unknown

**Owner/Manager:** USFS-ELDORADO NF

**Trend:** Unknown

**Presence:** Presumed Extant

**Location:**

POND 0.1 MILE EAST OF BLUE CREEK, CLOVER VALLEY, 2 MILES SOUTH OF LOWER BLUE LAKE, ELDORADO NATIONAL FOREST.

**Detailed Location:**

EAST OF DEER VALLEY ROAD (USFS ROAD 9N83) ABOUT 1.4 MILES SOUTH OF ITS INTERSECTION WITH ROAD 9N01.

**Ecological:**

**Threats:**

**General:**

LARVAE DETECTED ON 2 JUL 2001.

**PLSS:** T09N, R19E, Sec. 32, W (M)

**Accuracy:** 80 meters

**Area (acres):** 5

**UTM:** Zone-11 N4275244 E245970

**Latitude/Longitude:** 38.58936 / -119.91659

**Elevation (feet):** 7,800

**County Summary:**

**Quad Summary:**

Alpine

Pacific Valley (3811958)

**Sources:**

USFNDD0002 U.S. FOREST SERVICE-REGION 5 - NATURAL RESOURCE INFORMATION SYSTEM (NRIS) ANIMAL RECORDS FROM CALIFORNIA NATIONAL FORESTS XXXX-XX-XX



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	A1245	<b>EO Index:</b>	102813
<b>Key Quad:</b>	Pacific Valley (3811958)	<b>Element Code:</b>	AAAAA01085
<b>Occurrence Number:</b>	537	<b>Occurrence Last Updated:</b>	2016-07-21

<b>Scientific Name:</b>	<i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b>	southern long-toed salamander
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> None	<b>Rare Plant Rank:</b>	
<b>CNDDB Element Ranks:</b>	<b>Global:</b> G5T4 <b>State:</b> S3	<b>Other Lists:</b>	CDFW_SSC-Species of Special Concern

**General Habitat:**  
HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.

**Micro Habitat:**  
AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

<b>Last Date Observed:</b>	2013-07-22	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2013-07-22	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	USFS-ELDORADO NF	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**  
POND ABOUT 1.3 MILES SOUTH OF TWIN LAKE, SE OF MEADOW LAKE, MOKELUMNE WILDERNESS, ELDORADO NATIONAL FOREST.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

55 LARVAE FOUND ON 15 AUG 2003. 30 LARVAE FOUND ON 22 JUL 2013.

<b>PLSS:</b> T09N, R18E, Sec. 36, SE (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 5
<b>UTM:</b> Zone-11 N4275039 E243883	<b>Latitude/Longitude:</b> 38.58692 / -119.94044	<b>Elevation (feet):</b> 8,600

**County Summary:**

Alpine

**Quad Summary:**

Pacific Valley (3811958)

**Sources:**

DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25





**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	A1246	<b>EO Index:</b>	102814
<b>Key Quad:</b>	Pacific Valley (3811958)	<b>Element Code:</b>	AAAAA01085
<b>Occurrence Number:</b>	538	<b>Occurrence Last Updated:</b>	2016-07-21

<b>Scientific Name:</b>	<i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b>	southern long-toed salamander
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> None	<b>Rare Plant Rank:</b>	
<b>CNDDB Element Ranks:</b>	<b>Global:</b> G5T4 <b>State:</b> S3	<b>Other Lists:</b>	CDFW_SSC-Species of Special Concern

**General Habitat:**  
HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.

**Micro Habitat:**  
AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

<b>Last Date Observed:</b>	2002-09-27	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2002-09-27	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	USFS-ELDORADO NF	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**  
POND 1.3 MILES ENE OF CONFLUENCE OF BLUE CREEK AND DEER CREEK, SOUTH OF LITTLE INDIAN VALLEY, ELDORADO NATIONAL FOREST.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

55 LARVAE FOUND ON 27 SEP 2002.

<b>PLSS:</b>	T08N, R19E, Sec. 4, NE (M)	<b>Accuracy:</b>	80 meters	<b>Area (acres):</b>	5
<b>UTM:</b>	Zone-11 N4274288 E248354	<b>Latitude/Longitude:</b>	38.58144 / -119.8889	<b>Elevation (feet):</b>	7,800

**County Summary:**

Alpine

**Quad Summary:**

Pacific Valley (3811958)

**Sources:**

DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	A1247	<b>EO Index:</b>	102815
<b>Key Quad:</b>	Pacific Valley (3811958)	<b>Element Code:</b>	AAAAA01085
<b>Occurrence Number:</b>	539	<b>Occurrence Last Updated:</b>	2016-07-21

<b>Scientific Name:</b>	<i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b>	southern long-toed salamander
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> None	<b>Rare Plant Rank:</b>	
<b>CNDDDB Element Ranks:</b>	<b>Global:</b> G5T4 <b>State:</b> S3	<b>Other Lists:</b>	CDFW_SSC-Species of Special Concern

**General Habitat:**  
HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.

**Micro Habitat:**  
AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

<b>Last Date Observed:</b>	2013-07-22	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2013-07-22	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	USFS-ELDORADO NF	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**  
POND 1.2 MILES N OF CONFLUENCE OF CACHE CREEK & N FORK MOKELUMNE RIVER, MOKELUMNE WILDERNESS, ELDORADO NATIONAL FOREST.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

41 LARVAE FOUND ON 15 AUG 2003. 35 LARVAE FOUND ON 22 JUL 2013.

<b>PLSS:</b> T08N, R18E, Sec. 2, SE (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 5
<b>UTM:</b> Zone-11 N4273520 E242040	<b>Latitude/Longitude:</b> 38.57272 / -119.96101	<b>Elevation (feet):</b> 8,200

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine	Pacific Valley (3811958)

**Sources:**  
DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	A1248	<b>EO Index:</b>	102816
<b>Key Quad:</b>	Pacific Valley (3811958)	<b>Element Code:</b>	AAAAA01085
<b>Occurrence Number:</b>	540	<b>Occurrence Last Updated:</b>	2016-07-21

<b>Scientific Name:</b>	<i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b>	southern long-toed salamander
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> None	<b>Rare Plant Rank:</b>	
<b>CNDDDB Element Ranks:</b>	<b>Global:</b> G5T4 <b>State:</b> S3	<b>Other Lists:</b>	CDFW_SSC-Species of Special Concern

**General Habitat:**  
HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.

**Micro Habitat:**  
AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

<b>Last Date Observed:</b>	2009-07-25	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2009-07-25	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	USFS-ELDORADO NF	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**  
POND 1.8 MILES NNE OF HERMIT VALLEY CAMPGROUND, 1.5 MI E OF DEER CREEK, MOKELUMNE WILDERNESS, ELDORADO NATIONAL FOREST.

**Detailed Location:**  
0.4 MILE NORTH OF THE BOUNDARY WITH STANISLAUS NATIONAL FOREST.

**Ecological:**

**Threats:**

**General:**

LARVAE DETECTED ON 25 JUL 2009.

<b>PLSS:</b> T08N, R19E, Sec. 9, NE (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 5
<b>UTM:</b> Zone-11 N4272314 E248214	<b>Latitude/Longitude:</b> 38.56363 / -119.8898	<b>Elevation (feet):</b> 8,350

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine	Pacific Valley (3811958)

**Sources:**  
USFNDD0002 U.S. FOREST SERVICE-REGION 5 - NATURAL RESOURCE INFORMATION SYSTEM (NRIS) ANIMAL RECORDS FROM CALIFORNIA NATIONAL FORESTS XXXX-XX-XX



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	A1249	<b>EO Index:</b>	102817
<b>Key Quad:</b>	Pacific Valley (3811958)	<b>Element Code:</b>	AAAAA01085
<b>Occurrence Number:</b>	541	<b>Occurrence Last Updated:</b>	2016-07-21

<b>Scientific Name:</b>	<i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b>	southern long-toed salamander
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> None	<b>Rare Plant Rank:</b>	
<b>CNDDDB Element Ranks:</b>	<b>Global:</b> G5T4 <b>State:</b> S3	<b>Other Lists:</b>	CDFW_SSC-Species of Special Concern

**General Habitat:**  
HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.

**Micro Habitat:**  
AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

<b>Last Date Observed:</b>	2003-06-18	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2003-06-18	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	USFS-ELDORADO NF	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**  
POND 1.4 MILES NNE OF HERMIT VALLEY CAMPGROUND, 1.5 MI E OF DEER CREEK, MOKELUMNE WILDERNESS, ELDORADO NATIONAL FOREST.

**Detailed Location:**  
ABOUT 0.1 MILE NORTH OF THE BOUNDARY WITH STANISLAUS NATIONAL FOREST.

**Ecological:**

**Threats:**

**General:**

1 ADULT FOUND ON 18 JUN 2003.

<b>PLSS:</b> T08N, R19E, Sec. 9, SW (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 5
<b>UTM:</b> Zone-11 N4271740 E247811	<b>Latitude/Longitude:</b> 38.55835 / -119.8942	<b>Elevation (feet):</b> 8,200

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine	Pacific Valley (3811958)

**Sources:**  
DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	A1250	<b>EO Index:</b>	102818
<b>Key Quad:</b>	Pacific Valley (3811958)	<b>Element Code:</b>	AAAAA01085
<b>Occurrence Number:</b>	542	<b>Occurrence Last Updated:</b>	2016-07-21

<b>Scientific Name:</b>	<i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b>	southern long-toed salamander
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> None	<b>Rare Plant Rank:</b>	
<b>CNDDDB Element Ranks:</b>	<b>Global:</b> G5T4 <b>State:</b> S3	<b>Other Lists:</b>	CDFW_SSC-Species of Special Concern

**General Habitat:**

HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.

**Micro Habitat:**

AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

<b>Last Date Observed:</b>	2013-07-20	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2013-07-20	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	USFS-ELDORADO NF	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**

1.2 MILES NORTH OF CONFLUENCE OF DEER CREEK AND N FORK MOKELUMNE RIVER, MOKELUMNE WILDERNESS, ELDORADO NATIONAL FOREST.

**Detailed Location:**

AT TWO PONDS, 0.25 MILE SE AND 0.5 MILE ESE OF STEVENOT CAMP.

**Ecological:****Threats:****General:**

88 LARVAE FOUND IN EASTERN POND AND 16 IN WESTERN POND ON 14 AUG 2003. 65 LARVAE FOUND IN EASTERN POND AND 10 IN WESTERN POND ON 20 JUL 2013.

<b>PLSS:</b> T08N, R19E, Sec. 7, W (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 10
<b>UTM:</b> Zone-11 N4271986 E244337	<b>Latitude/Longitude:</b> 38.55957 / -119.93412	<b>Elevation (feet):</b> 7,550

**County Summary:**

Alpine

**Quad Summary:**

Pacific Valley (3811958)

**Sources:**

DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A1251	<b>EO Index:</b> 102820
<b>Key Quad:</b> Pacific Valley (3811958)	<b>Element Code:</b> AAAAAA01085
<b>Occurrence Number:</b> 543	<b>Occurrence Last Updated:</b> 2016-07-21

<b>Scientific Name:</b> <i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b> southern long-toed salamander
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5T4	
<b>State:</b> S3	

<b>General Habitat:</b> HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.	<b>Micro Habitat:</b> AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.
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<b>Last Date Observed:</b> 2013-07-20	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2013-07-20	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-ELDORADO NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
2 PONDS 1 MILE NNW OF CONFLUENCE OF DEER CREEK & N FORK MOKELUMNE RIVER, MOKELUMNE WILDERNESS, ELDORADO NATIONAL FOREST.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

2 LARVAE FOUND IN EASTERN POND AND 50 IN WESTERN POND ON 14 AUG 2003. 11 LARVAE FOUND IN EASTERN POND AND 60 IN WESTERN POND ON 20 JUL 2013.

<b>PLSS:</b> T08N, R18E, Sec. 12, SE (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 10
<b>UTM:</b> Zone-11 N4271482 E243810	<b>Latitude/Longitude:</b> 38.55489 / -119.93997	<b>Elevation (feet):</b> 7,600

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Pacific Valley (3811958)
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**Sources:**  
DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A1253	<b>EO Index:</b> 102821
<b>Key Quad:</b> Pacific Valley (3811958)	<b>Element Code:</b> AAAAAA01085
<b>Occurrence Number:</b> 544	<b>Occurrence Last Updated:</b> 2016-07-21

<b>Scientific Name:</b> <i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b> southern long-toed salamander
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5T4	
<b>State:</b> S3	

<b>General Habitat:</b> HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.	<b>Micro Habitat:</b> AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.
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<b>Last Date Observed:</b> 2013-07-20	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2013-07-20	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-ELDORADO NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
POND 1.4 MILES NNW OF HERMIT VALLEY CAMPGROUND, NEAR BOUNDARY OF MOKELUMNE WILDERNESS, ELDORADO NATIONAL FOREST.

**Detailed Location:**  
JUST EAST OF USFS ROAD 9N83 (DEER VALLEY ROAD), ABOUT 0.5 AIR MILE NORTH OF BOUNDARY WITH STANISLAUS NATIONAL FOREST.

**Ecological:**

**Threats:**

**General:**

20 LARVAE FOUND ON 20 JUL 2013.

<b>PLSS:</b> T08N, R19E, Sec. 8, SW (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 5
<b>UTM:</b> Zone-11 N4271424 E246128	<b>Latitude/Longitude:</b> 38.55503 / -119.91339	<b>Elevation (feet):</b> 7,600

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Pacific Valley (3811958)
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**Sources:**  
DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A1254	<b>EO Index:</b> 102822
<b>Key Quad:</b> Ebbetts Pass (3811957)	<b>Element Code:</b> AAAAA01085
<b>Occurrence Number:</b> 545	<b>Occurrence Last Updated:</b> 2016-08-23

<b>Scientific Name:</b> <i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b> southern long-toed salamander
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5T4	
<b>State:</b> S3	

<b>General Habitat:</b> HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.	<b>Micro Habitat:</b> AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.
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<b>Last Date Observed:</b> 2010-07-14	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2010-07-14	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
KINNEY RESERVOIR, DOROTHY LAKE & PONDS NEAR EBBETTS PEAK, NORTH OF HIGHWAY 4 NEAR EBBETTS PASS, TOIYABE NATIONAL FOREST.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

ADULTS AND/OR LARVAE FOUND IN VARIOUS LAKES AND PONDS HERE IN 1997, 2000, 2001, 2002, 2005, 2008, AND 2010.

<b>PLSS:</b> T08N, R20E, Sec. 7 (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 78
<b>UTM:</b> Zone-11 N4270981 E255081	<b>Latitude/Longitude:</b> 38.55355 / -119.8106	<b>Elevation (feet):</b> 8,500

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Ebbetts Pass (3811957)
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**Sources:**

- CRI16D0001 CRIPE, K. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - GIS DATA ASSEMBLED FOR UPDATES TO THE CALIFORNIA AMPHIBIAN AND REPTILE SPECIES OF SPECIAL CONCERN LIST 2016-05-06
- DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25
- GRO02I0001 GROSS, J. - PHOTO OF AMBYSTOMA MACRODACTYLUM SIGILLATUM, CALPHOTOS ID #1111 1111 2222 0146 2002-08-13
- GRO02I0002 GROSS, J. - PHOTO OF AMBYSTOMA MACRODACTYLUM SIGILLATUM, CALPHOTOS ID #1111 1111 2222 0145 2002-06-14
- WAK97S0019 WAKE, D. - WAKE #5410 MVZ #235936 COLLECTED FROM POND ADJACENT (E) TO PACIFIC COAST TRAIL, CA. 800 M (AIR) NE EBBETT'S PASS 1997-09-01
- WAK97S0020 WAKE, D. - WAKE #5407, 5408 & 5409 MVZ #235933, 235934 & 235935 COLLECTED FROM POND ADJACENT (E) TO SHERROLD LAKE, CA. 500 M (AIR) NE EBBETT'S PASS 1997-09-01





# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A1255	<b>EO Index:</b> 102823
<b>Key Quad:</b> Ebbetts Pass (3811957)	<b>Element Code:</b> AAAAA01085
<b>Occurrence Number:</b> 546	<b>Occurrence Last Updated:</b> 2019-04-02

<b>Scientific Name:</b> <i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b> southern long-toed salamander
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5T4	
<b>State:</b> S3	

**General Habitat:**

HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.

**Micro Habitat:**

AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

<b>Last Date Observed:</b> 2017-09-10	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2017-09-10	<b>Occurrence Rank:</b> Excellent
<b>Owner/Manager:</b> USFS	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**

1.5 MILES NW OF EBBETTS PASS, NORTH OF HIGHWAY 4, NEAR SE EDGE OF MOKELUMNE WILDERNESS.

**Detailed Location:**

LARVAE DETECTED AT UPPER KINNEY LAKE AND IN 4 UNNAMED PONDS TO THE SOUTH OF UPPER KINNEY LAKE (NOTE THAT GNIS HAS LAKE LABELS REVERSED). ADULT DETECTED IN UPLAND HABITAT NW OF UPPER KINNEY LAKE.

**Ecological:**

PINE FOREST (2017).

**Threats:****General:**

306 LARVAE FOUND ON 20 JUL 2001. ALSO DETECTED ON 20 JUL 2000, 18 AUG 2000, 17 JUN 2001, 25 JUL 2002, AND 1 OCT 2005. 1 ADULT FOUND IN ROTTING STUMP UPSLOPE FROM LAKE ON 10 SEP 2017.

<b>PLSS:</b> T08N, R19E, Sec. 12, SE (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 29
<b>UTM:</b> Zone-11 N4271491 E253465	<b>Latitude/Longitude:</b> 38.5577 / -119.8293	<b>Elevation (feet):</b> 8,675

**County Summary:**

Alpine

**Quad Summary:**

Ebbetts Pass (3811957)

**Sources:**

CAR17F0014	CARBIENER, M. ET AL. - FIELD SURVEY FORM FOR AMBYSTOMA MACRODACTYLUM SIGILLATUM 2017-09-10
CRI16D0001	CRIFE, K. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - GIS DATA ASSEMBLED FOR UPDATES TO THE CALIFORNIA AMPHIBIAN AND REPTILE SPECIES OF SPECIAL CONCERN LIST 2016-05-06
DFW16D0001	CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A1257	<b>EO Index:</b> 102825
<b>Key Quad:</b> Ebbetts Pass (3811957)	<b>Element Code:</b> AAAAAA01085
<b>Occurrence Number:</b> 547	<b>Occurrence Last Updated:</b> 2016-07-21

<b>Scientific Name:</b> <i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b> southern long-toed salamander
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5T4	
<b>State:</b> S3	

<b>General Habitat:</b> HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.	<b>Micro Habitat:</b> AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.
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<b>Last Date Observed:</b> 2001-07-21	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2001-07-21	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
POND 0.9 MILE NE OF HIGHWAY 4 AT EBBETTS PASS, 0.5 MILE EAST OF KINNEY RESERVOIR, TOIYABE NATIONAL FOREST.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

1 LARVA FOUND ON 21 JUL 2001.

<b>PLSS:</b> T08N, R20E, Sec. 8, S (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 5
<b>UTM:</b> Zone-11 N4270924 E255950	<b>Latitude/Longitude:</b> 38.55328 / -119.80062	<b>Elevation (feet):</b> 8,700

**County Summary:**

Alpine

**Quad Summary:**

Ebbetts Pass (3811957)

**Sources:**  
DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A1258	<b>EO Index:</b> 102826	
<b>Key Quad:</b> Ebbetts Pass (3811957)	<b>Element Code:</b> AAAAA01085	
<b>Occurrence Number:</b> 548	<b>Occurrence Last Updated:</b> 2016-10-11	

<b>Scientific Name:</b> <i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b> southern long-toed salamander
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5T4	
<b>State:</b> S3	

<b>General Habitat:</b> HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.	<b>Micro Habitat:</b> AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.
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<b>Last Date Observed:</b> 2005-08-21	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2005-08-21	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-STANISLAUS NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
PONDS 0.2 MILE SW OF HIGHWAY 4 AT EBBETTS PASS, STANISLAUS NATIONAL FOREST.

**Detailed Location:**

**Ecological:**  
1991 OBSERVATION NOTES HUNDREDS OF ADULT SALAMANDERS MATING IN PONDS.

**Threats:**  
**General:**  
INDIVIDUALS COLLECTED IN 1958, 1965, AND 1991. 1000 LARVAE FOUND ON 21 JUL 2001. ALSO DETECTED ON 7 JUL 2001, 20 SEP 2001, AND 21 AUG 2005.

<b>PLSS:</b> T08N, R20E, Sec. 18, SE (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 9
<b>UTM:</b> Zone-11 N4269771 E254765	<b>Latitude/Longitude:</b> 38.54257 / -119.8138	<b>Elevation (feet):</b> 8,700

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Ebbetts Pass (3811957)
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- Sources:**
- AND58S0009 ANDERSON, J. - ANDERSON #1960 & 1961 MVZ #69813 & 69814 COLLECTED FROM EBBETTS PASS 1958-07-03
  - BRA91S0058 BRADFORD, D. - CCBER #26808-26834 COLLECTED FROM HWY 4, 0.2 KM W EBBETT'S PASS 1991-06-03
  - BRA92U0007 BRADFORD, D. - SCIENTIFIC COLLECTING REPORT OF SPECIMENS CAPTURED OR SALVAGED [SC-001133] 1992-05-13
  - BUR65S0004 BURY, R.B. - CM #45120, 45121 & 45122 COLLECTED FROM 0.25 MI W OF EBBETTS PASS 1965-10-16
  - CRI16D0001 CRIPE, K. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - GIS DATA ASSEMBLED FOR UPDATES TO THE CALIFORNIA AMPHIBIAN AND REPTILE SPECIES OF SPECIAL CONCERN LIST 2016-05-06
  - DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25
  - JEN91S0005 JENNINGS, W. - CCBER #26340 & 26341 COLLECTED FROM PONDS S SIDE HWY 4 AT EBBETTS PASS 1991-06-03
  - JOH91U0001 JOHNSON, D. - SCIENTIFIC COLLECTING REPORT OF SPECIMENS CAPTURED OR SALVAGED [SC-000121] 1991-XX-XX



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



**Map Index Number:** A1259

**EO Index:** 102827

**Key Quad:** Pacific Valley (3811958)

**Element Code:** AAAAAA01085

**Occurrence Number:** 549

**Occurrence Last Updated:** 2016-07-21

**Scientific Name:** *Ambystoma macrodactylum sigillatum*

**Common Name:** southern long-toed salamander

**Listing Status:** **Federal:** None

**Rare Plant Rank:**

**State:** None

**Other Lists:** CDFW\_SSC-Species of Special Concern

**CNDDDB Element Ranks:** **Global:** G5T4

**State:** S3

**General Habitat:**

HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.

**Micro Habitat:**

AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

**Last Date Observed:** 2013-07-20

**Occurrence Type:** Natural/Native occurrence

**Last Survey Date:** 2013-07-20

**Occurrence Rank:** Unknown

**Owner/Manager:** USFS-STANISLAUS NF

**Trend:** Unknown

**Presence:** Presumed Extant

**Location:**

POND 0.3 MI SE OF CONFLUENCE OF CACHE CREEK & N FORK MOKELUMNE RIVER, MOKELUMNE WILDERNESS, STANISLAUS NATIONAL FOREST.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

3 LARVAE FOUND ON 5 AUG 2001. 26 LARVAE FOUND ON 20 JUL 2013.

**PLSS:** T08N, R18E, Sec. 14, NE (M)

**Accuracy:** 80 meters

**Area (acres):** 5

**UTM:** Zone-11 N4271199 E242339

**Latitude/Longitude:** 38.55191 / -119.95673

**Elevation (feet):** 6,600

**County Summary:**

**Quad Summary:**

Alpine

Pacific Valley (3811958)

**Sources:**

DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A1260	<b>EO Index:</b> 102828
<b>Key Quad:</b> Pacific Valley (3811958)	<b>Element Code:</b> AAAAAA01085
<b>Occurrence Number:</b> 550	<b>Occurrence Last Updated:</b> 2016-07-21

<b>Scientific Name:</b> <i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b> southern long-toed salamander
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5T4	
<b>State:</b> S3	

<b>General Habitat:</b> HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.	<b>Micro Habitat:</b> AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.
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<b>Last Date Observed:</b> 2013-07-20	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2013-07-20	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-ELDORADO NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
POND 0.4 MILE N OF CONFLUENCE OF DEER CREEK AND N FORK MOKELUMNE RIVER, MOKELUMNE WILDERNESS, ELDORADO NATIONAL FOREST.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

26 LARVAE FOUND ON 20 JUL 2013.

<b>PLSS:</b> T08N, R19E, Sec. 18, NW (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 5
<b>UTM:</b> Zone-11 N4270700 E244487	<b>Latitude/Longitude:</b> 38.54804 / -119.93193	<b>Elevation (feet):</b> 7,100

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Pacific Valley (3811958)
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**Sources:**  
DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	A1267	<b>EO Index:</b>	102834
<b>Key Quad:</b>	Pacific Valley (3811958)	<b>Element Code:</b>	AAAAA01085
<b>Occurrence Number:</b>	555	<b>Occurrence Last Updated:</b>	2016-07-25

<b>Scientific Name:</b>	<i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b>	southern long-toed salamander
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> None	<b>Rare Plant Rank:</b>	
<b>CNDDB Element Ranks:</b>	<b>Global:</b> G5T4 <b>State:</b> S3	<b>Other Lists:</b>	CDFW_SSC-Species of Special Concern

**General Habitat:**  
HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.

**Micro Habitat:**  
AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

<b>Last Date Observed:</b>	2013-07-08	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2013-07-08	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	USFS-STANISLAUS NF	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**  
POND 0.25 MILE SE (AND UPSTREAM) OF FROG LAKE, N OF UNDERWOOD VALLEY, MOKELUMNE WILDERNESS, STANISLAUS NATIONAL FOREST.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

85 LARVAE FOUND ON 8 JUL 2013.

<b>PLSS:</b>	T08N, R18E, Sec. 16, SE (M)	<b>Accuracy:</b>	specific area	<b>Area (acres):</b>	7
<b>UTM:</b>	Zone-10 N4270529 E761384	<b>Latitude/Longitude:</b>	38.54479 / -120.00085	<b>Elevation (feet):</b>	8,100

**County Summary:**

Alpine

**Quad Summary:**

Pacific Valley (3811958), Mokelumne Peak (3812051)

**Sources:**

DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



**Map Index Number:** A1268

**EO Index:** 102835

**Key Quad:** Pacific Valley (3811958)

**Element Code:** AAAAAA01085

**Occurrence Number:** 556

**Occurrence Last Updated:** 2016-07-25

**Scientific Name:** *Ambystoma macrodactylum sigillatum*

**Common Name:** southern long-toed salamander

**Listing Status:** **Federal:** None

**Rare Plant Rank:**

**State:** None

**Other Lists:** CDFW\_SSC-Species of Special Concern

**CNDDB Element Ranks:** **Global:** G5T4

**State:** S3

**General Habitat:**

HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.

**Micro Habitat:**

AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

**Last Date Observed:** 2013-07-08

**Occurrence Type:** Natural/Native occurrence

**Last Survey Date:** 2013-07-08

**Occurrence Rank:** Unknown

**Owner/Manager:** USFS-STANISLAUS NF

**Trend:** Unknown

**Presence:** Presumed Extant

**Location:**

PONDS 0.6 TO 1.3 MILES EAST OF FROG LAKE, WEST OF JACKSON CANYON, MOKELUMNE WILDERNESS, STANISLAUS NATIONAL FOREST.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

400 LARVAE FOUND ON 4 AUG 2001. 845 LARVAE FOUND ON 8 JUL 2013.

**PLSS:** T08N, R18E, Sec. 15, S (M)

**Accuracy:** specific area

**Area (acres):** 20

**UTM:** Zone-11 N4270353 E239418

**Latitude/Longitude:** 38.54345 / -119.98989

**Elevation (feet):** 8,000

**County Summary:**

**Quad Summary:**

Alpine

Pacific Valley (3811958)

**Sources:**

DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A1269	<b>EO Index:</b> 102836
<b>Key Quad:</b> Pacific Valley (3811958)	<b>Element Code:</b> AAAAAA01085
<b>Occurrence Number:</b> 557	<b>Occurrence Last Updated:</b> 2016-07-25

<b>Scientific Name:</b> <i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b> southern long-toed salamander
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5T4	
<b>State:</b> S3	

**General Habitat:**

HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.

**Micro Habitat:**

AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

<b>Last Date Observed:</b> 2013-07-19	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2013-07-19	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-STANISLAUS NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**

PONDS 1.3 TO 2.2 MILES NE OF WHEELER LAKE, EAST OF JACKSON CANYON, MOKELUMNE WILDERNESS, STANISLAUS NATIONAL FOREST.

**Detailed Location:****Ecological:****Threats:****General:**

510 LARVAE FOUND ON 4 AUG 2001. 2360 LARVAE FOUND ON 19 JUL 2013.

<b>PLSS:</b> T08N, R18E, Sec. 23 (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 39
<b>UTM:</b> Zone-11 N4269149 E242158	<b>Latitude/Longitude:</b> 38.53341 / -119.95805	<b>Elevation (feet):</b> 7,500

**County Summary:**

Alpine

**Quad Summary:**

Pacific Valley (3811958)

**Sources:**

DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25





# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A1270	<b>EO Index:</b> 102837
<b>Key Quad:</b> Ebbetts Pass (3811957)	<b>Element Code:</b> AAAAAA01085
<b>Occurrence Number:</b> 558	<b>Occurrence Last Updated:</b> 2016-07-25

<b>Scientific Name:</b> <i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b> southern long-toed salamander
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5T4	
<b>State:</b> S3	

<b>General Habitat:</b> HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.	<b>Micro Habitat:</b> AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.
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<b>Last Date Observed:</b> 2003-09-05	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2003-09-05	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-STANISLAUS NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
POND 0.9 MILE NW OF BLACK DOME, SOUTH OF HIGHWAY 4, EAST OF HERMIT VALLEY, STANISLAUS NATIONAL FOREST.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

750 LARVAE FOUND ON 5 SEP 2003.

<b>PLSS:</b> T08N, R19E, Sec. 23, NW (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 5
<b>UTM:</b> Zone-11 N4269242 E250696	<b>Latitude/Longitude:</b> 38.53667 / -119.86025	<b>Elevation (feet):</b> 8,600

**County Summary:**

Alpine

**Quad Summary:**

Ebbetts Pass (3811957)

**Sources:**  
DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A1272	<b>EO Index:</b> 102839
<b>Key Quad:</b> Pacific Valley (3811958)	<b>Element Code:</b> AAAAAA01085
<b>Occurrence Number:</b> 560	<b>Occurrence Last Updated:</b> 2016-07-25

<b>Scientific Name:</b> <i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b> southern long-toed salamander
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5T4	
<b>State:</b> S3	

**General Habitat:**

HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.

**Micro Habitat:**

AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

<b>Last Date Observed:</b> 2013-07-19	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2013-07-19	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-STANISLAUS NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**

POND 1.5 MILES ENE OF WHEELER LAKE, MOKELUMNE WILDERNESS, ABOUT 2 MILES NORTH OF HIGHWAY 4, STANISLAUS NATIONAL FOREST.

**Detailed Location:**

JUST NORTH OF USFS TRAIL 19E53, 0.4 MILE WEST OF ITS CROSSING OF SANDY MEADOW CREEK.

**Ecological:****Threats:****General:**

100 LARVAE FOUND ON 5 AUG 2001. 65 LARVAE FOUND ON 19 JUL 2013.

<b>PLSS:</b> T08N, R18E, Sec. 24, SW (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 5
<b>UTM:</b> Zone-11 N4268541 E242350	<b>Latitude/Longitude:</b> 38.52799 / -119.95562	<b>Elevation (feet):</b> 7,600

**County Summary:**

Alpine

**Quad Summary:**

Pacific Valley (3811958)

**Sources:**

DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	A1273	<b>EO Index:</b>	102840
<b>Key Quad:</b>	Pacific Valley (3811958)	<b>Element Code:</b>	AAAAA01085
<b>Occurrence Number:</b>	561	<b>Occurrence Last Updated:</b>	2016-07-25

<b>Scientific Name:</b>	<i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b>	southern long-toed salamander
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> None	<b>Rare Plant Rank:</b>	
<b>CNDDB Element Ranks:</b>	<b>Global:</b> G5T4 <b>State:</b> S3	<b>Other Lists:</b>	CDFW_SSC-Species of Special Concern

<b>General Habitat:</b>	<b>Micro Habitat:</b>
HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.	AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

<b>Last Date Observed:</b>	2013-07-09	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2013-07-09	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	USFS-STANISLAUS NF	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**  
PONDS 0.8 MILE NE OF WHEELER LAKE, MOKELUMNE WILDERNESS, ABOUT 2 MILES NORTH OF HIGHWAY 4, STANISLAUS NATIONAL FOREST.

**Detailed Location:**  
ALONG USFS TRAIL 19E53, JUST EAST OF THE CREEK FLOWING OUT OF WHEELER LAKE.

**Ecological:**

**Threats:**

**General:**

47 LARVAE FOUND ON 5 AUG 2001, 9 LARVAE ON 24 JUL 2002, AND 237 LARVAE FOUND ON 9 JUL 2013.

<b>PLSS:</b>	T08N, R18E, Sec. 23, SW (M)	<b>Accuracy:</b>	specific area	<b>Area (acres):</b>	7
<b>UTM:</b>	Zone-11 N4268368 E241123	<b>Latitude/Longitude:</b>	38.52608 / -119.96962	<b>Elevation (feet):</b>	7,700

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine	Pacific Valley (3811958)

**Sources:**  
DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A1274	<b>EO Index:</b> 102841
<b>Key Quad:</b> Pacific Valley (3811958)	<b>Element Code:</b> AAAAAA01085
<b>Occurrence Number:</b> 562	<b>Occurrence Last Updated:</b> 2016-07-25

<b>Scientific Name:</b> <i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b> southern long-toed salamander
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5T4	
<b>State:</b> S3	

<b>General Habitat:</b> HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.	<b>Micro Habitat:</b> AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.
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<b>Last Date Observed:</b> 2013-07-09	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2013-07-09	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-STANISLAUS NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
PONDS 0.4 MILE NE OF WHEELER LAKE, MOKELUMNE WILDERNESS, ABOUT 2 MILES NORTH OF HIGHWAY 4, STANISLAUS NATIONAL FOREST.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

1 LARVA FOUND IN NORTHERN POND ON BOTH 11 SEP 2008 AND 19 JUN 2012. 41 LARVAE FOUND AT SOUTHERN POND ON 9 JUL 2013.

<b>PLSS:</b> T08N, R18E, Sec. 26, NW (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 10
<b>UTM:</b> Zone-11 N4267855 E240741	<b>Latitude/Longitude:</b> 38.52135 / -119.9738	<b>Elevation (feet):</b> 7,800

**County Summary:**

Alpine

**Quad Summary:**

Pacific Valley (3811958)

**Sources:**

DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	A1275	<b>EO Index:</b>	102842
<b>Key Quad:</b>	Pacific Valley (3811958)	<b>Element Code:</b>	AAAAA01085
<b>Occurrence Number:</b>	563	<b>Occurrence Last Updated:</b>	2016-07-25

<b>Scientific Name:</b>	<i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b>	southern long-toed salamander
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> None	<b>Rare Plant Rank:</b>	
<b>CNDDB Element Ranks:</b>	<b>Global:</b> G5T4 <b>State:</b> S3	<b>Other Lists:</b>	CDFW_SSC-Species of Special Concern

**General Habitat:**

HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.

**Micro Habitat:**

AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

<b>Last Date Observed:</b>	2013-07-08	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2013-07-08	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	USFS-STANISLAUS NF	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**

0.2 TO 0.4 MILE NORTH OF WHEELER LAKE, EAST OF UNDERWOOD VALLEY, MOKELUMNE WILDERNESS, STANISLAUS NATIONAL FOREST.

**Detailed Location:**

ALONG USFS TRAIL 18E02.

**Ecological:****Threats:****General:**

10 LARVAE FOUND ON 4 AUG 2001. 6 LARVAE FOUND ON 8 JUL 2013.

<b>PLSS:</b> T08N, R18E, Sec. 27, N (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 10
<b>UTM:</b> Zone-11 N4267885 E239793	<b>Latitude/Longitude:</b> 38.52134 / -119.98467	<b>Elevation (feet):</b> 7,800

**County Summary:**

Alpine

**Quad Summary:**

Pacific Valley (3811958)

**Sources:**

DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	A1277	<b>EO Index:</b>	102844
<b>Key Quad:</b>	Pacific Valley (3811958)	<b>Element Code:</b>	AAAAA01085
<b>Occurrence Number:</b>	565	<b>Occurrence Last Updated:</b>	2016-07-27

<b>Scientific Name:</b>	<i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b>	southern long-toed salamander
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> None	<b>Rare Plant Rank:</b>	
<b>CNDDB Element Ranks:</b>	<b>Global:</b> G5T4 <b>State:</b> S3	<b>Other Lists:</b>	CDFW_SSC-Species of Special Concern

**General Habitat:**

HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.

**Micro Habitat:**

AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

<b>Last Date Observed:</b>	2005-10-16	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2005-10-16	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	USFS-STANISLAUS NF	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**

MOSQUITO LAKE AND NEARBY PONDS, ALONG HIGHWAY 4 NEAR PACIFIC GRADE SUMMIT, STANISLAUS NATIONAL FOREST.

**Detailed Location:****Ecological:**

SURROUNDING AREA CONSIST OF BARE GRANITE OUTCROPS AND FOREST OF PREDOMINANTLY LODGEPOLE PINE, WHITE PINE, AND MOUNTAIN HEMLOCK.

**Threats:****General:**

INDIVIDUALS OBSERVED AND/OR COLLECTED IN 1957, 1958, 1959, 1967, 1968, 2000, 2001, 2002, AND 2005.

<b>PLSS:</b> T08N, R19E, Sec. 29, W (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 50
<b>UTM:</b> Zone-11 N4267088 E246182	<b>Latitude/Longitude:</b> 38.51602 / -119.91119	<b>Elevation (feet):</b> 8,000

**County Summary:**

Alpine

**Quad Summary:**

Pacific Valley (3811958)



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



**Sources:**

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AND57S0004	ANDERSON, J. - MVZ #66475-66479 & 69779-69794 COLLECTED ALONG EBBETT PASS RD, 2 MI W LOOKOUT PEAK 1957-09-04
AND57S0005	ANDERSON, J. - ANDERSON #1606-1611 MVZ #69773-69778 COLLECTED ALONG EBBETT PASS RD, 2 MI W LOOKOUT PEAK 1957-08-03
AND58S0010	ANDERSON, J. - ANDERSON #2007 MVZ #69752 COLLECTED FROM MOSQUITO LAKES, 2 MI W LOOKOUT PEAK 1958-08-06
AND58S0011	ANDERSON, J. - ANDERSON #1957 MVZ #69847 COLLECTED FROM MOSQUITO LAKES, 2 MI W LOOKOUT PEAK 1958-07-03
AND58S0012	ANDERSON, J. - ANDERSON #2044 & 2046 MVZ #69756 & 69757 COLLECTED FROM MOSQUITO LAKES, 2 MI W LOOKOUT PEAK 1958-09-23
AND58S0013	ANDERSON, J. - ANDERSON #2014, 2015 & 2016 MVZ #69753, 69754 & 69755 COLLECTED FROM MOSQUITO LAKES, 2 MI W LOOKOUT PEAK 1958-08-20
AND58S0014	ANDERSON, J. - MVZ #69759-69761 & 69815-69835 COLLECTED FROM MOSQUITO LAKES, 2 MI W LOOKOUT PEAK 1958-06-25
AND58S0015	ANDERSON, J. - MVZ #69762 - 69772 AND 69836 - 69846 COLLECTED FROM MOSQUITO LAKES, 2 MI W LOOKOUT PEAK. (22 SPECIMENS) 1958-07-02
AND59S0006	ANDERSON, J. - ANDERSON #2358 MVZ #69758 COLLECTED FROM MOSQUITO LAKES, 2 MI W LOOKOUT PEAK 1959-06-27
AND67A0001	ANDERSON, J. - A COMPARISON OF THE LIFE HISTORIES OF COASTAL AND MONTANE POPULATIONS OF AMBYSTOMA MACRODACTYLUM IN CALIFORNIA. THE AMERICAN MIDLAND NATURALIST. 77(2) PP. 323-355. 1967-04-XX
AND68A0001	ANDERSON, J. - THERMAL HISTORIES OF TWO POPULATIONS OF AMBYSTOMA MACRODACTYLUM. HERPETOLOGICA 24(1) PP. 29-35 1968-03-XX
ANDNDS0007	ANDERSON, J. - MVZ #69751 COLLECTED FROM MOSQUITO LAKES, 2 MI W LOOKOUT PEAK 195X-07-XX
CRI16D0001	CRIFE, K. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - GIS DATA ASSEMBLED FOR UPDATES TO THE CALIFORNIA AMPHIBIAN AND REPTILE SPECIES OF SPECIAL CONCERN LIST 2016-05-06
DFW16D0001	CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25
JOH68S0005	JOHNSON, A. - JOHNSON #358 & 359 MVZ #84964 & 84965 COLLECTED FROM MOSQUITO LAKES 1968-08-15



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A1278	<b>EO Index:</b> 102845	
<b>Key Quad:</b> Ebbetts Pass (3811957)	<b>Element Code:</b> AAAAAA01085	
<b>Occurrence Number:</b> 566	<b>Occurrence Last Updated:</b> 2016-07-26	

<b>Scientific Name:</b> <i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b> southern long-toed salamander
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5T4	
<b>State:</b> S3	

<b>General Habitat:</b> HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.	<b>Micro Habitat:</b> AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.
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<b>Last Date Observed:</b> 2003-09-03	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2003-09-03	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-STANISLAUS NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
POND BETWEEN TRYON MEADOW AND BEAR TREE MEADOW, NE OF HIGHLAND LAKES, STANISLAUS NATIONAL FOREST.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

7 LARVAE FOUND ON 3 SEP 2003.

<b>PLSS:</b> T08N, R20E, Sec. 32, E (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 5
<b>UTM:</b> Zone-11 N4265234 E256281	<b>Latitude/Longitude:</b> 38.50215 / -119.79484	<b>Elevation (feet):</b> 8,700

**County Summary:**

Alpine

**Quad Summary:**

Ebbetts Pass (3811957)

**Sources:**  
DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25





# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A1279	<b>EO Index:</b> 102847
<b>Key Quad:</b> Pacific Valley (3811958)	<b>Element Code:</b> AAAAA01085
<b>Occurrence Number:</b> 567	<b>Occurrence Last Updated:</b> 2016-07-26

<b>Scientific Name:</b> <i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b> southern long-toed salamander
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5T4	
<b>State:</b> S3	

<b>General Habitat:</b> HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.	<b>Micro Habitat:</b> AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.
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<b>Last Date Observed:</b> 2001-08-03	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2001-08-03	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-STANISLAUS NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
POND 0.7 MILE SOUTH OF MOSQUITO LAKE AND HIGHWAY 4 AT PACIFIC GRADE SUMMIT, STANISLAUS NATIONAL FOREST.

**Detailed Location:**  
EAST OF USFS TRAIL 19E94, 0.2 MILE NORTH OF THE BOUNDARY OF CARSON-ICEBERG WILDERNESS.

**Ecological:**

**Threats:**

**General:**

2 LARVAE FOUND ON 3 AUG 2001.

<b>PLSS:</b> T08N, R19E, Sec. 32, NE (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 5
<b>UTM:</b> Zone-11 N4266019 E246327	<b>Latitude/Longitude:</b> 38.50643 / -119.90914	<b>Elevation (feet):</b> 8,200

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Pacific Valley (3811958)
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**Sources:**  
DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	A1280	<b>EO Index:</b>	102848
<b>Key Quad:</b>	Pacific Valley (3811958)	<b>Element Code:</b>	AAAAA01085
<b>Occurrence Number:</b>	568	<b>Occurrence Last Updated:</b>	2016-07-26

<b>Scientific Name:</b>	<i>Ambystoma macrodactylum sigillatum</i>	<b>Common Name:</b>	southern long-toed salamander
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> None	<b>Rare Plant Rank:</b>	
<b>CNDDB Element Ranks:</b>	<b>Global:</b> G5T4 <b>State:</b> S3	<b>Other Lists:</b>	CDFW_SSC-Species of Special Concern

**General Habitat:**  
HIGH ELEVATION MEADOWS AND LAKES IN THE SIERRA NEVADA, CASCADE, AND KLAMATH MOUNTAINS.

**Micro Habitat:**  
AQUATIC LARVAE OCCUR IN PONDS AND LAKES. OUTSIDE OF BREEDING SEASON ADULTS ARE TERRESTRIAL AND ASSOCIATED WITH UNDERGROUND BURROWS OF MAMMALS AND MOIST AREAS UNDER LOGS AND ROCKS.

<b>Last Date Observed:</b>	2001-08-03	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2001-08-03	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	USFS-STANISLAUS NF	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**  
POND 0.8 MILE NW OF HEISER LAKE, CARSON-ICEBERG WILDERNESS, STANISLAUS NATIONAL FOREST.

**Detailed Location:**  
JUST SOUTH OF THE WILDERNESS AREA BOUNDARY, 0.3. MILE WEST OF USFS TRAIL 19E94.

**Ecological:**

**Threats:**

**General:**  
100 LARVAE FOUND ON 3 AUG 2001.

<b>PLSS:</b> T08N, R19E, Sec. 32, NW (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 5
<b>UTM:</b> Zone-11 N4265761 E245802	<b>Latitude/Longitude:</b> 38.50396 / -119.91506	<b>Elevation (feet):</b> 8,400

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Pacific Valley (3811958)
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**Sources:**  
DFW16D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2015 FIELDWORK 2016-04-25



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 44800	<b>EO Index:</b> 44800
<b>Key Quad:</b> Ebbetts Pass (3811957)	<b>Element Code:</b> AAABB01040
<b>Occurrence Number:</b> 38	<b>Occurrence Last Updated:</b> 2001-01-24

<b>Scientific Name:</b> <i>Anaxyrus canorus</i>	<b>Common Name:</b> Yosemite toad
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Threatened	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDB Element Ranks:</b>	IUCN_EN-Endangered
<b>Global:</b> G2G3	USFS_S-Sensitive
<b>State:</b> S2S3	

<b>General Habitat:</b> VICINITY OF WET MEADOWS IN CENTRAL HIGH SIERRA, 6,400 TO 11,300 FEET IN ELEVATION.	<b>Micro Habitat:</b> PRIMARILY MONTANE WET MEADOWS; ALSO IN SEASONAL PONDS ASSOCIATED WITH LODGEPOLE PINE AND SUBALPINE CONIFER FOREST.
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<b>Last Date Observed:</b> 1955-07-20	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1955-07-20	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-STANISLAUS NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
TRYON MEADOW, 1 MILE NORTH OF HIGHLAND LAKE AND ABOUT 2.75 MILES SOUTH OF EBBETTS PASS.

**Detailed Location:**  
MUSEUM RECORD GIVES LOCATION AS "TYION MEADOW, 1 MILE NORTH OF HIGHLAND LAKE"E.

**Ecological:**  
**Threats:**

**General:**  
MVZ SPECIMEN #64901 COLLECTED 20 JUL 1955 BY E.L.KARLSTROM.

<b>PLSS:</b> T08N, R20E, Sec. 32 (M)	<b>Accuracy:</b> 1/5 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4265546 E255659	<b>Latitude/Longitude:</b> 38.50479 / -119.80207	<b>Elevation (feet):</b> 8,200

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Ebbetts Pass (3811957)
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**Sources:**  
MVZ01S0003 MVZ SPECIMEN DATABASE QUERY (UNIVERSITY OF CALIFORNIA, BERKELEY) - PRINTOUT OF BUFO CANORUS (YOSEMITE TOAD) IN ALPINE COUNTY, FROM THE UNIVERSITY OF CALIFORNIA, BERKELEY DIGITAL LIBRARY PROJECT. 2001-01-24



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b> 44801	<b>EO Index:</b> 44801
<b>Key Quad:</b> Ebbetts Pass (3811957)	<b>Element Code:</b> AAABB01040
<b>Occurrence Number:</b> 39	<b>Occurrence Last Updated:</b> 2001-01-24

<b>Scientific Name:</b> <i>Anaxyrus canorus</i>	<b>Common Name:</b> Yosemite toad
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Threatened	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDDB Element Ranks:</b>	IUCN_EN-Endangered
<b>Global:</b> G2G3	USFS_S-Sensitive
<b>State:</b> S2S3	

<b>General Habitat:</b>	<b>Micro Habitat:</b>
VICINITY OF WET MEADOWS IN CENTRAL HIGH SIERRA, 6,400 TO 11,300 FEET IN ELEVATION.	PRIMARILY MONTANE WET MEADOWS; ALSO IN SEASONAL PONDS ASSOCIATED WITH LODGEPOLE PINE AND SUBALPINE CONIFER FOREST.

<b>Last Date Observed:</b> 1955-06-26	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1955-06-26	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-STANISLAUS NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
NORTH FORK MOKELUMNE RIVER, ALONG HIGHLAND LAKE ROAD, ABOUT 2.4 MILES SOUTH OF HWY 4.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

MVZ SPECIMEN #61796 COLLECTED BY KARLSTROM & LIVEZEY 11 AUG 1952. #62670-62671 & 64903 COLLECTED BY KARLSTROM 26 JUN 1955.

<b>PLSS:</b> T08N, R20E, Sec. 19 (M)	<b>Accuracy:</b> non-specific area	<b>Area (acres):</b> 99
<b>UTM:</b> Zone-11 N4268598 E254410	<b>Latitude/Longitude:</b> 38.53192 / -119.81745	<b>Elevation (feet):</b> 7,800

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine	Ebbetts Pass (3811957)

**Sources:**  
MVZ01S0003 MVZ SPECIMEN DATABASE QUERY (UNIVERSITY OF CALIFORNIA, BERKELEY) - PRINTOUT OF BUFO CANORUS (YOSEMITE TOAD) IN ALPINE COUNTY, FROM THE UNIVERSITY OF CALIFORNIA, BERKELEY DIGITAL LIBRARY PROJECT. 2001-01-24



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 44742	<b>EO Index:</b> 44802
<b>Key Quad:</b> Carson Pass (3811968)	<b>Element Code:</b> AAABB01040
<b>Occurrence Number:</b> 40	<b>Occurrence Last Updated:</b> 2001-01-24

<b>Scientific Name:</b> <i>Anaxyrus canorus</i>	<b>Common Name:</b> Yosemite toad
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Threatened	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDB Element Ranks:</b>	IUCN_EN-Endangered
<b>Global:</b> G2G3	USFS_S-Sensitive
<b>State:</b> S2S3	

<b>General Habitat:</b> VICINITY OF WET MEADOWS IN CENTRAL HIGH SIERRA, 6,400 TO 11,300 FEET IN ELEVATION.	<b>Micro Habitat:</b> PRIMARILY MONTANE WET MEADOWS; ALSO IN SEASONAL PONDS ASSOCIATED WITH LODGEPOLE PINE AND SUBALPINE CONIFER FOREST.
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<b>Last Date Observed:</b> 1955-07-19	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1955-07-19	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-HUMBOLDT-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
FAITH VALLEY, ABOUT 2 MILES SOUTHEAST OF HWY 88.

**Detailed Location:**  
THE WEST FORK CARSON RIVER AND SEVERAL UNNAMED TRIBUTARIES RUN THROUGH FAITH VALLEY.

**Ecological:**  
**Threats:**

**General:**  
MVZ SPECIMEN #64904 COLLECTED 19 JUL 1955 BY E.L.KARLSTROM.

<b>PLSS:</b> T10N, R19E, Sec. 30 (M)	<b>Accuracy:</b> non-specific area	<b>Area (acres):</b> 138
<b>UTM:</b> Zone-11 N4285673 E245116	<b>Latitude/Longitude:</b> 38.68298 / -119.93019	<b>Elevation (feet):</b> 7,500

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Carson Pass (3811968)
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**Sources:**  
MVZ01S0003 MVZ SPECIMEN DATABASE QUERY (UNIVERSITY OF CALIFORNIA, BERKELEY) - PRINTOUT OF BUFO CANORUS (YOSEMITE TOAD) IN ALPINE COUNTY, FROM THE UNIVERSITY OF CALIFORNIA, BERKELEY DIGITAL LIBRARY PROJECT. 2001-01-24



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 44805	<b>EO Index:</b> 44805
<b>Key Quad:</b> Carson Pass (3811968)	<b>Element Code:</b> AAABB01040
<b>Occurrence Number:</b> 41	<b>Occurrence Last Updated:</b> 2001-01-25

<b>Scientific Name:</b> <i>Anaxyrus canorus</i>	<b>Common Name:</b> Yosemite toad
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Threatened	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDDB Element Ranks:</b>	IUCN_EN-Endangered
<b>Global:</b> G2G3	USFS_S-Sensitive
<b>State:</b> S2S3	

<b>General Habitat:</b> VICINITY OF WET MEADOWS IN CENTRAL HIGH SIERRA, 6,400 TO 11,300 FEET IN ELEVATION.	<b>Micro Habitat:</b> PRIMARILY MONTANE WET MEADOWS; ALSO IN SEASONAL PONDS ASSOCIATED WITH LODGEPOLE PINE AND SUBALPINE CONIFER FOREST.
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<b>Last Date Observed:</b> 1955-06-27	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1955-06-27	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-HUMBOLDT-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
CHARITY VALLEY, ABOUT 3 MILES NORTHEAST OF UPPER BLUE LAKE.

**Detailed Location:**  
CHARITY VALLEY CREEK AND SEVERAL UNNAMED TRIBUTARIES RUN THROUGH CHARITY VALLEY.

**Ecological:**  
**Threats:**

**General:**  
MVZ SPECIMEN #64897 COLLECTED 27 JUNE 1955 BY ERNEST L. KARLSTROM.

<b>PLSS:</b> T10N, R19E, Sec. 32 (M)	<b>Accuracy:</b> non-specific area	<b>Area (acres):</b> 176
<b>UTM:</b> Zone-11 N4284298 E246892	<b>Latitude/Longitude:</b> 38.67112 / -119.90930	<b>Elevation (feet):</b> 7,700

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Carson Pass (3811968)
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**Sources:**  
MVZ01S0003 MVZ SPECIMEN DATABASE QUERY (UNIVERSITY OF CALIFORNIA, BERKELEY) - PRINTOUT OF BUFO CANORUS (YOSEMITE TOAD) IN ALPINE COUNTY, FROM THE UNIVERSITY OF CALIFORNIA, BERKELEY DIGITAL LIBRARY PROJECT. 2001-01-24



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 44807	<b>EO Index:</b> 44807	
<b>Key Quad:</b> Carson Pass (3811968)	<b>Element Code:</b> AAABB01040	
<b>Occurrence Number:</b> 42	<b>Occurrence Last Updated:</b> 2010-05-28	

<b>Scientific Name:</b> <i>Anaxyrus canorus</i>	<b>Common Name:</b> Yosemite toad
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Threatened	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDB Element Ranks:</b>	IUCN_EN-Endangered
<b>Global:</b> G2G3	USFS_S-Sensitive
<b>State:</b> S2S3	

<b>General Habitat:</b> VICINITY OF WET MEADOWS IN CENTRAL HIGH SIERRA, 6,400 TO 11,300 FEET IN ELEVATION.	<b>Micro Habitat:</b> PRIMARILY MONTANE WET MEADOWS; ALSO IN SEASONAL PONDS ASSOCIATED WITH LODGEPOLE PINE AND SUBALPINE CONIFER FOREST.
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<b>Last Date Observed:</b> 2009-07-14	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2009-07-14	<b>Occurrence Rank:</b> Good
<b>Owner/Manager:</b> PVT-PGE	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
WEST & NORTHWEST SHORES OF UPPER BLUE LAKE, ABOUT 2 MI ENE OF DEADWOOD PEAK.

**Detailed Location:**  
MVZ LOCATIONS DESCRIBED AS "NW END UPPER BLUE LAKE" (NORTH FEATURE). MYE LOCATION DESCRIBED AS "SNOWMELT POOL NEAR THE SHORE OF UPPER BLUE LAKE," WITH LOCATION MARKED ON A MAP. 2009: FROGS LOCATED THROUGHOUT NW PORTION OF LAKE.

**Ecological:**  
MYE: POOL HAS A SILT/MUD SUBSTRATE WITH GRASS ALONG THE MARGIN & AS EMERGENT VEGETATION IN 50% OF THE POOL. AVG 3 CM DEEP. A SMALL STREAM FLOWS OUT OF THE POOL & INTO THE LAKE. SURROUNDING LAND USED FOR FISHING & CAMPING.

**Threats:**  
SALMONIDS IN LAKE, RELATIVELY HIGH HUMAN USE OF LAKE, RESERVOIR OPERATIONS (ESP EARLY DRAWDOWN).

**General:**  
MVZ #64877-8 ON 30 JUN 1956. 5 PAIRS IN AMPLEXUS (LIKELY YOSEMITE/WESTERN TOAD HYBRIDS) & 9 EGG STRANDS 13 JUN 2002. 8000 LARVAE IN STREAM/LAKE-SHALLOWS, 1 JUV OBS ON NW SHORE 26 JUN 2002. 100S EGGS, 41 JUV, 1 SUBADULT, 13 ADULTS JUL 2009.

<b>PLSS:</b> T09N, R18E, Sec. 12, SW (M)	<b>Accuracy:</b> non-specific area	<b>Area (acres):</b> 40
<b>UTM:</b> Zone-11 N4280518 E242656	<b>Latitude/Longitude:</b> 38.63588 / -119.95653	<b>Elevation (feet):</b> 8,140

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Carson Pass (3811968)
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**Sources:**

MVZ01S0003	MVZ SPECIMEN DATABASE QUERY (UNIVERSITY OF CALIFORNIA, BERKELEY) - PRINTOUT OF BUFO CANORUS (YOSEMITE TOAD) IN ALPINE COUNTY, FROM THE UNIVERSITY OF CALIFORNIA, BERKELEY DIGITAL LIBRARY PROJECT. 2001-01-24
MYE02F0001	MYERS, S.A. & J.L. ALVAREZ (JONES AND STOKES ASSOCIATES) - FIELD SURVEY FORM FOR ANAXYRUS CANORUS 2002-06-13
POO09F0010	POOL, A. (ECORP CONSULTING, INC.) - FIELD SURVEY FORM FOR ANAXYRUS CANORUS 2009-06-17



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 44863	<b>EO Index:</b> 44863	
<b>Key Quad:</b> Pacific Valley (3811958)	<b>Element Code:</b> AAABB01040	
<b>Occurrence Number:</b> 60	<b>Occurrence Last Updated:</b> 2001-02-01	

<b>Scientific Name:</b> <i>Anaxyrus canorus</i>	<b>Common Name:</b> Yosemite toad
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Threatened	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDDB Element Ranks:</b>	IUCN_EN-Endangered
<b>Global:</b> G2G3	USFS_S-Sensitive
<b>State:</b> S2S3	

<b>General Habitat:</b> VICINITY OF WET MEADOWS IN CENTRAL HIGH SIERRA, 6,400 TO 11,300 FEET IN ELEVATION.	<b>Micro Habitat:</b> PRIMARILY MONTANE WET MEADOWS; ALSO IN SEASONAL PONDS ASSOCIATED WITH LODGEPOLE PINE AND SUBALPINE CONIFER FOREST.
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<b>Last Date Observed:</b> 1955-07-20	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1955-07-20	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-ELDORADO NF, STANISLAUS NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
UNNAMED LAKES & UNNAMED TRIBUTARY TO DEER CREEK, ALONG TRAIL TO DEER VALLEY, NORTH OF HWY 4.

**Detailed Location:**  
MUSEUM RECORD GIVES LOCATION AS "6 MI W EBBETTS PASS ON TRAIL TO DEER VALLEY AT 7700 FT".

**Ecological:**

**Threats:**

**General:**

MVZ #64900 COLLECTED 20 JUL 1955 BY ERNEST L. KARLSTROM.

<b>PLSS:</b> T08N, R19E, Sec. 17 (M)	<b>Accuracy:</b> 2/5 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4271066 E246200	<b>Latitude/Longitude:</b> 38.55183 / -119.91242	<b>Elevation (feet):</b> 7,700

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Pacific Valley (3811958)
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**Sources:**  
MVZ01S0003 MVZ SPECIMEN DATABASE QUERY (UNIVERSITY OF CALIFORNIA, BERKELEY) - PRINTOUT OF BUFO CANORUS (YOSEMITE TOAD) IN ALPINE COUNTY, FROM THE UNIVERSITY OF CALIFORNIA, BERKELEY DIGITAL LIBRARY PROJECT. 2001-01-24





**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b> 50207	<b>EO Index:</b> 50208
<b>Key Quad:</b> Ebbetts Pass (3811957)	<b>Element Code:</b> AAABB01040
<b>Occurrence Number:</b> 80	<b>Occurrence Last Updated:</b> 2003-02-14

<b>Scientific Name:</b> <i>Anaxyrus canorus</i>	<b>Common Name:</b> Yosemite toad
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Threatened	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDB Element Ranks:</b>	IUCN_EN-Endangered
<b>Global:</b> G2G3	USFS_S-Sensitive
<b>State:</b> S2S3	

<b>General Habitat:</b>	<b>Micro Habitat:</b>
VICINITY OF WET MEADOWS IN CENTRAL HIGH SIERRA, 6,400 TO 11,300 FEET IN ELEVATION.	PRIMARILY MONTANE WET MEADOWS; ALSO IN SEASONAL PONDS ASSOCIATED WITH LODGEPOLE PINE AND SUBALPINE CONIFER FOREST.

<b>Last Date Observed:</b> 2001-07-21	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2001-07-21	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-HUMBOLDT-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
UNNAMED LAKE BETWEEN SHERROLD LAKE & UPPER KINNEY LAKE, 0.8 MI NW OF EBBETTS PASS. TOIYABE NF.

**Detailed Location:**  
SITE ID 15019 FROM THE DFG HIGH ELEVATION FISH AND AMPHIBIAN TRACKING SYSTEM (FATS) DATABASE.

**Ecological:**  
SMALL HIGH ELEVATION LAKE WITH LITTORAL SUBSTRATE OF SILT & SHORELINE SUBSTRATE OF GRASS/SEDGE/FORB. FISH (NOT IDENTIFIED) OBSERVED AT THE LAKE INLET. LAKE IS NOT STOCKED & NO FISH SEEN IN LAKE.

**Threats:**

**General:**  
4 ADULT TOADS HAND COLLECTED. 20 LONG-TOED SALAMANDER LARVA OBSERVED & 5 ADULT & 1000 TREEFROG LARVA OBS.

<b>PLSS:</b> T08N, R20E, Sec. 07, SW (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4271029 E254080	<b>Latitude/Longitude:</b> 38.55371 / -119.82208	<b>Elevation (feet):</b> 8,800

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine	Ebbetts Pass (3811957)

**Sources:**

DFG01F0029	CALIFORNIA DEPARTMENT OF FISH & GAME - FIELD SURVEY REPORT FOR SITE ID 15019 FROM "FATS" DATABASE FOR 2001 HIGH ELEVATION FISH AND FROG SURVEY 2001-07-21
DFG01U0001	MILLIRON, C. ET AL. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FISH AND AMPHIBIAN TRACKING SYSTEM (FATS) ACCESS DATABASE, RESULTS OF 2001 HIGH ELEVATION LAKE SURVEYS 2001-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 50209	<b>EO Index:</b> 50209	
<b>Key Quad:</b> Pacific Valley (3811958)	<b>Element Code:</b> AAABB01040	
<b>Occurrence Number:</b> 81	<b>Occurrence Last Updated:</b> 2003-02-14	

<b>Scientific Name:</b> <i>Anaxyrus canorus</i>	<b>Common Name:</b> Yosemite toad
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Threatened	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDDB Element Ranks:</b>	IUCN_EN-Endangered
<b>Global:</b> G2G3	USFS_S-Sensitive
<b>State:</b> S2S3	

<b>General Habitat:</b> VICINITY OF WET MEADOWS IN CENTRAL HIGH SIERRA, 6,400 TO 11,300 FEET IN ELEVATION.	<b>Micro Habitat:</b> PRIMARILY MONTANE WET MEADOWS; ALSO IN SEASONAL PONDS ASSOCIATED WITH LODGEPOLE PINE AND SUBALPINE CONIFER FOREST.
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<b>Last Date Observed:</b> 2001-08-05	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2001-08-05	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-STANISLAUS NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
SMALL UNNAMED LAKE ABOUT 0.75 MI NE OF WHEELER LAKE. EAST SIDE OF JACKSON CREEK. STANISLAUS NATIONAL FOREST.

**Detailed Location:**  
SITE ID 15128 FROM THE DFG HIGH ELEVATION FISH AND AMPHIBIAN TRACKING SYSTEM (FATS) DATABASE. THE EASTERN-MOST OF A CLUSTER OF 3 SMALL LAKES.

**Ecological:**  
SMALL, SHALLOW (0.75 M) HIGH ELEVATION LAKE WITH LITTORAL SUBSTRATE OF SILT & SHORELINE SUBSTRATE OF GRASS/SEDGE/FORB, SILT & BOULDER.

**Threats:**  
**General:**  
1 ADULT TOAD HAND COLLECTED IN A 6 MINUTE SURVEY. 2 ADULT TREEFROGS, 38 LONG-TOED SALAMANDER LARVA & FAIRY SHRIMP ALSO OBSERVED/COLLECTED.

<b>PLSS:</b> T08N, R18E, Sec. 23, SW (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4268359 E241198	<b>Latitude/Longitude:</b> 38.52602 / -119.96875	<b>Elevation (feet):</b> 7,700

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Pacific Valley (3811958)
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**Sources:**

DFG01F0030	CALIFORNIA DEPARTMENT OF FISH & GAME - FIELD SURVEY REPORT FOR SITE ID 15128 FROM "FATS" DATABASE FOR 2001 HIGH ELEVATION FISH AND FROG SURVEY 2001-08-05
DFG01U0001	MILLIRON, C. ET AL. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FISH AND AMPHIBIAN TRACKING SYSTEM (FATS) ACCESS DATABASE, RESULTS OF 2001 HIGH ELEVATION LAKE SURVEYS 2001-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 43029	<b>EO Index:</b> 50210
<b>Key Quad:</b> Pacific Valley (3811958)	<b>Element Code:</b> AAABB01040
<b>Occurrence Number:</b> 82	<b>Occurrence Last Updated:</b> 2003-02-14

<b>Scientific Name:</b> <i>Anaxyrus canorus</i>	<b>Common Name:</b> Yosemite toad
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Threatened	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDDB Element Ranks:</b>	IUCN_EN-Endangered
<b>Global:</b> G2G3	USFS_S-Sensitive
<b>State:</b> S2S3	

<b>General Habitat:</b> VICINITY OF WET MEADOWS IN CENTRAL HIGH SIERRA, 6,400 TO 11,300 FEET IN ELEVATION.	<b>Micro Habitat:</b> PRIMARILY MONTANE WET MEADOWS; ALSO IN SEASONAL PONDS ASSOCIATED WITH LODGEPOLE PINE AND SUBALPINE CONIFER FOREST.
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<b>Last Date Observed:</b> 2001-08-03	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2001-08-03	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-STANISLAUS NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
WHEELER LAKE, STANISLAUS NATIONAL FOREST.

**Detailed Location:**  
SITE ID 15145 FROM THE DFG HIGH ELEVATION FISH AND AMPHIBIAN TRACKING SYSTEM (FATS) DATABASE.

**Ecological:**  
HIGH ELEVATION LAKE, MAX DEPTH IS 2.3 M. LITTORAL SUBSTRATE IS SILT & BOULDER & SHORELINE SUBSTRATE IS GRASS/SEDGE/FORB, BOULDER & WOODY DEBRIS.

**Threats:**

**General:**  
3 ADULT AND 6 LARVAE HAND COLLECTED IN A 64 MINUTE SURVEY. 3 ADULT & 20 TREEFROG LARVAE & 1 GARTER SNAKE ALSO OBS. 15 BROOK TROUT CAUGHT IN OVERNIGHT NET SET. MTN YELLOW-LEGGED FROGS ALSO FOUND HERE.

<b>PLSS:</b> T08N, R18E, Sec. 27, NE (M)	<b>Accuracy:</b> non-specific area	<b>Area (acres):</b> 28
<b>UTM:</b> Zone-11 N4267445 E240160	<b>Latitude/Longitude:</b> 38.51749 / -119.98030	<b>Elevation (feet):</b> 7,880

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine	Pacific Valley (3811958)

**Sources:**

DFG01F0031 CALIFORNIA DEPARTMENT OF FISH & GAME - FIELD SURVEY REPORT FOR SITE ID 15145 FROM "FATS" DATABASE FOR 2001 HIGH ELEVATION FISH AND FROG SURVEY 2001-08-03

DFG01U0001 MILLIRON, C. ET AL. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FISH AND AMPHIBIAN TRACKING SYSTEM (FATS) ACCESS DATABASE, RESULTS OF 2001 HIGH ELEVATION LAKE SURVEYS 2001-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 75195	<b>EO Index:</b> 76198
<b>Key Quad:</b> Pacific Valley (3811958)	<b>Element Code:</b> AAABB01040
<b>Occurrence Number:</b> 130	<b>Occurrence Last Updated:</b> 2010-05-28

<b>Scientific Name:</b> <i>Anaxyrus canorus</i>	<b>Common Name:</b> Yosemite toad
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Threatened	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDDB Element Ranks:</b>	IUCN_EN-Endangered
<b>Global:</b> G2G3	USFS_S-Sensitive
<b>State:</b> S2S3	

<b>General Habitat:</b> VICINITY OF WET MEADOWS IN CENTRAL HIGH SIERRA, 6,400 TO 11,300 FEET IN ELEVATION.	<b>Micro Habitat:</b> PRIMARILY MONTANE WET MEADOWS; ALSO IN SEASONAL PONDS ASSOCIATED WITH LODGEPOLE PINE AND SUBALPINE CONIFER FOREST.
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<b>Last Date Observed:</b> 2009-07-14	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2009-07-14	<b>Occurrence Rank:</b> Good
<b>Owner/Manager:</b> PVT-PGE	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
WEST & NORTH SHORES OF TWIN LAKE, & SMALL POND JUST NE OF TWIN LAKE.

**Detailed Location:**  
2001: OBS IN SEEP POOL (NORTH END OF LAKE) AND ALONG NW/S MARGIN (SW FEATURE); MAP WITH LOCATIONS PROVIDED. 2009: OBSERVED ALONG BOUNDARY OF LAKE. ADULTS NEAR DAMS ASSOCIATED WITH SMALL MAMMAL BURROWS. PG&E LAND WITHIN ELDORADO NF.

**Ecological:**  
SEEP POOL NEAR DAM 7 M X 9 M; GRASS COVERS ENTIRE MARGIN & IS PRESENT AS EMERGENT VEGETATION. SHORELINE OF LAKE HAS A SANDY SUBSTRATE & SHALLOW WATER. EPHEMERAL POOL W/ GRASS, SILT/MUD, BOULDERS. SURR LAND: RECREATION (FISHING, CAMPING).

**Threats:**  
TROUT IN LAKE, DISTURBANCE FROM RECREATIONAL USERS, RESERVOIR OPERATIONS.

**General:**  
15 JUV, 50-100 LARV IN SEEP POOL 26 JUN '01. 4 JUV & 1000S OF LARV ALONG LAKE SHORE 24 JUL '01. SEVERAL JUV ALONG MOIST EDGES OF OVERFLOW CREEK FROM POND 7 JUN '01. 2 ADULTS, 100S JUV, 10,000+ TAD, JUL '09. ANAXYRUS CANORUS/BOREAS HYBRIDS.

<b>PLSS:</b> T09N, R18E, Sec. 25 (M)	<b>Accuracy:</b> non-specific area	<b>Area (acres):</b> 99
<b>UTM:</b> Zone-11 N4277035 E243814	<b>Latitude/Longitude:</b> 38.60486 / -119.94196	<b>Elevation (feet):</b> 8,130

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Pacific Valley (3811958)
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**Sources:**

MYE01F0004	MYERS, S.A. & J.L. ALVAREZ (JONES AND STOKES ASSOCIATES) - FIELD SURVEY FORM FOR ANAXYRUS CANORUS 2001-06-07
MYE01F0005	MYERS, S.A. & J.L. ALVAREZ (JONES AND STOKES ASSOCIATES) - FIELD SURVEY FORM FOR ANAXYRUS CANORUS 2001-07-24
POO09F0009	POOL, A. (ECORP CONSULTING, INC.) - FIELD SURVEY FORM FOR ANAXYRUS CANORUS 2009-07-01



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 75199	<b>EO Index:</b> 76201
<b>Key Quad:</b> Pacific Valley (3811958)	<b>Element Code:</b> AAABB01040
<b>Occurrence Number:</b> 132	<b>Occurrence Last Updated:</b> 2009-06-29

<b>Scientific Name:</b> <i>Anaxyrus canorus</i>	<b>Common Name:</b> Yosemite toad
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Threatened	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDDB Element Ranks:</b>	IUCN_EN-Endangered
<b>Global:</b> G2G3	USFS_S-Sensitive
<b>State:</b> S2S3	

<b>General Habitat:</b> VICINITY OF WET MEADOWS IN CENTRAL HIGH SIERRA, 6,400 TO 11,300 FEET IN ELEVATION.	<b>Micro Habitat:</b> PRIMARILY MONTANE WET MEADOWS; ALSO IN SEASONAL PONDS ASSOCIATED WITH LODGEPOLE PINE AND SUBALPINE CONIFER FOREST.
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<b>Last Date Observed:</b> 2001-07-02	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2001-07-02	<b>Occurrence Rank:</b> Good
<b>Owner/Manager:</b> USFS-ELDORADO NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
ADJACENT TO BLUE CREEK, ABOUT 0.5 MI SOUTH OF LOWER BLUE LAKE, ELDORADO NATIONAL FOREST.

**Detailed Location:**  
SMALL POOLS ON THE UPPER TERRACE ADJACENT TO BLUE CREEK. MAP WITH LOCATIONS PROVIDED.

**Ecological:**  
THE SUBSTRATE OF THE POOLS CONSISTS OF BEDROCK & SILT/MUD. GRASSES & WILLOWS ARE PRESENT ON 20% OF THE MARGIN OF THE LARGEST POOL. PACIFIC TREE-FROG LARVAE ALSO OBSERVED AT THIS SITE.

**Threats:**  
RECREATION - ORV USE & FISHING. 2 DEAD TOADS ON 2 JUL 2001 PRESUMED RUN OVER BY MOTORCYCLES.

**General:**  
NUMEROUS JUVENILE ANAXYRUS CANORUS/BOREAS HYBRIDS OBS ALONG THE DIRT ROAD ON 7 JUN 2001. 2 DEAD JUVENILES & UNKNOWN NUMBER OF LIVE JUVENILE ANAXYRUS CANORUS/BOREAS HYBRIDS OBS ON DIRT ROAD ADJACENT TO POOLS ON 2 JUL 2001.

<b>PLSS:</b> T09N, R19E, Sec. 30, SE (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 19
<b>UTM:</b> Zone-11 N4276688 E245392	<b>Latitude/Longitude:</b> 38.60219 / -119.92372	<b>Elevation (feet):</b> 7,920

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Pacific Valley (3811958)
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**Sources:**  
MYE01F0003 MYERS, S.A. & J.L. ALVAREZ (JONES AND STOKES ASSOCIATES) - FIELD SURVEY FORM FOR ANAXYRUS CANORUS 2001-06-07



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 30420	<b>EO Index:</b> 4269
<b>Key Quad:</b> Carson Pass (3811968)	<b>Element Code:</b> AAABH01340
<b>Occurrence Number:</b> 6	<b>Occurrence Last Updated:</b> 2014-09-05

<b>Scientific Name:</b> <i>Rana sierrae</i>	<b>Common Name:</b> Sierra Nevada yellow-legged frog
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Endangered	
<b>State:</b> Threatened	<b>Other Lists:</b> CDFW_WL-Watch List
<b>CNDDDB Element Ranks:</b>	IUCN_EN-Endangered
<b>Global:</b> G1	USFS_S-Sensitive
<b>State:</b> S1	

<b>General Habitat:</b> ALWAYS ENCOUNTERED WITHIN A FEW FEET OF WATER. TADPOLES MAY REQUIRE 2 - 4 YRS TO COMPLETE THEIR AQUATIC DEVELOPMENT.	<b>Micro Habitat:</b> <input type="checkbox"/>
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<b>Last Date Observed:</b> 1974-09-04	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2001-06-26	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
FROG LAKE, 0.4 MILE SOUTH OF HIGHWAY 88 AT CARSON PASS, 1.2 MILES NORTH OF WINNEMUCCA LAKE.

**Detailed Location:**  
MAPPED BY CNDDDB AT FROG LAKE BASED ON 3 COLLECTION LOCALITIES: "LITTLE FROG LAKE, NO. 1," "LITTLE FROG LAKE, NO. 2," AND "UPPER LAKE, 1 MI FROM HWY. 88 ON TRAIL TO LAKE WINNEMUCCA."

**Ecological:**

**Threats:**

**General:**

OCCURRENCE KNOWN FROM THREE COLLECTIONS FROM 1974. NO HERPS WERE FOUND DURING A SURVEY ON 26 JUN 2001. MORE RESEARCH NEEDED TO DETERMINE PRESENCE/ABSENCE OF THE SPECIES IN THE AREA.

<b>PLSS:</b> T10N, R18E, Sec. 27, NE (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 6
<b>UTM:</b> Zone-11 N4286369 E240284	<b>Latitude/Longitude:</b> 38.68784 / -119.98593	<b>Elevation (feet):</b> 7,900

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Carson Pass (3811968)
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**Sources:**

CAS74S0048	CASE, S. - CASE #534 MVZ #136220 1974-09-04
DFW14D0001	CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2013 FIELDWORK 2014-03-26
WIL74S0001	WILSON, R. & S. CASE - WILSON #532 MVZ #136218 1974-08-29
WIL74S0002	WILSON, R. & S. CASE - WILSON #533 MVZ #136219 1974-08-30



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	22204	<b>EO Index:</b>	7850
<b>Key Quad:</b>	Pacific Valley (3811958)	<b>Element Code:</b>	AAABH01340
<b>Occurrence Number:</b>	35	<b>Occurrence Last Updated:</b>	2014-09-18

<b>Scientific Name:</b>	<i>Rana sierrae</i>	<b>Common Name:</b>	Sierra Nevada yellow-legged frog
<b>Listing Status:</b>	<b>Federal:</b> Endangered <b>State:</b> Threatened	<b>Rare Plant Rank:</b>	
<b>CNDDB Element Ranks:</b>	<b>Global:</b> G1 <b>State:</b> S1	<b>Other Lists:</b>	CDFW_WL-Watch List IUCN_EN-Endangered USFS_S-Sensitive

<b>General Habitat:</b>	<b>Micro Habitat:</b>
ALWAYS ENCOUNTERED WITHIN A FEW FEET OF WATER. TADPOLES MAY REQUIRE 2 - 4 YRS TO COMPLETE THEIR AQUATIC DEVELOPMENT.	<input type="checkbox"/>

<b>Last Date Observed:</b>	1994-07-29	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	1994-07-29	<b>Occurrence Rank:</b>	Fair
<b>Owner/Manager:</b>	USFS-ELDORADO NF	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**  
 1.7 MILES SSW OF WET MEADOWS RESERVOIR, ALONG TRIBUTARY TO DEER CREEK, SE OF LITTLE INDIAN VALLEY, MOKELUMNE WILDERNESS.

**Detailed Location:**

**Ecological:**  
 SMALL ALPINE MEADOW STREAM.

**Threats:**

**General:**

1 ADULT & 12 TADPOLES OBSERVED ON 30 MAY 1992. 1 OBSERVED ON 28 JUL 1993. OVER 20 TADPOLES OBSERVED ON 17 JUN 1994. ON 29 JUL 1994 2 ADULTS, 4 METAMORPHS, AND 16 TADPOLES WERE OBSERVED WHICH WERE DEVELOPING LEGS.

<b>PLSS:</b> T08N, R19E, Sec. 03, NW (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 24
<b>UTM:</b> Zone-11 N4274259 E249433	<b>Latitude/Longitude:</b> 38.58148 / -119.87651	<b>Elevation (feet):</b> 7,950

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine	Ebbetts Pass (3811957), Pacific Valley (3811958)

**Sources:**

ELL92F0001	ELLIOTT, G. - FIELD SURVEY FORM FOR RANA MUSCOSA 1992-05-30
ELL94F0004	ELLIOTT, G. - FIELD SURVEY FORM FOR RANA MUSCOSA 1994-07-29
ELL94F0005	ELLIOTT, G. - FIELD SURVEY FORM FOR RANA MUSCOSA 1994-06-17
USFNDD0002	U.S. FOREST SERVICE-REGION 5 - NATURAL RESOURCE INFORMATION SYSTEM (NRIS) ANIMAL RECORDS FROM CALIFORNIA NATIONAL FORESTS XXXX-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 30407	<b>EO Index:</b> 22280	
<b>Key Quad:</b> Pacific Valley (3811958)	<b>Element Code:</b> AAABH01340	
<b>Occurrence Number:</b> 42	<b>Occurrence Last Updated:</b> 2014-09-05	

<b>Scientific Name:</b> <i>Rana sierrae</i>	<b>Common Name:</b> Sierra Nevada yellow-legged frog
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Endangered	
<b>State:</b> Threatened	<b>Other Lists:</b> CDFW_WL-Watch List
<b>CNDDB Element Ranks:</b>	IUCN_EN-Endangered
<b>Global:</b> G1	USFS_S-Sensitive
<b>State:</b> S1	

<b>General Habitat:</b> ALWAYS ENCOUNTERED WITHIN A FEW FEET OF WATER. TADPOLES MAY REQUIRE 2 - 4 YRS TO COMPLETE THEIR AQUATIC DEVELOPMENT.	<b>Micro Habitat:</b> <input type="checkbox"/>
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<b>Last Date Observed:</b> 1993-07-08	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2010-07-22	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-STANISLAUS NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
UPPER MOSQUITO AND LOWER MOSQUITO LAKES AND NORTH FORK STANISLAUS RIVER DOWNSTREAM OF LOWER LAKE, JUST SOUTH OF HWY 4.

**Detailed Location:**  
LAKES WERE SURVEYED FOR 15 MIN ON 2 AUG 2001, AND 1 HOUR ON 22 JUL 2010.

**Ecological:**

**Threats:**  
TROUT PRESENT.

**General:**  
MANY HISTORICAL COLLECTIONS FROM THESE LAKES. 1992: 579 M OF STREAM AND MEADOW BELOW LOWER LAKE SURVEYED, 201 LARVAE, 3 ADULTS OBS. 1993: 1 OBS AT TRAIL CROSSING AT EAST END OF LOWER LAKE. NO HERPS WERE FOUND DURING SURVEYS IN 2001 & 2010.

<b>PLSS:</b> T08N, R19E, Sec. 29 (M)	<b>Accuracy:</b> non-specific area	<b>Area (acres):</b> 48
<b>UTM:</b> Zone-11 N4267130 E246410	<b>Latitude/Longitude:</b> 38.51646 / -119.90858	<b>Elevation (feet):</b> 8,000

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Pacific Valley (3811958)
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**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



**Sources:**

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AND58S0001	ANDERSON, J. - ANDERSON #1958 MVZ #67494 1958-07-03
AND58S0002	ANDERSON, J. - ANDERSON #1959 MVZ #67495 1958-07-03
ANO74S0003	ANONYMOUS - ANONYMOUS SN MVZ #136399 1974-07-24
BAN58S0001	BANKS, R. - BANKS #349 MVZ #70383 1958-08-06
CAN92U0001	CANORUS LIMITED - RESULTS OF 1992 HERPETOLOGICAL SURVEYS IN ELDORADO, STANISLAUS, SIERRA, AND SEQUOIA NATIONAL FORESTS 1992-06-17
CAN94U0001	CANORUS LIMITED - 1993 ANURAN SURVEY WITH INFORMATION ON RED-LEGGED, MOUNTAIN YELLOW-LEGGED, FOOTHILL YELLOW-LEGGED, PACIFIC CHORUS FROGS & WESTERN & YOSEMITE TOADS 1994-04-26
CAS74S0004	CASE, S. - CASE #432 MVZ #136171 1974-07-24
CAS74S0005	CASE, S. - CASE #433 MVZ #136172 1974-07-24
CAS74S0006	CASE, S. - CASE #434 MVZ #136173 1974-07-24
CAS74S0007	CASE, S. - CASE #435 MVZ #136174 1974-07-24
CAS74S0008	CASE, S. - CASE #436 MVZ #136175 1974-07-24
CAS74S0009	CASE, S. - CASE #437 MVZ #136176 1974-07-24
CAS74S0010	CASE, S. - CASE #438 MVZ #136177 1974-07-24
CAS74S0011	CASE, S. - CASE #439 MVZ #136178 1974-07-24
CAS74S0012	CASE, S. - CASE #440 MVZ #136179 1974-07-24
CAS74S0013	CASE, S. - CASE #441 MVZ #136180 1974-07-24
CAS74S0014	CASE, S. - CASE #444 MVZ #136181 1974-07-24
CAS74S0015	CASE, S. - CASE #445 MVZ #136182 1974-07-24
CAS74S0016	CASE, S. - CASE #446 MVZ #136183 1974-07-24
CAS74S0017	CASE, S. - CASE #447 MVZ #136184 1974-07-24
CAS74S0018	CASE, S. - CASE #448 MVZ #136185 1974-07-24
CAS74S0019	CASE, S. - CASE #449 MVZ #136186 1974-07-24
CAS74S0020	CASE, S. - CASE #450 MVZ #136187 1974-07-24
CAS74S0021	CASE, S. - CASE #451 MVZ #136188 1974-07-24
CAS74S0022	CASE, S. - CASE #452 MVZ #136189 1974-07-24
CAS74S0023	CASE, S. - CASE #453 MVZ #136190 1974-07-24
CAS78A0001	CASE, S. - ELECTROPHORETIC VARIATION IN TWO SUBSPECIES OF RANID FROGS, RANA BOYLEI AND R. MUSCOSA. COPEIA 1978(2): 311-320. 1978-XX-XX
DFW14D0001	CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2013 FIELDWORK 2014-03-26
GRE82S0006	GREEN, D. - GREEN #1181 MVZ #178550 1982-07-11
HUE66S0001	HUEY, R. - HUEY #46 MVZ #80830 1966-07-22
HUE66S0002	HUEY, R. - HUEY #47 MVZ #80831 1966-07-22
HUE66S0003	HUEY, R. - HUEY #48 MVZ #80832 1966-07-22
HUE66S0004	HUEY, R. - HUEY #49 MVZ #80833 1966-07-22
JOH68S0002	JOHNSON, A. - JOHNSON #361 MVZ #84982 1968-08-15
KES60S0002	KESSEL, E. - KESSEL SN CAS #87814-87815 1960-10-01



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 93698	<b>EO Index:</b> 43029
<b>Key Quad:</b> Pacific Valley (3811958)	<b>Element Code:</b> AAABH01340
<b>Occurrence Number:</b> 56	<b>Occurrence Last Updated:</b> 2014-09-19

<b>Scientific Name:</b> <i>Rana sierrae</i>	<b>Common Name:</b> Sierra Nevada yellow-legged frog
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Endangered	
<b>State:</b> Threatened	<b>Other Lists:</b> CDFW_WL-Watch List
<b>CNDDDB Element Ranks:</b>	IUCN_EN-Endangered
<b>Global:</b> G1	USFS_S-Sensitive
<b>State:</b> S1	

<b>General Habitat:</b> ALWAYS ENCOUNTERED WITHIN A FEW FEET OF WATER. TADPOLES MAY REQUIRE 2 - 4 YRS TO COMPLETE THEIR AQUATIC DEVELOPMENT.	<b>Micro Habitat:</b> <input type="checkbox"/>
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<b>Last Date Observed:</b> 2013-07-09	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2013-07-09	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-STANISLAUS NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
VICINITY OF WHEELER LAKE, MOKELUMNE WILDERNESS, NORTH OF LAKE ALPINE.

**Detailed Location:**  
1993 DETECTION FROM T8N, R18E, SEC 27, WHEELER LAKE TRIBUTARY, WHEELER LAKE TRAIL, SURVEY DIRECTION UP, ATTRIBUTED HERE. MAPPED BY CNDDDB AT WHEELER LAKE AND DOWNSTREAM TO FIRST MEADOW BASED ON SURVEY POINTS AT WHEELER LAKE AND FIRST MEADOW.

**Ecological:**

**Threats:**  
TROUT PRESENT IN 1993. NO BD COULD BE DETECTED IN 2010.

**General:**  
1 ADULT DETECTED IN 1993. 3 ADULTS IN 2001. PRESENT 2003. 3 ADULTS IN 2005. PRESENT 2007. 7 METAMORPHS AND 19 LARVAE IN 2008. 2 ADULTS, 2 METAMORPHS, AND 45 LARVAE IN 2010. 4 ADULTS AND 47 LARVAE IN 2012. 13 ADULTS AND 12 SUBADULTS IN 2013.

<b>PLSS:</b> T08N, R18E, Sec. 27, NE (M)	<b>Accuracy:</b> non-specific area	<b>Area (acres):</b> 65
<b>UTM:</b> Zone-11 N4267764 E240322	<b>Latitude/Longitude:</b> 38.52041 / -119.97856	<b>Elevation (feet):</b> 7,900

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Pacific Valley (3811958)
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- Sources:**
- CAN94U0001 CANORUS LIMITED - 1993 ANURAN SURVEY WITH INFORMATION ON RED-LEGGED, MOUNTAIN YELLOW-LEGGED, FOOTHILL YELLOW-LEGGED, PACIFIC CHORUS FROGS & WESTERN & YOSEMITE TOADS 1994-04-26
  - DFG01F0031 CALIFORNIA DEPARTMENT OF FISH & GAME - FIELD SURVEY REPORT FOR SITE ID 15145 FROM "FATS" DATABASE FOR 2001 HIGH ELEVATION FISH AND FROG SURVEY 2001-08-03
  - DFG01U0001 MILLIRON, C. ET AL. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FISH AND AMPHIBIAN TRACKING SYSTEM (FATS) ACCESS DATABASE, RESULTS OF 2001 HIGH ELEVATION LAKE SURVEYS 2001-XX-XX
  - DFW14D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2013 FIELDWORK 2014-03-26
  - USFNDD0002 U.S. FOREST SERVICE-REGION 5 - NATURAL RESOURCE INFORMATION SYSTEM (NRIS) ANIMAL RECORDS FROM CALIFORNIA NATIONAL FORESTS XXXX-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 44736	<b>EO Index:</b> 44736
<b>Key Quad:</b> Carson Pass (3811968)	<b>Element Code:</b> AAABH01340
<b>Occurrence Number:</b> 74	<b>Occurrence Last Updated:</b> 2014-09-09

<b>Scientific Name:</b> <i>Rana sierrae</i>	<b>Common Name:</b> Sierra Nevada yellow-legged frog
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Endangered	
<b>State:</b> Threatened	<b>Other Lists:</b> CDFW_WL-Watch List
<b>CNDDDB Element Ranks:</b>	IUCN_EN-Endangered
<b>Global:</b> G1	USFS_S-Sensitive
<b>State:</b> S1	

<b>General Habitat:</b> ALWAYS ENCOUNTERED WITHIN A FEW FEET OF WATER. TADPOLES MAY REQUIRE 2 - 4 YRS TO COMPLETE THEIR AQUATIC DEVELOPMENT.	<b>Micro Habitat:</b> <input type="checkbox"/>
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<b>Last Date Observed:</b> 1958-07-24	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2001-06-28	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> DFG-RED LAKE WA	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
RED LAKE, EAST OF CARSON PASS AND SOUTH OF HIGHWAY 88.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

ONE ADULT COLLECTED 24 JUL 1958 BY MCINTYRE. NONE WERE FOUND HERE DURING A HIGH MOUNTAIN LAKE BASELINE SURVEY ON 28 JUN 2001.

<b>PLSS:</b> T10N, R18E, Sec. 23 (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 76
<b>UTM:</b> Zone-11 N4287573 E241309	<b>Latitude/Longitude:</b> 38.69898 / -119.97462	<b>Elevation (feet):</b> 8,000

**County Summary:**

Alpine

**Quad Summary:**

Carson Pass (3811968)

**Sources:**

- DFW14D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2013 FIELDWORK 2014-03-26
- MCI58S0001 MCINTYRE, T. - MCINTYRE #3 MVZ #67330 1958-07-24



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 44742	<b>EO Index:</b> 44742
<b>Key Quad:</b> Carson Pass (3811968)	<b>Element Code:</b> AAABH01340
<b>Occurrence Number:</b> 77	<b>Occurrence Last Updated:</b> 2014-09-09

<b>Scientific Name:</b> <i>Rana sierrae</i>	<b>Common Name:</b> Sierra Nevada yellow-legged frog
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Endangered	
<b>State:</b> Threatened	<b>Other Lists:</b> CDFW_WL-Watch List
<b>CNDDDB Element Ranks:</b>	IUCN_EN-Endangered
<b>Global:</b> G1	USFS_S-Sensitive
<b>State:</b> S1	

<b>General Habitat:</b> ALWAYS ENCOUNTERED WITHIN A FEW FEET OF WATER. TADPOLES MAY REQUIRE 2 - 4 YRS TO COMPLETE THEIR AQUATIC DEVELOPMENT.	<b>Micro Habitat:</b> <input type="checkbox"/>
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<b>Last Date Observed:</b> 1956-06-30	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1956-06-30	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
FAITH VALLEY, ABOUT 2 MILES SOUTHEAST OF HIGHWAY 88, 3 AIR MILES ESE OF CARSON PASS.

**Detailed Location:**  
COLLECTION LOCALITIES DESCRIBED ONLY AS "FAITH VALLEY."

**Ecological:**  
**Threats:**

**General:**  
COLLECTED HERE BY SMITH ON 26 JUL 1939, AND BY KARLSTROM ON 30 JUN 1956.

<b>PLSS:</b> T10N, R19E, Sec. 30 (M)	<b>Accuracy:</b> non-specific area	<b>Area (acres):</b> 138
<b>UTM:</b> Zone-11 N4285673 E245116	<b>Latitude/Longitude:</b> 38.68298 / -119.93019	<b>Elevation (feet):</b> 7,500

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Carson Pass (3811968)
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**Sources:**

KAR56S0002	KARLSTROM, E. - KARLSTROM #980 MVZ #68056 1956-06-30
KAR56S0003	KARLSTROM, E. - KARLSTROM #981 MVZ #68057 1956-06-30
SMI39S0007	SMITH, R. - SMITH SN MVZ #32614-32617 1939-07-26



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 93928	<b>EO Index:</b> 44762
<b>Key Quad:</b> Pacific Valley (3811958)	<b>Element Code:</b> AAABH01340
<b>Occurrence Number:</b> 82	<b>Occurrence Last Updated:</b> 2014-09-23

<b>Scientific Name:</b> <i>Rana sierrae</i>	<b>Common Name:</b> Sierra Nevada yellow-legged frog
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Endangered	
<b>State:</b> Threatened	<b>Other Lists:</b> CDFW_WL-Watch List IUCN_EN-Endangered USFS_S-Sensitive
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G1	
<b>State:</b> S1	

<b>General Habitat:</b> ALWAYS ENCOUNTERED WITHIN A FEW FEET OF WATER. TADPOLES MAY REQUIRE 2 - 4 YRS TO COMPLETE THEIR AQUATIC DEVELOPMENT.	<b>Micro Habitat:</b> <input type="checkbox"/>
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<b>Last Date Observed:</b> 2013-08-25	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2013-08-25	<b>Occurrence Rank:</b> Fair
<b>Owner/Manager:</b> USFS-STANISLAUS NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
STANISLAUS MEADOW, SOUTH OF HIGHWAY 4, SW OF PACIFIC GRADE SUMMIT, STANISLAUS NATIONAL FOREST.

**Detailed Location:**  
MAPPED BY CNDDDB ACCORDING TO GIS POINTS FROM THE CDFW HIGH MOUNTAIN LAKES DATABASE. SEVERAL COLLECTIONS BY MILLER FROM "4 MI W LOOKOUT PEAK" FROM 13 SEP 1943 ARE ATTRIBUTED HERE.

**Ecological:**

**Threats:**  
BD WAS DETECTED HERE IN 2008 AND 2010.

**General:**  
DETECTED IN 1943, 2005, 2008, 2009, 2010, 2012, AND 2013. POPULATIONS AS HIGH AS 35 ADULTS, 250 SUBADULTS, 15 METAMORPHS, AND 737 LARVAE WERE OBSERVED DURING VARIOUS YEARS.

<b>PLSS:</b> T08N, R19E, Sec. 31, W (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 15
<b>UTM:</b> Zone-11 N4265446 E243968	<b>Latitude/Longitude:</b> 38.50060 / -119.93594	<b>Elevation (feet):</b> 7,700

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Spicer Meadows Res. (3811948), Pacific Valley (3811958)
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**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



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**Sources:**

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DFW14D0001	CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2013 FIELDWORK 2014-03-26
MIL43S0001	MILLER, A. - MILLER #4633 MVZ #39429 1943-09-13
MIL43S0002	MILLER, A. - MILLER #4634 MVZ #39430 1943-09-13
MIL43S0003	MILLER, A. - MILLER #4635 MVZ #39431 1943-09-13
MIL43S0004	MILLER, A. - MILLER #4637 MVZ #39432 1943-09-13
MIL43S0005	MILLER, A. - MILLER #4638 MVZ #39433 1943-09-13
MIL43S0006	MILLER, A. - MILLER #4639 MVZ #39434 1943-09-13
MIL43S0007	MILLER, A. - MILLER #4640 MVZ #39435 COLLECTED 4 MI W LOOKOUT PEAK 1943-09-13
MIL43S0008	MILLER, A. - MILLER #4641 MVZ #39436 1943-09-13
MIL43S0009	MILLER, A. - MILLER #4642 MVZ #39437 1943-09-13
MIL43S0010	MILLER, A. - MILLER #4643 MVZ #39438 1943-09-13
MIL43S0011	MILLER, A. - MILLER #4644 MVZ #39439 COLLECTED 4 MI W LOOKOUT PEAK 1943-09-13
MIL43S0012	MILLER, A. - MILLER #4645 MVZ #39440 1943-09-13
MIL43S0013	MILLER, A. - MILLER #4646 MVZ #39441 1943-09-13
MIL43S0014	MILLER, A. - MILLER #4636 MVZ #39442 1943-09-13



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 44860	<b>EO Index:</b> 44860
<b>Key Quad:</b> Ebbetts Pass (3811957)	<b>Element Code:</b> AAABH01340
<b>Occurrence Number:</b> 100	<b>Occurrence Last Updated:</b> 2014-09-23

<b>Scientific Name:</b> <i>Rana sierrae</i>	<b>Common Name:</b> Sierra Nevada yellow-legged frog
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Endangered	
<b>State:</b> Threatened	<b>Other Lists:</b> CDFW_WL-Watch List
<b>CNDDDB Element Ranks:</b>	IUCN_EN-Endangered
<b>Global:</b> G1	USFS_S-Sensitive
<b>State:</b> S1	

<b>General Habitat:</b> ALWAYS ENCOUNTERED WITHIN A FEW FEET OF WATER. TADPOLES MAY REQUIRE 2 - 4 YRS TO COMPLETE THEIR AQUATIC DEVELOPMENT.	<b>Micro Habitat:</b> <input type="checkbox"/>
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<b>Last Date Observed:</b> 1981-08-01	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2013-08-11	<b>Occurrence Rank:</b> None
<b>Owner/Manager:</b> USFS-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Possibly Extirpated	

**Location:**  
NOBLE LAKE, 0.7 MILE NE OF TRYON PEAK, 2.2 MILES SE OF EBBETTS PASS, TOIYABE NATIONAL FOREST.

**Detailed Location:**  
COLLECTION LOCALITY GIVEN AS "NOBEL LAKE, 2.4 MI SE EBBETTS PASS."

**Ecological:**  
**Threats:**

**General:**  
COLLECTED HERE BY SAGE ON 1 AUG 1981; TAXONOMY CONFIRMED IN (VRENDENBURG, 2007). NONE WERE FOUND DURING SURVEYS AT NOBLE LAKE AND ADJACENT PONDS ON 29 JUL 2004, 25 JUN 2012, AND 11 AUG 2013.

<b>PLSS:</b> T08N, R20E, Sec. 21, SE (M)	<b>Accuracy:</b> non-specific area	<b>Area (acres):</b> 4
<b>UTM:</b> Zone-11 N4268051 E257903	<b>Latitude/Longitude:</b> 38.52795 / -119.77724	<b>Elevation (feet):</b> 8,880

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Ebbetts Pass (3811957)
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**Sources:**

DFW14D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2013 FIELDWORK 2014-03-26

SAG81S0001 SAGE, R. - SAGE #10346 MVZ #180142 1981-08-01

SAG81S0002 SAGE, R. - SAGE #10347 MVZ #180143 1981-08-01

SAG81S0003 SAGE, R. - SAGE #10393 MVZ #180160 1981-08-01

SAG81S0004 SAGE, R. - SAGE #10348 MVZ #180161 1981-08-01

SAG81S0005 SAGE, R. - SAGE #10349 MVZ #180162 1981-08-01

SAG81S0006 SAGE, R. - MVZ #180163 COLLECTED FROM NOBEL LAKE, 2.4 MI SE EBBETTS PASS 1981-08-01

VRE07A0001 VRENDENBURG, V. ET AL. - CONCORDANT MOLECULAR AND PHENOTYPIC DATA DELINEATE NEW TAXONOMY AND CONSERVATION PRIORITIES FOR THE ENDANGERED MOUNTAIN YELLOW-LEGGED FROG. JOURNAL OF ZOOLOGY 271 (2007):361-374. 2007-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 44935	<b>EO Index:</b> 44935
<b>Key Quad:</b> Ebbetts Pass (3811957)	<b>Element Code:</b> AAABH01340
<b>Occurrence Number:</b> 114	<b>Occurrence Last Updated:</b> 2014-09-10

<b>Scientific Name:</b> <i>Rana sierrae</i>	<b>Common Name:</b> Sierra Nevada yellow-legged frog
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Endangered	
<b>State:</b> Threatened	<b>Other Lists:</b> CDFW_WL-Watch List
<b>CNDDDB Element Ranks:</b>	IUCN_EN-Endangered
<b>Global:</b> G1	USFS_S-Sensitive
<b>State:</b> S1	

<b>General Habitat:</b> ALWAYS ENCOUNTERED WITHIN A FEW FEET OF WATER. TADPOLES MAY REQUIRE 2 - 4 YRS TO COMPLETE THEIR AQUATIC DEVELOPMENT.	<b>Micro Habitat:</b> <input type="checkbox"/>
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<b>Last Date Observed:</b> 2007-08-21	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2007-08-21	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-ELDORADO NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
ALONG CREEK IN SOUTHERN PORTION OF INDIAN VALLEY, JUST NORTH OF MOKELUMNE WILDERNESS, ELDORADO NATIONAL FOREST.

**Detailed Location:**

**Ecological:**

**Threats:**  
THREATENED BY PRESENCE OF RAINBOW TROUT IN STREAM.

**General:**  
2 ADULTS OBSERVED ON 29 JUL 1994. 4 OBSERVED IN JUL 2003. 1 OBSERVED ON 28 JUN 2007. 1 ADULT OBSERVED 21 AUG 2007.

<b>PLSS:</b> T09N, R19E, Sec. 34, S (M)	<b>Accuracy:</b> non-specific area	<b>Area (acres):</b> 53
<b>UTM:</b> Zone-11 N4274809 E249831	<b>Latitude/Longitude:</b> 38.58654 / -119.87214	<b>Elevation (feet):</b> 7,950

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Ebbetts Pass (3811957)
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**Sources:**

ELL94F0008	ELLIOTT, G. - FIELD SURVEY FORM FOR RANA MUSCOSA 1994-07-29
ELL94F0009	ELLIOTT, G. - FIELD SURVEY FORM FOR RANA MUSCOSA 1994-07-29
USFNDD0002	U.S. FOREST SERVICE-REGION 5 - NATURAL RESOURCE INFORMATION SYSTEM (NRIS) ANIMAL RECORDS FROM CALIFORNIA NATIONAL FORESTS XXXX-XX-XX





# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 44936	<b>EO Index:</b> 44936
<b>Key Quad:</b> Pacific Valley (3811958)	<b>Element Code:</b> AAABH01340
<b>Occurrence Number:</b> 115	<b>Occurrence Last Updated:</b> 2014-09-11

<b>Scientific Name:</b> <i>Rana sierrae</i>	<b>Common Name:</b> Sierra Nevada yellow-legged frog
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Endangered	
<b>State:</b> Threatened	<b>Other Lists:</b> CDFW_WL-Watch List
<b>CNDDB Element Ranks:</b>	IUCN_EN-Endangered
<b>Global:</b> G1	USFS_S-Sensitive
<b>State:</b> S1	

<b>General Habitat:</b> ALWAYS ENCOUNTERED WITHIN A FEW FEET OF WATER. TADPOLES MAY REQUIRE 2 - 4 YRS TO COMPLETE THEIR AQUATIC DEVELOPMENT.	<b>Micro Habitat:</b> <input type="checkbox"/>
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<b>Last Date Observed:</b> 2008-08-13	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2008-08-13	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-ELDORADO NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
DEADWOOD LAKE, ABOUT A MILE WEST OF MEADOW LAKE, MOKELUMNE WILDERNESS.

**Detailed Location:**

**Ecological:**

**Threats:**  
BD WAS DETECTED HERE IN 2008.

**General:**  
2 ADULTS AND 5 TADPOLES DETECTED ON 3 SEP 1995. 18 DETECTED 15 AUG 2001, BUT NO AGE CLASS INFORMATION WAS PROVIDED. 12 SUBADULTS DETECTED 14 AUG 2002. 1 ADULT AND 3 SUBADULTS DETECTED 13 AUG 2008.

<b>PLSS:</b> T09N, R18E, Sec. 27, SW (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 2
<b>UTM:</b> Zone-11 N4276773 E239539	<b>Latitude/Longitude:</b> 38.60126 / -119.99089	<b>Elevation (feet):</b> 8,550

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Pacific Valley (3811958)
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**Sources:**

DFW14D0001	CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2013 FIELDWORK 2014-03-26
ELL95F0011	ELLIOTT, G. - FIELD SURVEY FORM FOR RANA MUSCOSA 1995-09-03
USFNDD0002	U.S. FOREST SERVICE-REGION 5 - NATURAL RESOURCE INFORMATION SYSTEM (NRIS) ANIMAL RECORDS FROM CALIFORNIA NATIONAL FORESTS XXXX-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 44937	<b>EO Index:</b> 44937	
<b>Key Quad:</b> Pacific Valley (3811958)	<b>Element Code:</b> AAABH01340	
<b>Occurrence Number:</b> 116	<b>Occurrence Last Updated:</b> 2014-09-12	

<b>Scientific Name:</b> <i>Rana sierrae</i>	<b>Common Name:</b> Sierra Nevada yellow-legged frog
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Endangered	
<b>State:</b> Threatened	<b>Other Lists:</b> CDFW_WL-Watch List
<b>CNDDDB Element Ranks:</b>	IUCN_EN-Endangered
<b>Global:</b> G1	USFS_S-Sensitive
<b>State:</b> S1	

<b>General Habitat:</b> ALWAYS ENCOUNTERED WITHIN A FEW FEET OF WATER. TADPOLES MAY REQUIRE 2 - 4 YRS TO COMPLETE THEIR AQUATIC DEVELOPMENT.	<b>Micro Habitat:</b> <input type="checkbox"/>
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<b>Last Date Observed:</b> 2012-08-19	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2012-08-19	<b>Occurrence Rank:</b> Fair
<b>Owner/Manager:</b> USFS-ELDORADO NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
ALONG DEADWOOD CANYON CREEK, ABOUT 1.5 MILES WEST OF MEADOW LAKE, MOKELUMNE WILDERNESS.

**Detailed Location:**  
MAPPED BY CNDDDB TO INCLUDE TRACKED MOVEMENTS OF RADIO-BELTED FROGS, AS WELL AS GIS DATA FROM US FOREST SERVICE AND CA DEPARTMENT OF FISH AND WILDLIFE.

**Ecological:**

**Threats:**  
BD WAS DETECTED HERE IN 2008 AND 2010.

**General:**  
OBSERVED HERE IN 1993, 1995, 1996, 2000, 2001, 2002, 2003, 2008, 2010, AND 2012. POPULATIONS AS HIGH AS 27 ADULTS, 153 SUBADULTS, 23 METAMORPHS, 376 LARVAE, AND 7 EGG MASSES WERE OBSERVED IN CERTAIN YEARS.

<b>PLSS:</b> T09N, R18E, Sec. 28 (M)	<b>Accuracy:</b> non-specific area	<b>Area (acres):</b> 82
<b>UTM:</b> Zone-11 N4276750 E238885	<b>Latitude/Longitude:</b> 38.60086 / -119.99838	<b>Elevation (feet):</b> 8,300

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Pacific Valley (3811958), Mokelumne Peak (3812051)
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**Sources:**

- DFW14D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2013 FIELDWORK 2014-03-26
- ELL95F0012 ELLIOTT, G. - FIELD SURVEY FORM FOR RANA MUSCOSA 1995-09-03
- USFNDD0002 U.S. FOREST SERVICE-REGION 5 - NATURAL RESOURCE INFORMATION SYSTEM (NRIS) ANIMAL RECORDS FROM CALIFORNIA NATIONAL FORESTS XXXX-XX-XX
- VRE04R0001 VREDENBURG, V. ET AL. (MUSEUM OF VERTEBRATE ZOOLOGY) - PATTERNS OF HABITAT USE & MOVEMENT OF RANA MUSCOSA IN NORTHERN SIERRA NEVADA WITH COMPARISONS TO POPS IN SOUTHERN SIERRA NEVADA, WITH ADDITIONAL INFO ON BIOGEOGRAPHY OF SPECIES 2004-06-14
- VRE07A0001 VREDENBURG, V. ET AL. - CONCORDANT MOLECULAR AND PHENOTYPIC DATA DELINEATE NEW TAXONOMY AND CONSERVATION PRIORITIES FOR THE ENDANGERED MOUNTAIN YELLOW-LEGGED FROG. JOURNAL OF ZOOLOGY 271 (2007):361-374. 2007-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 44938	<b>EO Index:</b> 44938
<b>Key Quad:</b> Pacific Valley (3811958)	<b>Element Code:</b> AAABH01340
<b>Occurrence Number:</b> 117	<b>Occurrence Last Updated:</b> 2014-09-11

<b>Scientific Name:</b> <i>Rana sierrae</i>	<b>Common Name:</b> Sierra Nevada yellow-legged frog
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Endangered	
<b>State:</b> Threatened	<b>Other Lists:</b> CDFW_WL-Watch List IUCN_EN-Endangered USFS_S-Sensitive
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G1	
<b>State:</b> S1	

<b>General Habitat:</b> ALWAYS ENCOUNTERED WITHIN A FEW FEET OF WATER. TADPOLES MAY REQUIRE 2 - 4 YRS TO COMPLETE THEIR AQUATIC DEVELOPMENT.	<b>Micro Habitat:</b> <input type="checkbox"/>
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<b>Last Date Observed:</b> 2013-07-04	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2013-07-04	<b>Occurrence Rank:</b> Fair
<b>Owner/Manager:</b> USFS-ELDORADO NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
DEER CREEK, IN LITTLE INDIAN VALLEY, APPROXIMATELY 1.5 MILES SE OF TAMARACK LAKE, ELDORADO NATIONAL FOREST.

**Detailed Location:**

**Ecological:**

**Threats:**

RAINBOW TROUT PRESENT IN LOWER PORTION OF STREAM REACH. BD WAS DETECTED IN 2008 AND 2010.

**General:**

DETECTED IN 1995, 1996, 1997, 2000, 2001, 2002, 2005, 2007, 2008, 2009, 2010, 2012, AND 2013. POPULATIONS AS HIGH AS 12 ADULTS, 38 SUBADULTS, 5 METAMORPHS, 452 LARVAE, AND 1 EGG MASS WERE OBSERVED IN CERTAIN YEARS.

<b>PLSS:</b> T09N, R19E, Sec. 33, E (M)	<b>Accuracy:</b> non-specific area	<b>Area (acres):</b> 59
<b>UTM:</b> Zone-11 N4275534 E248711	<b>Latitude/Longitude:</b> 38.59275 / -119.88525	<b>Elevation (feet):</b> 7,700

**County Summary:**

Alpine

**Quad Summary:**

Pacific Valley (3811958)

**Sources:**

- DFW14D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2013 FIELDWORK 2014-03-26
- ELL95F0013 ELLIOTT, G. - FIELD SURVEY FORM FOR RANA MUSCOSA 1995-08-19
- LAC01F0004 LACAN, I. (U.S. FOREST SERVICE-PACIFIC SOUTHWEST RESEARCH STATION) - FIELD SURVEY FORM FOR RANA MUSCOSA 2001-08-14
- USFNDD0002 U.S. FOREST SERVICE-REGION 5 - NATURAL RESOURCE INFORMATION SYSTEM (NRIS) ANIMAL RECORDS FROM CALIFORNIA NATIONAL FORESTS XXXX-XX-XX
- VRE07A0001 VREDENBURG, V. ET AL. - CONCORDANT MOLECULAR AND PHENOTYPIC DATA DELINEATE NEW TAXONOMY AND CONSERVATION PRIORITIES FOR THE ENDANGERED MOUNTAIN YELLOW-LEGGED FROG. JOURNAL OF ZOOLOGY 271 (2007):361-374. 2007-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 50206	<b>EO Index:</b> 50206
<b>Key Quad:</b> Ebbetts Pass (3811957)	<b>Element Code:</b> AAABH01340
<b>Occurrence Number:</b> 162	<b>Occurrence Last Updated:</b> 2014-10-09

<b>Scientific Name:</b> <i>Rana sierrae</i>	<b>Common Name:</b> Sierra Nevada yellow-legged frog
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Endangered	
<b>State:</b> Threatened	<b>Other Lists:</b> CDFW_WL-Watch List
<b>CNDDB Element Ranks:</b>	IUCN_EN-Endangered
<b>Global:</b> G1	USFS_S-Sensitive
<b>State:</b> S1	

<b>General Habitat:</b> ALWAYS ENCOUNTERED WITHIN A FEW FEET OF WATER. TADPOLES MAY REQUIRE 2 - 4 YRS TO COMPLETE THEIR AQUATIC DEVELOPMENT.	<b>Micro Habitat:</b> <input type="checkbox"/>
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<b>Last Date Observed:</b> 2012-06-20	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2012-06-20	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
UPPER AND LOWER KINNEY LAKES, 1.3 MILES NW OF HIGHWAY 4 AT EBBETTS PASS, TOIYABE NATIONAL FOREST.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

LOWER KINNEY LAKE: 1 ADULT DETECTED IN 2001, 12 SUBADULTS 2002, 10 SUBADULTS 2005, 2 ADULTS 2008, 1 ADULT 2010, 2 ADULTS 2012.  
UPPER KINNEY LAKE: 1 SUBADULT DETECTED IN 2002, 1 ADULT AND 1 LARVA 2012.

<b>PLSS:</b> T08N, R20E, Sec. 07, NW (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 85
<b>UTM:</b> Zone-11 N4271694 E253878	<b>Latitude/Longitude:</b> 38.55963 / -119.82463	<b>Elevation (feet):</b> 8,600

**County Summary:**

Alpine

**Quad Summary:**

Ebbetts Pass (3811957)

**Sources:**

- DFG01F0028 CALIFORNIA DEPARTMENT OF FISH & GAME - FIELD SURVEY REPORT FOR SITE ID 14995 FROM "FATS" DATABASE FOR 2001 HIGH ELEVATION FISH AND FROG SURVEY 2001-07-22
- DFG01U0001 MILLIRON, C. ET AL. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FISH AND AMPHIBIAN TRACKING SYSTEM (FATS) ACCESS DATABASE, RESULTS OF 2001 HIGH ELEVATION LAKE SURVEYS 2001-XX-XX
- DFW14D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2013 FIELDWORK 2014-03-26



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b> 50207	<b>EO Index:</b> 50207
<b>Key Quad:</b> Ebbetts Pass (3811957)	<b>Element Code:</b> AAABH01340
<b>Occurrence Number:</b> 163	<b>Occurrence Last Updated:</b> 2014-10-09

<b>Scientific Name:</b> <i>Rana sierrae</i>	<b>Common Name:</b> Sierra Nevada yellow-legged frog
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Endangered	
<b>State:</b> Threatened	<b>Other Lists:</b> CDFW_WL-Watch List
<b>CNDDDB Element Ranks:</b>	IUCN_EN-Endangered
<b>Global:</b> G1	USFS_S-Sensitive
<b>State:</b> S1	

<b>General Habitat:</b>	<b>Micro Habitat:</b>
ALWAYS ENCOUNTERED WITHIN A FEW FEET OF WATER. TADPOLES MAY REQUIRE 2 - 4 YRS TO COMPLETE THEIR AQUATIC DEVELOPMENT.	<input type="checkbox"/>

<b>Last Date Observed:</b> 2012-06-20	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2012-06-20	<b>Occurrence Rank:</b> Excellent
<b>Owner/Manager:</b> USFS-HUMBOLDT-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
UNNAMED LAKE BETWEEN SHERROLD LAKE AND UPPER KINNEY LAKE, 0.8 MILE NW OF HWY 4 AT EBBETTS PASS, TOIYABE NATIONAL FOREST.

**Detailed Location:**  
THIS SITE IS CA LAKES ID #15019.

**Ecological:**  
SMALL HIGH ELEVATION LAKE WITH LITTORAL SUBSTRATE OF SILT AND SHORELINE SUBSTRATE OF GRASS/SEDGE/FORB. FISH (NOT IDENTIFIED) OBSERVED AT THE LAKE INLET. LAKE WAS NOT STOCKED, NO FISH SEEN IN LAKE IN 2001.

**Threats:**  
BD WAS DETECTED HERE IN 2008 AND 2010.

**General:**  
EGGS COLLECTED HERE CIRCA 1990. DETECTED HERE DURING SURVEYS IN 2001, 2002, 2005, 2008, 2010, AND 2012. POPULATIONS AS HIGH AS 100 ADULTS, 149 SUBADULTS, 29 METAMORPHS, 375 LARVAE, AND 30 EGG MASSES WERE OBSERVED IN CERTAIN YEARS.

<b>PLSS:</b> T08N, R20E, Sec. 07, SW (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4271029 E254080	<b>Latitude/Longitude:</b> 38.55371 / -119.82208	<b>Elevation (feet):</b> 8,800

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine	Ebbetts Pass (3811957)

**Sources:**

BRA92A0001	BRADFORD, D. ET AL. - EFFECTS OF LOW PH AND ALUMINUM ON TWO DECLINING SPECIES OF AMPHIBIANS IN THE SIERRA NEVADA, CALIFORNIA. JOURNAL OF HERPETOLOGY 26(4): 369-377. 1992-XX-XX
DFG01F0029	CALIFORNIA DEPARTMENT OF FISH & GAME - FIELD SURVEY REPORT FOR SITE ID 15019 FROM "FATS" DATABASE FOR 2001 HIGH ELEVATION FISH AND FROG SURVEY 2001-07-21
DFG01U0001	MILLIRON, C. ET AL. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FISH AND AMPHIBIAN TRACKING SYSTEM (FATS) ACCESS DATABASE, RESULTS OF 2001 HIGH ELEVATION LAKE SURVEYS 2001-XX-XX
DFW14D0001	CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2013 FIELDWORK 2014-03-26



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



**Map Index Number:** 50649

**EO Index:** 50649

**Key Quad:** Pacific Valley (3811958)

**Element Code:** AAABH01340

**Occurrence Number:** 178

**Occurrence Last Updated:** 2014-10-16

**Scientific Name:** *Rana sierrae*

**Common Name:** Sierra Nevada yellow-legged frog

**Listing Status:** **Federal:** Endangered

**Rare Plant Rank:**

**State:** Threatened

**Other Lists:** CDFW\_WL-Watch List  
IUCN\_EN-Endangered  
USFS\_S-Sensitive

**CNDDDB Element Ranks:** **Global:** G1

**State:** S1

**General Habitat:**

ALWAYS ENCOUNTERED WITHIN A FEW FEET OF WATER. TADPOLES MAY REQUIRE 2 - 4 YRS TO COMPLETE THEIR AQUATIC DEVELOPMENT.

**Micro Habitat:**

□

**Last Date Observed:** 2012-07-18

**Occurrence Type:** Natural/Native occurrence

**Last Survey Date:** 2012-07-18

**Occurrence Rank:** Good

**Owner/Manager:** USFS-ELDORADO NF

**Trend:** Unknown

**Presence:** Presumed Extant

**Location:**

0.5 MILE SW OF MIDDLE CREEK CAMPGROUND, BETWEEN UPPER BLUE LAKE AND LOWER BLUE LAKE, ELDORADO NATIONAL FOREST.

**Detailed Location:**

POND PROVIDES DISPERSAL HABITAT FOR MYLF FROM THE MEADOW AREA. COLLECTIONS ATTRIBUTED HERE WITH LOCALITIES PROVIDED AS "BLUE LAKES," "POND NEAR BLUE LAKES," AND "CREEKS FLOWING INTO UPPER BLUE LAKE."

**Ecological:**

HABITAT CONSISTS OF A MEADOW WITH SMALL PONDS (DRIED PRIOR TO MID-SEP 2001) AND MEANDERING STREAM; GRASSES/WILLOWS OR SEDGES COVER MOST OF POND MARGINS.

**Threats:**

POSSIBLE THREAT FROM TROUT OBSERVED TO BE INHABITING THE MEADOW STREAM. BD WAS DETECTED HERE IN 2008.

**General:**

COLLECTIONS MADE IN 1939, 1940, AND 1941. DETECTED DURING SURVEYS IN 2001, 2002, 2003, 2005, 2008, 2009, 2010, 2012. POPULATIONS AS HIGH AS 3 ADULTS, 2 SUBADULTS, 40 METAMORPHS, AND 138 LARVAE WERE OBSERVED IN CERTAIN YEARS.

**PLSS:** T09N, R18E, Sec. 13 (M)

**Accuracy:** specific area

**Area (acres):** 21

**UTM:** Zone-11 N4278946 E243534

**Latitude/Longitude:** 38.62198 / -119.94588

**Elevation (feet):** 8,200

**County Summary:**

**Quad Summary:**

Alpine

Pacific Valley (3811958), Carson Pass (3811968)

**Sources:**

ALV01F0002 ALVAREZ, J. & J. ALVAREZ (JONES AND STOKES ASSOCIATES) - FIELD SURVEY FORM FOR RANA SIERRAE 2001-07-23  
 ALV01F0003 ALVAREZ, J. & S. MYERS (JONES AND STOKES ASSOCIATES) - FIELD SURVEY FORM FOR RANA SIERRAE 2001-09-18  
 CAL40S0001 CALHOUN, A. - CALHOUN SN SU #6084-6089 1940-08-06  
 DFW14D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2013 FIELDWORK 2014-03-26  
 POO09F0002 POOL, A. (ECORP CONSULTING, INC.) - FIELD SURVEY FORM FOR RANA SIERRAE 2009-07-15  
 SMI39S0008 SMITH, R. - SMITH SN MVZ #32618-32622 1939-08-02  
 STO41S0001 STORER, T. - STORER SN CAS #218387 1941-08-15  
 USFNDD0002 U.S. FOREST SERVICE-REGION 5 - NATURAL RESOURCE INFORMATION SYSTEM (NRIS) ANIMAL RECORDS FROM CALIFORNIA NATIONAL FORESTS XXXX-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 70205	<b>EO Index:</b> 71086
<b>Key Quad:</b> South Lake Tahoe (3811988)	<b>Element Code:</b> AAABH01340
<b>Occurrence Number:</b> 243	<b>Occurrence Last Updated:</b> 2014-12-18

<b>Scientific Name:</b> <i>Rana sierrae</i>	<b>Common Name:</b> Sierra Nevada yellow-legged frog
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Endangered	
<b>State:</b> Threatened	<b>Other Lists:</b> CDFW_WL-Watch List
<b>CNDDDB Element Ranks:</b>	IUCN_EN-Endangered
<b>Global:</b> G1	USFS_S-Sensitive
<b>State:</b> S1	

<b>General Habitat:</b> ALWAYS ENCOUNTERED WITHIN A FEW FEET OF WATER. TADPOLES MAY REQUIRE 2 - 4 YRS TO COMPLETE THEIR AQUATIC DEVELOPMENT.	<b>Micro Habitat:</b> <input type="checkbox"/>
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<b>Last Date Observed:</b> 1935-08-18	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1935-08-18	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
0.5 MILE NE OF STAR LAKE, SE OF LAKE TAHOE.

**Detailed Location:**  
COLLECTION LOCALITY DESCRIBED AS "0.5 MI NE STAR LAKE" IN EL DORADO COUNTY. THE DRAINAGE NEAREST TO 0.5 MILE NE OF STAR LAKE IS THE HEAD OF STUTLER CANYON, JUST OVER THE COUNTY LINE INTO ALPINE COUNTY. UNCERTAIN IF NW WAS MEANT.

**Ecological:**

**Threats:**

**General:**

COLLECTION MADE BY R. SMITH ON 18 AUG 1935.

<b>PLSS:</b> T12N, R19E, Sec. 29 (M)	<b>Accuracy:</b> 4/5 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4307401 E250044	<b>Latitude/Longitude:</b> 38.87994 / -119.88147	<b>Elevation (feet):</b> 9,000

**County Summary:**

Alpine, El Dorado

**Quad Summary:**

Woodfords (3811977), Freel Peak (3811978), Minden (3811987), South Lake Tahoe (3811988)

**Sources:**

SMI35S0001 SMITH, R. - SMITH SN MVZ #18192 1935-08-18



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



**Map Index Number:** 70206

**EO Index:** 71087

**Key Quad:** Ebbetts Pass (3811957)

**Element Code:** AAABH01340

**Occurrence Number:** 244

**Occurrence Last Updated:** 2014-12-18

**Scientific Name:** *Rana sierrae*

**Common Name:** Sierra Nevada yellow-legged frog

**Listing Status:** **Federal:** Endangered

**Rare Plant Rank:**

**State:** Threatened

**Other Lists:** CDFW\_WL-Watch List  
IUCN\_EN-Endangered  
USFS\_S-Sensitive

**CNDDDB Element Ranks:** **Global:** G1

**State:** S1

**General Habitat:**

ALWAYS ENCOUNTERED WITHIN A FEW FEET OF WATER. TADPOLES MAY REQUIRE 2 - 4 YRS TO COMPLETE THEIR AQUATIC DEVELOPMENT.

**Micro Habitat:**

**Last Date Observed:** 1939-05-19

**Occurrence Type:** Natural/Native occurrence

**Last Survey Date:** 1939-05-19

**Occurrence Rank:** Unknown

**Owner/Manager:** USFS-TOIYABE NF

**Trend:** Unknown

**Presence:** Presumed Extant

**Location:**

WEST FORK OF SILVER CREEK, 2 MILES NORTH OF EBBETTS PASS, TOIYABE NATIONAL FOREST.

**Detailed Location:**

COLLECTION LOCALITIES GIVEN AS "W FORK SILVER CR, 2 MI N EBBETS PASS" AT 7600 FEET ELEVATION.

**Ecological:**

**Threats:**

**General:**

A SET OF COLLECTIONS WERE MADE HERE BY JOHNSON ON 19 MAY 1939.

**PLSS:** T08N, R20E, Sec. 06 (M)

**Accuracy:** non-specific area

**Area (acres):** 97

**UTM:** Zone-11 N4273170 E255118

**Latitude/Longitude:** 38.57327 / -119.81094

**Elevation (feet):** 7,600

**County Summary:**

**Quad Summary:**

Alpine

Ebbetts Pass (3811957)

**Sources:**

JOH39S0001 JOHNSON, D. - JOHNSON #3552 MVZ #28577 1939-05-19  
 JOH39S0002 JOHNSON, D. - JOHNSON #3553 MVZ #28578 1939-05-19  
 JOH39S0003 JOHNSON, D. - JOHNSON #3554 MVZ #28579 1939-05-19  
 JOH39S0004 JOHNSON, D. - JOHNSON #3555 MVZ #28580 1939-05-19  
 JOH39S0005 JOHNSON, D. - JOHNSON #3556 MVZ #28581 1939-05-19  
 JOH39S0006 JOHNSON, D. - JOHNSON #3557 MVZ #28582 1939-05-19  
 JOH39S0007 JOHNSON, D. - JOHNSON #3558 MVZ #28583 1939-05-19  
 JOH39S0008 JOHNSON, D. - JOHNSON #3559 MVZ #28584 1939-05-19





# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 36156	<b>EO Index:</b> 71116
<b>Key Quad:</b> Ebbetts Pass (3811957)	<b>Element Code:</b> AAABH01340
<b>Occurrence Number:</b> 259	<b>Occurrence Last Updated:</b> 2014-12-30

<b>Scientific Name:</b> <i>Rana sierrae</i>	<b>Common Name:</b> Sierra Nevada yellow-legged frog
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Endangered	
<b>State:</b> Threatened	<b>Other Lists:</b> CDFW_WL-Watch List
<b>CNDDDB Element Ranks:</b>	IUCN_EN-Endangered
<b>Global:</b> G1	USFS_S-Sensitive
<b>State:</b> S1	

<b>General Habitat:</b> ALWAYS ENCOUNTERED WITHIN A FEW FEET OF WATER. TADPOLES MAY REQUIRE 2 - 4 YRS TO COMPLETE THEIR AQUATIC DEVELOPMENT.	<b>Micro Habitat:</b> <input type="checkbox"/>
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<b>Last Date Observed:</b> 1965-10-16	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2001-07-21	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-STANISLAUS NF, TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
VICINITY OF EBBETTS PASS, ALONG HIGHWAY 4 AT BOUNDARY BETWEEN STANISLAUS NATIONAL FOREST AND TOIYABE NATIONAL FOREST.

**Detailed Location:**  
COLLECTION LOCALITIES DESCRIBED AS EBBETTS PASS AT 8050 FT, EBBETTS PASS AT 8730 FT, AND 0.25 MILE WEST OF EBBETTS PASS. MAPPED BY CNDDDB CENTERED ON EBBETTS PASS.

**Ecological:**

**Threats:**

**General:**  
COLLECTED BY T. STORER ON 23 JUL 1930, BY R. STEBBINS ON 2 JUL 1954, BY F. SCHUIERER ON 28 JUN 1964, AND BY R. BURY ON 16 OCT 1965. NO R. SIERRAE WERE FOUND DURING SURVEYS OF THIS VICINITY ON 20-21 JUL 2001.

<b>PLSS:</b> T08N, R20E, Sec. 18 (M)	<b>Accuracy:</b> 2/5 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4269951 E254920	<b>Latitude/Longitude:</b> 38.54424 / -119.81208	<b>Elevation (feet):</b> 8,700

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Ebbetts Pass (3811957)
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- Sources:**
- BUR65S0001 BURY, R. - BURY #3 CM #45135 1965-10-16
  - BUR65S0002 BURY, R. - BURY #4 CM #45136 1965-10-16
  - BUR65S0003 BURY, R. - BURY #5 CM #45137 1965-10-16
  - DFW14D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2013 FIELDWORK 2014-03-26
  - SCH64S0003 SCHUIERER, F. - SCHUIERER SN CAS #97670-97672 1964-06-28
  - STE54S0002 STEBBINS, R. - STEBBINS #6987 MVZ #61571 1954-07-02
  - STE54S0003 STEBBINS, R. - STEBBINS #6988 MVZ #61572 1954-07-02
  - STO30S0014 STORER, T. - STORER #2579 WFB #948599323 1930-07-23



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



**Map Index Number:** 70258

**EO Index:** 71144

**Key Quad:** Carson Pass (3811968)

**Element Code:** AAABH01340

**Occurrence Number:** 264

**Occurrence Last Updated:** 2014-12-30

**Scientific Name:** *Rana sierrae*

**Common Name:** Sierra Nevada yellow-legged frog

**Listing Status:** **Federal:** Endangered

**Rare Plant Rank:**

**State:** Threatened

**Other Lists:** CDFW\_WL-Watch List  
IUCN\_EN-Endangered  
USFS\_S-Sensitive

**CNDDDB Element Ranks:** **Global:** G1

**State:** S1

**General Habitat:**

ALWAYS ENCOUNTERED WITHIN A FEW FEET OF WATER. TADPOLES MAY REQUIRE 2 - 4 YRS TO COMPLETE THEIR AQUATIC DEVELOPMENT.

**Micro Habitat:**

**Last Date Observed:** 1957-08-18

**Occurrence Type:** Natural/Native occurrence

**Last Survey Date:** 2003-07-30

**Occurrence Rank:** Unknown

**Owner/Manager:** USFS-ELDORADO NF

**Trend:** Unknown

**Presence:** Presumed Extant

**Location:**

JUST NE OF LAKE WINNEMUCCA, 1.5 MILES SOUTH OF CARSON PASS, ELDORADO NATIONAL FOREST.

**Detailed Location:**

COLLECTION LOCALITIES DESCRIBED AS "SMALL POND NE LAKE WINNEMUCCA" AT 9000 FT ELEVATION. MAPPED BY CNDDDB NON-SPECIFICALLY ACROSS THE THREE PONDS WHICH ARE ROUGHLY 100 METERS NE OF LAKE WINNEMUCCA, PRESUMING THE SITE WASN'T FAR TO THE NE.

**Ecological:**

**Threats:**

**General:**

COLLECTIONS MADE BY G. CHRISTMAN ON 18 AUG 1957. NO R. SIERRAE WERE FOUND DURING SURVEYS OF THESE PONDS AND OTHER NEARBY PONDS IN 2001, 2002, AND 2003.

**PLSS:** T10N, R18E, Sec. 34, NW (M)

**Accuracy:** non-specific area

**Area (acres):** 5

**UTM:** Zone-11 N4284718 E239750

**Latitude/Longitude:** 38.67283 / -119.99144

**Elevation (feet):** 9,000

**County Summary:**

**Quad Summary:**

Alpine

Carson Pass (3811968)

**Sources:**

CHR57S0001 CHRISTMAN, G. - CHRISTMAN #654 MVZ #66188 1957-08-18

CHR57S0002 CHRISTMAN, G. - CHRISTMAN #655 MVZ #66189 1957-08-18

CHR57S0003 CHRISTMAN, G. - CHRISTMAN #656 MVZ #66190 1957-08-18

DFW14D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2013 FIELDWORK 2014-03-26



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database

**Map Index Number:** 73981**EO Index:** 74981**Key Quad:** Pacific Valley (3811958)**Element Code:** AAABH01340**Occurrence Number:** 300**Occurrence Last Updated:** 2017-03-02**Scientific Name:** *Rana sierrae***Common Name:** Sierra Nevada yellow-legged frog**Listing Status:** **Federal:** Endangered**Rare Plant Rank:****State:** Threatened**Other Lists:** CDFW\_WL-Watch List  
IUCN\_EN-Endangered  
USFS\_S-Sensitive**CNDDDB Element Ranks:** **Global:** G1**State:** S1**General Habitat:**

ALWAYS ENCOUNTERED WITHIN A FEW FEET OF WATER. TADPOLES MAY REQUIRE 2 - 4 YRS TO COMPLETE THEIR AQUATIC DEVELOPMENT.

**Micro Habitat:**

□

**Last Date Observed:** 2016-09-22**Occurrence Type:** Natural/Native occurrence**Last Survey Date:** 2016-09-22**Occurrence Rank:** Good**Owner/Manager:** USFS-HUMBOLDT-TOIYABE NF**Trend:** Unknown**Presence:** Presumed Extant**Location:**

TAMARACK LAKE, VIRGINIA LAKE, AND SEVERAL NEARBY UNNAMED LAKES, WEST OF SUNSET LAKES, TOIYABE NATIONAL FOREST.

**Detailed Location:**

MAPPED BY CNDDDB ACCORDING TO DIGITAL DATA PROVIDED BY CA DEPARTMENT OF FISH AND WILDLIFE HIGH MOUNTAIN LAKES DATABASE. 2016 DETECTION IN VIRGINIA LAKE.

**Ecological:****Threats:**

BD WAS DETECTED HERE IN 2008 AND 2010.

**General:**

DETECTED IN 2001, 2002, 2003, 2005, 2008, 2009, 2010, 2012, AND 2016. POPULATIONS AS HIGH AS 48 ADULTS, 57 SUBADULTS, 345 LARVAE, AND 48 EGG MASSES WERE OBSERVED IN CERTAIN YEARS.

**PLSS:** T09N, R19E, Sec. 28 (M)**Accuracy:** specific area**Area (acres):** 123**UTM:** Zone-11 N4277603 E248098**Latitude/Longitude:** 38.61120 / -119.89302**Elevation (feet):** 8,000**County Summary:****Quad Summary:**

Alpine

Pacific Valley (3811958)

**Sources:**

BEL16F0011 BELLI, J. - FIELD SURVEY FORM FOR RANA SIERRAE 2016-09-22

DFW14D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2013 FIELDWORK 2014-03-26

VRE07A0001 VREDENBURG, V. ET AL. - CONCORDANT MOLECULAR AND PHENOTYPIC DATA DELINEATE NEW TAXONOMY AND CONSERVATION PRIORITIES FOR THE ENDANGERED MOUNTAIN YELLOW-LEGGED FROG. JOURNAL OF ZOOLOGY 271 (2007):361-374. 2007-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



**Map Index Number:** 74604

**EO Index:** 75612

**Key Quad:** Freel Peak (3811978)

**Element Code:** AAABH01340

**Occurrence Number:** 333

**Occurrence Last Updated:** 2015-01-07

**Scientific Name:** *Rana sierrae*

**Common Name:** Sierra Nevada yellow-legged frog

**Listing Status:** **Federal:** Endangered

**Rare Plant Rank:**

**State:** Threatened

**Other Lists:** CDFW\_WL-Watch List  
IUCN\_EN-Endangered  
USFS\_S-Sensitive

**CNDDDB Element Ranks:** **Global:** G1

**State:** S1

**General Habitat:**

ALWAYS ENCOUNTERED WITHIN A FEW FEET OF WATER. TADPOLES MAY REQUIRE 2 - 4 YRS TO COMPLETE THEIR AQUATIC DEVELOPMENT.

**Micro Habitat:**

**Last Date Observed:** 2013-08-12

**Occurrence Type:** Natural/Native occurrence

**Last Survey Date:** 2013-08-12

**Occurrence Rank:** Unknown

**Owner/Manager:** USFS-LAKE TAHOE BMU

**Trend:** Unknown

**Presence:** Presumed Extant

**Location:**

HELL HOLE MEADOW ALONG TROUT CREEK TRIBUTARY, ABOUT 4 MILES SE OF MEYERS, SOUTH OF LAKE TAHOE.

**Detailed Location:**

FELLERS SITE ID #LT-06.

**Ecological:**

**Threats:**

**General:**

2 SUBADULTS AND 3 LARVAE OBSERVED 19 AUG 1997. 2 ADULTS AND 71 LARVAE ON 13 JUN 2000. 5 TADPOLES ON 20 JUN 2012. 4 TADPOLES ON 7 AUG 2012. 10 TADPOLES ON 27 JUN 2013. 1 ADULT, 5 SUBADULTS, 1 TADPOLE ON 12 AUG 2013.

**PLSS:** T11N, R18E, Sec. 01, W (M)

**Accuracy:** specific area

**Area (acres):** 44

**UTM:** Zone-11 N4301753 E244356

**Latitude/Longitude:** 38.82748 / -119.94486

**Elevation (feet):** 8,350

**County Summary:**

El Dorado

**Quad Summary:**

Freel Peak (3811978)

**Sources:**

FEL08D0001 FELLERS, G. (U.S. GEOLOGICAL SURVEY-WESTERN ECOLOGICAL RESEARCH CENTER) - MULTI-SPECIES EXCEL DATABASE OF AMPHIBIAN OCCURRENCES FROM 1992-2008 2008-09-29

USFNDD0002 U.S. FOREST SERVICE-REGION 5 - NATURAL RESOURCE INFORMATION SYSTEM (NRIS) ANIMAL RECORDS FROM CALIFORNIA NATIONAL FORESTS XXXX-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 95651	<b>EO Index:</b> 96787
<b>Key Quad:</b> Spicer Meadows Res. (3811948)	<b>Element Code:</b> AAABH01340
<b>Occurrence Number:</b> 633	<b>Occurrence Last Updated:</b> 2015-03-25

<b>Scientific Name:</b> <i>Rana sierrae</i>	<b>Common Name:</b> Sierra Nevada yellow-legged frog
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Endangered	
<b>State:</b> Threatened	<b>Other Lists:</b> CDFW_WL-Watch List
<b>CNDDDB Element Ranks:</b>	IUCN_EN-Endangered
<b>Global:</b> G1	USFS_S-Sensitive
<b>State:</b> S1	

<b>General Habitat:</b> ALWAYS ENCOUNTERED WITHIN A FEW FEET OF WATER. TADPOLES MAY REQUIRE 2 - 4 YRS TO COMPLETE THEIR AQUATIC DEVELOPMENT.	<b>Micro Habitat:</b> <input type="checkbox"/>
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<b>Last Date Observed:</b> 2004-07-28	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2004-07-28	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-STANISLAUS NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
NEAR THE CONFLUENCE OF PACIFIC CREEK WITH ITS TRIBUTARY FROM MARSHALL CANYON, STANISLAUS NATIONAL FOREST.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

AT LEAST ONE INDIVIDUAL WAS FOUND DURING AN ELECTROFISHING SURVEY IN THIS VICINITY ON 28 JUL 2004.

<b>PLSS:</b> T07N, R19E, Sec. 04, N (M)	<b>Accuracy:</b> 2/5 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4264667 E247785	<b>Latitude/Longitude:</b> 38.49468 / -119.89195	<b>Elevation (feet):</b> 7,800

**County Summary:**

Alpine

**Quad Summary:**

Spicer Meadows Res. (3811948), Pacific Valley (3811958)

**Sources:**  
USFNDD0002 U.S. FOREST SERVICE-REGION 5 - NATURAL RESOURCE INFORMATION SYSTEM (NRIS) ANIMAL RECORDS FROM CALIFORNIA NATIONAL FORESTS XXXX-XX-XX



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	95669	<b>EO Index:</b>	96808
<b>Key Quad:</b>	Ebbetts Pass (3811957)	<b>Element Code:</b>	AAABH01340
<b>Occurrence Number:</b>	636	<b>Occurrence Last Updated:</b>	2015-03-20

<b>Scientific Name:</b>	<i>Rana sierrae</i>	<b>Common Name:</b>	Sierra Nevada yellow-legged frog
<b>Listing Status:</b>	<b>Federal:</b> Endangered <b>State:</b> Threatened	<b>Rare Plant Rank:</b>	
<b>CNDDB Element Ranks:</b>	<b>Global:</b> G1 <b>State:</b> S1	<b>Other Lists:</b>	CDFW_WL-Watch List IUCN_EN-Endangered USFS_S-Sensitive

<b>General Habitat:</b>	<b>Micro Habitat:</b>
ALWAYS ENCOUNTERED WITHIN A FEW FEET OF WATER. TADPOLES MAY REQUIRE 2 - 4 YRS TO COMPLETE THEIR AQUATIC DEVELOPMENT.	<input type="checkbox"/>

<b>Last Date Observed:</b>	2012-05-31	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2012-05-31	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	USFS-TOIYABE NF	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**  
UPPER SUNSET LAKE, LOWER SUNSET LAKE, AND SUMMIT LAKE, TOIYABE NATIONAL FOREST.

**Detailed Location:**

**Ecological:**

**Threats:**  
BD WAS DETECTED HERE IN 2010.

**General:**  
DETECTED AT VARIOUS OF THESE LAKES IN 2003, 2005, 2008, 2009, 2010, AND 2012. NOT ALL LAKES WERE SURVEYED IN ANY ONE YEAR, BUT <10 ADULTS AND SUBADULTS WERE DETECTED DURING ANY SURVEY.

<b>PLSS:</b> T09N, R19E, Sec. 27, N (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 98
<b>UTM:</b> Zone-11 N4277471 E249623	<b>Latitude/Longitude:</b> 38.61044 / -119.87548	<b>Elevation (feet):</b> 8,000

**County Summary:**

Alpine

**Quad Summary:**

Ebbetts Pass (3811957), Pacific Valley (3811958)

**Sources:**  
DFW14D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2013 FIELDWORK 2014-03-26



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 95670	<b>EO Index:</b> 96810
<b>Key Quad:</b> Pacific Valley (3811958)	<b>Element Code:</b> AAABH01340
<b>Occurrence Number:</b> 637	<b>Occurrence Last Updated:</b> 2015-03-20

<b>Scientific Name:</b> <i>Rana sierrae</i>	<b>Common Name:</b> Sierra Nevada yellow-legged frog
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Endangered	
<b>State:</b> Threatened	<b>Other Lists:</b> CDFW_WL-Watch List
<b>CNDDB Element Ranks:</b>	IUCN_EN-Endangered
<b>Global:</b> G1	USFS_S-Sensitive
<b>State:</b> S1	

<b>General Habitat:</b> ALWAYS ENCOUNTERED WITHIN A FEW FEET OF WATER. TADPOLES MAY REQUIRE 2 - 4 YRS TO COMPLETE THEIR AQUATIC DEVELOPMENT.	<b>Micro Habitat:</b> <input type="checkbox"/>
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<b>Last Date Observed:</b> 2012-09-17	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2012-09-17	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
0.8 MILE EAST OF LOWER BLUE LAKE DAM, WEST OF TAMARACK LAKE, TOIYABE NATIONAL FOREST.

**Detailed Location:**

**Ecological:**

**Threats:**  
BD WAS DETECTED HERE IN 2008.

**General:**  
DETECTED IN 2003, 2004, 2005, 2008, 2009, 2010, AND 2012. POPULATIONS AS HIGH AS 46 ADULTS, 9 SUBADULTS, 3 METAMORPHS, 51 LARVAE, AND 21 EGG MASSES WERE DETECTED IN CERTAIN YEARS.

<b>PLSS:</b> T09N, R19E, Sec. 29, NW (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 13
<b>UTM:</b> Zone-11 N4277113 E246381	<b>Latitude/Longitude:</b> 38.60630 / -119.91254	<b>Elevation (feet):</b> 8,300

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Pacific Valley (3811958)
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**Sources:**  
DFW14D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2013 FIELDWORK 2014-03-26



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



**Map Index Number:** 95674

**EO Index:** 96814

**Key Quad:** Carson Pass (3811968)

**Element Code:** AAABH01340

**Occurrence Number:** 638

**Occurrence Last Updated:** 2015-03-20

**Scientific Name:** *Rana sierrae*

**Common Name:** Sierra Nevada yellow-legged frog

**Listing Status:** **Federal:** Endangered

**Rare Plant Rank:**

**State:** Threatened

**Other Lists:** CDFW\_WL-Watch List  
IUCN\_EN-Endangered  
USFS\_S-Sensitive

**CNDDDB Element Ranks:** **Global:** G1

**State:** S1

**General Habitat:**

ALWAYS ENCOUNTERED WITHIN A FEW FEET OF WATER. TADPOLES MAY REQUIRE 2 - 4 YRS TO COMPLETE THEIR AQUATIC DEVELOPMENT.

**Micro Habitat:**

**Last Date Observed:** 2012-07-17

**Occurrence Type:** Natural/Native occurrence

**Last Survey Date:** 2012-07-17

**Occurrence Rank:** Unknown

**Owner/Manager:** USFS-TOIYABE NF

**Trend:** Unknown

**Presence:** Presumed Extant

**Location:**

PONDS 1 MILE SE OF WINNEMUCCA LAKE, AT HEAD OF FORESTDALE CREEK, MOKELUMNE WILDERNESS, TOIYABE NATIONAL FOREST.

**Detailed Location:**

**Ecological:**

**Threats:**

BD WAS DETECTED HERE IN 2008 AND 2010.

**General:**

DETECTED IN 2003, 2005, 2008, 2010, AND 2012. POPULATIONS AS HIGH AS 26 ADULTS, 3 SUBADULTS, 9 METAMORPHS, 277 LARVAE, AND 1 EGG MASS WERE DETECTED IN CERTAIN YEARS.

**PLSS:** T10N, R18E, Sec. 35, SW (M)

**Accuracy:** specific area

**Area (acres):** 8

**UTM:** Zone-11 N4283493 E241334

**Latitude/Longitude:** 38.66226 / -119.97280

**Elevation (feet):** 8,700

**County Summary:**

Alpine

**Quad Summary:**

Carson Pass (3811968)

**Sources:**

DFW14D0001 CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2013 FIELDWORK 2014-03-26





# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 95677	<b>EO Index:</b> 96815
<b>Key Quad:</b> Carson Pass (3811968)	<b>Element Code:</b> AAABH01340
<b>Occurrence Number:</b> 639	<b>Occurrence Last Updated:</b> 2015-03-20

<b>Scientific Name:</b> <i>Rana sierrae</i>	<b>Common Name:</b> Sierra Nevada yellow-legged frog
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Endangered	
<b>State:</b> Threatened	<b>Other Lists:</b> CDFW_WL-Watch List
<b>CNDDB Element Ranks:</b>	IUCN_EN-Endangered
<b>Global:</b> G1	USFS_S-Sensitive
<b>State:</b> S1	

<b>General Habitat:</b> ALWAYS ENCOUNTERED WITHIN A FEW FEET OF WATER. TADPOLES MAY REQUIRE 2 - 4 YRS TO COMPLETE THEIR AQUATIC DEVELOPMENT.	<b>Micro Habitat:</b> <input type="checkbox"/>
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<b>Last Date Observed:</b> 2010-07-10	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2012-07-17	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-ELDORADO NF, UNKNOWN	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
WEST SIDE OF UPPER BLUE LAKE, SOUTH OF UPPER BLUE LAKE CAMPGROUND, EDGE OF MOKELUMNE WILDERNESS.

**Detailed Location:**

**Ecological:**

**Threats:**  
BD WAS DETECTED HERE IN 2010.

**General:**  
DETECTED 3 JUL 2004. 1 ADULT AND 1 METAMORPH DETECTED 11 JUL 2008. 58 LARVAE DETECTED 23 JUL 2009. 1 ADULT DETECTED 1 JUL 2010. ALSO DETECTED 10 JUL 2010. NONE FOUND DURING SURVEY 17 JUL 2012.

<b>PLSS:</b> T09N, R18E, Sec. 12, SW (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 153
<b>UTM:</b> Zone-11 N4280333 E242461	<b>Latitude/Longitude:</b> 38.63415 / -119.95870	<b>Elevation (feet):</b> 8,200

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Carson Pass (3811968)
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**Sources:**

DFW14D0001	CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE - CDFW AMPHIBIANS - HIGH MOUNTAIN LAKES DATABASE, COVERING 1995 TO 2013 FIELDWORK 2014-03-26
USFNDD0002	U.S. FOREST SERVICE-REGION 5 - NATURAL RESOURCE INFORMATION SYSTEM (NRIS) ANIMAL RECORDS FROM CALIFORNIA NATIONAL FORESTS XXXX-XX-XX



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	95679	<b>EO Index:</b>	96816
<b>Key Quad:</b>	Freel Peak (3811978)	<b>Element Code:</b>	AAABH01340
<b>Occurrence Number:</b>	640	<b>Occurrence Last Updated:</b>	2015-03-20

<b>Scientific Name:</b>	<i>Rana sierrae</i>	<b>Common Name:</b>	Sierra Nevada yellow-legged frog
<b>Listing Status:</b>	<b>Federal:</b> Endangered <b>State:</b> Threatened	<b>Rare Plant Rank:</b>	
<b>CNDDDB Element Ranks:</b>	<b>Global:</b> G1 <b>State:</b> S1	<b>Other Lists:</b>	CDFW_WL-Watch List IUCN_EN-Endangered USFS_S-Sensitive

<b>General Habitat:</b>	<b>Micro Habitat:</b>
ALWAYS ENCOUNTERED WITHIN A FEW FEET OF WATER. TADPOLES MAY REQUIRE 2 - 4 YRS TO COMPLETE THEIR AQUATIC DEVELOPMENT.	<input type="checkbox"/>

<b>Last Date Observed:</b>	2013-06-27	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2013-06-27	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	USFS-LAKE TAHOE BMU	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**  
1.4 MILES WEST OF ARMSTRONG PASS, NW OF HELL HOLE, CARSON RANGE, SOUTH OF SOUTH LAKE TAHOE.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

1 ADULT OBSERVED 7 AUG 2012. EGGS AND ADULTS OBSERVED 27 JUN 2013.

<b>PLSS:</b>	T11N, R18E, Sec. 01, NW (M)	<b>Accuracy:</b>	specific area	<b>Area (acres):</b>	11
<b>UTM:</b>	Zone-11 N4302473 E245013	<b>Latitude/Longitude:</b>	38.83415 / -119.93757	<b>Elevation (feet):</b>	8,300

**County Summary:**

El Dorado

**Quad Summary:**

Freel Peak (3811978)

**Sources:**  
 USFNDD0002 U.S. FOREST SERVICE-REGION 5 - NATURAL RESOURCE INFORMATION SYSTEM (NRIS) ANIMAL RECORDS FROM CALIFORNIA NATIONAL FORESTS XXXX-XX-XX



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b> 21519	<b>EO Index:</b> 12900
<b>Key Quad:</b> Heenan Lake (3811966)	<b>Element Code:</b> ABNKC10010
<b>Occurrence Number:</b> 129	<b>Occurrence Last Updated:</b> 1999-06-03

<b>Scientific Name:</b> <i>Haliaeetus leucocephalus</i>	<b>Common Name:</b> bald eagle
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Delisted	
<b>State:</b> Endangered	<b>Other Lists:</b>
<b>CNDDB Element Ranks:</b>	BLM_S-Sensitive
<b>Global:</b> G5	CDF_S-Sensitive
<b>State:</b> S3	CDFW_FP-Fully Protected
	IUCN_LC-Least Concern
	USFS_S-Sensitive
	USFWS_BCC-Birds of Conservation Concern

<b>General Habitat:</b> OCEAN SHORE, LAKE MARGINS, AND RIVERS FOR BOTH NESTING AND WINTERING. MOST NESTS WITHIN 1 MILE OF WATER.	<b>Micro Habitat:</b> NESTS IN LARGE, OLD-GROWTH, OR DOMINANT LIVE TREE WITH OPEN BRANCHES, ESPECIALLY PONDEROSA PINE. ROOSTS COMMUNALLY IN WINTER.
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<b>Last Date Observed:</b> 1997-XX-XX	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1997-XX-XX	<b>Occurrence Rank:</b> Good
<b>Owner/Manager:</b> DFG-HEENAN LAKE WA	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
HEENAN LAKE TERRITORY; SOUTHWEST CORNER OF HEENAN LAKE, SOUTH OF HWY 89 AT SAGEHEN FLAT, ALPINE COUNTY.

**Detailed Location:**  
NEST IS IN AN 80-FT JEFFREY PINE, 100 FT ABOVE THE ROAD ON THE WEST SIDE OF THE LAKE.

**Ecological:**  
NEST TREE IS A JEFFREY PINE; SURROUNDING HABITAT IS JEFFREY PINE FOREST INTERSPERSED WITH SAGEBRUSH/BITTERBRUSH.

**Threats:**

**General:**  
NEST DISCOVERED IN 1992; 2 ADULTS AND 2 JUVENILES OBSERVED (1 FLEDGED). 1 YOUNG FLEDGED IN 1993. OCCUPIED/UNSUCCESSFUL IN 1994. 1 YOUNG FLEDGED IN 1995. 2 YOUNG FLEDGED IN 1996. 1 YOUNG FLEDGED IN 1997.

<b>PLSS:</b> T09N, R21E, Sec. 10, NW (M)	<b>Accuracy:</b> 1/10 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4280999 E268100	<b>Latitude/Longitude:</b> 38.64723 / -119.66468	<b>Elevation (feet):</b> 7,000

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Heenan Lake (3811966)
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**Sources:**

DFG97U0001	DFG - NONGAME BIRD & MAMMAL CONSERVATION PROGRAM - CALIFORNIA BALD EAGLE BREEDING TERRITORY SITE INFORMATION FROM 1990-97. 1997-XX-XX
DFG97U0002	DFG - NONGAME BIRD & MAMMAL CONSERVATION PROGRAM - CALIFORNIA BALD EAGLE BREEDING TERRITORY OBSERVATION DATA FROM 1990-97. 1997-XX-XX
HIN92F0001	HINZ, D. - FIELD SURVEY FORM FOR HALIAEETUS LEUCOCEPHALUS (NEST SITE) 1992-05-21



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	14425	<b>EO Index:</b>	26680
<b>Key Quad:</b>	South Lake Tahoe (3811988)	<b>Element Code:</b>	ABNKC12060
<b>Occurrence Number:</b>	126	<b>Occurrence Last Updated:</b>	1995-12-07

<b>Scientific Name:</b>	<i>Accipiter gentilis</i>	<b>Common Name:</b>	northern goshawk
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> None	<b>Rare Plant Rank:</b>	
<b>CNDDDB Element Ranks:</b>	<b>Global:</b> G5 <b>State:</b> S3	<b>Other Lists:</b>	BLM_S-Sensitive CDF_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive

**General Habitat:**

WITHIN, AND IN VICINITY OF, CONIFEROUS FOREST. USES OLD NESTS, AND MAINTAINS ALTERNATE SITES.

**Micro Habitat:**

USUALLY NESTS ON NORTH SLOPES, NEAR WATER. RED FIR, LODGEPOLE PINE, JEFFREY PINE, AND ASPENS ARE TYPICAL NEST TREES.

<b>Last Date Observed:</b>	1981-XX-XX	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	1981-XX-XX	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	USFS-LAKE TAHOE BMU	<b>Trend:</b>	Decreasing
<b>Presence:</b>	Presumed Extant		

**Location:**

TROUT CREEK.

**Detailed Location:****Ecological:****Threats:****General:**

EYRIE NUMBER ED001. NEST IN A LODGEPOLE ABANDONED BECAUSE OF A LAND USE CHANGE. (REED).

<b>PLSS:</b> T12N, R18E, Sec. 15, SE (M)	<b>Accuracy:</b> 1 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4308078 E242265	<b>Latitude/Longitude:</b> 38.88379 / -119.97129	<b>Elevation (feet):</b> 6,320

**County Summary:**

El Dorado

**Quad Summary:**

Freel Peak (3811978), South Lake Tahoe (3811988)

**Sources:**  
 DFG84U0002 CALIFORNIA DEPARTMENT OF FISH & GAME - PRINTOUT FROM RON SCHLORFF (DFG) FOR NORTHERN GOSHAWK (ACCIPITER GENTILIS) NEST CODES. 1984-10-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 14394	<b>EO Index:</b> 25524
<b>Key Quad:</b> Carson Pass (3811968)	<b>Element Code:</b> ABNSB12040
<b>Occurrence Number:</b> 15	<b>Occurrence Last Updated:</b> 1996-02-02

<b>Scientific Name:</b> <i>Strix nebulosa</i>	<b>Common Name:</b> great gray owl
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> Endangered	<b>Other Lists:</b> CDF_S-Sensitive
<b>CNDDB Element Ranks:</b>	IUCN_LC-Least Concern
<b>Global:</b> G5	USFS_S-Sensitive
<b>State:</b> S1	

<b>General Habitat:</b> RESIDENT OF MIXED CONIFER OR RED FIR FOREST HABITAT, IN OR ON EDGE OF MEADOWS.	<b>Micro Habitat:</b> REQUIRES LARGE DIAMETER SNAGS IN A FOREST WITH HIGH CANOPY CLOSURE, WHICH PROVIDE A COOL SUB-CANOPY MICROCLIMATE.
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<b>Last Date Observed:</b> 1971-06-XX	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1979-XX-XX	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-ELDORADO NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
0.3 MILE WEST OF CARSON PASS.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

CONFIRMED SIGHTINGS OF ONE ADULT EACH SUMMER FROM 1968 THROUGH 1971. THIS IS A POSSIBLE BREEDING AREA, AND THERE IS SUITABLE HABITAT WEST OF THE PASS.

<b>PLSS:</b> T10N, R18E, Sec. 22, SE (M)	<b>Accuracy:</b> 1 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4286990 E240562	<b>Latitude/Longitude:</b> 38.69351 / -119.98297	<b>Elevation (feet):</b> 8,200

**County Summary:**

Alpine

**Quad Summary:**

Carson Pass (3811968), Caples Lake (3812061)

**Sources:**

DFG85U0001	CALIFORNIA DEPARTMENT OF FISH & GAME - RAPTOR NEST REPORT. 1985-01-15
WIN80R0001	WINTER, J. - STATUS AND DISTRIBUTION OF THE GREAT GRAY OWL IN CALIFORNIA. CALIFORNIA DEPT. OF FISH AND GAME. 1980-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 14638	<b>EO Index:</b> 25522
<b>Key Quad:</b> Markleeville (3811967)	<b>Element Code:</b> ABNSB12040
<b>Occurrence Number:</b> 19	<b>Occurrence Last Updated:</b> 1989-08-10

<b>Scientific Name:</b> <i>Strix nebulosa</i>	<b>Common Name:</b> great gray owl
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> Endangered	<b>Other Lists:</b> CDF_S-Sensitive
<b>CNDDB Element Ranks:</b>	IUCN_LC-Least Concern
<b>Global:</b> G5	USFS_S-Sensitive
<b>State:</b> S1	

<b>General Habitat:</b> RESIDENT OF MIXED CONIFER OR RED FIR FOREST HABITAT, IN OR ON EDGE OF MEADOWS.	<b>Micro Habitat:</b> REQUIRES LARGE DIAMETER SNAGS IN A FOREST WITH HIGH CANOPY CLOSURE, WHICH PROVIDE A COOL SUB-CANOPY MICROCLIMATE.
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<b>Last Date Observed:</b> 1979-12-XX	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1984-08-13	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> DPR-GROVER HOT SPRINGS SP	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
GROVER HOT SPRINGS STATE PARK, JUST WEST OF MARKLEEVILLE.

**Detailed Location:**

**Ecological:**  
THE HABITAT IS SURROUNDED BY OLD GROWTH WHICH WOULD SUPPORT BREEDING. THERE ARE A NUMBER OF EXCELLENT HUNTING PERCHES AROUND THE EDGE OF THE MEADOW.

**Threats:**  
**General:**  
ONE OWL OBSERVED IN BOTH JUNE AND DECEMBER OF 1979. THIS IS A PROBABLE NESTING AREA, BUT NO PAIRS HAVE BEEN OBSERVED OR A NEST LOCATED.

<b>PLSS:</b> T10N, R19E, Sec. 24 (M)	<b>Accuracy:</b> 1/5 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4287153 E252903	<b>Latitude/Longitude:</b> 38.69851 / -119.84130	<b>Elevation (feet):</b> 5,920

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Markleeville (3811967)
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**Sources:**

DFG85U0001	CALIFORNIA DEPARTMENT OF FISH & GAME - RAPTOR NEST REPORT. 1985-01-15
WIN84R0001	WINTER, J. - GREAT GRAY OWL SURVEY, 1984 1984-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 23972	<b>EO Index:</b> 7168
<b>Key Quad:</b> Woodfords (3811977)	<b>Element Code:</b> ABNUA01010
<b>Occurrence Number:</b> 50	<b>Occurrence Last Updated:</b> 1993-08-17

<b>Scientific Name:</b> <i>Cypseloides niger</i>	<b>Common Name:</b> black swift
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDDB Element Ranks:</b>	IUCN_LC-Least Concern
<b>Global:</b> G4	NABCI_YWL-Yellow Watch List
<b>State:</b> S2	USFWS_BCC-Birds of Conservation Concern

<b>General Habitat:</b> COASTAL BELT OF SANTA CRUZ AND MONTEREY COUNTIES; CENTRAL & SOUTHERN SIERRA NEVADA; SAN BERNARDINO & SAN JACINTO MOUNTAINS.	<b>Micro Habitat:</b> BREEDS IN SMALL COLONIES ON CLIFFS BEHIND OR ADJACENT TO WATERFALLS IN DEEP CANYONS AND SEA-BLUFFS ABOVE THE SURF; FORAGES WIDELY.
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<b>Last Date Observed:</b> 1992-XX-XX	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1992-XX-XX	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-HUMBOLDT-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
CLOUDBURST CANYON, TRIBUTARY TO THE WEST FORK OF THE CARSON RIVER, 2.5 MILES WSW OF WOODFORDS.

**Detailed Location:**  
ARRIVAL DATES RANGE FROM 5-10 MAY; DEPARTURE DATES FROM 30 AUGUST TO 5 SEPTEMBER.

**Ecological:**  
NESTING HABITAT CONSISTS OF A WATERFALL.

**Threats:**  
**General:**  
SITE WAS FIRST DISCOVERED IN 1986, WHEN 4-6 PAIRS WERE ESTIMATED TO BE NESTING (2 ACTUAL NESTS OBSERVED). BIRDS HAVE NESTED THERE EVERY YEAR SINCE THROUGH THE 1992 BREEDING SEASON, WITH AS MANY AS 11 ADULTS OBSERVED.

<b>PLSS:</b> T10N, R19E, Sec. 02 (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4293826 E251183	<b>Latitude/Longitude:</b> 38.75809 / -119.86346	<b>Elevation (feet):</b> 6,500

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Woodfords (3811977)
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**Sources:**  
KNO93A0001 KNORR, O.A. - BREEDING OF THE BLACK SWIFT IN THE GREAT BASIN. WESTERN BIRDS (24:197-198, 1993) 1993-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 14483	<b>EO Index:</b> 25306	
<b>Key Quad:</b> Carson Pass (3811968)	<b>Element Code:</b> ABPAE33040	
<b>Occurrence Number:</b> 60	<b>Occurrence Last Updated:</b> 2006-08-16	

<b>Scientific Name:</b> <i>Empidonax traillii</i>	<b>Common Name:</b> willow flycatcher
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> Endangered	<b>Other Lists:</b> IUCN_LC-Least Concern
<b>CNDDB Element Ranks:</b>	USFS_S-Sensitive
<b>Global:</b> G5	USFWS_BCC-Birds of Conservation Concern
<b>State:</b> S1S2	

<b>General Habitat:</b> INHABITS EXTENSIVE THICKETS OF LOW, DENSE WILLOWS ON EDGE OF WET MEADOWS, PONDS, OR BACKWATERS; 2000-8000 FT ELEVATION.	<b>Micro Habitat:</b> REQUIRES DENSE WILLOW THICKETS FOR NESTING/ROOSTING. LOW, EXPOSED BRANCHES ARE USED FOR SINGING POSTS/HUNTING PERCHES.
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<b>Last Date Observed:</b> 1986-06-26	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1986-06-26	<b>Occurrence Rank:</b> Good
<b>Owner/Manager:</b> USFS-HUMBOLDT-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
FAITH VALLEY, 8 MILES WEST OF MARKLEEVILLE, TOIYABE NATIONAL FOREST.

**Detailed Location:**  
LOCATION MAPPED IS AREA OF FAITH VALLEY LOCATED IN SECTIONS 30 AND 31. MALES FOUND AT ONLY TWO LOCATIONS IN TOIYABE NATIONAL FOREST IN 1986.

**Ecological:**  
HABITAT IS A LARGE, WET MEADOW WITH EXTENSIVE WILLOW THICKETS; MUCH OF THE MEADOW IS APPARENTLY TOO WET FOR LIVESTOCK GRAZING.

**Threats:**  
**General:**  
DFG COLONY #AL04. THREE BREEDING MALES OBSERVED IN 26 JUN 1986. A POSSIBLE FOURTH MALE OBSERVED PERCHED ATOP WILLOW IN DISTANCE, BUT NOT HEARD. NONE OBSERVED ON 11 JUL 2004.

<b>PLSS:</b> T10N, R19E, Sec. 30 (M)	<b>Accuracy:</b> 3/5 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4285663 E245073	<b>Latitude/Longitude:</b> 38.68288 / -119.93068	<b>Elevation (feet):</b> 7,500

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Carson Pass (3811968)
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**Sources:**

DFG87U0017	DFG - NONGAME WILDLIFE SECTION - GORDON GOULD'S DATABASE PRINTOUT FOR WILLOW FLYCATCHER SIGHTINGS 1987-12-01
HAR86R0002	HARRIS ET AL. - THE STATUS AND DISTRIBUTION OF THE WILLOW FLYCATCHER IN CALIFORNIA, 1986. ADMINISTRATIVE REPORT 88-1, WILDLIFE MANAGEMENT BRANCH, CALIFORNIA DEPT. OF FISH AND GAME. 1986-XX-XX
MAT04F0021	MATHEWSON, H. - FIELD SURVEY FORM FOR EMPIDONAX TRAILLII 2004-07-11





# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 14507	<b>EO Index:</b> 25305	
<b>Key Quad:</b> Carson Pass (3811968)	<b>Element Code:</b> ABPAE33040	
<b>Occurrence Number:</b> 61	<b>Occurrence Last Updated:</b> 2004-12-10	

<b>Scientific Name:</b> <i>Empidonax traillii</i>	<b>Common Name:</b> willow flycatcher
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> Endangered	<b>Other Lists:</b> IUCN_LC-Least Concern
<b>CNDDB Element Ranks:</b>	USFS_S-Sensitive
<b>Global:</b> G5	USFWS_BCC-Birds of Conservation Concern
<b>State:</b> S1S2	

<b>General Habitat:</b> INHABITS EXTENSIVE THICKETS OF LOW, DENSE WILLOWS ON EDGE OF WET MEADOWS, PONDS, OR BACKWATERS; 2000-8000 FT ELEVATION.	<b>Micro Habitat:</b> REQUIRES DENSE WILLOW THICKETS FOR NESTING/ROOSTING. LOW, EXPOSED BRANCHES ARE USED FOR SINGING POSTS/HUNTING PERCHES.
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<b>Last Date Observed:</b> 1986-06-26	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1986-06-26	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-HUMBOLDT-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
UPPER CHARITY VALLEY, 8 MILES WSW OF MARKLEEVILLE, TOIYABE NATIONAL FOREST.

**Detailed Location:**  
MALES FOUND ONLY AT TWO LOCATIONS IN TOIYABE NATIONAL FOREST IN 1986.

**Ecological:**  
SURVEY AREA HAS A LARGE, WET MEADOW WITH AN EXTENSIVE WILLOW THICKET; APPARENTLY TOO WET FOR GRAZING. AREA DOES NOT APPEAR TO BE GRAZED.

**Threats:**  
**General:**  
TWO BREEDING MALES OBSERVED ON 26 JUN 1986.

<b>PLSS:</b> T09N, R19E, Sec. 05 (M)	<b>Accuracy:</b> 3/5 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4282498 E246214	<b>Latitude/Longitude:</b> 38.65472 / -119.91642	<b>Elevation (feet):</b> 7,900

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Carson Pass (3811968)
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**Sources:**

DFG87U0017	DFG - NONGAME WILDLIFE SECTION - GORDON GOULD'S DATABASE PRINTOUT FOR WILLOW FLYCATCHER SIGHTINGS 1987-12-01
HAR86R0002	HARRIS ET AL. - THE STATUS AND DISTRIBUTION OF THE WILLOW FLYCATCHER IN CALIFORNIA, 1986. ADMINISTRATIVE REPORT 88-1, WILDLIFE MANAGEMENT BRANCH, CALIFORNIA DEPT. OF FISH AND GAME. 1986-XX-XX



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	21077	<b>EO Index:</b>	23973
<b>Key Quad:</b>	Carson Pass (3811968)	<b>Element Code:</b>	ABPAE33040
<b>Occurrence Number:</b>	93	<b>Occurrence Last Updated:</b>	2006-08-15

<b>Scientific Name:</b>	<i>Empidonax traillii</i>	<b>Common Name:</b>	willow flycatcher
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> Endangered	<b>Rare Plant Rank:</b>	
<b>CNDDB Element Ranks:</b>	<b>Global:</b> G5 <b>State:</b> S1S2	<b>Other Lists:</b>	IUCN_LC-Least Concern USFS_S-Sensitive USFWS_BCC-Birds of Conservation Concern

<b>General Habitat:</b>	<b>Micro Habitat:</b>
INHABITS EXTENSIVE THICKETS OF LOW, DENSE WILLOWS ON EDGE OF WET MEADOWS, PONDS, OR BACKWATERS; 2000-8000 FT ELEVATION.	REQUIRES DENSE WILLOW THICKETS FOR NESTING/ROOSTING. LOW, EXPOSED BRANCHES ARE USED FOR SINGING POSTS/HUNTING PERCHES.

<b>Last Date Observed:</b>	2004-07-15	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2004-07-15	<b>Occurrence Rank:</b>	Good
<b>Owner/Manager:</b>	DFG-RED LAKE WA	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**  
NORTH AND WEST SIDE OF RED LAKE, ALONG HIGHWAY 88.

**Detailed Location:**  
MAT04F0001 SITE IS AT NAD27 UTM ZONE 10 763230 E, 4287896 N. MAT04F0002 SITE IS AT NAD27 UTM ZONE 10 762699 E, 4287334 N.

**Ecological:**  
MONTANE RIPARIAN/MEADOW HABITAT; 60 % SALIX SPP. (5-10 FT.), 40 % MEADOW GRASSES AND FORBS. 2 OLD BEAVER DAMS PROVIDE 2 SMALL PONDS. SEVERAL SMALL STREAMS WITH RUNNING WATER. STANDING WATER PRESENT. DFG WILDLIFE AREA, APPROX. 15 ACRES.

**Threats:**  
DFG WILDLIFE AREA; NO GRAZING, NO MOTORIZED VEHICLES.

**General:**  
6 TERRITORIAL MALES OBS BTWN 0800-0900 HRS; RESPONDED TO TAPED CALLS & HAD VISUAL SIGHTINGS. 22 ADULTS DETECTED (10 AT WEST SIDE, 12 AT NORTH SIDE) DURING SURVEY 23 JUN 1992. 2 ADULTS OBS 5 JUN 2004. 1 UNPAIRED MALE OBS 15 JUL 2004.

<b>PLSS:</b>	T10N, R18E, Sec. 23, NW (M)	<b>Accuracy:</b>	non-specific area	<b>Area (acres):</b>	35
<b>UTM:</b>	Zone-11 N4287980 E241478	<b>Latitude/Longitude:</b>	38.70268 / -119.97282	<b>Elevation (feet):</b>	7,880

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine	Carson Pass (3811968)

**Sources:**

HIN91F0001	HINZ, D. & D. GIFFORD - FIELD SURVEY FORM FOR EMPIDONAX TRAILLII 1991-07-18
HIN91F0002	HINZ, D. & D. GIFFORD - FIELD SURVEY FORM FOR EMPIDONAX TRAILLII 1991-07-18
MAT04F0001	MATHEWSON, H. - FIELD SURVEY FORM FOR EMPIDONAX TRAILLII 2004-06-05
MAT04F0002	MATHEWSON, H. - FIELD SURVEY FORM FOR EMPIDONAX TRAILLII 2004-06-05
SCH92F0056	SCHLORFF, R. - FIELD SURVEY FORM FOR EMPIDONAX TRAILLII 1992-06-23



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	65844	<b>EO Index:</b>	65923
<b>Key Quad:</b>	Carson Pass (3811968)	<b>Element Code:</b>	ABPAE33040
<b>Occurrence Number:</b>	132	<b>Occurrence Last Updated:</b>	2006-09-05

<b>Scientific Name:</b>	<i>Empidonax traillii</i>	<b>Common Name:</b>	willow flycatcher
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> Endangered	<b>Rare Plant Rank:</b>	
<b>CNDDB Element Ranks:</b>	<b>Global:</b> G5 <b>State:</b> S1S2	<b>Other Lists:</b>	IUCN_LC-Least Concern USFS_S-Sensitive USFWS_BCC-Birds of Conservation Concern

<b>General Habitat:</b>	<b>Micro Habitat:</b>
INHABITS EXTENSIVE THICKETS OF LOW, DENSE WILLOWS ON EDGE OF WET MEADOWS, PONDS, OR BACKWATERS; 2000-8000 FT ELEVATION.	REQUIRES DENSE WILLOW THICKETS FOR NESTING/ROOSTING. LOW, EXPOSED BRANCHES ARE USED FOR SINGING POSTS/HUNTING PERCHES.

<b>Last Date Observed:</b>	2004-06-13	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2004-06-13	<b>Occurrence Rank:</b>	Excellent
<b>Owner/Manager:</b>	USFS-HUMBOLDT-TOIYABE NF	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**  
MEADOW BETWEEN RED LAKE PEAK & HWY 88, ABOUT 0.8 MI SE OF CRATER LAKE, ELDORADO NATIONAL FOREST.

**Detailed Location:**  
LOCATION DESCRIPTION AS "RED LAKE PEAK, MEADOW ON EAST SIDE OF RED LAKE PEAK, WEST OF HIGHWAY 88." MAPPED USING COORDINATES GIVEN IN NE 1/4 OF NE 1/4 SEC 14.

**Ecological:**  
WILLOW / ASPEN COMMUNITY. DOMINANTS: SALIX LEMMONII & S. GEYERIANA. BEAVER ACTIVITY CONTRIBUTING TO POOLED WATER IN MEADOW. NATURAL PONDS AND SPRINGS CONTRIBUTING TO WATER.

**Threats:**  
**General:**  
BREEDING & NESTING SITE. 4 ADULTS AND 1 JUVENILE OBSERVED FROM 13 JUN THROUGH 13 AUG 2004. 2 PAIRS, BOTH ATTEMPTED BREEDING. 1 PAIR ATTEMPTED TWICE, BOTH NESTS FAILED. SECOND PAIR SUCCESSFULLY FLEDGED 1 YOUNG.

<b>PLSS:</b> T10N, R18E, Sec. 14, NE (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4289377 E242377	<b>Latitude/Longitude:</b> 38.71552 / -119.96302	<b>Elevation (feet):</b> 7,750

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine	Carson Pass (3811968)

**Sources:**  
MAT04F0003 MATHEWSON, H. - FIELD SURVEY FORM FOR EMPIDONAX TRAILLII 2004-06-13



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 15001	<b>EO Index:</b> 1499
<b>Key Quad:</b> Wolf Creek (3811956)	<b>Element Code:</b> AFCHA02081
<b>Occurrence Number:</b> 8	<b>Occurrence Last Updated:</b> 1995-12-01

<b>Scientific Name:</b> <i>Oncorhynchus clarkii henshawi</i>	<b>Common Name:</b> Lahontan cutthroat trout
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Threatened	
<b>State:</b> None	<b>Other Lists:</b> AFS_TH-Threatened
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G4T3	
<b>State:</b> S2	

<b>General Habitat:</b> HISTORICALLY IN ALL ACCESSIBLE COLD WATERS OF THE LAHONTAN BASIN IN A WIDE VARIETY OF WATER TEMPS AND CONDITIONS.	<b>Micro Habitat:</b> CANNOT TOLERATE PRESENCE OF OTHER SALMONIDS. REQUIRES GRAVEL RIFFLES IN STREAMS FOR SPAWNING.
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<b>Last Date Observed:</b> 1983-09-XX	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1983-09-XX	<b>Occurrence Rank:</b> Good
<b>Owner/Manager:</b> USFS-HUMBOLDT-TOIYABE NF, PVT	<b>Trend:</b> Decreasing
<b>Presence:</b> Presumed Extant	

**Location:**  
POISON FLAT CREEK, TRIBUTARY TO EAST FORK CARSON RIVER.

**Detailed Location:**  
1.0 MILE OCCUPIED HABITAT.

**Ecological:**  
INTRODUCED POPULATION; PRESENCE CONFIRMED BY R. WICKWIRE IN 1982 ABOVE FALLS; TROUT ONLY FISH FOUND.

**Threats:**  
DEGRADED BY LIVESTOCK, BEAVER, SPORT TAKE, AND OTHER RECREATION.

**General:**  
1982 POPULATION ESTIMATE 200 FISH. BY 1994 PRIVATE INHOLDINGS IN CARSON-ICEBERG WILDERNESS AREA HAVE BEEN ACQUIRED.

<b>PLSS:</b> T08N, R21E, Sec. 25, E (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 130
<b>UTM:</b> Zone-11 N4265139 E270809	<b>Latitude/Longitude:</b> 38.50515 / -119.62837	<b>Elevation (feet):</b> 7,760

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine	Disaster Peak (3811946), Coleville (3811955), Wolf Creek (3811956)

- Sources:**
- BEL83U0001 BELAND, R. - LETTER TO STEVE NICOLA (DFG) INDICATING LAHONTAN CUTTHROAT TROUT STREAM SURVEY DATES. (LAHONTAN CUTTHROAT TROUT STREAMS) 1983-XX-XX
  - BRO85U0002 BRODE, J. - COMMENTS FROM BRODE DURING 1985 CNDDDB SCORECARD REVIEW MEETINGS. SEE SA SCORECARD FOR SPECIFIC NOTES. 1985-08-22
  - GER80U0001 GERSTUNG, E. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - LOCALITIES FOR ENDANGERED SALMONIDS: ONCORHYNCHUS AGUABONITA WHITEI, O. CLARKI CLARKI, O. CLARKI HENSHAWI, O. CLARKI SELENIRIS, SALVELINUS CONFLUENTUS 1980-XX-XX
  - GER83M0001 GERSTUNG, E. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - MAP WITH LOCATIONS OF SALMO CLARKI HENSHAWI. 1983-XX-XX
  - GER85R0001 GERSTUNG, E. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FISHERY MANAGEMENT PLAN FOR LAHONTAN CUTTHROAT TROUT (SALMO CLARKI HEWSHAWI) IN CALIFORNIA AND WESTERN NEVADA WATERS. 1985-01-XX
  - GER94U0016 GERSTUNG, E. - UPDATE OF A RAREFIND PRINTOUT FOR LAHONTAN CUTTHROAT TROUT OCCURRENCE 008. 1994-05-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 14666	<b>EO Index:</b> 14863
<b>Key Quad:</b> Ebbetts Pass (3811957)	<b>Element Code:</b> AFCHA02081
<b>Occurrence Number:</b> 22	<b>Occurrence Last Updated:</b> 1996-07-10

<b>Scientific Name:</b> <i>Oncorhynchus clarkii henshawi</i>	<b>Common Name:</b> Lahontan cutthroat trout
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Threatened	
<b>State:</b> None	<b>Other Lists:</b> AFS_TH-Threatened
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G4T3	
<b>State:</b> S2	

<b>General Habitat:</b> HISTORICALLY IN ALL ACCESSIBLE COLD WATERS OF THE LAHONTAN BASIN IN A WIDE VARIETY OF WATER TEMPS AND CONDITIONS.	<b>Micro Habitat:</b> CANNOT TOLERATE PRESENCE OF OTHER SALMONIDS. REQUIRES GRAVEL RIFFLES IN STREAMS FOR SPAWNING.
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<b>Last Date Observed:</b> 1995-XX-XX	<b>Occurrence Type:</b> Introduced Back into Native Hab./Range
<b>Last Survey Date:</b> 1995-XX-XX	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-HUMBOLDT-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
RAYMOND MEADOWS CREEK, 0.2 MILE NORTH OF HIGHWAY 4 AND BENCH MARK 7046.

**Detailed Location:**  
RAYMOND MEADOWS CREEK, TRIBUTARY TO SILVER CREEK.

**Ecological:**  
PROBABLY INTRODUCED POPULATION; PRESENCE CONFIRMED BY R. WICKWIRE IN 1982 ABOVE FALLS; NOT FOUND IN 1984 SURVEY; NOT FOUND IN 1990 SURVEY. NO OTHER FISH IN STREAM.

**Threats:**  
IMPACTS FROM LIVESTOCK, TIMBER HARVEST, AND ROAD EROSION.

**General:**  
LAHONTAN CUTTHROAT TROUT WERE FOUND DURING A SINGLE PASS SAMPLING OF A 1 MILE SECTION OF RAYMOND MEADOWS CREEK IN THE FALL OF 1995 (PERS COMM E. GERSTUNG).

<b>PLSS:</b> T09N, R20E (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 112
<b>UTM:</b> Zone-11 N4273918 E253793	<b>Latitude/Longitude:</b> 38.57963 / -119.82639	<b>Elevation (feet):</b> 8,320

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Ebbetts Pass (3811957)
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**Sources:**

BEL83U0001	BELAND, R. - LETTER TO STEVE NICOLA (DFG) INDICATING LAHONTAN CUTTHROAT TROUT STREAM SURVEY DATES. (LAHONTAN CUTTHROAT TROUT STREAMS) 1983-XX-XX
BRO85U0002	BRODE, J. - COMMENTS FROM BRODE DURING 1985 CNDDDB SCORECARD REVIEW MEETINGS. SEE SA SCORECARD FOR SPECIFIC NOTES. 1985-08-22
GER83M0001	GERSTUNG, E. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - MAP WITH LOCATIONS OF SALMO CLARKI HENSHAWI. 1983-XX-XX
GER94U0026	GERSTUNG, E. - UPDATE OF A RAREFIND PRINTOUT FOR LAHONTAN CUTTHROAT TROUT OCCURRENCE 022. 1994-05-XX
SOM96U0001	SOMER, W.L. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - MEMO TO D. DRAKE, SUBJECT: "SENSITIVE SPECIES INFORMATION FOR CDF FIRE PLAN." 1996-04-15



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	34004	<b>EO Index:</b>	28931
<b>Key Quad:</b>	Spicer Meadows Res. (3811948)	<b>Element Code:</b>	AFCHA02081
<b>Occurrence Number:</b>	26	<b>Occurrence Last Updated:</b>	1996-07-10

<b>Scientific Name:</b>	<i>Oncorhynchus clarkii henshawi</i>	<b>Common Name:</b>	Lahontan cutthroat trout
<b>Listing Status:</b>	<b>Federal:</b> Threatened	<b>Rare Plant Rank:</b>	
	<b>State:</b> None	<b>Other Lists:</b>	AFS_TH-Threatened
<b>CNDDDB Element Ranks:</b>	<b>Global:</b> G4T3		
	<b>State:</b> S2		

<b>General Habitat:</b>	<b>Micro Habitat:</b>
HISTORICALLY IN ALL ACCESSIBLE COLD WATERS OF THE LAHONTAN BASIN IN A WIDE VARIETY OF WATER TEMPS AND CONDITIONS.	CANNOT TOLERATE PRESENCE OF OTHER SALMONIDS. REQUIRES GRAVEL RIFFLES IN STREAMS FOR SPAWNING.

<b>Last Date Observed:</b>	1995-XX-XX	<b>Occurrence Type:</b>	Transplant Outside of Native Hab./Range
<b>Last Survey Date:</b>	1995-XX-XX	<b>Occurrence Rank:</b>	Fair
<b>Owner/Manager:</b>	USFS-STANISLAUS NF	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**  
MARSHALL CANYON CREEK AND PART OF PACIFIC CREEK. APPROXIMATELY 4.5 MILES SOUTHWEST OF EBBETTS PASS, ALPINE COUNTY.

**Detailed Location:**  
MARSHALL CANYON CREEK IS A TRIBUTARY TO PACIFIC CREEK, TO NORTH FORK MOKELUMNE RIVER.

**Ecological:**  
HIGH MONTANE CREEK.

**Threats:**  
HYBRIDIZATION AND COMPETITION FROM OTHER SALMONIDS DOWNSTREAM.

**General:**

<b>PLSS:</b> T08N, R19E (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 182
<b>UTM:</b> Zone-11 N4264779 E248291	<b>Latitude/Longitude:</b> 38.49584 / -119.88619	<b>Elevation (feet):</b> 8,000

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine	Dardanelles Cone (3811947), Spicer Meadows Res. (3811948), Ebbetts Pass (3811957), Pacific Valley (3811958)

**Sources:**

GER85R0001	GERSTUNG, E. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FISHERY MANAGEMENT PLAN FOR LAHONTAN CUTTHROAT TROUT (SALMO CLARKI HEWSHAWI) IN CALIFORNIA AND WESTERN NEVADA WATERS. 1985-01-XX
SOM96U0001	SOMER, W.L. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - MEMO TO D. DRAKE, SUBJECT: "SENSITIVE SPECIES INFORMATION FOR CDF FIRE PLAN." 1996-04-15



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 34039	<b>EO Index:</b> 17764
<b>Key Quad:</b> Ebbetts Pass (3811957)	<b>Element Code:</b> AFCHA02081
<b>Occurrence Number:</b> 27	<b>Occurrence Last Updated:</b> 1996-09-09

<b>Scientific Name:</b> <i>Oncorhynchus clarkii henshawi</i>	<b>Common Name:</b> Lahontan cutthroat trout
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Threatened	
<b>State:</b> None	<b>Other Lists:</b> AFS_TH-Threatened
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G4T3	
<b>State:</b> S2	

<b>General Habitat:</b> HISTORICALLY IN ALL ACCESSIBLE COLD WATERS OF THE LAHONTAN BASIN IN A WIDE VARIETY OF WATER TEMPS AND CONDITIONS.	<b>Micro Habitat:</b> CANNOT TOLERATE PRESENCE OF OTHER SALMONIDS. REQUIRES GRAVEL RIFFLES IN STREAMS FOR SPAWNING.
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<b>Last Date Observed:</b> 1993-XX-XX	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1993-XX-XX	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-HUMBOLDT-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
BULL LAKE, 3.6 MILES SOUTHEAST OF EBBETTS PASS (HIGHWAY 4).

**Detailed Location:**  
BULL LAKE, ALSO THEY SPAWN IN INLET CREEK.

**Ecological:**  
HIGH MONTANE LAKE.

**Threats:**  
HYBRIDIZATION, SLIGHTLY MIXED WITH RAINBOW & PAIUTE CUTTHROAT TROUTS.

**General:**  
USFWS PERSONNEL VERIFIED CONTINUED PRESENCE OF CT-L IN 1993.

<b>PLSS:</b> T08N, R20E, Sec. 26, NW (M)	<b>Accuracy:</b> non-specific area	<b>Area (acres):</b> 6
<b>UTM:</b> Zone-11 N4266905 E259913	<b>Latitude/Longitude:</b> 38.51818 / -119.75381	<b>Elevation (feet):</b> 8,620

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Ebbetts Pass (3811957)
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**Sources:**  
SOM96U0001 SOMER, W.L. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - MEMO TO D. DRAKE, SUBJECT: "SENSITIVE SPECIES INFORMATION FOR CDF FIRE PLAN." 1996-04-15



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 34040	<b>EO Index:</b> 4165	
<b>Key Quad:</b> Heenan Lake (3811966)	<b>Element Code:</b> AFCHA02081	
<b>Occurrence Number:</b> 28	<b>Occurrence Last Updated:</b> 1996-09-09	

<b>Scientific Name:</b> <i>Oncorhynchus clarkii henshawi</i>	<b>Common Name:</b> Lahontan cutthroat trout
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Threatened	
<b>State:</b> None	<b>Other Lists:</b> AFS_TH-Threatened
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G4T3	
<b>State:</b> S2	

<b>General Habitat:</b> HISTORICALLY IN ALL ACCESSIBLE COLD WATERS OF THE LAHONTAN BASIN IN A WIDE VARIETY OF WATER TEMPS AND CONDITIONS.	<b>Micro Habitat:</b> CANNOT TOLERATE PRESENCE OF OTHER SALMONIDS. REQUIRES GRAVEL RIFFLES IN STREAMS FOR SPAWNING.
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<b>Last Date Observed:</b> 1996-06-05	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1996-06-05	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> DFG-HEENAN LAKE WA	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
HEENAN LAKE, 0.1 MILE SOUTH FROM HIGHWAY 89 AND 3.2 MILES EAST FROM HIGHWAY 4 (AND THE EAST CARSON RIVER).

**Detailed Location:**  
HEENAN LAKE, HISTORICALLY IN HEENAN CREEK (THESE FISH MAY HAVE BEEN SLIGHTLY INTROGRESSED WITH RAINBOW) AND IN HIGH FLOW YEARS THEY ESCAPE DOWNSTREAM INTO MONITOR CREEK (IT IS BELIEVED THAT MOST OF THESE FISH ARE CAUGHT BY ANGLERS).

**Ecological:**  
OPEN, HIGH MOUNTAIN RESERVOIR (USED AS A BROOD STOCK LAKE).

**Threats:**  
GRAZING, POOR WATER QUALITY (LOW WATER LEVELS AND HIGH TEMPERATURES) IN DROUGHT YEARS.

**General:**  
HEENAN CREEK POPULATION WAS OBSERVED BY R. WICKWIRE. THOUGHT TO BE EXTIRPATED BY RECENT DROUGHT AND BELIEVED TO BE CARSON RIVER STRAIN. THE FISH IN THE LAKE ARE INDEPENDENCE LAKE STRAIN & ARE SPAWNED YEARLY BY AMERICAN RIVER HATCHERY STAFF.

<b>PLSS:</b> T09N, R21E, Sec. 03 (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 174
<b>UTM:</b> Zone-11 N4281380 E269053	<b>Latitude/Longitude:</b> 38.65091 / -119.65387	<b>Elevation (feet):</b> 7,084

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Heenan Lake (3811966)
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**Sources:**

HUN96U0001	HUNERLACH, R. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - PERSONAL COMMUNICATIONS REGARDING SPAWNING OF HEENAN LAKE LAHONTAN CUTTHROAT TROUT. 1996-07-10
SOM96U0001	SOMER, W.L. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - MEMO TO D. DRAKE, SUBJECT: "SENSITIVE SPECIES INFORMATION FOR CDF FIRE PLAN." 1996-04-15





# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 34042	<b>EO Index:</b> 7447
<b>Key Quad:</b> Ebbetts Pass (3811957)	<b>Element Code:</b> AFCHA02081
<b>Occurrence Number:</b> 29	<b>Occurrence Last Updated:</b> 1996-07-17

<b>Scientific Name:</b> <i>Oncorhynchus clarkii henshawi</i>	<b>Common Name:</b> Lahontan cutthroat trout
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Threatened	
<b>State:</b> None	<b>Other Lists:</b> AFS_TH-Threatened
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G4T3	
<b>State:</b> S2	

<b>General Habitat:</b> HISTORICALLY IN ALL ACCESSIBLE COLD WATERS OF THE LAHONTAN BASIN IN A WIDE VARIETY OF WATER TEMPS AND CONDITIONS.	<b>Micro Habitat:</b> CANNOT TOLERATE PRESENCE OF OTHER SALMONIDS. REQUIRES GRAVEL RIFFLES IN STREAMS FOR SPAWNING.
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<b>Last Date Observed:</b> 1995-XX-XX	<b>Occurrence Type:</b> Transplant Outside of Native Hab./Range
<b>Last Survey Date:</b> 1995-XX-XX	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-STANISLAUS NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
MILK RANCH CREEK, 1.4 MILES SOUTH OF HIGHWAY 4 AND EBBETTS PASS, TIRBUTARTY TO NORTH FORK MOKELUMNE RIVER.

**Detailed Location:**  
MILK RANCH CREEK FROM MILK RANCH MEADOW TO MOUTH (CONFLUENCE OF MOKELUMNE RIVER).

**Ecological:**  
ALPINE STREAM.

**Threats:**  
**General:**

1995 SUMMER SURVEY DONE BY USFS(E. GRESTUNG PERS).

<b>PLSS:</b> T08N, R20E, Sec. 30 (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 107
<b>UTM:</b> Zone-11 N4266666 E254187	<b>Latitude/Longitude:</b> 38.51447 / -119.81932	<b>Elevation (feet):</b> 8,140

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Ebbetts Pass (3811957)
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**Sources:**  
SOM96U0001 SOMER, W.L. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - MEMO TO D. DRAKE, SUBJECT: "SENSITIVE SPECIES INFORMATION FOR CDF FIRE PLAN." 1996-04-15



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> B3518	<b>EO Index:</b> 117165
<b>Key Quad:</b> Markleeville (3811967)	<b>Element Code:</b> AFCHA03060
<b>Occurrence Number:</b> 14	<b>Occurrence Last Updated:</b> 2019-10-16

<b>Scientific Name:</b> <i>Prosopium williamsoni</i>	<b>Common Name:</b> mountain whitefish
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5	
<b>State:</b> S3	

<b>General Habitat:</b>	<b>Micro Habitat:</b>
<input type="checkbox"/>	<input type="checkbox"/>

<b>Last Date Observed:</b> 2003-XX-XX	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2003-XX-XX	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS, UNKNOWN	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
HOT SPRINGS CREEK, MARKLEEVILLE CREEK, AND EAST FORK CARSON RIVER, NEAR THE TOWN OF MARKLEEVILLE.

**Detailed Location:**  
MAPPED TO ABOUT 5 MILES OF HOT SPRINGS/MARKLEEVILLE CREEKS FROM GROVER HOT SPRINGS DOWNSTREAM TO E FK CARSON RIVER, AND TO ABOUT 5 MILES OF E FK CARSON RIVER FROM BULLION DOWNSTREAM TO MARKLEEVILLE CREEK.

**Ecological:**

**Threats:**

**General:**

COLLECTED IN 1931. DETECTED DURING ELECTROFISHING SURVEYS IN THIS GENERAL VICINITY IN 1983, 1987, 1988, 1993, 1994, 1995, 1996, AND 2001. 3 CAUGHT BY ANGLERS NEAR HANGMANS BRIDGE IN 2003.

<b>PLSS:</b> T10N, R20E, Sec. 22 (M)	<b>Accuracy:</b> non-specific area	<b>Area (acres):</b> 687
<b>UTM:</b> Zone-11 N4287078 E259482	<b>Latitude/Longitude:</b> 38.69964 / -119.76572	<b>Elevation (feet):</b> 5,500

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine	Heenan Lake (3811966), Markleeville (3811967)

**Sources:**

CAL15D0001	CALIFORNIA HERITAGE AND WILD TROUT PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - CALIFORNIA HERITAGE AND WILD TROUT PROGRAM DEPLETION ELECTROFISH SURVEY DATA 1975-2012 2015-12-03
DFG03U0004	CALIFORNIA DEPARTMENT OF FISH AND GAME - 2003 ANGLER SURVEY BOX DATA SUMMARIES FOR EAST FORK CARSON RIVER 2003-XX-XX
TAF31S0006	TAFT, A. - CAS #209462 COLLECTED FROM CARSON RIVER, MARKLEEVILLE 1931-07-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> B4242	<b>EO Index:</b> 117169
<b>Key Quad:</b> Carters Station (3811976)	<b>Element Code:</b> AFCHA03060
<b>Occurrence Number:</b> 15	<b>Occurrence Last Updated:</b> 2019-10-18

<b>Scientific Name:</b> <i>Prosopium williamsoni</i>	<b>Common Name:</b> mountain whitefish
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5	
<b>State:</b> S3	

<b>General Habitat:</b>	<b>Micro Habitat:</b>
<input type="checkbox"/>	<input type="checkbox"/>

<b>Last Date Observed:</b> 2008-08-26	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2008-08-26	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-HUMBOLDT-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
EAST FORK CARSON RIVER, FROM THE CA/NV STATE LINE TO ABOUT 4 MILES UPSTREAM OF BORDER, HUMBOLDT-TOIYABE NATIONAL FOREST.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

1 CAUGHT BY AN ANGLER IN THE LOWER CANYON OF EAST FORK CARSON RIVER IN 2003. 1 CAUGHT ALONG THIS SECTION OF RIVER ON 26 AUG 2008.

<b>PLSS:</b> T11N, R20E, Sec. 34 (M)	<b>Accuracy:</b> non-specific area	<b>Area (acres):</b> 308
<b>UTM:</b> Zone-11 N4294671 E264134	<b>Latitude/Longitude:</b> 38.76925 / -119.71486	<b>Elevation (feet):</b> 5,200

**County Summary:**

Alpine

**Quad Summary:**

Carters Station (3811976)

**Sources:**

- DFG03U0004 CALIFORNIA DEPARTMENT OF FISH AND GAME - 2003 ANGLER SURVEY BOX DATA SUMMARIES FOR EAST FORK CARSON RIVER 2003-XX-XX
- WEA08R0003 WEAVER, J. & S. MEHALICK (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - EAST FORK CARSON SUMMARY REPORT, 2008 2008-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> B4301	<b>EO Index:</b> 117196
<b>Key Quad:</b> Ebbetts Pass (3811957)	<b>Element Code:</b> AFCHA03060
<b>Occurrence Number:</b> 16	<b>Occurrence Last Updated:</b> 2019-10-23

<b>Scientific Name:</b> <i>Prosopium williamsoni</i>	<b>Common Name:</b> mountain whitefish
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5	
<b>State:</b> S3	

<b>General Habitat:</b>	<b>Micro Habitat:</b>
<input type="checkbox"/>	<input type="checkbox"/>

<b>Last Date Observed:</b> 1983-10-28	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1995-11-01	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-HUMBOLDT-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
SILVER CREEK, HUMBOLDT-TOIYABE NATIONAL FOREST.

**Detailed Location:**  
LOCATION OF DETECTION IS UNKNOWN. MAPPED BY CNDDDB NON-SPECIFICALLY ALONG 5 MILES OF SILVER CREEK FROM SILVER CREEK CAMPGROUND DOWNSTREAM TO THE CONFLUENCE WITH EAST FORK CARSON RIVER.

**Ecological:**  
**Threats:**

**General:**  
DETECTED SOMEWHERE ALONG SILVER CREEK DURING AN ELECTROFISHING SURVEY ON 28 OCT 1983. NONE FOUND DURING A SUBSEQUENT ELECTROFISHING SURVEY ON 1 NOV 1995.

<b>PLSS:</b> T09N, R20E, Sec. 22 (M)	<b>Accuracy:</b> non-specific area	<b>Area (acres):</b> 332
<b>UTM:</b> Zone-11 N4277645 E259816	<b>Latitude/Longitude:</b> 38.61483 / -119.75862	<b>Elevation (feet):</b> 6,300

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine	Wolf Creek (3811956), Ebbetts Pass (3811957), Heenan Lake (3811966)

**Sources:**  
CAL15D0001 CALIFORNIA HERITAGE AND WILD TROUT PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - CALIFORNIA HERITAGE AND WILD TROUT PROGRAM DEPLETION ELECTROFISH SURVEY DATA 1975-2012 2015-12-03



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> B4302	<b>EO Index:</b> 117229
<b>Key Quad:</b> Wolf Creek (3811956)	<b>Element Code:</b> AFCHA03060
<b>Occurrence Number:</b> 17	<b>Occurrence Last Updated:</b> 2019-10-24

<b>Scientific Name:</b> <i>Prosopium williamsoni</i>	<b>Common Name:</b> mountain whitefish
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5	
<b>State:</b> S3	

<b>General Habitat:</b>	<b>Micro Habitat:</b>
<input type="checkbox"/>	<input type="checkbox"/>

<b>Last Date Observed:</b> 1994-09-28	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1994-09-28	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-HUMBOLDT-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
WOLF CREEK, NEAR ITS CONFLUENCE WITH THE CARSON RIVER, HUMBOLDT-TOIYABE NATIONAL FOREST.

**Detailed Location:**  
LOCALITY DESCRIBED AS "WOLF CREEK" AS WELL AS "WOLF CREEK AT CARSON." MAPPED BY CNDDDB ALONG THE LOWER 1 MILE OF WOLF CREEK.

**Ecological:**  
**Threats:**

**General:**  
DETECTED IN THIS VICINITY DURING AN ELECTROFISHING SURVEY ON 28 SEP 1994.

<b>PLSS:</b> T09N, R21E, Sec. 20, SE (M)	<b>Accuracy:</b> non-specific area	<b>Area (acres):</b> 84
<b>UTM:</b> Zone-11 N4276661 E265736	<b>Latitude/Longitude:</b> 38.60755 / -119.69037	<b>Elevation (feet):</b> 6,160

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine	Wolf Creek (3811956)

**Sources:**  
CAL15D0001 CALIFORNIA HERITAGE AND WILD TROUT PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - CALIFORNIA HERITAGE AND WILD TROUT PROGRAM DEPLETION ELECTROFISH SURVEY DATA 1975-2012 2015-12-03



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	B3514	<b>EO Index:</b>	115431
<b>Key Quad:</b>	Woodfords (3811977)	<b>Element Code:</b>	AFCJC02160
<b>Occurrence Number:</b>	15	<b>Occurrence Last Updated:</b>	2019-08-02

<b>Scientific Name:</b>	<i>Catostomus platyrhynchus</i>	<b>Common Name:</b>	mountain sucker
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> None	<b>Rare Plant Rank:</b>	
<b>CNDDDB Element Ranks:</b>	<b>Global:</b> G5 <b>State:</b> S3	<b>Other Lists:</b>	CDFW_SSC-Species of Special Concern

<b>General Habitat:</b>	<b>Micro Habitat:</b>
RESTRICTED TO THE LAHONTAN DRAINAGE SYSTEM.	GENERALLY OCCUPY POOL-LIKE HABITATS. ABUNDANCE GREATEST IN AREAS WITH DENSE COVER.

<b>Last Date Observed:</b>	1995-10-16	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2005-10-28	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	USFS-HUMBOLDT-TOIYABE NF	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**  
WEST FORK CARSON RIVER IN WEST CARSON CANYON, HUMBOLDT-TOIYABE NATIONAL FOREST.

**Detailed Location:**  
LOCATION DESCRIBED AS WEST FORK OF THE CARSON RIVER, 38.77624, -119.87482. COORDINATES DON'T FALL RIGHT ALONG THE RIVER. MAPPED BY CNDDDB ALONG THE LENGTH IN WEST CARSON CANYON BETWEEN SORESENS AND WOODFORDS.

**Ecological:**  
C. TAHOENSIS DETECTED HERE ON SURVEYS IN 1989, 1991, 1993, 1994, 1995, 1996, AND 2005,

**Threats:**  
**General:**  
DETECTED IN THIS VICINITY DURING ELECTROFISHING SURVEYS ON 27 SEP 1994 AND 16 OCT 1995.

<b>PLSS:</b> T11N, R19E, Sec. 32 (M)	<b>Accuracy:</b> non-specific area	<b>Area (acres):</b> 337
<b>UTM:</b> Zone-11 N4295324 E250369	<b>Latitude/Longitude:</b> 38.77134 / -119.87336	<b>Elevation (feet):</b> 6,400

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine	Woodfords (3811977), Freel Peak (3811978)

**Sources:**  
CAL15D0001 CALIFORNIA HERITAGE AND WILD TROUT PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - CALIFORNIA HERITAGE AND WILD TROUT PROGRAM DEPLETION ELECTROFISH SURVEY DATA 1975-2012 2015-12-03



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> B3518	<b>EO Index:</b> 115434
<b>Key Quad:</b> Markleeville (3811967)	<b>Element Code:</b> AFCJC02160
<b>Occurrence Number:</b> 16	<b>Occurrence Last Updated:</b> 2019-08-02

<b>Scientific Name:</b> <i>Catostomus platyrhynchus</i>	<b>Common Name:</b> mountain sucker
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5	
<b>State:</b> S3	

<b>General Habitat:</b> RESTRICTED TO THE LAHONTAN DRAINAGE SYSTEM.	<b>Micro Habitat:</b> GENERALLY OCCUPY POOL-LIKE HABITATS. ABUNDANCE GREATEST IN AREAS WITH DENSE COVER.
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<b>Last Date Observed:</b> 1995-10-18	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2001-08-29	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS, UNKNOWN	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
HOT SPRINGS CREEK, MARKLEEVILLE CREEK, AND EAST FORK CARSON RIVER, NEAR THE TOWN OF MARKLEEVILLE.

**Detailed Location:**  
MAPPED TO ABOUT 5 MILES OF HOT SPRINGS/MARKLEEVILLE CREEKS FROM GROVER HOT SPRINGS DOWNSTREAM TO E FK CARSON RIVER, AND TO ABOUT 5 MILES OF E FK CARSON RIVER FROM BULLION DOWNSTREAM TO MARKLEEVILLE CREEK.

**Ecological:**  
**Threats:**

**General:**  
DETECTED DURING ELECTROFISHING SURVEYS IN THIS GENERAL VICINITY IN 1983, 1987, 1988, 1993, 1994, AND 1995.

<b>PLSS:</b> T10N, R20E, Sec. 22 (M)	<b>Accuracy:</b> non-specific area	<b>Area (acres):</b> 687
<b>UTM:</b> Zone-11 N4287078 E259482	<b>Latitude/Longitude:</b> 38.69964 / -119.76572	<b>Elevation (feet):</b> 5,500

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Heenan Lake (3811966), Markleeville (3811967)
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**Sources:**  
CAL15D0001 CALIFORNIA HERITAGE AND WILD TROUT PROGRAM (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - CALIFORNIA HERITAGE AND WILD TROUT PROGRAM DEPLETION ELECTROFISH SURVEY DATA 1975-2012 2015-12-03



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 62684	<b>EO Index:</b> 62721
<b>Key Quad:</b> Freel Peak (3811978)	<b>Element Code:</b> AMACC01090
<b>Occurrence Number:</b> 18	<b>Occurrence Last Updated:</b> 2005-09-22

<b>Scientific Name:</b> <i>Myotis thysanodes</i>	<b>Common Name:</b> fringed myotis
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b>
<b>CNDDDB Element Ranks:</b>	BLM_S-Sensitive
<b>Global:</b> G4	IUCN_LC-Least Concern
<b>State:</b> S3	USFS_S-Sensitive
	WBWG_H-High Priority

<b>General Habitat:</b> IN A WIDE VARIETY OF HABITATS, OPTIMAL HABITATS ARE PINYON-JUNIPER, VALLEY FOOTHILL HARDWOOD & HARDWOOD-CONIFER.	<b>Micro Habitat:</b> USES CAVES, MINES, BUILDINGS OR CREVICES FOR MATERNITY COLONIES AND ROOSTS.
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<b>Last Date Observed:</b> 2002-06-25	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2002-06-25	<b>Occurrence Rank:</b> Excellent
<b>Owner/Manager:</b> USFS-ELDORADO NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
ALONG MEADOW CREEK, ABOUT 0.8 MILE NORTHWEST OF SCOTTS LAKE, ELDORADO NATIONAL FOREST.

**Detailed Location:**

**Ecological:**  
ASPEN RIPARIAN CORRIDOR, STREAM HAS POOLS. WILLOW THICKETS ALSO PRESENT.

**Threats:**  
MOUNTAIN BIKE TRAIL NEARBY.

**General:**  
1 NON-BREEDING ADULT DETECTED 25 JUN 2002.

<b>PLSS:</b> T11N, R18E, Sec. 27, NE (M)	<b>Accuracy:</b> 1/10 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4295702 E241239	<b>Latitude/Longitude:</b> 38.77211 / -119.97845	<b>Elevation (feet):</b> 7,875

<b>County Summary:</b> El Dorado	<b>Quad Summary:</b> Freel Peak (3811978)
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**Sources:**  
MCK02F0004 MCKENZIE, M. (U.S. FOREST SERVICE) - FIELD SURVEY FORM FOR MYOTIS THYSANODES 2002-06-25





# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 68617	<b>EO Index:</b> 69003	
<b>Key Quad:</b> Caples Lake (3812061)	<b>Element Code:</b> AMACC01110	
<b>Occurrence Number:</b> 95	<b>Occurrence Last Updated:</b> 2007-03-21	

<b>Scientific Name:</b> <i>Myotis volans</i>	<b>Common Name:</b> long-legged myotis
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> IUCN_LC-Least Concern
<b>CNDDB Element Ranks:</b>	WBWG_H-High Priority
<b>Global:</b> G5	
<b>State:</b> S3	

<b>General Habitat:</b> MOST COMMON IN WOODLAND AND FOREST HABITATS ABOVE 4000 FT. TREES ARE IMPORTANT DAY ROOSTS; CAVES AND MINES ARE NIGHT ROOSTS.	<b>Micro Habitat:</b> NURSERY COLONIES USUALLY UNDER BARK OR IN HOLLOW TREES, BUT OCCASIONALLY IN CREVICES OR BUILDINGS.
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<b>Last Date Observed:</b> 2001-08-02	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2001-08-02	<b>Occurrence Rank:</b> Good
<b>Owner/Manager:</b> USFS-ELDORADO NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
EL DORADO NATIONAL FOREST, VICINITY OF MEISS LAKE, ROUND LAKE, AND EL DORADO/ALPINE COUNTY LINE.

**Detailed Location:**  
PLOT ID H2 C. MAPPED IN SECTION 4 ACCORDING TO T-R-S DATA PROVIDED BY SOURCE.

**Ecological:**  
MEDIUM POND.

**Threats:**  
CATTLE GRAZING.

**General:**  
SITE SURVEYED 7 JUL, 2 & 21 AUG, 8 & 14 SEP. 2001. 1 MALE OBSERVED ON 2 AUG 2001.

<b>PLSS:</b> T10N, R18E, Sec. 04 (M)	<b>Accuracy:</b> non-specific area	<b>Area (acres):</b> 698
<b>UTM:</b> Zone-10 N4292412 E760052	<b>Latitude/Longitude:</b> 38.74213 / -120.00792	<b>Elevation (feet):</b> 8,500

<b>County Summary:</b> Alpine, El Dorado	<b>Quad Summary:</b> Carson Pass (3811968), Freel Peak (3811978), Caples Lake (3812061), Echo Lake (3812071)
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**Sources:**  
ANONDU0069 ANONYMOUS - OBSERVATIONS OR CAPTURE RECORDS FOR ANTROZOUS PALLIDUS, MYOTIS THYSANODES & MYOTIS VOLANS. XXXX-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 60984	<b>EO Index:</b> 61020	
<b>Key Quad:</b> Markleeville (3811967)	<b>Element Code:</b> AMACC02010	
<b>Occurrence Number:</b> 12	<b>Occurrence Last Updated:</b> 2005-04-15	

<b>Scientific Name:</b> <i>Lasionycteris noctivagans</i>	<b>Common Name:</b> silver-haired bat
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> IUCN_LC-Least Concern
<b>CNDDB Element Ranks:</b>	WBWG_M-Medium Priority
<b>Global:</b> G5	
<b>State:</b> S3S4	

<b>General Habitat:</b> PRIMARILY A COASTAL AND MONTANE FOREST DWELLER, FEEDING OVER STREAMS, PONDS & OPEN BRUSHY AREAS.	<b>Micro Habitat:</b> ROOSTS IN HOLLOW TREES, BENEATH EXFOLIATING BARK, ABANDONED WOODPECKER HOLES, AND RARELY UNDER ROCKS. NEEDS DRINKING WATER.
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<b>Last Date Observed:</b> 1947-08-27	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1947-08-27	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> UNKNOWN	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
MARKLEEVILLE.

**Detailed Location:**  
EXACT LOCATION NOT KNOWN. MAPPED ACCORDING TO LAT/LONG COORDINATES PROVIDED BY MANIS WITH AN UNCERTAINTY OF 322 METERS (ABOUT 0.20 MILES).

**Ecological:**

**Threats:**

**General:**

ONE MALE SPECIMEN COLLECTED 27 AUG 1947 BY W. RUSSELL AT "MARKLEEVILLE" (MVZ #107376).

<b>PLSS:</b> T10N, R20E, Sec. 21 (M)	<b>Accuracy:</b> 1 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4286691 E258094	<b>Latitude/Longitude:</b> 38.69578 / -119.78152	<b>Elevation (feet):</b> 5,550

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Markleeville (3811967)
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**Sources:**  
MAN04S0022 MAMMAL NETWORKED INFORMATION SYSTEM (MANIS) - PRINTOUT OF LASIONYCTERIS NOCTIVAGANS SPECIMEN RECORDS FROM MANIS. INCLUDES RECORDS FROM LACM, CAS, MSB & MVZ. 2004-12-10



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b> 70027	<b>EO Index:</b> 70880
<b>Key Quad:</b> Carson Pass (3811968)	<b>Element Code:</b> AMAEA0102L
<b>Occurrence Number:</b> 87	<b>Occurrence Last Updated:</b> 2007-09-25

<b>Scientific Name:</b> <i>Ochotona princeps schisticeps</i>	<b>Common Name:</b> gray-headed pika
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> IUCN_NT-Near Threatened
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5T2T4	
<b>State:</b> S2S4	

<b>General Habitat:</b>	<b>Micro Habitat:</b>
MOUNTAINOUS AREAS, GENERALLY AT HIGHER ELEVATIONS, OFTEN ABOVE THE TREELINE UP TO THE LIMIT OF VEGETATION. AT LOWER ELEVATIONS FOUND IN ROCKY AREAS WITHIN FORESTS OR NEAR LAKES.	TALUS SLOPES, OCCASIONALLY ON MINE TAILINGS. PREFERS TALUS-MEADOW INTERFACE.

<b>Last Date Observed:</b> 1956-09-17	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1956-09-17	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-HUMBOLDT-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
CRATER LAKE.

**Detailed Location:**  
MAPPED ACCORDING TO COORDINATES PROVIDED BY MANIS.

**Ecological:**

**Threats:**

**General:**

ON 17 SEP 1956, K. POEHLMANN COLLECTED 1 MALE SPECIMEN (UMNH #14162).

<b>PLSS:</b> T10N, R18E, Sec. 11 (M)	<b>Accuracy:</b> 4/5 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4290266 E241346	<b>Latitude/Longitude:</b> 38.72322 / -119.97519	<b>Elevation (feet):</b> 8,591

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine	Carson Pass (3811968)

**Sources:**  
MAN07S0005 MAMMAL NETWORKED INFORMATION SYSTEM (MANIS) - PRINTOUT OF MUSEUM RECORDS FOR OCHOTONA PRINCEPS MUIRI. 2007-09-24



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 79833	<b>EO Index:</b> 80823
<b>Key Quad:</b> Ebbetts Pass (3811957)	<b>Element Code:</b> AMAEA0102L
<b>Occurrence Number:</b> 150	<b>Occurrence Last Updated:</b> 2010-09-02

<b>Scientific Name:</b> <i>Ochotona princeps schisticeps</i>	<b>Common Name:</b> gray-headed pika
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> IUCN_NT-Near Threatened
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5T2T4	
<b>State:</b> S2S4	

<b>General Habitat:</b> MOUNTAINOUS AREAS, GENERALLY AT HIGHER ELEVATIONS, OFTEN ABOVE THE TREELINE UP TO THE LIMIT OF VEGETATION. AT LOWER ELEVATIONS FOUND IN ROCKY AREAS WITHIN FORESTS OR NEAR LAKES.	<b>Micro Habitat:</b> TALUS SLOPES, OCCASIONALLY ON MINE TAILINGS. PREFERS TALUS-MEADOW INTERFACE.
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<b>Last Date Observed:</b> 2005-06-23	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2005-06-23	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-STANISLAUS NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
0.2 MI SW OF EBBETTS PEAK, 9.3 MI SSW OF HWY 89 AT HWY 4, STANISLAUS NATIONAL FOREST.

**Detailed Location:**  
CUMV SPECIMENS MAPPED TO PROVIDED COORDINATES. NMMNH SPECIMENS MAPPED GENERALLY TO STATED LOCATION, "EBBETTS PASS."

**Ecological:**

**Threats:**

**General:**  
14 INDIVIDUALS (8 FEMALES, 6 UNKNOWN SEX) COLLECTED BY D.J. HAFNER & R.M. SULLIVAN ON 2 JUL 1988 (NMMNH #836-846). 3 INDIVIDUALS (1 MALE, 1 FEMALE, 1 UNKNOWN SEX) COLLECTED ON 23 JUNE 2005 BY K. GALBREATH (CUMV #20594 & 20683-4).

<b>PLSS:</b> T08N, R20E, Sec. 18, E (M)	<b>Accuracy:</b> 1/10 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4270137 E254566	<b>Latitude/Longitude:</b> 38.54581 / -119.81620	<b>Elevation (feet):</b> 8,900

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Ebbetts Pass (3811957)
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**Sources:**

GAL05S0001	GALBREATH, K. - CUMV #20594 COLLECTED NEAR EBBETTS PASS 2005-06-23
GAL05S0002	GALBREATH, K. - CUMV #20683 COLLECTED NEAR EBBETTS PASS 2005-06-23
GAL05S0003	GALBREATH, K. - CUMV #20684 COLLECTED NEAR EBBETTS PASS 2005-06-23
HAF88S0001	HAFNER, D. - NMMNH #833, 834, 835, 836, 837, 838 & 839 COLLECTED NEAR EBBETTS PASS 1988-07-02
SUL88S0001	SULLIVAN, R. - PIKA SPECIMENS (NMMNH#S 840-6) COLLECTED BY R.M. SULLIVAN NEAR EBBETTS PASS 1988-07-02



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 80263	<b>EO Index:</b> 81242	
<b>Key Quad:</b> Freel Peak (3811978)	<b>Element Code:</b> AMAEA0102L	
<b>Occurrence Number:</b> 170	<b>Occurrence Last Updated:</b> 2010-10-05	

<b>Scientific Name:</b> <i>Ochotona princeps schisticeps</i>	<b>Common Name:</b> gray-headed pika
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> IUCN_NT-Near Threatened
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5T2T4	
<b>State:</b> S2S4	

<b>General Habitat:</b> MOUNTAINOUS AREAS, GENERALLY AT HIGHER ELEVATIONS, OFTEN ABOVE THE TREELINE UP TO THE LIMIT OF VEGETATION. AT LOWER ELEVATIONS FOUND IN ROCKY AREAS WITHIN FORESTS OR NEAR LAKES.	<b>Micro Habitat:</b> TALUS SLOPES, OCCASIONALLY ON MINE TAILINGS. PREFERS TALUS-MEADOW INTERFACE.
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<b>Last Date Observed:</b> 2007-11-18	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2007-11-18	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-HUMBOLDT-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
1.6 MI E OF LUTHER PASS RD (HWY 89) AT CARSON PASS HWY (HWY 88), 2.3 MI W OF CARY PEAK, TOIYABE NF.

**Detailed Location:**  
MAPPED TO PROVIDED COORDINATES AND LOCATION LISTED AS "CARSON PASS AREA, 1/2 MI W OF HORSETHIEF CYN TRLHD, SR 88, S-FACING SLOPE."

**Ecological:**  
HABITAT CONSISTED OF GRANITE BASED "BOULDER STREAMS" (LANDFORMS CHARACTERIZED BY HIGHLY SORTED, SHATTERED, ANGULAR ROCKS OF CONSISTENT CLAST SIZE).

**Threats:**  
**General:**  
FRESH PELLETS AND URINE FOUND DURING A 30 MIN RAPID ASSESSMENT SURVEY. DATA NOTES "ABUNDANT PIKA, GRANARIES."

<b>PLSS:</b> T11N, R19E, Sec. 31, N (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4296072 E248964	<b>Latitude/Longitude:</b> 38.77767 / -119.88977	<b>Elevation (feet):</b> 6,782

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Freel Peak (3811978)
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**Sources:**  
MIL09D0001 MILLAR, C. (U.S. FOREST SERVICE-PACIFIC SOUTHWEST RESEARCH STATION) - TABULAR DATA FOR PIKA SITES AND PELLET COLLECTIONS. DATA PUBLISHED IN ARCTIC, ANTARCTIC, & ALPINE RESEARCH, VOL 42, 2010, PP. 76-88. 2009-11-05



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 80264	<b>EO Index:</b> 81246	
<b>Key Quad:</b> Woodfords (3811977)	<b>Element Code:</b> AMAEA0102L	
<b>Occurrence Number:</b> 171	<b>Occurrence Last Updated:</b> 2010-10-05	

<b>Scientific Name:</b> <i>Ochotona princeps schisticeps</i>	<b>Common Name:</b> gray-headed pika
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> IUCN_NT-Near Threatened
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5T2T4	
<b>State:</b> S2S4	

<b>General Habitat:</b> MOUNTAINOUS AREAS, GENERALLY AT HIGHER ELEVATIONS, OFTEN ABOVE THE TREELINE UP TO THE LIMIT OF VEGETATION. AT LOWER ELEVATIONS FOUND IN ROCKY AREAS WITHIN FORESTS OR NEAR LAKES.	<b>Micro Habitat:</b> TALUS SLOPES, OCCASIONALLY ON MINE TAILINGS. PREFERS TALUS-MEADOW INTERFACE.
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<b>Last Date Observed:</b> 2007-08-11	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2007-08-11	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-HUMBOLDT-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
1 MI S OF CARY PEAK, 1.5 MI W OF STATE ROUTE 89 AT CARSON PASS HWY (SR 88), TOIYABE NF.

**Detailed Location:**  
MAPPED TO PROVIDED COORDINATES AND LOCATION LISTED AS "CARSON PASS AREA, 1 MI W OF WOODFORDS; CRYSTAL SPG RD, SR 88, N-FACING SLOPE"

**Ecological:**  
HABITAT CONSISTED OF GRANITE BASED "BOULDER STREAMS" (LANDFORMS CHARACTERIZED BY HIGHLY SORTED, SHATTERED, ANGULAR ROCKS OF CONSISTENT CLAST SIZE).

**Threats:**

**General:**  
FRESH PELLETS AND URINE FOUND DURING A 30 MIN RAPID ASSESSMENT SURVEY. DATA NOTES "ABUNDANT PIKA, GRANARIES."

<b>PLSS:</b> T10N, R19E, Sec. 01, NW (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4294500 E252479	<b>Latitude/Longitude:</b> 38.76452 / -119.84880	<b>Elevation (feet):</b> 5,993

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Woodfords (3811977)
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**Sources:**  
MIL09D0001 MILLAR, C. (U.S. FOREST SERVICE-PACIFIC SOUTHWEST RESEARCH STATION) - TABULAR DATA FOR PIKA SITES AND PELLET COLLECTIONS. DATA PUBLISHED IN ARCTIC, ANTARCTIC, & ALPINE RESEARCH, VOL 42, 2010, PP. 76-88. 2009-11-05



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 80266	<b>EO Index:</b> 81250	
<b>Key Quad:</b> Carson Pass (3811968)	<b>Element Code:</b> AMAEA0102L	
<b>Occurrence Number:</b> 172	<b>Occurrence Last Updated:</b> 2010-10-05	

<b>Scientific Name:</b> <i>Ochotona princeps schisticeps</i>	<b>Common Name:</b> gray-headed pika
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> IUCN_NT-Near Threatened
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5T2T4	
<b>State:</b> S2S4	

<b>General Habitat:</b>	<b>Micro Habitat:</b>
MOUNTAINOUS AREAS, GENERALLY AT HIGHER ELEVATIONS, OFTEN ABOVE THE TREELINE UP TO THE LIMIT OF VEGETATION. AT LOWER ELEVATIONS FOUND IN ROCKY AREAS WITHIN FORESTS OR NEAR LAKES.	TALUS SLOPES, OCCASIONALLY ON MINE TAILINGS. PREFERS TALUS-MEADOW INTERFACE.

<b>Last Date Observed:</b> 2008-08-13	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2008-08-13	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-ELDORADO NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
IN THE VICINITY OF ELEPHANTS BACK, 1.5 MI NE OF ROUND TOP, BORDER OF EL DORADO AND TOIYABE NATIONAL FORESTS.

**Detailed Location:**  
MAPPED TO PROVIDED COORDINATES AND LOCATION LISTED AS "CARSON PASS, ELEPHANT'S HEAD, VOLCANIC BRECCIA SLOPES OF PK."

**Ecological:**  
HABITAT CONSISTED OF DARK VOLCANIC BASED "BOULDER STREAMS" (LANDFORMS CHARACTERIZED BY HIGHLY SORTED, SHATTERED, ANGULAR ROCKS OF CONSISTENT CLAST SIZE). M. FLAVIVENTRIS SCAT WAS ALSO FOUND.

**Threats:**

**General:**  
PIKA WERE OBSERVED AT 3 SITES ALONG WITH FRESH PELLETS, URINE, AND HAYPILES.

<b>PLSS:</b> T10N, R18E, Sec. 27, SE (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4285590 E240410	<b>Latitude/Longitude:</b> 38.68086 / -119.98419	<b>Elevation (feet):</b> 9,260

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine	Carson Pass (3811968)

**Sources:**  
MIL09D0001 MILLAR, C. (U.S. FOREST SERVICE-PACIFIC SOUTHWEST RESEARCH STATION) - TABULAR DATA FOR PIKA SITES AND PELLET COLLECTIONS. DATA PUBLISHED IN ARCTIC, ANTARCTIC, & ALPINE RESEARCH, VOL 42, 2010, PP. 76-88. 2009-11-05



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 80270	<b>EO Index:</b> 81258
<b>Key Quad:</b> Carson Pass (3811968)	<b>Element Code:</b> AMAEA0102L
<b>Occurrence Number:</b> 173	<b>Occurrence Last Updated:</b> 2010-10-05

<b>Scientific Name:</b> <i>Ochotona princeps schisticeps</i>	<b>Common Name:</b> gray-headed pika
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> IUCN_NT-Near Threatened
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5T2T4	
<b>State:</b> S2S4	

<b>General Habitat:</b>	<b>Micro Habitat:</b>
MOUNTAINOUS AREAS, GENERALLY AT HIGHER ELEVATIONS, OFTEN ABOVE THE TREELINE UP TO THE LIMIT OF VEGETATION. AT LOWER ELEVATIONS FOUND IN ROCKY AREAS WITHIN FORESTS OR NEAR LAKES.	TALUS SLOPES, OCCASIONALLY ON MINE TAILINGS. PREFERS TALUS-MEADOW INTERFACE.

<b>Last Date Observed:</b> 2007-11-18	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2007-11-18	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-HUMBOLDT-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
1.7 MI NW OF MARKLEEVILLE PEAK, 5.3 MI SSE OF CARSON PASS HWY (88) AT BLUE LAKES RD, TOIYABE NF.

**Detailed Location:**  
MAPPED TO PROVIDED COORDINATES AND LOCATION LISTED AS "CARSON PASS AREA, ABOVE FAITH VALLEY, BLUE LK RD, ASPEN CAMP."

**Ecological:**  
HABITAT CONSISTED OF VOLCANIC BASED "BOULDER STREAMS" (LANDFORMS CHARACTERIZED BY HIGHLY SORTED, SHATTERED, ANGULAR ROCKS OF CONSISTENT CLAST SIZE).

**Threats:**  
**General:**  
FRESH PELLETS, URINE, AND HAYPILES FOUND DURING A 30 MIN RAPID ASSESSMENT SURVEY. DATA NOTES "W-FACING SLOPE, ABUNDANT ACTIVE PIKA SIGN; GRANARIES."

<b>PLSS:</b> T10N, R19E, Sec. 31, NW (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4284755 E245562	<b>Latitude/Longitude:</b> 38.67484 / -119.92473	<b>Elevation (feet):</b> 7,761

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine	Carson Pass (3811968)

**Sources:**  
MIL09D0001 MILLAR, C. (U.S. FOREST SERVICE-PACIFIC SOUTHWEST RESEARCH STATION) - TABULAR DATA FOR PIKA SITES AND PELLET COLLECTIONS. DATA PUBLISHED IN ARCTIC, ANTARCTIC, & ALPINE RESEARCH, VOL 42, 2010, PP. 76-88. 2009-11-05





# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 80301	<b>EO Index:</b> 81257	
<b>Key Quad:</b> Heenan Lake (3811966)	<b>Element Code:</b> AMAEA0102L	
<b>Occurrence Number:</b> 174	<b>Occurrence Last Updated:</b> 2010-10-06	

<b>Scientific Name:</b> <i>Ochotona princeps schisticeps</i>	<b>Common Name:</b> gray-headed pika
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> IUCN_NT-Near Threatened
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5T2T4	
<b>State:</b> S2S4	

<b>General Habitat:</b> MOUNTAINOUS AREAS, GENERALLY AT HIGHER ELEVATIONS, OFTEN ABOVE THE TREELINE UP TO THE LIMIT OF VEGETATION. AT LOWER ELEVATIONS FOUND IN ROCKY AREAS WITHIN FORESTS OR NEAR LAKES.	<b>Micro Habitat:</b> TALUS SLOPES, OCCASIONALLY ON MINE TAILINGS. PREFERS TALUS-MEADOW INTERFACE.
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<b>Last Date Observed:</b> 2007-11-18	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2007-11-18	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-HUMBOLDT-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
1 MI W LEVIATHAN PEAK, 5.4 MI ENE OF HWY 4 AT HWY 89 (VICINITY OF MONITOR PASS), TOIYABE NATIONAL PARK.

**Detailed Location:**  
MAPPED TO PROVIDED COORDINATES AND LOCATION LISTED AS "MONITOR PASS RANGE, MONITOR PASS PLATEAU, FLAT INSELBERG/TOR."

**Ecological:**  
HABITAT CONSISTED OF SMALL, DARK-VOLCANIC BASED TOR (ROCK OUTCROP) SURROUNDED BY SAGE FLATS.

**Threats:**

**General:**  
FRESH PELLETS, URINE, AND HAYPILES FOUND DURING A 30 MIN RAPID ASSESSMENT SURVEY. DATA NOTES "ENORMOUSLY ABUNDANT, ACTIVE PIKA SITE."

<b>PLSS:</b> T10N, R21E, Sec. 25, SW (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4284729 E271248	<b>Latitude/Longitude:</b> 38.68162 / -119.62977	<b>Elevation (feet):</b> 8,329

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Heenan Lake (3811966)
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**Sources:**  
MIL09D0001 MILLAR, C. (U.S. FOREST SERVICE-PACIFIC SOUTHWEST RESEARCH STATION) - TABULAR DATA FOR PIKA SITES AND PELLET COLLECTIONS. DATA PUBLISHED IN ARCTIC, ANTARCTIC, & ALPINE RESEARCH, VOL 42, 2010, PP. 76-88. 2009-11-05



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 80303	<b>EO Index:</b> 81277	
<b>Key Quad:</b> Heenan Lake (3811966)	<b>Element Code:</b> AMAEA0102L	
<b>Occurrence Number:</b> 175	<b>Occurrence Last Updated:</b> 2010-10-06	

<b>Scientific Name:</b> <i>Ochotona princeps schisticeps</i>	<b>Common Name:</b> gray-headed pika
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> IUCN_NT-Near Threatened
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5T2T4	
<b>State:</b> S2S4	

<b>General Habitat:</b>	<b>Micro Habitat:</b>
MOUNTAINOUS AREAS, GENERALLY AT HIGHER ELEVATIONS, OFTEN ABOVE THE TREELINE UP TO THE LIMIT OF VEGETATION. AT LOWER ELEVATIONS FOUND IN ROCKY AREAS WITHIN FORESTS OR NEAR LAKES.	TALUS SLOPES, OCCASIONALLY ON MINE TAILINGS. PREFERS TALUS-MEADOW INTERFACE.

<b>Last Date Observed:</b> 2008-08-16	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2008-08-16	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-HUMBOLDT-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
1.4 MI SW OF LEVIATHAN PEAK, 5.4 MI E OF HWY 4 AT HWY 89 (VICINITY OF MONITOR PASS), TOIYABE NATIONAL PARK.

**Detailed Location:**  
MAPPED TO PROVIDED COORDINATES AND LOCATION LISTED AS "MONITOR PASS RANGE, SUMMIT PLATEAU, S OF SR 89, NEAR W EDGE SUMMIT REGION" AND "SR 89, NEAR W EDGE SUMMIT REGION"

**Ecological:**  
HABITAT CONSISTED OF RED VOLCANIC BASED "BOULDER STREAMS" (LANDFORMS CHARACTERIZED BY HIGHLY SORTED, SHATTERED, ANGULAR ROCKS OF CONSISTENT CLAST SIZE).

**Threats:**

**General:**  
FRESH PELLETS AND URINE FOUND DURING A 30 MIN RAPID ASSESSMENT SURVEY. DATA NOTES "ABUNDANT SIGN WITH PROCKS OPENLY EXPOSED."

<b>PLSS:</b> T10N, R21E, Sec. 36, SW (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 7
<b>UTM:</b> Zone-11 N4282973 E271500	<b>Latitude/Longitude:</b> 38.66588 / -119.62630	<b>Elevation (feet):</b> 8,331

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine	Topaz Lake (3811965), Heenan Lake (3811966)

**Sources:**  
MIL09D0001 MILLAR, C. (U.S. FOREST SERVICE-PACIFIC SOUTHWEST RESEARCH STATION) - TABULAR DATA FOR PIKA SITES AND PELLET COLLECTIONS. DATA PUBLISHED IN ARCTIC, ANTARCTIC, & ALPINE RESEARCH, VOL 42, 2010, PP. 76-88. 2009-11-05



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 82037	<b>EO Index:</b> 83016
<b>Key Quad:</b> Carson Pass (3811968)	<b>Element Code:</b> AMAEA0102L
<b>Occurrence Number:</b> 234	<b>Occurrence Last Updated:</b> 2011-03-15

<b>Scientific Name:</b> <i>Ochotona princeps schisticeps</i>	<b>Common Name:</b> gray-headed pika
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> IUCN_NT-Near Threatened
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5T2T4	
<b>State:</b> S2S4	

<b>General Habitat:</b> MOUNTAINOUS AREAS, GENERALLY AT HIGHER ELEVATIONS, OFTEN ABOVE THE TREELINE UP TO THE LIMIT OF VEGETATION. AT LOWER ELEVATIONS FOUND IN ROCKY AREAS WITHIN FORESTS OR NEAR LAKES.	<b>Micro Habitat:</b> TALUS SLOPES, OCCASIONALLY ON MINE TAILINGS. PREFERS TALUS-MEADOW INTERFACE.
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<b>Last Date Observed:</b> 1974-10-09	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1974-10-09	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-ELDORADO NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
1.2 MI SE OF ROUND TOP, ABOUT 3 MI S OF CARSON PASS, MOKELUME WILDERNESS.

**Detailed Location:**  
MAPPED TO LOCATION STATED AS "3 MI SOUTH OF CARSON PASS."

**Ecological:**

**Threats:**

**General:**

EDWARD W. WEST COLLECTED 1 PIKA (UC DAVIS WILDLIFE FISHERIES #6244Z) ON 9 OCT 1974.

<b>PLSS:</b> T09N, R18E, Sec. 03 (M)	<b>Accuracy:</b> 1 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4282195 E240003	<b>Latitude/Longitude:</b> 38.65019 / -119.98760	<b>Elevation (feet):</b> 7,570

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Carson Pass (3811968), Caples Lake (3812061)
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**Sources:**  
UCD02S0001 UC DAVIS, MUSEUM OF WILDLIFE AND FISH BIOLOGY (UNIVERSITY OF CALIFORNIA, DAVIS) - OCHOTONA RECORDS 6244Z, 883, 2793, AND 3836. 2002-08-29



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 81753	<b>EO Index:</b> 82718
<b>Key Quad:</b> Pacific Valley (3811958)	<b>Element Code:</b> AMAEA0102L
<b>Occurrence Number:</b> 363	<b>Occurrence Last Updated:</b> 2011-08-23

<b>Scientific Name:</b> <i>Ochotona princeps schisticeps</i>	<b>Common Name:</b> gray-headed pika
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> IUCN_NT-Near Threatened
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5T2T4	
<b>State:</b> S2S4	

<b>General Habitat:</b> MOUNTAINOUS AREAS, GENERALLY AT HIGHER ELEVATIONS, OFTEN ABOVE THE TREELINE UP TO THE LIMIT OF VEGETATION. AT LOWER ELEVATIONS FOUND IN ROCKY AREAS WITHIN FORESTS OR NEAR LAKES.	<b>Micro Habitat:</b> TALUS SLOPES, OCCASIONALLY ON MINE TAILINGS. PREFERS TALUS-MEADOW INTERFACE.
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<b>Last Date Observed:</b> 2011-08-14	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2011-08-14	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-ELDORADO NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
IN THE VICINITY OF GRANITE LAKE, 1.4 MI WSW OF UPPER BLUE LAKE DAM, ABOUT 5.2 MI SSE OF CARSON PASS.

**Detailed Location:**  
MAPPED TO PROVIDED COORDINATES AND LOCATION LISTED AS "SLOPE ABOVE NW TIP OF GRANITE LAKE, OUTSIDE MOKELUMME WILDERNESS."

**Ecological:**  
**Threats:**  
**General:**

M. PETA FOUND AND COLLECTED FRESH SCAT 9 SEP 2010 IDENTIFIED TO PIKA BASED ON TRAINING BY D. WRIGHT. D. WRIGHT CONFIRMED PIKA SIGN (FRESH SCAT AND GREEN CUTTINGS) PRESENT DURING THE WEEK OF 14 AUG 2011.

<b>PLSS:</b> T09N, R18E, Sec. 23, NW (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4278926 E241924	<b>Latitude/Longitude:</b> 38.62133 / -119.96434	<b>Elevation (feet):</b> 8,800

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Pacific Valley (3811958)
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**Sources:**

PET10F0007	PETTA, M. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FIELD SURVEY FORM FOR OCHOTONA PRINCEPS 2010-09-09
WRI11U0001	WRIGHT, D. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE-REGION 2) - EMAIL REGARDING PIKA SIGN NEAR GRANIT LAKE, CARSON PASS AREA. 2011-08-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 44762	<b>EO Index:</b> 83038
<b>Key Quad:</b> Pacific Valley (3811958)	<b>Element Code:</b> AMAEA0102L
<b>Occurrence Number:</b> 366	<b>Occurrence Last Updated:</b> 2011-03-21

<b>Scientific Name:</b> <i>Ochotona princeps schisticeps</i>	<b>Common Name:</b> gray-headed pika
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> IUCN_NT-Near Threatened
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5T2T4	
<b>State:</b> S2S4	

<b>General Habitat:</b> MOUNTAINOUS AREAS, GENERALLY AT HIGHER ELEVATIONS, OFTEN ABOVE THE TREELINE UP TO THE LIMIT OF VEGETATION. AT LOWER ELEVATIONS FOUND IN ROCKY AREAS WITHIN FORESTS OR NEAR LAKES.	<b>Micro Habitat:</b> TALUS SLOPES, OCCASIONALLY ON MINE TAILINGS. PREFERS TALUS-MEADOW INTERFACE.
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<b>Last Date Observed:</b> 1943-09-11	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1943-09-12	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-STANISLAUS NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**

JUST E OF WHEELER PK, 4 MI W OF LOOKOUT PK, 4.3 MI NE OF MT REBA RD (HWY 207) AT EBBETTS PASS SCENIC BYWAY (HWY 4).

**Detailed Location:**

EXACT LOCATION UNK, MAPPED TO FIELD NOTE DESC. -CAMP "4 MI W OF LOOKOUT PEAK, 7900 FT," "AT THE HEAD OF THE STANISLAUS DRAINAGE," "ON THE DIVIDE SEPARATING THE STANISLAUS FROM THE MOKELUME RIVER-PACIFIC CREEK" W/ PIKA "IN ROCKS ABOVE CAMP."

**Ecological:**

HABITAT CONSISTED OF "AN AREA OF ROCKS OF LARGE TALUS TYPE AT THE BASE OF A SMALL GRANITE CLIFF. THE SLIDE WAS NO MORE THAN 50 FT ACROSS AND 20 FEET UP AND DOWN. THE ANIMAL BOUNDED FROM TWO LARGE BOULDERS PARTIALLY COVERED BY PRUNUS BRUSH."

**Threats:**

**General:**  
A PIKA WAS HEARD BY A.H. MILLER AT DUSK ON 10 AND SEEN ON 11 SEP 1943. NOTES STATE THAT PIKA CALLS WERE OFTEN HEARD FROM THE CAMP LOCATION AT DUSK, DAWN, AND OCCASIONALLY NIGHT. SITE VISITED AGAIN ON 12 SEP 1943, BUT NO DETECTION WAS MADE.

<b>PLSS:</b> T08N, R18E, Sec. 25 (M)	<b>Accuracy:</b> 1 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4267309 E243009	<b>Latitude/Longitude:</b> 38.51710 / -119.94762	<b>Elevation (feet):</b> 7,900

**County Summary:**

Alpine

**Quad Summary:**

Pacific Valley (3811958)

**Sources:**  
MIL43U0001 MILLER, A. (MUSEUM OF VERTEBRATE ZOOLOGY) - SECTION 14 FROM JOURNAL AND CATALOG OF MILLER, A.H. FROM ALPINE CO., CALIF. SEPT. 1943 1943-09-12



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A4576	<b>EO Index:</b> 106268
<b>Key Quad:</b> Heenan Lake (3811966)	<b>Element Code:</b> AMAEA0102L
<b>Occurrence Number:</b> 370	<b>Occurrence Last Updated:</b> 2017-05-10

<b>Scientific Name:</b> <i>Ochotona princeps schisticeps</i>	<b>Common Name:</b> gray-headed pika
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> IUCN_NT-Near Threatened
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5T2T4	
<b>State:</b> S2S4	

<b>General Habitat:</b> MOUNTAINOUS AREAS, GENERALLY AT HIGHER ELEVATIONS, OFTEN ABOVE THE TREELINE UP TO THE LIMIT OF VEGETATION. AT LOWER ELEVATIONS FOUND IN ROCKY AREAS WITHIN FORESTS OR NEAR LAKES.	<b>Micro Habitat:</b> TALUS SLOPES, OCCASIONALLY ON MINE TAILINGS. PREFERS TALUS-MEADOW INTERFACE.
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<b>Last Date Observed:</b> 2014-XX-XX	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2014-XX-XX	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
ABOUT 1.0 MILES W OF MONITOR PASS AND 3.2 MILES NE OF LOOPE, TOIYABE NF.

**Detailed Location:**  
MAPPED TO PROVIDED COORDINATES. PLOT 3609, CAMERA B.

**Ecological:**  
JUNIPER HABITAT.

**Threats:**

**General:**  
DETECTED BY CAMERA TRAP BETWEEN 14 JUL AND 1 AUG 2014.

<b>PLSS:</b> T10N, R21E, Sec. 35, NE (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 5
<b>UTM:</b> Zone-11 N4284117 E270510	<b>Latitude/Longitude:</b> 38.67592 / -119.63805	<b>Elevation (feet):</b> 8,240

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Heenan Lake (3811966)
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**Sources:**  
WRI16D0001 WRIGHT, D. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - MAMMAL CAMERA DETECTIONS FROM ECOREGIONAL BIODIVERSITY MONITORING PROGRAM, SIERRA NEVADA ECOREGION 2016-10-25



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



**Map Index Number:** 14394

**EO Index:** 58795

**Key Quad:** Carson Pass (3811968)

**Element Code:** AMAEB03041

**Occurrence Number:** 1

**Occurrence Last Updated:** 2004-12-21

**Scientific Name:** *Lepus townsendii townsendii*

**Common Name:** western white-tailed jackrabbit

**Listing Status:** **Federal:** None

**Rare Plant Rank:**

**State:** None

**Other Lists:** CDFW\_SSC-Species of Special Concern

**CNDDDB Element Ranks:** **Global:** G5T5

**State:** S3?

**General Habitat:**

SAGEBRUSH, SUBALPINE CONIFER, JUNIPER, ALPINE DWARF SHRUB & PERENNIAL GRASSLAND.

**Micro Habitat:**

OPEN AREAS WITH SCATTERED SHRUBS & EXPOSED FLAT-TOPPED HILLS WITH OPEN STANDS OF TREES, BRUSH & HERBACEOUS UNDERSTORY.

**Last Date Observed:** 1922-02-27

**Occurrence Type:** Natural/Native occurrence

**Last Survey Date:** 1922-02-27

**Occurrence Rank:** Unknown

**Owner/Manager:** USFS-ELDORADO NF

**Trend:** Unknown

**Presence:** Presumed Extant

**Location:**

CARSON VALLEY.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

ONE MALE SPECIMEN COLLECTED 27 FEB 1922 BY E. BASSMAN AND J. DIXON AT "CARSON VALLEY." DEPOSITED AT MVZ #32793.

**PLSS:** T10N, R18E, Sec. 22 (M)

**Accuracy:** 1 mile

**Area (acres):** 0

**UTM:** Zone-11 N4286990 E240562

**Latitude/Longitude:** 38.69351 / -119.98297

**Elevation (feet):** 8,200

**County Summary:**

**Quad Summary:**

Alpine

Carson Pass (3811968), Caples Lake (3812061)

**Sources:**

MAN04S0012 MAMMAL NETWORKED INFORMATION SYSTEM (MANIS) - PRINTOUT OF LEPUS TOWNSENDII TOWNSENDII SPECIMEN RECORDS FROM MANIS. THIS INCLUDES RECORDS FROM LACM, CAS & MVZ. 2004-12-10



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



**Map Index Number:** 58760

**EO Index:** 58796

**Key Quad:** Woodfords (3811977)

**Element Code:** AMAEB03041

**Occurrence Number:** 2

**Occurrence Last Updated:** 2004-12-20

**Scientific Name:** *Lepus townsendii townsendii*

**Common Name:** western white-tailed jackrabbit

**Listing Status:** **Federal:** None

**Rare Plant Rank:**

**State:** None

**Other Lists:** CDFW\_SSC-Species of Special Concern

**CNDDDB Element Ranks:** **Global:** G5T5

**State:** S3?

**General Habitat:**

SAGEBRUSH, SUBALPINE CONIFER, JUNIPER, ALPINE DWARF SHRUB & PERENNIAL GRASSLAND.

**Micro Habitat:**

OPEN AREAS WITH SCATTERED SHRUBS & EXPOSED FLAT-TOPPED HILLS WITH OPEN STANDS OF TREES, BRUSH & HERBACEOUS UNDERSTORY.

**Last Date Observed:** 1915-02-13

**Occurrence Type:** Natural/Native occurrence

**Last Survey Date:** 1915-02-13

**Occurrence Rank:** Unknown

**Owner/Manager:** UNKNOWN

**Trend:** Unknown

**Presence:** Presumed Extant

**Location:**

WOODFORDS.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

ONE MALE SPECIMEN COLLECTED 13 FEB 1915 BY G. MERRILL & F. HOLDEN AT "WOODFORDS." DEPOSITED AT MVZ #21309.

**PLSS:** T11N, R19E, Sec. 35 (M)

**Accuracy:** 1 mile

**Area (acres):** 0

**UTM:** Zone-11 N4295671 E254687

**Latitude/Longitude:** 38.77567 / -119.82383

**Elevation (feet):** 5,600

**County Summary:**

**Quad Summary:**

Alpine

Woodfords (3811977)

**Sources:**

MAN04S0012 MAMMAL NETWORKED INFORMATION SYSTEM (MANIS) - PRINTOUT OF LEPUS TOWNSENDII TOWNSENDII SPECIMEN RECORDS FROM MANIS. THIS INCLUDES RECORDS FROM LACM, CAS & MVZ. 2004-12-10





# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



**Map Index Number:** 95046

**EO Index:** 96174

**Key Quad:** Carson Pass (3811968)

**Element Code:** AMAFA01013

**Occurrence Number:** 96

**Occurrence Last Updated:** 2015-01-28

**Scientific Name:** *Aplodontia rufa californica*

**Common Name:** Sierra Nevada mountain beaver

**Listing Status:** **Federal:** None

**Rare Plant Rank:**

**State:** None

**Other Lists:** CDFW\_SSC-Species of Special Concern  
IUCN\_LC-Least Concern

**CNDDB Element Ranks:** **Global:** G5T3T4

**State:** S2S3

**General Habitat:**

DENSE GROWTH OF SMALL DECIDUOUS TREES & SHRUBS, WET SOIL, & ABUNDANCE OF FORBS IN THE SIERRA NEVADA & EAST SLOPE.

**Micro Habitat:**

NEEDS DENSE UNDERSTORY FOR FOOD & COVER. BURROWS INTO SOFT SOIL. NEEDS ABUNDANT SUPPLY OF WATER.

**Last Date Observed:** 1980-04-01

**Occurrence Type:** Natural/Native occurrence

**Last Survey Date:** 1980-04-01

**Occurrence Rank:** Unknown

**Owner/Manager:** USFS

**Trend:** Unknown

**Presence:** Presumed Extant

**Location:**

CARSON PASS.

**Detailed Location:**

COLLECTION LOCALITY DESCRIBED ONLY AS "CARSON PASS."

**Ecological:**

**Threats:**

**General:**

COLLECTION MADE IN THIS VICINITY ON 1 APR 1980.

**PLSS:** T10N, R18E, Sec. 22 (M)

**Accuracy:** 1 mile

**Area (acres):** 0

**UTM:** Zone-11 N4287110 E240068

**Latitude/Longitude:** 38.69444 / -119.98869

**Elevation (feet):** 8,000

**County Summary:**

Alpine

**Quad Summary:**

Carson Pass (3811968), Caples Lake (3812061)

**Sources:**

BAN80S0004 BANDAR, R. - BANDAR #RB2803 CAS #26589 COLLECTED FORM CARSON PASS 1980-04-01



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



**Map Index Number:** 95047

**EO Index:** 96175

**Key Quad:** Freel Peak (3811978)

**Element Code:** AMAFA01013

**Occurrence Number:** 97

**Occurrence Last Updated:** 2015-01-28

**Scientific Name:** *Aplodontia rufa californica*

**Common Name:** Sierra Nevada mountain beaver

**Listing Status:** **Federal:** None

**Rare Plant Rank:**

**State:** None

**Other Lists:** CDFW\_SSC-Species of Special Concern  
IUCN\_LC-Least Concern

**CNDDDB Element Ranks:** **Global:** G5T3T4

**State:** S2S3

**General Habitat:**

DENSE GROWTH OF SMALL DECIDUOUS TREES & SHRUBS, WET SOIL, & ABUNDANCE OF FORBS IN THE SIERRA NEVADA & EAST SLOPE.

**Micro Habitat:**

NEEDS DENSE UNDERSTORY FOR FOOD & COVER. BURROWS INTO SOFT SOIL. NEEDS ABUNDANT SUPPLY OF WATER.

**Last Date Observed:** 1894-09-10

**Occurrence Type:** Natural/Native occurrence

**Last Survey Date:** 1894-09-10

**Occurrence Rank:** Unknown

**Owner/Manager:** USFS, DFG, UNKNOWN

**Trend:** Unknown

**Presence:** Presumed Extant

**Location:**

HOPE VALLEY.

**Detailed Location:**

EXACT LOCATION UNKNOWN. COLLECTION LOCALITIES DESCRIBED ONLY AS "HOPE VALLEY." MAPPED BY CNDDDB NON-SPECIFICALLY ACROSS THE EXTENT OF THE VALLEY.

**Ecological:**

**Threats:**

**General:**

OCCURRENCE KNOWN FROM A SET OF COLLECTIONS FROM SEP 1894.

**PLSS:** T11N, R18E, Sec. 25 (M)

**Accuracy:** non-specific area

**Area (acres):** 3,322

**UTM:** Zone-11 N4295287 E244943

**Latitude/Longitude:** 38.76945 / -119.93572

**Elevation (feet):** 7,000

**County Summary:**

**Quad Summary:**

Alpine

Carson Pass (3811968), Freel Peak (3811978)

**Sources:**

STE94S0007	STEPHENS, F. - STEPHENS #1870 USNM #67851 COLLECTED FROM HOPE VALLEY 1894-09-06
STE94S0008	STEPHENS, F. - STEPHENS #1875 USNM #67852 COLLECTED FROM HOPE VALLEY 1894-09-07
STE94S0009	STEPHENS, F. - STEPHENS #1878 USNM #67853 COLLECTED FROM HOPE VALLEY 1894-09-08
STE94S0010	STEPHENS, F. - STEPHENS #1879 USNM #67854 COLLECTED FROM HOPE VALLEY 1894-09-08
STE94S0011	STEPHENS, F. - STEPHENS #1880 USNM #67855 COLLECTED FROM HOPE VALLEY 1894-09-08
STE94S0012	STEPHENS, F. - STEPHENS #1881 USNM #67856 COLLECTED FROM HOPE VALLEY 1894-09-08
STE94S0013	STEPHENS, F. - STEPHENS #1890 USNM #67857 COLLECTED FROM HOPE VALLEY 1894-09-10
STE94S0014	STEPHENS, F. - STEPHENS #1891 USNM #67858 COLLECTED FROM HOPE VALLEY 1894-09-10
STE94S0015	STEPHENS, F. - STEPHENS #1892 USNM #67859 COLLECTED FROM HOPE VALLEY 1894-09-10
STE94S0016	STEPHENS, F. - STEPHENS #1893 USNM #67860 COLLECTED FROM HOPE VALLEY 1894-09-10



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A5715	<b>EO Index:</b> 107458
<b>Key Quad:</b> Woodfords (3811977)	<b>Element Code:</b> AMAFJ01010
<b>Occurrence Number:</b> 334	<b>Occurrence Last Updated:</b> 2017-08-04

<b>Scientific Name:</b> <i>Erethizon dorsatum</i>	<b>Common Name:</b> North American porcupine
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> IUCN_LC-Least Concern
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5	
<b>State:</b> S3	

<b>General Habitat:</b> FORESTED HABITATS IN THE SIERRA NEVADA, CASCADE, AND COAST RANGES, WITH SCATTERED OBSERVATIONS FROM FORESTED AREAS IN THE TRANSVERSE RANGES.	<b>Micro Habitat:</b> WIDE VARIETY OF CONIFEROUS AND MIXED WOODLAND HABITAT.
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<b>Last Date Observed:</b> 1921-06-25	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1921-06-25	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> UNKNOWN, PVT	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
FREDERICKSBURG, N OF PAYNESVILLE.

**Detailed Location:**  
LOCATION DESCRIBED AS "BRUNS RANCH, FREDERICKSBURG." BRUNS RANCH COULD NOT BE ACCURATELY LOCATED AND THEREFORE FEATURE WAS MAPPED GENERALLY TO FREDERICKSBURG.

**Ecological:**

**Threats:**

**General:**

1 PORCUPINE COLLECTED (MVZ# 32376) ON 25 JUN 1921 BY R. HUNT.

<b>PLSS:</b> T11N, R20E, Sec. 7 (M)	<b>Accuracy:</b> 1 mile	<b>Area (acres):</b> 1,987
<b>UTM:</b> Zone-11 N4301458 E258063	<b>Latitude/Longitude:</b> 38.82869 / -119.78705	<b>Elevation (feet):</b> 5,077

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Woodfords (3811977)
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**Sources:**  
HUN21S0002 HUNT, R. - MVZ #32376 COLLECTED AT BRUN'S RANCH, FREDERICKSBURG 1921-06-25



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A5716	<b>EO Index:</b> 107459
<b>Key Quad:</b> Freel Peak (3811978)	<b>Element Code:</b> AMAFJ01010
<b>Occurrence Number:</b> 335	<b>Occurrence Last Updated:</b> 2017-08-04

<b>Scientific Name:</b> <i>Erethizon dorsatum</i>	<b>Common Name:</b> North American porcupine
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> IUCN_LC-Least Concern
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5	
<b>State:</b> S3	

<b>General Habitat:</b> FORESTED HABITATS IN THE SIERRA NEVADA, CASCADE, AND COAST RANGES, WITH SCATTERED OBSERVATIONS FROM FORESTED AREAS IN THE TRANSVERSE RANGES.	<b>Micro Habitat:</b> WIDE VARIETY OF CONIFEROUS AND MIXED WOODLAND HABITAT.
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<b>Last Date Observed:</b> 2011-09-27	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2011-09-27	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
NEAR HEADWATERS OF WILLOW CREEK, 2.6 MI SW OF JOBS PEAK, 3.4 MI NNE OF SORENSENS.

**Detailed Location:**  
MAPPED ACCORDING TO THE PROVIDED COORDINATES FOR THE CAMERA STATION.

**Ecological:**  
OPEN WHITE BARK PINE WITH LOW SHRUBS, SAGEBRUSH, PINE MAT MANZANITA.

**Threats:**

**General:**  
1 ADULT PORCUPINE DETECTED WITH A BAITED CAMERA STATION ON 27 SEP 2011.

<b>PLSS:</b> T11N, R19E, Sec. 17, NW (M)	<b>Accuracy:</b> 1/10 mile	<b>Area (acres):</b> 18
<b>UTM:</b> Zone-11 N4301047 E250127	<b>Latitude/Longitude:</b> 38.82278 / -119.87822	<b>Elevation (feet):</b> 9,122

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Freel Peak (3811978)
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**Sources:**  
AND16D0001 ANDERSON, S. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE-REGION 2) - PORCUPINE SIGHTINGS DATABASE FROM CDFW-REGION 2 2016-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A5717	<b>EO Index:</b> 107460
<b>Key Quad:</b> Freel Peak (3811978)	<b>Element Code:</b> AMAFJ01010
<b>Occurrence Number:</b> 336	<b>Occurrence Last Updated:</b> 2017-08-04

<b>Scientific Name:</b> <i>Erethizon dorsatum</i>	<b>Common Name:</b> North American porcupine
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> IUCN_LC-Least Concern
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5	
<b>State:</b> S3	

<b>General Habitat:</b> FORESTED HABITATS IN THE SIERRA NEVADA, CASCADE, AND COAST RANGES, WITH SCATTERED OBSERVATIONS FROM FORESTED AREAS IN THE TRANSVERSE RANGES.	<b>Micro Habitat:</b> WIDE VARIETY OF CONIFEROUS AND MIXED WOODLAND HABITAT.
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<b>Last Date Observed:</b> 2014-10-05	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2014-10-05	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-TOIYABE NF, UNKNOWN	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
ALONG HWY 89, ABOUT 0.6 MI E OF HWY 88, 1.3 MI N OF PICKETT PEAK, SORENSENS.

**Detailed Location:**  
MAPPED ACCORDING TO THE PROVIDED COORDINATES. LOCATION DESCRIBED AS "NEAR SORENSENS RESORT, HWY 89."

**Ecological:**  
**Threats:**

POTENTIAL THREAT DUE TO VEHICLE COLLISIONS.

**General:**  
1 PORCUPINE OBSERVED AS ROADKILL ON 5 OCT 2014; SAMPLE TAKEN.

<b>PLSS:</b> T11N, R18E, Sec. 25, NE (M)	<b>Accuracy:</b> non-specific area	<b>Area (acres):</b> 24
<b>UTM:</b> Zone-11 N4295793 E247377	<b>Latitude/Longitude:</b> 38.77471 / -119.90793	<b>Elevation (feet):</b> 6,945

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine	Freel Peak (3811978)

**Sources:**  
AND16D0001 ANDERSON, S. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE-REGION 2) - PORCUPINE SIGHTINGS DATABASE FROM CDFW-REGION 2 2016-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A5725	<b>EO Index:</b> 107468
<b>Key Quad:</b> Freel Peak (3811978)	<b>Element Code:</b> AMAFJ01010
<b>Occurrence Number:</b> 337	<b>Occurrence Last Updated:</b> 2017-08-04

<b>Scientific Name:</b> <i>Erethizon dorsatum</i>	<b>Common Name:</b> North American porcupine
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> IUCN_LC-Least Concern
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5	
<b>State:</b> S3	

<b>General Habitat:</b> FORESTED HABITATS IN THE SIERRA NEVADA, CASCADE, AND COAST RANGES, WITH SCATTERED OBSERVATIONS FROM FORESTED AREAS IN THE TRANSVERSE RANGES.	<b>Micro Habitat:</b> WIDE VARIETY OF CONIFEROUS AND MIXED WOODLAND HABITAT.
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<b>Last Date Observed:</b> 2003-06-01	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2003-06-01	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> DFG	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
JUST N OF HWY 88 AT HWY 89, 1.7 MI SE OF THOMPSON PEAK, 2.8 MI ENE OF SCOTTS LAKE, HOPE VALLEY.

**Detailed Location:**  
MAPPED ACCORDING TO THE PROVIDED COORDINATES. LOCATION DESCRIBED AS "HOPE VALLEY."

**Ecological:**  
**Threats:**

**General:**  
1 PORCUPINE OBSERVED ALIVE ON 1 JUN 2003; OBSERVED AT NIGHT.

<b>PLSS:</b> T11N, R18E, Sec. 24 (M)	<b>Accuracy:</b> 1/5 mile	<b>Area (acres):</b> 70
<b>UTM:</b> Zone-11 N4296453 E246413	<b>Latitude/Longitude:</b> 38.78037 / -119.91926	<b>Elevation (feet):</b> 7,078

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Freel Peak (3811978)
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**Sources:**  
AND16D0001 ANDERSON, S. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE-REGION 2) - PORCUPINE SIGHTINGS DATABASE FROM CDFW-REGION 2 2016-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A5735	<b>EO Index:</b> 107478
<b>Key Quad:</b> Carson Pass (3811968)	<b>Element Code:</b> AMAFJ01010
<b>Occurrence Number:</b> 338	<b>Occurrence Last Updated:</b> 2017-08-28

<b>Scientific Name:</b> <i>Erethizon dorsatum</i>	<b>Common Name:</b> North American porcupine
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> IUCN_LC-Least Concern
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5	
<b>State:</b> S3	

<b>General Habitat:</b> FORESTED HABITATS IN THE SIERRA NEVADA, CASCADE, AND COAST RANGES, WITH SCATTERED OBSERVATIONS FROM FORESTED AREAS IN THE TRANSVERSE RANGES.	<b>Micro Habitat:</b> WIDE VARIETY OF CONIFEROUS AND MIXED WOODLAND HABITAT.
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<b>Last Date Observed:</b> 2011-08-06	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2011-08-06	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
ABOUT 1.2 MI E OF CRATER LAKE, 1.9 MI SSW OF HWY 88 AT BLUE LAKES RD, 2 MI NNE OF RED LAKE DAM, HOPE VALLEY.

**Detailed Location:**  
MAPPED ACCORDING TO THE PROVIDED COORDINATES (2 SETS) AND LOCATION DESCRIPTION OF "STATE ROUTE 88, [1.5 MI] WEST OF BLUE LAKES RD."

**Ecological:**

**Threats:**  
POTENTIAL THREAT DUE TO VEHICLE COLLISIONS.

**General:**  
1 PORCUPINE OBSERVED AS ROADKILL ON 3 JUL 2010. 1 PORCUPINE OBSERVED AS ROADKILL ON 6 AUG 2011.

<b>PLSS:</b> T10N, R18E, Sec. 12, W (M)	<b>Accuracy:</b> non-specific area	<b>Area (acres):</b> 65
<b>UTM:</b> Zone-11 N4290536 E243190	<b>Latitude/Longitude:</b> 38.72619 / -119.95411	<b>Elevation (feet):</b> 7,439

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Carson Pass (3811968)
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**Sources:**  
SHI17D0001 SHILLING, F. (UNIVERSITY OF CALIFORNIA, DAVIS) - PORCUPINE DETECTIONS FROM THE CALIFORNIA ROADKILL OBSERVATION SYSTEM, UC DAVIS 2017-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A5745	<b>EO Index:</b> 107488
<b>Key Quad:</b> Carson Pass (3811968)	<b>Element Code:</b> AMAFJ01010
<b>Occurrence Number:</b> 340	<b>Occurrence Last Updated:</b> 2017-08-07

<b>Scientific Name:</b> <i>Erethizon dorsatum</i>	<b>Common Name:</b> North American porcupine
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> IUCN_LC-Least Concern
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5	
<b>State:</b> S3	

<b>General Habitat:</b> FORESTED HABITATS IN THE SIERRA NEVADA, CASCADE, AND COAST RANGES, WITH SCATTERED OBSERVATIONS FROM FORESTED AREAS IN THE TRANSVERSE RANGES.	<b>Micro Habitat:</b> WIDE VARIETY OF CONIFEROUS AND MIXED WOODLAND HABITAT.
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<b>Last Date Observed:</b> 2013-05-17	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2013-05-17	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-ELDORADO NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
JUST W OF CARSON PASS, ABOUT 0.2 MI NW OF HWY 88 AT RED VISTA RD, 1.3 MI S OF RED LAKE PEAK.

**Detailed Location:**  
MAPPED TO THE PROVIDED 2013 COORDINATES AND LOCATION DESCRIPTION OF "MEADOW AREA JUST WEST OF CARSON PASS." 1980 LOCATION DESCRIBED ONLY AS "CARSON PASS AREA." EXACT LOCATION UNKNOWN AND THEREFORE ATTRIBUTED TO THE 2013 DETECTION.

**Ecological:**  
MEADOW.

**Threats:**

**General:**  
1 ADULT MALE PORCUPINE COLLECTED (CAS# 26643) IN OCT 1980 BY R. BANDAR. 1 LARGE PORCUPINE OBSERVED ON 17 MAY 2013.

<b>PLSS:</b> T10N, R18E, Sec. 22, SW (M)	<b>Accuracy:</b> 1/10 mile	<b>Area (acres):</b> 18
<b>UTM:</b> Zone-11 N4287214 E239843	<b>Latitude/Longitude:</b> 38.69531 / -119.99132	<b>Elevation (feet):</b> 8,527

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Carson Pass (3811968)
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**Sources:**

BAN80S0020	BANDAR, R. - CAS MAMMAL #26643 COLLECTED AT THE CARSON PASS AREA 1980-10-XX
FIS17D0001	FISKE, M. (CENTRAL SIERRA ENVIRONMENTAL RESOURCE CENTER) - PORCUPINE SIGHTING DATA FROM THE CENTRAL SIERRA ENVIRONMENTAL RESOURCE CENTER (2001-2017) 2017-XX-XX





# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A6287	<b>EO Index:</b> 108041
<b>Key Quad:</b> Ebbetts Pass (3811957)	<b>Element Code:</b> AMAFJ01010
<b>Occurrence Number:</b> 371	<b>Occurrence Last Updated:</b> 2017-09-08

<b>Scientific Name:</b> <i>Erethizon dorsatum</i>	<b>Common Name:</b> North American porcupine
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> IUCN_LC-Least Concern
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5	
<b>State:</b> S3	

<b>General Habitat:</b> FORESTED HABITATS IN THE SIERRA NEVADA, CASCADE, AND COAST RANGES, WITH SCATTERED OBSERVATIONS FROM FORESTED AREAS IN THE TRANSVERSE RANGES.	<b>Micro Habitat:</b> WIDE VARIETY OF CONIFEROUS AND MIXED WOODLAND HABITAT.
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<b>Last Date Observed:</b> 2010-08-12	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2010-08-12	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
ABOUT 2.7 MI E OF RAYMOND PEAK, 3.8 MI SW OF HWY 4 AT WOLF CREEK RD, NEAR HISTORICAL SILVER MOUNTAIN.

**Detailed Location:**  
MAPPED ACCORDING TO THE PROVIDED COORDINATES.

**Ecological:**  
SIERRA MIXED CONIFER.

**Threats:**  
**General:**

THE REMAINS OF A PORCUPINE WERE FOUND AND COLLECTED, INCLUDING QUILLS AND PORTIONS OF THE UPPER AND LOWER MANDIBLE, ON 12 AUG 2010. REMAINS KEPT AT THE CDFW REGION 2 HEADQUARTERS IN RANCHO CORDOVA.

<b>PLSS:</b> T09N, R20E, Sec. 28, NW (M)	<b>Accuracy:</b> 1/10 mile	<b>Area (acres):</b> 18
<b>UTM:</b> Zone-11 N4276045 E257698	<b>Latitude/Longitude:</b> 38.59985 / -119.78236	<b>Elevation (feet):</b> 6,735

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Ebbetts Pass (3811957)
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**Sources:**  
OVE10F0001 OVERMAN, E. - FIELD SURVEY FORM FOR ERETHIZON DORSATUM 2010-08-12



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A6196	<b>EO Index:</b> 107950
<b>Key Quad:</b> Freel Peak (3811978)	<b>Element Code:</b> AMAFJ01010
<b>Occurrence Number:</b> 446	<b>Occurrence Last Updated:</b> 2017-09-01

<b>Scientific Name:</b> <i>Erethizon dorsatum</i>	<b>Common Name:</b> North American porcupine
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> IUCN_LC-Least Concern
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5	
<b>State:</b> S3	

<b>General Habitat:</b> FORESTED HABITATS IN THE SIERRA NEVADA, CASCADE, AND COAST RANGES, WITH SCATTERED OBSERVATIONS FROM FORESTED AREAS IN THE TRANSVERSE RANGES.	<b>Micro Habitat:</b> WIDE VARIETY OF CONIFEROUS AND MIXED WOODLAND HABITAT.
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<b>Last Date Observed:</b> 2016-10-01	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2016-10-01	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-LAKE TAHOE BMU	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
ALONG PIONEER TRAIL, ABOUT 0.5 MI SSW OF HEKPA DR INTERSECTION, 1.4 MI NE OF HWY 50 INTERSECTION, SOUTH LAKE TAHOE.

**Detailed Location:**  
MAPPED ACCORDING TO THE PROVIDED COORDINATES AND LOCATION DESCRIPTION OF "ON PIONEER TRAIL BETWEEN BUSCH WAY & ELKS CLUB DRIVE IN S. LAKE TAHOE."

**Ecological:**

**Threats:**  
POTENTIAL THREAT DUE TO VEHICLE COLLISIONS.

**General:**  
1 PORCUPINE OBSERVED AS ROADKILL ON 1 OCT 2016; FOUND FRESH IN THE MORNING, LIKELY HIT THE PREVIOUS NIGHT.

<b>PLSS:</b> T12N, R18E, Sec. 21, NE (M)	<b>Accuracy:</b> non-specific area	<b>Area (acres):</b> 10
<b>UTM:</b> Zone-11 N4307005 E240398	<b>Latitude/Longitude:</b> 38.87359 / -119.99239	<b>Elevation (feet):</b> 6,434

<b>County Summary:</b> El Dorado	<b>Quad Summary:</b> Freel Peak (3811978)
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**Sources:**  
FIS17D0001 FISKE, M. (CENTRAL SIERRA ENVIRONMENTAL RESOURCE CENTER) - PORCUPINE SIGHTING DATA FROM THE CENTRAL SIERRA ENVIRONMENTAL RESOURCE CENTER (2001-2017) 2017-XX-XX



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	A6610	<b>EO Index:</b>	108377
<b>Key Quad:</b>	Carson Pass (3811968)	<b>Element Code:</b>	AMAFJ01010
<b>Occurrence Number:</b>	506	<b>Occurrence Last Updated:</b>	2017-09-29

<b>Scientific Name:</b>	<i>Erethizon dorsatum</i>	<b>Common Name:</b>	North American porcupine
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> None	<b>Rare Plant Rank:</b>	
<b>CNDDB Element Ranks:</b>	<b>Global:</b> G5 <b>State:</b> S3	<b>Other Lists:</b>	IUCN_LC-Least Concern

<b>General Habitat:</b>	<b>Micro Habitat:</b>
FORESTED HABITATS IN THE SIERRA NEVADA, CASCADE, AND COAST RANGES, WITH SCATTERED OBSERVATIONS FROM FORESTED AREAS IN THE TRANSVERSE RANGES.	WIDE VARIETY OF CONIFEROUS AND MIXED WOODLAND HABITAT.

<b>Last Date Observed:</b>	2014-10-01	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2014-10-01	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	USFS-TOIYABE NF	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**  
 ABOUT 1.1 MI WSW OF HWY 88 AT BLUE LAKES RD, 1.3 MI NE OF STEVENS PEAK, 1.4 MI S OF SCOTTS LAKE.

**Detailed Location:**  
 MAPPED ACCORDING TO THE PROVIDED COORDINATES AND LOCATION DESCRIPTION OF "NEAR SCOTTS LAKE ROAD, ALPINE COUNTY."

**Ecological:**  
 PORCUPINE IN WHITE FIR TREE.

**Threats:**  
**General:**

1 ADULT PORCUPINE OBSERVED IN A TREE ON 1 OCT 2014. ENCOUNTERED DURING A HIKE, ANIMAL PHOTOGRAPHED.

<b>PLSS:</b> T10N, R18E, Sec. 1 (M)	<b>Accuracy:</b> 2/5 mile	<b>Area (acres):</b> 280
<b>UTM:</b> Zone-11 N4292545 E242612	<b>Latitude/Longitude:</b> 38.7441 / -119.9615	<b>Elevation (feet):</b> 7,743

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine	Carson Pass (3811968)

**Sources:**

AND16D0001	ANDERSON, S. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE-REGION 2) - PORCUPINE SIGHTINGS DATABASE FROM CDFW-REGION 2 2016-XX-XX
STE14I0001	STEWART, J. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - OBSERVATION 1103550 FROM <a href="http://www.inaturalist.org">HTTP://WWW.INATURALIST.ORG</a> . ACCESSED 2017-09-29. 2014-10-01



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> B3536	<b>EO Index:</b> 115456
<b>Key Quad:</b> Freel Peak (3811978)	<b>Element Code:</b> AMAFJ01010
<b>Occurrence Number:</b> 509	<b>Occurrence Last Updated:</b> 2019-08-15

<b>Scientific Name:</b> <i>Erethizon dorsatum</i>	<b>Common Name:</b> North American porcupine
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> IUCN_LC-Least Concern
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5	
<b>State:</b> S3	

<b>General Habitat:</b> FORESTED HABITATS IN THE SIERRA NEVADA, CASCADE, AND COAST RANGES, WITH SCATTERED OBSERVATIONS FROM FORESTED AREAS IN THE TRANSVERSE RANGES.	<b>Micro Habitat:</b> WIDE VARIETY OF CONIFEROUS AND MIXED WOODLAND HABITAT.
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<b>Last Date Observed:</b> 2017-06-15	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2017-06-15	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-LAKE TAHOE BMU	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
NORTH SIDE OF HWY 89, ABOUT 1.8 MI NW OF LUTHER PASS & 2.4 MI ENE OF ALPINE CAMPGROUND.

**Detailed Location:**  
MAPPED TO PROVIDED COORDINATES. IN LAKE TAHOE BASIN MANAGEMENT UNIT.

**Ecological:**  
NEAR GRASS LAKE. DETECTED BY SPOTTED OWL SURVEY CREW.

**Threats:**

**General:**  
1 INDIVIDUAL OF UNKNOWN AGE OBSERVED IN A TREE ON 15 JUN 2017.

<b>PLSS:</b> T11N, R18E, Sec. 15, NW (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 5
<b>UTM:</b> Zone-11 N4298795 E241617	<b>Latitude/Longitude:</b> 38.80006 / -119.97528	<b>Elevation (feet):</b> 7,966

<b>County Summary:</b> El Dorado	<b>Quad Summary:</b> Freel Peak (3811978)
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**Sources:**

WIL17F0012	WILSON, J. ET AL. - FIELD SURVEY FORM FOR ERETHIZON DORSATUM 2017-06-15
ZAN17U0001	ZANETTI, S. (U.S. FOREST SERVICE) - 2017 PORCUPINE SIGHTINGS REPORTED BY LOWER TAHOE BASIN MANAGEMENT UNIT STAFF (EXCEL FILE AND PHOTOS) 2017-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> B3537	<b>EO Index:</b> 115457
<b>Key Quad:</b> Freel Peak (3811978)	<b>Element Code:</b> AMAFJ01010
<b>Occurrence Number:</b> 510	<b>Occurrence Last Updated:</b> 2019-08-08

<b>Scientific Name:</b> <i>Erethizon dorsatum</i>	<b>Common Name:</b> North American porcupine
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> IUCN_LC-Least Concern
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5	
<b>State:</b> S3	

<b>General Habitat:</b> FORESTED HABITATS IN THE SIERRA NEVADA, CASCADE, AND COAST RANGES, WITH SCATTERED OBSERVATIONS FROM FORESTED AREAS IN THE TRANSVERSE RANGES.	<b>Micro Habitat:</b> WIDE VARIETY OF CONIFEROUS AND MIXED WOODLAND HABITAT.
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<b>Last Date Observed:</b> 2017-10-30	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2017-10-30	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-LAKE TAHOE BMU	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
TRIBUTARY TO SAXON CREEK, ABOUT 1.5 MI E OF ZAPOTEC DR AT CHIBCHA ST IN MEYERS, 2.5 MI SE OF THE TAHOE AIRPORT.

**Detailed Location:**  
MAPPED TO PROVIDED COORDINATES.

**Ecological:**  
FOREST NEAR TROUT CREEK.

**Threats:**

**General:**  
1 JUVENILE OBSERVED WALKING THROUGH FOREST ON 30 OCT 2017.

<b>PLSS:</b> T12N, R18E, Sec. 26, NW (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 5
<b>UTM:</b> Zone-11 N4305485 E242586	<b>Latitude/Longitude:</b> 38.86055 / -119.96663	<b>Elevation (feet):</b> 6,902

<b>County Summary:</b> El Dorado	<b>Quad Summary:</b> Freel Peak (3811978)
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**Sources:**

GUS17F0002	GUSSES, G. - FIELD SURVEY FORM FOR ERETHIZON DORSATUM 2017-10-30
ZAN17U0001	ZANETTI, S. (U.S. FOREST SERVICE) - 2017 PORCUPINE SIGHTINGS REPORTED BY LOWER TAHOE BASIN MANAGEMENT UNIT STAFF (EXCEL FILE AND PHOTOS) 2017-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> B3615	<b>EO Index:</b> 115533
<b>Key Quad:</b> Echo Lake (3812071)	<b>Element Code:</b> AMAFJ01010
<b>Occurrence Number:</b> 513	<b>Occurrence Last Updated:</b> 2019-08-08

<b>Scientific Name:</b> <i>Erethizon dorsatum</i>	<b>Common Name:</b> North American porcupine
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> IUCN_LC-Least Concern
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5	
<b>State:</b> S3	

<b>General Habitat:</b> FORESTED HABITATS IN THE SIERRA NEVADA, CASCADE, AND COAST RANGES, WITH SCATTERED OBSERVATIONS FROM FORESTED AREAS IN THE TRANSVERSE RANGES.	<b>Micro Habitat:</b> WIDE VARIETY OF CONIFEROUS AND MIXED WOODLAND HABITAT.
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<b>Last Date Observed:</b> 2017-08-16	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2017-08-16	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-LAKE TAHOE BMU	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
HWY 89 ABOUT 1.1 AIR MILES SE OF ALPINE CAMPGROUND & 2.9 AIR MILES W OF LUTHER PASS.

**Detailed Location:**  
MAPPED TO PROVIDED COORDINATES.

**Ecological:**  
NEAR BIG MEADOW TRAILHEAD.

**Threats:**  
VEHICLE STRIKES.

**General:**  
1 OBSERVED DEAD ON ROAD ON 16 AUG 2017.

<b>PLSS:</b> T11N, R18E, Sec. 21, NW (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 5
<b>UTM:</b> Zone-10 N4297460 E760470	<b>Latitude/Longitude:</b> 38.78743 / -120.00123	<b>Elevation (feet):</b> 7,259

<b>County Summary:</b> El Dorado	<b>Quad Summary:</b> Freel Peak (3811978), Echo Lake (3812071)
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**Sources:**

QUI17F0001	QUINN, J. - FIELD SURVEY FORM FOR ERETHIZON DORSATUM 2017-08-16
ZAN17U0001	ZANETTI, S. (U.S. FOREST SERVICE) - 2017 PORCUPINE SIGHTINGS REPORTED BY LOWER TAHOE BASIN MANAGEMENT UNIT STAFF (EXCEL FILE AND PHOTOS) 2017-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> B3623	<b>EO Index:</b> 116537
<b>Key Quad:</b> Freel Peak (3811978)	<b>Element Code:</b> AMAFJ01010
<b>Occurrence Number:</b> 516	<b>Occurrence Last Updated:</b> 2019-08-08

<b>Scientific Name:</b> <i>Erethizon dorsatum</i>	<b>Common Name:</b> North American porcupine
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> IUCN_LC-Least Concern
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5	
<b>State:</b> S3	

<b>General Habitat:</b> FORESTED HABITATS IN THE SIERRA NEVADA, CASCADE, AND COAST RANGES, WITH SCATTERED OBSERVATIONS FROM FORESTED AREAS IN THE TRANSVERSE RANGES.	<b>Micro Habitat:</b> WIDE VARIETY OF CONIFEROUS AND MIXED WOODLAND HABITAT.
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<b>Last Date Observed:</b> 2017-XX-XX	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2017-XX-XX	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-LAKE TAHOE BMU	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
ABOUT 1.6 MI E OF PIONEER TRAIL AT GARBAGE DUMP RD & 2.2 MI NW OF FOUNTAIN PLACE, NE OF MEYERS.

**Detailed Location:**  
MAPPED TO PROVIDED COORDINATES.

**Ecological:**  
SPECIMEN FOUND NEAR MOUNTAIN BIKING TRAIL (SIDEWINDER TRAIL).

**Threats:**  
POSSIBLE VEHICLE STRIKES (MOUNTAIN BIKES).

**General:**  
1 FOUND DEAD NEAR MOUNTAIN BIKING TRAIL PRIOR TO 17 AUG 2017.

<b>PLSS:</b> T12N, R18E, Sec. 23, SW (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 5
<b>UTM:</b> Zone-11 N4306654 E242754	<b>Latitude/Longitude:</b> 38.87112 / -119.96513	<b>Elevation (feet):</b> 6,656

<b>County Summary:</b> El Dorado	<b>Quad Summary:</b> Freel Peak (3811978)
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**Sources:**

SEG17F0002	SEGUNDO, J. - FIELD SURVEY FORM FOR ERETHIZON DORSATUM 2017-08-17
ZAN17U0001	ZANETTI, S. (U.S. FOREST SERVICE) - 2017 PORCUPINE SIGHTINGS REPORTED BY LOWER TAHOE BASIN MANAGEMENT UNIT STAFF (EXCEL FILE AND PHOTOS) 2017-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 14506	<b>EO Index:</b> 23759	
<b>Key Quad:</b> Carson Pass (3811968)	<b>Element Code:</b> AMAJA03012	
<b>Occurrence Number:</b> 8	<b>Occurrence Last Updated:</b> 2013-10-23	

<b>Scientific Name:</b> <i>Vulpes vulpes necator</i>	<b>Common Name:</b> Sierra Nevada red fox
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Proposed Endangered	
<b>State:</b> Threatened	<b>Other Lists:</b> USFS_S-Sensitive
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5T1T2	
<b>State:</b> S1	

<b>General Habitat:</b> HISTORICALLY FOUND FROM THE CASCADES DOWN TO THE SIERRA NEVADA. FOUND IN A VARIETY OF HABITATS FROM WET MEADOWS TO FORESTED AREAS.	<b>Micro Habitat:</b> USE DENSE VEGETATION AND ROCKY AREAS FOR COVER AND DEN SITES. PREFER FORESTS INTERSPERSED WITH MEADOWS OR ALPINE FELL-FIELDS.
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<b>Last Date Observed:</b> 1973-10-XX	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1973-10-XX	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-HUMBOLDT-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
VICINITY OF FAITH VALLEY ALONG WEST FORK CARSON RIVER, TOIYABE NATIONAL FOREST.

**Detailed Location:**  
SMITH DESCRIBED LOCATION AS "FAITH VALLEY." SCHEMPF DESCRIBED LOCATION AS "BETWEEN FAITH & CHARITY VALLEYS IN HEADWATERS OF WEST FORK OF CARSON RIVER." MAPPED BY CNDDB AT FAITH VALLEY AND AREA BETWEEN FAITH AND CHARITY VALLEYS.

**Ecological:**  
PRESUMED TO BE SN RED FOX BASED UPON ELEVATION AND HISTORIC RANGE. DNA ANALYSIS MUST BE DONE ORDER TO CONCLUSIVELY DETERMINE IF A RED FOX FOUND IN THE SIERRA NEVADA REGION IS VULPES VULPES NECATOR OR AN INTRODUCED SUBSPECIES.

**Threats:**  
**General:**  
OBSERVATION IN 1973; REPORTED TO DFG BIOLOGIST WILLIAM GRENFELL BY LASSEN NATIONAL FOREST BIOLOGIST GARY SMITH ON 29 MAR 1990. OCT 1973 DETECTION ALSO NOTED BY SCHEMPF & WHITE MAY REFER TO THE SAME OBSERVATION.

<b>PLSS:</b> T10N, R19E, Sec. 29 (M)	<b>Accuracy:</b> 1 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4284966 E245866	<b>Latitude/Longitude:</b> 38.67683 / -119.92131	<b>Elevation (feet):</b> 7,560

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Carson Pass (3811968)
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**Sources:**

SMI90U0001	SMITH, G. (U.S. FOREST SERVICE-LASSEN NATIONAL FOREST) - LASSEN NATIONAL FOREST'S SIERRA NEVADA RED FOX LOCATIONS, REPORTED BY GARY SMITH ON 3-29-90. 1990-08-01
UCBNDU0002	UC BERKELEY - FORESTRY AND CONSERVATION - LIST OF LOCALITIES OF VULPES VULPES NECATOR LOCATIONS USED TO BY SCHEMPF & WHITE TO CREATE 1977 REPORT STATUS OF SIX FURBEARER POPULATIONS IN THE MOUNTAINS OF NORTHERN CALIFORNIA 197X-XX-XX





# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 75936	<b>EO Index:</b> 76940
<b>Key Quad:</b> Dardanelles Cone (3811947)	<b>Element Code:</b> AMAJA03012
<b>Occurrence Number:</b> 113	<b>Occurrence Last Updated:</b> 2009-07-23

<b>Scientific Name:</b> <i>Vulpes vulpes necator</i>	<b>Common Name:</b> Sierra Nevada red fox
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Proposed Endangered	
<b>State:</b> Threatened	<b>Other Lists:</b> USFS_S-Sensitive
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5T1T2	
<b>State:</b> S1	

<b>General Habitat:</b> HISTORICALLY FOUND FROM THE CASCADES DOWN TO THE SIERRA NEVADA. FOUND IN A VARIETY OF HABITATS FROM WET MEADOWS TO FORESTED AREAS.	<b>Micro Habitat:</b> USE DENSE VEGETATION AND ROCKY AREAS FOR COVER AND DEN SITES. PREFER FORESTS INTERSPERSED WITH MEADOWS OR ALPINE FELL-FIELDS.
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<b>Last Date Observed:</b> 1990-08-XX	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1990-08-XX	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-STANISLAUS NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
HIGHLAND LAKES, ABOUT 4 MILES SOUTH OF EBBETTS PASS, STANISLAUS NATIONAL FOREST.

**Detailed Location:**  
LOCATION DESCRIBED AS "ALPINE CO, HIGHLAND LAKES - S OF EBBETTS PASS." MAPPED BY CNDDB TO ENCOMPASS THE HIGHLAND LAKES COMPLEX.

**Ecological:**  
PRESUMED TO BE SN RED FOX BASED UPON ELEVATION AND HISTORIC RANGE. DNA ANALYSIS MUST BE DONE ORDER TO CONCLUSIVELY DETERMINE IF A RED FOX FOUND IN THE SIERRA NEVADA REGION IS VULPES VULPES NECATOR OR AN INTRODUCED SUBSPECIES.

**Threats:**  
**General:**  
INDIVIDUAL OBSERVED IN AUG 1990.

<b>PLSS:</b> T7.5N, R20E, Sec. 05 (M)	<b>Accuracy:</b> 1 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4264006 E255484	<b>Latitude/Longitude:</b> 38.49087 / -119.80353	<b>Elevation (feet):</b> 8,580

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Dardanelles Cone (3811947), Ebbetts Pass (3811957)
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**Sources:**  
SMI90U0001 SMITH, G. (U.S. FOREST SERVICE-LASSEN NATIONAL FOREST) - LASSEN NATIONAL FOREST'S SIERRA NEVADA RED FOX LOCATIONS, REPORTED BY GARY SMITH ON 3-29-90. 1990-08-01



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	A4604	<b>EO Index:</b>	106297
<b>Key Quad:</b>	Freel Peak (3811978)	<b>Element Code:</b>	AMAJF01014
<b>Occurrence Number:</b>	194	<b>Occurrence Last Updated:</b>	2017-05-10

<b>Scientific Name:</b>	<i>Martes caurina sierrae</i>	<b>Common Name:</b>	Sierra marten
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> None	<b>Rare Plant Rank:</b>	
<b>CNDDB Element Ranks:</b>	<b>Global:</b> G5T3 <b>State:</b> S3	<b>Other Lists:</b>	USFS_S-Sensitive

**General Habitat:**

MIXED EVERGREEN FORESTS WITH MORE THAN 40% CROWN CLOSURE ALONG SIERRA NEVADA AND CASCADE MOUNTAINS.

**Micro Habitat:**

NEEDS VARIETY OF DIFFERENT-AGED STANDS, PARTICULARLY OLD-GROWTH CONIFERS AND SNAGS WHICH PROVIDE CAVITIES FOR DENS/NESTS.

<b>Last Date Observed:</b>	2012-07-XX	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2012-07-XX	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	USFS-LAKE TAHOE BMU	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**

ABOUT 1.5 MILES NW OF HELL HOLE AND 1.7 MILES SE OF AZTEC WAY AT IROQUOIS CIRCLE IN MEYERS.

**Detailed Location:**

MAPPED TO PROVIDED COORDINATES. PLOT 3330, CAMERA A.

**Ecological:**

RED FIR FOREST.

**Threats:****General:**

DETECTED BY CAMERA TRAP BETWEEN 16 AND 30 JUL 2012.

<b>PLSS:</b> T12N, R18E, Sec. 35, NW (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 5
<b>UTM:</b> Zone-11 N4303684 E242714	<b>Latitude/Longitude:</b> 38.84438 / -119.96448	<b>Elevation (feet):</b> 8,520

**County Summary:**

El Dorado

**Quad Summary:**

Freel Peak (3811978)

**Sources:**

WRI16D0001 WRIGHT, D. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - MAMMAL CAMERA DETECTIONS FROM ECOREGIONAL BIODIVERSITY MONITORING PROGRAM, SIERRA NEVADA ECOREGION 2016-10-25



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	A4606	<b>EO Index:</b>	106298
<b>Key Quad:</b>	Freel Peak (3811978)	<b>Element Code:</b>	AMAJF01014
<b>Occurrence Number:</b>	195	<b>Occurrence Last Updated:</b>	2017-05-10

<b>Scientific Name:</b>	<i>Martes caurina sierrae</i>	<b>Common Name:</b>	Sierra marten
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> None	<b>Rare Plant Rank:</b>	
<b>CNDDDB Element Ranks:</b>	<b>Global:</b> G5T3 <b>State:</b> S3	<b>Other Lists:</b>	USFS_S-Sensitive

<b>General Habitat:</b>	<b>Micro Habitat:</b>
MIXED EVERGREEN FORESTS WITH MORE THAN 40% CROWN CLOSURE ALONG SIERRA NEVADA AND CASCADE MOUNTAINS.	NEEDS VARIETY OF DIFFERENT-AGED STANDS, PARTICULARLY OLD-GROWTH CONIFERS AND SNAGS WHICH PROVIDE CAVITIES FOR DENS/NESTS.

<b>Last Date Observed:</b>	2010-XX-XX	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2010-XX-XX	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	USFS-TOIYABE NF	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**  
 ABOUT 0.5 MILES SW OF SCOTTS LAKE AND 1.75 MILES NNE OF STEVENS PEAK, TOIYABE NATIONAL FOREST.

**Detailed Location:**  
 MAPPED TO PROVIDED COORDINATES. PLOT 3530, CAMERA B.

**Ecological:**  
 SIERRAN MIXED CONIFER FOREST.

**Threats:**  
**General:**

DETECTED BY CAMERA TRAP BETWEEN 21 SEP AND 5 OCT 2010.

<b>PLSS:</b> T10N, R18E, Sec. 2, NW (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 5
<b>UTM:</b> Zone-11 N4294108 E241637	<b>Latitude/Longitude:</b> 38.75788 / -119.97329	<b>Elevation (feet):</b> 8,577

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine	Freel Peak (3811978)

**Sources:**  
 WRI16D0001 WRIGHT, D. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - MAMMAL CAMERA DETECTIONS FROM ECOREGIONAL BIODIVERSITY MONITORING PROGRAM, SIERRA NEVADA ECOREGION 2016-10-25



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	A4609	<b>EO Index:</b>	106301
<b>Key Quad:</b>	Ebbetts Pass (3811957)	<b>Element Code:</b>	AMAJF01014
<b>Occurrence Number:</b>	198	<b>Occurrence Last Updated:</b>	2017-05-10

<b>Scientific Name:</b>	<i>Martes caurina sierrae</i>	<b>Common Name:</b>	Sierra marten
<b>Listing Status:</b>	<b>Federal:</b> None	<b>Rare Plant Rank:</b>	
	<b>State:</b> None	<b>Other Lists:</b>	USFS_S-Sensitive
<b>CNDDB Element Ranks:</b>	<b>Global:</b> G5T3		
	<b>State:</b> S3		

**General Habitat:**

MIXED EVERGREEN FORESTS WITH MORE THAN 40% CROWN CLOSURE ALONG SIERRA NEVADA AND CASCADE MOUNTAINS.

**Micro Habitat:**

NEEDS VARIETY OF DIFFERENT-AGED STANDS, PARTICULARLY OLD-GROWTH CONIFERS AND SNAGS WHICH PROVIDE CAVITIES FOR DENS/NESTS.

<b>Last Date Observed:</b>	2013-07-XX	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2013-07-XX	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	USFS-STANISLAUS NF	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**

ABOUT 0.9 MILES SW OF REYNOLDS PEAK AND 1.1 MILES NORTH OF THE ELBOW ON CA-4 (GNIS), STANISLAUS NF.

**Detailed Location:**

MAPPED TO PROVIDED SHAPEFILE. PLOT 3777, CAMERA A.

**Ecological:**

LOGEPOLE PINE FOREST. SIGNS OF CATTLE IN AREA.

**Threats:****General:**

DETECTED BY CAMERA TRAP BETWEEN 16 AND 29 JUL 2013.

<b>PLSS:</b> T08N, R19E, Sec. 2, NE (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 5
<b>UTM:</b> Zone-11 N4272840 E251788	<b>Latitude/Longitude:</b> 38.56937 / -119.84901	<b>Elevation (feet):</b> 8,606

**County Summary:**

Alpine

**Quad Summary:**

Ebbetts Pass (3811957)

**Sources:**

WRI16D0001 WRIGHT, D. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - MAMMAL CAMERA DETECTIONS FROM ECOREGIONAL BIODIVERSITY MONITORING PROGRAM, SIERRA NEVADA ECOREGION 2016-10-25



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	A4610	<b>EO Index:</b>	106302
<b>Key Quad:</b>	Pacific Valley (3811958)	<b>Element Code:</b>	AMAJF01014
<b>Occurrence Number:</b>	199	<b>Occurrence Last Updated:</b>	2017-05-10

<b>Scientific Name:</b>	<i>Martes caurina sierrae</i>	<b>Common Name:</b>	Sierra marten
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> None	<b>Rare Plant Rank:</b>	
<b>CNDDB Element Ranks:</b>	<b>Global:</b> G5T3 <b>State:</b> S3	<b>Other Lists:</b>	USFS_S-Sensitive

<b>General Habitat:</b>	<b>Micro Habitat:</b>
MIXED EVERGREEN FORESTS WITH MORE THAN 40% CROWN CLOSURE ALONG SIERRA NEVADA AND CASCADE MOUNTAINS.	NEEDS VARIETY OF DIFFERENT-AGED STANDS, PARTICULARLY OLD-GROWTH CONIFERS AND SNAGS WHICH PROVIDE CAVITIES FOR DENS/NESTS.

<b>Last Date Observed:</b>	2013-07-XX	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2013-07-XX	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	USFS-ELDORADO NF	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**  
W SIDE CLOVER VALLEY, ABOUT 1.1 MILES SSE OF TWIN LAKES DAM AND 1.75 MILES SW OF TAMARACK LAKE, ELDORADO NF.

**Detailed Location:**  
MAPPED TO PROVIDED SHAPEFILE. PLOT 3787, CAMERA B.

**Ecological:**  
RED FIR FOREST.

**Threats:**  
**General:**

DETECTED BY CAMERA TRAP BETWEEN 15 AND 29 JUL 2013.

<b>PLSS:</b> T09N, R19E, Sec. 31, NE (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 5
<b>UTM:</b> Zone-11 N4275433 E245288	<b>Latitude/Longitude:</b> 38.59087 / -119.92447	<b>Elevation (feet):</b> 7,921

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine	Pacific Valley (3811958)

**Sources:**  
WRI16D0001 WRIGHT, D. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - MAMMAL CAMERA DETECTIONS FROM ECOREGIONAL BIODIVERSITY MONITORING PROGRAM, SIERRA NEVADA ECOREGION 2016-10-25



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	A4612	<b>EO Index:</b>	106303
<b>Key Quad:</b>	Pacific Valley (3811958)	<b>Element Code:</b>	AMAJF01014
<b>Occurrence Number:</b>	200	<b>Occurrence Last Updated:</b>	2017-05-10

<b>Scientific Name:</b>	<i>Martes caurina sierrae</i>	<b>Common Name:</b>	Sierra marten
<b>Listing Status:</b>	<b>Federal:</b> None	<b>Rare Plant Rank:</b>	
	<b>State:</b> None	<b>Other Lists:</b>	USFS_S-Sensitive
<b>CNDDDB Element Ranks:</b>	<b>Global:</b> G5T3		
	<b>State:</b> S3		

**General Habitat:**

MIXED EVERGREEN FORESTS WITH MORE THAN 40% CROWN CLOSURE ALONG SIERRA NEVADA AND CASCADE MOUNTAINS.

**Micro Habitat:**

NEEDS VARIETY OF DIFFERENT-AGED STANDS, PARTICULARLY OLD-GROWTH CONIFERS AND SNAGS WHICH PROVIDE CAVITIES FOR DENS/NESTS.

<b>Last Date Observed:</b>	2013-XX-XX	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2013-XX-XX	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	USFS-STANISLAUS NF	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**

ABOUT 1.4 MILES NW OF MOSQUITO LAKE AND 2.4 MILES ENE OF WHEELER LAKE, STANISLAUS NATIONAL FOREST.

**Detailed Location:**

MAPPED TO PROVIDED SHAPEFILE. PLOT 3858, CAMERA A.

**Ecological:**

RED FIR FOREST.

**Threats:****General:**

DETECTED BY CAMERA TRAP BETWEEN 24 JUL AND 7 AUG 2013.

<b>PLSS:</b> T08N, R19E, Sec. 19, SW (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 5
<b>UTM:</b> Zone-11 N4268103 E243883	<b>Latitude/Longitude:</b> 38.52449 / -119.9379	<b>Elevation (feet):</b> 8,041

**County Summary:**

Alpine

**Quad Summary:**

Pacific Valley (3811958)

**Sources:**

WRI16D0001 WRIGHT, D. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - MAMMAL CAMERA DETECTIONS FROM ECOREGIONAL BIODIVERSITY MONITORING PROGRAM, SIERRA NEVADA ECOREGION 2016-10-25



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A4613	<b>EO Index:</b> 106305
<b>Key Quad:</b> Pacific Valley (3811958)	<b>Element Code:</b> AMAJF01014
<b>Occurrence Number:</b> 201	<b>Occurrence Last Updated:</b> 2017-05-12

<b>Scientific Name:</b> <i>Martes caurina sierrae</i>	<b>Common Name:</b> Sierra marten
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> USFS_S-Sensitive
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5T3	
<b>State:</b> S3	

<b>General Habitat:</b> MIXED EVERGREEN FORESTS WITH MORE THAN 40% CROWN CLOSURE ALONG SIERRA NEVADA AND CASCADE MOUNTAINS.	<b>Micro Habitat:</b> NEEDS VARIETY OF DIFFERENT-AGED STANDS, PARTICULARLY OLD-GROWTH CONIFERS AND SNAGS WHICH PROVIDE CAVITIES FOR DENS/NESTS.
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<b>Last Date Observed:</b> 2011-XX-XX	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2011-XX-XX	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-STANISLAUS NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
NORTH SIDE OF CA-4, ABOUT 0.8 MILES WNW OF MOSQUITO LAKE & 2.8 MILES E OF WHEELER LAKE, STANISLAUS NATIONAL FOREST.

**Detailed Location:**  
MAPPED TO PROVIDED SHAPEFILES. 2011: PLOT 3920, CAMERA B.

**Ecological:**  
2011: LODGEPOLE PINE FOREST.

**Threats:**  
**General:**  
1 DETECTED BY CAMERA TRAP 10 MAR 2003. DETECTED BY CAMERA TRAP BETWEEN 21 SEP AND 4 OCT 2011.

<b>PLSS:</b> T08N, R19E, Sec. 30, SW (M)	<b>Accuracy:</b> non-specific area	<b>Area (acres):</b> 13
<b>UTM:</b> Zone-11 N4267146 E244633	<b>Latitude/Longitude:</b> 38.5161 / -119.92896	<b>Elevation (feet):</b> 7,997

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Pacific Valley (3811958)
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**Sources:**

USFNDD0002	U.S. FOREST SERVICE-REGION 5 - NATURAL RESOURCE INFORMATION SYSTEM (NRIS) ANIMAL RECORDS FROM CALIFORNIA NATIONAL FORESTS XXXX-XX-XX
WRI16D0001	WRIGHT, D. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - MAMMAL CAMERA DETECTIONS FROM ECOREGIONAL BIODIVERSITY MONITORING PROGRAM, SIERRA NEVADA ECOREGION 2016-10-25



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



**Map Index Number:** 14474

**EO Index:** 23722

**Key Quad:** Pacific Valley (3811958)

**Element Code:** AMAJF01021

**Occurrence Number:** 3

**Occurrence Last Updated:** 2010-04-14

**Scientific Name:** *Pekania pennanti*

**Common Name:** fisher - West Coast DPS

**Listing Status:** **Federal:** Endangered

**Rare Plant Rank:**

**State:** Threatened

**Other Lists:** BLM\_S-Sensitive  
CDFW\_SSC-Species of Special Concern  
USFS\_S-Sensitive

**CNDDB Element Ranks:** **Global:** G5T2T3Q

**State:** S2S3

**General Habitat:**

INTERMEDIATE TO LARGE-TREE STAGES OF CONIFEROUS FORESTS AND DECIDUOUS-RIPARIAN AREAS WITH HIGH PERCENT CANOPY CLOSURE.

**Micro Habitat:**

USES CAVITIES, SNAGS, LOGS AND ROCKY AREAS FOR COVER AND DENNING. NEEDS LARGE AREAS OF MATURE, DENSE FOREST.

**Last Date Observed:** 1969-07-24

**Occurrence Type:** Natural/Native occurrence

**Last Survey Date:** 1969-07-24

**Occurrence Rank:** Unknown

**Owner/Manager:** PVT

**Trend:** Unknown

**Presence:** Presumed Extant

**Location:**

BETWEEN TWIN LAKE & LOWER BLUE LAKE, ABOUT 10 MI SW OF MARKLEEVILLE, PRIVATE PARCEL WITHIN ELDORADO NATIONAL FOREST.

**Detailed Location:**

DESCRIBED AS "T9N R19E S30, 8200 FT, BETWEEN TWIN & LOWER BLUE LAKE" & "T9N R19E S30, LITTLE TWIN LAKE." MAPPED TO 8200 FT CONTOUR BETWEEN TWIN LAKE & LOWER BLUE LAKE WITHIN SECTION 30.

**Ecological:**

LOGS POLE PINE FOREST.

**Threats:**

**General:**

TWO RECORDS IN SCHEMPF/UCB DATABASE: ONE FOR A SIGHTING ON 24 JUL 1969 & ANOTHER AT AN UNKNOWN DATE, WITH A NOTE THAT IT "MAY BE THE SAME SIGHTING AS THE ONE MADE ON 7/24/69." SAME DATA CITED IN 1987-DFG & BURKETT DATABASES AS ONE RECORD.

**PLSS:** T09N, R19E, Sec. 30, NW (M)

**Accuracy:** non-specific area

**Area (acres):** 93

**UTM:** Zone-11 N4277497 E244500

**Latitude/Longitude:** 38.60922 / -119.93425

**Elevation (feet):** 8,200

**County Summary:**

**Quad Summary:**

Alpine

Pacific Valley (3811958)

**Sources:**

- BUR97D0001 BURKETT, E. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - BIOS LAYER DS30: PACIFIC FISHER - HISTORICAL OBSERVATIONS (VERY SIMILAR TO DFG87U0015). 1997-02-XX
- DFG87U0015 DFG - NONGAME WILDLIFE SECTION - GORDON GOULD'S DATABASE PRINTOUT OF FISHER SIGHTINGS (VERY SIMILAR TO BUR97D0001). 1987-09-17
- SCH77R0002 SCHEMPF, P. & M. WHITE - STATUS OF SIX FURBEARER POPULATIONS IN THE MOUNTAINS OF NORTHERN CALIFORNIA. REPORT PUBLISHED BY USDA FOREST SERVICE, CALIFORNIA REGION. 1977-12-XX
- UCBNDU0003 UCB - FORESTRY & CONSERVATION (UNIVERSITY OF CALIFORNIA, BERKELEY) - COPY OF INDEX CARDS FOR THE MARTES PENNANTI (PACIFICA) LOCATIONS USED IN SCHEMPF & WHITE 1977 (SCH77R0002). XXXX-XX-XX





# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 14430	<b>EO Index:</b> 23721
<b>Key Quad:</b> Pacific Valley (3811958)	<b>Element Code:</b> AMAJF01021
<b>Occurrence Number:</b> 4	<b>Occurrence Last Updated:</b> 2010-04-14

<b>Scientific Name:</b> <i>Pekania pennanti</i>	<b>Common Name:</b> fisher - West Coast DPS
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Endangered	
<b>State:</b> Threatened	<b>Other Lists:</b>
<b>CNDDB Element Ranks:</b>	BLM_S-Sensitive
<b>Global:</b> G5T2T3Q	CDFW_SSC-Species of Special Concern
<b>State:</b> S2S3	USFS_S-Sensitive

<b>General Habitat:</b> INTERMEDIATE TO LARGE-TREE STAGES OF CONIFEROUS FORESTS AND DECIDUOUS-RIPARIAN AREAS WITH HIGH PERCENT CANOPY CLOSURE.	<b>Micro Habitat:</b> USES CAVITIES, SNAGS, LOGS AND ROCKY AREAS FOR COVER AND DENNING. NEEDS LARGE AREAS OF MATURE, DENSE FOREST.
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<b>Last Date Observed:</b> 1979-XX-XX	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1979-XX-XX	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-ELDORADO NF, PVT	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
VICINITY OF MEADOW LAKE, ABOUT 9 MI SE OF KIRKWOOD (TOWN) & ABOUT 12 MI SW OF MARKLEEVILLE, ELDORADO NATIONAL FOREST.

**Detailed Location:**  
LOCATION DESCRIBED AS "T9N R18E SEC 26, MEADOW LAKE." MAPPED TO SECTION 26 WHICH INCLUDES MOST OF MEADOW LAKE.

**Ecological:**  
**Threats:**

**General:**  
1 FISHER OBSERVED AT CLOSE RANGE BY SCHLITZKUS & BERG IN 1979, AND REPORTED IN DFG REGION 2'S OCT 1979 MONTHLY REPORT, AS CITED IN THE BURKETT DATABASE. ALSO CITED IN THE 1987-DFG DATABASE.

<b>PLSS:</b> T09N, R18E, Sec. 26 (M)	<b>Accuracy:</b> non-specific area	<b>Area (acres):</b> 644
<b>UTM:</b> Zone-11 N4276857 E241775	<b>Latitude/Longitude:</b> 38.60267 / -119.96528	<b>Elevation (feet):</b> 7,840

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Pacific Valley (3811958)
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**Sources:**

BUR97D0001	BURKETT, E. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - BIOS LAYER DS30: PACIFIC FISHER - HISTORICAL OBSERVATIONS (VERY SIMILAR TO DFG87U0015). 1997-02-XX
DFG87U0015	DFG - NONGAME WILDLIFE SECTION - GORDON GOULD'S DATABASE PRINTOUT OF FISHER SIGHTINGS (VERY SIMILAR TO BUR97D0001). 1987-09-17



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 14340	<b>EO Index:</b> 23704
<b>Key Quad:</b> Echo Lake (3812071)	<b>Element Code:</b> AMAJF01021
<b>Occurrence Number:</b> 21	<b>Occurrence Last Updated:</b> 2010-04-14

<b>Scientific Name:</b> <i>Pekania pennanti</i>	<b>Common Name:</b> fisher - West Coast DPS
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Endangered	
<b>State:</b> Threatened	<b>Other Lists:</b>
<b>CNDDB Element Ranks:</b>	BLM_S-Sensitive
<b>Global:</b> G5T2T3Q	CDFW_SSC-Species of Special Concern
<b>State:</b> S2S3	USFS_S-Sensitive

<b>General Habitat:</b> INTERMEDIATE TO LARGE-TREE STAGES OF CONIFEROUS FORESTS AND DECIDUOUS-RIPARIAN AREAS WITH HIGH PERCENT CANOPY CLOSURE.	<b>Micro Habitat:</b> USES CAVITIES, SNAGS, LOGS AND ROCKY AREAS FOR COVER AND DENNING. NEEDS LARGE AREAS OF MATURE, DENSE FOREST.
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<b>Last Date Observed:</b> 1967-03-XX	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1967-03-XX	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-ELDORADO NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
VICINITY OF ALPINE CAMPGROUND ALONG UPPER TRUCKEE RIVER, ABOUT 4 MI S OF MEYERS, ELDORADO NATIONAL FOREST.

**Detailed Location:**  
LOCATION DESCRIBED AS "NEAR ALPINE CAMPGROUND, T11N R18E S17." MAPPED TO VICINITY OF ALPINE CAMPGROUND IN SECTION 17.

**Ecological:**  
MIXED CONIFER FOREST.

**Threats:**  
**General:**

FISHER OBSERVED IN MARCH 1967.

<b>PLSS:</b> T11N, R18E, Sec. 17 (M)	<b>Accuracy:</b> 1 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-10 N4298238 E758892	<b>Latitude/Longitude:</b> 38.79490 / -120.01907	<b>Elevation (feet):</b> 6,500

<b>County Summary:</b> El Dorado	<b>Quad Summary:</b> Freel Peak (3811978), Echo Lake (3812071)
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**Sources:**

BUR97D0001	BURKETT, E. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - BIOS LAYER DS30: PACIFIC FISHER - HISTORICAL OBSERVATIONS (VERY SIMILAR TO DFG87U0015). 1997-02-XX
DFG87U0015	DFG - NONGAME WILDLIFE SECTION - GORDON GOULD'S DATABASE PRINTOUT OF FISHER SIGHTINGS (VERY SIMILAR TO BUR97D0001). 1987-09-17
SCH77R0002	SCHEMPF, P. & M. WHITE - STATUS OF SIX FURBEARER POPULATIONS IN THE MOUNTAINS OF NORTHERN CALIFORNIA. REPORT PUBLISHED BY USDA FOREST SERVICE, CALIFORNIA REGION. 1977-12-XX
UCBNDU0003	UCB - FORESTRY & CONSERVATION (UNIVERSITY OF CALIFORNIA, BERKELEY) - COPY OF INDEX CARDS FOR THE MARTES PENNANTI (PACIFICA) LOCATIONS USED IN SCHEMPF & WHITE 1977 (SCH77R0002). XXXX-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 14612	<b>EO Index:</b> 23362	
<b>Key Quad:</b> Ebbetts Pass (3811957)	<b>Element Code:</b> AMAJF03010	
<b>Occurrence Number:</b> 1	<b>Occurrence Last Updated:</b> 1989-08-10	

<b>Scientific Name:</b> <i>Gulo gulo</i>	<b>Common Name:</b> California wolverine
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Proposed Threatened	
<b>State:</b> Threatened	<b>Other Lists:</b> CDFW_FP-Fully Protected
<b>CNDDDB Element Ranks:</b>	IUCN_NT-Near Threatened
<b>Global:</b> G4	USFS_S-Sensitive
<b>State:</b> S1	

<b>General Habitat:</b> FOUND IN THE NORTH COAST MOUNTAINS AND THE SIERRA NEVADA. FOUND IN A WIDE VARIETY OF HIGH ELEVATION HABITATS.	<b>Micro Habitat:</b> NEEDS WATER SOURCE. USES CAVES, LOGS, BURROWS FOR COVER AND DEN AREA. HUNTS IN MORE OPEN AREAS. CAN TRAVEL LONG DISTANCES.
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<b>Last Date Observed:</b> 1936-XX-XX	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1936-XX-XX	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-STANISLAUS NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
WILLOW MEADOW, NE OF LOOKOUT PEAK; ALSO AT HERMIT VALLEY.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

ONE OBSERVATION.

<b>PLSS:</b> T08N, R19E, Sec. 23, SE (M)	<b>Accuracy:</b> 1 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4268224 E251275	<b>Latitude/Longitude:</b> 38.52768 / -119.85324	<b>Elevation (feet):</b> 8,000

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Ebbetts Pass (3811957)
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**Sources:**  
SCH78U0001 SCHEMPF, P. & M. WHITE - PHOTOCOPIES OF LOCALITY CARDS OF LOCALITIES OF WOLVERINE SIGHTINGS 1978-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 15005	<b>EO Index:</b> 23354
<b>Key Quad:</b> Coleville (3811955)	<b>Element Code:</b> AMAJF03010
<b>Occurrence Number:</b> 4	<b>Occurrence Last Updated:</b> 1989-08-10

<b>Scientific Name:</b> <i>Gulo gulo</i>	<b>Common Name:</b> California wolverine
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Proposed Threatened	
<b>State:</b> Threatened	<b>Other Lists:</b> CDFW_FP-Fully Protected
<b>CNDDB Element Ranks:</b>	IUCN_NT-Near Threatened
<b>Global:</b> G4	USFS_S-Sensitive
<b>State:</b> S1	

<b>General Habitat:</b> FOUND IN THE NORTH COAST MOUNTAINS AND THE SIERRA NEVADA. FOUND IN A WIDE VARIETY OF HIGH ELEVATION HABITATS.	<b>Micro Habitat:</b> NEEDS WATER SOURCE. USES CAVES, LOGS, BURROWS FOR COVER AND DEN AREA. HUNTS IN MORE OPEN AREAS. CAN TRAVEL LONG DISTANCES.
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<b>Last Date Observed:</b> 1966-08-XX	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1966-08-XX	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> UNKNOWN	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
MINERAL MTN AREA OF POISON FLAT.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

<b>PLSS:</b> T08N, R21E, Sec. 25, NW (M)	<b>Accuracy:</b> 1 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4265657 E271128	<b>Latitude/Longitude:</b> 38.50990 / -119.62489	<b>Elevation (feet):</b> 8,080

**County Summary:**

Alpine

**Quad Summary:**

Lost Cannon Peak (3811945), Disaster Peak (3811946), Coleville (3811955), Wolf Creek (3811956)

**Sources:**  
GUS80U0001 GUSTAFSON, J. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FROM THE FILES OF GORDON GOULD, DEPT. OF FISH AND GAME 1980-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 14966	<b>EO Index:</b> 23358	
<b>Key Quad:</b> Wolf Creek (3811956)	<b>Element Code:</b> AMAJF03010	
<b>Occurrence Number:</b> 5	<b>Occurrence Last Updated:</b> 1989-08-10	

<b>Scientific Name:</b> <i>Gulo gulo</i>	<b>Common Name:</b> California wolverine
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Proposed Threatened	
<b>State:</b> Threatened	<b>Other Lists:</b> CDFW_FP-Fully Protected
<b>CNDDB Element Ranks:</b>	IUCN_NT-Near Threatened
<b>Global:</b> G4	USFS_S-Sensitive
<b>State:</b> S1	

<b>General Habitat:</b> FOUND IN THE NORTH COAST MOUNTAINS AND THE SIERRA NEVADA. FOUND IN A WIDE VARIETY OF HIGH ELEVATION HABITATS.	<b>Micro Habitat:</b> NEEDS WATER SOURCE. USES CAVES, LOGS, BURROWS FOR COVER AND DEN AREA. HUNTS IN MORE OPEN AREAS. CAN TRAVEL LONG DISTANCES.
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<b>Last Date Observed:</b> 1967-XX-XX	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1967-XX-XX	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> UNKNOWN	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
SNOWSLIDE CANYON, APPROX 3-3.5 MILES W OF ALPINE/MONO COUNTY LINE.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

<b>PLSS:</b> T08N, R21E, Sec. 02, SW (M)	<b>Accuracy:</b> 1 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4271538 E269406	<b>Latitude/Longitude:</b> 38.56240 / -119.64656	<b>Elevation (feet):</b> 7,250

**County Summary:**

Alpine

**Quad Summary:**

Wolf Creek (3811956)

**Sources:**  
GUS80U0001 GUSTAFSON, J. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - FROM THE FILES OF GORDON GOULD, DEPT. OF FISH AND GAME 1980-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 14387	<b>EO Index:</b> 23361	
<b>Key Quad:</b> Pacific Valley (3811958)	<b>Element Code:</b> AMAJF03010	
<b>Occurrence Number:</b> 6	<b>Occurrence Last Updated:</b> 1989-08-10	

<b>Scientific Name:</b> <i>Gulo gulo</i>	<b>Common Name:</b> California wolverine
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> Proposed Threatened	
<b>State:</b> Threatened	<b>Other Lists:</b> CDFW_FP-Fully Protected
<b>CNDDDB Element Ranks:</b>	IUCN_NT-Near Threatened
<b>Global:</b> G4	USFS_S-Sensitive
<b>State:</b> S1	

<b>General Habitat:</b> FOUND IN THE NORTH COAST MOUNTAINS AND THE SIERRA NEVADA. FOUND IN A WIDE VARIETY OF HIGH ELEVATION HABITATS.	<b>Micro Habitat:</b> NEEDS WATER SOURCE. USES CAVES, LOGS, BURROWS FOR COVER AND DEN AREA. HUNTS IN MORE OPEN AREAS. CAN TRAVEL LONG DISTANCES.
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<b>Last Date Observed:</b> 1967-XX-XX	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1967-XX-XX	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> UNKNOWN	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
SE SLOPE OF MINERAL MTN IN SNOW CANYON (?) APPROX 1-1.5 MILES N-NW OF MEADOW LK.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

<b>PLSS:</b> T09N, R18E, Sec. 27, NW (M)	<b>Accuracy:</b> 1 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4277596 E239967	<b>Latitude/Longitude:</b> 38.60879 / -119.98630	<b>Elevation (feet):</b> 8,200

**County Summary:**

Alpine

**Quad Summary:**

Pacific Valley (3811958), Mokelumne Peak (3812051)

**Sources:**  
SCH78U0001 SCHEMPF, P. & M. WHITE - PHOTOCOPIES OF LOCALITY CARDS OF LOCALITIES OF WOLVERINE SIGHTINGS 1978-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A4561	<b>EO Index:</b> 106254
<b>Key Quad:</b> Caples Lake (3812061)	<b>Element Code:</b> AMAJF04010
<b>Occurrence Number:</b> 537	<b>Occurrence Last Updated:</b> 2017-05-08

<b>Scientific Name:</b> <i>Taxidea taxus</i>	<b>Common Name:</b> American badger
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5	
<b>State:</b> S3	

<b>General Habitat:</b> MOST ABUNDANT IN DRIER OPEN STAGES OF MOST SHRUB, FOREST, AND HERBACEOUS HABITATS, WITH FRIABLE SOILS.	<b>Micro Habitat:</b> NEEDS SUFFICIENT FOOD, FRIABLE SOILS AND OPEN, UNCULTIVATED GROUND. PREYS ON BURROWING RODENTS. DIGS BURROWS.
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<b>Last Date Observed:</b> 2014-XX-XX	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2014-XX-XX	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-ELDORADO NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
ABOUT 0.9 MILES NW OF CARSON PASS & 1.2 MILES SW OF RED LAKE PEAK, ELDORADO NATIONAL FOREST.

**Detailed Location:**  
MAPPED TO PROVIDED SHAPEFILE. PLOT 3602, CAMERA B.

**Ecological:**  
LODGEPOLE PINE FOREST.

**Threats:**  
**General:**

DETECTED BY CAMERA TRAP BETWEEN 20 AUG AND 3 SEP 2014.

<b>PLSS:</b> T10N, R18E, Sec. 21, NE (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 5
<b>UTM:</b> Zone-10 N4287874 E760787	<b>Latitude/Longitude:</b> 38.70107 / -120.0012	<b>Elevation (feet):</b> 8,541

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Carson Pass (3811968), Caples Lake (3812061)
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**Sources:**  
WRI16D0001 WRIGHT, D. (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - MAMMAL CAMERA DETECTIONS FROM ECOREGIONAL BIODIVERSITY MONITORING PROGRAM, SIERRA NEVADA ECOREGION 2016-10-25



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 14440	<b>EO Index:</b> 16175
<b>Key Quad:</b> Freel Peak (3811978)	<b>Element Code:</b> CTT51110CA
<b>Occurrence Number:</b> 8	<b>Occurrence Last Updated:</b> 1998-07-16

<b>Scientific Name:</b> <i>Sphagnum Bog</i>	<b>Common Name:</b> Sphagnum Bog
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b>
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G3	
<b>State:</b> S1.2	

<b>General Habitat:</b> <input type="checkbox"/>	<b>Micro Habitat:</b> <input type="checkbox"/>
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<b>Last Date Observed:</b> 1985-08-12	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1985-08-12	<b>Occurrence Rank:</b> Excellent
<b>Owner/Manager:</b> USFS-LAKE TAHOE BMU	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
GRASS LAKE, ELDORADO NATIONAL FOREST.

**Detailed Location:**  
IN 4 SECTIONS.

**Ecological:**  
LARGEST SPHAGNUM BOG IN CA-A TRUE QUAKING BOG. SPHAGNUM PATCHY, DREPANOCLADUS (?) MORE WIDESPREAD. OPEN WATER W/INCIPIENT MOSS GROWTH, SHRUBS APPEAR TO BE INVADING EDGES-A TRUE HYDROSERE PER PAYLOR. WATER PH 5.5. 3 TYPES CARNIVOROUS PLANTS.

**Threats:**  
THREATENED BY WINTER SALT RUNOFF FROM ROAD.

**General:**  
WILL BE PROPOSED AS RNA BY USFS. SEE [WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL\\_COMM\\_BACKGROUND.ASP](http://WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP) TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

<b>PLSS:</b> T11N, R18E, Sec. 23, NW (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 292
<b>UTM:</b> Zone-11 N4297755 E242759	<b>Latitude/Longitude:</b> 38.79104 / -119.96175	<b>Elevation (feet):</b> 7,720

<b>County Summary:</b> El Dorado	<b>Quad Summary:</b> Freel Peak (3811978)
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**Sources:**

BIT85U0004	BITTMAN, R. & N. MCCARTEN - TRIP REPORT, GRASS LAKE, OSGOOD SWAMP. 1985-08-12
HOO77R0001	HOOD, L. - INVENTORY OF CALIFORNIA NATURAL AREAS, CALIFORNIA NATURAL AREAS COORDINATING COUNCIL 1977-XX-XX
REE81U0001	REED, S. - LETTER FROM SHERRY REED TO MARK MOORE DELINEATING 4 AREAS IN LAKE TAHOE BASIN MANAGEMENT AREA. 1981-XX-XX
SOD88U0001	SODERBERG, H. - LETTER TO JOYCE MULAOKA ABOUT SITE ASSESSMENT OF GRASS LAKE. 1988-09-08
USF84U0001	U.S. FOREST SERVICE - A SUMMARY OF RESEARCH NATURAL AREA STATUS 1984-11-XX





**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	95047	<b>EO Index:</b>	99882
<b>Key Quad:</b>	Freel Peak (3811978)	<b>Element Code:</b>	IIHYM24250
<b>Occurrence Number:</b>	159	<b>Occurrence Last Updated:</b>	2015-12-09

<b>Scientific Name:</b>	<i>Bombus occidentalis</i>	<b>Common Name:</b>	western bumble bee
<b>Listing Status:</b>	<b>Federal:</b> None	<b>Rare Plant Rank:</b>	
	<b>State:</b> Candidate Endangered	<b>Other Lists:</b>	USFS_S-Sensitive
<b>CNDDDB Element Ranks:</b>	<b>Global:</b> G2G3		
	<b>State:</b> S1		

**General Habitat:**  
 ONCE COMMON & WIDESPREAD, SPECIES HAS DECLINED  
 PRECIPITOUSLY FROM CENTRAL CA TO SOUTHERN B.C., PERHAPS  
 FROM DISEASE.

**Micro Habitat:**

<b>Last Date Observed:</b>	1948-07-18	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	1948-07-18	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	USFS, DFG, UNKNOWN	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**  
 HOPE VALLEY.

**Detailed Location:**  
 EXACT LOCATION UNKNOWN. MAPPED BY CNDDDB NON-SPECIFICALLY ACROSS THE EXTENT OF HOPE VALLEY, SOUTH OF LAKE TAHOE.

**Ecological:**  
**Threats:**

**General:**  
 COLLECTED 18 JUL 1948.

<b>PLSS:</b>	T11N, R18E, Sec. 25 (M)	<b>Accuracy:</b>	non-specific area	<b>Area (acres):</b>	3,322
<b>UTM:</b>	Zone-11 N4295287 E244943	<b>Latitude/Longitude:</b>	38.76945 / -119.93572	<b>Elevation (feet):</b>	7,100

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine	Carson Pass (3811968), Freel Peak (3811978)

**Sources:**  
 SMI48S0005 SMITH, R. - EMEC #JPS20751 FROM HOPE VALLEY 1948-07-18



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 95047	<b>EO Index:</b> 98257	
<b>Key Quad:</b> Freel Peak (3811978)	<b>Element Code:</b> IIHYM24460	
<b>Occurrence Number:</b> 20	<b>Occurrence Last Updated:</b> 2015-07-28	

<b>Scientific Name:</b> <i>Bombus morrisoni</i>	<b>Common Name:</b> Morrison bumble bee
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> IUCN_VU-Vulnerable
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G4G5	
<b>State:</b> S1S2	

<b>General Habitat:</b> FROM THE SIERRA-CASCADE RANGES EASTWARD ACROSS THE INTERMOUNTAIN WEST.	<b>Micro Habitat:</b> FOOD PLANT GENERA INCLUDE CIRSIUM, CLEOME, HELIANTHUS, LUPINUS, CHRYSOTHAMNUS, AND MELILOTUS.
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<b>Last Date Observed:</b> 1935-09-11	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1935-09-11	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS, DFG, UNKNOWN	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
HOPE VALLEY.

**Detailed Location:**  
EXACT LOCATION UNKNOWN. MAPPED BY CNDDDB NON-SPECIFICALLY ACROSS THE EXTENT OF HOPE VALLEY, SOUTH OF LAKE TAHOE.

**Ecological:**

**Threats:**

**General:**  
COLLECTED 11 SEP 1935.

<b>PLSS:</b> T11N, R18E, Sec. 25 (M)	<b>Accuracy:</b> non-specific area	<b>Area (acres):</b> 3,322
<b>UTM:</b> Zone-11 N4295287 E244943	<b>Latitude/Longitude:</b> 38.76945 / -119.93572	<b>Elevation (feet):</b> 7,000

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Carson Pass (3811968), Freel Peak (3811978)
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**Sources:**  
CAZ35S0001 CAZIER, M. - AMNH BEE #25471 COLLECTED FROM HOPE VALLEY 1935-09-11



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 58760	<b>EO Index:</b> 98260
<b>Key Quad:</b> Woodfords (3811977)	<b>Element Code:</b> IIHYM24460
<b>Occurrence Number:</b> 21	<b>Occurrence Last Updated:</b> 2015-07-28

<b>Scientific Name:</b> <i>Bombus morrisoni</i>	<b>Common Name:</b> Morrison bumble bee
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> IUCN_VU-Vulnerable
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G4G5	
<b>State:</b> S1S2	

<b>General Habitat:</b> FROM THE SIERRA-CASCADE RANGES EASTWARD ACROSS THE INTERMOUNTAIN WEST.	<b>Micro Habitat:</b> FOOD PLANT GENERA INCLUDE CIRSIUM, CLEOME, HELIANTHUS, LUPINUS, CHRYSOTHAMNUS, AND MELILOTUS.
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<b>Last Date Observed:</b> 1962-10-18	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1962-10-18	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-TOIYABE NF, UNKNOWN	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
WOODFORDS.

**Detailed Location:**  
EXACT LOCATION UNKNOWN. MAPPED BY CNDDDB IN GENERAL VICINITY OF WOODFORDS, ALONG WEST FORK CARSON RIVER.

**Ecological:**  
**Threats:**

**General:**  
COLLECTED 18 OCT 1962.

<b>PLSS:</b> T11N, R19E, Sec. 35 (M)	<b>Accuracy:</b> 1 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4295671 E254687	<b>Latitude/Longitude:</b> 38.77567 / -119.82383	<b>Elevation (feet):</b> 5,600

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Woodfords (3811977)
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**Sources:**  
ANO62S0004 ANONYMOUS - LACM ENTB #1476 COLLECTED FROM WOODFORDS 1962-10-18



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	97040	<b>EO Index:</b>	98281
<b>Key Quad:</b>	Topaz Lake (3811965)	<b>Element Code:</b>	IIHYM24460
<b>Occurrence Number:</b>	22	<b>Occurrence Last Updated:</b>	2015-07-30

<b>Scientific Name:</b>	<i>Bombus morrisoni</i>	<b>Common Name:</b>	Morrison bumble bee
<b>Listing Status:</b>	<b>Federal:</b> None	<b>Rare Plant Rank:</b>	
	<b>State:</b> None	<b>Other Lists:</b>	IUCN_VU-Vulnerable
<b>CNDDDB Element Ranks:</b>	<b>Global:</b> G4G5		
	<b>State:</b> S1S2		

<b>General Habitat:</b>	<b>Micro Habitat:</b>
FROM THE SIERRA-CASCADE RANGES EASTWARD ACROSS THE INTERMOUNTAIN WEST.	FOOD PLANT GENERA INCLUDE CIRSIUM, CLEOME, HELIANTHUS, LUPINUS, CHRYSOTHAMNUS, AND MELILOTUS.

<b>Last Date Observed:</b>	1981-09-01	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	1981-09-01	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	USFS-TOYIABE NF	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**  
MONITOR PASS SUMMIT.

**Detailed Location:**  
MAPPED BY CNDDDB CENTERED AT MONITOR PASS. COLLECTION FROM EAST OF MONITOR PASS ALSO ATTRIBUTED TO THIS LOCATION.

**Ecological:**  
**Threats:**

**General:**  
COLLECTED 21 SEPT 1958 AND 1 SEPT 1981.

<b>PLSS:</b> T10N, R21E, Sec. 36 (M)	<b>Accuracy:</b> 3/5 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4284021 E272040	<b>Latitude/Longitude:</b> 38.67545 / -119.62045	<b>Elevation (feet):</b> 8,300

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine	Topaz Lake (3811965), Heenan Lake (3811966)

**Sources:**

ANO58S0005	ANONYMOUS - LACM ENTB #1417 FROM HWY 89 E OF MONITOR PASS, 7000' 1958-09-21
SKI81S0001	SKILES, D. - EMEC #560673 & 560674 COLLECTED FROM MONITOR PASS SUMMIT 1981-09-01



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b> 45649	<b>EO Index:</b> 45649
<b>Key Quad:</b> Woodfords (3811977)	<b>Element Code:</b> IILEPJ6056
<b>Occurrence Number:</b> 1	<b>Occurrence Last Updated:</b> 2019-11-13

<b>Scientific Name:</b> <i>Speyeria nokomis carsonensis</i>	<b>Common Name:</b> Carson Valley silverspot
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b>
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G3T1T2	
<b>State:</b> S1	

<b>General Habitat:</b>	<b>Micro Habitat:</b>
WET MEADOWS ALONG THE EASTERN BASE OF THE CARSON RANGE FROM SOUTHERN WASHOE CO. NEVADA TO NORTHERN ALPINE CO. CALIFORNIA	OCCURS AS ISOLATED COLONIES.

<b>Last Date Observed:</b> 2009-08-23	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2009-08-23	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> PVT, UNKNOWN	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
VICINITY OF FOOTHILL RD, 4 AIR MILES SOUTH OF NEVADA STATE ROUTE 207, NEAR THE ALPINE/DOUGLAS COUNTY LINE.

**Detailed Location:**  
TYPE LOCALITY: "NEVADA: DOUGLAS COUNTY; CARSON VALLEY, SCOSSA RANCH. NEVADA STATE ROUTE 206, 3.6 MILES SOUTH OF NEVADA STATE ROUTE 207, 1463M, T12N R19E S26 ON USGS FREEL PEAK CALIF-NEV 15' QUADRANGLE."

**Ecological:**  
MAPPED FEATURE INCLUDES SANFORD'S SCOSSA RANCH & PURSHIA-FOOTHILL SITES. AGRICULTURAL HABITAT WITH WET DEPRESSIONS AND UNPLOWED FIELDS ON RANCH PROPERTY. UNCLEAR IF ANY SUITABLE HABITAT EXISTS ON CALIFORNIA SIDE OF THE BORDER.

**Threats:**  
**General:**  
HOLOTYPE & ALLOTYPE HOUSED AT ALLYN MUSEUM OF ENTOMOLOGY. PARATYPES: (432 MALES & 224 FEMALES), COLLECTED 1964-1989. DETECTED DURING SUMMER SURVEYS IN 2004, 2005, & 2006. UP TO 9 ADULTS PHOTOGRAPHED ON 23 AUGUST 2009.

<b>PLSS:</b> T12N, R19E, Sec. 26, NW (M)	<b>Accuracy:</b> 3/5 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4306641 E255389	<b>Latitude/Longitude:</b> 38.87461 / -119.81966	<b>Elevation (feet):</b> 4,800

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine, Nevada State	Woodfords (3811977), Minden (3811987)

**Sources:**

BRO08I0001 BROCK, J. - PHOTOS OF SPEYERIA NOKOMIS CARSONENSIS TOPOTYPES (PINNED SPECIMENS) FROM SCOSSA RANCH, ACCESSED FROM [HTTP://WWW.BUTTERFLIESOFAMERICA.COM](http://WWW.BUTTERFLIESOFAMERICA.COM) 2008-XX-XX

EMM98B0001 EMMEL, T. (EDITOR) - SYSTEMATICS OF WESTERN NORTH AMERICAN BUTTERFLIES. MARIPOSA PRESS. GAINESVILLE, FLORIDA. 878 PP. 1998-XX-XX

LAN09I0001 LANE, J. - PHOTOS OF SPEYERIA NOKOMIS CARSONENSIS LIVE ADULTS AND HABITAT AT SCOSSA RANCH, ACCESSED FROM [HTTP://WWW.BUTTERFLIESOFAMERICA.COM](http://WWW.BUTTERFLIESOFAMERICA.COM) 2009-08-23

SAN06D0002 SANFORD, M. - SPREADSHEET OF 2004-2006 SURVEY DATA FOR SPEYERIA NOKOMIS CARSONENSIS AND CERCYONIS PEGALA CARSONENSIS 2006-XX-XX

SAN10A0001 SANFORD, M. - IMPROVING CONSERVATION AND MANAGEMENT OF THE IMPERILED CARSON VALLEY SILVERSPOT BUTTERFLY SPEYERIA NOKOMIS CARSONENSIS BASED ON RAPID ASSESSMENTS OF DISTRIBUTION, HABITAT & THREATS 2010-11-26



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> B4361	<b>EO Index:</b> 117291
<b>Key Quad:</b> Heenan Lake (3811966)	<b>Element Code:</b> IILEPJ6056
<b>Occurrence Number:</b> 8	<b>Occurrence Last Updated:</b> 2019-11-04

<b>Scientific Name:</b> <i>Speyeria nokomis carsonensis</i>	<b>Common Name:</b> Carson Valley silverspot
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b>
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G3T1T2	
<b>State:</b> S1	

<b>General Habitat:</b> WET MEADOWS ALONG THE EASTERN BASE OF THE CARSON RANGE FROM SOUTHERN WASHOE CO. NEVADA TO NORTHERN ALPINE CO. CALIFORNIA	<b>Micro Habitat:</b> OCCURS AS ISOLATED COLONIES.
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<b>Last Date Observed:</b> 2006-XX-XX	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2006-XX-XX	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> DFW-HEENAN LAKE WA	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
BAGLEY VALLEY, ABOUT 0.25 MI S OF HEENAN RESERVOIR.

**Detailed Location:**  
MAPPED TO COORDINATES GIVEN FOR "BAGLEY VALLEY" SITE.

**Ecological:**  
**Threats:**

**General:**  
DETECTED DURING 2006 SURVEYS.

<b>PLSS:</b> T09N, R21E, Sec. 10, NW (M)	<b>Accuracy:</b> 1/5 mile	<b>Area (acres):</b> 70
<b>UTM:</b> Zone-11 N4280429 E268417	<b>Latitude/Longitude:</b> 38.64218 / -119.66086	<b>Elevation (feet):</b> 7,113

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Heenan Lake (3811966)
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**Sources:**  
SAN06D0002 SANFORD, M. - SPREADSHEET OF 2004-2006 SURVEY DATA FOR SPEYERIA NOKOMIS CARSONENSIS AND CERCYONIS PEGALA CARSONENSIS 2006-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> B4371	<b>EO Index:</b> 117299
<b>Key Quad:</b> Woodfords (3811977)	<b>Element Code:</b> IILEPJ6056
<b>Occurrence Number:</b> 9	<b>Occurrence Last Updated:</b> 2019-11-07

<b>Scientific Name:</b> <i>Speyeria nokomis carsonensis</i>	<b>Common Name:</b> Carson Valley silverspot
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b>
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G3T1T2	
<b>State:</b> S1	

<b>General Habitat:</b> WET MEADOWS ALONG THE EASTERN BASE OF THE CARSON RANGE FROM SOUTHERN WASHOE CO. NEVADA TO NORTHERN ALPINE CO. CALIFORNIA	<b>Micro Habitat:</b> OCCURS AS ISOLATED COLONIES.
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<b>Last Date Observed:</b> 2006-XX-XX	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2006-XX-XX	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> UNKNOWN	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
VICINITY OF CARSON RIVER, ABOUT 1.4 MI NE OF CA-88 AT CARSON RIVER RD & 1.6 MI SW OF PAYNESVILLE.

**Detailed Location:**  
MAPPED GENERALLY TO COORDINATES GIVEN FOR "CARSON RIVER RD SPRINGS" SITE. SPRINGS ON USGS TOPO AND VISIBLE IN AIR PHOTOS ARE ABOUT 0.1 MI S OF THE GIVEN COORDINATES.

**Ecological:**

**Threats:**

**General:**  
DETECTED DURING 2006 SURVEYS.

<b>PLSS:</b> T11N, R19E, Sec. 25, N (M)	<b>Accuracy:</b> 1/5 mile	<b>Area (acres):</b> 70
<b>UTM:</b> Zone-11 N4297185 E257060	<b>Latitude/Longitude:</b> 38.78995 / -119.79708	<b>Elevation (feet):</b> 5,453

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Woodfords (3811977)
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**Sources:**  
SAN06D0002 SANFORD, M. - SPREADSHEET OF 2004-2006 SURVEY DATA FOR SPEYERIA NOKOMIS CARSONENSIS AND CERCYONIS PEGALA CARSONENSIS 2006-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> B4373	<b>EO Index:</b> 117301
<b>Key Quad:</b> Woodfords (3811977)	<b>Element Code:</b> IILEPJ6056
<b>Occurrence Number:</b> 11	<b>Occurrence Last Updated:</b> 2019-11-08

<b>Scientific Name:</b> <i>Speyeria nokomis carsonensis</i>	<b>Common Name:</b> Carson Valley silverspot
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b>
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G3T1T2	
<b>State:</b> S1	

<b>General Habitat:</b> WET MEADOWS ALONG THE EASTERN BASE OF THE CARSON RANGE FROM SOUTHERN WASHOE CO. NEVADA TO NORTHERN ALPINE CO. CALIFORNIA	<b>Micro Habitat:</b> OCCURS AS ISOLATED COLONIES.
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<b>Last Date Observed:</b> 2006-XX-XX	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2006-XX-XX	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-HUMBOLDT-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
DIAMOND VALLEY, ABOUT 0.6 MI WNW OF THE INTXN OF DIAMOND VALLEY RD & AIRPORT RD; 2.3 MI W OF THE INTXN OF CA-88 & CA-89.

**Detailed Location:**  
MAPPED GENERALLY TO COORDINATES GIVEN FOR "DIAMOND VALLEY SEEPS" SITE.

**Ecological:**  
**Threats:**

**General:**  
DETECTED DURING 2006 SURVEYS.

<b>PLSS:</b> T11N, R20E, Sec. 31, NW (M)	<b>Accuracy:</b> 1/5 mile	<b>Area (acres):</b> 70
<b>UTM:</b> Zone-11 N4295429 E258350	<b>Latitude/Longitude:</b> 38.7745 / -119.78163	<b>Elevation (feet):</b> 5,467

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Woodfords (3811977)
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**Sources:**  
SAN06D0002 SANFORD, M. - SPREADSHEET OF 2004-2006 SURVEY DATA FOR SPEYERIA NOKOMIS CARSONENSIS AND CERCYONIS PEGALA CARSONENSIS 2006-XX-XX





**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	B4374	<b>EO Index:</b>	117302
<b>Key Quad:</b>	Woodfords (3811977)	<b>Element Code:</b>	IILEPJ6056
<b>Occurrence Number:</b>	12	<b>Occurrence Last Updated:</b>	2019-11-08

<b>Scientific Name:</b>	<i>Speyeria nokomis carsonensis</i>	<b>Common Name:</b>	Carson Valley silverspot
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> None	<b>Rare Plant Rank:</b>	
<b>CNDDDB Element Ranks:</b>	<b>Global:</b> G3T1T2 <b>State:</b> S1	<b>Other Lists:</b>	

<b>General Habitat:</b>	<b>Micro Habitat:</b>
WET MEADOWS ALONG THE EASTERN BASE OF THE CARSON RANGE FROM SOUTHERN WASHOE CO. NEVADA TO NORTHERN ALPINE CO. CALIFORNIA	OCCURS AS ISOLATED COLONIES.

<b>Last Date Observed:</b>	2006-XX-XX	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2006-XX-XX	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	USFS-HUMBOLDT-TOIYABE NF	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**  
 NORTHWEST CORNER OF THE INTERSECTION OF FREDRICKSBURG LN AND CA-88, CARSON VALLEY.

**Detailed Location:**  
 MAPPED GENERALLY TO UTM COORDINATES GIVEN FOR "FREDRICKSBERG 88" SITE. DATUM NOT KNOWN; OTHER POINTS FROM DATASET LINED UP WITH HABITAT VISIBLE IN AIR PHOTOS WHEN PLOTTED IN NAD27, BUT THIS ONE DOES NOT LINE UP AS WELL.

**Ecological:**

**Threats:**

**General:**  
 DETECTED DURING 2006 SURVEYS.

<b>PLSS:</b>	T11N, R20E, Sec. 7, NW (M)	<b>Accuracy:</b>	1/5 mile	<b>Area (acres):</b>	70
<b>UTM:</b>	Zone-11 N4301810 E258588	<b>Latitude/Longitude:</b>	38.832 / -119.78113	<b>Elevation (feet):</b>	4,963

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine	Woodfords (3811977)

**Sources:**  
 SAN06D0002    SANFORD, M. - SPREADSHEET OF 2004-2006 SURVEY DATA FOR SPEYERIA NOKOMIS CARSONENSIS AND CERCYONIS PEGALA CARSONENSIS 2006-XX-XX



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	B4375	<b>EO Index:</b>	117303
<b>Key Quad:</b>	Woodfords (3811977)	<b>Element Code:</b>	IILEPJ6056
<b>Occurrence Number:</b>	13	<b>Occurrence Last Updated:</b>	2019-11-08

<b>Scientific Name:</b>	<i>Speyeria nokomis carsonensis</i>	<b>Common Name:</b>	Carson Valley silverspot
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> None	<b>Rare Plant Rank:</b>	
<b>CNDDB Element Ranks:</b>	<b>Global:</b> G3T1T2 <b>State:</b> S1	<b>Other Lists:</b>	

<b>General Habitat:</b>	<b>Micro Habitat:</b>
WET MEADOWS ALONG THE EASTERN BASE OF THE CARSON RANGE FROM SOUTHERN WASHOE CO. NEVADA TO NORTHERN ALPINE CO. CALIFORNIA	OCCURS AS ISOLATED COLONIES.

<b>Last Date Observed:</b>	2006-XX-XX	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2006-XX-XX	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	PVT	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**  
 ABOUT 0.9 MI SW OF CA-88 WHERE IT CROSSES THE NV BORDER & 1.1 MI NNW OF THE INTXN OF FOOTHILL RD & FREDRICKSBURG LN.

**Detailed Location:**  
 MAPPED GENERALLY TO UTM COORDINATES GIVEN FOR "GANSBERG SEEP" SITE.

**Ecological:**  
 HABITAT TYPE CHARACTERIZED AS AGRICULTURAL.

**Threats:**  
**General:**  
 DETECTED DURING 2004 AND 2006 SURVEYS.

<b>PLSS:</b>	T11N, R19E, Sec. 1, NW (M)	<b>Accuracy:</b>	1/5 mile	<b>Area (acres):</b>	70
<b>UTM:</b>	Zone-11 N4303080 E257487	<b>Latitude/Longitude:</b>	38.84313 / -119.79425	<b>Elevation (feet):</b>	4,988

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine	Woodfords (3811977)

**Sources:**

SAN06D0002	SANFORD, M. - SPREADSHEET OF 2004-2006 SURVEY DATA FOR SPEYERIA NOKOMIS CARSONENSIS AND CERCYONIS PEGALA CARSONENSIS 2006-XX-XX
SAN10A0001	SANFORD, M. - IMPROVING CONSERVATION AND MANAGEMENT OF THE IMPERILED CARSON VALLEY SILVERSPOT BUTTERFLY SPEYERIA NOKOMIS CARSONENSIS BASED ON RAPID ASSESSMENTS OF DISTRIBUTION, HABITAT & THREATS 2010-11-26



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> B4382	<b>EO Index:</b> 117310
<b>Key Quad:</b> Woodfords (3811977)	<b>Element Code:</b> IILEPJ6056
<b>Occurrence Number:</b> 18	<b>Occurrence Last Updated:</b> 2019-11-08

<b>Scientific Name:</b> <i>Speyeria nokomis carsonensis</i>	<b>Common Name:</b> Carson Valley silverspot
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b>
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G3T1T2	
<b>State:</b> S1	

<b>General Habitat:</b> WET MEADOWS ALONG THE EASTERN BASE OF THE CARSON RANGE FROM SOUTHERN WASHOE CO. NEVADA TO NORTHERN ALPINE CO. CALIFORNIA	<b>Micro Habitat:</b> OCCURS AS ISOLATED COLONIES.
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<b>Last Date Observed:</b> 2006-XX-XX	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2006-XX-XX	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> UNKNOWN	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
VICINITY OF CA-88 AT EMIGRANT TRAIL, JUST NORTH OF WOODFORDS.

**Detailed Location:**  
MAPPED GENERALLY TO COORDINATES GIVEN FOR "WOODFORDS EAST MEADOW" SITE.

**Ecological:**  
**Threats:**

**General:**  
DETECTED DURING SURVEYS IN 2006.

<b>PLSS:</b> T11N, R19E, Sec. 26, SW (M)	<b>Accuracy:</b> 1/5 mile	<b>Area (acres):</b> 70
<b>UTM:</b> Zone-11 N4296515 E255044	<b>Latitude/Longitude:</b> 38.78337 / -119.82003	<b>Elevation (feet):</b> 5,682

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Woodfords (3811977)
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**Sources:**  
SAN06D0002 SANFORD, M. - SPREADSHEET OF 2004-2006 SURVEY DATA FOR SPEYERIA NOKOMIS CARSONENSIS AND CERCYONIS PEGALA CARSONENSIS 2006-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 60694	<b>EO Index:</b> 60730
<b>Key Quad:</b> Markleeville (3811967)	<b>Element Code:</b> IILEPK405G
<b>Occurrence Number:</b> 1	<b>Occurrence Last Updated:</b> 2005-03-24

<b>Scientific Name:</b> <i>Euphydryas editha monoensis</i>	<b>Common Name:</b> Mono checkerspot butterfly
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b> USFS_S-Sensitive
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5T2T3	
<b>State:</b> S1S2	

<b>General Habitat:</b>	<b>Micro Habitat:</b>
<input type="checkbox"/>	<input type="checkbox"/>

<b>Last Date Observed:</b> 1988-04-05	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1988-04-05	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> UNKNOWN	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
AIRPORT ROAD AT INDIAN CREEK RESERVOIR.

**Detailed Location:**

**Ecological:**

**Threats:**

**General:**

2 SPECIMENS DEPOSITED IN UC DAVIS BOHART MUSEUM OF ENTOMOLOGY.

<b>PLSS:</b> T10N, R20E, Sec. 04 (M)	<b>Accuracy:</b> 1/10 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4291552 E258581	<b>Latitude/Longitude:</b> 38.73967 / -119.77762	<b>Elevation (feet):</b> 5,610

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine	Markleeville (3811967)

**Sources:**

SHA05S0004 SHANKS, S. - LIST OF MUSEUM SPECIMENS AND LABEL DATA FROM BOHART MUSEUM OF ENTOMOLOGY. 2005-03-23



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> B5122	<b>EO Index:</b> 118060
<b>Key Quad:</b> Freel Peak (3811978)	<b>Element Code:</b> IITRI77010
<b>Occurrence Number:</b> 15	<b>Occurrence Last Updated:</b> 2020-02-20

<b>Scientific Name:</b> <i>Desmona bethula</i>	<b>Common Name:</b> amphibious caddisfly
<b>Listing Status:</b>	<b>Rare Plant Rank:</b>
<b>Federal:</b> None	
<b>State:</b> None	<b>Other Lists:</b>
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G2G3	
<b>State:</b> S2S3	

<b>General Habitat:</b> MOSTLY SMALL, FIRST ORDER STREAMS IN OPEN, WET MEADOWS. ALSO FOUND IN BEAVER PONDS AND SECOND ORDER STREAMS.	<b>Micro Habitat:</b> FINAL INSTAR LARVAE LEAVE THE WATER AT NIGHT TO FEED ON RIPARIAN VEGETATION AND RETURN TO WATER AT SUNRISE.
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<b>Last Date Observed:</b> 2013-08-13	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2013-08-13	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-HUMBOLDT-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
STEVENS CREEK, ABOUT 1.4 MI NNW OF THE STEVENS PEAK SUMMIT AND 1.6 MI NE OF MEISS LAKE.

**Detailed Location:**  
TAHOE AMBIENT BIOASSESSMENT STATION CODE 634S13209, MAPPED TO PROVIDED COORDINATES.

**Ecological:**

**Threats:**

**General:**  
2 LARVAE DETECTED ON 13 AUG 2013.

<b>PLSS:</b> T10N, R18E, Sec. 3, SW (M)	<b>Accuracy:</b> 1/10 mile	<b>Area (acres):</b> 18
<b>UTM:</b> Zone-11 N4293497 E239989	<b>Latitude/Longitude:</b> 38.7519 / -119.992	<b>Elevation (feet):</b> 8,544

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Freel Peak (3811978)
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**Sources:**

CEDNDD0002	CALIFORNIA ENVIRONMENTAL EXCHANGE NETWORK (CEDEN) - EXTRACT OF BENTHIC RECORDS FOR DESMONA BETHULA FROM CEDEN ONLINE DATABASE, ACCESSED 13 FEB 2020. <a href="https://ceden.waterboards.ca.gov/">HTTPS://CEDEN.WATERBOARDS.CA.GOV/</a> XXXX-XX-XX
XER19D0002	XERCES SOCIETY - XERCES SOCIETY DATABASE FOR INVERTEBRATE SPECIES OF CONSERVATION CONCERN ON THE STANISLAUS, TAHOE, PLUMAS, AND EL DORADO NATIONAL FORESTS OF CALIFORNIA, ACCESSED 11 OCT 2019. 2019-XX-XX



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	92934	<b>EO Index:</b>	94082
<b>Key Quad:</b>	Freel Peak (3811978)	<b>Element Code:</b>	NBMUS3C010
<b>Occurrence Number:</b>	11	<b>Occurrence Last Updated:</b>	2014-06-27

<b>Scientific Name:</b>	<i>Helodium blandowii</i>	<b>Common Name:</b>	Blandow's bog moss
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> None	<b>Rare Plant Rank:</b>	2B.3
<b>CNDDDB Element Ranks:</b>	<b>Global:</b> G4 <b>State:</b> S2	<b>Other Lists:</b>	USFS_S-Sensitive

<b>General Habitat:</b>	<b>Micro Habitat:</b>
MEADOWS AND SEEPS, SUBALPINE CONIFEROUS FOREST.	MOSS GROWING ON DAMP SOIL, ESPECIALLY UNDER WILLOWS AMONG LEAF LITTER. 1490-3050 M.

<b>Last Date Observed:</b>	2009-09-24	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2009-09-24	<b>Occurrence Rank:</b>	Excellent
<b>Owner/Manager:</b>	USFS-LAKE TAHOE BMU	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**  
SOUTH END OF GRASS LAKE, APPROXIMATELY 0.7 AIR MILE WNW OF LUTHER PASS, LAKE TAHOE BASIN MANAGEMENT UNIT.

**Detailed Location:**  
IN THE WEST 1/2 OF THE NE 1/4 OF SECTION 23.

**Ecological:**  
HELODIUM PRESENT ON MULTIPLE HUMMOCKS IN A SMALL DRAINAGE. BOTH SIDES OF DRAINAGE IN SMALL PATCHES. ASSOCIATED WITH PINUS CONTORTA, AULACOMNIUM PALUSTRE, KALMIA POLIFOLIA SSP. MICROPHYLLA, SPHENOSCIADIUM CAPITELLATUM, VACCINIUM, ETC.

**Threats:**  
HYDROLOGIC CHANGES.

**General:**  
5 PATCHES WERE IDENTIFIED RANGING FROM JUST 20 X 20 INCHES (80% COVER) TO 6 FEET BY 1 FOOT (10% COVER) IN 2009. LTBMU OCCURRENCE HEBL2A.

<b>PLSS:</b>	T11N, R18E, Sec. 23, NE (M)	<b>Accuracy:</b>	80 meters	<b>Area (acres):</b>	0
<b>UTM:</b>	Zone-11 N4297515 E242961	<b>Latitude/Longitude:</b>	38.78893 / -119.95933	<b>Elevation (feet):</b>	7,600

<b>County Summary:</b>	<b>Quad Summary:</b>
El Dorado	Freel Peak (3811978)

**Sources:**  
GRO09F0002 GROSS, S. & S. OSBRACK (U.S. FOREST SERVICE-LAKE TAHOE BASIN MANAGEMENT UNIT) - FIELD SURVEY FORM FOR HELODIUM BLANDOWII & MEESIA TRIQUETRA 2009-09-24



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 92936	<b>EO Index:</b> 94083	
<b>Key Quad:</b> Freel Peak (3811978)	<b>Element Code:</b> NBMUS3C010	
<b>Occurrence Number:</b> 12	<b>Occurrence Last Updated:</b> 2014-06-27	

<b>Scientific Name:</b> <i>Helodium blandowii</i>	<b>Common Name:</b> Blandow's bog moss
<b>Listing Status:</b>	
<b>Federal:</b> None	<b>Rare Plant Rank:</b> 2B.3
<b>State:</b> None	<b>Other Lists:</b> USFS_S-Sensitive
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G4	
<b>State:</b> S2	

<b>General Habitat:</b> MEADOWS AND SEEPS, SUBALPINE CONIFEROUS FOREST.	<b>Micro Habitat:</b> MOSS GROWING ON DAMP SOIL, ESPECIALLY UNDER WILLOWS AMONG LEAF LITTER. 1490-3050 M.
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<b>Last Date Observed:</b> 2010-09-29	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2010-09-29	<b>Occurrence Rank:</b> Excellent
<b>Owner/Manager:</b> USFS-LAKE TAHOE BMU	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
SOUTH SIDE OF THE NORTH END OF GRASS LAKE, APPROX 1.3 AIR MILES NW OF LUTHER PASS, LAKE TAHOE BASIN MANAGEMENT UNIT.

**Detailed Location:**  
GRASS LAKE RESEARCH NATURAL AREA. NEAR THE COMMON CORNER OF SECTIONS 14, 15, 22, & 23.

**Ecological:**  
UNDER PINUS CONTORTA AND SALIX EASTWOODIAE. ASSOCIATED WITH VACCINIUM ULIGINOSUM, AULACOMNIUM PALUSTRE, SPHAGNUM SP., DESCHAMPSIA DANTHONIOIDES, AND CAREX SP. NORTHERN ASPECT, 1% SLOPE.

**Threats:**  
HYDROLOGIC CHANGES AND CLIMATE CHANGE.

**General:**  
A 4 X 8 METER PATCH WITH 30% COVER OBSERVED AT WEST END OF OCCURRENCE IN 2009. MULTIPLE HUMMOCKS WHERE HELODIUM IS PRESENT IN 2010. LTBMU OCCURRENCE HEBL2B.

<b>PLSS:</b> T11N, R18E, Sec. 15, SE (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 18
<b>UTM:</b> Zone-11 N4297985 E242087	<b>Latitude/Longitude:</b> 38.79291 / -119.96956	<b>Elevation (feet):</b> 7,600

<b>County Summary:</b> El Dorado	<b>Quad Summary:</b> Freel Peak (3811978)
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**Sources:**

ENG10F0013	ENGELHARDT, B. & C. MCKERNAN (U.S. FOREST SERVICE) - FIELD SURVEY FORM FOR HELODIUM BLANDOWII & MEESIA TRIQUETRA 2010-09-29
GRO09F0004	GROSS, S. & S. OSBRACK (U.S. FOREST SERVICE-LAKE TAHOE BASIN MANAGEMENT UNIT) - FIELD SURVEY FORM FOR HELODIUM BLANDOWII & MEESIA TRIQUETRA 2009-10-15



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 92937	<b>EO Index:</b> 94084
<b>Key Quad:</b> Freel Peak (3811978)	<b>Element Code:</b> NBMUS3C010
<b>Occurrence Number:</b> 13	<b>Occurrence Last Updated:</b> 2014-06-27

<b>Scientific Name:</b> <i>Helodium blandowii</i>	<b>Common Name:</b> Blandow's bog moss
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 2B.3
<b>Federal:</b> None	<b>Other Lists:</b> USFS_S-Sensitive
<b>State:</b> None	
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G4	
<b>State:</b> S2	

<b>General Habitat:</b> MEADOWS AND SEEPS, SUBALPINE CONIFEROUS FOREST.	<b>Micro Habitat:</b> MOSS GROWING ON DAMP SOIL, ESPECIALLY UNDER WILLOWS AMONG LEAF LITTER. 1490-3050 M.
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<b>Last Date Observed:</b> 2011-08-04	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2011-08-04	<b>Occurrence Rank:</b> Good
<b>Owner/Manager:</b> USFS-LAKE TAHOE BMU	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
JUST NW OF ARMSTRONG PASS AT THE HEAD OF TROUT CREEK, LAKE TAHOE BASIN MANAGEMENT UNIT.

**Detailed Location:**  
IN THE NORTH 1/2 OF THE NE 1/4 OF SECTION 1.

**Ecological:**  
GROWING UNDER SALIX ALONG FEN OUTLET. DOMINANTS INCLUDE SALIX ORESTERA, VACCINIUM ULIGINOSUM, PINUS CONTORTA, CAREX AQUATILIS, KALMIA, PERIDERIDIA, SENECIO TRIANGULARIS, ELEOCHARIS, BRYUM, AULACOMNIUM PALUSTRE, AND SPHAGNUM.

**Threats:**  
**General:**  
5% COVER IN A 7 X 8 METER AREA IN 2009, 1% COVER IN A 7 X 8 METER AREA IN 2011. LTBMU OCCURRENCE HEBL1.

<b>PLSS:</b> T11N, R18E, Sec. 01, NE (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 8
<b>UTM:</b> Zone-11 N4302563 E246952	<b>Latitude/Longitude:</b> 38.83551 / -119.91529	<b>Elevation (feet):</b> 8,580

<b>County Summary:</b> El Dorado	<b>Quad Summary:</b> Freel Peak (3811978)
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**Sources:**

ENG11F0009	ENGELHARDT, B. & C. MCKERNAN - FIELD SURVEY FORM FOR HELODIUM BLANDOWII 2011-08-04
TOR09F0040	TORRES, C. & R. NICHOLS (U.S. FOREST SERVICE-LAKE TAHOE BASIN MANAGEMENT UNIT) - FIELD SURVEY FORM FOR HELODIUM BLANDOWII 2009-07-30





# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 58555	<b>EO Index:</b> 45438	
<b>Key Quad:</b> Freel Peak (3811978)	<b>Element Code:</b> NBMUS4L020	
<b>Occurrence Number:</b> 3	<b>Occurrence Last Updated:</b> 2005-08-03	

<b>Scientific Name:</b> <i>Meesia triquetra</i>	<b>Common Name:</b> three-ranked hump moss
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 4.2
<b>Federal:</b> None	<b>Other Lists:</b>
<b>State:</b> None	
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5	
<b>State:</b> S4	

**General Habitat:**  
BOGS AND FENS, MEADOWS AND SEEPS, UPPER MONTANE CONIFEROUS FOREST, SUBALPINE CONIFEROUS FOREST.

**Micro Habitat:**  
MOSS GROWING ON MESIC SOIL. SATURATED BOGS, FENS, SEEPS AND MEADOWS IN CONIFEROUS TO SUBALPINE FORESTS. 1300-2955 M.

<b>Last Date Observed:</b> 2004-09-21	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2004-09-21	<b>Occurrence Rank:</b> Good
<b>Owner/Manager:</b> USFS-ELDORADO NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
GRASS LAKE, SOUTH OF HIGHWAY 89 WEST OF LUTHER PASS.

**Detailed Location:**  
MAPPED BY CNDDDB AS THREE POLYGONS ON THE NORTH SIDE OF GRASS LAKE: WESTERN SMALL POLY FROM 2003 OBSERVATION, AND TWO LARGER EASTERN POLYS FROM 2004 SURVEYS. EXTENDS FROM SE 1/4 SECTION 15 TO NW 1/4 OF THE NE 1/4 OF SECTION 23.

**Ecological:**  
WET MEADOW / FEN AREA. GROWING JUST OUTSIDE SHRUBS AND TREES AT EDGE, INTERMIXED WITH SPHAGNUM AND DREPANOCLADUS. WHEN VEGETATION BECOMES THICKER, AND VERY DENSE MONOCULTURE, M. TRIQUETRA DISAPPEARS.

**Threats:**  
NO DISTURBANCES WHERE M. TRIQUETRA GROWS, BUT GENERAL AREA CAN BE DISTURBED BY ORV TRESPASS, CATTLE, & FOOT TRAFFIC.

**General:**  
AREA NORTH OF GRASS LAKE SURVEYED IN 2004, BUT SOUTH AND WEST SIDE OF AREA NOT SURVEYED; MORE PLANTS WILL LIKELY BE FOUND.

<b>PLSS:</b> T11N, R18E, Sec. 14, S (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 24
<b>UTM:</b> Zone-11 N4298224 E242468	<b>Latitude/Longitude:</b> 38.79517 / -119.96527	<b>Elevation (feet):</b> 7,700

<b>County Summary:</b>	<b>Quad Summary:</b>
El Dorado	Freel Peak (3811978)

**Sources:**

GRO03F0001	GROSS, S. & A. HARDMAN - FIELD SURVEY FORM FOR MEESIA TRIQUETRA 2003-07-22
GRO04F0008	GROSS, S. - FIELD SURVEY FORM FOR MEESIA TRIQUETRA 2004-09-21
KOCNDS0003	KOCH & STEBBINS - KOCH #2316 HERBARIUM UNKNOWN (NOR00U0001) XXXX-XX-XX
NOR00U0001	NORRIS, D. & J. SHEVOCK - CONTRIBUTIONS TOWARD A BRYOFLOTA OF CALIFORNIA I: A SPECIMEN BASED CATALOGUE OF MOSSES AND A KEY TO SPECIES. PARTIAL DRAFT EDITION. 2000-05-07
NORNDS0012	NORRIS - NORRIS #71312 HERBARIUM UNKNOWN (CITED IN NOR00U0001) XXXX-XX-XX



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b> 62175	<b>EO Index:</b> 62211
<b>Key Quad:</b> Freel Peak (3811978)	<b>Element Code:</b> NBMUS4L020
<b>Occurrence Number:</b> 7	<b>Occurrence Last Updated:</b> 2005-08-03

<b>Scientific Name:</b> <i>Meesia triquetra</i>	<b>Common Name:</b> three-ranked hump moss
<b>Listing Status:</b> <b>Federal:</b> None	<b>Rare Plant Rank:</b> 4.2
<b>State:</b> None	<b>Other Lists:</b>
<b>CNDDB Element Ranks:</b> <b>Global:</b> G5	
<b>State:</b> S4	

**General Habitat:**  
BOGS AND FENS, MEADOWS AND SEEPS, UPPER MONTANE CONIFEROUS FOREST, SUBALPINE CONIFEROUS FOREST.

**Micro Habitat:**  
MOSS GROWING ON MESIC SOIL. SATURATED BOGS, FENS, SEEPS AND MEADOWS IN CONIFEROUS TO SUBALPINE FORESTS. 1300-2955 M.

<b>Last Date Observed:</b> 2004-10-05	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2004-10-05	<b>Occurrence Rank:</b> Excellent
<b>Owner/Manager:</b> USFS-LAKE TAHOE BMU	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
ABOUT 3.2 MILES SOUTHWEST OF FREEL PEAK, AT HELL HOLE.

**Detailed Location:**  
LOCATED IN WEST-CENTRAL AREA OF HELL HOLE (UTM ZONE 10, 765251E, 4301983N, NAD27). MAPPED IN THE NW 1/4 OF THE SW 1/4 OF SECTION 1.

**Ecological:**  
MEADOW / FEN AREA. ASSOCIATED WITH BRYUM, CAREX VESICARIA, DREPANOCLADUS, ELEOCHARIS, JUNCUS, MIMULUS PRIMULOIDES, AND MUHLENBERGIA. GROWING AMONG OTHER BRYOPHYTES IN SCATTERED PATCHES.

**Threats:**  
**General:**  
GROWING IN VERY SCATTERED PATCHES IN 2004; ENTIRE AREA NOT SURVEYED.

<b>PLSS:</b> T11N, R18E, Sec. 01, SW (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 1
<b>UTM:</b> Zone-11 N4301863 E244322	<b>Latitude/Longitude:</b> 38.82846 / -119.94529	<b>Elevation (feet):</b> 7,700

<b>County Summary:</b>	<b>Quad Summary:</b>
El Dorado	Freel Peak (3811978)

**Sources:**  
GRO04F0007 GROSS, S. - FIELD SURVEY FORM FOR MEESIA TRIQUETRA 2004-10-05



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	27942	<b>EO Index:</b>	20513
<b>Key Quad:</b>	Caples Lake (3812061)	<b>Element Code:</b>	PDAST20065
<b>Occurrence Number:</b>	3	<b>Occurrence Last Updated:</b>	2011-09-30

<b>Scientific Name:</b>	<i>Chaenactis douglasii</i> var. <i>alpina</i>	<b>Common Name:</b>	alpine dusty maidens
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> None	<b>Rare Plant Rank:</b>	2B.3
<b>CNDDDB Element Ranks:</b>	<b>Global:</b> G5T5 <b>State:</b> S2	<b>Other Lists:</b>	

<b>General Habitat:</b>	<b>Micro Habitat:</b>
ALPINE BOULDER AND ROCK FIELD.	OPEN, SUBALPINE TO ALPINE GRAVEL AND CREVICES; GRANITIC SUBSTRATE. 2362-3355 M.

<b>Last Date Observed:</b>	2006-08-XX	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2006-08-XX	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	USFS-ELDORADO NF	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**  
 NORTHWEST FACE OF ROUND TOP ABOUT 2 KM SW FROM WINNEMUCCA LAKE AT 9600 FEET ELEVATION, SSW OF CARSON PASS.  
**Detailed Location:**  
 MAPPED BY CNDDDB ON THE NW SLOPE OF ROUND TOP, CENTERED NEAR THE 9600 FOOT ELEVATION LINE, AS DESCRIBED BY TAYLOR.

**Ecological:**  
 ON ALPINE TALUS.

**Threats:**  
**General:**

MAIN SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1974 TAYLOR COLLECTION. SPECIMEN ANNOTATED TO C. DOUGLASII VAR. DOUGLASII >< VAR. ALPINA. 2006 PHOTO BY BERRY FROM ROUND TOP PEAK ALSO ATTRIBUTED HERE.

<b>PLSS:</b> T10N, R18E, Sec. 33 (M)	<b>Accuracy:</b> 2/5 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-10 N4284051 E760463	<b>Latitude/Longitude:</b> 38.66675 / -120.00635	<b>Elevation (feet):</b> 9,600

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine	Carson Pass (3811968), Caples Lake (3812061)

**Sources:**  
 BER06I0001 BERRY, L. - PHOTOS OF CHAENACTIS DOUGLASII VAR. ALPINA, CALPHOTOS ID #0000 0000 0407 3283 & 3284 2006-08-XX  
 TAY74S0001 TAYLOR, D. - TAYLOR #5019 DAV #65808 1974-09-09



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b> 27943	<b>EO Index:</b> 20727
<b>Key Quad:</b> Freel Peak (3811978)	<b>Element Code:</b> PDAST20065
<b>Occurrence Number:</b> 4	<b>Occurrence Last Updated:</b> 2013-02-27

<b>Scientific Name:</b> <i>Chaenactis douglasii var. alpina</i>	<b>Common Name:</b> alpine dusty maidens
<b>Listing Status:</b> <b>Federal:</b> None	<b>Rare Plant Rank:</b> 2B.3
<b>State:</b> None	<b>Other Lists:</b>
<b>CNDDB Element Ranks:</b> <b>Global:</b> G5T5	
<b>State:</b> S2	

<b>General Habitat:</b> ALPINE BOULDER AND ROCK FIELD.	<b>Micro Habitat:</b> OPEN, SUBALPINE TO ALPINE GRAVEL AND CREVICES; GRANITIC SUBSTRATE. 2362-3355 M.
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<b>Last Date Observed:</b> 2009-07-25	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2009-07-25	<b>Occurrence Rank:</b> Fair
<b>Owner/Manager:</b> USFS-LAKE TAHOE BMU	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
FREEL PEAK, NEAR SUMMIT.

**Detailed Location:**

**Ecological:**

OPEN, BARREN SUBALPINE / ALPINE. ALSO OCCURS WITH THE RARE DRABA ASTEROPHORA VAR. ASTEROPHORA AT THIS SITE.

**Threats:**

COLLECTION (ONE PLANT HAD BEEN DUG OUT FROM EITHER OCCURRENCE #4 OR #12), TRAMPLING FROM RECREATION.

**General:**

10 PLANTS OBSERVED BETWEEN THIS OCCURRENCE AND OCCURRENCE #12 IN 2009. HISTORIC COLLECTIONS FROM NEAR SUMMIT OF FREEL PEAK AND OBSERVATIONS BY TAYLOR (1970) AND GREENHOUSE (2006) ARE ALSO ATTRIBUTED TO THIS SITE.

<b>PLSS:</b> T12N, R18E, Sec. 25, SE (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4304937 E248199	<b>Latitude/Longitude:</b> 38.85724 / -119.90181	<b>Elevation (feet):</b> 10,700

**County Summary:**

Alpine, El Dorado

**Quad Summary:**

Freel Peak (3811978)

**Sources:**

BEY09F0001	BEYER, C. (U.S. FOREST SERVICE) - FIELD SURVEY FORM FOR CHAENACTIS DOUGLASII VAR. ALPINA 2009-07-25
GRE06U0001	GREENHOUSE, J. - OBSERVATION RECORD FOR CHAENACTIS DOUGLASII VAR. ALPINA, CALFLORA ID #JGR23866 2006-07-01
ROB45S0008	ROBBINS, G. - ROBBINS #2123 UC #907772 1945-08-12
SHA37S0013	SHARSMITH, C. - SHARSMITH #3494 UC #764219 1937-08-30
TAY70U0001	TAYLOR, D. - OBSERVATION RECORD FOR CHAENACTIS DOUGLASII VAR. ALPINA, CALFLORA ID #GR1968 1970-08-23



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 27944	<b>EO Index:</b> 20728
<b>Key Quad:</b> Freel Peak (3811978)	<b>Element Code:</b> PDAST20065
<b>Occurrence Number:</b> 5	<b>Occurrence Last Updated:</b> 2013-03-05

<b>Scientific Name:</b> <i>Chaenactis douglasii</i> var. <i>alpina</i>	<b>Common Name:</b> alpine dusty maidens
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 2B.3
<b>Federal:</b> None	<b>Other Lists:</b>
<b>State:</b> None	
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5T5	
<b>State:</b> S2	

<b>General Habitat:</b> ALPINE BOULDER AND ROCK FIELD.	<b>Micro Habitat:</b> OPEN, SUBALPINE TO ALPINE GRAVEL AND CREVICES; GRANITIC SUBSTRATE. 2362-3355 M.
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<b>Last Date Observed:</b> 2012-09-25	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2012-09-25	<b>Occurrence Rank:</b> Good
<b>Owner/Manager:</b> USFS	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
ON NORTHWEST SLOPE AND SOUTH SLOPE OF JOBS SISTER.

**Detailed Location:**  
2 POLYGONS MAPPED BASED ON 2011 AND 2012 SURVEYS. IN 2012, PLANTS WERE VERY SPARSELY SCATTERED THROUGHOUT A LARGE AREA, FROM WESTERN POLYGON (ON WEST RATHER THAN "NW SLOPE") ALONG SADDLE TOWARDS FREEL PEAK.

**Ecological:**  
NW- AND S-FACING ALPINE SCREE SLOPES, LOOSE DECOMPOSING GRANITE. ASSOCIATED WITH PINUS ALBICAULIS, HULSEA ALGIDA, POLYGONUM SHASTENSE, PENSTEMON NEWBERRYI, ETC. THE RARE DRABA ASTEROPHORA VAR. ASTEROPHORA ALSO OCCURS HERE.

**Threats:**  
CLIMATE CHANGE, OFF TRAIL HIKING.

**General:**  
100 PLANTS OBSERVED ON S SLOPE OF PEAK IN 2011. 150-200 PLANTS ESTIMATED IN 2012; POP ESTIMATE DIFFICULT DUE TO SPARSELY SCATTERED PLANTS ACROSS SCREE SLOPES. COLLECTIONS FROM "JOBS SISTER" AND "JOBS SISTER PEAK" ARE ATTRIBUTED HERE.

<b>PLSS:</b> T12N, R19E, Sec. 31, NE (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 10
<b>UTM:</b> Zone-11 N4305236 E249726	<b>Latitude/Longitude:</b> 38.86037 / -119.88434	<b>Elevation (feet):</b> 10,500

<b>County Summary:</b> Alpine, El Dorado	<b>Quad Summary:</b> Freel Peak (3811978)
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**Sources:**

CHR11F0051	CHRISTIE, K. - FIELD SURVEY FORM FOR CHAENACTIS DOUGLASII VAR. ALPINA 2011-08-17
HAR75S0002	HARDHAM, C. - HARDHAM #20542 CAS #895703 1975-08-03
JUS28S0001	JUSSEL - JUSSEL SN CAS #165681 1928-07-10
MCK12F0012	MCKNIGHT, S. & J. FEDORCHUK (U.S. FOREST SERVICE) - FIELD SURVEY FORM FOR CHAENACTIS DOUGLASII VAR. ALPINA 2012-09-25



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 63123	<b>EO Index:</b> 63215
<b>Key Quad:</b> Carson Pass (3811968)	<b>Element Code:</b> PDAST20065
<b>Occurrence Number:</b> 8	<b>Occurrence Last Updated:</b> 2005-11-07

<b>Scientific Name:</b> <i>Chaenactis douglasii</i> var. <i>alpina</i>	<b>Common Name:</b> alpine dusty maidens
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 2B.3
<b>Federal:</b> None	<b>Other Lists:</b>
<b>State:</b> None	
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5T5	
<b>State:</b> S2	

<b>General Habitat:</b> ALPINE BOULDER AND ROCK FIELD.	<b>Micro Habitat:</b> OPEN, SUBALPINE TO ALPINE GRAVEL AND CREVICES; GRANITIC SUBSTRATE. 2362-3355 M.
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<b>Last Date Observed:</b> 1967-09-03	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1967-09-03	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-ELDORADO NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
ABOUT 1 MILE NORTHWEST OF CARSON PASS, SOUTHWEST SHOULDER OF RED LAKE PEAK.

**Detailed Location:**  
BASED ON COLLECTION FROM "SOUTHWEST SHOULDER OF A PEAK JUST NORTH OF CARSON PASS, 9000 FEET" (KYHOS #67-91). CNDDDB ASSUMES THIS REFERS TO RED LAKE PEAK IMMEDIATELY NORTH; MAPPED AS BEST GUESS AT 9000 FEET ON SOUTHWEST SLOPES.

**Ecological:**  
**Threats:**

**General:**  
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1967 KYHOS COLLECTION. NEEDS FIELDWORK.

<b>PLSS:</b> T10N, R18E, Sec. 15 (M)	<b>Accuracy:</b> 2/5 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4288449 E239423	<b>Latitude/Longitude:</b> 38.70630 / -119.99660	<b>Elevation (feet):</b> 9,000

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Carson Pass (3811968), Caples Lake (3812061)
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**Sources:**  
KYH67S0001 KYHOS, D. - KYHOS #67-91 DAV #19677, UC #1777701, RSA #670077 1967-09-03



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 73337	<b>EO Index:</b> 74304
<b>Key Quad:</b> Ebbetts Pass (3811957)	<b>Element Code:</b> PDAST20065
<b>Occurrence Number:</b> 10	<b>Occurrence Last Updated:</b> 2009-01-06

<b>Scientific Name:</b> <i>Chaenactis douglasii</i> var. <i>alpina</i>	<b>Common Name:</b> alpine dusty maidens
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 2B.3
<b>Federal:</b> None	<b>Other Lists:</b>
<b>State:</b> None	
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5T5	
<b>State:</b> S2	

<b>General Habitat:</b> ALPINE BOULDER AND ROCK FIELD.	<b>Micro Habitat:</b> OPEN, SUBALPINE TO ALPINE GRAVEL AND CREVICES; GRANITIC SUBSTRATE. 2362-3355 M.
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<b>Last Date Observed:</b> 1941-08-11	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1941-08-11	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-STANISLAUS NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
PEAK EAST OF EBBETTS PASS.

**Detailed Location:**  
EXACT LOCATION UNKNOWN. MAPPED BY CNDDDB AS BEST GUESS AROUND THE 9000 FEET ELEVATION AREA JUST EAST OF EBBETTS PASS BASED ON LOCATION AND ELEVATION INFORMATION ON COLLECTION LABEL.

**Ecological:**  
**Threats:**

**General:**  
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1941 DEARING & DEARING COLLECTION. ID NEEDS VERIFICATION; MOREFIELD NOTES THAT THIS MAY BE C. ALPIGENA. NEEDS FIELDWORK.

<b>PLSS:</b> T08N, R20E, Sec. 17 (M)	<b>Accuracy:</b> 3/5 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4269649 E255692	<b>Latitude/Longitude:</b> 38.54172 / -119.80312	<b>Elevation (feet):</b> 9,000

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Ebbetts Pass (3811957)
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**Sources:**  
DEA41S0002 DEARING, H. & M. DEARING - DEARING #5661 SBBG #7885 1941-08-11



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 73338	<b>EO Index:</b> 74305
<b>Key Quad:</b> Freel Peak (3811978)	<b>Element Code:</b> PDAST20065
<b>Occurrence Number:</b> 11	<b>Occurrence Last Updated:</b> 2009-01-06

<b>Scientific Name:</b> <i>Chaenactis douglasii</i> var. <i>alpina</i>	<b>Common Name:</b> alpine dusty maidens
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 2B.3
<b>Federal:</b> None	<b>Other Lists:</b>
<b>State:</b> None	
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5T5	
<b>State:</b> S2	

<b>General Habitat:</b> ALPINE BOULDER AND ROCK FIELD.	<b>Micro Habitat:</b> OPEN, SUBALPINE TO ALPINE GRAVEL AND CREVICES; GRANITIC SUBSTRATE. 2362-3355 M.
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<b>Last Date Observed:</b> 2006-09-12	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2006-09-12	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-LAKE TAHOE BMU	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
HWY 89, 1.2 MILES WEST OF THE ALPINE COUNTY LINE, NEAR LUTHER PASS AND GRASS LAKE.

**Detailed Location:**  
MAPPED BY CNDDDB ~1.2 ROAD MILES WEST OF THE ALPINE COUNTY LINE.

**Ecological:**  
PINE FOREST AND WET MEADOW. GROWING IN AN OPEN, DRY, FLAT, ROCKY AREA.

**Threats:**

**General:**  
MENTIONED AS "COMMON" IN 2006. NEEDS FIELDWORK.

<b>PLSS:</b> T11N, R18E, Sec. 14, SW (M)	<b>Accuracy:</b> non-specific area	<b>Area (acres):</b> 36
<b>UTM:</b> Zone-11 N4298356 E242484	<b>Latitude/Longitude:</b> 38.79636 / -119.96513	<b>Elevation (feet):</b> 7,750

<b>County Summary:</b> El Dorado	<b>Quad Summary:</b> Freel Peak (3811978)
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**Sources:**  
HEL06S0010 HELMKAMP, G. & E. HELMKAMP - HELMKAMP #11374 UCR #179217 2006-09-12





# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 82708	<b>EO Index:</b> 83711
<b>Key Quad:</b> Freel Peak (3811978)	<b>Element Code:</b> PDAST20065
<b>Occurrence Number:</b> 12	<b>Occurrence Last Updated:</b> 2011-05-27

<b>Scientific Name:</b> <i>Chaenactis douglasii</i> var. <i>alpina</i>	<b>Common Name:</b> alpine dusty maidens
<b>Listing Status:</b> <b>Federal:</b> None	<b>Rare Plant Rank:</b> 2B.3
<b>State:</b> None	<b>Other Lists:</b>
<b>CNDDDB Element Ranks:</b> <b>Global:</b> G5T5	
<b>State:</b> S2	

<b>General Habitat:</b> ALPINE BOULDER AND ROCK FIELD.	<b>Micro Habitat:</b> OPEN, SUBALPINE TO ALPINE GRAVEL AND CREVICES; GRANITIC SUBSTRATE. 2362-3355 M.
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<b>Last Date Observed:</b> 2009-07-25	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2009-07-25	<b>Occurrence Rank:</b> Fair
<b>Owner/Manager:</b> USFS-LAKE TAHOE BMU	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
ALONG THE TAHOE RIM TRAIL JUST NW OF FREEL PEAK.

**Detailed Location:**

**Ecological:**  
OPEN, BARREN SUBALPINE / ALPINE.

**Threats:**  
COLLECTION (ONE PLANT HAD BEEN DUG OUT FROM EITHER OCCURRENCE #4 OR #12), TRAMPLING FROM RECREATION.

**General:**  
10 PLANTS OBSERVED BETWEEN THIS OCCURRENCE AND OCCURRENCE #4 IN 2009. A 1970 TAYLOR COLLECTION FROM "FREEL PEAK, 10,000 FT" AND A 2006 MATSON PHOTO FROM "FREEL PEAK, ON APPROACH FROM FOUNTAIN PLACE, 9600 FT" ARE ALSO ATTRIBUTED HERE.

<b>PLSS:</b> T12N, R18E, Sec. 25, NE (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4305585 E247490	<b>Latitude/Longitude:</b> 38.86287 / -119.91021	<b>Elevation (feet):</b> 9,500

<b>County Summary:</b> El Dorado	<b>Quad Summary:</b> Freel Peak (3811978)
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**Sources:**

BEY09F0001	BEYER, C. (U.S. FOREST SERVICE) - FIELD SURVEY FORM FOR CHAENACTIS DOUGLASII VAR. ALPINA 2009-07-25
MAT06I0006	MATSON, S. - PHOTOS OF CHAENACTIS DOUGLASII VAR. ALPINA, CALPHOTOS ID #0000 0000 0706 1585-1587 2006-07-01
TAY70S0004	TAYLOR, D. - TAYLOR #681 JEPS #89305 1970-08-23



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 79524	<b>EO Index:</b> 80497	
<b>Key Quad:</b> Markleeville (3811967)	<b>Element Code:</b> PDAST2R0K0	
<b>Occurrence Number:</b> 20	<b>Occurrence Last Updated:</b> 2015-12-16	

<b>Scientific Name:</b> <i>Crepis runcinata</i>	<b>Common Name:</b> fiddleleaf hawksbeard
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 2B.2
<b>Federal:</b> None	<b>Other Lists:</b>
<b>State:</b> None	
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5	
<b>State:</b> S3	

<b>General Habitat:</b> MOJAVEAN DESERT SCRUB, PINYON AND JUNIPER WOODLAND.	<b>Micro Habitat:</b> MOIST, ALKALINE VALLEY BOTTOMS. 380-3110 M.
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<b>Last Date Observed:</b> 2010-08-03	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2010-08-03	<b>Occurrence Rank:</b> Good
<b>Owner/Manager:</b> DPR-GROVER HOT SPRINGS SP	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
GROVER HOT SPRINGS STATE PARK; APPROXIMATELY 0.20 AIR MILE EAST OF SODA SPRING.

**Detailed Location:**  
WESTERN SIDE OF PARK. MAPPED BY CNDDDB IN THE NE 1/4 OF THE SW 1/4 SECTION 24 ACCORDING TO 2010 DEAN COORDINATES.

**Ecological:**  
MOIST, ALKALINE MEADOW FED BY RUN-OFF FROM HOT SPRINGS. DOMINATED BY SISYRINCHIUM IDAHOENSE, JUNCUS ARCTICUS, THELYPODIUM CRISPUM, ELEOCHARIS ROSTELLATA, TRIGLOCHIN MARITIMA, AND OTHER HERBS. GROWING ON EDGES OF DRAINAGES.

**Threats:**

**General:**  
THOUSANDS OF PLANTS OBSERVED IN 2010. A 1966 HOWELL COLLECTION FROM "GROVER HOT SPRINGS" IS ALSO ATTRIBUTED TO THIS SITE. IF SUBSPECIES ARE RECOGNIZED, THIS WOULD BE C. RUNCINATA SSP. HALLII.

<b>PLSS:</b> T10N, R19E, Sec. 24, SW (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4287025 E252746	<b>Latitude/Longitude:</b> 38.69731 / -119.84305	<b>Elevation (feet):</b> 5,878

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Markleeville (3811967)
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**Sources:**

DEA10F0027	DEAN, E. - FIELD SURVEY FORM FOR CREPIS RUNCINATA 2010-06-29
DEA10S0001	DEAN, E. ET AL. - DEAN #6302 DAV #86682 & #97157 2010-06-29
DEA10S0002	DEAN, E. ET AL. - DEAN #6771 DAV #89980 2010-08-02
HOW66S0021	HOWELL, J. - HOWELL #41565 CAS #897212 1966-06-19
RIC10I0001	RICE, B. - PHOTOS OF CREPIS RUNCINATA, CALPHOTOS ID #0000 0000 0710 1959-1961 2010-07-18



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 58010	<b>EO Index:</b> 58035
<b>Key Quad:</b> Ebbetts Pass (3811957)	<b>Element Code:</b> PDBOR0A0R0
<b>Occurrence Number:</b> 6	<b>Occurrence Last Updated:</b> 2019-01-02

<b>Scientific Name:</b> <i>Cryptantha crymophila</i>	<b>Common Name:</b> subalpine cryptantha
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 1B.3
<b>Federal:</b> None	<b>Other Lists:</b>
<b>State:</b> None	
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G3	
<b>State:</b> S3	

<b>General Habitat:</b> SUBALPINE CONIFEROUS FOREST.	<b>Micro Habitat:</b> ON DRY TALUS OF VOLCANIC FORMATION. 2680-3295 M.
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<b>Last Date Observed:</b> 1960-08-06	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1960-08-06	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-HUMBOLDT-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
RAYMOND PEAK.

**Detailed Location:**  
MAPPED BY CNDDDB AS BEST GUESS AROUND RAYMOND PEAK. GIVEN ELEVATION IS 9000 FEET.

**Ecological:**  
DAMP TALUS. ASSOCIATED WITH PRIMULA SP.

**Threats:**  
**General:**  
ONLY SOURCE IS 1960 HARDHAM COLLECTION. NEEDS FIELDWORK.

<b>PLSS:</b> T09N, R19E, Sec. 25, E (M)	<b>Accuracy:</b> 2/5 mile	<b>Area (acres):</b> 280
<b>UTM:</b> Zone-11 N4276613 E253278	<b>Latitude/Longitude:</b> 38.60375 / -119.83326	<b>Elevation (feet):</b> 9,000

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Ebbetts Pass (3811957)
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**Sources:**  
HAR60S0107    HARDHAM, C. - HARDHAM #6510 RSA #182972 1960-08-06



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 58013	<b>EO Index:</b> 58038
<b>Key Quad:</b> Ebbetts Pass (3811957)	<b>Element Code:</b> PDBOR0A0R0
<b>Occurrence Number:</b> 7	<b>Occurrence Last Updated:</b> 2004-11-09

<b>Scientific Name:</b> <i>Cryptantha crymophila</i>	<b>Common Name:</b> subalpine cryptantha
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 1B.3
<b>Federal:</b> None	<b>Other Lists:</b>
<b>State:</b> None	
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G3	
<b>State:</b> S3	

<b>General Habitat:</b> SUBALPINE CONIFEROUS FOREST.	<b>Micro Habitat:</b> ON DRY TALUS OF VOLCANIC FORMATION. 2680-3295 M.
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<b>Last Date Observed:</b> 1975-09-07	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1975-09-07	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-ELDORADO NF, TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
PEAK APPROXIMATELY 1 MILE SOUTHEAST OF WET MEADOWS RESERVOIR.

**Detailed Location:**

**Ecological:**  
ROCKY SUBALPINE-ALPINE SAGE SCRUB COMMUNITY. ASSOCIATED WITH ARTEMISIA ARBUSCULA.

**Threats:**

**General:**  
ONLY SOURCE IS 1975 TAYLOR COLLECTION. NEEDS FIELDWORK.

<b>PLSS:</b> T09N, R19E, Sec. 25, SW (M)	<b>Accuracy:</b> 1/10 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4275900 E252013	<b>Latitude/Longitude:</b> 38.59698 / -119.84751	<b>Elevation (feet):</b> 9,700

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Ebbetts Pass (3811957)
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**Sources:**

TAY75F0001	TAYLOR, D. - FIELD SURVEY FORM FOR CRYPTANTHA CRYMOPHILA 1975-09-07
TAY75S0001	TAYLOR, D. - TAYLOR #5580 UC #1573189 1975-09-07



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 58018	<b>EO Index:</b> 58043
<b>Key Quad:</b> Pacific Valley (3811958)	<b>Element Code:</b> PDBOR0A0R0
<b>Occurrence Number:</b> 8	<b>Occurrence Last Updated:</b> 2019-01-04

<b>Scientific Name:</b> <i>Cryptantha crymophila</i>	<b>Common Name:</b> subalpine cryptantha
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 1B.3
<b>Federal:</b> None	<b>Other Lists:</b>
<b>State:</b> None	
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G3	
<b>State:</b> S3	

<b>General Habitat:</b> SUBALPINE CONIFEROUS FOREST.	<b>Micro Habitat:</b> ON DRY TALUS OF VOLCANIC FORMATION. 2680-3295 M.
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<b>Last Date Observed:</b> 1962-08-06	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1962-08-06	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-STANISLAUS NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
3 AIR MILES DUE WEST OF PACIFIC GRADE SUMMIT (MOSQUITO LAKE).

**Detailed Location:**  
"DUE WEST OF SANDY MEADOW, N OF EBBETS PASS ROAD (CA-4), ON RIDGE BETWEEN NORTH FORK STANISLAUS AND NORTH FORK MOKELUMNE RIVERS." GIVEN ELEVATION IS 8800 FEET. MAPPED BY CNDDDB AS A BEST GUESS.

**Ecological:**  
ROCKY NORTHWEST-FACING SLOPE OF RIDGE ON MIOCENE VOLCANICS.

**Threats:**  
**General:**  
ONLY SOURCE IS 1962 STEBBINS COLLECTION. NEEDS FIELDWORK.

<b>PLSS:</b> T08N, R18E, Sec. 35 (M)	<b>Accuracy:</b> 3/5 mile	<b>Area (acres):</b> 776
<b>UTM:</b> Zone-11 N4266496 E241478	<b>Latitude/Longitude:</b> 38.50933 / -119.96486	<b>Elevation (feet):</b> 8,800

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Pacific Valley (3811958)
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**Sources:**  
STE62S0002 STEBBINS, G. - STEBBINS #6067 JEPS #30865 1962-08-06



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 58020	<b>EO Index:</b> 58045	
<b>Key Quad:</b> Freel Peak (3811978)	<b>Element Code:</b> PDBOR0A0R0	
<b>Occurrence Number:</b> 9	<b>Occurrence Last Updated:</b> 2019-01-02	

<b>Scientific Name:</b> <i>Cryptantha crymophila</i>	<b>Common Name:</b> subalpine cryptantha
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 1B.3
<b>Federal:</b> None	<b>Other Lists:</b>
<b>State:</b> None	
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G3	
<b>State:</b> S3	

<b>General Habitat:</b> SUBALPINE CONIFEROUS FOREST.	<b>Micro Habitat:</b> ON DRY TALUS OF VOLCANIC FORMATION. 2680-3295 M.
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<b>Last Date Observed:</b> 2013-08-12	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2013-08-12	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-HUMBOLDT-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
ON COLUMNAR FORMATION JUST EAST OF PICKETT PEAK, ABOVE HOPE VALLEY.

**Detailed Location:**  
"ON RIDGELINE OF PEAK ~500 M SE OF SADDLE SE OF PICKETT PEAK. PLANTS FOUND WITHIN 50 M NNE FACE OF NARROW, STEEP RIDGELINE OF BROKEN VOLCANIC COLUMNAR FORMATION." MAPPED ACCORDING TO 2013 ROWE COORDINATES; POINT IS AT W EDGE OF OCCURRENCE.

**Ecological:**  
HABITAT IS AREA OF GRAVELLY AND LOAMY SOILS FOUND BETWEEN COBBLE AND BOULDERS OF DRY TALUS OF BROKEN COLUMNAR VOLCANICS. ASSOCIATED WITH ELYMUS ELYMOIDES, PHLOX DIFFUSA, AGERATINA OCCIDENTALIS, RIBES CEREUM, SYMPHORICARPOS, ETC.

**Threats:**  
CLIMATE CHANGES.

**General:**  
ABOUT 60 PLANTS OBSERVED IN 2013. A 1973 TAYLOR COLLECTION FROM "JUST TO THE EAST OF PICKETT PEAK" IS ALSO ATTRIBUTED TO THIS SITE.

<b>PLSS:</b> T10N, R19E, Sec. 4, SW (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 5
<b>UTM:</b> Zone-11 N4293538 E248130	<b>Latitude/Longitude:</b> 38.75463 / -119.89845	<b>Elevation (feet):</b> 8,950

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Freel Peak (3811978)
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**Sources:**

ROW13F0004	ROWE, C. & B. ENGELHARDT (U.S. FOREST SERVICE-LAKE TAHOE BASIN MANAGEMENT UNIT) - FIELD SURVEY FORM FOR CRYPTANTHA CRYMOPHILA 2013-08-12
TAY73S0002	TAYLOR, D. - TAYLOR #2641 DAV #62922 & #119018 1973-07-17



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> B1778	<b>EO Index:</b> 113693
<b>Key Quad:</b> Ebbetts Pass (3811957)	<b>Element Code:</b> PDBOR0A0R0
<b>Occurrence Number:</b> 14	<b>Occurrence Last Updated:</b> 2019-01-02

<b>Scientific Name:</b> <i>Cryptantha crymophila</i>	<b>Common Name:</b> subalpine cryptantha
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 1B.3
<b>Federal:</b> None	<b>Other Lists:</b>
<b>State:</b> None	
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G3	
<b>State:</b> S3	

<b>General Habitat:</b> SUBALPINE CONIFEROUS FOREST.	<b>Micro Habitat:</b> ON DRY TALUS OF VOLCANIC FORMATION. 2680-3295 M.
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<b>Last Date Observed:</b> 2012-07-25	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2012-07-25	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-HUMBOLDT-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
ALONG THE PACIFIC CREST TRAIL ABOUT 1 AIR MILE NNW OF RAYMOND PEAK.

**Detailed Location:**  
MAPPED AS 2 POLYGONS ACCORDING TO 2006 KELLEY COORDINATES AND 2012 RIPMA COORDINATES.

**Ecological:**  
GROWING ON NORTH-FACING ANDESITIC GRAVEL SCREE OF A BARREN SLOPE. ADJACENT RIPARIAN AREA IS SALIX DOMINATED, UPLANDS WHERE PLANT IS GROWING IS ARTEMISIA TRIDENTATA AND MONARDELLA.

**Threats:**  
**General:**  
SITE BASED ON A 2006 KELLEY COLLECTION AND A 2012 RIPMA & KELLEY COLLECTION.

<b>PLSS:</b> T09N, R19E, Sec. 24, E (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 10
<b>UTM:</b> Zone-11 N4278216 E252865	<b>Latitude/Longitude:</b> 38.61805 / -119.83857	<b>Elevation (feet):</b> 8,150

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Ebbetts Pass (3811957)
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**Sources:**

KEL06S0011	KELLEY, R. - KELLEY #1183 SDSU #20216 2006-08-02
RIP12S0002	RIPMA, L. & R. KELLEY - RIPMA #390 SDSU #20116 2012-07-25



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	B1779	<b>EO Index:</b>	113694
<b>Key Quad:</b>	Ebbetts Pass (3811957)	<b>Element Code:</b>	PDBOR0A0R0
<b>Occurrence Number:</b>	15	<b>Occurrence Last Updated:</b>	2019-01-02

<b>Scientific Name:</b>	<i>Cryptantha crymophila</i>	<b>Common Name:</b>	subalpine cryptantha
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> None	<b>Rare Plant Rank:</b>	1B.3
<b>CNDDDB Element Ranks:</b>	<b>Global:</b> G3 <b>State:</b> S3	<b>Other Lists:</b>	

<b>General Habitat:</b>	<b>Micro Habitat:</b>
SUBALPINE CONIFEROUS FOREST.	ON DRY TALUS OF VOLCANIC FORMATION. 2680-3295 M.

<b>Last Date Observed:</b>	2012-07-25	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2012-07-25	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	USFS-HUMBOLDT-TOIYABE NF	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**  
 ALONG THE PACIFIC CREST TRAIL ABOUT 1.5 AIR MILES NNW OF RAYMOND PEAK.

**Detailed Location:**  
 OCCURS BOTH UP AND DOWNSLOPE OF THE PACIFIC CREST TRAIL. MAPPED ACCORDING TO 2006 KELLEY COORDINATES AND 2012 RIPMA COORDINATES.

**Ecological:**  
 GROWING ON CONTOUR ACROSS WEST-FACING SLOPE OF OPEN LOOSE VOLCANIC SCREE/TALUS/GRITTY LOAMY CLAY. ASSOCIATES INCLUDE MONARDELLA ODORATISSIMA, MELICA, LYGOESMIA, SITANION HYSTRIX, MENTZELIA, ERIOGONUM UMBELLATUM, ERIOPHYLLUM LANATUM, ETC.

**Threats:**  
**General:**  
 SITE BASED ON A 2006 KELLEY COLLECTION AND A 2012 RIPMA & KELLEY COLLECTION.

<b>PLSS:</b>	T09N, R19E, Sec. 24, NW (M)	<b>Accuracy:</b>	80 meters	<b>Area (acres):</b>	5
<b>UTM:</b>	Zone-11 N4278719 E252268	<b>Latitude/Longitude:</b>	38.62242 / -119.8456	<b>Elevation (feet):</b>	8,100

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine	Ebbetts Pass (3811957)

**Sources:**  
 KEL06S0012 KELLEY, R. - KELLEY #1180 SDSU #20215 2006-08-02  
 RIP12S0003 RIPMA, L. & R. KELLEY - RIPMA #391 SDSU #20099 2012-07-25





**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	B1781	<b>EO Index:</b>	113696
<b>Key Quad:</b>	Ebbetts Pass (3811957)	<b>Element Code:</b>	PDBOR0A0R0
<b>Occurrence Number:</b>	16	<b>Occurrence Last Updated:</b>	2019-01-02

<b>Scientific Name:</b>	<i>Cryptantha crymophila</i>	<b>Common Name:</b>	subalpine cryptantha
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> None	<b>Rare Plant Rank:</b>	1B.3
<b>CNDDDB Element Ranks:</b>	<b>Global:</b> G3 <b>State:</b> S3	<b>Other Lists:</b>	

<b>General Habitat:</b>	<b>Micro Habitat:</b>
SUBALPINE CONIFEROUS FOREST.	ON DRY TALUS OF VOLCANIC FORMATION. 2680-3295 M.

<b>Last Date Observed:</b>	2012-07-25	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2012-07-25	<b>Occurrence Rank:</b>	Unknown
<b>Owner/Manager:</b>	USFS-HUMBOLDT-TOIYABE NF	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**  
 ALONG THE PACIFIC CREST TRAIL ABOUT 1.4 AIR MILES NW OF RAYMOND PEAK.

**Detailed Location:**  
 MAPPED ACCORDING TO 2012 RIPMA COORDINATES; CNDDDB PRESUMES COORDINATES ARE FROM COLLECTION LABEL.

**Ecological:**  
 SLOPING RHYOLITE SLOPE. PERENNIAL ASSOCIATION OF OPEN AREAS WITH LEPTODACTYLON, MONARDELLA, AND ERICAMERIA. SURROUNDING FOREST IS RED FIR AND LODGEPOLE.

**Threats:**  
**General:**  
 ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 2012 RIPMA COLLECTION.

<b>PLSS:</b> T09N, R19E, Sec. 23, SE (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 5
<b>UTM:</b> Zone-11 N4277487 E251216	<b>Latitude/Longitude:</b> 38.61104 / -119.85723	<b>Elevation (feet):</b> 8,200

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine	Ebbetts Pass (3811957)

**Sources:**  
 RIP12S0004 RIPMA, L. & R. KELLEY - RIPMA #393 SDSU #20101 2012-07-25



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 14533	<b>EO Index:</b> 20540	
<b>Key Quad:</b> Freel Peak (3811978)	<b>Element Code:</b> PDBRA110D1	
<b>Occurrence Number:</b> 1	<b>Occurrence Last Updated:</b> 2016-08-26	

<b>Scientific Name:</b> <i>Draba asterophora</i> var. <i>asterophora</i>	<b>Common Name:</b> Tahoe draba
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 1B.2
<b>Federal:</b> None	<b>Other Lists:</b> USFS_S-Sensitive
<b>State:</b> None	
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G2T2?	
<b>State:</b> S2?	

<b>General Habitat:</b> ALPINE BOULDER AND ROCK FIELD, SUBALPINE CONIFEROUS FOREST.	<b>Micro Habitat:</b> ON OPEN TALUS SLOPES, ROCK OUTCROPS, AND CREVICES. ON DECOMPOSED GRANITE. 2770-3505 M.
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<b>Last Date Observed:</b> 2015-08-25	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2015-08-25	<b>Occurrence Rank:</b> Good
<b>Owner/Manager:</b> USFS-LAKE TAHOE BMU	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
VICINITY OF FREEL PEAK, CARSON RANGE, SE OF LAKE TAHOE.

**Detailed Location:**  
MAPPED BY CNDDDB AS 4 POLYGONS ACCORDING TO 2015 LTBMU DIGITAL DATA, AND 2009, 2011, & 2012 COORDINATES. INCLUDES FOREST SERVICE POPULATIONS DRASA1A-D, 1O.

**Ecological:**  
ON GRANITIC SCREE, MOSTLY BETWEEN 10,000 FEET AND THE SUMMIT. ALPINE FELL-FIELDS WITH PINUS ALBICAULIS, PENSTEMON SP., ERYSIMUM PERENNE, PHLOX SPP, AND ERIOGONUM SPP. VERY SPARSE VEGETATION GROWING WHERE DRABA DOMINATES.

**Threats:**  
HIKERS MAY THREATEN, TRAIL MAINTENANCE, CLIMATE CHANGE. SNOWMOBILES MAY VENTURE INTO SOME AREAS.

**General:**  
UNKNOWN NUMBER SEEN IN 1978, 5,000 PLANTS SEEN IN 1990, 5000+ IN 1993, <10,000 IN 1997, 4000+ IN 2004 & 2009, 5200+ IN 2015. S-MOST & E-MOST POLYGONS: 200-500 PLANTS IN 2011, 1650-1950+ IN 2012. INCLUDES FORMER OCCS #2, 3 & 8.

<b>PLSS:</b> T12N, R19E, Sec. 31, W (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 171
<b>UTM:</b> Zone-11 N4305139 E248746	<b>Latitude/Longitude:</b> 38.85922 / -119.8956	<b>Elevation (feet):</b> 10,200

<b>County Summary:</b> Alpine, El Dorado	<b>Quad Summary:</b> Freel Peak (3811978)
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**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



**Sources:**

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BAA78F0001	BAAD, M. - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 1978-10-04
DOY88S0001	DOYLE, L. & D. ALLESSIO - DOYLE SN UC #1553415 1988-07-23
EVA18S0001	EVANS, H. - EVANS SN UC #306809 1918-07-28
GIB97F0013	GIBSON, S. ET AL. - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 1997-08-19
GRO04F0013	GROSS, S. - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2004-08-11
GRO11F0009	GROSS, S. - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2011-08-24
GRO11F0010	GROSS, S. - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2011-08-24
HEA09F0033	HEARD, K. (U.S. FOREST SERVICE-LAKE TAHOE BASIN MANAGEMENT UNIT) - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2009-08-18
HEA09F0034	HEARD, K. (U.S. FOREST SERVICE-LAKE TAHOE BASIN MANAGEMENT UNIT) - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2009-08-18
HEA09F0035	HEARD, K. (U.S. FOREST SERVICE-LAKE TAHOE BASIN MANAGEMENT UNIT) - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2009-08-18
IRI93F0005	IRIBARNE, D. & T. KUNDERT - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 1993-07-29
JEN09F0019	JENNINGS, M. (U.S. FOREST SERVICE-LAKE TAHOE BASIN MANAGEMENT UNIT) - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2009-08-18
JUS28S0002	JUSSEL, M. - JUSSEL SN CAS #165635 1928-07-10
KNA79S0001	KNAPP, C. - KNAPP SN DAV #114862 1979-08-03
KUN90F0004	KUNDERT, A. - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 1990-07-11
MCK12F0021	MCKNIGHT, S. & J. FEDORCHUK (U.S. FOREST SERVICE) - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2012-09-25
MCK12F0024	MCKNIGHT, S. (U.S. FOREST SERVICE) - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2012-09-08
PUT13U0001	PUTNAM, E. - ECOLOGY, PHYLOGENETICS AND CONSERVATION OF DRABA ASTEROPHORA COMPLEX: A RARE, ALPINE, ENDEMIC FROM LAKE TAHOE, USA 2013-12-XX
RAM15F0004	RAMBO, M. & C. ROWE (U.S. FOREST SERVICE-LAKE TAHOE BASIN MANAGEMENT UNIT) - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2015-08-25
RAM15F0005	RAMBO, M. & C. ROWE (U.S. FOREST SERVICE-LAKE TAHOE BASIN MANAGEMENT UNIT) - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2015-08-25
SHA37S0007	SHARSMITH, C. - SHARSMITH #3472 UC #1195340, CAS #870098 1937-08-30
SHA37S0008	SHARSMITH, C. - SHARSMITH #3503 UC #1195337, CAS #870099 1937-08-30
SHA37S0009	SHARSMITH, C. - SHARSMITH #3502 UC #1195338, CAS #870100 1937-08-30
SMI70S0001	SMITH, G. & A. NEILSON - SMITH #2684 JEPS #72051 1970-08-26
SMI70S0005	SMITH, G. - SMITH #2682 JEPS #72052 1970-08-26
SMI70S0006	SMITH, G. & A. NEILSON - SMITH #2685 JEPS #72050 1970-08-26
SMI74U0009	SMITH, D. - CNPS NOTE CARD EO #2 1974-07-21
STE15F0012	STEVENS, V. & C. ROWE (U.S. FOREST SERVICE-LAKE TAHOE BASIN MANAGEMENT UNIT) - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2015-08-25
TAY70S0001	TAYLOR, D. - TAYLOR #0672 FSC 1970-08-15
TAY70S0005	TAYLOR, D. - TAYLOR #669 UC #1548493 1970-08-15
THO04F0013	THOMAS, K. - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2004-08-31
THO04F0014	THOMAS, K. - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2004-08-31
THO04F0015	THOMAS, K. - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2004-08-31
USF15D0004	U.S. FOREST SERVICE-LAKE TAHOE BASIN MANAGEMENT UNIT - LAKE TAHOE BASIN MANAGEMENT UNIT 2015 RARE PLANT DATA 2015-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 14554	<b>EO Index:</b> 20536
<b>Key Quad:</b> Freel Peak (3811978)	<b>Element Code:</b> PDBRA110D1
<b>Occurrence Number:</b> 4	<b>Occurrence Last Updated:</b> 2016-09-08

<b>Scientific Name:</b> <i>Draba asterophora</i> var. <i>asterophora</i>	<b>Common Name:</b> Tahoe draba
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 1B.2
<b>Federal:</b> None	<b>Other Lists:</b> USFS_S-Sensitive
<b>State:</b> None	
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G2T2?	
<b>State:</b> S2?	

<b>General Habitat:</b> ALPINE BOULDER AND ROCK FIELD, SUBALPINE CONIFEROUS FOREST.	<b>Micro Habitat:</b> ON OPEN TALUS SLOPES, ROCK OUTCROPS, AND CREVICES. ON DECOMPOSED GRANITE. 2770-3505 M.
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<b>Last Date Observed:</b> 2015-09-24	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2015-09-24	<b>Occurrence Rank:</b> Good
<b>Owner/Manager:</b> USFS-LAKE TAHOE BMU	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
SOUTH END OF STAR LAKE, ON SLOPE BELOW JOBS SISTERS RIDGE, CARSON RANGE, SE OF LAKE TAHOE.

**Detailed Location:**  
MAPPED BY CNDDDB AS 4 POLYGONS ACCORDING TO A 2003 GROSS MAP, 2009 & 2012 COORDINATES, AND 2015 USFS DATA. INCLUDES FOREST SERVICE POPULATIONS DRASA1I, 1J, 1L & 1M. GROSS (2003) NOTES THAT THERE ARE PROBABLY MORE PLANTS HIGHER UP SLOPE.

**Ecological:**  
SUBALPINE CONIFEROUS MOUNTAIN HEMLOCK FOREST. ASSOCIATES INCLUDE TSUGA MERTENSIANA, PINUS ALBICAULIS, CASSIOPE MERTENSIANA, JUNCUS PARRYI, TONESTUS EXIMIUS, HIERACIUM HORRIDUM, JUNCUS PARRYI, OXYRIA DIGYNA, PENSTEMON NEWBERRYI, ETC.

**Threats:**  
FOOT TRAFFIC FROM HIKERS ALONG TAHOE RIM TRAIL. STAR LAKE IS SOMETIMES USED AS A CAMPSITE. MUCH OF POP ON STEEP SLOPES.

**General:**  
POP #S FOR PORTIONS OF SITE: >2000 PLANTS SEEN IN 1991, >500 IN 1992, >1000 IN 1993, >1138 IN 2003, 1340-1590 IN 2009, 6 PLANTS IN W POLYGON IN 2010, 1245 PLANTS IN TWO SE POLYGONS IN 2012, 1000+ PLANTS IN 2015.

<b>PLSS:</b> T12N, R19E, Sec. 30, SE (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 9
<b>UTM:</b> Zone-11 N4306524 E249490	<b>Latitude/Longitude:</b> 38.8719 / -119.88754	<b>Elevation (feet):</b> 9,400

<b>County Summary:</b> El Dorado	<b>Quad Summary:</b> Freel Peak (3811978)
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**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



**Sources:**

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ALL91F0009	ALLESSIO, D. - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 1991-07-09
ALL92F0003	ALLESSIO, L. - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 1992-07-19
ALL93F0012	ALLESSIO, L. - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 1993-09-05
ENG10F0009	ENGELHARDT, B. (U.S. FOREST SERVICE) - FIELD SURVEY FORM FOR TONESTUS EXIMIUS & DRABA ASTEROPHORA VAR. ASTEROPHORA 2010-08-25
EVA20S0001	EVANS, H. - EVANS SN UC #311228 1920-06-11
GRO03F0002	GROSS, S. ET AL. - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2003-08-07
GRO03F0003	GROSS, S. ET AL. - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2003-08-07
GRO03F0004	GROSS, S. - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2003-08-07
GRO03F0005	GROSS, S. - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2003-08-07
HEA09F0025	HEARD, K. (U.S. FOREST SERVICE-LAKE TAHOE BASIN MANAGEMENT UNIT) - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2009-07-22
HEA09F0027	HEARD, K. (U.S. FOREST SERVICE-LAKE TAHOE BASIN MANAGEMENT UNIT) - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2009-07-22
JEN09F0020	JENNINGS, M. (U.S. FOREST SERVICE-LAKE TAHOE BASIN MANAGEMENT UNIT) - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2009-07-22
MCK12F0013	MCKNIGHT, S. & D. UZES (U.S. FOREST SERVICE) - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2012-08-08
MCK12F0022	MCKNIGHT, S. & D. UZES (U.S. FOREST SERVICE) - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2012-08-08
STE15F0013	STEVENS, V. & C. ROWE (U.S. FOREST SERVICE-LAKE TAHOE BASIN MANAGEMENT UNIT) - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2015-09-24
USF15D0004	U.S. FOREST SERVICE-LAKE TAHOE BASIN MANAGEMENT UNIT - LAKE TAHOE BASIN MANAGEMENT UNIT 2015 RARE PLANT DATA 2015-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 51156	<b>EO Index:</b> 51156
<b>Key Quad:</b> Woodfords (3811977)	<b>Element Code:</b> PDBRA110D1
<b>Occurrence Number:</b> 7	<b>Occurrence Last Updated:</b> 2003-04-29

<b>Scientific Name:</b> <i>Draba asterophora</i> var. <i>asterophora</i>	<b>Common Name:</b> Tahoe draba
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 1B.2
<b>Federal:</b> None	<b>Other Lists:</b> USFS_S-Sensitive
<b>State:</b> None	
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G2T2?	
<b>State:</b> S2?	

<b>General Habitat:</b> ALPINE BOULDER AND ROCK FIELD, SUBALPINE CONIFEROUS FOREST.	<b>Micro Habitat:</b> ON OPEN TALUS SLOPES, ROCK OUTCROPS, AND CREVICES. ON DECOMPOSED GRANITE. 2770-3505 M.
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<b>Last Date Observed:</b> 1989-07-12	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1989-07-12	<b>Occurrence Rank:</b> Excellent
<b>Owner/Manager:</b> USFS-HUMBOLDT-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
NORTH AND NORTHWEST FACING SLOPES OF JOBS PEAK, ALONG RIDGE CONNECTING TO JOBS SISTER, CARSON RANGE, SE OF LAKE TAHOE.

**Detailed Location:**  
MAPPED BY CNDDDB ACCORDING TO T-R-S PROVIDED BY DOYLE: T12N R19E NE 1/4 OF THE SE 1/4 OF SECTION 32 AND THE NW 1/4 OF THE SW 1/4 OF SECTION 33.

**Ecological:**  
ALPINE PLANT COMMUNITY WITH LOW GROWING FLOWERING PLANTS. SOME TSUGA MERTENSIANA AND PINUS ALBICAULIS ALSO PRESENT. DECOMPOSED GRANITIC SOILS AND ROCK OUTCROPS, AREA SPARSE OF VEGETATION OVERALL.

**Threats:**  
CASUAL HIKER USE. NO TRAIL EXISTS TO THIS AREA, SO CROSS-COUNTRY HIKING IS ONLY ACCESS.

**General:**  
MORE THAN 2000 PLANTS OBSERVED BY DOYLE IN 1989. THIS SITE COULD BE CONSIDERED PART OF THE POPULATION ON JOBS SISTER (OCCURRENCE #1) ACCORDING TO SOURCE (BUT IT IS MORE THAN 0.25 MI AWAY).

<b>PLSS:</b> T12N, R19E, Sec. 33, SW (M)	<b>Accuracy:</b> non-specific area	<b>Area (acres):</b> 86
<b>UTM:</b> Zone-11 N4304929 E251570	<b>Latitude/Longitude:</b> 38.85813 / -119.86301	<b>Elevation (feet):</b> 10,000

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Woodfords (3811977)
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**Sources:**  
DOY89F0001 DOYLE, L. - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 1989-07-12



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 51158	<b>EO Index:</b> 51158
<b>Key Quad:</b> Freel Peak (3811978)	<b>Element Code:</b> PDBRA110D1
<b>Occurrence Number:</b> 9	<b>Occurrence Last Updated:</b> 2016-08-26

<b>Scientific Name:</b> <i>Draba asterophora</i> var. <i>asterophora</i>	<b>Common Name:</b> Tahoe draba
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 1B.2
<b>Federal:</b> None	<b>Other Lists:</b> USFS_S-Sensitive
<b>State:</b> None	
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G2T2?	
<b>State:</b> S2?	

<b>General Habitat:</b> ALPINE BOULDER AND ROCK FIELD, SUBALPINE CONIFEROUS FOREST.	<b>Micro Habitat:</b> ON OPEN TALUS SLOPES, ROCK OUTCROPS, AND CREVICES. ON DECOMPOSED GRANITE. 2770-3505 M.
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<b>Last Date Observed:</b> 2015-08-25	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2015-08-25	<b>Occurrence Rank:</b> Good
<b>Owner/Manager:</b> USFS-LAKE TAHOE BMU	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
APPROXIMATELY 0.7 TO 1.7 AIR MILES NORTHWEST OF FREEL PEAK, SOUTH OF TRIMMER PEAK, CARSON RANGE, SE OF LAKE TAHOE.

**Detailed Location:**  
MAPPED AS 8 POLYGONS ACCORDING TO A 2004 GROSS MAP & 2015 DIGITAL DATA (5 EASTERN POLYGONS) AND 2011 & 2012 COORDINATES (3 WESTERN POLYGONS). INCLUDES FOREST SERVICE POPULATIONS: DRASA1E, 1F, 1G, 1H, 1K, 1N.

**Ecological:**  
DRY GRANITIC SCREE. DOMINANT PLANT SPECIES INCLUDE ARABIS PLATYSPERMA, CHAENACTIS SP, ERIOGONUM INCANUM, E. LOBBII, PINUS ALBICAULIS, POLYGONUM SHASTENSE, SILENE SP., CALYPTRIDIMUM UMBELLATUM, CASTILLEJA NANA, CAREX SP, ETC.

**Threats:**  
TRAIL IN VICINITY OF POPULATIONS; HOWEVER, NOT MANY PEOPLE WOULD HIKE OFF TRAIL AND THIS IS LIKELY NOT A THREAT.

**General:**  
1000+ IN 1989, 500 IN 1990, ~400 IN 1993. 5 EASTERN POLYGONS: A TOTAL OF 2204 PLANTS OBSERVED IN 2004, 1105-2255 PLANTS IN 2009, 5000+ IN 2015. 3 WESTERN POLYGONS: 224 PLANTS IN 2011 AND 168 PLANTS IN 2012.

<b>PLSS:</b> T12N, R18E, Sec. 25, NE (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 18
<b>UTM:</b> Zone-11 N4305779 E246884	<b>Latitude/Longitude:</b> 38.86444 / -119.91727	<b>Elevation (feet):</b> 9,600

<b>County Summary:</b> El Dorado	<b>Quad Summary:</b> Freel Peak (3811978)
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**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



**Sources:**

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DOY89F0002	DOYLE, L. - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 1989-07-13
ENG11F0016	ENGELHARDT, B. & C. MCKERNAN - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2011-09-22
GRO04F0017	GROSS, S. - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2004-08-11
GRO04F0018	GROSS, S. - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2004-08-11
GRO04F0019	GROSS, S. - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2004-08-11
GRO04F0020	GROSS, S. - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2004-08-11
GRO04F0021	GROSS, S. - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2004-08-11
HEA09F0026	HEARD, K. (U.S. FOREST SERVICE-LAKE TAHOE BASIN MANAGEMENT UNIT) - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2009-08-18
HEA09F0032	HEARD, K. (U.S. FOREST SERVICE-LAKE TAHOE BASIN MANAGEMENT UNIT) - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2009-08-18
IRI93F0003	IRIBARNE, D. & T. KUNDERT - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 1993-07-29
IRI93F0004	IRIBARNE, D. & T. KUNDERT - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 1993-07-29
IRI93F0005	IRIBARNE, D. & T. KUNDERT - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 1993-07-29
JEN09F0016	JENNINGS, M. (U.S. FOREST SERVICE-LAKE TAHOE BASIN MANAGEMENT UNIT) - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2009-08-18
JEN09F0017	JENNINGS, M. (U.S. FOREST SERVICE-LAKE TAHOE BASIN MANAGEMENT UNIT) - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2009-08-18
JEN09F0018	JENNINGS, M. (U.S. FOREST SERVICE-LAKE TAHOE BASIN MANAGEMENT UNIT) - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2009-08-18
KUN90F0005	KUNDERT, A. - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 1990-07-11
MCK12F0023	MCKNIGHT, S. & J. FEDORCHUK (U.S. FOREST SERVICE) - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2012-09-10
RAM15F0006	RAMBO, M. & C. ROWE (U.S. FOREST SERVICE-LAKE TAHOE BASIN MANAGEMENT UNIT) - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2015-08-25
USF15D0004	U.S. FOREST SERVICE-LAKE TAHOE BASIN MANAGEMENT UNIT - LAKE TAHOE BASIN MANAGEMENT UNIT 2015 RARE PLANT DATA 2015-XX-XX





# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 88738	<b>EO Index:</b> 89746
<b>Key Quad:</b> Caples Lake (3812061)	<b>Element Code:</b> PDBRA110D1
<b>Occurrence Number:</b> 14	<b>Occurrence Last Updated:</b> 2015-07-21

<b>Scientific Name:</b> <i>Draba asterophora</i> var. <i>asterophora</i>	<b>Common Name:</b> Tahoe draba
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 1B.2
<b>Federal:</b> None	<b>Other Lists:</b> USFS_S-Sensitive
<b>State:</b> None	
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G2T2?	
<b>State:</b> S2?	

<b>General Habitat:</b> ALPINE BOULDER AND ROCK FIELD, SUBALPINE CONIFEROUS FOREST.	<b>Micro Habitat:</b> ON OPEN TALUS SLOPES, ROCK OUTCROPS, AND CREVICES. ON DECOMPOSED GRANITE. 2770-3505 M.
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<b>Last Date Observed:</b> 1972-07-09	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1972-07-09	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-ELDORADO NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
NORTH-FACING SLOPE OF ROUND TOP, SOUTH OF CARSON PASS.

**Detailed Location:**  
EXACT LOCATION UNKNOWN. MAPPED BY CNDDDB AS BEST GUESS BASED ON LOCATION DESCRIPTION. MOREFIELD NOTES THAT OCCURRENCES OF VAR. ASTEROPHORA OUTSIDE THE LAKE TAHOE BASIN AREA MAY BE MIS-IDS.

**Ecological:**  
ABOVE TIMBERLINE ON GRANITIC SUBSTRATE.

**Threats:**  
**General:**  
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1972 TAYLOR COLLECTION. COLLECTION IDENTIFIED AS "DRABA ASTEROPHORA"; MAPPED BY CNDDDB AS VARIETY ASTEROPHORA SINCE THIS LOCATION BETTER FITS IN THIS VARIETY'S RANGE.

<b>PLSS:</b> T10N, R18E, Sec. 33 (M)	<b>Accuracy:</b> 2/5 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-10 N4284042 E760879	<b>Latitude/Longitude:</b> 38.66656 / -120.00157	<b>Elevation (feet):</b> 9,500

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Carson Pass (3811968), Caples Lake (3812061)
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**Sources:**  
SIM14U0001 SIMS, A. - EMAIL REGARDING DRABA ASTEROPHORA VAR. ASTEROPHORA OCCURRENCES IN CALIFORNIA 2014-04-03  
TAY72S0011 TAYLOR, D. - TAYLOR #1717 DAV #126419 1972-07-09



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 88739	<b>EO Index:</b> 89747
<b>Key Quad:</b> Freel Peak (3811978)	<b>Element Code:</b> PDBRA110D1
<b>Occurrence Number:</b> 15	<b>Occurrence Last Updated:</b> 2016-08-26

<b>Scientific Name:</b> <i>Draba asterophora</i> var. <i>asterophora</i>	<b>Common Name:</b> Tahoe draba
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 1B.2
<b>Federal:</b> None	<b>Other Lists:</b> USFS_S-Sensitive
<b>State:</b> None	
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G2T2?	
<b>State:</b> S2?	

<b>General Habitat:</b> ALPINE BOULDER AND ROCK FIELD, SUBALPINE CONIFEROUS FOREST.	<b>Micro Habitat:</b> ON OPEN TALUS SLOPES, ROCK OUTCROPS, AND CREVICES. ON DECOMPOSED GRANITE. 2770-3505 M.
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<b>Last Date Observed:</b> 2013-07-30	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2013-07-30	<b>Occurrence Rank:</b> Good
<b>Owner/Manager:</b> USFS-LAKE TAHOE BMU	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
APPROXIMATELY 400 METERS SOUTH OF SOUTHERN EDGE OF HELL HOLE MEADOW, 3.7 AIR MILES SSW OF FREEL PEAK, CARSON RANGE.

**Detailed Location:**  
IN THE FAR WEST HALF OF THE NW 1/4 OF SECTION 12. LTBMU POPULATION DRASA4.

**Ecological:**  
VERY STEEP (40-50 DEGREES) SCREE CHUTE. THIN LOOSE LAYER OF DG SCREE ON TOP AND INTERSPERSED WITH MANY GRANITE BOULDERS. NORTH-FACING SLOPE. ASSOCIATED WITH PINUS ALBICAULIS, TSUGA MERTENSIANA, ERIOGONUM LOBBII, LUZULA DIVARICATA, ETC.

**Threats:**

**General:**

250+ PLANTS OBSERVED IN 2011, 300+ PLANTS ESTIMATED IN 2013. POPULATION IN SCREE CHUTE WHICH IS BORDERED BY BOULDER WALLS ON BOTH SIDES AND EXTENDS BELOW AND TO THE EAST, SPORADICALLY CLUSTERED OVER 180 METERS.

<b>PLSS:</b> T11N, R18E, Sec. 12, NW (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 6
<b>UTM:</b> Zone-11 N4300691 E244193	<b>Latitude/Longitude:</b> 38.81787 / -119.94635	<b>Elevation (feet):</b> 9,100

<b>County Summary:</b> El Dorado	<b>Quad Summary:</b> Freel Peak (3811978)
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**Sources:**

CHR11F0039	CHRISTIE, K. - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2011-08-31
CHR11S0002	CHRISTIE, K. - CHRISTIE #2085 SEINET #8892819, ASC 2011-08-31
RAM13F0005	RAMBO, M. & W. RAITTER (U.S. FOREST SERVICE-LAKE TAHOE BASIN MANAGEMENT UNIT) - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2013-07-30
USF13D0002	U.S. FOREST SERVICE-LAKE TAHOE BASIN MANAGEMENT UNIT - LAKE TAHOE BASIN MANAGEMENT UNIT 2013 RARE PLANT DATA 2013-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 88740	<b>EO Index:</b> 89749
<b>Key Quad:</b> Freel Peak (3811978)	<b>Element Code:</b> PDBRA110D1
<b>Occurrence Number:</b> 16	<b>Occurrence Last Updated:</b> 2016-09-08

<b>Scientific Name:</b> <i>Draba asterophora</i> var. <i>asterophora</i>	<b>Common Name:</b> Tahoe draba
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 1B.2
<b>Federal:</b> None	<b>Other Lists:</b> USFS_S-Sensitive
<b>State:</b> None	
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G2T2?	
<b>State:</b> S2?	

<b>General Habitat:</b> ALPINE BOULDER AND ROCK FIELD, SUBALPINE CONIFEROUS FOREST.	<b>Micro Habitat:</b> ON OPEN TALUS SLOPES, ROCK OUTCROPS, AND CREVICES. ON DECOMPOSED GRANITE. 2770-3505 M.
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<b>Last Date Observed:</b> 2011-08-17	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2011-08-17	<b>Occurrence Rank:</b> Good
<b>Owner/Manager:</b> USFS-LAKE TAHOE BMU	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
APPROXIMATELY 400 METERS NE OF JOBS SISTER AND APPROX 900 METERS SSE OF STAR LAKE, EAST OF FREEL PEAK, CARSON RANGE.

**Detailed Location:**  
IN THE FAR NW 1/4 OF THE NW 1/4 OF SECTION 32. LTBMU POPULATION DRASA1P.

**Ecological:**  
STEEP, SOUTH-FACING ALPINE SCREE SLOPE OF LOOSE, DECOMPOSED GRANITE AND SCATTERED BOULDERS. AREA OPEN AND EXPOSED. ASSOCIATES INCL PINUS ALBICAULIS, ERIOGONUM LOBBII, HULSEA ALGIDA, MIMULUS NUTTALLII VAR. GRACILIS, AND CHAENACTIS ALPIGENA.

**Threats:**  
VERY FEW VISITORS/DISTURBANCE IN THIS AREA.

**General:**  
300 PLANTS OBSERVED IN 2011. POPULATION COVERS A 50 X 20 METER AREA.

<b>PLSS:</b> T12N, R19E, Sec. 32, NW (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 1
<b>UTM:</b> Zone-11 N4305788 E249986	<b>Latitude/Longitude:</b> 38.86541 / -119.88155	<b>Elevation (feet):</b> 10,500

<b>County Summary:</b> El Dorado	<b>Quad Summary:</b> Freel Peak (3811978)
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**Sources:**  
CHR11F0052 CHRISTIE, K. - FIELD SURVEY FORM FOR DRABA ASTEROPHORA VAR. ASTEROPHORA 2011-08-17  
CHR11S0001 CHRISTIE, K. - CHRISTIE #2062 SEINET #8892795, ASC 2011-08-17



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> B5062	<b>EO Index:</b> 117999
<b>Key Quad:</b> Carson Pass (3811968)	<b>Element Code:</b> PDBRA11210
<b>Occurrence Number:</b> 16	<b>Occurrence Last Updated:</b> 2020-02-07

<b>Scientific Name:</b> <i>Draba praealta</i>	<b>Common Name:</b> tall draba
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 2B.3
<b>Federal:</b> None	<b>Other Lists:</b>
<b>State:</b> None	
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5	
<b>State:</b> S3	

<b>General Habitat:</b> MEADOWS AND SEEPS.	<b>Micro Habitat:</b> MESIC SITES. 2515-3900 M.
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<b>Last Date Observed:</b> 1974-07-26	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1974-07-26	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-ELDORADO NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
NORTH FACING CLIFFS ALONG DEVILS CORRAL CREEK, CARSON PASS.

**Detailed Location:**  
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDDB AROUND NORTH-FACING SLOPES ABOVE DEVILS CORRAL CREEK.

**Ecological:**  
MOIST.

**Threats:**  
**General:**

ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1974 TAYLOR COLLECTION; COLLECTION ANNOTATED TO D. PRAEALTA BY R. A. PRICE IN 2017. NEEDS FIELDWORK.

<b>PLSS:</b> T09N, R18E, Sec. 15 (M)	<b>Accuracy:</b> 3/5 mile	<b>Area (acres):</b> 776
<b>UTM:</b> Zone-11 N4279831 E240758	<b>Latitude/Longitude:</b> 38.62913 / -119.97806	<b>Elevation (feet):</b> 8,400

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Pacific Valley (3811958), Carson Pass (3811968)
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**Sources:**  
TAY74S0029 TAYLOR, D. - TAYLOR #4428 DAV #114916 & #66622 1974-07-26



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



**Map Index Number:** 72978

**EO Index:** 73889

**Key Quad:** Freel Peak (3811978)

**Element Code:** PDLNT020E0

**Occurrence Number:** 5

**Occurrence Last Updated:** 2008-11-21

**Scientific Name:** *Utricularia ochroleuca*

**Common Name:** cream-flowered bladderwort

**Listing Status:** **Federal:** None

**Rare Plant Rank:** 2B.2

**State:** None

**Other Lists:**

**CNDDDB Element Ranks:** **Global:** G4G5

**State:** S1

**General Habitat:**

MEADOWS AND SEEPS, MARSHES AND SWAMPS.

**Micro Habitat:**

MESIC SITES, INCLUDING LAKE MARGINS. 1310-2350 M.

**Last Date Observed:** 2004-08-07

**Occurrence Type:** Natural/Native occurrence

**Last Survey Date:** 2004-08-07

**Occurrence Rank:** Unknown

**Owner/Manager:** USFS-LAKE TAHOE BMU

**Trend:** Unknown

**Presence:** Presumed Extant

**Location:**

GRASS LAKE, NEAR LUTHER PASS.

**Detailed Location:**

MAPPED ACCORDING TO COORDINATE INFORMATION MENTIONED IN A 2005 RICE ARTICLE; DATUM UNKNOWN.

**Ecological:**

IN STERILE CONDITION IN A FEW CM OF WATER ON THE FLOATING VEGETATION MAT.

**Threats:**

**General:**

A SMALL POPULATION FIRST DOCUMENTED IN 2004.

**PLSS:** T11N, R18E, Sec. 14, SW (M)

**Accuracy:** 80 meters

**Area (acres):** 0

**UTM:** Zone-11 N4298241 E242288

**Latitude/Longitude:** 38.79527 / -119.96734

**Elevation (feet):** 7,710

**County Summary:**

El Dorado

**Quad Summary:**

Freel Peak (3811978)

**Sources:**

RIC05A0001 RICE, B. - NOTEWORTHY COLLECTIONS. MADRONO 52(4): 272. 2005-01-01



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 14440	<b>EO Index:</b> 43278
<b>Key Quad:</b> Freel Peak (3811978)	<b>Element Code:</b> PDONA060R0
<b>Occurrence Number:</b> 1	<b>Occurrence Last Updated:</b> 2000-07-28

<b>Scientific Name:</b> <i>Epilobium palustre</i>	<b>Common Name:</b> marsh willowherb
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 2B.3
<b>Federal:</b> None	<b>Other Lists:</b>
<b>State:</b> None	
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5	
<b>State:</b> S2	

<b>General Habitat:</b> BOGS AND FENS, MEADOWS AND SEEPS.	<b>Micro Habitat:</b> MESIC SITES. 1655-2350 M.
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<b>Last Date Observed:</b> XXXX-XX-XX	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> XXXX-XX-XX	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-LAKE TAHOE BMU	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
GRASS LAKE. ABOUT 1.2 MILES NORTH OF WATERHOUSE PEAK.

**Detailed Location:**  
EXACT LOCATION UNKNOWN. MAPPED IN BOGGY AREAS AROUND GRASS LAKE.

**Ecological:**

**Threats:**

**General:**

<b>PLSS:</b> T11N, R18E, Sec. 23 (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 292
<b>UTM:</b> Zone-11 N4297755 E242759	<b>Latitude/Longitude:</b> 38.79104 / -119.96175	<b>Elevation (feet):</b> 7,700

<b>County Summary:</b> El Dorado	<b>Quad Summary:</b> Freel Peak (3811978)
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**Sources:**

CLI96U0003	CLIFTON, G. - INVENTORY 6 PROPOSED CHANGES REVIEW (INCLUDES INFO FOR SEVERAL TAXA) 1996-02-06
CNP98U0001	CNPS RARE PLANT PROGRAM - RPSAC REGIONAL GROUP FINAL RECOMMENDATION (NEW ADDITION) FOR EPILOBIUM PALUSTRE. 1998-04-13
JEP93B0001	JEPSON, W. - MANUAL OF THE FLOWERING PLANTS OF CALIFORNIA 1993-XX-XX



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b> 72778	<b>EO Index:</b> 73618
<b>Key Quad:</b> Ebbetts Pass (3811957)	<b>Element Code:</b> PDONA06180
<b>Occurrence Number:</b> 16	<b>Occurrence Last Updated:</b> 2008-11-18

<b>Scientific Name:</b> <i>Epilobium howellii</i>	<b>Common Name:</b> subalpine fireweed
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 4.3
<b>Federal:</b> None	<b>Other Lists:</b>
<b>State:</b> None	
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G4	
<b>State:</b> S4	

<b>General Habitat:</b> MEADOWS AND SEEPS, SUBALPINE CONIFEROUS FOREST.	<b>Micro Habitat:</b> WET MEADOWS, MOSSY SEEPS. 2000-3120 M.
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<b>Last Date Observed:</b> 2007-07-31	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2007-07-31	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-STANISLAUS NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
E END OF WILLOW MEADOW NEAR GROUSE CREEK, SW OF BLACK DOME.

**Detailed Location:**  
ON THE E BANK OF A SMALL N-S STREAM AND TO THE RIGHT OF THE TRAIL. MAPPED ACCORDING TO TRS INFORMATION ON A 2007 HAMILTON & CARTER FIELD SURVEY FORM IN THE SW1/4 OF THE SE1/4 OF SEC 23.

**Ecological:**  
LOGEPOLE PINE, RED FIRE, WILLOW, CORN LILY, EPILOBIUM, MIMULUS, PURPLE ERIGERON, ALDER. IN SANDY, DECOMPOSED GRANITE.

**Threats:**  
POSSIBLE THREATS INCL "CATTLE TRAIL WITHIN 10 FT, SOME POCK MARK FROM CATTLE, WASHOUT OF STREAM BANK POSSIBLE".

**General:**  
<50 PLANTS SEEN IN 2007.

<b>PLSS:</b> T08N, R19E, Sec. 23, SE (M)	<b>Accuracy:</b> non-specific area	<b>Area (acres):</b> 51
<b>UTM:</b> Zone-11 N4268030 E251292	<b>Latitude/Longitude:</b> 38.52594 / -119.85297	<b>Elevation (feet):</b> 7,000

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Ebbetts Pass (3811957)
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**Sources:**  
HAM07F0003 HAMILTON, K. & R. CARTER - FIELD SURVEY FORM FOR EPILOBIUM HOWELLII 2007-07-31



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	72779	<b>EO Index:</b>	73619
<b>Key Quad:</b>	Freel Peak (3811978)	<b>Element Code:</b>	PDONA06180
<b>Occurrence Number:</b>	17	<b>Occurrence Last Updated:</b>	2008-11-03

<b>Scientific Name:</b>	<i>Epilobium howellii</i>	<b>Common Name:</b>	subalpine fireweed
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> None	<b>Rare Plant Rank:</b>	4.3
<b>CNDDB Element Ranks:</b>	<b>Global:</b> G4 <b>State:</b> S4	<b>Other Lists:</b>	

<b>General Habitat:</b>	<b>Micro Habitat:</b>
MEADOWS AND SEEPS, SUBALPINE CONIFEROUS FOREST.	WET MEADOWS, MOSSY SEEPS. 2000-3120 M.

<b>Last Date Observed:</b>	2007-07-02	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2007-07-02	<b>Occurrence Rank:</b>	Good
<b>Owner/Manager:</b>	USFS-LAKE TAHOE BMU	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**  
 AT THE END OF FOUNTAIN PLACE/ONEIDAS ROAD, SW OF TRIMMER PEAK.

**Detailed Location:**  
 MAPPED ACC TO 2007 GPS COORDINATES FROM GROSS & OSBRACK. 2 CLUSTERS OF PLANTS FOUND HERE; THE 1ST CLUSTER IS ON THE S SIDE OF ARMSTRONG PASS TRAILHEAD & E SIDE OF STREAM WHILE THE 2ND CLUSTER IS IN THE DIRT PATH JUST BEFORE TRAILHEAD.

**Ecological:**  
 1ST CLUSTER WAS FOUND IN LOW GROWING VEGETATION WITH A W ASPECT AND PARTIAL SHADE; ASSOCIATES INCL SALIX SP., ALNUS INCANA, CAREX SPP, MIMULUS GUTTATUS, EPILOBIUM CILIATUM, SENECIO TRIANGULARIS, ETC. 2ND CLUSTER IN SPARSE, DRY VEGETATION.

**Threats:**  
 FOREST SYSTEM TRAIL AND RECREATIONAL USE.

**General:**  
 50 PLANTS SEEN IN 2007 (25 PLANTS IN EACH COLONY).

<b>PLSS:</b> T12N, R18E, Sec. 25, SW (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4304876 E244845	<b>Latitude/Longitude:</b> 38.85572 / -119.94039	<b>Elevation (feet):</b> 7,640

<b>County Summary:</b>	<b>Quad Summary:</b>
El Dorado	Freel Peak (3811978)

**Sources:**  
 GRO07F0002 GROSS, S. & S. OSBRACK - FIELD SURVEY FORM FOR EPILOBIUM HOWELLII 2007-07-02





**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b> 72780	<b>EO Index:</b> 73620
<b>Key Quad:</b> Freel Peak (3811978)	<b>Element Code:</b> PDONA06180
<b>Occurrence Number:</b> 18	<b>Occurrence Last Updated:</b> 2008-11-03

<b>Scientific Name:</b> <i>Epilobium howellii</i>	<b>Common Name:</b> subalpine fireweed
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 4.3
<b>Federal:</b> None	<b>Other Lists:</b>
<b>State:</b> None	
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G4	
<b>State:</b> S4	

<b>General Habitat:</b> MEADOWS AND SEEPS, SUBALPINE CONIFEROUS FOREST.	<b>Micro Habitat:</b> WET MEADOWS, MOSSY SEEPS. 2000-3120 M.
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<b>Last Date Observed:</b> 2006-08-10	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2006-08-10	<b>Occurrence Rank:</b> Good
<b>Owner/Manager:</b> USFS-LAKE TAHOE BMU	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
APPROXIMATELY 0.4 AIR MI SSW OF FOUNTAIN PLACE, NW OF ARMSTRONG PASS.

**Detailed Location:**  
DRIVE TO THE END OF FOUNTAIN PLACE RD (ONEIDAS RD), FOLLOW TRAIL BY FS GATE ABOUT 1 MI TO STREAM CROSSING. POPULATION IS LOCATED ON SE SIDE OF SMALL CREEK. MAPPED ACCORDING TO 2006 GPS COORDINATES FROM OSBRACK.

**Ecological:**  
SMALL STREAM CROSSING AN EXISTING TRAIL WITH SMALL SHADED OPENING. ASSOCIATED SPECIES FOUND INCLUDE ALNUS INCANA, TRIFOLIUM MONANTHUM V. MONANTHUM, VERATRUM CALIFORNICUM, MIMULUS GUTTATUS, SENECIO TRIANGULARIS, EPILOBIUM CILIATUS, ETC.

**Threats:**  
**General:**  
100 PLANTS SEEN IN 2006.

<b>PLSS:</b> T12N, R18E, Sec. 36, NW (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4303737 E245218	<b>Latitude/Longitude:</b> 38.84559 / -119.93568	<b>Elevation (feet):</b> 7,800

<b>County Summary:</b> El Dorado	<b>Quad Summary:</b> Freel Peak (3811978)
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**Sources:**  
OSB06F0001 OSBRACK, S. - FIELD SURVEY FORM FOR EPILOBIUM HOWELLII 2006-08-10



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	72781	<b>EO Index:</b>	73621
<b>Key Quad:</b>	Freel Peak (3811978)	<b>Element Code:</b>	PDONA06180
<b>Occurrence Number:</b>	19	<b>Occurrence Last Updated:</b>	2008-11-03

<b>Scientific Name:</b>	<i>Epilobium howellii</i>	<b>Common Name:</b>	subalpine fireweed
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> None	<b>Rare Plant Rank:</b>	4.3
<b>CNDDDB Element Ranks:</b>	<b>Global:</b> G4 <b>State:</b> S4	<b>Other Lists:</b>	

<b>General Habitat:</b>	<b>Micro Habitat:</b>
MEADOWS AND SEEPS, SUBALPINE CONIFEROUS FOREST.	WET MEADOWS, MOSSY SEEPS. 2000-3120 M.

<b>Last Date Observed:</b>	2007-07-12	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2007-07-12	<b>Occurrence Rank:</b>	Good
<b>Owner/Manager:</b>	USFS-LAKE TAHOE BMU	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**  
ALONG BIG MEADOW CREEK, APPROXIMATELY 0.5 MI SE OF BIG MEADOW.

**Detailed Location:**  
MAPPED ACCORDING TO 2007 GPS COORDINATES FROM OSBRACK.

**Ecological:**  
IN A SMALL FOREST OPENING BETWEEN A TRAIL & STREAM. THERE IS MESIC VEGETATION WITH A HIGH % COVER. E. HOWELLII FOUND NEXT TO A PATCH OF VERATRUM CALIFORNICUM. OVERSTORY OF ABIES MAGNIFICA & PINUS CONTORTA SURROUNDING THE OPEN AREA.

**Threats:**  
FOREST SERVICE PROPOSED BIG MEADOW CREEK WATERSHED FIRE REGIME RESTORATION PROJECT.

**General:**  
25 PLANTS SEEN IN 2007.

<b>PLSS:</b>	T11N, R18E, Sec. 28, NE (M)	<b>Accuracy:</b>	80 meters	<b>Area (acres):</b>	0
<b>UTM:</b>	Zone-11 N4296025 E240121	<b>Latitude/Longitude:</b>	38.77469 / -119.99142	<b>Elevation (feet):</b>	7,720

<b>County Summary:</b>	<b>Quad Summary:</b>
El Dorado	Freel Peak (3811978)

**Sources:**  
OSB07F0001 OSBRACK, S. - FIELD SURVEY FORM FOR EPILOBIUM HOWELLII 2007-07-12



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b>	72782	<b>EO Index:</b>	73622
<b>Key Quad:</b>	Freel Peak (3811978)	<b>Element Code:</b>	PDONA06180
<b>Occurrence Number:</b>	20	<b>Occurrence Last Updated:</b>	2008-11-03

<b>Scientific Name:</b>	<i>Epilobium howellii</i>	<b>Common Name:</b>	subalpine fireweed
<b>Listing Status:</b>	<b>Federal:</b> None <b>State:</b> None	<b>Rare Plant Rank:</b>	4.3
<b>CNDDDB Element Ranks:</b>	<b>Global:</b> G4 <b>State:</b> S4	<b>Other Lists:</b>	

<b>General Habitat:</b>	<b>Micro Habitat:</b>
MEADOWS AND SEEPS, SUBALPINE CONIFEROUS FOREST.	WET MEADOWS, MOSSY SEEPS. 2000-3120 M.

<b>Last Date Observed:</b>	2007-08-02	<b>Occurrence Type:</b>	Natural/Native occurrence
<b>Last Survey Date:</b>	2007-08-02	<b>Occurrence Rank:</b>	Excellent
<b>Owner/Manager:</b>	USFS-LAKE TAHOE BMU	<b>Trend:</b>	Unknown
<b>Presence:</b>	Presumed Extant		

**Location:**  
 ALONG BIG MEADOW CREEK JUST N OF THE ELD/ALP COUNTY LINE, APPROXIMATELY 0.9 AIR MI NE OF ROUND LAKE.

**Detailed Location:**  
 MAPPED ACCORDING TO 2007 GPS COORDINATES FROM OSBRACK.

**Ecological:**  
 ON THE SIDE OF A PERENNIAL STREAM IN A SMALL OPENING W/ PARTIAL SHADE. THERE IS AN OVERSTORY OF ABIES MAGNIFICA ALONG THE EDGE OF THE STREAM CORRIDOR. ASSOC SPP INCL MIMULUS GUTTATUS, SENECIO TRIANGULARIS, VERATRUM CALIFORNICUM, ETC.

**Threats:**  
 FOREST SERVICE PROPOSED BIG MEADOW CREEK WATERSHED FIRE REGIME RESTORATION PROJECT.

**General:**  
 25-30 PLANTS SEEN IN 2007.

<b>PLSS:</b> T10N, R18E, Sec. 03, NW (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4294360 E239792	<b>Latitude/Longitude:</b> 38.75960 / -119.99458	<b>Elevation (feet):</b> 8,223

<b>County Summary:</b>	<b>Quad Summary:</b>
El Dorado	Freel Peak (3811978)

**Sources:**  
 OSB07F0002 OSBRACK, S. - FIELD SURVEY FORM FOR EPILOBIUM HOWELLII 2007-08-02



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 72001	<b>EO Index:</b> 72908
<b>Key Quad:</b> Freel Peak (3811978)	<b>Element Code:</b> PDPGN083S4
<b>Occurrence Number:</b> 3	<b>Occurrence Last Updated:</b> 2018-02-14

<b>Scientific Name:</b> <i>Eriogonum luteolum var. saltuarium</i>	<b>Common Name:</b> Jack's wild buckwheat
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 1B.2
<b>Federal:</b> None	<b>Other Lists:</b> USFS_S-Sensitive
<b>State:</b> None	
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5T1	
<b>State:</b> S1	

<b>General Habitat:</b> UPPER MONTANE CONIFEROUS FOREST, GREAT BASIN SCRUB.	<b>Micro Habitat:</b> SANDY, GRANITIC SUBSTRATES. 1885-2225 M.
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<b>Last Date Observed:</b> 1975-08-23	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1975-08-23	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> UNKNOWN	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
ALONG HWY 89, 1.5 MILES SE OF LUTHER PASS.

**Detailed Location:**  
EXACT LOCATION UNKNOWN. MAPPED BY CNDDB ALONG HWY 89 TO ENCOMPASS THE ABOVE LOCATION. MAPPED NEAR DANGBERG CAMP. GIVEN ELEVATION IS 7600 FEET BUT 1.5 MILES SE OF LUTHER PASS IS CLOSER TO 7300 FEET.

**Ecological:**  
IN SANDY SOIL WITH SALIX, EPILOBIUM, PINUS, AND ABIES.

**Threats:**  
**General:**  
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1975 REVEAL COLLECTION. NEEDS FIELDWORK.

<b>PLSS:</b> T11N, R18E, Sec. 24 (M)	<b>Accuracy:</b> non-specific area	<b>Area (acres):</b> 36
<b>UTM:</b> Zone-11 N4297752 E246316	<b>Latitude/Longitude:</b> 38.79203 / -119.92084	<b>Elevation (feet):</b> 7,300

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Freel Peak (3811978)
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**Sources:**  
REV75S0004 REVEAL, J. - REVEAL #3968 RSA #279593, NESH #53458, SEINET #5331510 1975-08-23



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



**Map Index Number:** 90846  
**Key Quad:** Woodfords (3811977)  
**Occurrence Number:** 1

**EO Index:** 91883  
**Element Code:** PDPHR01020  
**Occurrence Last Updated:** 2013-11-05

**Scientific Name:** *Erythranthe carsonensis*  
**Listing Status:** **Federal:** None  
**State:** None  
**CNDDB Element Ranks:** **Global:** G2  
**State:** S1

**Common Name:** Carson Valley monkeyflower  
**Rare Plant Rank:** 1B.1  
**Other Lists:** SB\_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden

**General Habitat:**  
 GREAT BASIN SCRUB.

**Micro Habitat:**  
 GRANITIC OPENINGS. 1480 M.

**Last Date Observed:** 2011-05-23  
**Last Survey Date:** 2011-05-23  
**Owner/Manager:** BLM  
**Presence:** Presumed Extant

**Occurrence Type:** Natural/Native occurrence  
**Occurrence Rank:** Unknown  
**Trend:** Unknown

**Location:**  
 NORTH OF FREDERICKSBURG ALONG THE CALIFORNIA / NEVADA STATE LINE, CARSON VALLEY.

**Detailed Location:**

PLANTS REPORTED TO OCCUR IN A NORTH-SOUTH PATTERN ALONG STATE BORDER. MAPPED TO ENCOMPASS TWO SETS OF COORDINATES, ONE FROM A 2011 FRAGA COLLECTION AND THE OTHER FROM A SERIES OF 2011 MATSON PHOTOS, IN THE NE 1/4 SE 1/4 SECTION 36.

**Ecological:**

NE-FACING ON 6% SLOPE. SAGEBRUSH SCRUB DOMINATED BY ARTEMISIA TRIDENTATA, WITH PURSHIA TRIDENTATA, RIBES, AND CALYPTRIDIMUM.

**Threats:**

DEVELOPMENT IS A POTENTIAL THREAT.

**General:**

ONLY SOURCES OF INFORMATION FOR THIS OCCURRENCE ARE 2011 MATSON PHOTOS AND A 2011 FRAGA COLLECTION.

<b>PLSS:</b> T12N, R19E, Sec. 36, SE (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 9
<b>UTM:</b> Zone-11 N4304652 E257526	<b>Latitude/Longitude:</b> 38.85730 / -119.79434	<b>Elevation (feet):</b> 4,860

**County Summary:**

Alpine, Nevada State

**Quad Summary:**

Woodfords (3811977)

**Sources:**

- FRA11S0004 FRAGA, N. - FRAGA #3803 RSA (CITED IN FRA13U0003) 2011-05-23
- FRA13U0003 FRAGA, N. - EMAIL REGARDING SPECIMENS OF ERYTHRANTHE CARSONENSIS 2013-05-12
- MAT11I0008 MATSON, S. - PHOTOS OF ERYTHRANTHE CARSONENSIS, CALPHOTOS ID #0000 0000 0813 3177-3182 2011-05-23



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 36564	<b>EO Index:</b> 31561
<b>Key Quad:</b> Ebbetts Pass (3811957)	<b>Element Code:</b> PDPOR030A0
<b>Occurrence Number:</b> 7	<b>Occurrence Last Updated:</b> 2019-06-07

<b>Scientific Name:</b> <i>Claytonia megarhiza</i>	<b>Common Name:</b> fell-fields claytonia
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 2B.3
<b>Federal:</b> None	<b>Other Lists:</b>
<b>State:</b> None	
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5	
<b>State:</b> S2	

<b>General Habitat:</b> ALPINE BOULDER AND ROCK FIELD, SUBALPINE CONIFEROUS FOREST.	<b>Micro Habitat:</b> IN THE CREVICES BETWEEN ROCKS, ROCKY OR GRAVELLY SOIL. 2560-3505 M.
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<b>Last Date Observed:</b> 1971-08-29	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2015-07-24	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-HUMBOLDT-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
CREEK NEAR NOBLE LAKE, BETWEEN HIGHLAND PEAK & TRYON PEAK.

**Detailed Location:**

**Ecological:**  
AT 8900 FEET ELEVATION IN SUBALPINE FOREST.

**Threats:**

**General:**  
SITE BASED ON A 1971 COLLECTION BY TAYLOR. IN 2015, NO PLANTS WERE FOUND ON EASTERN SLOPES OF TRYON PEAK ABOVE NOBLE LAKE; SEARCH FOCUSED ON LOWER SLOPES WSW OF NOBLE LAKE.

<b>PLSS:</b> T08N, R20E, Sec. 21 (M)	<b>Accuracy:</b> 2/5 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4268054 E257904	<b>Latitude/Longitude:</b> 38.52798 / -119.77722	<b>Elevation (feet):</b> 8,900

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Ebbetts Pass (3811957)
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**Sources:**

SLA16U0001	SLAKEY, D. (CALIFORNIA NATIVE PLANT SOCIETY) - EXCEL TABLE OF 2015 CNPS RARE PLANT TREASURE HUNT DATA 2016-01-14
TAY71S0002	TAYLOR, D. - TAYLOR #1203 DAV #82640 1971-08-29



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 51740	<b>EO Index:</b> 51740
<b>Key Quad:</b> Heenan Lake (3811966)	<b>Element Code:</b> PDPOR030P0
<b>Occurrence Number:</b> 3	<b>Occurrence Last Updated:</b> 2015-05-13

<b>Scientific Name:</b> <i>Claytonia umbellata</i>	<b>Common Name:</b> Great Basin claytonia
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 2B.3
<b>Federal:</b> None	<b>Other Lists:</b>
<b>State:</b> None	
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G4	
<b>State:</b> S1	

<b>General Habitat:</b> SUBALPINE CONIFEROUS FOREST.	<b>Micro Habitat:</b> TALUS SLOPES, STONY FLATS, CREVICES. 1290-3475 M.
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<b>Last Date Observed:</b> 2015-04-27	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2015-04-27	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
ROAD TO HAYPRESS FLAT FROM HIGHWAY 89, 0.5 MILE ABOVE FOREST CITY FLAT.

**Detailed Location:**  
MAPPED ALONG MORNING STAR ROAD WITHIN THE SE 1/4 OF SECTION 30.

**Ecological:**  
PINYON PINE WOODLAND ON VOLCANIC SCREE SOILS. SOUTHWEST FACING SLOPE.

**Threats:**  
**General:**  
UNKNOWN NUMBER OF PLANTS OBSERVED IN 1974 BY TAYLOR; PLANTS RARE LOCALLY. "MANY" PLANTS OBSERVED BY STOUGHTON IN 2015.

<b>PLSS:</b> T10N, R21E, Sec. 30, SE (M)	<b>Accuracy:</b> non-specific area	<b>Area (acres):</b> 50
<b>UTM:</b> Zone-11 N4284786 E264170	<b>Latitude/Longitude:</b> 38.68027 / -119.71107	<b>Elevation (feet):</b> 7,150

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Heenan Lake (3811966)
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**Sources:**  
STO15U0001    STOUGHTON, T. - EMAIL REGARDING CLAYTONIA UMBELLATA POPULATIONS 2015-05-04  
TAY74S0004    TAYLOR, D. - TAYLOR #3251 JEPS #101063 1974-04-23



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 81508	<b>EO Index:</b> 82484
<b>Key Quad:</b> Woodfords (3811977)	<b>Element Code:</b> PDVIO04420
<b>Occurrence Number:</b> 18	<b>Occurrence Last Updated:</b> 2011-01-31

<b>Scientific Name:</b> <i>Viola purpurea ssp. aurea</i>	<b>Common Name:</b> golden violet
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 2B.2
<b>Federal:</b> None	<b>Other Lists:</b>
<b>State:</b> None	
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G5T2	
<b>State:</b> S2	

<b>General Habitat:</b> GREAT BASIN SCRUB, PINYON-JUNIPER WOODLAND.	<b>Micro Habitat:</b> DRY, SANDY SLOPES. 1000-2500 M.
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<b>Last Date Observed:</b> 1974-04-28	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1974-04-28	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> UNKNOWN	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
DIAMOND VALLEY ROAD, 0.6 MILE S OF HIGHWAY 89, DIAMOND VALLEY.

**Detailed Location:**  
MAPPED ALONG DIAMOND VALLEY ROAD 0.5-0.7 MILES S OF HIGHWAY 89. IN THE SE 1/4 SE 1/4 SECTION 35.

**Ecological:**

**Threats:**

**General:**  
UNKNOWN NUMBER OF PLANTS SEEN. ONLY SOURCE OF INFORMATION IS A 1974 TAYLOR COLLECTION.

<b>PLSS:</b> T11N, R19E, Sec. 35, SE (M)	<b>Accuracy:</b> non-specific area	<b>Area (acres):</b> 18
<b>UTM:</b> Zone-11 N4294812 E256008	<b>Latitude/Longitude:</b> 38.76831 / -119.80833	<b>Elevation (feet):</b> 5,000

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Woodfords (3811977)
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**Sources:**  
TAY74S0013 TAYLOR, D. - TAYLOR #3277 JEPS (CITED FROM CALFLORA ID #XR168411) 1974-04-28





# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 81509	<b>EO Index:</b> 82486
<b>Key Quad:</b> Woodfords (3811977)	<b>Element Code:</b> PDVIO04420
<b>Occurrence Number:</b> 19	<b>Occurrence Last Updated:</b> 2011-01-31

<b>Scientific Name:</b> <i>Viola purpurea ssp. aurea</i>	<b>Common Name:</b> golden violet
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 2B.2
<b>Federal:</b> None	<b>Other Lists:</b>
<b>State:</b> None	
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5T2	
<b>State:</b> S2	

<b>General Habitat:</b> GREAT BASIN SCRUB, PINYON-JUNIPER WOODLAND.	<b>Micro Habitat:</b> DRY, SANDY SLOPES. 1000-2500 M.
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<b>Last Date Observed:</b> 1974-05-05	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1974-05-05	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> BLM	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
ALONG AIRPORT ROAD, 0.5 MILE SE OF DIAMOND VALLEY ROAD IN SCOSSA CANYON, DUTCH VALLEY.

**Detailed Location:**  
MAPPED ALONG AIPORT ROAD (INDIAN CREEK RESERVOIR ROAD) FROM 0.4-0.6 MILES SE OF DIAMOND VALLEY ROAD. IN THE SW 1/4 SW 1/4 SECTION 32.

**Ecological:**

**Threats:**

**General:**

UNKNOWN NUMBER OF PLANTS SEEN. ONLY SOURCE OF INFORMATION IS A 1974 TAYLOR OBSERVATION.

<b>PLSS:</b> T11N, R20E, Sec. 32, SW (M)	<b>Accuracy:</b> non-specific area	<b>Area (acres):</b> 20
<b>UTM:</b> Zone-11 N4294464 E259485	<b>Latitude/Longitude:</b> 38.76613 / -119.76824	<b>Elevation (feet):</b> 5,400

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Woodfords (3811977)
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**Sources:**

TAY74U0001 TAYLOR, D. - OBSERVATION RECORD FOR VIOLA PURPUREA SSP. AUREA, CALFLORA ID #GR240 1974-05-05



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> B0373	<b>EO Index:</b> 112233
<b>Key Quad:</b> Carson Pass (3811968)	<b>Element Code:</b> PDVIO04420
<b>Occurrence Number:</b> 39	<b>Occurrence Last Updated:</b> 2018-08-15

<b>Scientific Name:</b> <i>Viola purpurea ssp. aurea</i>	<b>Common Name:</b> golden violet
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 2B.2
<b>Federal:</b> None	<b>Other Lists:</b>
<b>State:</b> None	
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5T2	
<b>State:</b> S2	

<b>General Habitat:</b> GREAT BASIN SCRUB, PINYON-JUNIPER WOODLAND.	<b>Micro Habitat:</b> DRY, SANDY SLOPES. 1000-2500 M.
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<b>Last Date Observed:</b> 1974-06-30	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1974-06-30	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-ELDORADO NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
EASTERN BORDER OF BORDER RUFFIAN FLAT AT THE WESTERN BASE OF JEFF DAVIS PEAK, CARSON PASS.

**Detailed Location:**  
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDDB ALONG BLUE LAKES RD ON THE EASTERN BORDER OF BORDER RUFFIAN FLAT, NEAR GIVEN ELEVATION OF 8100 FT.

**Ecological:**

**Threats:**

**General:**

ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1974 TAYLOR COLLECTION. NEEDS FIELDWORK.

<b>PLSS:</b> T09N, R19E, Sec. 17 (M)	<b>Accuracy:</b> non-specific area	<b>Area (acres):</b> 47
<b>UTM:</b> Zone-11 N4279882 E246514	<b>Latitude/Longitude:</b> 38.63126 / -119.91204	<b>Elevation (feet):</b> 8,100

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Carson Pass (3811968)
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**Sources:**  
TAY74S0025 TAYLOR, D. - TAYLOR #4026 DAV #110623 & #66674 1974-06-30



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b> 82334	<b>EO Index:</b> 83348
<b>Key Quad:</b> Ebbetts Pass (3811957)	<b>Element Code:</b> PMCYP033H0
<b>Occurrence Number:</b> 3	<b>Occurrence Last Updated:</b> 2018-06-27

<b>Scientific Name:</b> <i>Carex davyi</i>	<b>Common Name:</b> Davy's sedge
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 1B.3
<b>Federal:</b> None	<b>Other Lists:</b>
<b>State:</b> None	
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G3	
<b>State:</b> S3	

<b>General Habitat:</b>	<b>Micro Habitat:</b>
SUBALPINE CONIFEROUS FOREST, UPPER MONTANE CONIFEROUS FOREST.	1605-3230 M.

<b>Last Date Observed:</b> 1864-XX-XX	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1864-XX-XX	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> UNKNOWN	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
EBBETTS PASS.

**Detailed Location:**  
HILL ABOVE PASS. EXACT LOCATION UNKNOWN. MAPPED BY CNDDDB AS BEST GUESS CENTERED ON EBBETTS PASS AND HILLS ADJACENT TO PASS.

**Ecological:**  
**Threats:**

**General:**  
SITE IS BASED ON AN 1863 HILLEBRAND COLLECTION AND AN 1864 BREWER COLLECTION. NEEDS FIELDWORK. INCLUDES FORMER OCCURRENCE #7; HILLEBRAND COLLECTION WAS ORIGINALLY INCORRECTLY ATTRIBUTED TO BIG TREES.

<b>PLSS:</b> T08N, R20E, Sec. 18 (M)	<b>Accuracy:</b> 1 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4269918 E254908	<b>Latitude/Longitude:</b> 38.54393 / -119.81220	<b>Elevation (feet):</b>

<b>County Summary:</b>	<b>Quad Summary:</b>
Alpine	Ebbetts Pass (3811957)

**Sources:**

BRE64S0003	BREWER, W. - BREWER #2728 UC #8066, GH #268313 1864-XX-XX
HIL63S0001	HILLEBRAND, W. - HILLEBRAND #2322 UC #1056, GH #376998 1863-07-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 82335	<b>EO Index:</b> 83349
<b>Key Quad:</b> Pacific Valley (3811958)	<b>Element Code:</b> PMCYP033H0
<b>Occurrence Number:</b> 4	<b>Occurrence Last Updated:</b> 2018-06-27

<b>Scientific Name:</b> <i>Carex davyi</i>	<b>Common Name:</b> Davy's sedge
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 1B.3
<b>Federal:</b> None	<b>Other Lists:</b>
<b>State:</b> None	
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G3	
<b>State:</b> S3	

<b>General Habitat:</b> SUBALPINE CONIFEROUS FOREST, UPPER MONTANE CONIFEROUS FOREST.	<b>Micro Habitat:</b> 1605-3230 M.
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<b>Last Date Observed:</b> 2015-07-23	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2015-07-23	<b>Occurrence Rank:</b> Fair
<b>Owner/Manager:</b> USFS-STANISLAUS NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
SLOPE ABOVE (SOUTH OF) HERMIT VALLEY, APPROXIMATELY 4.6 AIR MILES WEST OF EBBETTS PASS.

**Detailed Location:**  
MAPPED ACCORDING TO 2015 SLAKEY COORDINATES, IN THE SW 1/4 OF THE NW 1/4 OF SECTION 21.

**Ecological:**  
UPPER MONTANE CONIFEROUS FOREST. 45 DEGREE N-FACING SLOPE. GRANITE ROCK OUTCROPS WITH SOME SEEPAGE. ASSOC W/ ABIES MAGNIFICA, PINUS CONTORTA, QUERCUS VACCINIFOLIA, JUNCUS PARRYI, ERIGERON GLACIALIS, LEPTODACTYLON, POA, ANTENNARIA, ETC.

**Threats:**  
NONE OBSERVED.

**General:**  
11 PLANTS OBSERVED IN 2015. A 1935 PEIRSON COLLECTION FROM "HERMIT VALLEY. MOUNTAIN SLOPE SOUTH OF THE MOKELUMNE RIVER. 8000 FT ELEVATION" IS ALSO ATTRIBUTED TO THIS SITE.

<b>PLSS:</b> T08N, R19E, Sec. 21, NW (M)	<b>Accuracy:</b> 80 meters	<b>Area (acres):</b> 5
<b>UTM:</b> Zone-11 N4269048 E247454	<b>Latitude/Longitude:</b> 38.53402 / -119.89732	<b>Elevation (feet):</b> 7,318

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Pacific Valley (3811958)
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**Sources:**

BUR15S0008	BURGE, D. ET AL. - BURGE #1760 DAV #163033 & #214877 2015-07-23
PEI35S0003	PEIRSON, F. - PEIRSON #11714 CAS #227388, RSA #88809, SD #87525, CAS-BOT-BC #34428 1935-07-26
SLA15S0007	SLAKEY, D. & D. BURGE - SLAKEY #166 JEPS #124493, DAV #163422 & #215070 2015-07-23
SLA16U0001	SLAKEY, D. (CALIFORNIA NATIVE PLANT SOCIETY) - EXCEL TABLE OF 2015 CNPS RARE PLANT TREASURE HUNT DATA 2016-01-14



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 82338	<b>EO Index:</b> 83352
<b>Key Quad:</b> Carson Pass (3811968)	<b>Element Code:</b> PMCYP033H0
<b>Occurrence Number:</b> 5	<b>Occurrence Last Updated:</b> 2019-11-01

<b>Scientific Name:</b> <i>Carex davyi</i>	<b>Common Name:</b> Davy's sedge
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 1B.3
<b>Federal:</b> None	<b>Other Lists:</b>
<b>State:</b> None	
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G3	
<b>State:</b> S3	

<b>General Habitat:</b> SUBALPINE CONIFEROUS FOREST, UPPER MONTANE CONIFEROUS FOREST.	<b>Micro Habitat:</b> 1605-3230 M.
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<b>Last Date Observed:</b> 2016-09-01	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2016-09-01	<b>Occurrence Rank:</b> Good
<b>Owner/Manager:</b> USFS-ELDORADO NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
NORTH SIDE OF WINNEMUCCA LAKE AND ON SADDLE JUST EAST OF THE LAKE, MOKELUMNE WILDERNESS, CARSON PASS AREA.

**Detailed Location:**  
2 POLYGONS MAPPED BY CNDDDB. NW POLYGON MAPPED ACCORDING TO 2006 NACZI COORDINATES AND 2016 USFS DIGITAL DATA. SE POLYGON MAPPED ACCORDING TO 2015 PERRY COORDINATES.

**Ecological:**  
AMONG ROCKS IN RELATIVELY LEVEL AREA ABOVE THE LAKE. DRY, GRAVELLY SOIL. ASSOCIATED WITH CASTILLEJA SP., ERIGERON SP., MONARDA SP., ARTEMISIA TRIDENTATA, SYMPHORICARPOS VACCINIIOIDES, RIBES CEREUM, AND R. MONTIGEUM.

**Threats:**  
NONE EVIDENT.

**General:**  
NW POLYGON: CONSIDERED "INFREQUENT, VERY LOCAL" IN 2006 BY NACZI, FEWER THAN 50 PLANTS SEEN IN 2015, 100+ PLANTS SEEN IN 2016; THERE ARE MOST LIKELY A LOT MORE PATCHES IN THE AREA. SE POLYGON: SEEN IN 1999 AND 2015. INCLUDES FORMER EO#6.

<b>PLSS:</b> T10N, R18E, Sec. 34, N (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 8
<b>UTM:</b> Zone-11 N4284668 E239705	<b>Latitude/Longitude:</b> 38.67236 / -119.99195	<b>Elevation (feet):</b> 9,100

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Carson Pass (3811968)
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- Sources:**
- CAR08R0001 CAREX WORKING GROUP, LLC - FINAL REPORT OF THE CAREX CONSTANCEANA SURVEY FOR THE FREMONT-WINEMA NATIONAL FORESTS 2008-03-XX
  - HIP99S0002 HIPP, A. - HIPP #901 MICH #1367814 & #1367815, MOR #63399 & #63400, SEINET #7556312, #7556313, #4291990, & #4291991 1999-07-17
  - LO-16I0001 LO, B. - PHOTO OF CAREX DAVYI, CALPHOTOS ID: 0000 0000 0117 0187 2016-09-01
  - NAC06S0002 NACZI, R. - NACZI #11531 CHSC #99403, SEINET #7556314, MICH #1367816 2006-08-06
  - PEI37S0006 PEIRSON, F. - PEIRSON #12203 RSA #88810, CAS #247041-499019757, SD #87759, CAS-BOT-BC #34429 1937-07-24
  - PER15I0004 PERRY, S. & S. PERRY - PHOTOS OF CAREX DAVYI, CALPHOTOS ID: 0000 0000 0815 2969-2972 2015-07-31
  - PER15I0005 PERRY, S. & S. PERRY - PHOTO OF CAREX DAVYI, CALPHOTOS ID: 0000 0000 0815 2973 2015-07-31
  - ROS44S0003 ROSE, L. - ROSE #44195 CAS #322216, CAS-BOT-BC #34427 1944-07-21
  - ROS44S0004 ROSE, L. - ROSE #44196 MICH (CITED IN CAR08R0001) 1944-07-21
  - USF17D0001 U.S. FOREST SERVICE-ELDORADO NATIONAL FOREST - ELDORADO NATIONAL FOREST PLANT WATCHLIST LAYER, 2016 UPDATES 2017-01-31
  - WAL15F0002 WALKER, A. ET AL. - FIELD SURVEY FORM FOR CAREX DAVYI 2015-07-31



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b> A7238	<b>EO Index:</b> 109004
<b>Key Quad:</b> Echo Lake (3812071)	<b>Element Code:</b> PMCYP036D0
<b>Occurrence Number:</b> 3	<b>Occurrence Last Updated:</b> 2017-11-22

<b>Scientific Name:</b> <i>Carex hystericina</i>	<b>Common Name:</b> porcupine sedge
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 2B.1
<b>Federal:</b> None	<b>Other Lists:</b>
<b>State:</b> None	
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5	
<b>State:</b> S2	

<b>General Habitat:</b> MARSHES AND SWAMPS.	<b>Micro Habitat:</b> WET PLACES, SUCH AS STREAM EDGES. 225-2400 M.
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<b>Last Date Observed:</b> 1984-08-30	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1984-08-30	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-LAKE TAHOE BMU	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
NEAR ROUND LAKE, ELDORADO NATIONAL FOREST.  
**Detailed Location:**  
MAPPED BY CNDDDB AS BEST GUESS AROUND ROUND LAKE.

**Ecological:**  
TSUGA MERTENSIANA AND ABIES CONCOLOR FOREST.

**Threats:**  
**General:**

ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1984 NORRIS COLLECTION. COLLECTION IDENTIFIED AS CAREX HYSTERICINA BY GORDON LEPPIG IN 1996. THIS SITE IS FAR OUTSIDE OF THE RANGE GIVEN IN THE JEPSON MANUAL FOR THIS SPECIES.

<b>PLSS:</b> T10N, R18E, Sec. 4 (M)	<b>Accuracy:</b> 2/5 mile	<b>Area (acres):</b> 280
<b>UTM:</b> Zone-10 N4293299 E760188	<b>Latitude/Longitude:</b> 38.75007 / -120.00604	<b>Elevation (feet):</b> 7,872

<b>County Summary:</b> Alpine, El Dorado	<b>Quad Summary:</b> Carson Pass (3811968), Freel Peak (3811978), Caples Lake (3812061), Echo Lake (3812071)
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**Sources:**  
NOR84S0011 NORRIS, D. - NORRIS #71178 HSC #92382 1984-08-30



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 14440	<b>EO Index:</b> 28981	
<b>Key Quad:</b> Freel Peak (3811978)	<b>Element Code:</b> PMCYP037K0	
<b>Occurrence Number:</b> 3	<b>Occurrence Last Updated:</b> 2016-03-02	

<b>Scientific Name:</b> <i>Carex limosa</i>	<b>Common Name:</b> mud sedge
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 2B.2
<b>Federal:</b> None	<b>Other Lists:</b>
<b>State:</b> None	
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5	
<b>State:</b> S3	

<b>General Habitat:</b> BOGS AND FENS, LOWER MONTANE CONIFEROUS FOREST, MEADOWS AND SEEPS, MARSHES AND SWAMPS, UPPER MONTANE CONIFEROUS FOREST.	<b>Micro Habitat:</b> IN FLOATING BOGS AND SOGGY MEADOWS AND EDGES OF LAKES. 1370-2790 M.
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<b>Last Date Observed:</b> 2014-08-03	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2014-08-03	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-LAKE TAHOE BMU	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
GRASS LAKE NEAR LUTHER PASS ALONG HIGHWAY 89.

**Detailed Location:**  
MAPPED BY CNDDDB AROUND GRASS LAKE. UNSURE IF CAREX LIMOSA OCCURS THROUGHOUT LAKE; FULL CENSUS NEEDED. SPECIFIC COORDINATES PROVIDED FOR WEST END OF LAKE AND EAST END OF LAKE. 1984 NORRIS COLLECTION IS FROM SECTION 14 (MIDDLE OF LAKE).

**Ecological:**  
MARSHY BORDER OF LAKE; FLOATING BOG MAT NEAR OPEN WATER WITH MENYANTHES TRIFOLIATA, MEESIA TRIQUETRA, VACCINIUM ULIGINOSUM, POTENTILLA PALUSTRIS, MIMULUS PRIMULOIDES, ERIOPHORUM GRACILE, CAREX UTRICULATA, C. CANESCENS, C. SIMULATA, ET AL.

**Threats:**  
**General:**  
FAIRLY ABUNDANT IN 1991. MANY COLLECTIONS, OBSERVATIONS AND PHOTOGRAPHS FROM 1936-2014 FROM "GRASS LAKE" ATTRIBUTED TO THIS SITE.

<b>PLSS:</b> T11N, R18E, Sec. 23, N (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 292
<b>UTM:</b> Zone-11 N4297755 E242759	<b>Latitude/Longitude:</b> 38.79104 / -119.96175	<b>Elevation (feet):</b> 7,700

<b>County Summary:</b> El Dorado	<b>Quad Summary:</b> Freel Peak (3811978)
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**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



**Sources:**

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CNP11U0001	CALIFORNIA NATIVE PLANT SOCIETY - DATABASE OF RARE PLANTS AND MOSSES FROM LAKE TAHOE FENS 2011-05-13
DOB77S0004	DOBSON, H. - DOBSON #282 UC #1999785 1977-10-22
FER47S0003	FERRIS, R. - FERRIS #11621 UC #980032, RSA #40622, CAS #1179905, DS #321985, #322103, & #322404 1947-07-27
HEL77S0001	HELMKAMP, G. - HELMKAMP SN UCR #15426 1977-09-05
HEL77S0009	HELMKAMP, G. - HELMKAMP SN CLARK-A #1045-1173 1977-09-03
LO-14I0001	LO, B. - PHOTO OF CAREX LIMOSA, CALPHOTOS ID: 0000 0000 0814 0739 2014-08-03
MAT09I0004	MATSON, S. - PHOTOS OF CAREX LIMOSA, CALPHOTOS ID: 0000 0000 1209 0648-0651 2009-07-28
NEI71S0001	NEILSON, J. - NEILSON #2303 CAS #844236 1971-08-07
NIC09F0003	NICHOLS, R. (U.S. FOREST SERVICE-LAKE TAHOE BASIN MANAGEMENT UNIT) - FIELD SURVEY FORM FOR BRUCHIA BOLANDERI & MEESIA TRIQUETRA & CAREX LIMOSA 2009-06-29
NOR84S0010	NORRIS, D. - NORRIS #71331 HSC #92371 1984-09-01
PYK87S0005	PYKALA, J. ET AL. - PYKALA #2894 UC #1586889 1987-07-23
ROS91S0004	ROSE, C. - ROSE SN SJSU #14731 1991-07-20
STE36S0002	STEBBINS, G. - STEBBINS #2052 UC #593464 1936-08-18
THO69S0023	THORNE, R. - THORNE #39296 RSA #252433, CAS #577666 1969-09-07
THO74S0035	THORNE, R. - THORNE #44904 RSA #286314 1974-07-31
THO75S0005	THORNE, R. ET AL. - THORNE #47230 UC #1532818, RSA #364206, UCR #48233, SEINET #3903437, BRY #57689 1975-08-23





# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 73271	<b>EO Index:</b> 74225
<b>Key Quad:</b> Freel Peak (3811978)	<b>Element Code:</b> PMCYP037K0
<b>Occurrence Number:</b> 32	<b>Occurrence Last Updated:</b> 2016-03-01

<b>Scientific Name:</b> <i>Carex limosa</i>	<b>Common Name:</b> mud sedge
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 2B.2
<b>Federal:</b> None	<b>Other Lists:</b>
<b>State:</b> None	
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5	
<b>State:</b> S3	

<b>General Habitat:</b> BOGS AND FENS, LOWER MONTANE CONIFEROUS FOREST, MEADOWS AND SEEPS, MARSHES AND SWAMPS, UPPER MONTANE CONIFEROUS FOREST.	<b>Micro Habitat:</b> IN FLOATING BOGS AND SOGGY MEADOWS AND EDGES OF LAKES. 1370-2790 M.
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<b>Last Date Observed:</b> 2011-08-31	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2011-08-31	<b>Occurrence Rank:</b> Good
<b>Owner/Manager:</b> USFS-LAKE TAHOE BMU	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
HELL HOLE, 1.85 MILES WEST OF ARMSTRONG PASS.

**Detailed Location:**  
OCCURRING IN PONDS/INUNDATED DEPRESSIONS. MAJORITY OF POPULATION OCCURS CONTIGUOUSLY IN THE MIDDLE OF THE MEADOW COMPLEX. MAPPED AS 3 POLYGONS ACCORDING TO 2010 AND 2011 CHRISTIE COORDINATES, AND 2011 CNPS DIGITAL DATA.

**Ecological:**  
SATURATED MEADOW/FEN COMPLEX WITH SOME AREAS OF SALIX VEGETATION. SOIL VARYING FROM EXTREMELY WET TO SATURATED TO INUNDATED. ASSOCIATED WITH SALIX EASTWOODIAE, S. LEMMONII, VACCINIUM ULIGINOSUM, CAREX UTRICULATA, C. VESICARIA, ETC.

**Threats:**  
**General:**  
UNKNOWN NUMBER OF PLANTS OBSERVED IN 2008. THOUSANDS OF PLANTS OBSERVED IN 2010 AND 2011. 2002 MATSON PHOTO IS ALSO ATTRIBUTED TO THIS SITE.

<b>PLSS:</b> T11N, R18E, Sec. 1, SW (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 17
<b>UTM:</b> Zone-11 N4301443 E244237	<b>Latitude/Longitude:</b> 38.82466 / -119.94613	<b>Elevation (feet):</b> 8,400

<b>County Summary:</b> El Dorado	<b>Quad Summary:</b> Freel Peak (3811978)
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**Sources:**

CHR10F0004	CHRISTIE, K. (U.S. FOREST SERVICE) - FIELD SURVEY FORM FOR CAREX LIMOSA 2010-08-30
CHR10S0002	CHRISTIE, K. - CHRISTIE #2009 SEINET #2471069, ASC #99145 2010-08-30
CHR11F0038	CHRISTIE, K. - FIELD SURVEY FORM FOR CAREX LIMOSA 2011-08-31
CNP11U0001	CALIFORNIA NATIVE PLANT SOCIETY - DATABASE OF RARE PLANTS AND MOSSES FROM LAKE TAHOE FENS 2011-05-13
MAT02I0002	MATSON, S. - PHOTO OF CAREX LIMOSA, CALPHOTOS ID #0000 0000 1102 1450 2002-11-24



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 76558	<b>EO Index:</b> 77510
<b>Key Quad:</b> Heenan Lake (3811966)	<b>Element Code:</b> PMCYP03AE0
<b>Occurrence Number:</b> 13	<b>Occurrence Last Updated:</b> 2009-09-15

<b>Scientific Name:</b> <i>Carex petasata</i>	<b>Common Name:</b> Liddon's sedge
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 2B.3
<b>Federal:</b> None	<b>Other Lists:</b>
<b>State:</b> None	
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5	
<b>State:</b> S3	

<b>General Habitat:</b> BROADLEAFED UPLAND FOREST, LOWER MONTANE CONIFEROUS FOREST, MEADOWS AND SEEPS, PINYON AND JUNIPER WOODLAND.	<b>Micro Habitat:</b> 835-3030 M.
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<b>Last Date Observed:</b> 1963-07-10	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1963-07-10	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-HUMBOLDT-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
0.5 MILE WEST OF MONITOR PASS, SIERRA NEVADA.

**Detailed Location:**  
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS BY CNDDDB 0 TO 1 ROAD MILES WEST OF MONITOR PASS ON HIGHWAY 89.

**Ecological:**  
SAGEBRUSH FLAT.

**Threats:**  
**General:**

ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1963 COLLECTION BY HOWELL. NEEDS FIELDWORK.

<b>PLSS:</b> T10N, R21E, Sec. 36, NW (M)	<b>Accuracy:</b> non-specific area	<b>Area (acres):</b> 69
<b>UTM:</b> Zone-11 N4283568 E271487	<b>Latitude/Longitude:</b> 38.67123 / -119.62665	<b>Elevation (feet):</b> 8,000

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Topaz Lake (3811965), Heenan Lake (3811966)
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**Sources:**  
HOW63S0018    HOWELL, J. - HOWELL #39731 SD #130392, CAS #831470, CAS-BOT-BC #118308 1963-07-10



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 90181	<b>EO Index:</b> 91188
<b>Key Quad:</b> Heenan Lake (3811966)	<b>Element Code:</b> PMCYP03EA0
<b>Occurrence Number:</b> 13	<b>Occurrence Last Updated:</b> 2013-08-21

<b>Scientific Name:</b> <i>Carex vallicola</i>	<b>Common Name:</b> western valley sedge
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 2B.3
<b>Federal:</b> None	<b>Other Lists:</b>
<b>State:</b> None	
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5	
<b>State:</b> S2	

<b>General Habitat:</b> GREAT BASIN SCRUB, MEADOWS AND SEEPS.	<b>Micro Habitat:</b> MESIC SITES. 1865-3045 M.
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<b>Last Date Observed:</b> 1964-08-10	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1964-08-10	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-TOIYABE NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
ROCKY KNOLL APPROXIMATELY 0.5 MILE SW OF MONITOR PASS.

**Detailed Location:**  
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS AROUND THE ROCKY KNOLL NEAR THE CENTER OF THE EASTERN BOUNDARY OF SECTION 35.

**Ecological:**  
**Threats:**

**General:**  
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1964 HOWELL COLLECTION. NEEDS FIELDWORK.

<b>PLSS:</b> T10N, R21E, Sec. 35, E (M)	<b>Accuracy:</b> 1/5 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4283422 E270918	<b>Latitude/Longitude:</b> 38.66977 / -119.63312	<b>Elevation (feet):</b> 8,250

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Heenan Lake (3811966)
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**Sources:**  
HOW64S0012    HOWELL, J. - HOWELL #40943 CAS #844072, RSA #517807, SD #130397 1964-08-10



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 37218	<b>EO Index:</b> 32218
<b>Key Quad:</b> Freel Peak (3811978)	<b>Element Code:</b> PMCYP0Q1G0
<b>Occurrence Number:</b> 1	<b>Occurrence Last Updated:</b> 1997-10-16

<b>Scientific Name:</b> <i>Schoenoplectus subterminalis</i>	<b>Common Name:</b> water bulrush
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 2B.3
<b>Federal:</b> None	<b>Other Lists:</b>
<b>State:</b> None	
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G4G5	
<b>State:</b> S3	

<b>General Habitat:</b> MARSHES AND SWAMPS, BOGS AND FENS.	<b>Micro Habitat:</b> MONTANE LAKE MARGINS, IN SHALLOW WATER. 880-2425 M.
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<b>Last Date Observed:</b> 1990-10-29	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1990-10-29	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-ELDORADO NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
GRASS LAKE, WEST OF LUTHER PASS ALONG HIGHWAY 89.

**Detailed Location:**  
ALONG THE SOUTH SIDE OF LAKE ON FLOATING EDGE OF SPHAGNUM MAT IN OPEN WATER.

**Ecological:**  
MARGIN OF LARGE MEADOW AND BOG. GROWING WITH CAREX LIMOSA, DROSELA ROTUNDIFOLIA, MENYANTHES TRIFOLIATA, SAXIFRAGA OREGANA, AND ELODEA NUTTALLII.

**Threats:**  
**General:**  
1000+ PLANTS OBSERVED IN 1990. A 1972 TAYLOR COLLECTION FROM "GRASS LAKE, AT SUMMIT OF LUTHER PASS (HIGHWAY 89)" IS ALSO ATTRIBUTED TO THIS SITE.

<b>PLSS:</b> T11N, R18E, Sec. 14, SW (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 7
<b>UTM:</b> Zone-11 N4298043 E242528	<b>Latitude/Longitude:</b> 38.79356 / -119.96451	<b>Elevation (feet):</b> 7,700

<b>County Summary:</b> El Dorado	<b>Quad Summary:</b> Freel Peak (3811978)
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**Sources:**  
TAY72S0001 TAYLOR, D. - TAYLOR #1457 JEPS #101931, UC #1576783 1972-05-22  
TAY90F0008 TAYLOR, D. - FIELD SURVEY FORM FOR SCIRPUS SUBTERMINALIS 1990-10-29



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 36156	<b>EO Index:</b> 31153	
<b>Key Quad:</b> Ebbetts Pass (3811957)	<b>Element Code:</b> PMPOA040P0	
<b>Occurrence Number:</b> 4	<b>Occurrence Last Updated:</b> 1997-07-18	

<b>Scientific Name:</b> <i>Agrostis humilis</i>	<b>Common Name:</b> mountain bent grass
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 2B.3
<b>Federal:</b> None	<b>Other Lists:</b>
<b>State:</b> None	
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G4Q	
<b>State:</b> S2	

<b>General Habitat:</b> ALPINE BOULDER AND ROCK FIELD, MEADOWS AND SEEPS, SUBALPINE CONIFEROUS FOREST.	<b>Micro Habitat:</b> SOMETIMES ON CALCAREOUS SUBSTRATES. PROBABLY UNDERCOLLECTED; HIGH ELEVATION GRASS. 1525-3400 M.
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<b>Last Date Observed:</b> 1938-09-04	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1938-09-04	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-STANISLAUS NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
SUMMIT OF EBBETTS PASS, SIERRA NEVADA.

**Detailed Location:**

**Ecological:**  
MEADOW.

**Threats:**

**General:**  
ONLY SOURCE OF INFORMATION FOR THIS SITE IS 1938 COLLECTION BY LORRAINE.

<b>PLSS:</b> T08N, R20E, Sec. 18, E (M)	<b>Accuracy:</b> 2/5 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4269951 E254920	<b>Latitude/Longitude:</b> 38.54424 / -119.81208	<b>Elevation (feet):</b> 8,800

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Ebbetts Pass (3811957)
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**Sources:**  
LOR38S0001 LORRAINE - LORRAINE SN DS #285700 1938-09-04



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> A3200	<b>EO Index:</b> 104829
<b>Key Quad:</b> Carson Pass (3811968)	<b>Element Code:</b> PMPOA2H170
<b>Occurrence Number:</b> 10	<b>Occurrence Last Updated:</b> 2016-12-29

<b>Scientific Name:</b> <i>Elymus scribneri</i>	<b>Common Name:</b> Scribner's wheat grass
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 2B.3
<b>Federal:</b> None	<b>Other Lists:</b>
<b>State:</b> None	
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5	
<b>State:</b> S3	

<b>General Habitat:</b> ALPINE BOULDER AND ROCK FIELD.	<b>Micro Habitat:</b> ON ROCKY SLOPES. 2560-4145 M.
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<b>Last Date Observed:</b> 1973-08-21	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1973-08-21	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
NORTH SIDE AND EAST BASE OF ELEPHANTS BACK, CARSON PASS.

**Detailed Location:**  
MAPPED AS BEST GUESS AROUND THE NORTH AND EAST SIDES OF ELEPHANTS BACK.

**Ecological:**  
ON GRANITIC SUBSTRATE.

**Threats:**  
**General:**

SITE BASED ON A 1950 BILLINGS COLLECTION AND A 1973 TAYLOR COLLECTION. NEEDS FIELDWORK.

<b>PLSS:</b> T10N, R18E, Sec. 27 (M)	<b>Accuracy:</b> 2/5 mile	<b>Area (acres):</b> 280
<b>UTM:</b> Zone-11 N4285618 E240618	<b>Latitude/Longitude:</b> 38.68118 / -119.98182	<b>Elevation (feet):</b> 9,000

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Carson Pass (3811968)
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**Sources:**

BIL50S0001	BILLINGS, W. - BILLINGS #2001 RENO #12846 1950-09-28
TAY73S0006	TAYLOR, D. - TAYLOR #2968 DAV #61300 1973-08-21



**Occurrence Report**  
**California Department of Fish and Wildlife**  
**California Natural Diversity Database**



<b>Map Index Number:</b> A3201	<b>EO Index:</b> 104830
<b>Key Quad:</b> Caples Lake (3812061)	<b>Element Code:</b> PMPOA2H170
<b>Occurrence Number:</b> 11	<b>Occurrence Last Updated:</b> 2016-12-28

<b>Scientific Name:</b> <i>Elymus scribneri</i>	<b>Common Name:</b> Scribner's wheat grass
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 2B.3
<b>Federal:</b> None	<b>Other Lists:</b>
<b>State:</b> None	
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5	
<b>State:</b> S3	

<b>General Habitat:</b> ALPINE BOULDER AND ROCK FIELD.	<b>Micro Habitat:</b> ON ROCKY SLOPES. 2560-4145 M.
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<b>Last Date Observed:</b> 1974-08-27	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1974-08-27	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-ELDORADO NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
3.5 MILES WEST FROM UPPER BLUE LAKE ON SOUTH SIDE OF SUMMIT CITY CREEK.

**Detailed Location:**  
MAPPED BY CNDDDB AS BEST GUESS TO INCLUDE 3.5 AIR MILES AND 3.5 TRAIL MILES WEST OF UPPER BLUE LAKE ON THE SOUTH SIDE OF SUMMIT CITY CREEK, AND TO INCLUDE GIVEN ELEVATION OF 8400 FEET.

**Ecological:**  
BELOW PERENNIAL SNOWBANKS ON THE RIDGE. VOLCANIC SUBSTRATE.

**Threats:**  
**General:**  
ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1974 TAYLOR COLLECTION. NEEDS FIELDWORK.

<b>PLSS:</b> T09N, R18E, Sec. 9 (M)	<b>Accuracy:</b> 3/5 mile	<b>Area (acres):</b> 776
<b>UTM:</b> Zone-10 N4280488 E760372	<b>Latitude/Longitude:</b> 38.63472 / -120.00873	<b>Elevation (feet):</b> 8,400

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Carson Pass (3811968), Caples Lake (3812061)
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**Sources:**  
TAY74S0020 TAYLOR, D. - TAYLOR #4883 DAV #61301 1974-08-27



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 28031	<b>EO Index:</b> 970
<b>Key Quad:</b> Pacific Valley (3811958)	<b>Element Code:</b> PMPOT030Z0
<b>Occurrence Number:</b> 2	<b>Occurrence Last Updated:</b> 2003-07-23

<b>Scientific Name:</b> <i>Potamogeton robbinsii</i>	<b>Common Name:</b> Robbins' pondweed
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 2B.3
<b>Federal:</b> None	<b>Other Lists:</b>
<b>State:</b> None	
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5	
<b>State:</b> S3	

<b>General Habitat:</b> MARSHES AND SWAMPS.	<b>Micro Habitat:</b> DEEP WATER, LAKES. 1525-3495 M.
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<b>Last Date Observed:</b> 1941-09-10	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1941-09-10	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> UNKNOWN	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
SUNSET LAKE (NEAR BLUE LAKE), HEADWATERS OF THE EAST CARSON RIVER.

**Detailed Location:**  
MAPPED ACCORDING TO DIRECTIONS PROVIDED BY D. TAYLOR IN 2003.

**Ecological:**

**Threats:**

**General:**  
ONLY SOURCE OF INFORMATION FOR THIS SITE IS 1941 COLLECTION BY CALHOUN.

<b>PLSS:</b> T09N, R19E, Sec. 27, NW (M)	<b>Accuracy:</b> 2/5 mile	<b>Area (acres):</b> 0
<b>UTM:</b> Zone-11 N4277390 E249457	<b>Latitude/Longitude:</b> 38.60967 / -119.87736	<b>Elevation (feet):</b> 11,464

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Ebbetts Pass (3811957), Pacific Valley (3811958)
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**Sources:**

CAL41S0001	CALHOUN, A. - CALHOUN SN DS #279527, GH #355494 1941-09-10
TAY03U0001	TAYLOR, D. - EMAIL TO R. BITTMAN REGARDING POTAMOGETON ROBBINSII CNDDDB CORRECTION 2003-07-08





# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 14440	<b>EO Index:</b> 90696
<b>Key Quad:</b> Freel Peak (3811978)	<b>Element Code:</b> PMPOT030Z0
<b>Occurrence Number:</b> 12	<b>Occurrence Last Updated:</b> 2013-07-16

<b>Scientific Name:</b> <i>Potamogeton robbinsii</i>	<b>Common Name:</b> Robbins' pondweed
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 2B.3
<b>Federal:</b> None	<b>Other Lists:</b>
<b>State:</b> None	
<b>CNDDDB Element Ranks:</b>	
<b>Global:</b> G5	
<b>State:</b> S3	

<b>General Habitat:</b> MARSHES AND SWAMPS.	<b>Micro Habitat:</b> DEEP WATER, LAKES. 1525-3495 M.
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<b>Last Date Observed:</b> 1975-08-23	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 1975-08-23	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-LAKE TAHOE BMU	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
GRASS LAKE, JUST NORTH OF LUTHER PASS.

**Detailed Location:**  
MAPPED BY CNDDDB AS BEST GUESS AROUND GRASS LAKE; EXACT LOCATION OF POTAMOGETON ROBBINSII WITHIN THE LAKE IS UNKNOWN.

**Ecological:**  
OPEN WATER, PROBABLY 2-3 METERS DEEP AT EDGE OF FLOATING SPHAGNUM BOG. WITH BRASENIA SCHREBERI, NUPHAR LUTEA POLYSEPALA, UTRICULARIA VULGARIS, MYRIOPHYLLUM VERTICILLATUM, ETC.

**Threats:**  
**General:**  
ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1975 THORNE & DEBUHR COLLECTION.

<b>PLSS:</b> T11N, R18E, Sec. 23, N (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 292
<b>UTM:</b> Zone-11 N4297755 E242759	<b>Latitude/Longitude:</b> 38.79104 / -119.96175	<b>Elevation (feet):</b> 7,700

<b>County Summary:</b> El Dorado	<b>Quad Summary:</b> Freel Peak (3811978)
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**Sources:**  
THO75S0026 THORNE, R. & L. DEBUHR - THORNE #47217 RSA #381277 1975-08-23



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 97926	<b>EO Index:</b> 99321
<b>Key Quad:</b> Ebbetts Pass (3811957)	<b>Element Code:</b> PPOPH010S0
<b>Occurrence Number:</b> 29	<b>Occurrence Last Updated:</b> 2015-10-21

<b>Scientific Name:</b> <i>Botrychium ascendens</i>	<b>Common Name:</b> upswept moonwort
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 2B.3
<b>Federal:</b> None	<b>Other Lists:</b> USFS_S-Sensitive
<b>State:</b> None	
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G3G4	
<b>State:</b> S2	

<b>General Habitat:</b> LOWER MONTANE CONIFEROUS FOREST, MEADOWS AND SEEPS.	<b>Micro Habitat:</b> GRASSY FIELDS, CONIFEROUS WOODS NEAR SPRINGS AND CREEKS. 1115-3265 M.
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<b>Last Date Observed:</b> 2014-08-23	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> 2014-08-23	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> USFS-STANISLAUS NF	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
SW TRYON MEADOW, HIGHLAND LAKES VICINITY, STANISLAUS NATIONAL FOREST.

**Detailed Location:**  
MAPPED ACCORDING TO 2014 LO COORDINATES AND DIGITAL DATA, IN THE NW 1/4 OF THE SW 1/4 OF SECTION 32.

**Ecological:**  
GROWING IN THREE SEPARATE SEEPS AT THE BASE OF VERTICAL ROCK OUTCROPS ON A VERY STEEP SLOPE. PARENT MATERIAL IS VOLCANIC, SLOPE IS 30 DEGREES, ASPECT IS EAST, AND LIGHT IS PARTIAL SUN. ASSOCIATED WITH GENTIANA CALYCOSA, ARNICA, ETC.

**Threats:**  
EROSION.

**General:**  
51 PLANTS OBSERVED IN 2014. AN ADDITIONAL 38 PLANTS WERE FOUND BUT THEY MAY HAVE BEEN BOTRYCHIUM LINEARE.

<b>PLSS:</b> T08N, R20E, Sec. 32, W (M)	<b>Accuracy:</b> specific area	<b>Area (acres):</b> 2
<b>UTM:</b> Zone-11 N4265209 E255241	<b>Latitude/Longitude:</b> 38.50164 / -119.80673	<b>Elevation (feet):</b> 8,790

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Ebbetts Pass (3811957)
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**Sources:**

LO-14F0002	LO, B. (U.S. FOREST SERVICE-STANISLAUS NATIONAL FOREST) - FIELD SURVEY FORM FOR BOTRYCHIUM ASCENDENS 2014-08-16
USF15D0001	U.S. FOREST SERVICE-HUMBOLDT/TOIYABE NATIONAL FOREST - EXTRACT OF RARE PLANT DATA FOR THE PORTION OF HUMBOLDT-TOIYABE NATIONAL FOREST IN CALIFORNIA 2015-XX-XX



# Occurrence Report

## California Department of Fish and Wildlife

### California Natural Diversity Database



<b>Map Index Number:</b> 99159	<b>EO Index:</b> 100674
<b>Key Quad:</b> Carson Pass (3811968)	<b>Element Code:</b> PPOPH010S0
<b>Occurrence Number:</b> 42	<b>Occurrence Last Updated:</b> 2016-02-10

<b>Scientific Name:</b> <i>Botrychium ascendens</i>	<b>Common Name:</b> upswept moonwort
<b>Listing Status:</b>	<b>Rare Plant Rank:</b> 2B.3
<b>Federal:</b> None	<b>Other Lists:</b> USFS_S-Sensitive
<b>State:</b> None	
<b>CNDDB Element Ranks:</b>	
<b>Global:</b> G3G4	
<b>State:</b> S2	

<b>General Habitat:</b> LOWER MONTANE CONIFEROUS FOREST, MEADOWS AND SEEPS.	<b>Micro Habitat:</b> GRASSY FIELDS, CONIFEROUS WOODS NEAR SPRINGS AND CREEKS. 1115-3265 M.
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<b>Last Date Observed:</b> XXXX-XX-XX	<b>Occurrence Type:</b> Natural/Native occurrence
<b>Last Survey Date:</b> XXXX-XX-XX	<b>Occurrence Rank:</b> Unknown
<b>Owner/Manager:</b> UNKNOWN	<b>Trend:</b> Unknown
<b>Presence:</b> Presumed Extant	

**Location:**  
CARSON PASS SOUTH.

**Detailed Location:**  
EXACT LOCATION UNKNOWN. MAPPED AS BEST GUESS AROUND CARSON PASS AND MAJOR TRAILS HEADING SOUTH FROM PASS, BASED ON A PLANT CHECKLIST CREATED BY EL DORADO CNPS.

**Ecological:**  
**Threats:**

**General:**  
ONLY SOURCE OF INFORMATION FOR THIS SITE IS AN EL DORADO CNPS PLANT CHECKLIST. DATE OF OBSERVATION IS UNKNOWN.

<b>PLSS:</b> T10N, R18E, Sec. 27 (M)	<b>Accuracy:</b> 1 mile	<b>Area (acres):</b> 1,987
<b>UTM:</b> Zone-11 N4285824 E240232	<b>Latitude/Longitude:</b> 38.68292 / -119.98633	<b>Elevation (feet):</b>

<b>County Summary:</b> Alpine	<b>Quad Summary:</b> Carson Pass (3811968), Caples Lake (3812061)
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**Sources:**  
ELD09U0001 EL DORADO CNPS - CHECKLIST OF PLANTS FROM CARSON PASS SOUTH, CALFLORA ID: CE191 2009-XX-XX

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

## Plant List

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

### Search Criteria

Found in Quads 3811978, 3811977, 3811976, 3811968, 3811967, 3811966, 3811958 3811957 and 3811956;

[Modify Search Criteria](#)
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[Modify Sort](#)
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Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
<a href="#">Agrostis humilis</a>	mountain bent grass	Poaceae	perennial herb	Jul-Sep	2B.3	S2	G4Q
<a href="#">Astragalus whitneyi var. lenophyllus</a>	woolly-leaved milk-vetch	Fabaceae	perennial herb	Jul-Aug	4.3	S4	G5T4
<a href="#">Boechera microphylla</a>	small-leaved rockcress	Brassicaceae	perennial herb	Jul	3	S3	G4Q
<a href="#">Botrychium ascendens</a>	upswept moonwort	Ophioglossaceae	perennial rhizomatous herb	(Jun)Jul-Aug	2B.3	S2	G3G4
<a href="#">Bruchia bolanderi</a>	Bolander's bruchia	Bruchianaceae	moss		4.2	S3	G3G4
<a href="#">Carex davyi</a>	Davy's sedge	Cyperaceae	perennial herb	May-Aug	1B.3	S3	G3
<a href="#">Carex limosa</a>	mud sedge	Cyperaceae	perennial rhizomatous herb	Jun-Aug	2B.2	S3	G5
<a href="#">Carex petasata</a>	Liddon's sedge	Cyperaceae	perennial herb	May-Jul	2B.3	S3	G5
<a href="#">Carex vallicola</a>	western valley sedge	Cyperaceae	perennial rhizomatous herb	Jul-Aug	2B.3	S2	G5
<a href="#">Caulanthus major var. nevadensis</a>	slender jewelflower	Brassicaceae	perennial herb	Jun-Sep	4.3	S3?	G4T3?
<a href="#">Chaenactis douglasii var. alpina</a>	alpine dusty maidens	Asteraceae	perennial herb	Jul-Sep	2B.3	S2	G5T5
<a href="#">Claytonia megarhiza</a>	fell-fields claytonia	Montiaceae	perennial herb	Jul-Sep	2B.3	S2	G5
<a href="#">Claytonia umbellata</a>	Great Basin claytonia	Montiaceae	perennial herb	May-Aug	2B.3	S1	G4

<u><a href="#">Crepis runcinata</a></u>	fiddleleaf hawksbeard	Asteraceae	perennial herb	May-Aug	2B.2	S3	G5
<u><a href="#">Cryptantha cymophila</a></u>	subalpine cryptantha	Boraginaceae	perennial herb	Jul-Aug	1B.3	S3	G3
<u><a href="#">Cryptantha glomeriflora</a></u>	clustered-flower cryptantha	Boraginaceae	annual herb	Jun-Sep	4.3	S4	G4Q
<u><a href="#">Draba asterophora var. asterophora</a></u>	Tahoe draba	Brassicaceae	perennial herb	Jul- Aug(Sep)	1B.2	S2?	G2T2?
<u><a href="#">Elymus scribneri</a></u>	Scribner's wheat grass	Poaceae	perennial herb	Jul-Aug	2B.3	S3	G5
<u><a href="#">Epilobium howellii</a></u>	subalpine fireweed	Onagraceae	perennial stoloniferous herb	Jul-Aug	4.3	S4	G4
<u><a href="#">Epilobium palustre</a></u>	marsh willowherb	Onagraceae	perennial rhizomatous herb	Jul-Aug	2B.3	S2	G5
<u><a href="#">Eriastrum sparsiflorum</a></u>	few-flowered eriastrum	Polemoniaceae	annual herb	May-Sep	4.3	S4	G5
<u><a href="#">Eriogonum luteolum var. saltuarium</a></u>	Jack's wild buckwheat	Polygonaceae	annual herb	Jul-Sep	1B.2	S1	G5T1
<u><a href="#">Eriophorum gracile</a></u>	slender cottongrass	Cyperaceae	perennial rhizomatous herb (emergent)	May-Sep	4.3	S4	G5
<u><a href="#">Erythranthe carsonensis</a></u>	Carson Valley monkeyflower	Phrymaceae	annual herb	Apr-Jun	1B.1	S1	G2
<u><a href="#">Helodium blandowii</a></u>	Blandow's bog moss	Helodiaceae	moss		2B.3	S2	G4
<u><a href="#">Lewisia kelloggii ssp. hutchisonii</a></u>	Hutchison's lewisia	Montiaceae	perennial herb	(Apr)May- Aug	3.2	S3	G3G4T3Q
<u><a href="#">Lewisia kelloggii ssp. kelloggii</a></u>	Kellogg's lewisia	Montiaceae	perennial herb	(Apr)May- Aug	3.2	S2S3	G3G4T2T3Q
<u><a href="#">Meesia triquetra</a></u>	three-ranked hump moss	Meesiaceae	moss	Jul	4.2	S4	G5
<u><a href="#">Polystichum lonchitis</a></u>	northern holly fern	Dryopteridaceae	perennial rhizomatous herb	Jun-Sep	3	S3	G5
<u><a href="#">Potamogeton robbinsii</a></u>	Robbins' pondweed	Potamogetonaceae	perennial rhizomatous herb (aquatic)	Jul-Aug	2B.3	S3	G5
<u><a href="#">Rhamnus alnifolia</a></u>	alder buckthorn	Rhamnaceae	perennial deciduous shrub	May-Jul	2B.2	S3	G5
<u><a href="#">Schoenoplectus subterminalis</a></u>	water bulrush	Cyperaceae	perennial rhizomatous herb (aquatic)	Jun- Aug(Sep)	2B.3	S3	G4G5
<u><a href="#">Tonestus eximius</a></u>	Tahoe tonestus	Asteraceae	perennial rhizomatous herb	Jul-Aug	4.3	S3	G3
<u><a href="#">Utricularia ochroleuca</a></u>	cream-flowered bladderwort	Lentibulariaceae	perennial stoloniferous herb	Jun-Jul	2B.2	S1	G4G5
<u><a href="#">Viola purpurea ssp. aurea</a></u>	golden violet	Violaceae	perennial herb	Apr-Jun	2B.2	S2	G5T2

## Suggested Citation

California Native Plant Society, Rare Plant Program. 2020. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website <http://www.rareplants.cnps.org> [accessed 15 September 2020].

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### Contributors

[The Calflora Database](#)

[The California Lichen Society](#)

[California Natural Diversity Database](#)

[The Jepson Flora Project](#)

[The Consortium of California Herbaria](#)

[CalPhotos](#)

### Questions and Comments

[rareplants@cnps.org](mailto:rareplants@cnps.org)

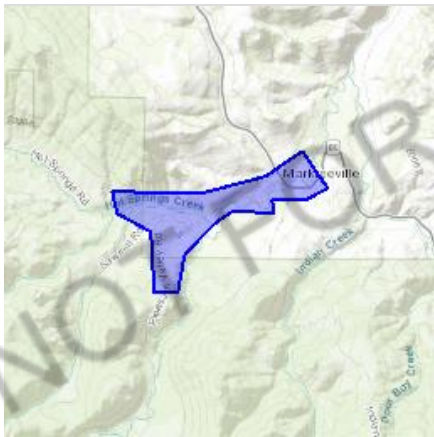
# IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

## Location

Alpine County, California



## Local office

Reno Fish And Wildlife Office

☎ (775) 861-6300

📠 (775) 861-6301

1340 Financial Boulevard, Suite 234  
Reno, NV 89502-7147

<http://www.fws.gov/nevada/>

# Endangered species

**This resource list is for informational purposes only and does not constitute an analysis of project level impacts.**

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species

<sup>1</sup> and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries<sup>2</sup>).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

- 
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information.
  2. [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.

The following species are potentially affected by activities in this location:



# Amphibians

NAME	STATUS
Sierra Nevada Yellow-legged Frog <i>Rana sierrae</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. <a href="https://ecos.fws.gov/ecp/species/9529">https://ecos.fws.gov/ecp/species/9529</a>	Endangered
Yosemite Toad <i>Anaxyrus canorus</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. <a href="https://ecos.fws.gov/ecp/species/7255">https://ecos.fws.gov/ecp/species/7255</a>	Threatened

# Fishes

NAME	STATUS
Lahontan Cutthroat Trout <i>Oncorhynchus clarkii henshawi</i> No critical habitat has been designated for this species. <a href="https://ecos.fws.gov/ecp/species/3964">https://ecos.fws.gov/ecp/species/3964</a>	Threatened

# Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

# Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act

<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>

- Measures for avoiding and minimizing impacts to birds  
<http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds  
<http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the [FAQ below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

**Bald Eagle** *Haliaeetus leucocephalus*

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1626>

Breeds Jan 1 to Aug 31

**Black Swift** *Cypseloides niger*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/8878>

Breeds Jun 15 to Sep 10

Cassin's Finch <i>Carpodacus cassinii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9462">https://ecos.fws.gov/ecp/species/9462</a>	Breeds May 15 to Jul 15
Lewis's Woodpecker <i>Melanerpes lewis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9408">https://ecos.fws.gov/ecp/species/9408</a>	Breeds Apr 20 to Sep 30
Olive-sided Flycatcher <i>Contopus cooperi</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/3914">https://ecos.fws.gov/ecp/species/3914</a>	Breeds May 20 to Aug 31
Rufous Hummingbird <i>selasphorus rufus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/8002">https://ecos.fws.gov/ecp/species/8002</a>	Breeds elsewhere
Williamson's Sapsucker <i>Sphyrapicus thyroideus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <a href="https://ecos.fws.gov/ecp/species/8832">https://ecos.fws.gov/ecp/species/8832</a>	Breeds May 1 to Jul 31
Willow Flycatcher <i>Empidonax traillii</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <a href="https://ecos.fws.gov/ecp/species/3482">https://ecos.fws.gov/ecp/species/3482</a>	Breeds May 20 to Aug 31

**Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.**

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) and/or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

**What does IPaC use to generate the migratory birds potentially occurring in my specified location?**

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

### **What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?**

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

### **How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?**

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

### **What are the levels of concern for migratory birds?**

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

### **Details about birds that are potentially affected by offshore projects**

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

### **What if I have eagles on my list?**

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

### Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

## Facilities

### National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

### Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

## Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER EMERGENT WETLAND

[PEM1C](#)

[PEM1A](#)

FRESHWATER FORESTED/SHRUB WETLAND

[PSS1A](#)

FRESHWATER POND

[PUBHx](#)

RIVERINE

[R3UBH](#)

[R4SBCx](#)

[R4SBC](#)

[R5UBFx](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

#### **Data limitations**

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

#### **Data exclusions**

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

#### **Data precautions**

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities

involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

# Appendix B

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Energy Calculation Data



**Construction Offroad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	Number of days	Diesel Fuel Usage
Site Preparation	Excavator	1	8	158	0.3819	10	241
Site Preparation	Off-highway trucks	2	8	402	0.3819	10	1,228
Infrastructure removal and replacement	Excavator	1	8	158	0.3819	55	1,327
Infrastructure removal and replacement	Generator set	1	8	84	0.74	55	1,368
Infrastructure removal and replacement	Welder	1	8	46	0.45	55	455
Infrastructure removal and replacement	Off-highway trucks	2	8	402	0.3819	55	6,755
Pump station construction	Generator set	1	8	84	0.74	30	746
Pump station construction	Tractor/loader/backhoe	1	8	97	0.37	30	431
Pump station construction	Welder	1	8	46	0.45	30	248
Pump station construction	Bore/Drill rig	1	8	221	0.50	30	1,333
Architectural Coating	Air Compressor	1	8	78	0.48	5	75
<b>TOTAL</b>							<b>14,208</b>

Notes: Equipment assumptions are consistent with CalEEMod. Fuel usage average of 0.05 gallons of diesel fuel per horsepower-hour is from the SCAQMD CEQA Air Quality Handbook, Table A9-3E.

**Trips and VMT**

Phase Name	Daily Worker Trip	Daily Vendor Trip	Daily Hauling Trip	Days per Year	Total Worker Trips	Total Vendor Trips	Total Haul Trips	Worker Trip Length (miles)	Vendor Trip Length (miles)	Haul Trip Length (miles)	Total Worker Trip Length (miles)	Total Vendor Trip Length (miles)	Total Haul Trip Length (miles)	Total gallons of gasoline	Total gallons of diesel
Site Preparation	18	0	0	10	180	0	0	10.00	6.50	20.00	1800	0.00	-	61	0
Infrastructure removal and replacement	18	2	3	55	990	110	165	10.00	6.50	20.00	9900	715.00	3,300.00	334	588
Pump station construction	18	2	0	30	540	60	0	10.00	6.50	20.00	5400	390.00	-	182	57
Architectural Coating	18	0	0	5	90	0	0	10.00	6.50	20.00	900	0.00	-	30	0
<b>TOTAL</b>													<b>608</b>	<b>645</b>	

Notes: Consistent with CalEEMod, worker vehicles assumed to be gasoline and 50% LDA, 25% LDT1, and 25% LDT2. Vendor and haul trips are assumed to be 100% diesel Heavy-Duty Trucks (T7).

<b>Total gallons of diesel (construction equipment plus hauling trips)</b>	<b>14,853</b>
--	---------------

EMFAC2017 (v1.0.2) Emissions Inventory

Region Type: County

Region: Alpine

Calendar Year: 2021

Season: Annual

Vehicle Classification: EMFAC2011 Categories

Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	CalYr	VehClass	MdYr	Speed miles/hr	Fuel	Population vehicles	VMT miles/day	Trips trips/day	Fuel gas 1,000 gallons/day	Miles per gallon
ALPINE	2021	LDA	Aggregated	Aggregated	GAS	2,892	111,758	13,591	3.5	32.20
ALPINE	2021	LDA	Aggregated	Aggregated	DSL	22	948	107	0.0	52.43
ALPINE	2021	LDA	Aggregated	Aggregated	ELEC	32	1,369	164	-	-
ALPINE	2021	LDT1	Aggregated	Aggregated	GAS	335	11,500	1,501	0.4	27.27
ALPINE	2021	LDT1	Aggregated	Aggregated	DSL	0	1	0	0.0	30.07
ALPINE	2021	LDT1	Aggregated	Aggregated	ELEC	1	50	6	-	-
ALPINE	2021	LDT2	Aggregated	Aggregated	GAS	1,152	41,424	5,305	1.7	24.84
ALPINE	2021	LDT2	Aggregated	Aggregated	DSL	7	298	34	0.0	37.97
ALPINE	2021	LDT2	Aggregated	Aggregated	ELEC	6	213	32	-	-
ALPINE	2021	T7 tractor	Aggregated	Aggregated	DSL	6	657	74	0.1	6.8

Notes: Consistent with CalEEMod, worker vehicles assumed to be gasoline and 50% LDA, 25% LDT1, and 25% LDT2. Vendor trips are assumed to be 100% diesel Heavy-Duty Trucks (T7).

### Fuel Efficiency Calculation

	Value	Units
Gasoline consumption by LDA, LDT 1, and LDT 2	5,560	gallons/day
VMT for LDA, LDT1, and LDT 2	164,683	miles/day
Gasoline fuel efficiency	29.62	miles/gallon
Diesel consumption by T7 tractor construction	96.3	gallons/day
VMT for T7 tractor construction	657	miles/day
Diesel fuel efficiency	6.82	miles/gallon

EMFAC2017 (v1.0.2) Emissions Inventory

Region Type: County

Region: ALPINE

Calendar Year: 2021

Season: Annual

Vehicle Classification: EMFAC2011 Categories

Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption. Note 'day' in the unit is operation day.

Region	Calendar Year	Vehicle Category	Model			Population	VMT	Trips	NOx emissions (tons/day)			
			Year	Speed	Fuel				EX	X	X	EX
ALPINE	2021	LDA	Aggregatec	Aggregatec	GAS	2891.558165	111758.4	13591.07	0.006719	0	0.003635	0.010355
ALPINE	2021	LDA	Aggregatec	Aggregatec	DSL	21.98603445	948.423	107.4965	9.91E-05	0	0	9.91E-05
ALPINE	2021	LDA	Aggregatec	Aggregatec	ELEC	32.29684409	1369.009	164.292	0	0	0	0
ALPINE	2021	LDT1	Aggregatec	Aggregatec	GAS	334.7859245	11500.17	1501.351	0.002267	0	0.000673	0.002941
ALPINE	2021	LDT1	Aggregatec	Aggregatec	DSL	0.014887563	0.697583	0.07557	2.14E-08	0	0	2.14E-08
ALPINE	2021	LDT1	Aggregatec	Aggregatec	ELEC	1.135863469	49.65087	5.83366	0	0	0	0
ALPINE	2021	LDT2	Aggregatec	Aggregatec	GAS	1152.295036	41424.33	5305.149	0.005839	0	0.002509	0.008347
ALPINE	2021	LDT2	Aggregatec	Aggregatec	DSL	6.808836468	297.92	33.80697	9.39E-06	0	0	9.39E-06
ALPINE	2021	LDT2	Aggregatec	Aggregatec	ELEC	6.285362319	213.239	32.00876	0	0	0	0
ALPINE	2021	T7 tractor	Aggregatec	Aggregatec	DSL	5.843480685	657.1886	74.2122	0.00439	0.000183	8.62E-05	0.004658

PM2.5_R	PM2.5_ID	PM2.5_ST	PM2.5_TO	PM2.5_P	PM2.5_P	PM2.5_TO	PM10_RU	PM10_IDL	PM10_ST	PM10_TO	PM10_PM	PM10_PM	PM10_TO	
UNEX	LEX	REX	TEX	MTW	MBW	TAL	NEX	EX	REX	TEX	TW	BW	TAL	
0.000174		0	2.86E-05	0.000203	0.000246	0.00194	0.002389	0.000189	0	3.11E-05	0.000221	0.000986	0.004527	0.005733
5.16E-06		0	0	5.16E-06	2.09E-06	1.65E-05	2.37E-05	5.4E-06	0	0	5.4E-06	8.36E-06	3.84E-05	5.22E-05
0		0	0	0	3.02E-06	2.38E-05	2.68E-05	0	0	0	0	1.21E-05	5.55E-05	6.75E-05
2.88E-05		0	5.03E-06	3.39E-05	2.54E-05	0.0002	0.000259	3.13E-05	0	5.47E-06	3.68E-05	0.000101	0.000466	0.000604
2.38E-09		0	0	2.38E-09	1.54E-09	1.21E-08	1.6E-08	2.49E-09	0	0	2.49E-09	6.15E-09	2.83E-08	3.69E-08
0		0	0	0	1.09E-07	8.62E-07	9.71E-07	0	0	0	0	4.38E-07	2.01E-06	2.45E-06
6.74E-05		0	1.15E-05	7.9E-05	9.13E-05	0.000719	0.000889	7.33E-05	0	1.26E-05	8.59E-05	0.000365	0.001678	0.002129
1.14E-06		0	0	1.14E-06	6.57E-07	5.17E-06	6.96E-06	1.19E-06	0	0	1.19E-06	2.63E-06	1.21E-05	1.59E-05
0		0	0	0	4.7E-07	3.7E-06	4.17E-06	0	0	0	0	1.88E-06	8.64E-06	1.05E-05
7.08E-05	2.99E-07		0	7.11E-05	6.52E-06	1.92E-05	9.68E-05	7.4E-05	3.13E-07	0	7.43E-05	2.61E-05	4.47E-05	0.000145

CO2_RUN	CO2_IDLE	CO2_STRE	CO2_TOT	CH4_RUN	CH4_IDLE	CH4_STRE	CH4_TOTE	N2O_RUN	N2O_IDLE	N2O_STRE	N2O_TOT	ROG_RUN	ROG_IDLE				
EX	X	X	EX	EX	X	X	X	EX	X	X	EX	EX	X				
32.0046		0	0.876458	32.88106	0.000349		0	0.001139	0.001488	0.000681		0	0.000458	0.001139	0.00144	0	
0.202973		0		0	0.202973	6.71E-07		0	0	6.71E-07	3.19E-05		0	0	3.19E-05	1.44E-05	0
0		0		0	0			0	0	0			0	0	0	0	0
3.878992		0	0.116102	3.995094	0.000101		0	0.000217	0.000318	0.000152		0	6.11E-05	0.000213	0.000466	0	
0.00026		0		0	0.00026	5.31E-10		0	0	5.31E-10	4.09E-08		0	0	4.09E-08	1.14E-08	0
0		0		0	0			0	0	0			0	0	0	0	0
15.34395		0	0.452524	15.79648	0.00022		0	0.000651	0.000871	0.000421		0	0.000241	0.000662	0.00096	0	
0.088047		0		0	0.088047	2.35E-07		0	0	2.35E-07	1.38E-05		0	0	1.38E-05	5.06E-06	0
0		0		0	0			0	0	0			0	0	0	0	0
1.052883	0.027663		0	1.080546	5.72E-06	5.04E-07		0	6.22E-06	0.000165	4.35E-06		0	0.00017	0.000123	1.08E-05	

ROG_STRE X	ROG_TOT EX	ROG_DIU RN	ROG_HTS K	ROG_RUN LS	ROG_REST L	ROG_TOT AL	TOG_RUN EX	TOG_IDLE X	TOG_STRE X	TOG_TOT EX	TOG_DIU RN	TOG_HTS K	TOG_RUN LS
0.005388	0.006829	0.000332	0.001876	0.004092	0.000237	0.013366	0.002099	0	0.0059	0.007998	0.000332	0.001876	0.004092
0	1.44E-05	0	0	0	0	1.44E-05	1.64E-05	0	0	1.64E-05	0	0	0
0	0	2.32E-07	8.85E-07	0	4.73E-08	1.16E-06	0	0	0	0	2.32E-07	8.85E-07	0
0.001194	0.00166	0.000115	0.000505	0.002271	7.27E-05	0.004624	0.000681	0	0.001307	0.001988	0.000115	0.000505	0.002271
0	1.14E-08	0	0	0	0	1.14E-08	1.3E-08	0	0	1.3E-08	0	0	0
0	0	8.15E-09	3.14E-08	0	1.67E-09	4.12E-08	0	0	0	0	8.15E-09	3.14E-08	0
0.003296	0.004257	0.000223	0.001093	0.004759	0.000163	0.010495	0.0014	0	0.003609	0.005009	0.000223	0.001093	0.004759
0	5.06E-06	0	0	0	0	5.06E-06	5.76E-06	0	0	5.76E-06	0	0	0
0	0	4.51E-08	1.72E-07	0	9.21E-09	2.27E-07	0	0	0	0	4.51E-08	1.72E-07	0
0	0.000134	0	0	0	0	0.000134	0.00014	1.23E-05	0	0.000152	0	0	0

TOG_REST	TOG_TOT				CO_TOTE	SOx_RUN	SOx_IDLE	SOx_STRE	SOx_TOTE	Fuel
L	AL	CO_RUNEX	CO_IDLEX	CO_STREX	X	EX	X	X	X	Consumption
0.000237	0.014535	0.092848098	0	0.047563	0.140411	0.000317	0	8.67E-06	0.000325	3.47070128
0	1.64E-05	0.000242493	0	0	0.000242	1.92E-06	0	0	1.92E-06	0.01808954
4.73E-08	1.16E-06	0	0	0	0	0	0	0	0	0
7.27E-05	0.004952	0.021564848	0	0.005753	0.027318	3.84E-05	0	1.15E-06	3.95E-05	0.42169495
0	1.3E-08	9.06492E-08	0	0	9.06E-08	2.46E-09	0	0	2.46E-09	2.3201E-05
1.67E-09	4.12E-08	0	0	0	0	0	0	0	0	0
0.000163	0.011247	0.051844639	0	0.024103	0.075948	0.000152	0	4.48E-06	0.000156	1.66736864
0	5.76E-06	4.52896E-05	0	0	4.53E-05	8.32E-07	0	0	8.32E-07	0.00784703
9.21E-09	2.27E-07	0	0	0	0	0	0	0	0	0
0	0.000152	0.000457786	0.00012	0	0.000578	9.95E-06	2.61E-07	0	1.02E-05	0.09630153

**Notice of Determination****Appendix D****To:**

Office of Planning and Research  
*U.S. Mail:* \_\_\_\_\_ *Street Address:* \_\_\_\_\_  
 P.O. Box 3044 1400 Tenth St., Rm 113  
 Sacramento, CA 95812-3044 Sacramento, CA 95814

County Clerk  
 County of: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 \_\_\_\_\_

**From:**

Public Agency: Markleeville Public Utility District  
 Address: PO Box 222  
Markleeville, CA 96120  
 Contact: Dave Harden, PE, District Engineer  
 Phone: (916) 771-6144

Lead Agency (if different from above):  
Same as public agency  
 Address: \_\_\_\_\_  
 \_\_\_\_\_  
 Contact: \_\_\_\_\_  
 Phone: \_\_\_\_\_

***SUBJECT: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.***

State Clearinghouse Number (if submitted to State Clearinghouse): 2015032034

Project Title: Markleeville Sewer Pump Station Relocation and Improvements Project

Project Applicant: Markleeville Public Utility District

Project Location (include county): Markleeville, Alpine Co; Markleeville USGS Quad, NE ¼ of the SE ¼ of Section

**Project Description:**

The project involves relocating key sewer system infrastructure out of the floodplain; reducing the potential for sewer system overflows; replacing aging pipes, manholes and pump stations to extend their lifespan; reducing the threat of water quality impairments from flooding, leaks or spills; and providing safe access to sewer system infrastructure during all weather conditions.

This is to advise that the Markleeville Public Utility District has approved the above  
 Lead Agency or  Responsible Agency)

described project on March 11, 2021 and has made the following determinations regarding the above  
 (date)  
 described project.

1. The project [ will  will not] have a significant effect on the environment.
2.  An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.  
 A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures [ were  were not] made a condition of the approval of the project.
4. A mitigation reporting or monitoring plan [ was  was not] adopted for this project.
5. A statement of Overriding Considerations [ was  was not] adopted for this project.
6. Findings [ were  were not] made pursuant to the provisions of CEQA.

This is to certify that the final EIR with comments and responses and record of project approval, or the negative Declaration, is available to the General Public at:

Markleeville Public Utility District PO Box 222 Markleeville, CA 96120; contact Dave Harden at (916) 771-6144

Signature (Public Agency): \_\_\_\_\_ Title: Chair of the Board of Directors

Date: March 11, 2021 Date Received for filing at OPR: \_\_\_\_\_



# MARKLEEVILLE SEWER PUMP STATION RELOCATION AND IMPROVEMENTS PROJECT

## MITIGATION MONITORING AND REPORTING PROGRAM

Mitigation Measures	Implementation		
	Responsibility	Timing	Verification
<b>Air Quality</b>			
<p><b>Mitigation Measure AQ-1 (per page 3-30 of the 2015 IS/MND)</b>            The following fugitive dust control measures, as outlined in the GBUAPCD's Rule 401, shall be implemented during construction to ensure that particulate matter (i.e., fugitive dust) emissions would be limited. MPUD shall take reasonable precautions to prevent visible particulate matter from being airborne, under normal wind conditions, beyond the property from which the emission originates. Reasonable precautions include, but are not limited to:</p> <ul style="list-style-type: none"> <li>▲ Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;</li> <li>▲ Application of asphalt, water, or suitable chemicals on dirt roads, material stockpiles, and other surfaces which can give rise to airborne dusts;</li> <li>▲ Installation and use of hoods, fans, and fabric filters, to enclose and vent the handling of dusty materials. Adequate contaminant methods shall be employed during such handling operations;</li> <li>▲ Use of water, chemicals, chuting, venting, or other precautions to prevent particulate matter from becoming airborne in handling dusty materials to open stockpiles and mobile equipment; and</li> <li>▲ Maintenance of roadways in a clean condition.</li> </ul>	MPUD and construction contractor	During construction activities	
<b>Biological Resources</b>			
<p><b>Mitigation Measure BIO-1: Pre-construction plant survey within the project disturbance footprint shall be conducted a qualified biologist to identify any special status plants and create construction exclusion areas.</b></p> <p><b>Mitigation Measure BIO-1a: Conduct Special-Status Plant Surveys and Implement Avoidance Measures and Mitigation</b></p> <ul style="list-style-type: none"> <li>▲ Prior to implementation of project activities and during the period when special-status plant species with potential to occur in the project site (Table 4-2) are most identifiable (generally, the blooming period of flowering plants or sporophyte period of bryophytes), a qualified botanist will conduct protocol-level surveys for special-status plants within the project site following survey methods from the CDFW Protocols for Surveying and Evaluating Impacts on Special Status Native Plant Populations and Natural Communities (CDFW 2018). The qualified botanist will 1) be knowledgeable about plant taxonomy, 2) be familiar with plants of the Sierra Nevada region, including special-status plants and sensitive natural communities, 3) have experience conducting floristic botanical field surveys as described in CDFW 2018, 4) be familiar with the California Manual of Vegetation (Sawyer et al. 2009 or current version, including updated natural communities data at <a href="http://vegetation.cnps.org/">http://vegetation.cnps.org/</a>), and 5) be familiar with federal and state statutes and regulations related to plants and plant collecting.</li> </ul>	MPUD and a qualified biologist	Prior to construction and during the period when special-status plant species with potential to occur in the	

- ▲ If special-status plants are not found, the botanist will document the findings in a letter report to MPUD and no further mitigation will be required.
- ▲ If special-status plant species are found, the occupied habitat will be avoided completely, if feasible (i.e., project objectives can still be met). This may include establishing a no-disturbance buffer around the plant population and demarcation of this buffer by a qualified botanist using flagging or high-visibility construction fencing. The size of the buffer will be determined by the qualified botanist and will be large enough to avoid direct or indirect impacts on the plant.

**Table 4-2 Typical Blooming Period for Special-Status Plants that May Occur within the Project Site<sup>1</sup>**

Species	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mountain bent grass												
Upswept moonwort												
Davy's sedge												
Porcupine sedge												
Liddon's sedge												
Western valley sedge												
Marsh willowherb												
Blandow's bog moss <sup>2</sup>	-	-	-	-	-	-	-	-	-	-	-	-
Alder buckthorn												

<sup>1</sup> Blooming periods vary annually based on annual climatic variation and across species range. It is essential to base survey timing on current conditions in the survey year and it is recommended that reference populations are visited to verify species are identifiable during the survey period.

<sup>2</sup> Non-blooming bryophyte species

Source: Data compiled by Ascent Environmental in 2021; CNPS 2020

- ▲ If special-status plants are found during rare plant surveys and cannot be avoided, MPUD will consult with CDFW or U.S. Fish and Wildlife Service (USFWS), as appropriate depending on species status, to determine the compensation necessary to achieve no net loss of occupied habitat or individuals. Mitigation measures may include, but are not limited to, preserving and enhancing existing populations, creating off-site populations on mitigation sites through seed collection or transplantation at a 1:1 ratio, and restoring or creating suitable habitat in sufficient quantities to achieve no net loss of occupied habitat or individuals. Potential mitigation sites could include suitable locations within or outside of the project site. MPUD will develop and implement a site-specific mitigation strategy describing how unavoidable losses of special-status plants will be compensated. Success criteria for preserved and compensatory populations will include:
  - The extent of occupied area and plant density (number of plants per unit area) in compensatory populations will be equal to or greater than the affected occupied habitat.

project site  
(Table 4-2)

During  
construction

Prior to,  
during, after  
construction  
until  
populations  
are self-  
producing

<ul style="list-style-type: none"> <li>➤ Compensatory and preserved populations will be self-producing. Populations will be considered self-producing when: <ul style="list-style-type: none"> <li>- plants reestablish annually for a minimum of five years with no human intervention such as supplemental seeding; and</li> <li>- reestablished and preserved habitats contain an occupied area and flower density comparable to existing occupied habitat areas in similar habitat types in the project vicinity.</li> </ul> </li> <li>➤ If off-site mitigation includes dedication of conservation easements, purchase of mitigation credits, or other off-site conservation measures, the details of these measures will be included in the mitigation plan, including information on responsible parties for long-term management, conservation easement holders, long-term management requirements, success criteria such as those listed above and other details, as appropriate to target the preservation of long-term viable populations.</li> </ul>			
<p><b>Mitigation Measure BIO-2: Pre-construction wildlife and amphibian surveys of the disturbance footprint shall be conducted by qualified biologists to identify any special status wildlife and amphibian species present, designate exclusion zones, and/or perform removals.</b></p> <p><b>Mitigation Measure BIO-2a: Implement Limited Operating Period or Conduct Focused Surveys for Ringtail</b></p> <ul style="list-style-type: none"> <li>▲ To minimize the potential for loss of ringtail and active ringtail dens, project activities (e.g., tree removal, other vegetation removal, ground disturbance, staging) within habitat potentially suitable for ringtail (i.e., forest habitat, scrub habitat, riparian habitat) will be conducted outside of the ringtail maternity season (not well defined, but approximately April 15–July 31), if feasible.</li> <li>▲ If the limited operating period is not feasible, and construction activities would occur from April 15–July 31, additional preconstruction surveys would be required. No more than 30 days before initiation of project activities, within potentially suitable ringtail habitat, a qualified biologist with experience conducting ringtail surveys will conduct a focused survey for potential ringtail dens (e.g., hollow trees, snags, rock crevices) within the project site. The qualified biologist will document sightings of individual ringtails, as well as potential dens.</li> <li>▲ If individuals or potential or occupied dens are not found, the qualified biologist will submit a letter report summarizing the results of the survey to MPUD, and further mitigation will not be required.</li> <li>▲ If ringtails are identified or if potential dens are located, an appropriate method will be used by the qualified wildlife biologist to confirm whether a ringtail is occupying the den. This may include use of remote field cameras, track plates, or hair snares. Other devices, such as a fiber optic scope, may be utilized to determine occupancy. <ul style="list-style-type: none"> <li>➤ If potential dens are not occupied, the entrances will be temporarily blocked so that no other animals occupy the project site during project activities, but only after it has been fully inspected. The blockage will be removed once the project activities are completed.</li> <li>➤ If a den is found to be occupied by a ringtail, a no-disturbance buffer will be established around the occupied den. The no-disturbance buffer will include the den tree (or other structure) plus a suitable buffer as determined by the biologist in coordination with CDFW. Project activities in the no-disturbance buffer will be avoided until the den is unoccupied as determined by the qualified wildlife biologist in coordination with CDFW.</li> </ul> </li> </ul>	<p>MPUD and a qualified biologist</p>	<p>During non-breeding season (approx. Apr 15 – July 31)</p> <p>During construction if between April 15 - July 31</p>	

**Mitigation Measure BIO-2b: Conduct Preconstruction Surveys for Sierra Nevada Mountain Beaver and Implement Protective Buffers**

- ▲ No more than 30 days prior to any ground disturbance or vegetation removal activities within 200 feet of Markleeville Creek, a preconstruction survey for Sierra Nevada mountain beaver will be conducted by a qualified biologist familiar with the species. Surveys would consist of burrow searches within habitat suitable for the species.
- ▲ If individuals or occupied burrows are not found, the qualified biologist will submit a letter report summarizing the results of the survey to MPUD, and further mitigation will not be required.
- ▲ If active breeding/burrow sites are identified within 250 feet of project activities, MPUD will implement a limited operating period during the Sierra Nevada mountain beaver breeding season (February 1–July 31) during which no ground disturbance, vegetation or tree removal, or staging activities will occur within 250 feet of the identified burrow. The limited operating period, area within which it is implemented (e.g., 250-foot buffer), and activities allowed or prohibited within the limited operating period may be adjusted through consultation with CDFW.

**Mitigation Measure BIO-2c: Conduct Preconstruction Surveys for Sierra Nevada Snowshoe Hare and Western White-Tailed Jackrabbit and Implement Protective Buffers**

- ▲ No more than 30 days prior to any ground disturbance or vegetation removal activities during the Sierra Nevada snowshoe hare and western white-tailed jackrabbit breeding season (February 1–July 31), a preconstruction survey for nests of both species will be conducted by a qualified biologist familiar with the species. Surveys would consist of walking transects to determine whether active nests of either species are present within suitable habitat areas of the project site (e.g., scrub, forest).
- ▲ If individuals or active nests are not found, the qualified biologist will submit a letter report summarizing the results of the survey to MPUD, and further mitigation will not be required.
- ▲ If active nests are identified, MPUD will implement a limited operating period during the Sierra Nevada snowshoe hare and western white-tailed jackrabbit breeding season (February 1–July 31) during which no ground disturbance, vegetation or tree removal, or staging activities will occur within 250 feet of the identified nest. The limited operating period, area within which it is implemented (e.g., 250-foot buffer), and activities allowed or prohibited within the limited operating period may be adjusted through consultation with CDFW.

**Mitigation Measure BIO-2d: Conduct Focused Special-Status Bat Surveys and Implement Avoidance Measures**

- ▲ In the early planning stages of the project, a qualified biologist familiar with bats and bat ecology and experienced in conducting bat surveys will conduct surveys for bat roosts in suitable habitat (e.g., large trees, crevices, cavities, exfoliating bark, bridges, unoccupied buildings) within and adjacent to the project site.
- ▲ If no evidence of bat roosts is found, the qualified biologist will submit a letter report summarizing the results of the survey to MPUD, and no further study will be required.
- ▲ If evidence of bat roosts is observed, the species and number of bats using the roost will be determined. Bat detectors shall be used if deemed necessary to supplement survey efforts by the qualified biologist.
- ▲ A no-disturbance buffer of 250 feet will be established around active pallid bat, Townsend’s big-eared bat, or western red bat roosts, and project activities will not occur within this buffer until after the roosts are unoccupied.

No more than 30 days prior to ground disturbance

During construction, between February 1 – July 31

No more than 30 days prior to ground disturbance

During construction, between February 1 – July 31

Prior to construction

▲ If roosts of pallid bat, Townsend’s big-eared bat, or western red bat are determined to be present and must be removed, the bats will be excluded from the roosting site before the tree, building, or other structure is removed. A program addressing compensation, exclusion methods, and roost removal procedures will be developed in consultation with CDFW before implementation. Exclusion methods may include use of one-way doors at roost entrances (bats may leave but not reenter) or sealing roost entrances when the site can be confirmed to contain no bats. Exclusion from active maternity roosts will not occur while females in maternity colonies are nursing young. Exclusion efforts may be restricted during other periods of sensitive activity (e.g., during hibernation). The loss of each roost (if any) will be replaced in consultation with CDFW and may require construction and installation of bat boxes suitable to the bat species and colony size excluded from the original roosting site. If determined necessary during consultation with CDFW, replacement roosts will be implemented before bats are excluded from the original roost sites. Once the replacement roosts are constructed and a qualified biologist confirms that bats are not present in the original roost site, the roost tree, building, or other structure may be removed or sealed to prevent bats from reentering.

**Mitigation Measure BIO-3: Impacts to active nests will be avoided by the establishment and maintenance of buffers around the nests. The appropriate size and shape of the buffers will be determined by a qualified biologist in consultation with the CDFW, and may vary depending on the nest location, nest stage, and construction activity. No project activity will occur within the buffer area until the biologist confirms that the nest is no longer active. Monitoring will be conducted to confirm that the Project activities are not resulting in detectable adverse effects to the active nests.**

**Mitigation Measure BIO-3a: Conduct Focused Surveys for Special-Status Birds and Other Native Nesting Birds and Implement Protective Buffers**

▲ To minimize the potential for loss of special-status bird species, raptors, and other native birds, project activities (e.g., tree removal, other vegetation removal, ground disturbance, staging) will be conducted during the nonbreeding season (approximately September 1-January 31, as determined by a qualified biologist), if feasible. If project activities are conducted during the nonbreeding season, no further mitigation will be required.

▲ Within 14 days before the onset of project activities during the breeding season (approximately February 1 through August 31, as determined by a qualified biologist), a qualified biologist familiar with birds of California and with experience conducting nesting bird surveys will conduct focused surveys for special-status birds, other nesting raptors, and other native birds and will identify active nests within 500 feet of the project site (where accessible).

▲ Impacts on nesting birds will be avoided by establishing appropriate buffers around active nest sites identified during focused surveys to prevent disturbance to the nest. Project activity will not commence within the buffer areas until a qualified biologist has determined that the young have fledged, the nest is no longer active, or reducing the buffer will not likely result in nest abandonment. A qualified biologist will determine the appropriate buffer size for non-raptor nests after a site- and nest-specific analysis. Buffers typically will be 500 feet for raptors and 100 feet for non-raptor species. Factors to be considered for determining buffer size will include presence of natural buffers provided by vegetation or topography, nest height above ground, baseline levels of noise and human activity, species sensitivity, and proposed project activities. The size of the buffer may be adjusted if a qualified biologist determines that such an adjustment would not be likely to adversely affect the nest. Any buffer reduction for a special-status species will require consultation with CDFW. Periodic monitoring of the nest by a qualified biologist during project activities will be required if the activity has potential to adversely affect the nest, the buffer has been

MPUD and a qualified biologist	<p>During non-breeding season (approx. Sep 1 – Jan 31)</p> <p>14 days prior to construction during the breeding season (approx. Feb 1 – Aug 31)</p> <p>During construction</p>	



<p><b>Mitigation Measure BIO-5: Implement Avoidance Measures and Compensate for Unavoidable Impacts on Wetlands</b></p> <ul style="list-style-type: none"> <li>▲ Before implementation of project activities, a qualified biologist will mark the jurisdictional boundaries of the onsite wetlands with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway).</li> <li>▲ Project activities (e.g., ground disturbance, vegetation removal, staging) will be prohibited within the wetland boundaries. The qualified biologist will periodically inspect the materials demarcating the wetland boundaries to confirm that they are intact and visible, and wetland impacts are being avoided.</li> <li>▲ If it is determined that fill of waters of the United States would result from project implementation, authorization for such fill will be secured from U.S. Army Corps of Engineers (USACE) through the Section 404 permitting process. Any waters of the United States that would be affected by the project will be replaced or restored on a no-net-loss basis in accordance with the applicable USACE mitigation guidelines in place at the time of construction. In association with the Section 404 permit (if applicable) and prior to the issuance of any grading permit, Section 401 Water Quality Certification from the Lahontan RWQCB will be obtained.</li> <li>▲ If it is determined that fill of waters of the state, including state-protected wetlands, cannot be avoided, MPUD will submit an application for discharges of dredged or fill material to the Lahontan RWQCB before commencing activity that may result in discharge of dredged or fill material to waters of the state. MPUD will not commence any activity in waters of the state until permitted by the Lahontan RWQCB and MPUD will implement all protection measures and comply with all conditions of the permit.</li> <li>▲ MPUD will restore all waters of the state following completion of project construction. A draft restoration plan outlining design, implementation, assessment, and maintenance for restoring temporary disturbance areas will be submitted to the Lahontan RWQCB with the application for discharge of dredged or fill material to waters of the state and will be implemented as approved by the Lahontan RWQCB.</li> <li>▲ If any waters of the state cannot be restored on site, MPUD will implement a compensatory mitigation plan resulting in no net loss of the overall abundance, diversity, and condition of aquatic resources based on an assessment of the affected watershed. MPUD may compensate for loss of waters of the state by purchasing credits from a RWQCB-approved mitigation bank or in-lieu fee program, or through restoration or establishment of wetlands or non-wetland waters comparable to those affected by the project.</li> </ul>	<p>MPUD and a qualified biologist</p>	<p>Prior to construction</p>	
<b>Archaeological, Historical, and Tribal Cultural Resources</b>			
<p><b>Mitigation Measure CR-1: Prepare a Section 106 Cultural Resources Inventory and Evaluation Report and/or Historic Properties Survey Report, Historic Properties Evaluation Report, and Archaeological Survey Report</b></p> <ul style="list-style-type: none"> <li>▲ Consistent with Mitigation Measure CR-1, "Prepare a Section 106 Cultural Resources Inventory and Evaluation Report and/or Historic Properties Survey Report, Historic Properties Evaluation Report, and Archaeological Survey Report," of the 2015 IS/MND, an updated cultural resources inventory was conducted in 2020 by Natural Investigations Company in compliance with Section 21083.2 of the CEQA statutes, Section 15064.5 of the CEQA Guidelines, and Section 106 of the federal National Historic Preservation Act (NHPA). The 2020 Cultural Resources Inventory Report includes a cultural resources literature search, Sacred</li> </ul>	<p>MPUD and a qualified archaeologist</p>	<p>Prior to construction</p>	

<p>Lands File search, paleontological sensitivity analysis, intensive pedestrian survey of the area of potential effects (APE), and an inventory report (NIC 2020).</p>			
<p><b>Mitigation Measure CR-2: Avoidance and Protection Measures for Rock Wall #1 of the National Register Listed Alpine County Courthouse</b></p> <ul style="list-style-type: none"> <li>Consistent with Mitigation Measure CR-2, "Avoidance and Protection Measures for Rock Wall #1 of the National Register Listed Alpine County Courthouse," of the 2015 IS/MND, the project site boundary has been revised. The sewer improvements project boundary does not include Wall #1 associated with the National-Register-listed Alpine County Courthouse. Wall #1 would be avoided and protected.</li> </ul>	<p>MPUD and a qualified archaeologist</p>	<p>Prior to and during construction</p>	
<p><b>Mitigation Measure CR-3: Construction Crew Education/Tailboard Meeting and Accidental Discovery of Archaeological Resources Procedures</b></p> <ul style="list-style-type: none"> <li>Prior to the start of construction, MPUD will ensure that all construction personnel, including construction forepersons and field supervisors receive training by a qualified professional archaeologist, as defined by the Secretary of the Interior, and who is experienced in teaching non-specialists, to ensure they can recognize cultural resources materials in the event any are discovered during construction.</li> <li>Furthermore, to avoid any potential adverse effect from the proposed project on accidentally discovered buried historical resources as defined in CEQA Guidelines Section 15064.5(a)(c), MPUD will distribute a cultural resources ALERT sheet to the project's prime contractor; to any project subcontractor (including firms providing services such as demolition, excavation, grading, etc.), or utilities firms involved in soils disturbing activities within the project site. The ALERT sheet provides workers notice that cultural resources may be encountered during excavation and instructions on what to do if evidence of an archaeological site is encountered. Prior to any soils disturbing activities being undertaken, each contractor is responsible for ensuring that the ALERT sheet is circulated to all field personnel, including: machine operators, field crew, supervisory personnel, etc. The prime contractor will provide MPUD with a signed affidavit from the responsible parties (prime contractor, subcontractor[s], and utilities firms) confirming that all field personnel have received copies of the ALERT Sheet.</li> <li>Should any indication of an archaeological resource be encountered during any soils disturbing activity of the project, the contractor will immediately notify MPUD and suspend any soils disturbing activities within 150 feet of the discovery until the find can be assessed by a qualified professional archaeologist, the qualified professional will determine what additional measures should be undertaken.</li> <li>The qualified professional archaeologist will advise MPUD as to whether the discovery is an archaeological resource, retains sufficient integrity, and it of potential scientific, historical, and/or cultural significance. If an archaeological resource is present, the archaeological consultant will identify and evaluate the archaeological resource. The archaeological consultant will make a recommendation as to what action, if any, is warranted. Based on this information, if warranted, specific additional measures may be implemented.</li> <li>Measures might include: preservation in situ of the archaeological resource; an archaeological monitoring program; and/or an archaeological testing program. MPUD may also require that a site security program be implemented if the resource is at risk from vandalism, looting, or other damaging actions.</li> <li>The archaeological consultant will submit a final report that evaluates the historical significance of any discovered archaeological resource and describes the archaeological and historical research methods employed in the archaeological monitoring/data</li> </ul>	<p>MPUD, construction contractor, and a qualified archaeologist</p>	<p>Prior to and during construction</p>	



<p>recovery program(s) undertaken. Information that may put at risk any archaeological resource will be provided in a separate removable insert within the final report.</p> <p>▲ Copies of the final report will be sent to Alpine County and the Central California Information Center, along with copies of any formal recordation forms (CA DPR 523 series) and/or documentation for nomination to the NRHP/CRHR. In instances of high public interest or interpretive value, Alpine County may require a different final report content, format and distribution from that presented above.</p>			
<p><b>Mitigation Measure CR-4: Preserve Human Remains if Encountered</b></p> <p>▲ If human remains are encountered during construction, MPUD will notify the Alpine County Coroner immediately, as required by California PRC Code §5097.98. A qualified professional archaeologist will also be contacted immediately. If the County Coroner determines that the remains are Native American, the Coroner will then contact the NAHC, pursuant to Section 7050.5[c] of the California Health and Safety Code.</p> <p>▲ There will be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie human remains until the County Coroner has determined that no investigation of the cause of death is required or if remains are Native American. If the remains are of Native American in origin:</p> <ul style="list-style-type: none"> <li>➤ Within 24 hours of notification, the NAHC will identify a Native American “most likely descendant” (MLD) to make a recommendation regarding appropriate treatment of the human remains.</li> <li>➤ If the identified MLD fails to make a recommendation within 48 hours of being notified, Alpine County will work with the NAHC to determine appropriate means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods, as provided in PRC Section 5097.98.</li> </ul>	MPUD and a qualified archaeologist	During construction	
<b>Hydrology and Water Quality</b>			
<p><b>Mitigation Measure HYRO-1: (per page 3-77 of the 2015 IS/MND)</b></p> <p>▲ Temporary erosion/runoff best management control measures will be implemented during construction to minimize storm water pollution resulting from erosion and sediment migration from the construction, borrow, and staging areas. These temporary control measures will include implementing construction staging in a manner that minimizes the amount of area disturbed at any one time; secondary containment for storage of fuel and oil; and the management of stockpiles and disturbed areas by means of earth berms, diversion ditches, straw wattles, straw bales, silt fences, gravel filters, mulching, re-vegetation, and temporary covers as appropriate. Erosion and storm water pollution control measures will be consistent with NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities requirements, and will be included in a site specific SWPPP.</p> <p>▲ After completion of construction activities, the temporary facilities will be demobilized and site restoration measures will be implemented to minimize soil erosion. Site restoration measures for areas disturbed by construction activities, including the borrow area and laydown/staging areas, may include regrading, reseeding, construction of permanent diversion ditches, use of straw wattles and bales, application of straw mulch, and other measures deemed appropriate to meet all applicable erosion control requirements.</p>	MPUD and construction contractor	During construction  After construction	

**APPENDIX C**  
**DAVIS BACON**

## Davis-Bacon Requirements for CWSRF Projects

For purposes of this Exhibit only, “subrecipient” or “sub recipient” means the Recipient as defined in this Agreement.

For purposes of this Exhibit only, “recipient” or “State recipient” means the State Water Board.

### **I. Requirements Under Title VI of the Clean Water Act (CWA) For Sub recipients That Are Governmental Entities:**

If a sub recipient has questions regarding when Davis-Bacon (DB) applies, obtaining the correct DB wage determinations, DB provisions, or compliance monitoring, it may contact the State Water Board at [DavisBacon@waterboards.ca.gov](mailto:DavisBacon@waterboards.ca.gov). The recipient or sub recipient may also obtain additional guidance from the U.S. Department of Labor’s (DOL) website at <http://www.dol.gov/whd/>

#### **1. Applicability of the DB prevailing wage requirements.**

Under Title VI of the CWA, DB prevailing wage requirements apply to the construction, alteration, and repair of treatment works carried out in whole or in part with assistance made available by a State water pollution control revolving fund. If a sub recipient encounters a unique situation at a site that presents uncertainties regarding DB applicability, the sub recipient must discuss the situation with the recipient State before authorizing work on that site.

#### **2. Obtaining Wage Determinations.**

(a) Sub recipients shall obtain the wage determination for the locality in which a covered activity subject to DB will take place prior to issuing requests for bids, proposals, quotes or other methods for soliciting contracts (solicitation) for activities subject to DB. These wage determinations shall be incorporated into solicitations and any subsequent contracts. Prime contracts must contain a provision requiring that subcontractors follow the wage determination incorporated into the prime contract.

(i) While the solicitation remains open, the sub recipient shall monitor <https://sam.gov/> weekly to ensure that the wage determination contained in the solicitation remains current. The sub recipients shall amend the solicitation if DOL issues a modification more than 10 days prior to the closing date (i.e. bid opening) for the solicitation. If DOL modifies or supersedes the applicable wage determination less than 10 days prior to the closing date, the sub recipients may request a finding from the State recipient that there is not a reasonable time to notify interested contractors of the modification of the wage determination. The State recipient will provide a report of its findings to the sub recipient.

(ii) If the sub recipient does not award the contract within 90 days of the closure of the solicitation, any modifications or supersedes DOL makes to the wage

determination contained in the solicitation shall be effective unless the State recipient, at the request of the sub recipient, obtains an extension of the 90-day period from DOL pursuant to 29 CFR 1.6(c)(3)(iv). The sub recipient shall monitor <https://sam.gov/> on a weekly basis if it does not award the contract within 90 days of closure of the solicitation to ensure that wage determinations contained in the solicitation remain current.

(b) If the sub recipient carries out activity subject to DB by issuing a task order, work assignment or similar instrument to an existing contractor (ordering instrument) rather than by publishing a solicitation, the sub recipient shall insert the appropriate DOL wage determination from <https://sam.gov/> into the ordering instrument.

(c) Sub recipients shall review all subcontracts subject to DB entered into by prime contractors to verify that the prime contractor has required its subcontractors to include the applicable wage determinations.

(d) As provided in 29 CFR 1.6(f), DOL may issue a revised wage determination applicable to a sub recipient's contract after the award of a contract or the issuance of an ordering instrument if DOL determines that the sub recipient has failed to incorporate a wage determination or has used a wage determination that clearly does not apply to the contract or ordering instrument. If this occurs, the sub recipient shall either terminate the contract or ordering instrument and issue a revised solicitation or ordering instrument or incorporate DOL's wage determination retroactive to the beginning of the contract or ordering instrument by change order. The sub recipient's contractor must be compensated for any increases in wages resulting from the use of DOL's revised wage determination.

### **3. Contract and Subcontract provisions.**

(a) The Recipient shall insure that the sub recipient(s) shall insert in full in any contract in excess of \$2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a treatment work under the CWSRF - financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in § 5.1 or Title VI of the CWA, the following clauses:

(1) Minimum wages.

(i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part

hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the DB Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in § 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the DB poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

Sub recipients may obtain wage determinations from DOL's website, <https://sam.gov/>.

(ii)(A) The sub recipient(s), on behalf of EPA, shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The State award official shall approve a request for an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

- (1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
- (2) The classification is utilized in the area by the construction industry; and
- (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the sub recipient(s) agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), documentation of the action taken and the request, including the local wage determination shall be sent by the sub recipient (s) to the State award official. The State award official will transmit a completed conformance request form (SF-1444 or similar) and supporting materials to [WHD-CBACONFORMANCE\\_INCOMING@dol.gov](mailto:WHD-CBACONFORMANCE_INCOMING@dol.gov) and to the EPA DB Regional Coordinator concurrently. The DOL Administrator, or an authorized representative, will approve, modify, or disapprove every additional

classification request within 30 days of receipt and so advise the State award official or will notify the State award official within the 30-day period that additional time is necessary.

(C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the sub recipient(s) do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), documentation of the action taken and the request, including the local wage determination shall be sent by the sub recipient (s) to the State award official. The State award official will transmit a completed conformance request form (SF-1444 or similar) which indicates the State award official's disagreement and supporting materials to [WHD-CBACONFORMANCE\\_INCOMING@dol.gov](mailto:WHD-CBACONFORMANCE_INCOMING@dol.gov), and to the EPA DB Regional Coordinator concurrently. The DOL Administrator, or an authorized representative, will issue a determination within 30 days of receipt of the request and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii)(B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the DB Act have been met. The Secretary of Labor may require the contractor to set aside assets in a separate account for the meeting of obligations under the plan or program.

(2) Withholding. The sub recipient(s), shall upon written request of the EPA Award Official or an authorized representative of the DOL, withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to DB prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the EPA may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further

payment, advance, or guarantee of funds until such violations have ceased.

(3) Payrolls and basic records.

(i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the DB Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the DB Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The contractor shall submit weekly, for each week in which any contract work is performed, a copy of all payrolls to the sub recipient, that is, the entity that receives the sub-grant or loan from the State capitalization grant recipient. Such documentation shall be available on request of the State recipient or EPA. As to each payroll copy received, the sub recipient shall provide written confirmation in a form satisfactory to the State indicating whether or not the project is in compliance with the requirements of 29 CFR 5.5(a)(1) based on the most recent payroll copies for the specified week. The payrolls shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on the weekly payrolls. Instead, the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division website at <http://www.dol.gov/whd/forms/wh347instr.htm> or its successor site.

The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker and shall provide them upon request to the sub recipient(s) for transmission to the State or EPA if requested by EPA, the State, the contractor, or the Wage and Hour Division of the DOL for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide

addresses and social security numbers to the prime contractor for its own records, without weekly submission to the sub recipient(s).

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be provided under § 5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under § 5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the State, EPA or the DOL, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the EPA or State may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and trainees

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually



registered in a bona fide apprenticeship program registered with the DOL, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the DOL, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for

apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended and 29 CFR part 30.

(5) Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

(6) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the EPA determines may be appropriate, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) Contract termination; debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

(8) Compliance with DB and Related Act requirements. All rulings and interpretations of the DB and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

(9) Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the DOL set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and sub recipient(s), State, EPA, DOL, or the employees or their representatives.

(10) Certification of eligibility.

(i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the DB Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the DB Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

#### **4. Contract Provision for Contracts in Excess of \$100,000.**

(a) Contract Work Hours and Safety Standards Act. The sub recipient shall insert the following clauses set forth in paragraphs (a)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by Item 3, above or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (a)(1) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (a)(1) of this section, in the sum of \$29 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (a)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The sub recipient, upon written request of the EPA Award Official or an authorized representative of the DOL, shall withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (a)(2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (a)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (a)(1) through (4) of this section.

(b) In addition to the clauses contained in Item 3, above, in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in 29 CFR 5.1, the Sub recipient shall insert a clause requiring that the contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Sub recipient shall insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the EPA and the DOL, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

## **5. Compliance Verification**

(a) The sub recipient shall periodically interview a sufficient number of employees entitled to DB prevailing wages (covered employees) to verify that contractors or subcontractors are paying the appropriate wage rates. As provided in 29 CFR 5.6(a)(3), all interviews must be conducted in confidence. The sub recipient must use Standard Form 1445 (SF 1445) or equivalent documentation to memorialize the interviews. Copies of the SF 1445 are available from EPA on request.

(b) The sub recipient shall establish and follow an interview schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. Sub recipients must conduct more frequent interviews if the initial interviews or other information indicated that there is a risk that the contractor or subcontractor is not complying with DB.

Sub recipients shall immediately conduct interviews in response to an alleged violation of the prevailing wage requirements. All interviews shall be conducted in confidence.

(c) The sub recipient shall periodically conduct spot checks of a representative sample of weekly payroll data to verify that contractors or subcontractors are paying the appropriate wage rates. The sub recipient shall establish and follow a spot check schedule based on its assessment of the risks of noncompliance with DB posed by contractors or subcontractors and the duration of the contract or subcontract. At a minimum, if practicable, the sub recipient should spot check payroll data within two weeks of each contractor or subcontractor's submission of its initial payroll data and two weeks prior to the completion date the contract or subcontract. Sub recipients must conduct more frequent spot checks if the initial spot check or other information indicates

that there is a risk that the contractor or subcontractor is not complying with DB. In addition, during the examinations the sub recipient shall verify evidence of fringe benefit plans and payments there under by contractors and subcontractors who claim credit for fringe benefit contributions.

(d) The sub recipient shall periodically review contractor's and subcontractor's use of apprentices and trainees to verify registration and certification with respect to apprenticeship and training programs approved by either the U.S DOL or a state, as appropriate, and that contractors and subcontractors are not using disproportionate numbers of, laborers, trainees and apprentices. These reviews shall be conducted in accordance with the schedules for spot checks and interviews described in Item 5(b) and (c) above.

(e) Sub recipients must immediately report potential violations of the DB prevailing wage requirements to the EPA DB contact listed above and to the appropriate DOL Wage and Hour District Office listed at <https://www.dol.gov/agencies/whd/contact/local-offices>.

**APPENDIX D**  
**FEDERAL WAGE DETERMINATION**

Superseded General Decision Number: CA20230007

State: California

Construction Types: Building, Heavy (Heavy and Dredging) and Highway

Counties: Alpine, Amador, Butte, Colusa, El Dorado, Glenn, Lassen, Marin, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, Shasta, Sierra, Siskiyou, Solano, Sonoma, Sutter, Tehama, Trinity, Yolo and Yuba Counties in California.

BUILDING CONSTRUCTION PROJECTS (excluding Amador County only); DREDGING CONSTRUCTION PROJECTS (does not include hopper dredge work); HEAVY CONSTRUCTION PROJECTS (does not include water well drilling); AND HIGHWAY CONSTRUCTION PROJECTS

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$17.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2024.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$12.90 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2024.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number	Publication Date
0	01/05/2024
1	01/12/2024
2	01/19/2024
3	02/09/2024
4	02/16/2024
5	03/01/2024
6	03/08/2024
7	04/12/2024
8	05/24/2024
9	06/14/2024
10	07/05/2024
11	07/12/2024
12	07/26/2024
13	08/23/2024
14	09/06/2024
15	09/13/2024

ASBE0016-001 01/01/2024

AREA 1: MARIN, NAPA, SAN BENITO, SAN FRANCISCO, SOLANO, & SONOMA COUNTIES

AREA 2: ALPINE, AMADOR, BUTTE, COLUSA, EL DORADO, GLENN, MODOC, NEVADA, PLACER, PLUMAS, SACRAMENTO, SHASTA, SIERRA, SISKIYOU, SUTTER, TEHEMA, TRINITY, YOLO, & YUBA COUNTIES

Rates Fringes

Asbestos Workers/Insulator (Includes the application of all insulating materials, Protective Coverings, Coatings, and Finishes to all types of mechanical systems)		
Area 1.....	\$ 84.76	25.07
Area 2.....	\$ 64.56	25.07

ASBE0016-007 01/01/2021

AREA 1 : ALPINE, AMADOR, BUTTE, COLUSA, EL DORADO, GLENN, LASSEN, MODOC, NEVADA, PLACER, PLUMAS, SACRAMENTO, SHASTA, SIERRA, SISKIYOU, SOLANO, SONOMA, SUTTER, TEHAMA, TRINITY, YOLO & YUBA COUNTIES

AREA 2: MARIN & NAPA COUNTIES

	Rates	Fringes
Asbestos Removal worker/hazardous material handler (Includes preparation, wetting, stripping, removal, scrapping, vacuuming, bagging and disposing of all insulation materials from mechanical systems, whether they contain asbestos or not)		
AREA 1.....	\$ 30.45	10.60
AREA 2.....	\$ 36.53	9.27

BOIL0549-002 01/01/2021

	Rates	Fringes
BOILERMAKER		
(1) Marin & Solano Counties.....	\$ 49.62	41.27
(2) Remaining Counties.....	\$ 45.60	38.99

BRCA0003-001 08/01/2023

	Rates	Fringes
MARBLE FINISHER.....	\$ 41.18	18.58

BRCA0003-004 05/01/2024

AREA 1: ALPINE, AMADOR, BUTTE, COLUSA, EL DORADO, GLENN, LASSEN, MODOC, NEVADA, PLACER, PLUMAS, SACRAMENTO, SHASTA, SIERRA, SUTTER, TEHAMA, YOLO AND YUBA COUNTIES

AREA 2: MARIN, NAPA, SISKIYOU, SOLANO, SONOMA AND TRINITY COUNTIES

	Rates	Fringes
BRICKLAYER		
AREA 1.....	\$ 52.76	25.01
AREA 2.....	\$ 57.02	28.50

SPECIALTY PAY:

- (A) Underground work such as tunnel work, sewer work, manholes, catch basins, sewer pipes and telephone conduit shall be paid \$1.25 per hour above the regular rate. Work in direct contact with raw sewage shall receive \$1.25 per hour in addition to the above.
- (B) Operating a saw or grinder shall receive \$1.25 per hour above the regular rate.
- (C) Gunite nozzle person shall receive \$1.25 per hour above the regular rate.

BRCA0003-008 07/01/2023

	Rates	Fringes
TERRAZZO FINISHER.....	\$ 43.90	19.51
TERRAZZO WORKER/SETTER.....	\$ 59.06	28.31

BRCA0003-010 04/01/2024

	Rates	Fringes
TILE FINISHER		
Area 1.....	\$ 35.00	17.44
Area 2.....	\$ 34.76	19.22
Area 3.....	\$ 37.75	19.28
Area 4.....	\$ 35.78	19.23
Tile Layer		
Area 1.....	\$ 55.55	21.08
Area 2.....	\$ 55.17	22.52
Area 3.....	\$ 59.92	22.62
Area 4.....	\$ 56.79	22.54

- AREA 1: Butte, Colusa, El Dorado, Glenn, Lassen, Modoc, Nevada, Placer, Plumas, Sacramento, Shasta, Sierra, Sutter, Tehema, Yolo, Yuba
- AREA 2: Alpine, Amador
- AREA 3: Marin, Napa, Solano, Siskiyou
- AREA 4: Sonoma

BRCA0003-014 08/01/2023

	Rates	Fringes
MARBLE MASON.....	\$ 60.20	28.82

CARP0034-001 07/01/2021

	Rates	Fringes
Diver		
Assistant Tender, ROV		



Tender/Technician.....	\$ 54.10	34.69
Diver standby.....	\$ 60.51	34.69
Diver Tender.....	\$ 59.51	34.69
Diver wet.....	\$ 103.62	34.69
Manifold Operator (mixed gas).....	\$ 64.51	34.69
Manifold Operator (Standby).....	\$ 59.51	34.69

DEPTH PAY (Surface Diving):  
050 to 100 ft \$2.00 per foot  
101 to 150 ft \$3.00 per foot  
151 to 220 ft \$4.00 per foot  
221 ft.-deeper \$5.00 per foot

SATURATION DIVING:  
The standby rate shall apply until saturation starts. The saturation diving rate applies when divers are under pressure continuously until work task and decompression are complete. The diver rate shall be paid for all saturation hours.

DIVING IN ENCLOSURES:  
Where it is necessary for Divers to enter pipes or tunnels, or other enclosures where there is no vertical ascent, the following premium shall be paid: Distance traveled from entrance 26 feet to 300 feet: \$1.00 per foot. When it is necessary for a diver to enter any pipe, tunnel or other enclosure less than 48" in height, the premium will be \$1.00 per foot.

WORK IN COMBINATION OF CLASSIFICATIONS:  
Employees working in any combination of classifications within the diving crew (except dive supervisor) in a shift are paid in the classification with the highest rate for that shift.

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CARP0034-003 07/01/2021

	Rates	Fringes
Piledriver.....	\$ 54.10	34.69

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CARP0035-001 08/01/2020

AREA 1: MARIN, NAPA, SOLANO & SONOMA

AREA 3: SACRAMENTO, WESTERN EL DORADO (Territory west of an including highway 49 and the territory inside the city limits of Placerville), WESTERN PLACER (Territory west of and including highway 49), & YOLO

AREA 4: ALPINE, BUTTE, COLUSA, EASTERN EL DORADO, GLENN, LASSEN, MODOC, NEVADA, EASTERN PLACER, PLUMAS, SHASTA, SIERRA, SISKIYOU, SUTTER, TEHAMA, TRINITY, & YUBA

	Rates	Fringes
Drywall Installers/Lathers:		
Area 1.....	\$ 52.65	31.26
Area 3.....	\$ 47.27	31.26
Area 4.....	\$ 45.92	31.26
Drywall Stocker/Scrapper		
Area 1.....	\$ 26.33	18.22
Area 3.....	\$ 23.64	18.22
Area 4.....	\$ 22.97	18.22

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CARP0035-009 07/01/2020

Marin County

	Rates	Fringes
CARPENTER		
Bridge Builder/Highway Carpenter.....	\$ 52.65	30.82
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer.....	\$ 52.80	30.82
Journeyman Carpenter.....	\$ 52.65	30.82
Millwright.....	\$ 52.75	32.41

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CARP0035-010 07/01/2020

AREA 1: Marin, Napa, Solano & Sonoma Counties

AREA 2: Monterey, San Benito and Santa Cruz

AREA 3: Alpine, Butte, Colusa, El Dorado, Glenn, Lassen, Modoc, Nevada, Placer, Plumas, Sacramento, Shasta, Sierra, Siskiyou, Sutter, Tehama, Trinity, Yolo & Yuba counties

	Rates	Fringes
Modular Furniture Installer		
Area 1		
Installer.....	\$ 28.76	22.53
Lead Installer.....	\$ 32.21	23.03
Master Installer.....	\$ 36.43	23.03
Area 2		
Installer.....	\$ 26.11	22.53
Lead Installer.....	\$ 29.08	23.03
Master Installer.....	\$ 32.71	23.03
Area 3		
Installer.....	\$ 25.16	22.53

Lead Installer.....	\$ 27.96	23.03
Master Installer.....	\$ 31.38	23.03

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 CARP0046-001 07/01/2023

El Dorado (West), Placer (West), Sacramento and Yolo Counties

	Rates	Fringes
Carpenters		
Bridge Builder/Highway Carpenter.....	\$ 60.39	33.52
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer.....	\$ 54.66	33.52
Journeyman Carpenter.....	\$ 54.51	33.52
Millwright.....	\$ 57.01	35.11

Footnote: Placer County (West) includes territory West of and including Highway 49 and El Dorado County (West) includes territory West of and including Highway 49 and territory inside the city limits of Placerville.

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 CARP0046-002 07/01/2023

Alpine, Colusa, El Dorado (East), Nevada, Placer (East),  
 Sierra, Sutter and Yuba Counties

	Rates	Fringes
Carpenters		
Bridge Builder/Highway Carpenter.....	\$ 60.39	33.52
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer.....	\$ 53.31	33.52
Journeyman Carpenter.....	\$ 53.16	33.52
Millwright.....	\$ 55.66	35.11

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 CARP0152-003 07/01/2020

Amador County

	Rates	Fringes
Carpenters		
Bridge Builder/Highway Carpenter.....	\$ 52.65	30.82
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer.....	\$ 45.57	30.82
Journeyman Carpenter.....	\$ 45.42	30.82
Millwright.....	\$ 47.92	32.41

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 CARP0180-001 07/01/2021

Solano County

	Rates	Fringes
Carpenters		
Bridge Builder/Highway Carpenter.....	\$ 54.85	31.49
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer.....	\$ 55.00	31.49
Journeyman Carpenter.....	\$ 54.85	31.49
Millwright.....	\$ 54.95	33.08

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 CARP0751-001 07/01/2021

Napa and Sonoma Counties

	Rates	Fringes
Carpenters		
Bridge Builder/Highway Carpenter.....	\$ 54.85	31.49
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer.....	\$ 55.00	31.49
Journeyman Carpenter.....	\$ 54.85	31.49
Millwright.....	\$ 54.95	33.08

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 CARP1599-001 07/01/2020

Butte, Glenn, Lassen, Modoc, Plumas, Shasta, Siskiyou, Tehama  
 and Trinity Counties

	Rates	Fringes
Carpenters		
Bridge Builder/Highway Carpenter.....	\$ 52.65	30.82
Hardwood Floorlayer, Shingler, Power Saw		

Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer.....	\$ 45.57	30.82
Journeyman Carpenter.....	\$ 45.42	30.82
Millwright.....	\$ 47.92	32.41

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ELEC0180-001 06/01/2024

NAPA AND SOLANO COUNTIES

	Rates	Fringes
CABLE SPLICER.....	\$ 66.44	3%+27.84
ELECTRICIAN.....	\$ 59.06	3%+27.83

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ELEC0180-003 12/01/2023

NAPA AND SOLANO COUNTIES

	Rates	Fringes
Sound & Communications Installer.....	\$ 48.44	27.60
Technician.....	\$ 55.71	27.82

SCOPE OF WORK INCLUDES-

SOUND & VOICE TRANSMISSION (Music, Intercom, Nurse Call, Telephone); FIRE ALARM SYSTEMS [excluding fire alarm work when installed in raceways (including wire and cable pulling) and when performed on new or major remodel building projects or jobs], TELEVISION & VIDEO SYSTEMS, SECURITY SYSTEMS, COMMUNICATIONS SYSTEMS that transmit or receive information and/or control systems that are intrinsic to the above.

EXCLUDES-

Excludes all other data systems or multiple systems which include control function or power supply; excludes installation of raceway systems, line voltage work, industrial work, life-safety systems (all buildings having floors located more than 75' above the lowest floor level having building access); excludes energy management systems.

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ELEC0340-002 02/01/2018

ALPINE, AMADOR, BUTTE, COLUSA, EL DORADO, GLENN, LASSEN, NEVADA, PLACER, PLUMAS, SACRAMENTO, TRINITY, YOLO, YUBA COUNTIES

	Rates	Fringes
Communications System Sound & Communications Installer.....	\$ 29.35	3%+15.35
Sound & Communications Technician.....	\$ 33.75	3%+15.35

SCOPE OF WORK

Includes the installation testing, service and maintenance, of the following systems which utilize the transmission and/or transference of voice, sound, vision and digital for commercial, education, security and entertainment purposes for the following TV monitoring and surveillance, background-foreground music, intercom and telephone interconnect, inventory control systems, microwave transmission, multi-media, multiplex, nurse call system, radio page, school intercom and sound, burglar alarms, and low voltage master clock systems.

A. SOUND AND VOICE TRANSMISSION/TRANSFERENCE SYSTEMS

Background foreground music Intercom and telephone interconnect systems, Telephone systems, Nurse call systems, Radio page systems, School intercom and sound systems, Burglar alarm systems, Low voltage master clock systems, Multi-media/multiplex systems, Sound and musical entertainment systems, RF systems, Antennas and Wave Guide.

B. FIRE ALARM SYSTEMS

Installation, wire pulling and testing

C. TELEVISION AND VIDEO SYSTEMS Television monitoring and surveillance systems, Video security systems, Video entertainment systems, Video educational systems, Microwave transmission systems, CATV and CCTV

D. SECURITY SYSTEMS Perimeter security systems  
Vibration sensor systems Card access systems Access control systems Sonar/infrared monitoring equipment

E. COMMUNICATIONS SYSTEMS THAT TRANSMIT OR RECEIVE INFORMATION AND/OR CONTROL SYSTEMS THAT ARE INTRINSIC TO THE ABOVE LISTED SYSTEMS SCADA (Supervisory Control and Data Acquisition) PCM (Pulse Code Modulation) Inventory Control Systems Digital Data Systems Broadband and Baseband and Carriers Point of Sale Systems VSAT Data Systems Data Communication Systems RF and Remote Control Systems Fiber Optic Data Systems WORK EXCLUDED Raceway systems are not covered (excluding Ladder-Rack for the purpose of the above listed systems). Chases and/or nipples (not to exceed 10 feet) may be installed on open wiring systems. Energy management systems. SCADA (Supervisory Control and Data Acquisition) when not intrinsic to the above listed systems (in the scope). Fire alarm systems when installed in raceways (including wire and cable pulling) shall be performed at the electrician wage rate, when either of the following two

(2) conditions apply:

1. The project involves new or major remodel building trades construction.
2. The conductors for the fire alarm system are installed in conduit.

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ELEC0340-003 08/01/2022

ALPINE (West of Sierra Mt. Watershed), AMADOR, BUTTE, COLUSA, EL DORADO (West of Sierra Mt. Watershed), GLENN, LASSEN, NEVADA (West of Sierra Mt. Watershed), PLACER, PLUMAS, SACRAMENTO, SHASTA, SIERRA (West of Sierra Mt. Watershed), SUTTER, TEHAMA, TRINITY, YOLO & YUBA COUNTIES

	Rates	Fringes
ELECTRICIAN		
Remaining area.....	\$ 45.06	34.09
Sierra Army Depot, Herlong..	\$ 48.83	18.54
Tunnel work.....	\$ 41.01	18.54

CABLE SPLICER: Receives 110% of the Electrician basic hourly rate.

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ELEC0401-005 01/01/2022

ALPINE (east of the main watershed divide), EL DORADO (east of the main watershed divide), NEVADA (east of the main watershed), PLACER (east of the main watershed divide) and SIERRA (east of the main watershed divide) COUNTIES:

	Rates	Fringes
ELECTRICIAN.....	\$ 42.50	20.95

ZONE RATE:

- 70-90 miles - \$8.00 per hour
- 91+ miles - \$10.00 per hour

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ELEC0551-004 06/01/2024

MARIN AND SONOMA COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 59.17	32.04

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ELEC0551-005 11/01/2023

MARIN & SONOMA COUNTIES

	Rates	Fringes
Sound & Communications		
Installer.....	\$ 46.64	25.55
Technician.....	\$ 53.64	25.76

SCOPE OF WORK INCLUDES-

SOUND & VOICE TRANSMISSION (Music, Intercom, Nurse Call, Telephone); FIRE ALARM SYSTEMS [excluding fire alarm work when installed in raceways (including wire and cable pulling) and when performed on new or major remodel building projects or jobs], TELEVISION & VIDEO SYSTEMS, SECURITY SYSTEMS, COMMUNICATIONS SYSTEMS that transmit or receive information and/or control systems that are intrinsic to the above.

EXCLUDES-

Excludes all other data systems or multiple systems which include control function or power supply; excludes installation of raceway systems, line voltage work, industrial work, life-safety systems (all buildings having floors located more than 75' above the lowest floor level having building access); excludes energy management systems.

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ELEC0659-006 01/01/2024

MODOC and SISKIYOU COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 45.00	19.88

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ELEC0659-008 02/01/2023

DEL NORTE, MODOC & SISKIYOU COUNTIES

	Rates	Fringes
Line Construction		
(1) Cable Splicer.....	\$ 67.80	4.5%+22.15
(2) Lineman, Pole Sprayer,		
Heavy Line Equipment Man....	\$ 60.54	4.5%+22.15
(3) Tree Trimmer.....	\$ 37.84	4.5%+14.30
(4) Line Equipment Man.....	\$ 53.82	4.5%+19.40
(5) Powdermen,		
Jackhammermen.....	\$ 40.37	4.5%+14.30
(6) Groundman.....	\$ 33.37	4.5%+14.30

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ELEC1245-004 06/01/2024

ALL COUNTIES EXCEPT DEL NORTE, MODOC & SISKIYOU

	Rates	Fringes
LINE CONSTRUCTION		
(1) Lineman; Cable splicer..	70.16	24.46
(2) Equipment specialist (operates crawler tractors, commercial motor vehicles, backhoes, trenchers, cranes (50 tons and below), overhead & underground distribution line equipment).....	53.30	22.01
(3) Groundman.....	40.76	21.51
(4) Powderman.....	51.87	18.79

HOLIDAYS: New Year's Day, M.L. King Day, Memorial Day,  
Independence Day, Labor Day, Veterans Day, Thanksgiving Day  
and day after Thanksgiving, Christmas Day

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ELEV0008-001 01/01/2024

	Rates	Fringes
ELEVATOR MECHANIC.....	80.76	37.885+a+b

FOOTNOTE:

- a. PAID VACATION: Employer contributes 8% of regular hourly rate as vacation pay credit for employees with more than 5 years of service, and 6% for 6 months to 5 years of service.
- b. PAID HOLIDAYS: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, Friday after Thanksgiving, and Christmas Day.

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ENGI0003-008 08/01/2024

	Rates	Fringes
Dredging: (DREDGING: CLAMSHELL & DIPPER DREDGING; HYDRAULIC SUCTION DREDGING:)		
AREA 1:		
(1) Leverman.....	60.61	39.55
(2) Dredge Dozer; Heavy duty repairman.....	55.65	39.55
(3) Booster Pump Operator; Deck Engineer; Deck mate; Dredge Tender; Winch Operator.....	54.53	39.55
(4) Bargeman; Deckhand; Fireman; Leveehand; Oiler..	51.23	39.55
AREA 2:		
(1) Leverman.....	62.61	39.55
(2) Dredge Dozer; Heavy duty repairman.....	57.65	39.55
(3) Booster Pump Operator; Deck Engineer; Deck mate; Dredge Tender; Winch Operator.....	56.53	39.55
(4) Bargeman; Deckhand; Fireman; Leveehand; Oiler..	53.23	39.55

AREA DESCRIPTIONS

AREA 1: ALAMEDA, BUTTE, CONTRA COSTA, KINGS, MARIN, MERCED,  
NAPA, SACRAMENTO, SAN BENITO, SAN FRANCISCO, SAN JOAQUIN,  
SAN MATEO, SANTA CLARA, SANTA CRUZ, SOLANO, STANISLAUS,  
SUTTER, YOLO, AND YUBA COUNTIES

AREA 2: MODOC COUNTY

THE REMAINING COUNTIES ARE SPLIT BETWEEN AREA 1 AND AREA 2  
AS NOTED BELOW:

ALPINE COUNTY:

Area 1: Northernmost part  
Area 2: Remainder

CALAVERAS COUNTY:

Area 1: Remainder  
Area 2: Eastern part

COLUSA COUNTY:

Area 1: Eastern part  
Area 2: Remainder

ELDORADO COUNTY:

Area 1: North Central part  
Area 2: Remainder

FRESNO COUNTY:

Area 1: Remainder  
Area 2: Eastern part

GLENN COUNTY:

Area 1: Eastern part  
Area 2: Remainder

LASSEN COUNTY:

Area 1: Western part along the Southern portion of border  
with Shasta County  
Area 2: Remainder

MADERA COUNTY:

Area 1: Except Eastern part  
Area 2: Eastern part

MARIPOSA COUNTY  
Area 1: Except Eastern part  
Area 2: Eastern part

MONTERREY COUNTY  
Area 1: Except Southwestern part  
Area 2: Southwestern part

NEVADA COUNTY:  
Area 1: All but the Northern portion along the border of  
Sierra County  
Area 2: Remainder

PLACER COUNTY:  
Area 1: All but the Central portion  
Area 2: Remainder

PLUMAS COUNTY:  
Area 1: Western portion  
Area 2: Remainder

SHASTA COUNTY:  
Area 1: All but the Northeastern corner  
Area 2: Remainder

SIERRA COUNTY:  
Area 1: Western part  
Area 2: Remainder

SISKIYOU COUNTY:  
Area 1: Central part  
Area 2: Remainder

SONOMA COUNTY:  
Area 1: All but the Northwestern corner  
Area 2: Remainder

TEHAMA COUNTY:  
Area 1: All but the Western border with Mendocino & Trinity  
Counties  
Area 2: Remainder

TRINITY COUNTY:  
Area 1: East Central part and the Northeastern border with  
Shasta County  
Area 2: Remainder

TUOLUMNE COUNTY:  
Area 1: Except Eastern part  
Area 2: Eastern part

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ENGI003-019 07/01/2024

SEE AREA DESCRIPTIONS BELOW

	Rates	Fringes
OPERATOR: Power Equipment (LANDSCAPE WORK ONLY)		
GROUP 1		
AREA 1.....	\$ 52.40	28.52
AREA 2.....	\$ 54.40	28.52
GROUP 2		
AREA 1.....	\$ 48.80	28.52
AREA 2.....	\$ 50.80	28.52
GROUP 3		
AREA 1.....	\$ 44.19	28.52
AREA 2.....	\$ 46.19	28.52

GROUP DESCRIPTIONS:

GROUP 1: Landscape Finish Grade Operator: All finish grade work regardless of equipment used, and all equipment with a rating more than 65 HP.

GROUP 2: Landscape Operator up to 65 HP: All equipment with a manufacturer's rating of 65 HP or less except equipment covered by Group 1 or Group 3. The following equipment shall be included except when used for finish work as long as manufacturer's rating is 65 HP or less: A-Frame and Winch Truck, Backhoe, Forklift, Hydragraphic Seeder Machine, Roller, Rubber-Tired and Track Earthmoving Equipment, Skiploader, Straw Blowers, and Trencher 31 HP up to 65 HP.

GROUP 3: Landscape Utility Operator: Small Rubber-Tired Tractor, Trencher Under 31 HP.

AREA DESCRIPTIONS:

AREA 1: ALAMEDA, BUTTE, CONTRA COSTA, KINGS, MARIN, MERCED, NAPA, SACRAMENTO, SAN BENITO, SAN FRANCISCO, SAN JOAQUIN, SAN MATEO, SANTA CLARA, SANTA CRUZ, SOLANO, STANISLAUS, SUTTER, YOLO, AND YUBA COUNTIES

AREA 2 - MODOC COUNTY

THE REMAINING COUNTIES ARE SPLIT BETWEEN AREA 1 AND AREA 2 AS NOTED BELOW:

ALPINE COUNTY:  
Area 1: Northernmost part  
Area 2: Remainder

CALAVERAS COUNTY:

Area 1: Except Eastern part  
Area 2: Eastern part

COLUSA COUNTY:  
Area 1: Eastern part  
Area 2: Remainder

DEL NORTE COUNTY:  
Area 1: Extreme Southwestern corner  
Area 2: Remainder

ELDORADO COUNTY:  
Area 1: North Central part  
Area 2: Remainder

FRESNO COUNTY  
Area 1: Except Eastern part  
Area 2: Eastern part

GLENN COUNTY:  
Area 1: Eastern part  
Area 2: Remainder

HUMBOLDT COUNTY:  
Area 1: Except Eastern and Southwestern parts  
Area 2: Remainder

LAKE COUNTY:  
Area 1: Southern part  
Area 2: Remainder

LASSEN COUNTY:  
Area 1: Western part along the Southern portion of border  
with Shasta County  
Area 2: Remainder

MADERA COUNTY  
Area 1: Remainder  
Area 2: Eastern part

MARIPOSA COUNTY  
Area 1: Remainder  
Area 2: Eastern part

MENDOCINO COUNTY:  
Area 1: Central and Southeastern parts  
Area 2: Remainder

MONTEREY COUNTY  
Area 1: Remainder  
Area 2: Southwestern part

NEVADA COUNTY:  
Area 1: All but the Northern portion along the border of  
Sierra County  
Area 2: Remainder

PLACER COUNTY:  
Area 1: All but the Central portion  
Area 2: Remainder

PLUMAS COUNTY:  
Area 1: Western portion  
Area 2: Remainder

SHASTA COUNTY:  
Area 1: All but the Northeastern corner  
Area 2: Remainder

SIERRA COUNTY:  
Area 1: Western part  
Area 2: Remainder

SISKIYOU COUNTY:  
Area 1: Central part  
Area 2: Remainder

SONOMA COUNTY:  
Area 1: All but the Northwestern corner  
Area 2: Remainder

TEHAMA COUNTY:  
Area 1: All but the Western border with Mendocino & Trinity  
Counties  
Area 2: Remainder

TRINITY COUNTY:  
Area 1: East Central part and the Northeast border with  
Shasta County  
Area 2: Remainder

TULARE COUNTY;  
Area 1: Remainder  
Area 2: Eastern part

TUOLUMNE COUNTY:  
Area 1: Remainder  
Area 2: Eastern Part

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ENGI0003-038 06/28/2023

""AREA 1"" WAGE RATES ARE LISTED BELOW

""AREA 2"" RECEIVES AN ADDITIONAL \$2.00 PER HOUR ABOVE AREA 1  
RATES.

SEE AREA DEFINITIONS BELOW

	Rates	Fringes
OPERATOR: Power Equipment		
(AREA 1:)		
GROUP 1.....	\$ 60.72	31.03
GROUP 2.....	\$ 59.19	31.03
GROUP 3.....	\$ 57.71	31.03
GROUP 4.....	\$ 56.33	31.03
GROUP 5.....	\$ 55.06	31.03
GROUP 6.....	\$ 53.74	31.03
GROUP 7.....	\$ 52.60	31.03
GROUP 8.....	\$ 51.46	31.03
GROUP 8-A.....	\$ 49.25	31.03
OPERATOR: Power Equipment		
(Cranes and Attachments -		
AREA 1:)		
GROUP 1		
Cranes.....	\$ 52.30	31.15
Oiler.....	\$ 43.79	31.15
Truck crane oiler.....	\$ 46.08	31.15
GROUP 2		
Cranes.....	\$ 50.54	31.15
Oiler.....	\$ 42.83	31.15
Truck crane oiler.....	\$ 45.07	31.15
GROUP 3		
Cranes.....	\$ 48.80	31.15
Hydraulic.....	\$ 44.44	31.15
Oiler.....	\$ 42.55	31.15
Truck crane oiler.....	\$ 44.83	31.15
GROUP 4		
Cranes.....	\$ 45.76	31.15
OPERATOR: Power Equipment		
(Piledriving - AREA 1:)		
GROUP 1		
Lifting devices.....	\$ 52.64	31.15
Oiler.....	\$ 43.38	31.15
Truck Crane Oiler.....	\$ 45.66	31.15
GROUP 2		
Lifting devices.....	\$ 50.82	31.15
Oiler.....	\$ 43.11	31.15
Truck Crane Oiler.....	\$ 45.41	31.15
GROUP 3		
Lifting devices.....	\$ 49.14	31.15
Oiler.....	\$ 42.89	31.15
Truck Crane Oiler.....	\$ 45.12	31.15
GROUP 4		
Lifting devices.....	\$ 47.37	31.15
GROUP 5		
Lifting devices.....	\$ 44.73	31.15
GROUP 6		
Lifting devices.....	\$ 42.50	31.15
OPERATOR: Power Equipment		
(Steel Erection - AREA 1:)		
GROUP 1		
Cranes.....	\$ 53.27	31.15
Oiler.....	\$ 43.72	31.15
Truck Crane Oiler.....	\$ 45.95	31.15
GROUP 2		
Cranes.....	\$ 51.50	31.15
Oiler.....	\$ 43.45	31.15
Truck Crane Oiler.....	\$ 45.73	31.15
GROUP 3		
Cranes.....	\$ 50.02	31.15
Hydraulic.....	\$ 45.07	31.15
Oiler.....	\$ 43.23	31.15
Truck Crane Oiler.....	\$ 45.46	31.15
GROUP 4		
Cranes.....	\$ 48.00	31.15
GROUP 5		
Cranes.....	\$ 46.70	31.15
OPERATOR: Power Equipment		
(Tunnel and Underground Work		
- AREA 1:)		
SHAFTS, STOPES, RAISES:		
GROUP 1.....	\$ 56.82	31.03
GROUP 1-A.....	\$ 49.99	31.15
GROUP 1A.....	\$ 59.29	31.03
GROUP 2.....	\$ 55.56	31.03
GROUP 3.....	\$ 54.23	31.03
GROUP 4.....	\$ 53.09	31.03
GROUP 5.....	\$ 51.95	31.03
UNDERGROUND:		
GROUP 1.....	\$ 47.42	31.15
GROUP 1-A.....	\$ 49.89	31.15
GROUP 2.....	\$ 46.16	31.15
GROUP 3.....	\$ 44.83	31.15
GROUP 4.....	\$ 43.69	31.15
GROUP 5.....	\$ 42.55	31.15

FOOTNOTE: Work suspended by ropes or cables, or work on a Yo-Yo Cat: \$.60 per hour additional.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Operator of helicopter (when used in erection work); Hydraulic excavator, 7 cu. yds. and over; Power shovels, over 7 cu. yds.

GROUP 2: Highline cableway; Hydraulic excavator, 3-1/2 cu. yds. up to 7 cu. yds.; Licensed construction work boat operator, on site; Power blade operator (finish); Power shovels, over 1 cu. yd. up to and including 7 cu. yds. m.r.c.

GROUP 3: Asphalt milling machine; Cable backhoe; Combination backhoe and loader over 3/4 cu. yds.; Continuous flight tie back machine assistant to engineer or mechanic; Crane



mounted continuous flight tie back machine, tonnage to apply; Crane mounted drill attachment, tonnage to apply; Dozer, slope brd; Gradall; Hydraulic excavator, up to 3 1/2 cu. yds.; Loader 4 cu. yds. and over; Long reach excavator; Multiple engine scraper (when used as push pull); Power shovels, up to and including 1 cu. yd.; Pre-stress wire wrapping machine; Side boom cat, 572 or larger; Track loader 4 cu. yds. and over; Wheel excavator (up to and including 750 cu. yds. per hour)

GROUP 4: Asphalt plant engineer/box person; Chicago boom; Combination backhoe and loader up to and including 3/4 cu. yd.; Concrete batch plant (wet or dry); Dozer and/or push cat; Pull- type elevating loader; Gradesetter, grade checker (GPS, mechanical or otherwise); Grooving and grinding machine; Heading shield operator; Heavy-duty drilling equipment, Hughes, LDH, Watson 3000 or similar; Heavy-duty repairperson and/or welder; Lime spreader; Loader under 4 cu. yds.; Lubrication and service engineer (mobile and grease rack); Mechanical finishers or spreader machine (asphalt, Barber-Greene and similar); Miller Formless M-9000 slope paver or similar; Portable crushing and screening plants; Power blade support; Roller operator, asphalt; Rubber-tired scraper, self-loading (paddle-wheels, etc.); Rubber- tired earthmoving equipment (scrapers); Slip form paver (concrete); Small tractor with drag; Soil stabilizer (P & H or equal); Spider plow and spider puller; Tubex pile rig; Unlicensed construction work boat operator, on site; Timber skidder; Track loader up to 4 yds.; Tractor-drawn scraper; Tractor, compressor drill combination; Welder; Woods-Mixer (and other similar Pugmill equipment)

GROUP 5: Cast-in-place pipe laying machine; Combination slusher and motor operator; Concrete conveyor or concrete pump, truck or equipment mounted; Concrete conveyor, building site; Concrete pump or pumpcrete gun; Drilling equipment, Watson 2000, Texoma 700 or similar; Drilling and boring machinery, horizontal (not to apply to waterliners, wagon drills or jackhammers); Concrete mixer/all; Person and/or material hoist; Mechanical finishers (concrete) (Clary, Johnson, Bidwell Bridge Deck or similar types); Mechanical burm, curb and/or curb and gutter machine, concrete or asphalt; Mine or shaft hoist; Portable crusher; Power jumbo operator (setting slip-forms, etc., in tunnels); Screed (automatic or manual); Self-propelled compactor with dozer; Tractor with boom D6 or smaller; Trenching machine, maximum digging capacity over 5 ft. depth; Vermeer T-600B rock cutter or similar

GROUP 6: Armor-Coater (or similar); Ballast jack tamper; Boom- type backfilling machine; Assistant plant engineer; Bridge and/or gantry crane; Chemical grouting machine, truck-mounted; Chip spreading machine operator; Concrete saw (self-propelled unit on streets, highways, airports and canals); Deck engineer; Drilling equipment Texoma 600, Hughes 200 Series or similar up to and including 30 ft. m.r.c.; Drill doctor; Helicopter radio operator; Hydro-hammer or similar; Line master; Skidsteer loader, Bobcat larger than 743 series or similar (with attachments); Locomotive; Lull hi-lift or similar; Oiler, truck mounted equipment; Pavement breaker, truck-mounted, with compressor combination; Paving fabric installation and/or laying machine; Pipe bending machine (pipelines only); Pipe wrapping machine (tractor propelled and supported); Screed (except asphaltic concrete paving); Self- propelled pipeline wrapping machine; Tractor; Self-loading chipper; Concrete barrier moving machine

GROUP 7: Ballast regulator; Boom truck or dual-purpose A-frame truck, non-rotating - under 15 tons; Cary lift or similar; Combination slurry mixer and/or cleaner; Drilling equipment, 20 ft. and under m.r.c.; Firetender (hot plant); Grouting machine operator; Highline cableway signalperson; Stationary belt loader (Kolman or similar); Lift slab machine (Vagtborg and similar types); Maginnes internal full slab vibrator; Material hoist (1 drum); Mechanical trench shield; Pavement breaker with or without compressor combination; Pipe cleaning machine (tractor propelled and supported); Post driver; Roller (except asphalt); Chip Seal; Self-propelled automatically applied concrete curing machine (on streets, highways, airports and canals); Self-propelled compactor (without dozer); Signalperson; Slip-form pumps (lifting device for concrete forms); Tie spacer; Tower mobile; Trenching machine, maximum digging capacity up to and including 5 ft. depth; Truck- type loader

GROUP 8: Bit sharpener; Boiler tender; Box operator; Brakeperson; Combination mixer and compressor (shotcrete/gunite); Compressor operator; Deckhand; Fire tender; Forklift (under 20 ft.); Generator; Gunite/shotcrete equipment operator; Hydraulic monitor; Ken seal machine (or similar); Mixermobile; Oiler; Pump operator; Refrigeration plant; Reservoir-debris tug (self-propelled floating); Ross Carrier (construction site); Rotomist operator; Self-propelled tape machine; Shuttlecar; Self-propelled power sweeper operator (includes vacuum sweeper); Slusher operator; Surface heater; Switchperson; Tar pot firetender; Tugger hoist, single drum; Vacuum cooling plant; Welding machine (powered other than by electricity)

GROUP 8-A: Elevator operator; Skidsteer loader-Bobcat 743 series or smaller, and similar (without attachments); Mini excavator under 25 H.P. (backhoe-trencher); Tub grinder wood chipper

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ALL CRANES AND ATTACHMENTS

GROUP 1: Clamshell and dragline over 7 cu. yds.; Crane, over 100 tons; Derrick, over 100 tons; Derrick barge pedestal-mounted, over 100 tons; Self-propelled boom-type lifting device, over 100 tons

GROUP 2: Clamshell and dragline over 1 cu. yd. up to and including 7 cu. yds.; Crane, over 45 tons up to and including 100 tons; Derrick barge, 100 tons and under; Self-propelled boom-type lifting device, over 45 tons; Tower crane

GROUP 3: Clamshell and dragline up to and including 1 cu. yd.; Cranes 45 tons and under; Self-propelled boom-type lifting device 45 tons and under;

GROUP 4: Boom Truck or dual purpose A-frame truck, non-rotating over 15 tons; Truck-mounted rotating telescopic boom type lifting device, Manitex or similar (boom truck) over 15 tons; Truck-mounted rotating telescopic boom type lifting device, Manitex or similar (boom truck) - under 15 tons;

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PILEDRIVERS

GROUP 1: Derrick barge pedestal mounted over 100 tons; Clamshell over 7 cu. yds.; Self-propelled boom-type lifting device over 100 tons; Truck crane or crawler, land or barge mounted over 100 tons

GROUP 2: Derrick barge pedestal mounted 45 tons to and including 100 tons; Clamshell up to and including 7 cu. yds.; Self-propelled boom-type lifting device over 45 tons; Truck crane or crawler, land or barge mounted, over 45 tons up to and including 100 tons; Fundex F-12 hydraulic pile rig

GROUP 3: Derrick barge pedestal mounted under 45 tons; Self-propelled boom-type lifting device 45 tons and under; Skid/scow piledriver, any tonnage; Truck crane or crawler, land or barge mounted 45 tons and under

GROUP 4: Assistant operator in lieu of assistant to engineer; Forklift, 10 tons and over; Heavy-duty repairperson/welder

GROUP 5: Deck engineer

GROUP 6: Deckhand; Fire tender  
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STEEL ERECTORS

GROUP 1: Crane over 100 tons; Derrick over 100 tons; Self-propelled boom-type lifting device over 100 tons

GROUP 2: Crane over 45 tons to 100 tons; Derrick under 100 tons; Self-propelled boom-type lifting device over 45 tons to 100 tons; Tower crane

GROUP 3: Crane, 45 tons and under; Self-propelled boom-type lifting device, 45 tons and under

GROUP 4: Chicago boom; Forklift, 10 tons and over; Heavy-duty repair person/welder

GROUP 5: Boom cat  
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TUNNEL AND UNDERGROUND WORK

GROUP 1-A: Tunnel bore machine operator, 20' diameter or more

GROUP 1: Heading shield operator; Heavy-duty repairperson; Mucking machine (rubber tired, rail or track type); Raised bore operator (tunnels); Tunnel mole bore operator

GROUP 2: Combination slusher and motor operator; Concrete pump or pumpcrete gun; Power jumbo operator

GROUP 3: Drill doctor; Mine or shaft hoist

GROUP 4: Combination slurry mixer cleaner; Grouting Machine operator; Motorman

GROUP 5: Bit Sharpener; Brakeman; Combination mixer and compressor (gunite); Compressor operator; Oiler; Pump operator; Slusher operator  
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AREA DESCRIPTIONS:

POWER EQUIPMENT OPERATORS, CRANES AND ATTACHMENTS, TUNNEL AND UNDERGROUND [These areas do not apply to Piledrivers and Steel Erectors]

AREA 1: DEL NORTE, HUMBOLDT, LAKE, MENDOCINO

AREA 2 -NOTED BELOW

THE REMAINING COUNTIES ARE SPLIT BETWEEN AREA 1 AND AREA 2 AS NOTED BELOW:

DEL NORTE COUNTY:

Area 1: Extreme Southwest corner

Area 2: Remainder

HUMBOLDT COUNTY:

Area 1: Except Eastern and Southwestern parts  
Area 2: Remainder

LAKE COUNTY:

Area 1: Southern part  
Area 2: Remainder

MENDOCINO COUNTY:

Area 1: Central and Southeastern Parts  
Area 2: Remainder

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IRON0118-012 01/01/2024

ALPINE, LASSEN, MODOC, SISKIYOU and TRINITY COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 41.00	34.20

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IRON0118-013 01/01/2024

AMADOR, BUTTE, COLUSA, EL DORADO, GLENN, MARIN, NAPA, NEVADA,  
PLACER, PLUMAS, SACRAMENTO, SHASTA, SIERRA, SOLANO, SONOMA,  
SUTTER, TEHAMA, YOLO and YUBA COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 47.45	34.90

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LABO0067-003 07/01/2024

AREA "1" - MARIN and NAPA COUNTIES

AREA "2" - ALPINE, AMADOR, BUTTE COLUSA EL DORADO, GLENN,  
LASSEN, MODOC, NEVADA, PLACER, PLUMAS, SACRAMENTO, SHASTA,  
SIERRA, SISKIYOU, SOLANO, SONOMA, SUTTER, TEHAMA, TRINITY,  
YOLO, AND YUBA COUNTIES

	Rates	Fringes
LABORER (ASBESTOS/MOLD/LEAD LABORER)		
Marin and Napa Counties.....	\$ 37.75	29.69
Remaining Counties.....	\$ 36.75	29.69

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LABO0067-005 01/01/2024

AREA "A" - ALAMEDA, CONTRA COSTA, SAN FRANCISCO, SAN MATEO AND  
SANTA CLARA COUNTIES

AREA "B" - ALPINE, AMADOR, BUTTE, CALAVERAS, COLUSA, DEL  
NORTE, EL DORADO, FRESNO, GLENN, HUMBOLDT, KINGS, LAKE, LASSEN,  
MADERA, MARIPOSA, MENDOCINO, MERCED, MODOC, MONTEREY, NEVADA,  
PLACER, PLUMAS, SACRAMENTO, SAN BENITO, SAN JOAQUIN, SANTA  
CRUZ, SIERRA, SHASTA, SISKIYOU, STANISLAUS, TEHAMA, TRINITY,  
TULARE, TUOLUMNE, YOLO AND YUBA COUNTIES

	Rates	Fringes
LABORER (TRAFFIC CONTROL/LANE CLOSURE)		
Escort Driver, Flag Person		
Area A.....	\$ 37.26	27.32
Area B.....	\$ 36.26	27.32
Traffic Control Person I		
Area A.....	\$ 37.56	27.32
Area B.....	\$ 36.56	27.32
Traffic Control Person II		
Area A.....	\$ 35.06	27.32
Area B.....	\$ 34.06	27.32

TRAFFIC CONTROL PERSON I: Layout of traffic control, crash  
cushions, construction area and roadside signage.

TRAFFIC CONTROL PERSON II: Installation and removal of  
temporary/permanent signs, markers, delineators and crash  
cushions.

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LABO0185-002 07/01/2023

ALPINE, AMADOR, BUTTE, COLUSA, EL DORADO, GLENN, LASSEN, MODOC,  
NEVADA, PLACER, PLUMAS, SACRAMENTO, SHASTA, SIERRA, SISKIYOU,  
SUTTER, TEHAMA, TRINITY, YOLO AND YUBA COUNTIES

	Rates	Fringes
LABORER		
Mason Tender-Brick.....	\$ 36.29	25.55

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LABO0185-005 06/26/2023

ALPINE, AMADOR, BUTTE, COLUSA, EL DORADO, GLENN, LASSEN, MODOC,  
NEVADA, PLACER, PLUMAS, SACRAMENTO, SHASTA, SIERRA, SISKIYOU,  
SUTTER, TEHAMA, TRINITY, YOLO AND YUBA COUNTIES

	Rates	Fringes
Tunnel and Shaft Laborers:		
GROUP 1.....	\$ 45.89	27.72

GROUP 2.....	\$ 45.66	27.72
GROUP 3.....	\$ 45.41	27.72
GROUP 4.....	\$ 44.96	27.72
GROUP 5.....	\$ 44.42	27.72
Shotcrete Specialist.....	\$ 46.41	27.72

TUNNEL AND SHAFT CLASSIFICATIONS

GROUP 1: Diamond driller; Groundmen; Gunite and shotcrete nozzlemen

GROUP 2: Rodmen; Shaft work & raise (below actual or excavated ground level)

GROUP 3: Bit grinder; Blaster, driller, powdermen, heading; Cherry pickermen - where car is lifted; Concrete finisher in tunnel; Concrete screedman; Grout pumpman and potman; Gunite & shotcrete gunman & potman; Headermen; High pressure nozzleleman; Miner - tunnel, including top and bottom man on shaft and raise work; Nipper; Nozzleman on slick line; Sandblaster - potman, Robotic Shotcrete Placer, Segment Erector, Tunnel Muck Hauler, Steel Form raiser and setter; Timberman, retimberman (wood or steel or substitute materials therefore); Tugger (for tunnel laborer work); Cable tender; Chuck tender; Powderman - primer house

GROUP 4: Vibrator operator, pavement breaker; Bull gang - muckers, trackmen; Concrete crew - includes rodding and spreading, Dumpmen (any method)

GROUP 5: Grout crew; Reboundman; Swamper/ Brakeman

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LAB00185-006 06/26/2023

ALPINE, AMADOR, BUTTE, COLUSA, EL DORADO, GLENN, LASSEN, MODOC, NEVADA, PLACER, PLUMAS, SACRAMENTO, SHASTA, SIERRA, SISKIYOU, SUTTER, TEHAMA, TRINITY, YOLO, YUBA COUNTIES

	Rates	Fringes
LABORER (CONSTRUCTION CRAFT		
LABORERS - AREA B:)		
Construction Specialist		
Group.....	\$ 36.20	27.30
GROUP 1.....	\$ 35.50	27.30
GROUP 1-a.....	\$ 35.72	27.30
GROUP 1-c.....	\$ 35.55	27.30
GROUP 1-e.....	\$ 36.05	27.30
GROUP 1-f.....	\$ 30.37	23.20
GROUP 2.....	\$ 35.35	27.30
GROUP 3.....	\$ 35.25	27.30
GROUP 4.....	\$ 28.94	27.30
See groups 1-b and 1-d under laborer classifications.		
LABORER (GARDENERS,		
HORTICULTURAL & LANDSCAPE		
LABORERS - AREA B:)		
(1) New Construction.....	\$ 35.25	27.30
(2) Establishment Warranty		
Period.....	\$ 28.94	27.30
LABORER (GUNITE - AREA B:)		
GROUP 1.....	\$ 36.46	27.30
GROUP 2.....	\$ 35.96	27.30
GROUP 3.....	\$ 35.37	27.30
GROUP 4.....	\$ 35.25	27.30
LABORER (WRECKING - AREA B:)		
GROUP 1.....	\$ 35.50	27.30
GROUP 2.....	\$ 35.35	27.30

FOOTNOTES:

Laborers working off or with or from bos'n chairs, swinging scaffolds, belts shall receive \$0.25 per hour above the applicable wage rate. This shall not apply to workers entitled to receive the wage rate set forth in Group 1-a below.

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LABORER CLASSIFICATIONS

CONSTRUCTION SPECIALIST GROUP: Asphalt ironer and raker; Chainsaw; Laser beam in connection with laborers' work; Cast-in- place manhole form setter; Pressure pipelayer; Davis trencher - 300 or similar type (and all small trenchers); Blaster; Diamond driller; Multiple unit drill; Hydraulic drill

GROUP 1: Asphalt spreader boxes (all types); Barko, Wacker and similar type tampers; Buggymobile; Caulker, bander, pipewrapper, conduit layer, plastic pipelayer; Certified hazardous waste worker including Leade Abatement; Compactors of all types; Concrete and magnesite mixer, 1/2 yd. and under; Concrete pan work; Concrete sander; Concrete saw; Cribber and/or shoring; Cut granite curb setter; Dri-pak-it machine; Faller, logloader and bucket; Form raiser, slip forms; Green cutter; Headerboard, Hubsetter, aligner, by any method; High pressure blow pipe (1-1/2" or over, 100 lbs. pressure/over); Hydro seeder and similar type; Jackhammer operator; Jacking of pipe over 12 inches; Jackson and similar type compactor; Kettle tender, pot and worker applying asphalt, lay-kold, creosote, lime, caustic and similar type materials (applying means applying, dipping or handling of such materials); Lagging, sheeting, whaling, bracing, trenchjacking, lagging hammer; Magnesite, epoxyresin, fiberglass, mastic worker (wet or dry); No joint pipe and stripping of same, including repair of voids; Pavement breaker and spader, including tool grinder;

Perma curb; Pipelayer (including grade checking in connection with pipelaying); Precast-manhole setter; Pressure pipe tester; Post hole digger, air, gas and electric; Power broom sweeper; Power tampers of all types (except as shown in Group 2); Ram set gun and stud gun; Riprap stonepaver and rock-slinger, including placing of sacked concrete and/or sand (wet or dry) and gabions and similar type; Rotary scarifier or multiple head concrete chipping scarifier; Roto and Ditch Witch; Rototiller; Sandblaster, pot, gun, nozzle operators; Signalling and rigging; Tank cleaner; Tree climber; Turbo blaster; Vibrascreed, bull float in connection with laborers' work; Vibrator; Hazardous waste worker (lead removal); Asbestos and mold removal worker

GROUP 1-a: Joy drill model TWM-2A; Gardner-Denver model DH143 and similar type drills; Track driller; Jack leg driller; Wagon driller; Mechanical drillers, all types regardless of type or method of power; Mechanical pipe layers, all types regardless of type or method of power; Blaster and powder; All work of loading, placing and blasting of all powder and explosives of whatever type regardless of method used for such loading and placing; High scalars (including drilling of same); Tree topper; Bit grinder

GROUP 1-b: Sewer cleaners shall receive \$4.00 per day above Group 1 wage rates. "Sewer cleaner" means any worker who handles or comes in contact with raw sewage in small diameter sewers. Those who work inside recently active, large diameter sewers, and all recently active sewer manholes shall receive \$5.00 per day above Group 1 wage rates.

GROUP 1-c: Burning and welding in connection with laborers' work; Synthetic thermoplastics and similar type welding

GROUP 1-d: Maintenance and repair track and road beds. All employees performing work covered herein shall receive \$ .25 per hour above their regular rate for all work performed on underground structures not specifically covered herein. This paragraph shall not be construed to apply to work below ground level in open cut. It shall apply to cut and cover work of subway construction after the temporary cover has been placed.

GROUP 1-e: Work on and/or in bell hole footings and shafts thereof, and work on and in deep footings. (A deep footing is a hole 15 feet or more in depth.) In the event the depth of the footing is unknown at the commencement of excavation, and the final depth exceeds 15 feet, the deep footing wage rate would apply to all employees for each and every day worked on or in the excavation of the footing from the date of inception.

GROUP 1-f: Wire winding machine in connection with guniting or shot crete

GROUP 2: Asphalt shoveler; Cement dumper and handling dry cement or gypsum; Choke-setter and rigger (clearing work); Concrete bucket dumper and chute; Concrete chipping and grinding; Concrete laborer (wet or dry); Driller tender, chuck tender, nipper; Guinea chaser (stake), grout crew; High pressure nozzle, adductor; Hydraulic monitor (over 100 lbs. pressure); Loading and unloading, carrying and hauling of all rods and materials for use in reinforcing concrete construction; Pittsburgh chipper and similar type brush shredders; Sloper; Single foot, hand-held, pneumatic tamper; All pneumatic, air, gas and electric tools not listed in Groups 1 through 1-f; Jacking of pipe - under 12 inches

GROUP 3: Construction laborers, including bridge and general laborer; Dump, load spotter; Flag person; Fire watcher; Fence erector; Guardrail erector; Gardener, horticultural and landscape laborer; Jetting; Limber, brush loader and piler; Pavement marker (button setter); Maintenance, repair track and road beds; Streetcar and railroad construction track laborer; Temporary air and water lines, Victaulic or similar; Tool room attendant (jobsite only)

GROUP 4: Final clean-up work of debris, grounds and building including but not limited to: street cleaner; cleaning and washing windows; brick cleaner (jobsite only); material cleaner (jobsite only). The classification "material cleaner" is to be utilized under the following conditions:

A: at demolition site for the salvage of the material.

B: at the conclusion of a job where the material is to be salvaged and stocked to be reused on another job.

C: for the cleaning of salvage material at the jobsite or temporary jobsite yard.

The material cleaner classification should not be used in the performance of "form stripping, cleaning and oiling and moving to the next point of erection".

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GUNITE LABORER CLASSIFICATIONS

GROUP 1: Structural Nozzleman

GROUP 2: Nozzleman, Gunman, Potman, Groundman

GROUP 3: Reboundman

GROUP 4: Gunite laborer  
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WRECKING WORK LABORER CLASSIFICATIONS

GROUP 1: Skilled wrecker (removing and salvaging of sash, windows and materials)

GROUP 2: Semi-skilled wrecker (salvaging of other building materials)

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LABO0185-008 07/01/2023

	Rates	Fringes
Plasterer tender.....	\$ 39.77	28.54

Work on a swing stage scaffold: \$1.00 per hour additional.

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LABO0261-002 07/01/2023

MARIN COUNTY

	Rates	Fringes
LABORER (TRAFFIC CONTROL/LANE CLOSURE)		
Escort Driver, Flag Person..	\$ 37.26	27.30
Traffic Control Person I....	\$ 37.56	27.30
Traffic Control Person II...	\$ 35.06	27.30

TRAFFIC CONTROL PERSON I: Layout of traffic control, crash cushions, construction area and roadside signage.

TRAFFIC CONTROL PERSON II: Installation and removal of temporary/permanent signs, markers, delineators and crash cushions.

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LABO0261-004 06/26/2023

MARIN COUNTY

	Rates	Fringes
Tunnel and Shaft Laborers:		
GROUP 1.....	\$ 45.89	27.72
GROUP 2.....	\$ 45.66	27.72
GROUP 3.....	\$ 45.41	27.72
GROUP 4.....	\$ 44.96	27.72
GROUP 5.....	\$ 44.42	27.72
Shotcrete Specialist.....	\$ 46.41	27.72

TUNNEL AND SHAFT CLASSIFICATIONS

GROUP 1: Diamond driller; Groundmen; Gunite and shotcrete nozzlelemen

GROUP 2: Rodmen; Shaft work & raise (below actual or excavated ground level)

GROUP 3: Bit grinder; Blaster, driller, powdermen, heading; Cherry pickermen - where car is lifted; Concrete finisher in tunnel; Concrete screedman; Grout pumpman and potman; Gunite & shotcrete gunman & potman; Headermen; High pressure nozzleman; Miner - tunnel, including top and bottom man on shaft and raise work; Nipper; Nozzleman on slick line; Sandblaster - potman, Robotic Shotcrete Placer, Segment Erector, Tunnel Muck Hauler, Steel Form raiser and setter; Timberman, retimberman (wood or steel or substitute materials therefore); Tugger (for tunnel laborer work); Cable tender; Chuck tender; Powderman - primer house

GROUP 4: Vibrator operator, pavement breaker; Bull gang - muckers, trackmen; Concrete crew - includes rodding and spreading, Dumpmen (any method)

GROUP 5: Grout crew; Reboundman; Swamper/ Brakeman

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LABO0261-007 07/01/2023

MARIN COUNTY

	Rates	Fringes
LABORER		
Mason Tender-Brick.....	\$ 37.54	25.55

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LABO0261-010 06/26/2023

MARIN COUNTY

	Rates	Fringes
LABORER (CONSTRUCTION CRAFT LABORERS - AREA A:)		
Construction Specialist		
Group.....	\$ 37.20	27.30
GROUP 1.....	\$ 36.50	27.30
GROUP 1-a.....	\$ 36.72	27.30
GROUP 1-c.....	\$ 36.55	27.30
GROUP 1-e.....	\$ 37.05	27.30
GROUP 1-f.....	\$ 31.37	23.20
GROUP 2.....	\$ 36.35	27.30
GROUP 3.....	\$ 36.25	27.30
GROUP 4.....	\$ 29.94	27.30

See groups 1-b and 1-d under laborer classifications.

LABORER (GARDENERS, HORTICULTURAL & LANDSCAPE LABORERS - AREA A:)

(1) New Construction.....	\$ 36.25	27.30
(2) Establishment Warranty Period.....	\$ 29.94	27.30
LABORER (GUNITE - AREA A:)		
GROUP 1.....	\$ 37.46	27.30
GROUP 2.....	\$ 36.96	27.30
GROUP 3.....	\$ 36.37	27.30
GROUP 4.....	\$ 36.25	27.30
LABORER (WRECKING - AREA A:)		
GROUP 1.....	\$ 36.50	27.30
GROUP 2.....	\$ 36.35	27.30

FOOTNOTES:

Laborers working off or with or from bos'n chairs, swinging scaffolds, belts shall receive \$0.25 per hour above the applicable wage rate. This shall not apply to workers entitled to receive the wage rate set forth in Group 1-a below.

LABORER CLASSIFICATIONS

CONSTRUCTION SPECIALIST GROUP: Asphalt ironer and raker; Chainsaw; Laser beam in connection with laborers' work; Cast-in-place manhole form setter; Pressure pipelayer; Davis trencher - 300 or similar type (and all small trenchers); Blaster; Diamond driller; Multiple unit drill; Hydraulic drill

GROUP 1: Asphalt spreader boxes (all types); Barko, Wacker and similar type tampers; Buggymobile; Caulker, bander, pipewrapper, conduit layer, plastic pipelayer; Certified hazardous waste worker including Leade Abatement; Compactors of all types; Concrete and magnesite mixer, 1/2 yd. and under; Concrete pan work; Concrete sander; Concrete saw; Cribber and/or shoring; Cut granite curb setter; Dri-pak-it machine; Faller, logloader and bucket; Form raiser, slip forms; Green cutter; Headerboard, Hubsetter, aligner, by any method; High pressure blow pipe (1-1/2" or over, 100 lbs. pressure/over); Hydro seeder and similar type; Jackhammer operator; Jacking of pipe over 12 inches; Jackson and similar type compactor; Kettle tender, pot and worker applying asphalt, lay-kold, creosote, lime, caustic and similar type materials (applying means applying, dipping or handling of such materials); Lagging, sheeting, whaling, bracing, trenchjacking, lagging hammer; Magnesite, epoxyresin, fiberglass, mastic worker (wet or dry); No joint pipe and stripping of same, including repair of voids; Pavement breaker and spader, including tool grinder; Perma curb; Pipelayer (including grade checking in connection with pipelaying); Precast-manhole setter; Pressure pipe tester; Post hole digger, air, gas and electric; Power broom sweeper; Power tampers of all types (except as shown in Group 2); Ram set gun and stud gun; Riprap stonepaver and rock-slinger, including placing of sacked concrete and/or sand (wet or dry) and gabions and similar type; Rotary scarifier or multiple head concrete chipping scarifier; Roto and Ditch Witch; Rototiller; Sandblaster, pot, gun, nozzle operators; Signalling and rigging; Tank cleaner; Tree climber; Turbo blaster; Vibrascreed, bull float in connection with laborers' work; Vibrator; Hazardous waste worker (lead removal); Asbestos and mold removal worker

GROUP 1-a: Joy drill model TWM-2A; Gardner-Denver model DH143 and similar type drills; Track driller; Jack leg driller; Wagon driller; Mechanical drillers, all types regardless of type or method of power; Mechanical pipe layers, all types regardless of type or method of power; Blaster and powder; All work of loading, placing and blasting of all powder and explosives of whatever type regardless of method used for such loading and placing; High scalers (including drilling of same); Tree topper; Bit grinder

GROUP 1-b: Sewer cleaners shall receive \$4.00 per day above Group 1 wage rates. "Sewer cleaner" means any worker who handles or comes in contact with raw sewage in small diameter sewers. Those who work inside recently active, large diameter sewers, and all recently active sewer manholes shall receive \$5.00 per day above Group 1 wage rates.

GROUP 1-c: Burning and welding in connection with laborers' work; Synthetic thermoplastics and similar type welding

GROUP 1-d: Maintenance and repair track and road beds. All employees performing work covered herein shall receive \$ .25 per hour above their regular rate for all work performed on underground structures not specifically covered herein. This paragraph shall not be construed to apply to work below ground level in open cut. It shall apply to cut and cover work of subway construction after the temporary cover has been placed.

GROUP 1-e: Work on and/or in bell hole footings and shafts thereof, and work on and in deep footings. (A deep footing is a hole 15 feet or more in depth.) In the event the depth of the footing is unknown at the commencement of excavation, and the final depth exceeds 15 feet, the deep footing wage rate would apply to all employees for each and every day worked on or in the excavation of the footing from the date of inception.

GROUP 1-f: Wire winding machine in connection with guniting or shot crete

GROUP 2: Asphalt shoveler; Cement dumper and handling dry

cement or gypsum; Choke-setter and rigger (clearing work); Concrete bucket dumper and chute; Concrete chipping and grinding; Concrete laborer (wet or dry); Driller tender, chuck tender, nipper; Guinea chaser (stake), grout crew; High pressure nozzle, adductor; Hydraulic monitor (over 100 lbs. pressure); Loading and unloading, carrying and hauling of all rods and materials for use in reinforcing concrete construction; Pittsburgh chipper and similar type brush shredders; Sloper; Single foot, hand-held, pneumatic tamper; All pneumatic, air, gas and electric tools not listed in Groups 1 through 1-f; Jacking of pipe - under 12 inches

GROUP 3: Construction laborers, including bridge and general laborer; Dump, load spotter; Flag person; Fire watcher; Fence erector; Guardrail erector; Gardener, horticultural and landscape laborer; Jetting; Limber, brush loader and piler; Pavement marker (button setter); Maintenance, repair track and road beds; Streetcar and railroad construction track laborer; Temporary air and water lines, Victaulic or similar; Tool room attendant (jobsite only)

GROUP 4: Final clean-up work of debris, grounds and building including but not limited to: street cleaner; cleaning and washing windows; brick cleaner (jobsite only); material cleaner (jobsite only). The classification "material cleaner" is to be utilized under the following conditions:

- A: at demolition site for the salvage of the material.
- B: at the conclusion of a job where the material is to be salvaged and stocked to be reused on another job.
- C: for the cleaning of salvage material at the jobsite or temporary jobsite yard.

The material cleaner classification should not be used in the performance of "form stripping, cleaning and oiling and moving to the next point of erection".

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**GUNITE LABORER CLASSIFICATIONS**

GROUP 1: Structural Nozzleman

GROUP 2: Nozzleman, Gunman, Potman, Groundman

GROUP 3: Reboundman

GROUP 4: Guniting laborer  
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**WRECKING WORK LABORER CLASSIFICATIONS**

GROUP 1: Skilled wrecker (removing and salvaging of sash, windows and materials)

GROUP 2: Semi-skilled wrecker (salvaging of other building materials)  
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LABO0261-015 07/01/2023

	Rates	Fringes
Plasterer tender.....	\$ 39.77	28.54

Work on a swing stage scaffold: \$1.00 per hour additional.  
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LABO0324-004 07/01/2023

**NAPA, SOLANO, AND SONOMA, COUNTIES**

	Rates	Fringes
<b>LABORER (TRAFFIC CONTROL/LANE CLOSURE)</b>		
Escort Driver, Flag Person..	\$ 36.26	27.30
Traffic Control Person I....	\$ 36.56	27.30
Traffic Control Person II....	\$ 34.06	27.30

TRAFFIC CONTROL PERSON I: Layout of traffic control, crash cushions, construction area and roadside signage.

TRAFFIC CONTROL PERSON II: Installation and removal of temporary/permanent signs, markers, delineators and crash cushions.  
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LABO0324-008 06/26/2023

**NAPA, SOLANO, AND SONOMA COUNTIES**

	Rates	Fringes
<b>Tunnel and Shaft Laborers:</b>		
GROUP 1.....	\$ 45.89	27.72
GROUP 2.....	\$ 45.66	27.72
GROUP 3.....	\$ 45.41	27.72
GROUP 4.....	\$ 44.96	27.72
GROUP 5.....	\$ 44.42	27.72
Shotcrete Specialist.....	\$ 46.41	27.72

**TUNNEL AND SHAFT CLASSIFICATIONS**

GROUP 1: Diamond driller; Groundmen; Guniting and shotcrete nozzlemen

GROUP 2: Rodmen; Shaft work & raise (below actual or excavated ground level)



GROUP 3: Bit grinder; Blaster, driller, powdermen, heading; Cherry pickermen - where car is lifted; Concrete finisher in tunnel; Concrete screedman; Grout pumpman and potman; Gunite & shotcrete gunman & potman; Headermen; High pressure nozzleleman; Miner - tunnel, including top and bottom man on shaft and raise work; Nipper; Nozzleman on slick line; Sandblaster - potman, Robotic Shotcrete Placer, Segment Erector, Tunnel Muck Hauler, Steel Form raiser and setter; Timberman, retimberman (wood or steel or substitute materials therefore); Tugger (for tunnel laborer work); Cable tender; Chuck tender; Powderman - primer house

GROUP 4: Vibrator operator, pavement breaker; Bull gang - muckers, trackmen; Concrete crew - includes rodding and spreading, Dumpmen (any method)

GROUP 5: Grout crew; Reboundman; Swamper/ Brakeman

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LABO0324-010 07/01/2023

SOLANO AND SONOMA COUNTIES

	Rates	Fringes
LABORER		
Mason Tender-Brick.....	\$ 36.84	26.24

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LABO0324-013 06/26/2023

NAPA, SOLANO, AND SONOMA COUNTIES

	Rates	Fringes
LABORER (CONSTRUCTION CRAFT		
LABORERS - AREA B:)		
Construction Specialist		
Group.....	\$ 36.20	27.30
GROUP 1.....	\$ 35.50	27.30
GROUP 1-a.....	\$ 35.72	27.30
GROUP 1-c.....	\$ 35.55	27.30
GROUP 1-e.....	\$ 36.05	27.30
GROUP 1-f.....	\$ 36.08	27.30
GROUP 2.....	\$ 35.35	27.30
GROUP 3.....	\$ 35.25	27.30
GROUP 4.....	\$ 28.94	27.30
See groups 1-b and 1-d under laborer classifications.		
LABORER (GARDENERS,		
HORTICULTURAL & LANDSCAPE		
LABORERS - AREA B:)		
(1) New Construction.....	\$ 35.25	27.30
(2) Establishment Warranty		
Period.....	\$ 28.94	27.30
LABORER (GUNITITE - AREA B:)		
GROUP 1.....	\$ 36.46	27.30
GROUP 2.....	\$ 35.96	27.30
GROUP 3.....	\$ 35.37	27.30
GROUP 4.....	\$ 35.25	27.30
LABORER (WRECKING - AREA B:)		
GROUP 1.....	\$ 35.50	27.30
GROUP 2.....	\$ 35.35	27.30

FOOTNOTES:

Laborers working off or with or from bos'n chairs, swinging scaffolds, belts shall receive \$0.25 per hour above the applicable wage rate. This shall not apply to workers entitled to receive the wage rate set forth in Group 1-a below.

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LABORER CLASSIFICATIONS

CONSTRUCTION SPECIALIST GROUP: Asphalt ironer and raker; Chainsaw; Laser beam in connection with laborers' work; Cast-in- place manhole form setter; Pressure pipelayer; Davis trencher - 300 or similar type (and all small trenchers); Blaster; Diamond driller; Multiple unit drill; Hydraulic drill

GROUP 1: Asphalt spreader boxes (all types); Barko, Wacker and similar type tampers; Buggymobile; Caulker, bander, pipewrapper, conduit layer, plastic pipelayer; Certified hazardous waste worker including Leade Abatement; Compactors of all types; Concrete and magnesite mixer, 1/2 yd. and under; Concrete pan work; Concrete sander; Concrete saw; Cribber and/or shoring; Cut granite curb setter; Dri-pak-it machine; Faller, logloader and bucket; Form raiser, slip forms; Green cutter; Headerboard, Hubsetter, aligner, by any method; High pressure blow pipe (1-1/2" or over, 100 lbs. pressure/over); Hydro seeder and similar type; Jackhammer operator; Jacking of pipe over 12 inches; Jackson and similar type compactor; Kettle tender, pot and worker applying asphalt, lay-kold, creosote, lime, caustic and similar type materials (applying means applying, dipping or handling of such materials); Lagging, sheeting, whaling, bracing, trenchjacking, lagging hammer; Magnesite, epoxyresin, fiberglass, mastic worker (wet or dry); No joint pipe and stripping of same, including repair of voids; Pavement breaker and spader, including tool grinder; Perma curb; Pipelayer (including grade checking in connection with pipelaying); Precast-manhole setter; Pressure pipe tester; Post hole digger, air, gas and electric; Power broom sweeper; Power tampers of all types (except as shown in Group 2); Ram set gun and stud gun; Riprap stonepaver and rock-slinger, including placing of sacked concrete and/or sand (wet or dry) and gabions and

similar type; Rotary scarifier or multiple head concrete chipping scarifier; Roto and Ditch Witch; Rototiller; Sandblaster, pot, gun, nozzle operators; Signalling and rigging; Tank cleaner; Tree climber; Turbo blaster; Vibrascreed, bull float in connection with laborers' work; Vibrator; Hazardous waste worker (lead removal); Asbestos and mold removal worker

GROUP 1-a: Joy drill model TWM-2A; Gardner-Denver model DH143 and similar type drills; Track driller; Jack leg driller; Wagon driller; Mechanical drillers, all types regardless of type or method of power; Mechanical pipe layers, all types regardless of type or method of power; Blaster and powder; All work of loading, placing and blasting of all powder and explosives of whatever type regardless of method used for such loading and placing; High scalers (including drilling of same); Tree topper; Bit grinder

GROUP 1-b: Sewer cleaners shall receive \$4.00 per day above Group 1 wage rates. "Sewer cleaner" means any worker who handles or comes in contact with raw sewage in small diameter sewers. Those who work inside recently active, large diameter sewers, and all recently active sewer manholes shall receive \$5.00 per day above Group 1 wage rates.

GROUP 1-c: Burning and welding in connection with laborers' work; Synthetic thermoplastics and similar type welding

GROUP 1-d: Maintenance and repair track and road beds. All employees performing work covered herein shall receive \$ .25 per hour above their regular rate for all work performed on underground structures not specifically covered herein. This paragraph shall not be construed to apply to work below ground level in open cut. It shall apply to cut and cover work of subway construction after the temporary cover has been placed.

GROUP 1-e: Work on and/or in bell hole footings and shafts thereof, and work on and in deep footings. (A deep footing is a hole 15 feet or more in depth.) In the event the depth of the footing is unknown at the commencement of excavation, and the final depth exceeds 15 feet, the deep footing wage rate would apply to all employees for each and every day worked on or in the excavation of the footing from the date of inception.

GROUP 1-f: Wire winding machine in connection with guniting or shotcrete

GROUP 2: Asphalt shoveler; Cement dumper and handling dry cement or gypsum; Choke-setter and rigger (clearing work); Concrete bucket dumper and chute; Concrete chipping and grinding; Concrete laborer (wet or dry); Driller tender, chuck tender, nipper; Guinea chaser (stake), grout crew; High pressure nozzle, adductor; Hydraulic monitor (over 100 lbs. pressure); Loading and unloading, carrying and hauling of all rods and materials for use in reinforcing concrete construction; Pittsburgh chipper and similar type brush shredders; Sloper; Single foot, hand-held, pneumatic tamper; All pneumatic, air, gas and electric tools not listed in Groups 1 through 1-f; Jacking of pipe - under 12 inches

GROUP 3: Construction laborers, including bridge and general laborer; Dump, load spotter; Flag person; Fire watcher; Fence erector; Guardrail erector; Gardener, horticultural and landscape laborer; Jetting; Limber, brush loader and piler; Pavement marker (button setter); Maintenance, repair track and road beds; Streetcar and railroad construction track laborer; Temporary air and water lines, Victaulic or similar; Tool room attendant (jobsite only)

GROUP 4: Final clean-up work of debris, grounds and building including but not limited to: street cleaner; cleaning and washing windows; brick cleaner (jobsite only); material cleaner (jobsite only). The classification "material cleaner" is to be utilized under the following conditions:

- A: at demolition site for the salvage of the material.
- B: at the conclusion of a job where the material is to be salvaged and stocked to be reused on another job.
- C: for the cleaning of salvage material at the jobsite or temporary jobsite yard.

The material cleaner classification should not be used in the performance of "form stripping, cleaning and oiling and moving to the next point of erection".

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GUNITE LABORER CLASSIFICATIONS

GROUP 1: Structural Nozzleman

GROUP 2: Nozzleman, Gunman, Potman, Groundman

GROUP 3: Reboundman

GROUP 4: Guniting laborer

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WRECKING WORK LABORER CLASSIFICATIONS

GROUP 1: Skilled wrecker (removing and salvaging of sash, windows and materials)

GROUP 2: Semi-skilled wrecker (salvaging of other building materials)

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LAB00324-019 07/01/2023

	Rates	Fringes
Plasterer tender.....	\$ 39.77	28.54

Work on a swing stage scaffold: \$1.00 per hour additional.

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PAIN0016-004 01/01/2024

MARIN, NAPA, SOLANO & SONOMA COUNTIES

	Rates	Fringes
Painters:.....	\$ 50.51	27.66

PREMIUMS:

EXOTIC MATERIALS - \$1.25 additional per hour.

SPRAY WORK: - \$0.50 additional per hour.

INDUSTRIAL PAINTING - \$0.25 additional per hour

[Work on industrial buildings used for the manufacture and processing of goods for sale or service; steel construction (bridges), stacks, towers, tanks, and similar structures]

HIGH WORK:

over 50 feet - \$2.00 per hour additional

100 to 180 feet - \$4.00 per hour additional

Over 180 feet - \$6.00 per hour additional

-----  
PAIN0016-005 01/01/2024

ALPINE, BUTTE, COLUSA, EL DORADO (west of the Sierra Nevada Mountains), GLENN, LASSEN (west of Hwy. 395, excluding Honey Lake); MARIN, MODOC, NAPA, NEVADA (west of the Sierra Nevada Mountains), PLACER (west of the Sierra Nevada Mountains), PLUMAS, SACRAMENTO, SHASTA, SIERRA (west of the Sierra Nevada Mountains), SISKIYOU, SOLANO, SONOMA, SUTTER, TEHAMA, TRINITY, YOLO AND YUBA COUNTIES

	Rates	Fringes
DRYWALL FINISHER/TAPER.....	\$ 56.28	29.94

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PAIN0016-007 01/01/2024

ALPINE, AMADOR, BUTTE, COLUSA, EL DORADO (west of the Sierra Nevada Mountains), GLENN, LASSEN (west of Highway 395, excluding Honey Lake), MODOC, NEVADA (west of the Sierra Nevada Mountains), PLACER (west of the Sierra Nevada Mountains), PLUMAS, SACRAMENTO, SHASTA, SIERRA (west of the Sierra Nevada Mountains), SISKIYOU, SUTTER, TEHAMA, TRINITY, YOLO & YUBA COUNTIES

	Rates	Fringes
Painters:.....	\$ 40.85	22.40

SPRAY/SANDBLAST: \$0.50 additional per hour.

EXOTIC MATERIALS: \$1.25 additional per hour.

HIGH TIME: Over 50 ft above ground or water level \$2.00 additional per hour. 100 to 180 ft above ground or water level \$4.00 additional per hour. Over 180 ft above ground or water level \$6.00 additional per hour.

-----  
PAIN0016-008 01/01/2024

MARIN, NAPA, SOLANO AND SONOMA COUNTIES

	Rates	Fringes
SOFT FLOOR LAYER.....	\$ 59.00	33.03

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PAIN0169-004 01/01/2024

MARIN, NAPA & SONOMA COUNTIES; SOLANO COUNTY (west of a line defined as follows: Hwy. 80 corridor beginning at the City of Fairfield, including Travis Air Force Base and Suisun City; going north of Manakas Corner Rd., continue north on Suisun Valley Rd. to the Napa County line; Hwy. 80 corridor south on Grizzly Island Rd. to the Grizzly Island Management area)

	Rates	Fringes
GLAZIER.....	\$ 56.22	34.00

\* PAIN0567-001 07/01/2022

EL DORADO COUNTY (east of the Sierra Nevada Mountains); LASSEN COUNTY (east of Highway 395, beginning at Stacey and including Honey Lake); NEVADA COUNTY (east of the Sierra Nevada Mountains); PLACER COUNTY (east of the Sierra Nevada Mountains); AND SIERRA COUNTY (east of the Sierra Nevada Mountains)

	Rates	Fringes
Painters:		
Brush and Roller.....	\$ 33.15	14.29
Spray Painter & Paperhanger.	\$ 34.81	14.29

PREMIUMS:

Special Coatings (Brush), and Sandblasting = \$0.50/hr  
 Special Coatings (Spray), and Steeplejack = \$1.00/hr  
 Special Coating Spray Steel = \$1.25/hr  
 Swing Stage = \$2.00/hr

\*A special coating is a coating that requires the mixing of 2 or more products.

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 PAIN0567-007 07/01/2022

EL DORADO COUNTY (east of the Sierra Nevada Mountains); LASSEN COUNTY (east of Highway 395, beginning at Stacey and including Honey Lake); NEVADA COUNTY (east of the Sierra Nevada Mountains); PLACER COUNTY (east of the Sierra Nevada Mountains) AND SIERRA COUNTY (east of the Sierra Nevada Mountains)

	Rates	Fringes
SOFT FLOOR LAYER.....	\$ 34.27	16.47

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 PAIN0567-010 07/01/2022

EL DORADO COUNTY (east of the Sierra Nevada Mountains); LASSEN COUNTY (east of Highway 395, beginning at Stacey and including Honey Lake); NEVADA COUNTY (east of the Sierra Nevada Mountains); PLACER COUNTY (east of the Sierra Nevada Mountains); AND SIERRA COUNTY (east of the Sierra Nevada Mountains)

	Rates	Fringes
Drywall		
(1) Taper.....	\$ 38.92	14.99
(2) Steeplejack - Taper, over 40 ft with open space below.....	\$ 40.42	14.99

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 PAIN0767-004 01/01/2024

ALPINE, AMADOR, BUTTE, COLUSA, EL DORADO, GLENN, LASSEN, MODOC, NEVADA, PLACER, PLUMAS, SACRAMENTO, SHASTA, SIERRA, SISKIYOU, SOLANO (Remainder), SUTTER, TEHAMA, TRINITY, YOLO, YUBA

	Rates	Fringes
GLAZIER.....	\$ 43.25	35.62

PAID HOLIDAYS: New Year's Day, Martin Luther King, Jr. Day, President's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, and Christmas Day.

Employee required to wear a body harness shall receive \$1.50 per hour above the basic hourly rate at any elevation.

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 PAIN1176-001 07/01/2022

HIGHWAY IMPROVEMENT

	Rates	Fringes
Parking Lot Striping/Highway Marking:		
GROUP 1.....	\$ 40.83	17.62
GROUP 2.....	\$ 34.71	17.62
GROUP 3.....	\$ 35.11	17.62

CLASSIFICATIONS

GROUP 1: Striper: Layout and application of painted traffic stripes and marking; hot thermo plastic; tape, traffic stripes and markings

GROUP 2: Gamecourt & Playground Installer

GROUP 3: Protective Coating, Pavement Sealing

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 PAIN1237-001 01/01/2024

ALPINE; COLUSA; EL DORADO (west of the Sierra Nevada Mountains); GLENN; LASSEN (west of Highway 395, beginning at Stacey and including Honey Lake); MODOC; NEVADA (west of the Sierra Nevada Mountains); PLACER (west of the Sierra Nevada Mountains); PLUMAS; SACRAMENTO; SHASTA; SIERRA (west of the Sierra Nevada Mountains); SISKIYOU; SUTTER; TEHAMA; TRINITY; YOLO AND YUBA COUNTIES

	Rates	Fringes
SOFT FLOOR LAYER.....	\$ 48.54	26.59

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 PLAS0300-003 07/01/2018

	Rates	Fringes
PLASTERER		
AREA 295: Alpine, Amador, Butte, Colusa, El Dorado, Glenn, Lassen, Modoc, Nevada, Placer, Plumas, Sacramento, Shasta, Sierra, Siskiyou, Solano, Sutter, Tehama, Trinity,		

Yolo & Yuba Counties.....	\$ 32.70	31.68
AREA 355: Marin.....	\$ 36.73	31.68
AREA 355: Napa & Sonoma Counties.....	\$ 32.70	31.68

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PLAS0300-005 07/01/2016

Rates Fringes

CEMENT MASON/CONCRETE FINISHER...	\$ 32.15	23.27
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PLUM0038-002 07/01/2022

MARIN AND SONOMA COUNTIES

Rates Fringes

PLUMBER (Plumber,  
Steamfitter, Refrigeration  
Fitter)

(1) Work on wooden frame  
structures 5 stories or  
less excluding high-rise  
buildings and commercial  
work such as hospitals,  
prisons, hotels, schools,  
casinos, wastewater  
treatment plants, and  
research facilities as well  
as refrigeration  
pipefitting, service and  
repair work - MARKET

RECOVERY RATE.....	\$ 69.70	46.38
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(2) All other work - NEW

CONSTRUCTION RATE.....	\$ 82.00	48.18
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PLUM0038-006 07/01/2022

MARIN & SONOMA COUNTIES

Rates Fringes

Landscape/Irrigation Fitter (Underground/Utility Fitter)....	\$ 69.70	33.15
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PLUM0228-001 07/01/2024

BUTTE, COLUSA, GLENN, LASSEN, MODOC, PLUMAS, SHASTA, SIERRA,  
SISKIYOU, SUTTER, TEHAMA, TRINITY & YUBA COUNTIES

Rates Fringes

PLUMBER.....	\$ 48.00	39.79
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PLUM0343-001 07/01/2024

NAPA AND SOLANO COUNTIES

Rates Fringes

PLUMBER/PIPEFITTER		
Light Commercial.....	\$ 30.85	20.40
All Other Work.....	\$ 69.60	36.63

DEFINITION OF LIGHT COMMERCIAL:

Work shall include strip shopping centers, office buildings,  
schools and other commercial structures which the total  
plumbing bid does not exceed Two Hundred and Fifty Thousand  
(\$250,000) and the total heating and cooling does not  
exceed Two Hundred Fifty Thousand (\$250,000); or Any  
projects bid in phases shall not qualify unless the total  
project is less than Two Hundred Fifty Thousand (\$250,000)  
for the plumbing bid; and Two Hundred Fifty Thousand  
(\$250,000) for the heating and cooling bid. Excluded are  
hospitals, jails, institutions and industrial projects,  
regardless size of the project

FOOTNOTES: While fitting galvanized material: \$.75 per hour  
additional. Work from trusses, temporary staging,  
unguarded structures 35' from the ground or water: \$.75 per  
hour additional. Work from swinging scaffolds, boatswains  
chairs or similar devices: \$.75 per hour additional.

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PLUM0350-001 08/01/2023

EL DORADO COUNTY (Lake Tahoe area only); NEVADA COUNTY (Lake  
Tahoe area only); AND PLACER COUNTY (Lake Tahoe area only)

Rates Fringes

PLUMBER/PIPEFITTER.....	\$ 52.14	18.71
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PLUM0355-001 07/01/2024

ALPINE, AMADOR, BUTTE, COLUSA, EL DORADO, GLENN, LASSEN, MODOC,  
NAPA, NEVADA, PLACER, PLUMAS, SACRAMENTO, SHASTA, SIERRA,  
SISKIYOU, SOLANO, SUTTER, TEHAMA, TRINITY, YOLO, AND YUBA  
COUNTIES

Rates Fringes

Underground Utility Worker /Landscape Fitter.....	\$ 34.51	18.30
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PLUM0442-003 07/01/2024

AMADOR (South of San Joaquin River) and ALPINE COUNTIES

	Rates	Fringes
PLUMBER.....	\$ 54.05	36.99

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 PLUM0447-001 07/01/2024

AMADOR (north of San Joaquin River), EL DORADO (excluding Lake Tahoe area), NEVADA (excluding Lake Tahoe area); PLACER (excluding Lake Tahoe area), SACRAMENTO AND YOLO COUNTIES

	Rates	Fringes
PLUMBER/PIPEFITTER		
Journeyman.....	\$ 64.37	29.25
Light Commercial Work.....	\$ 53.08	23.52

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 ROOF0081-006 08/01/2023

MARIN, NAPA, SOLANO AND SONOMA COUNTIES

	Rates	Fringes
Rofer.....	\$ 52.47	22.31

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 ROOF0081-007 08/01/2023

ALPINE, BUTTE, COLUSA, EL DORADO, GLENN, LASSEN, MODOC, NEVADA, PLACER, PLUMAS, SACRAMENTO, SHASTA, SIERRA, SISKIYOU, SUTTER, TEHAMA, TRINITY, YOLO, AND YUBA COUNTIES

	Rates	Fringes
Rofer.....	\$ 46.73	21.36

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 SFCA0483-003 08/01/2024

MARIN, NAPA, SOLANO AND SONOMA COUNTIES

	Rates	Fringes
SPRINKLER FITTER (Fire Sprinklers).....	\$ 79.13	38.51

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 SFCA0669-003 01/01/2024

ALPINE, BUTTE, COLUSA, EL DORADO, GLENN, LASSEN, MODOC, NEVADA, PLACER, PLUMAS, SACRAMENTO, SHASTA, SIERRA, SISKIYOU, SUTTER, TEHAMA, TRINITY, YOLO AND YUBA COUNTIES

	Rates	Fringes
SPRINKLER FITTER.....	\$ 46.46	27.97

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 SHEE0104-006 06/29/2020

MARIN, NAPA, SOLANO SONOMA & TRINITY COUNTIES

	Rates	Fringes
Sheet Metal Worker		
Mechanical Contracts		
\$200,000 or less.....	\$ 55.92	45.29
All other work.....	\$ 64.06	46.83

-----  
 SHEE0104-009 07/01/2021

AMADOR, COLUSA, EL DORADO, NEVADA, PLACER, SACRAMENTO, SUTTER, YOLO AND YUBA COUNTIES

	Rates	Fringes
SHEET METAL WORKER.....	\$ 47.85	41.90

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 SHEE0104-010 07/01/2020

ALPINE COUNTY

	Rates	Fringes
SHEET METAL WORKER.....	\$ 43.50	37.42

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 SHEE0104-011 07/01/2020

BUTTE, COLUSA, EL DORADO, GLENN, LASSEN, MODOC, NEVADA, PLACER, PLUMAS, SACRAMENTO, SHASTA, SIERRA, SISKIYOU, SUTTER, TEHAMA, YOLO AND YUBA COUNTIES

	Rates	Fringes
Sheet Metal Worker (Metal decking and siding only).....	\$ 44.45	35.55

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 SHEE0104-014 07/01/2020

MARIN, NAPA, SOLANO, SONOMA AND TRINITY COUNTIES

	Rates	Fringes
SHEET METAL WORKER (Metal Decking and Siding only).....	\$ 44.45	35.55

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BUTTE, GLENN, LASSEN, MODOC, PLUMAS, SHASTA, SIERRA, SISKIYOU AND TEHAMA COUNTIES

	Rates	Fringes
SHEET METAL WORKER		
Mechanical Jobs \$200,000 & under.....	\$ 35.16	35.88
Mechanical Jobs over \$200,000.....	\$ 46.60	40.21

\* TEAM0094-001 07/01/2024

	Rates	Fringes
Truck drivers:		
GROUP 1.....	\$ 41.54	33.25
GROUP 2.....	\$ 41.84	33.25
GROUP 3.....	\$ 42.14	33.25
GROUP 4.....	\$ 42.49	33.25
GROUP 5.....	\$ 42.84	33.25

FOOTNOTES:

Articulated dump truck; Bulk cement spreader (with or without auger); Dumpcrete truck; Skid truck (debris box); Dry pre-batch concrete mix trucks; Dumpster or similar type; Slurry truck: Use dump truck yardage rate.  
 Heater planer; Asphalt burner; Scarifier burner; Industrial lift truck (mechanical tailgate); Utility and clean-up truck: Use appropriate rate for the power unit or the equipment utilized.

TRUCK DRIVER CLASSIFICATIONS

GROUP 1: Dump trucks, under 6 yds.; Single unit flat rack (2-axle unit); Nipper truck (when flat rack truck is used appropriate flat rack shall apply); Concrete pump truck (when flat rack truck is used appropriate flat rack shall apply); Concrete pump machine; Fork lift and lift jitneys; Fuel and/or grease truck driver or fuel person; Snow buggy; Steam cleaning; Bus or personhaul driver; Escort or pilot car driver; Pickup truck; Teamster oiler/greaser and/or serviceperson; Hook tender (including loading and unloading); Team driver; Tool room attendant (refineries)

GROUP 2: Dump trucks, 6 yds. and under 8 yds.; Transit mixers, through 10 yds.; Water trucks, under 7,000 gals.; Jetting trucks, under 7,000 gals.; Single-unit flat rack (3-axle unit); Highbed heavy duty transport; Scissor truck; Rubber-tired muck car (not self-loaded); Rubber-tired truck jumbo; Winch truck and "A" frame drivers; Combination winch truck with hoist; Road oil truck or bootperson; Buggymobile; Ross, Hyster and similar straddle carriers; Small rubber-tired tractor

GROUP 3: Dump trucks, 8 yds. and including 24 yds.; Transit mixers, over 10 yds.; Water trucks, 7,000 gals. and over; Jetting trucks, 7,000 gals. and over; Vacuum trucks under 7500 gals. Trucks towing tilt bed or flat bed pull trailers; Lowbed heavy duty transport; Heavy duty transport tiller person; Self-propelled street sweeper with self-contained refuse bin; Boom truck - hydro-lift or Swedish type extension or retracting crane; P.B. or similar type self-loading truck; Tire repairperson; Combination bootperson and road oiler; Dry distribution truck (A bootperson when employed on such equipment, shall receive the rate specified for the classification of road oil trucks or bootperson); Ammonia nitrate distributor, driver and mixer; Snow Go and/or plow

GROUP 4: Dump trucks, over 25 yds. and under 65 yds.; Water pulls - DW 10's, 20's, 21's and other similar equipment when pulling Aqua/pak or water tank trailers; Helicopter pilots (when transporting men and materials); Lowbedk Heavy Duty Transport up to including 7 axles; DW10's, 20's, 21's and other similar Cat type, Terra Cobra, LeTourneau Pulls, Tournorocker, Euclid and similar type equipment when pulling fuel and/or grease tank trailers or other miscellaneous trailers; Vacuum Trucks 7500 gals and over and truck repairman

GROUP 5: Dump trucks, 65 yds. and over; Holland hauler; Low bed Heavy Duty Transport over 7 axles

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic

violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

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The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

#### Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

#### Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

#### Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

#### State Adopted Rate Identifiers

Classifications listed under the "SA" identifier indicate that the prevailing wage rate set by a state (or local) government was adopted under 29 C.F.R. 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 01/03/2024 reflects the date on which the classifications and rates under the "SA" identifier took effect under state law in the state from which the rates were adopted.

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#### WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests



for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

**APPENDIX E**  
**CWSRF SIGN**

**PROJECT FUNDED BY**

**President Joe Biden's  
Bipartisan  
Infrastructure Law**



**INVESTING IN  
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