

Documented Categorical Exclusion

Hangar 1 FBO Office

Truckee Tahoe Airport (TRK)

Truckee, California

July 19, 2018

Project Description

Truckee Tahoe Airport District is proposing to construct a 1,920 square foot building (Hangar 1 Office) to house fixed base operator offices (see attached project site plan). These offices will replace existing offices located within the adjacent hangar, Hangar 1. The move will provide more space for administrative and flight training functions and allow full use of Hangar 1 for maintenance activities and storage. The new Hangar 1 Office will include:

- Two offices
- A lobby/reception area
- A room for flight planning
- A conference room
- A kitchen/breakroom
- Two restrooms

The Hangar 1 Office will be sited about eight feet northwest of Hangar 1 (see attached site plan). The new building will be constructed in an unpaved area that currently contains the septic tank and leach field for wastewater generated by the existing Hangar 1 facilities. The septic tank and leach field will be removed. Wastewater for Hangar 1 and the new building will drain to a pump located about 20 feet south of the building. A force main will extend from the pump about 460 to the northwest to connect to an existing sanitary sewer. Constructing the force main will require trenching through Taxiway F and along the north edge of the parking lot that serves the terminal. The area will be repaved following completion of the force main. One tree will need to be removed to accommodate construction of the new building. A full range of utilities already serve the adjacent hangar and will be extended to this building.

Construction

Construction access to the site will be from Airport Road via the parking lot and adjacent taxilanes. Temporary material storage and equipment parking will be on the paved areas adjacent to the project site. Clear access to the storage hangar area will be maintained throughout the project. NOTAMs will be issued for any taxilane closures. Standard sediment control measures will be used for meeting water quality requirements.

Project Setting

The project site is located 500 feet east of TRK's administration offices. The site is adjacent to the east apron and southeast of the extension of Taxiway F. It is surrounded by pavement on three sides and a box hangar on the southeast side. Banks of aircraft storage hangars lie south of the project site.

TRK has a field elevation of 5,901 feet above sea level. It is located in the Lake Tahoe region of northeastern

California. The project site is located within unincorporated Nevada County. TRK is located on the southeastern border of the Town of Truckee, while Lake Tahoe lies about 12.0 miles to the south. Reno, Nevada lies 30.0 miles to the east.

TRK lies just east of Sierra Nevada’s crest at Donner Pass, within the Truckee River and Martis Creek valleys. Martis Valley, east of TRK, is a major habitat corridor between wilderness areas and the Tahoe Basin. Martis Valley is also rich in cultural resources. It was used seasonally by Native Americans, miners, railroad construction workers, and settlers transiting the area.

Relevant Categorical Exclusion

Paragraph 5-6.4.f. of Order 10501F applies to this project:

Federal financial assistance, licensing, Airport Layout Plan (ALP) approval, or FAA construction or limited expansion of accessory on-site structures, including storage building, garages, hangars, t-hangars, small parking areas, signs, fences, and other essentially similar minor development items.

5-2.b(1) National Historic Preservation Act (NHPA) resources

YES NO

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| <p><i>Are there historic/cultural resources listed (or eligible for listing) on the National Register of Historic Places located in the Area of Potential Effect? If yes, provide a record of the historic and/or cultural resources located therein and check with your local Airports Division/District Office to determine if a Section 106 finding is required.</i></p> <p>No structures lie on the project site. It was disturbed when the septic tank and leach field were constructed. A modern metal hangar is located adjacent to the site. A Cultural Resources Survey of the Proposed Truckee Tahoe Master Plan Project was prepared in 2015, which included the project site. No archaeological finds were made on the project site. Nor was it identified as a site potentially qualifying as historically significant. A copy of the report is attached.</p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p><i>Does the project have the potential to cause effects? If yes, describe the nature and extent of the effects.</i></p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p><i>Is the project area undisturbed? If not, provide information on the prior disturbance (including type and depth of disturbance, if available).</i></p> <p>. It was disturbed when the septic tank and leach field were constructed</p> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <p><i>Will the project impact tribal land or land of interest to tribes? If yes, describe the nature and extent of the effects and provide information on the tribe affected. Consultation with their THPO, or a tribal representative, along with the SHPO may be required.</i></p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

5-2.b(2) Department of Transportation Act Section 4(f) and 6(f) resources

YES NO

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| <p><i>Are there any properties protected under Section 4(f) (as defined by FAA Order 1050.1F) in or near the project area? This includes publicly owned parks, recreation areas, and wildlife or waterfowl refuges of</i></p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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| <p><i>national, state or local significance or land from a historic site of national, state or local significance.</i></p> <ul style="list-style-type: none"> - Ponderosa Golf Course is located approximately 0.50 miles northwest of the project area. - Northstar Golf Course, a privately-owned course, located about 3.0 miles south-southwest of the project area is a Certified Audubon Society Cooperative Sanctuary. Although not publicly owned, the wildlife sanctuary is locally significant. - Martis Creek Lake and Campground, approximately 2.0 miles southeast of the project site is owned and operated by the U.S. Army Corps of Engineers as a multi-use recreational and flood control facility. - Truckee Tahoe Airport District owns and operates a campground on airport property along its eastern boundary. The campground is part of the Martis Creek Lake recreational area. <p>None of these facilities will be affected by the proposed project. The effects of the project are very localized and will not change aircraft operations. The prior section noted the lack of potential impacts historic or other cultural resources.</p> | | |
| <p><i>Will project construction or operation physically or constructively “use” any Section 4(f) resource? If yes, describe the nature and extent of the use and/or impacts, and why there are no prudent and feasible alternatives. See 5050.4B Desk Reference Chapter 7.</i></p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p><i>Will the project affect any recreational or park land purchased with Section 6(f) Land and Water Conservation Funds? If so, please explain, if there will be impacts to those properties.</i></p> <p>No land on TRK was acquired with Section 6(f) funds. There will be no off-airport impacts that might affect recreational or park lands purchased with Section 6(f) funds.</p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

5-2.b(3) Threatened or Endangered Species

YES NO

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| <p><i>Are there any federal or state listed endangered, threatened, or candidate species or designated critical habitat in or near the project area? This includes species protected by individual statute, such as the Bald Eagle.</i></p> <p>An official USFWS species list was obtained on July 3, 2018 via that agency’s IPaC website. A copy is attached. The document listed two species that may be present in the project area:</p> <ul style="list-style-type: none"> - Sierra Nevada Yellow-legged Frog (<i>Rana sierra</i>) - Lahontan Cutthroat Trout (<i>Oncorhynchus clarkii henshawi</i>) <p>The USFWS species list indicates that the project area does not contain and designated critical habitat. A Biological Constraints Analysis for the Truckee Tahoe Airport District (TTAD) Master Plan Update, prepared in 2015, indicates that the areas to be disturbed by the project are either ruderal or paved. These are not suitable habitat for these two species.</p> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <p><i>Does the project affect or have the potential to affect, directly or indirectly, any federal or state-listed, threatened, endangered or candidate species, or designated habitat under the Endangered Species Act? If yes, Section 7 consultation between the FAA and the US Fish & Wildlife Service, National Marine Fisheries Service, and/or the appropriate state agency will be necessary. Provide a description of the impacts and how impacts will be avoided, minimized, or mitigated. Provide the Biological Assessment and Biological Opinion, if required.</i></p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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| The project site does not contain habitat suitable for the listed species. Adjacent areas are paved. | | |
| <p><i>Does the project have the potential to take birds protected by the Migratory Bird Treaty Act? Describe steps to avoid, minimize, or mitigate impacts (such as timing windows determined in consultation with the US Fish & Wildlife Service).</i></p> <p>If the tree that will be removed as part of this project is to be removed during the bird breeding season, a biologist will verify that no nesting birds are located in the tree.</p> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

5-2.b(4) Other Resources

Items to consider include:

| a. Fish and Wildlife Coordination Act | YES | NO |
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| <p><i>Does the project area contain resources protected by the Fish and Wildlife Coordination Act? If yes, describe any impacts and steps taken to avoid, minimize or mitigate impacts.</i></p> <p>There are no water sources on TRK; therefore, no resources protected by the Fish and Wildlife Coordination Act will be impacted.</p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Wetlands and Other Waters of the U.S. | YES | NO |
| <p><i>Are there any wetlands or other waters of the US in or near the project area?</i></p> <p>The Biological Constraints Analysis for the TTAD Master Plan Update, prepared in 2015, did not identify any waters of the US in or near the project area. The nearest wetlands are in a swale located about 1,200 feet southwest of the project site.</p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p><i>Has wetland delineation been completed within the proposed project area? If yes, please provide U.S. Army Corps of Engineers (USACE) correspondence and jurisdictional determination.</i></p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p><i>If delineation was not completed, was a field check done to confirm the presence/absence of wetlands or other waters of the US? If no to both, please explain what methods were used to determine the presence/absence of wetlands.</i></p> <p>Biologists associated with Garcia and Associates performed a field reconnaissance of the site as part of investigations during preparation of the Biological Constraints Analysis for the Truckee Tahoe Airport District Master Plan Update.</p> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <p><i>If wetlands are present, will the project result in impacts, directly or indirectly (including tree clearing)? Describe any steps taken to avoid, minimize, or mitigate the impact.</i></p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p><i>Is a USACE Clean Water Act Section 404 permit required? If yes, does the project fall within the parameters of a general permit? If so, which general permit?</i></p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. Floodplains | YES | NO |
| <p><i>Will the project be located in, encroach upon, or otherwise impact a floodplain? If yes, describe impacts and any agency coordination or public review completed including coordination with the local floodplain administrator. Attach the FEMA map, if applicable, and any documentation.</i></p> <p>TRK is located south of the Truckee River and west of Martis Creek, both of which have designated 100-year flood plains. However, only a small portion of TRK's eastern quadrant is within a</p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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| designated 100-year floodplain (Flood Insurance Rate Maps 06057C0534E, effective February 3, 2010; FM06061C0100F, effective June 8, 1998). The proposed project site is about 4,500 feet west of the nearest on-airport 100-year flood zone (see attached FIRM). The project would not increase flooding or expose additional portions of the airfield to flooding. | | |
| d. Coastal Resources | YES | NO |
| <i>Will the project occur in or impact a coastal zone, as defined by the State's Coastal Zone Management Plan (CZMP)? If yes, discuss the project's consistency with the State's CZMP. Attach the consistency determination, if applicable.</i> TRK is located about 150 miles from the California Coast. | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <i>Will the project occur in or impact the Coastal Barrier Resource System, as defined by the US Fish and Wildlife Service?</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e. National Marine Sanctuaries | YES | NO |
| <i>Is a National Marine Sanctuary located in the project area? If yes, discuss the potential for the project to impact that resource.</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f. Wilderness Areas | YES | NO |
| <i>Is a Wilderness Area located in the project area? If yes, discuss the potential for the project to impact that resource.</i> The nearest wilderness area is the Mount Rose Wilderness, which is located 8 miles to the east of TRK. | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g. Farmland | YES | NO |
| <i>Is there prime, unique, state, or locally important farmland in/near the project area? Describe any significant impacts from the project.</i> The USDA Natural Resource Conservation Service (NRCS) Web Soil Survey indicates that the project site and balance of TRK are "not prime farmland." According to State of California, Department of Conservation, Farmland Mapping and Monitoring Program, 2013, there are no unique, state or locally important farmland in or near the project area. | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <i>Does the project include the acquisition and conversion of farmland? If farmland will be converted, describe coordination with the NRCS - USDA and attach the completed Form AD-1006.</i> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h. Energy Supply and Natural Resources | YES | NO |
| <i>Will the project change energy requirements or use consumable natural resources either during construction or operations?</i> Construction of the office space will incrementally increase energy use. Petroleum, metal, and wood products will be used in construction of the offices. | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <i>Will the project change aircraft/vehicle traffic patterns that could alter fuel usage either during construction or operations?</i> No change in flight patterns or operations will occur during or following construction of the offices. Those using the offices will follow the currently used roads to access the site. | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

| i. Wild and Scenic Rivers | YES | NO |
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| <p><i>Is there a river on the Nationwide Rivers Inventory, a designated river in the National System, or river under State jurisdiction (including study or eligible segments) near the project?</i></p> <p>Neither the Truckee River, north of TRK, or Martis Creek, east of TRK, is designated in the Wild and Scenic Rivers System Act. The nearest wild and scenic river is a segment of the American River (North Fork) located about 13 miles southwest of the project site.</p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p><i>Will the project directly or indirectly effect the river or an area within ¼ mile of its ordinary high water mark?</i></p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| j. Solid Waste Management | YES | NO |
| <p><i>Does the project (either the construction activity or the completed, operational facility) have the potential to generate significant levels of solid waste? If so, discuss how these will be managed.</i></p> <p>The scale and nature of the project is too small to generate significant levels of solid waste.</p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

5-2.b(5) Disruption of an Established Community

YES NO

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| <p><i>Will the project disrupt a community, planned development or be inconsistent with plans or goals of the community?</i></p> <p>The project is consistent with the use of TRK.</p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p><i>Are residents or businesses being relocated as part of the project?</i></p> <p>No residences or businesses will be relocated.</p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

5-2.b(6) Environmental Justice

YES NO

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| <p><i>Are there minority and/or low-income populations in/near the project area?</i></p> <p>The project site is located within the terminal area. No residential uses exist in the vicinity.</p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p><i>Will the project cause any disproportionately high and adverse impacts to minority and/or low-income populations? Attach census data, if warranted.</i></p> <p>No significant off-airport impacts will occur.</p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

5-2.b(7) Surface Transportation

YES NO

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| <p><i>Will the project cause a significant increase in surface traffic congestion or cause a degradation of level of service provided?</i></p> <p>Due to the scale of the project, the additional traffic generated during construction will not have a significant effect on traffic in the area.</p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p><i>Will the project require a permanent road relocation or closure? If yes, describe the nature and extent of the relocation or closure and indicate if coordination with the agency responsible for the road and</i></p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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| emergency services has occurred. No road closures will occur. | | |
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5-2.b(8) Noise

YES NO

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| <p><i>Will the project result in an increase in aircraft operations, nighttime operations, or change aircraft fleet mix?</i></p> <p>No change in aircraft use will occur due to this project</p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p><i>Will the project cause a change in airfield configuration, runway use, or flight patterns either during construction or after the project is implemented?</i></p> <p>Some taxilanes adjacent to the project site may be temporarily closed during construction. However, no change to the use of runways or flight patterns will occur.</p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p><i>Does the forecast exceed 90,000 annual propeller operations, 700 annual jet operations, 10 daily helicopter operations, or a combination of the above? If yes, a noise analysis may be required if the project would result in a change in operations.</i></p> <p>Not applicable.</p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p><i>Has a noise analysis been conducted, including but not limited to generated noise contours, a specific point analysis, area equivalent method analysis, or other screening method? If yes, provide that documentation.</i></p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p><i>Could the project have a significant impact (DNL 1.5 dB or greater increase) on noise levels over noise sensitive areas within the 65+ DNL noise contour?</i></p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

5-2.b(9) Air Quality

YES NO

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| <p><i>Is the project located in a Clean Air Act non-attainment or maintenance area?</i></p> <p>The project is located in Nevada County. Nevada County is one of the seven counties which comprise the Mountain Counties Air Basin. The U.S. EPA has designated portions of Placer County (Sacramento metro area) as a non-attainment area for the 8-hour ozone standard and the PM2.5 annual standard. The western portion of Nevada County also is designated a non-attainment area for the 8-hour ozone standard. In addition, the Mountain Counties Air Basin violates the state ozone and 24-hour PM10 standards.</p> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <p><i>If yes, is it listed as exempt, presumed to conform, or will emissions (including construction emissions) from the project, be below de minimis levels (provide the paragraph citation for the exemption or presumed to conform list below, if applicable)? Is the project accounted for in the State Implementation Plan or specifically exempted? Attach documentation.</i></p> <p>This type of project is not listed as presumed to conform in the FAA's notice in the Federal Register, Vol. 72, No. 145, July 30, 2007. Due to the scale and nature of the project, it is expected that emissions will be below de minimis levels; however, emissions modeling has not been performed.</p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p><i>Does the project have the potential to increase landside or airside capacity, including an increase of surface vehicles?</i></p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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| This project will shift offices from an existing hangar to a stand-alone building. It will not change vehicle or aircraft use. | | |
| <p><i>Could the project impact air quality or violate Local, State, Tribal, or Federal air quality standards under the Clean Air Act Amendments of 1990 either during construction or operations?</i></p> <p>Due to the scale and nature of the project, it is expected that emissions will be below de minimis levels; however, emissions modeling has not been performed.</p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

5-2.b(10) Water Quality

YES NO

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| <p><i>Are there water resources within or near the project area? These include groundwater, surface water (lakes, rivers, and others), sole source aquifers, and public water supply. If yes, provide a description of the resource, including the location (distance from project site, and others).</i></p> <p>No water resources are located on or near the project site. The nearest water resource is the Truckee River located about 1 mile north of the project site.</p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p><i>Will the project impact any of the identified water resources either during construction or operations? Describe any steps that will be taken to protect water resources during and after construction.</i></p> <p>Standard sediment control measures will be implemented during construction. Standard soil stabilization measures will be implemented following construction.</p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p><i>Will the project increase the amount or rate of stormwater runoff either during construction or operations? Describe any steps that will be taken to ensure it will not impact water quality.</i></p> <p>The additional roof area will incrementally increase stormwater runoff. The runoff will be channeled into the existing stormwater infiltration ditches.</p> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <p><i>Does the project have the potential to violate Federal, State, Tribal, or Local water quality standards established under the Clean Water and Safe Drinking Water Acts?</i></p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p><i>Are any water quality related permits required? If yes, list the appropriate permits.</i></p> <p>The area disturbed by the project is below the threshold that would require a National Pollutant Discharge Elimination System (NPDES) permit. No other water quality permits are required.</p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

5-2.b(11) Highly Controversial on Environmental Grounds

YES NO

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| <p><i>Is the project highly controversial? The term "highly controversial" means a substantial dispute exists as to the size, nature, or effect of a proposed federal action. The effects of an action are considered highly controversial when reasonable disagreement exists over the project's risks of causing environmental harm. Mere opposition to a project is not sufficient to be considered highly controversial on environmental grounds. Opposition on environmental grounds by a Federal, State, or Local government agency, or by a tribe, or a substantial number of the persons affected by the action should be considered in determining whether or not reasonable disagreement exists regarding the effects of a proposed action.</i></p> <p>This project has not been controversial to date and is not expected to become controversial.</p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
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5-2.b(12) Inconsistent with Federal, State, Tribal or Local Law

YES NO

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| <p><i>Will the project be inconsistent with plans, goals, policy, zoning, or local controls that have been adopted for the area in which the airport is located?</i></p> <p>This minor expansion of an existing aviation use is consistent with the general plans and zoning of Nevada County.</p> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <p><i>Is the project incompatible with surrounding land uses?</i></p> <p>Adjacent land uses are all aviation-oriented.</p> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

5-2.b(13) Light Emissions, Visual Effects, and Hazardous Materials

| a. Light Emissions and Visual Effects | YES | NO |
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| <p><i>Will the proposed project produce light emission impacts?</i></p> <p>There will be security lighting near the entrances to the building.</p> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <p><i>Will there be visual or aesthetic impacts as a result of the proposed project and/or have there been concerns expressed about visual/aesthetic impacts?</i></p> <p>The scale of the additional lighting is too small to create impacts. No concerns have been expressed.</p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Hazardous Materials | YES | NO |
| <p><i>Does the project involve or affect hazardous materials?</i></p> <p>Construction-related vehicles and equipment will contain petroleum products classified as hazardous. However, no unusually hazardous materials will be used.</p> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <p><i>Will construction take place in an area that contains or previously contained hazardous materials?</i></p> <p>The California Department of Toxic Substances Control database management system, EnviroStor, was consulted on July 5, 2018. No site within 1,000 feet of the project site contains or previously contained hazardous materials.</p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p><i>If the project involves land acquisition, is there a potential for this land to contain hazardous materials or contaminants?</i></p> <p>Not applicable.</p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p><i>Will the proposed project produce hazardous and/or solid waste either during construction or after? If yes, how will the additional waste be handled?</i></p> <p>Some solid waste will be generated during construction. The solid waste will be deposited in the Eastern Regional Landfill which is located about 4.0 miles west of TRK.</p> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

5-2.b(14) Public Involvement

YES NO

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| <p><i>Was there any public notification or involvement? If yes, provide documentation.</i> The project was discussed at Truckee Tahoe Airport District Board meetings.</p> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
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5-2.b(15) Indirect/Secondary/Induced Impacts

YES NO

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| <p><i>Will the project result in indirect/secondary/induced impacts?</i> The project involves moving few offices to a structure immediately adjacent to their existing location, which will not result in indirect/secondary/induced impacts.</p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <p><i>When considered with other past, present, and reasonably foreseeable future projects, on or off airport property and regardless of funding source, would the proposed project result in a significant cumulative impact?</i></p> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Permits

List any permits required for the proposed project which have not been previously discussed. Provide details on the status of permits.

A building and sewer connection permit will be required. They have not been applied for.

Environmental Commitments

List all measures and commitments made to avoid, minimize, mitigate, and compensate for impacts on the environment, which are needed for this project to qualify for a CATEX.

- Implementation of standard sediment control measures.
- Implementation of standard dust control measures.

Preparer Information

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| Point of Contact | David P. Dietz, AICP Senior Project Planner | | | | |
| Address | 1360 19th Hole Drive, Suite 200 | | | | |
| City | Windsor | State | CA | Zip Code | 95492 |
| Phone | 707-284-8687 | | Email Address | David.dietz@meadhunt.com | |

Signature David P Dietz
 Date July 18, 2018

Airport Sponsor Information and Certification (may not be delegated to consultant)

Provide contact information for the designated sponsor point of contact and any other individuals requiring notification of the FAA decision.

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| Point of Contact | Kevin Smith, General Manager | | | | |
| Address | 10356 Truckee Airport Road | | | | |
| City | Truckee | State | CA | Zip Code | 96161 |
| Phone Number | 530-587-4119 Ext 105 | | Email Address | ksmith@fly2trk.com | |
| Additional Name(s) | | | Additional Email Address(es) | Kevin.smith@truckeetahoeairport.com | |

I certify that the information I have provided above is, to the best of my knowledge, correct. I also recognize and agree that no construction activity, including but not limited to site preparation, demolition, or land disturbance, shall proceed for the above proposed project(s) until FAA issues a final environmental decision for the proposed project(s) and until compliance with all other applicable FAA approval actions (e.g., ALP approval, airspace approval, grant approval) has occurred.

Signature _____
 Date _____

FAA Decision

Having reviewed the above information, it is the FAA's decision that the proposed project (s) or development warrants environmental processing as indicated below.

Name of Airport, LOC ID, and location
Project Title

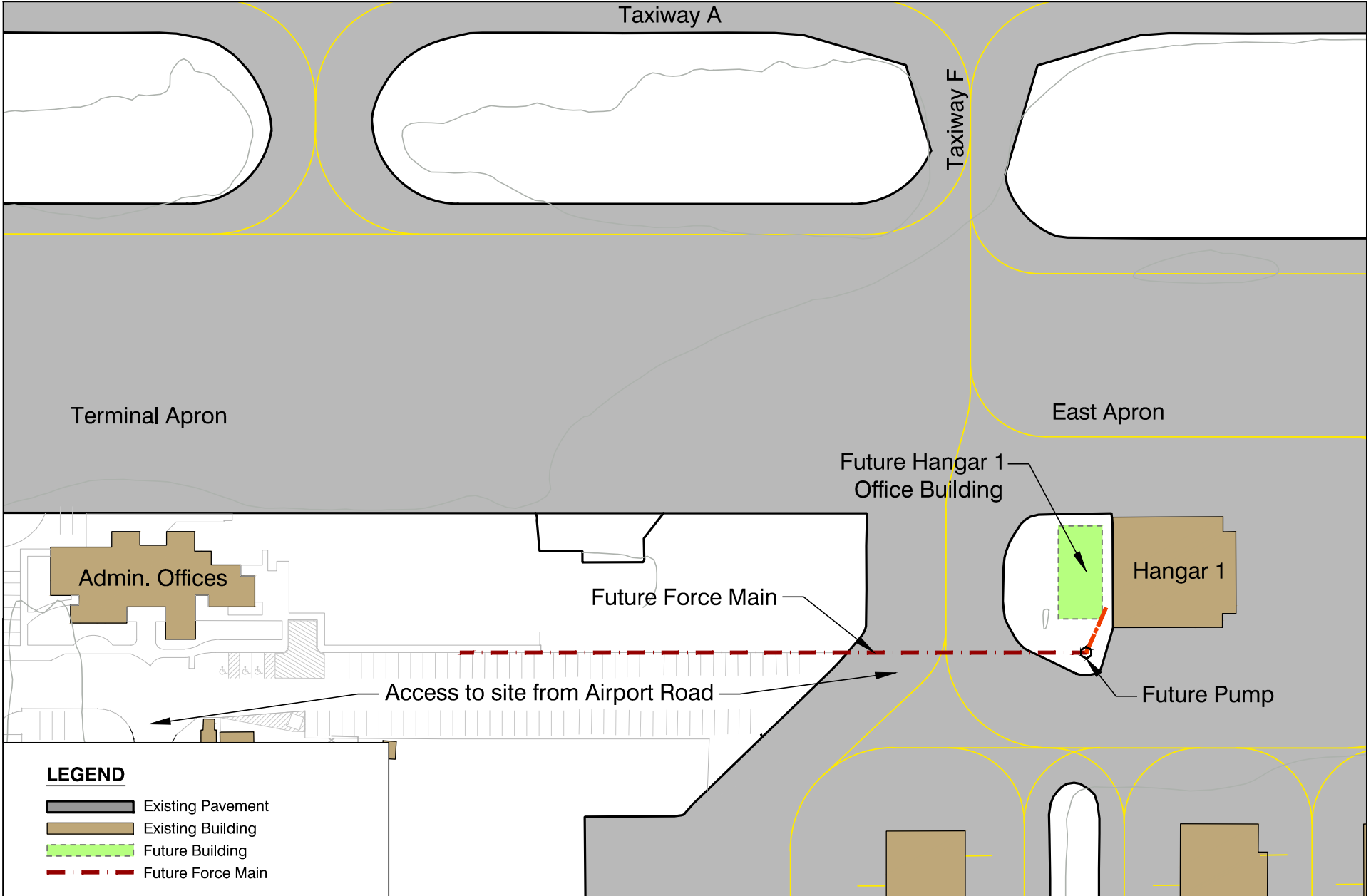
_____ No further NEPA review required. Project is categorically excluded per (cite applicable 1050.1.F CATEX that applies _____)

_____ An Environmental Assessment (EA) is required.





_____ An Environmental Impact Statement (EIS) is required.

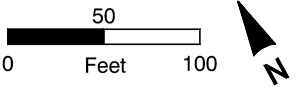
_____ The following additional documentation is necessary for FAA to perform a complete environmental evaluation of the proposed project.

Name: _____
Responsible FAA Official
Title _____
Signature _____
Date _____



LEGEND

-  Existing Pavement
-  Existing Building
-  Future Building
-  Future Force Main



**BIOLOGICAL CONSTRAINTS ANALYSIS
FOR THE
TRUCKEE TAHOE AIRPORT DISTRICT
MASTER PLAN UPDATE**

PLACER AND NEVADA COUNTIES, CALIFORNIA

February 2015

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APPENDICES

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- APPENDIX B: Vegetation and Other Ground Cover Maps
- APPENDIX C: Representative Photographs

ACRONYMS AND ABBREVIATIONS

| | |
|-------------|--|
| °C | degrees Celsius |
| °F | degrees Fahrenheit |
| CDFW | California Department of Fish and Wildlife |
| CESA | California Endangered Species Act |
| CNDDB | California Natural Diversity Database |
| CNPS | California Native Plant Society |
| CRPR | California Rare Plant Rank |
| EPA | United States Environmental Protection Agency |
| ESA | Federal Endangered Species Act |
| FEIS | final environmental impact statement |
| GANDA | Garcia and Associates |
| GPS | Global Positioning System |
| Master Plan | Airport Master Plan Update for the Truckee Tahoe Airport |
| NRCS | Natural Resources Conservation Service |
| NWI | National Wetlands Inventory |
| quad | 7.5-minute topographic quadrangle |
| ROD | record of decision |
| RWQCB | Regional Water Quality Control Board |
| SNFPA | Sierra Nevada Forest Plan Amendment |
| TNF | Tahoe National Forest |
| TTAD | Truckee Tahoe Airport District |
| USACE | United States Army Corps of Engineers |
| USFS | United States Department of Agriculture Forest Service |
| USGS | United States Geological Survey |
| USFWS | United States Fish and Wildlife Service |
| WRCC | Western Regional Climate Center |
| WSS | Web Soil Survey |

Summary

The Truckee Tahoe Airport District (TTAD) proposes to adopt the Airport Master Plan Update for the Truckee Tahoe Airport (Master Plan, TTAD 2014). The purpose of the Master Plan is to create a blueprint for facility and infrastructure planning over the next 10 to 15 years. The Master Plan recommends development plans and policies that best fit the needs of the airport and community, while protecting those living nearby (TTAD 2014). The Master Plan describes all of the physical improvements and property acquisitions planned through 2025. While the Master Plan describes these proposed features, it does not mandate particular construction actions, and serves as a planning tool.

Garcia and Associates (GANDA) biologists conducted background research and field reconnaissance surveys to inform the Master Plan. Habitat-level plant and animal surveys were conducted for state- and federally listed species and other special-status species as designated by the United States Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), California Native Plant Society (CNPS), and United States Department of Agriculture Forest Service (USFS). No protocol-level and/or presence/absence surveys were conducted for plant or wildlife species. Sensitive communities, including wetlands and other waters were identified and generally mapped; a jurisdictional delineation has not been performed.

The Study Area (approximately 339 acres) for the Master Plan is composed predominantly of shrubland and steppe habitats (233.92 acres), with a few inclusions of forests (37.50 acres), grasslands and herblands (39.14 acres), and human-made and managed areas (20.96 acres). A small number of potential wetlands (approximately 6.20 acres) and non-wetland water features (approximately 1.65 acres) also occur within the Study Area. The soils are predominantly coarse sandy loam, sandy loam, or loam.

A total of 66 special-status plant taxa were identified from background research and reviewed for habitat suitability. Of these, nine have moderate or high potential to occur within the Study Area (Appendix A, Table 1): Plumas ivesia (*Ivesia sericoleuca*, California Rare Plant Rank [CRPR] 1B.2 and USFS sensitive), Santa Lucia dwarf rush (*Juncus luciensis*, CRPR 1B.2 and USFS sensitive), Lemmon's milk-vetch (*Astragalus lemmonii*, CRPR 1B.2 and USFS sensitive), Davy's sedge (*Carex davyi*, CRPR 1B.3), Fresno ceanothus (*Ceanothus fresnensis*, CRPR 4.3), Truckee cryptantha (*Cryptantha glomeriflora*, CRPR 4.3), Nevada daisy (*Erigeron eatonii* var. *nevadincola*, CRPR 2B.3), amethyst stickseed (*Hackelia amethystina*, CRPR 4.3), and Sierra starwort (*Pseudostellaria sierrae*, CRPR 4.2).

A total of 32 special-status wildlife species were identified and reviewed for habitat suitability. Eight special-status wildlife species have moderate or high potential to occur within the Study Area (Appendix A, Table 2). These taxa are willow flycatcher (*Empidonax traillii*), northern goshawk (*Accipiter gentilis*), Cooper's hawk (*Accipiter cooperii*), black-backed woodpecker (*Picoides arcticus*), Sierra Nevada snowshoe hare (*Lepus americanus tahoensis*), western white-tailed jackrabbit (*Lepus townsendii townsendii*), Sierra Nevada red fox (*Vulpes vulpes necator*), and silver-haired bat (*Lasiurus noctivagans*). No federally designated critical habitat occurs in the Study Area or within a distance of 3 miles.

A series of avoidance and minimization measures are presented that can be utilized during the implementation of the Master Plan, in order to minimize impacts to special-status species and sensitive habitats.

1.0 Introduction

1.1 Project Overview

The Truckee Tahoe Airport District (TTAD) proposes to adopt the Airport Master Plan Update for the Truckee Tahoe Airport (Master Plan, TTAD 2014). The purpose of the Master Plan is to create a blueprint for facility and infrastructure planning over the next 10 to 15 years. The Master Plan recommends development plans and policies that best fit the needs of the airport and community, while protecting those living nearby (TTAD 2014). The Master Plan describes all of the physical improvements and property acquisitions planned through 2025, including concepts for the following:

- Extension and widening of Runway 2-20 and shifting of the parallel taxiway;
- Construction of additional aircraft storage hangers, and associated taxi lanes and modification of runway exit taxiways. This includes construction of a 12,000- to 14,000-square-foot multi-purpose hangar/building, which will both house aircraft and de-icing facilities, and provide non-profit and community event space; and
- Development of non-aviation uses on a parcel that is not needed for aviation.

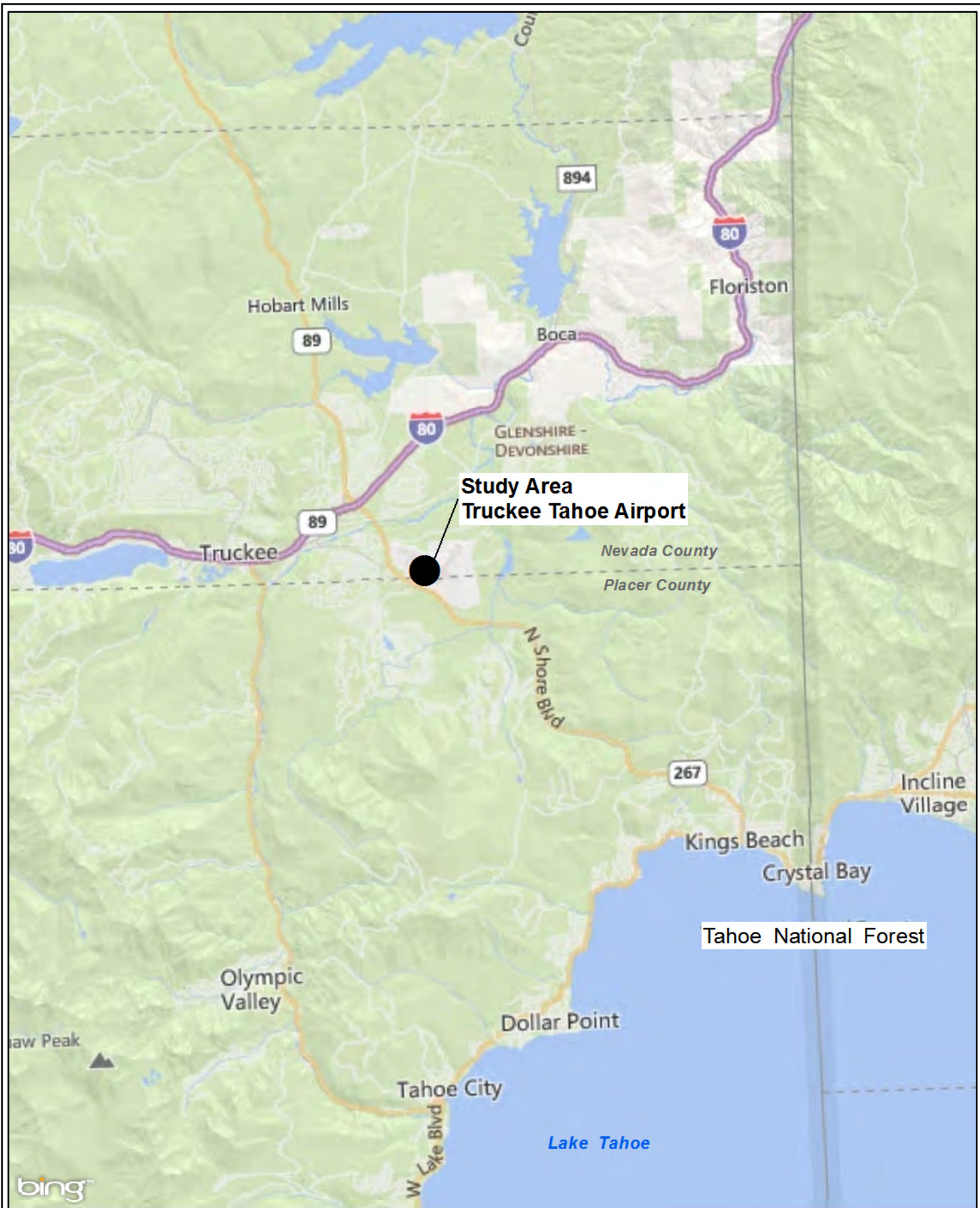
While the Master Plan describes these proposed features, it does not mandate particular construction actions, and serves as a planning tool.

1.2 Background and Objectives

Garcia and Associates (GANDA) performed a pre-field desktop review and field reconnaissance surveys in October 2014 for preparation of this report. Habitat-level plant and animal surveys were conducted for state- and federally-listed species and other special-status species as designated by the California Department of Fish and Wildlife (CDFW), California Native Plant Society (CNPS), and United States Department of Agriculture Forest Service (USFS); no protocol-level or presence/absence surveys were conducted. Sensitive communities, including wetlands and other waters were generally identified and mapped; a jurisdictional delineation has not been performed. Details of the habitat assessment and surveys are further described in Section 2.0 Methods, and Section 3.0 Results.

1.3 Study Area

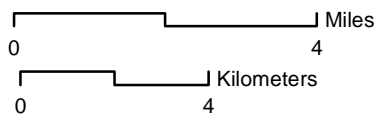
The Truckee Tahoe Airport is located immediately northeast of the Town of Truckee in the northern Sierra Nevada, in Nevada and Placer counties, California. The airport is situated in the relatively flat Martis Valley at approximately 1,800 meters (5,904 feet) above mean sea level, surrounded by peaks that are as high as 2,743 to 3,353 meters (9,000 to 11,000 feet) (TTAD 2014) (Figure 1-1). The annual maximum temperature is 15.0 degrees Celsius (°C) (59.1 degrees Fahrenheit [°F]), with an annual minimum temperature of -2.3 °C (27.8 °F); the highest temperatures occur in July with an average maximum of 27.9 °C (82.3 °F), and the lowest occur in January with an average minimum of -9.7 °C (14.6 °F). The region receives an average of 0.8 meters (30.1 inches) of precipitation per year, with average snowfall of 5.1 meters (201.8 inches); most of the precipitation occurs between December and March (Western Regional Climate Center [WRCC] 2014).



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Source: Bing Maps Hybrid (2014); GANDA GIS 2014



1:160,643

Figure 1-1. Truckee Tahoe Airport Study Area Location Map

Nevada and Placer Counties, CA
February 2015

The entire airport property encompasses approximately 948.4 acres. Within this area, approximately 618.7 acres are “unassigned land use,” 246.3 acres are runway areas, 13.6 acres are runway protection zones, and 69.8 acres are aviation development (TTAD 2014). The Study Area for this effort includes approximately 339 acres within the airport property, primarily encompassing the “unassigned land use” areas (Figure 1-1).

2.0 Methods

GANDA biologists performed a background desktop review and habitat-level site pedestrian surveys in order to determine potential for presence of special-status species and habitats within the Study Area. Methods for these investigations are described in detail below.

2.1 Biological Desktop Review

Prior to conducting field surveys, lists of special-status plant and animal species with potential to occur in the Study Area were prepared (Appendix A). Sources of background information for this desktop review included the CDFW California Natural Diversity Database (CNDDDB) (CDFW 2014), the USFWS website (USFWS 2014a), and the *Online Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2014). Critical habitat maps from the USFWS website were also reviewed (USFWS 2014b). The assessment area for this background research includes the United States Geological Survey (USGS) 7.5-minute topographic quadrangle (quad) that includes the Study Area (*Truckee, California*), and the eight surrounding quads (*Independence Lake, Hobart Mills, Boca, Norden, Martis Peak, Granite Chief, Tahoe City, and Kings Beach*).

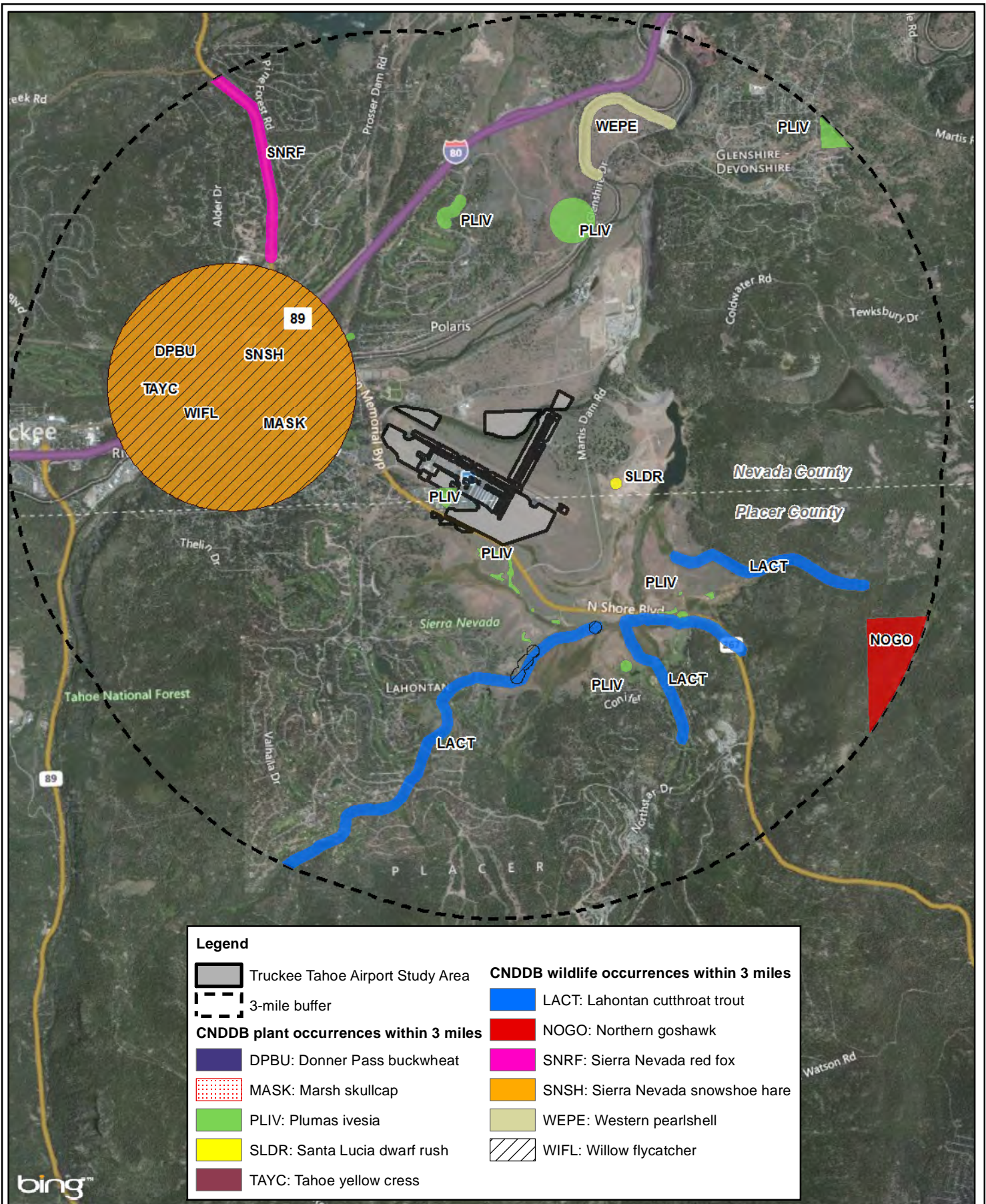
The National Wetlands Inventory (NWI) (USFWS 2014c) and USGS topographic maps (USGS 1992) were consulted to identify known wetlands and other aquatic habitats in the Study Area. Natural communities tracked by the CNDDDB (CDFW 2014) were also examined. Soil information for the Study Area was obtained from the Natural Resources Conservation Service (NRCS) Web Soil Survey (WSS) (NRCS 2014).

Locations of documented resources (special-status species and special natural communities recorded from the CNDDDB [CDFW 2014] and wetlands [USFWS 2014c]) within the Study Area and a 3-mile buffer are displayed in Figure 2-1. Species occurrences were also reviewed within the nine-quad search area described above; however, a 3-mile CNDDDB buffer was selected for Figure 2-1 to emphasize the resources in close proximity to the Study Area.

2.1.1 Definition of Special-status Plant Species

Potential special-status plant species include taxa that are designated as follows:

- Threatened, endangered, or a candidate for listing by the federal Endangered Species Act (ESA),
- Threatened, endangered, or rare by the California Endangered Species Act (CESA),
- Sensitive by Region 5 of the USFS, and occurring in the nine-quad search area or the Tahoe National Forest (TNF), and/or
- California Rare Plant Rank (CRPR) 1 or 2 (CNPS 2014) (Some CRPR 3 and 4 species with potential to occur were also included. See Appendix A, Table 1 footnotes for definitions of CRPRs).



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Source: CNDDDB (2014); Bing Maps Hybrid (2014); GANDA GIS 2014



Figure 2-1. Truckee Tahoe Airport CNDDDB Occurrences within Three Miles of the Study Area

Nevada and Placer Counties, CA
February 2015

2.1.2 Definition of Special-status Wildlife Species

Potential special-status wildlife species include taxa that are designated as follows:

- Threatened, endangered, or a candidate for listing by ESA,
- Threatened, endangered, or a candidate for listing by CESA,
- Classified as California species of special concern, fully protected, or watch listed by CDFW,
- Classified as sensitive by Region 5 of the USFS in the Sierra, Tahoe, or Lake Tahoe Basin National Forests, and/or
- Listed on CDFW’s “Special Animals” list.

“Special Animals” is a broad classification used to refer to all the animal taxa tracked by the CDFW’s CNDDDB, regardless of their legal or protection status. CDFW considers the taxa on this list to be those of greatest conservation need (CDFW 2014). These species are listed and reviewed in Appendix A, Table 2.

2.2 Field Reconnaissance Surveys

GANDA botanists Samantha Hillaire and Susan Dewar, and biologist JoAnna Lessard, conducted habitat-level plant and wildlife field reconnaissance surveys of the Study Area on October 7 and 8, 2014. The biologists assessed the Study Area for habitat suitability for special-status species, and presence of wetlands and other special communities. No protocol-level or presence/absence surveys, or jurisdictional (wetland) delineations, were conducted.

Surveys were conducted by inspecting the Study Area for the presence of special-status plants and animals and their suitable habitat. The Study Area was accessed by driving on existing roads and walking throughout the site. Special attention was given to identification of habitat attributes associated with special-status species, such as suitable breeding or nesting habitat, unique soil types, and wetlands. Whenever resources of interest were located, they were mapped with a Trimble Juno Global Positioning System (GPS) unit capable of 1- to 3-meter accuracy. Habitats were mapped with a combination of recording areas with field GPS units and digitizing on recent aerial photographs.

The lists of special-status plant and animal species identified from background research were refined based on the presence of potential habitat identified from the field surveys (Appendix A). Those species with suitable habitat, along with wetlands and special communities that may be affected by adoption of the Master Plan, are further discussed in the Results Section (Section 3.0).

3.0 Results

3.1 Background Research

Research identified three sensitive communities, previously recorded within 3 miles of the Study Area, as follows (CDFW 2014):

- Fen,
- Great Basin Sucker/Dace/Redside Stream with Cutthroat Trout, and
- Great Basin Cutthroat Trout/Paiute Sculpin Stream.

Fens are wetlands that form in mineral-rich water, on pH neutral to alkaline soils; the soils in the Study Area are primarily acidic (Table 3-1), with only a small amount of hydric alkaline soil (Aquolls and Borolls, 0 to 5 percent slopes). Therefore, fens are unlikely to form in the Study Area except in a small area (2.5 percent of Study Area). No fens or streams occur in the Study Area.

Table 3-1. Soil Mapping Units within the Study Area

| SOIL MAPPING UNIT ¹ | APPROXIMATE PERCENT OF STUDY AREA | CHARACTERISTICS |
|---|-----------------------------------|--|
| Martis–Euer variant complex, 2 to 5 percent slopes | 79.5 | Coarse sandy loam, sandy loam, or loams. Soils formed from glacial outwash or till, and typically with volcanic sources; pH weakly to strongly acidic. |
| Inville–Martis variant complex, 2 to 5 percent slopes | 16.0 | Coarse sandy loam, sandy loam, or loams. Soils formed from glacial outwash and till, or mixed alluvium. Can have volcanic, andesite, or granitic sources; pH weakly to strongly acidic. |
| Kyburz–Trojan complex, 9 to 30 percent slopes | 0.2 | Gravelly sandy loam, sandy loam, or loam. Soils formed from schist, argillite, or volcanics including breccias and agglomerates; pH slightly to moderately acid. |
| Euer–Martis variant complex, 2 to 5 percent slopes | 1.8 | Coarse sandy loam, sandy loam, or loams. Soils formed from glacial outwash or till, and typically with volcanic source; pH weakly to strongly acidic. |
| Aquolls and Borolls, 0 to 5 percent slopes | 2.5 | Deep organic matter surface horizons are formed under seasonally or continually wet conditions. At least a portion is wet for 60 of the 90 days following the summer solstice. Soil may be calcareous, pH may be alkaline. |

¹ From Web Soil Survey (NRCS 2014)

Desktop review identified 66 special-status plant taxa, which were then evaluated for their potential to occur within the Study Area (Appendix A, Table 1). Of these, nine taxa have moderate or high potential to occur in the Study Area. Of these nine, none are federally or state-

listed; five have CRPRs of 1 or 2, and four have CRPRs of 4. Of the nine, three are rated as sensitive by the USFS/TNF. Special-status plant taxa with moderate or high potential to occur within the Study Area due to known range and habitat requirements are discussed in Section 3.3 below. The remaining reviewed plant taxa are summarized in Appendix A, Table 1.

During background research, 32 special-status wildlife taxa were reviewed for their potential to occur within the Study Area. Seven of these species are federally or state-listed and one is a candidate for both state and federal listing (Appendix A, Table 2). The other 25 species listed in Appendix A, Table 2 are CDFW species of special concern, on the special animals list and/or USFS sensitive species. Among the 32 reviewed special-status species, eight have moderate potential to occur in the Study Area. More detail on these eight species, their known ranges, and habitat requirements are discussed in Section 3.4 below. The remaining reviewed animal taxa with low or no potential to occur are summarized in Appendix A, Table 2 and are not discussed further in this report.

Locations of known occurrences of special-status plant and animal taxa within 3 miles of the Study Area are presented in Figure 2-1 (CDFW 2014). Avoidance and minimization measures are listed in Section 4.0 for those special-status plant and animal species which have potential to occur in or near the Study Area for at least part of the year.

3.2 Vegetation Communities and Other Ground Cover

The Study Area was vegetated predominantly with sagebrush habitats, with inclusions of forests and human-managed areas. A small number of wetlands and drainages also occurred across the site (Appendix B). The soils were predominantly coarse sandy loam, sandy loam, or loam. The following sections describe vegetation communities that were present within the Study Area (see also Appendix B and Table 3-2).

3.2.1 Upland Communities

The upland communities in the Study Area include various types of shrubland and steppe, grassland and hermland, conifer forest, aspen stands, and ruderal vegetation. Man-made and managed areas included construction (active construction at the time of the survey), graded, and paved and graveled areas. These communities and landcover are described below. Select photographs are presented in Appendix C.

California–Vancouverian Montane and Foothill Forest

A small portion of the Study Area was vegetated with conifer forests (approximately 37.37 acres and 11.01 percent; Photo 1 in Appendix B). These forests were typically dominated by medium to tall ponderosa pine (*Pinus ponderosa*) and Jeffrey pine (*Pinus jeffreyi*) trees; sparse white fir (*Abies concolor*) and lodgepole pine (*Pinus contorta* ssp. *murrayana*) were also present in the overstory. The tree density in the forested areas varied greatly. In some areas, dense trees almost completely overshadowed understory growth; in other areas, sparse to dense shrubs and herbaceous cover were observed, including big sagebrush (*Artemisia tridentata* var. *vaseyana*), mahala mats (*Ceanothus prostratus*), bitterbrush (*Purshia tridentata*), pink sierra current (*Ribes nevadense*), and woolly mule's ears (*Wyethia mollis*). The conifer forest alliances and stands mapped in the Study Area are as follows (from Sawyer, Keeler-Wolf, and Evens 2009):

- *Pinus ponderosa* alliance, and
- *Pinus jeffreyi* alliance.

The conifer forest habitats have potential to support special-status plant and animal species.

Table 3-2. Summary of Ground Cover Types within the Study Area

| GROUND COVER | PERCENT OF STUDY AREA | AREA (ACRES) |
|---|------------------------------|---------------------|
| Uplands | | |
| California–Vancouverian Montane and Foothill Forest | | |
| <i>Pinus ponderosa</i> alliance | 5.12 | 17.37 |
| <i>Pinus jeffreyi</i> alliance | 5.89 | 20.00 |
| SUBTOTAL | 11.01 | 37.37 |
| Western North America Cool Temperate Forest | | |
| <i>Populus tremuloides</i> stands | 0.04 | 0.13 |
| SUBTOTAL | 0.04 | 0.13 |
| Shrubland and Steppe | | |
| <i>Artemisia tridentata</i> ssp. <i>vaseyana</i> – <i>Purshia tridentata</i> / <i>Festuca idahoensis</i> stands | 16.08 | 54.58 |
| <i>Artemisia tridentata</i> alliance | 0.13 | 0.44 |
| <i>Artemisia tridentata</i> – <i>Purshia tridentata</i> stands | 48.89 | 165.91 |
| <i>Purshia tridentata</i> / <i>Eriogonum umbellatum</i> association | 3.53 | 11.97 |
| <i>Artemisia arbuscula</i> / <i>Festuca idahoensis</i> alliance | 0.30 | 1.02 |
| SUBTOTAL | 68.93 | 233.92 |
| Semi-natural Grasslands and Herblands | | |
| <i>Elytrigia intermedia</i> stands | 10.15 | 34.46 |
| <i>Elytrigia intermedia</i> / <i>Artemisia tridentata</i> alliance | 0.07 | 0.25 |
| <i>Elytrigia intermedia</i> – <i>Festuca idahoensis</i> stands | 0.36 | 1.23 |
| <i>Brassica</i> and other mustards semi-natural stands | 0.25 | 0.85 |
| Ruderal / weedy vegetation | 0.69 | 2.35 |
| SUBTOTAL | 11.52 | 39.14 |
| Man-made and Managed Uplands | | |
| Gravel / Rock | 0.88 | 2.97 |
| Graded | 1.57 | 5.32 |
| Spoils | 0.28 | 0.96 |
| Construction areas | 0.30 | 1.03 |
| Mowed areas | 2.48 | 8.43 |
| Pavement | 0.67 | 2.25 |
| SUBTOTAL | 6.18 | 20.96 |
| TOTAL UPLANDS | 97.68 | 331.52 |
| Wetlands | | |
| <i>Eleocharis macrostachya</i> alliance | 0.52 | 1.75 |
| <i>Hordeum brachyantherum</i> herbaceous alliance | 0.12 | 0.40 |
| <i>Hordeum brachyantherum</i> / <i>Festuca idahoensis</i> herbaceous Alliance | 1.19 | 4.04 |
| <i>Typha</i> (<i>angustifolia</i> , <i>domingensis</i> , <i>latifolia</i>) alliance | 0.01 | 0.01 |
| TOTAL WETLANDS | 1.84 | 6.20 |
| Non-Wetland Water Features | | |
| Ephemeral channels | 0.09 | 0.31 |
| Dry ditches and engineered drainages | 0.39 | 1.34 |

| | | |
|---|-------------|---------------|
| TOTAL NON-WETLAND WATER FEATURES | 0.48 | 1.65 |
| TOTAL STUDY AREA | 100 | 339.37 |

Western North America Cool Temperate Forest

A few quaking aspen (*Populus tremuloides*) stands were mapped in the Study Area (0.13 acre and 0.04 percent). These stands appeared semi-natural (Appendix C, Photo 9); they were located within otherwise managed areas and had either been planted or were natural stands that had been incorporated into the landscaping. Few conifers such as Jeffrey pine were present. These stands are classified as *Populus tremuloides* stands. Because these aspen stands are typically managed as part of landscaping and are located adjacent to active roadways and parking areas, they have low potential to support special-status species.

Shrubland and Steppe

The majority of the vegetation within the Study Area is comprised of various shrubland and steppe types (233.92 acres and 68.58 percent; Appendix C, Photos 2 and 7). While all the shrublands are relatively short statured (under approximately 3 feet tall), some differences are apparent. The majority of the shrubland is comprised of older decadent shrubs that grow close together with little herbaceous cover in between, though some areas contain well-spaced shrubs with a significant herbaceous layer. The well-spaced shrubs are typically present in areas that may receive frequent human disturbance (e.g., periodic mowing or clearing), or areas adjacent to wetland features. The shrubland and steppe habitats have potential to support special-status species.

The dominant species in these shrubland communities are big sagebrush, bitterbrush, sticky-leaf rabbitbrush (*Chrysothamnus viscidiflorus*), sulfur-flower buckwheat (*Eriogonum umbellatum*), and Idaho fescue (*Festuca idahoensis*). Other common species encountered include low sagebrush (*Artemisia arbuscula*), cheatgrass (*Bromus tectorum*), big squirreltail (*Elymus multisetus*), lupines (*Lupinus* species), and California needle grass (*Stipa occidentalis* var. *californica*). The shrubland and steppe alliances and associations mapped in the Study Area are as follows (from Sawyer, Keeler-Wolf, and Evens 2009):

- *Artemisia tridentata* ssp. *vaseyana*–*Purshia tridentata* / *Festuca idahoensis* stands,
- *Artemisia tridentata* alliance,
- *Artemisia tridentata*–*Purshia tridentata* stands,
- *Purshia tridentata* / *Eriogonum umbellatum* association, and
- *Artemisia arbuscula* / *Festuca idahoensis* alliance.

Wetland and water features, including vernal marsh, ephemeral channels, and engineered drainages were present within the larger matrix of upland shrubland and steppe vegetation (see Section 3.2.2 Wetlands and Water Features).

Semi-Natural Grasslands and Herblands

Approximately 39.14 acres (11.52 percent; Appendix C, Photo 2) of the Study Area were comprised of semi-natural grasslands and herblands. These vegetation types were common at the edges of landscaping, adjacent and between runways and taxiways, along roads, and in other

places that have occasional human disturbance or periodic vegetation management. Some of the grassland and herbland areas had apparently formed in frequently-disturbed shrublands. Other grassland areas appear to have been deliberately planted after previous human disturbances. These areas likely have low to no potential to support special-status species.

The most common semi-natural grassland type in the Study Area was intermediate wheatgrass (*Elytrigia intermedia*) stands which appeared to have been planted between and around the runways and taxiways. Occasionally, the intermediate wheatgrass was mixed with native species such as Idaho fescue, big squirreltail, Hill lotus (*Acmispon parviflorus*), western burnet (*Poteridium annuum*), or mountain jewelflower (*Streptanthus tortuosus*). However, these habitats also supported a number of weedy species, including cheatgrass, cicer milkvetch (*Astragalus cicer*), mustard (*Brassica* species), Bermuda grass (*Cynodon dactylon*), English peppergrass (*Lepidium campestre*), ox-eye daisy (*Leucanthemum vulgare*), white sweet-clover (*Melilotus albus*), prostrate knotweed (*Polygonum aviculare* ssp. *depressum*), Russian-thistle (*Salsola tragus*), yellow salsify (*Tragopogon dubius*), and woolly mullein (*Verbascum thapsus*). The grassland and herbland stands mapped in the Study Area are as follows (from Sawyer, Keeler-Wolf, and Evens 2009):

- *Elytrigia intermedia* stands,
- *Elytrigia intermedia* / *Artemisia tridentata* alliance,
- *Elytrigia intermedia*–*Festuca idahoensis* stands,
- *Brassica* and other mustards semi-natural stands, and
- Various types of ruderal/weedy vegetation.

Wetland and water features, including ephemeral channels, swales, and engineered drainages were present within the larger matrix of upland grassland and herbland vegetation (see Section 3.2.2 Wetlands and Water Features).

Man-made, Landscaped, and Managed Uplands

Approximately 20.96 acres (6.18 percent) of the Study Area were comprised of man-made and managed uplands. These disturbed areas are likely not suitable habitat for any special-status plant or animal species. The following managed and constructed habitats were mapped in the Study Area:

- Gravel / Rock,
- Graded,
- Spoils (Appendix C, Photo 4),
- Active construction areas,
- Mowed areas (Appendix C, Photo 3), and
- Pavement.

Wetland and water features, including ephemeral channels, freshwater marsh, and engineered drainages were present within the larger matrix of human-made, landscaped, and managed uplands (see Section 3.2.2 Wetlands and Water Features).

3.2.2 Wetlands and Water Features

Wetland and water feature types that occurred within the Study Area include various types of swale, engineered drainage, ditch, ephemeral channel, and freshwater and vernal marsh features. While a formal jurisdictional delineation has not been performed, approximately 7.85 acres (2.32 percent) of potential wetlands and water features were mapped within the Study Area. The non-wetland water features are generally seasonal, and embedded within larger occurrences of the upland communities described above. Select photographs are presented in Appendix C.

Wetlands

For the purposes of this report, the definition of “wetlands” is that used by the United States Army Corps of Engineers (USACE) and the United States Environmental Protection Agency (EPA): “areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (USACE 1987). Wetland areas are defined by the presence of three factors: hydrophytic vegetation, wetland hydrology, and hydric soils. Approximately 6.20 acres (1.84 percent) of wetlands were mapped within the Study Area. These features may or may not meet the criteria to be waters of the United States with associated USACE jurisdiction. Regardless of USACE jurisdiction, wetlands are typically considered sensitive habitats by the CDFW.

Most of the wetlands within the Study Area appeared to be seasonal amphibious environments that fill from precipitation and local run-off. These seasonal features were dominated by annual and perennial herbs and graminoids (grasses and grass-like plants) adapted to germination and early growth under water or in saturated conditions. Late spring or summer desiccation triggers growth, followed by flowering and fruit set.

Three of the wetland features in the Study Area appeared to maintain standing water and/or saturated soils for the majority of the year. One was a small freshwater marsh vegetated with cattail (*Typha* sp.) and sandbar willow (*Salix exigua*), located in a roadside ditch immediately east of the airport rental car facility (Appendix C, Photo 5). This feature appeared to receive summer irrigation runoff from the adjacent landscaping. Another was a small detention basin, predominantly vegetated with pale spikerush (*Eleocharis macrostachya*) that receives runoff from the airport runways and taxiways (Appendix C, Photo 6). The third is a large natural swale, vegetated with many species including pale spikerush, sedges (multiple *Carex* species), and meadow barley (*Hordeum brachyantherum*), that appears to collect water from local precipitation/runoff and irrigation sources (Appendix C, Photo 7). This swale corresponds to one of the features depicted in the NWI (USFWS 2014c). The following wetland types were mapped in the Study Area:

- *Eleocharis macrostachya* alliance,
- *Hordeum brachyantherum* herbaceous alliance,
- *Hordeum brachyantherum* / *Festuca idahoensis* herbaceous alliance, and
- *Typha* (*angustifolia*, *domingensis*, *latifolia*) alliance (cattail marshes).

The wetland features in the Study Area appeared to support a high diversity of native species, and provide potential habitat for some special-status species.

Non-wetland Water Features

Non-wetland water features are those areas that may hold or carry standing or flowing water, but do not have all three wetland indicators (i.e., hydrophytic vegetation, wetland hydrology, and hydric soils). In the Study Area, these were typically natural or man-made channel features that carry water for a short duration. Sources for the water appeared to be precipitation and runoff, snow melt, or irrigation runoff. Approximately 0.32 acre (0.09 percent) of non-wetland water features were mapped in the Study Area. These features may or may not meet the criteria to be waters of the United States with associated USACE jurisdiction.

A few ephemeral channels were present in the Study Area. The ephemeral channel features likely carry water only after storms, but contain occasional low areas that have indications of ponding. The ephemeral channels were typically found on sandy and loamy soils, and provide suitable habitat for some special-status species. The remaining features were man-made native surface ditches, or engineered rock- or concrete-lined drainage channels. These man-made features were generally not suitable habitat for special-status species.

The following non-wetland water feature types were mapped in the Study Area:

- Ephemeral channels, and
- Dry ditches and engineered drainages.

3.3 Special-status Plants

A total of nine special-status plant taxa have moderate or high potential to occur within the Study Area. These taxa are Plumas ivesia (*Ivesia sericoleuca*), Santa Lucia dwarf rush (*Juncus luciensis*), Lemmon's milk-vetch (*Astragalus lemmonii*), Davy's sedge (*Carex davyi*), Fresno ceanothus (*Ceanothus fresnensis*), Truckee cryptantha (*Cryptantha glomeriflora*), Nevada daisy (*Erigeron eatonii* var. *nevadincola*), Amethyst stickseed (*Hackelia amethystina*), and Sierra starwort (*Pseudostellaria sierrae*). These taxa are discussed in detail below. Knowledge of plant species ranges is often incomplete, and special-status species not discussed here may be present if suitable habitat is present.

Plumas Ivesia (*Ivesia sericoleuca*)

Plumas ivesia is a perennial herb that has CRPR 1B.2 and is listed by the USFS as sensitive. This species grows in vernal mesic areas such as meadows, seeps, and vernal pools, in Great Basin scrub and lower montane coniferous forest between elevations of 1,310 to 2,200 meters (4,298 to 7,218 feet). Typical habitats for this species have volcanic soils (CNPS 2014). This California endemic is known from approximately 67 occurrences in Lassen, Nevada, Placer, Plumas, and Sierra counties. Threats to Plumas ivesia include anthropogenic disturbances such as timber harvest, development, grazing, and road construction; human alteration of the hydrological cycle (e.g., altering water tables) has also decreased the habitat value at some known occurrences. The species is also potentially threatened by fire suppression in Great Basin communities (CNPS 2014).

The CNDDDB reports one occurrence of Plumas ivesia in the Study Area; seven additional occurrences are known within 3 miles (CDFW 2014). The location of the known occurrence

within the Study Area was visited during the October field survey and no individuals were located. The blooming period for the species is July through October; the survey took place very late in the season to identify this species, and ongoing drought for the past three years may have affected its growth. Suitable habitat for the species was observed in and adjacent to the wetland habitats in the Study Area, particularly one large natural swale (see Appendix B, maps 3 and 4, shown as *Eleocharis macrostachya* alliance, *Hordeum brachyantherum* herbaceous alliance, and *Hordeum brachyantherum/Festuca idahoensis* alliance). Therefore Plumas ivesia may be present in the Study Area.

Santa Lucia Dwarf Rush (*Juncus luciensis*)

Santa Lucia dwarf rush is an annual herb that has CRPR 1B.2 and is listed by the USFS as sensitive. This species grows in seasonally mesic areas such as meadows, seeps, and vernal pools, in chaparral, Great Basin scrub, and lower montane coniferous forest between elevations of 300 to 2,040 meters (984 to 6,693 feet) (CNPS 2014). This California endemic is known from approximately 26 occurrences which are widely separated from each other in 13 counties: Lassen, Monterey, Modoc, Napa, Nevada, Placer, Plumas, Riverside, Santa Barbara, San Benito, San Diego, Shasta, and San Luis Obispo (CNPS 2014). Human development projects are the main threat to Santa Lucia dwarf rush (CNPS 2014).

The CNDDDB reports no occurrences of Santa Lucia dwarf rush in the Study Area, but one occurrence is known within 3 miles in nearby Martis Valley (CDFW 2014). No occurrences were observed during the field visit. The typical blooming time for this species is April to July, and the survey therefore did not take place at a suitable time of year to detect Santa Lucia dwarf rush. Suitable habitat was observed in the wetland habitats in the Study Area, particularly one large natural swale (see Appendix B, maps 3 and 4, shown as *Eleocharis macrostachya* alliance, *Hordeum brachyantherum* herbaceous alliance, and *Hordeum brachyantherum/Festuca idahoensis* alliance). Therefore Santa Lucia dwarf rush may be present in the Study Area.

Lemmon's Milk-vetch (*Astragalus lemmonii*)

Lemmon's milk-vetch is a perennial herb that has CRPR 1B.2 and is listed by the USFS as sensitive. This species grows in Great Basin scrub habitats, often in mesic areas such as meadows, seeps, and lake shores between elevations of 1,007 to 2,200 meters (3,304 to 7,218 feet) (CNPS 2014). This milk-vetch is known from approximately 13 widely spread occurrences in Inyo, Lassen, Mono, Modoc, Plumas, Shasta, and Sierra counties (CNPS 2014). Threats to Lemmon's milk-vetch include land-use conversion and pipeline construction (CNPS 2014).

The CNDDDB does not report Lemmon's milk-vetch from the nine-quad background research area. However, the range for this species extends both north and south of the Study Area.

Suitable blooming period for the species is May to September, and the survey therefore did not take place at a suitable time to identify this species. During field surveys, surveyors observed and mapped one occurrence of an unidentifiable native milk-vetch which had finished flowering and fruiting (see Appendix B, map 4 and Appendix C, Photo 8). Suitable habitat for the species was observed in shrubland and steppe and some wetland habitats in the Study Area, particularly one large natural swale (see Appendix B, maps 3 and 4, shown as *Eleocharis macrostachya* alliance,

Hordeum brachyantherum herbaceous alliance, and *Hordeum brachyantherum/Festuca idahoensis* alliance). Therefore, Lemmon's milk-vetch may be present in the Study Area.

Davy's Sedge (*Carex davyi*)

Davy's sedge is a perennial herb with CRPR 1B.3. This species grows in upper montane and subalpine conifer forest between elevations of 1,500 to 2,000 meters (4,921 to 6,562 feet). Unlike many sedge species, suitable habitat for Davy's sedge is not necessarily mesic (CNPS 2014). This California endemic is known from approximately 19 occurrences in Alpine, Calaveras, El Dorado, Nevada, Placer, and Sierra counties. Threats to Davy's sedge include anthropogenic disturbances such as timber harvest and grazing (CNPS 2014).

The CNDDDB does not report Davy's sedge within the Study Area or within 3 miles of the Study Area (CDFW 2014), though 12 occurrences are located in Nevada and Placer counties (Calflora 2014). No individuals of Davy's sedge were observed during the survey; however, the blooming period for the species is May through August, and the survey therefore did not take place at a suitable time to detect Davy's sedge. Suitable habitat for the species was observed in conifer forests in the Study Area, and Davy's sedge may be present.

Fresno Ceanothus (*Ceanothus fresnensis*)

Fresno ceanothus is a perennial evergreen shrub that has CRPR 4.3. This species grows in openings in cismontane woodland and lower coniferous forest between elevations of 900 to 2,103 meters (2,953 to 6,900 feet) (CNPS 2014). This California endemic is known from approximately 83 occurrences in Calaveras, El Dorado, Fresno, Madera, Mariposa, Nevada, Placer, Plumas, Tulare, and Tuolumne counties (Calflora 2014).

The CNDDDB does not report Fresno ceanothus within the Study Area or within 3 miles of the Study Area (CDFW 2014), though 10 occurrences are located in Nevada and Placer counties (Calflora 2014). Ceanothus of any kind was not common in the Study Area during the survey, and only small populations of the common species mahala-mats were noted. The blooming period for Fresno ceanothus is May through July, and therefore the survey did not take place at a suitable time to observe flowering. Suitable habitat for the species was observed in and adjacent to conifer forests in the Study Area, and Fresno ceanothus may be present.

Truckee Cryptantha (*Cryptantha glomeriflora*)

Truckee cryptantha is an annual herb with CRPR 4.3. This species grows in granitic or volcanic sandy soil in openings in Great Basin scrub, meadows, and upper montane and subalpine coniferous forest between elevations of 1,800 and 3,750 meters (5,900 to 12,303 feet) (CNPS 2014). This California endemic is known from approximately 86 occurrences in Alpine, Butte, Fresno, Inyo, Lassen, Mono, Nevada, Sierra, Tulare, and Tuolumne counties (Calflora 2014).

The CNDDDB does not report Truckee cryptantha within the Study Area or within 3 miles of the Study Area (CDFW 2014); however, an occurrence is reported from Nevada County, and the species is known from both north and south of the Study Area (Calflora 2014). The blooming time for Truckee cryptantha is June to September, and the survey therefore did not take place at a suitable time to detect the species. Unidentifiable cryptantha plants were commonly observed during the survey; these may be Truckee cryptantha or a common species. Suitable habitat for

the species was observed in openings in scrub and conifer forest habitats in the Study Area and Truckee cryptantha may be present.

Nevada Daisy (*Erigeron eatonii* var. *nevadincola*)

Nevada daisy is a perennial herb with CRPR 2B.3. This species grows in rocky areas in many habitats such as Great Basin scrub, lower montane coniferous forest, and pinyon and juniper woodland between elevations of 1,400 to 2,900 meters (4,593 to 9,514 feet) (CNPS 2014). In California, this species is known from approximately 27 occurrences in Lassen, Placer, Plumas, and Sierra counties (CNPS 2014). The species also grows in Nevada.

The CNDDDB does not report Nevada daisy within the Study Area or within 3 miles of the Study Area (CDFW 2014); two occurrences are located in Nevada and Placer counties (Calflora 2014). The blooming period for Nevada daisy is May through July, and the survey therefore did not take place at a suitable time to detect it. Suitable habitat for the species was observed in small rocky outcrops located in areas west and north of the airport buildings and runways, and Nevada daisy may be present in the Study Area.

Amethyst Stickseed (*Hackelia amethystina*)

Amethyst stickseed is a perennial herb with CRPR 4.3. This species grows in moderately disturbed areas and other openings, such as meadows, in lower and upper montane coniferous forest between elevations of 1,500 to 2,315 meters (4,921 to 7,595 feet) (CNPS 2014). This California endemic is known from approximately 106 occurrences in Colusa, El Dorado, Glenn, Lake, Lassen, Mendocino, Placer, Plumas, Tehama, Trinity, and Tuolumne counties (Calflora 2014).

The CNDDDB does not report amethyst stickseed within the Study Area or within 3 miles of the Study Area (CDFW 2014); one occurrence is located in Placer County (Calflora 2014). However, the range for the species extends both north and south of the Study Area. The blooming period for amethyst stickseed is June through August, and the survey therefore did not take place at a suitable time to detect it. Suitable habitat for the species was observed in forest openings and edges in the Study Area and amethyst stickseed may be present.

Sierra Starwort (*Pseudostellaria sierrae*)

Sierra starwort is a perennial herb with CRPR 4.2. This species grows in chaparral, cismontane woodland, and lower and upper coniferous forest between elevations of 1,225 to 2,194 meters (4,019 to 7,198 feet) (CNPS 2014). This California endemic is known from approximately 43 occurrences in Butte, Mariposa, Nevada, Placer, Plumas, and Tuolumne counties (Calflora 2014).

The CNDDDB does not report Sierra starwort within the Study Area or within 3 miles of the Study Area (CDFW 2014); 22 occurrences are located in Nevada and Placer counties (Calflora 2014). The blooming period for Sierra starwort is May through August, and the survey therefore did not take place at a suitable time to detect it. Suitable habitat for the species was observed in forested areas within the Study Area, and Sierra starwort may be present.

3.4 Special-status Animal Species

A review of existing information identified eight special-status wildlife species that have moderate or high potential to occur within the Study Area (Appendix A, Table 2). These taxa are willow flycatcher (*Empidonax traillii*), northern goshawk (*Accipiter gentilis*), Cooper's hawk (*Accipiter cooperii*), black-backed woodpecker (*Picoides arcticus*), Sierra Nevada snowshoe hare (*Lepus americanus tahoensis*), western white-tailed jackrabbit (*Lepus townsendii townsendii*), Sierra Nevada red fox (*Vulpes vulpes necator*), and silver-haired bat (*Lasionycteris noctivagans*). This section provides more detail on the habitat preferences of these species.

Willow Flycatcher (*Empidonax traillii*)

Willow flycatcher is listed as endangered by the State of California and sensitive by the USFS/TNF. Historically, this species nested in California at elevations between 30 and 2,440 meters (100 to 8,000 feet), wherever willow thickets and other deciduous riparian shrubs were present (Craig and Williams 1998). In recent years the species is common at lower elevations only in the spring and fall, and the few remaining summer breeding populations in California are limited to isolated mountain meadows and other riparian habitats between 600 and 2,440 meters (2,000 to 8,000 feet) in the Cascades and northern Sierra Nevada (Craig and Williams 1998). Both breeding and foraging territories at these elevations typically consist of moist meadows, riparian streams, spring-fed areas, and similar habitats that support broken patches of willows, alders, and cottonwoods. However, the presence of water appears to be less important than the vegetation itself; in some cases dry areas maintaining a suitable type of shrubby vegetation are also used. The smallest viable territory size is about 0.25 hectare (Craig and Williams 1998). The birds typically forage by aerial gleaning or hawking insects. The beginning of the nesting season is variable, and seems dependent on weather and snow-melt; most birds leave the breeding territories by mid-August (Craig and Williams 1998).

Three occurrences of willow flycatcher are documented in the CNDDDB within 3 miles of the Study Area (CDFW 2014; Figure 2-1). No suitable willow vegetation is present in the Study Area, but some potential nesting and foraging habitat is present along the margins of forested areas. Given the relatively large level of nearby human activity, however, willow flycatchers are more likely to use the areas for foraging as they are passing through, rather than for nesting.

Northern Goshawk (*Accipiter gentilis*)

Northern goshawk is designated a species of special concern by CDFW and sensitive by the USFS/TNF. Suitable nesting habitat for northern goshawk consists of mature forested habitats with large trees, dense canopy cover with at least two canopy layers, and abundant snags and downed logs (USFS 2001; USFS 2004). Habitat patches surrounding nest locations are known to range in size from 25 to 250 acres. Northern goshawks appear to be year-round residents in the Sierra Nevada, although limited altitudinal movements by some individuals may occur in winter (USFS 2001). Winter requirements of this species are poorly understood, but the few studies available show goshawk abundance in winter is primarily dependent on food source availability, not habitat preferences (Squires and Reynolds 1997). The northern goshawk breeding period extends from mid-February or early March through late August or early September.

Northern goshawks occur in forested habitats throughout the northern hemisphere (USFS 2001). The USFS estimates that approximately 600 known goshawk territories occur on National Forest

system lands in the Sierra Nevada. Territories appear to be well distributed across the Sierra; however, occupancy of many territories and general population trends are unknown due to a lack of wide-spread demography studies for this species. The CNDDDB has one record for this species within 3 miles of the Study Area, which was recorded in 1999 2 miles west of Martis Peak. Suitable foraging and nesting habitat for northern goshawk is present in the Study Area.

Cooper's Hawk (*Accipiter cooperii*)

The Cooper's hawk is a CDFW watch list species. Cooper's hawk was placed on the watch list because of reduced breeding numbers in recent decades. This species is a breeding resident throughout most of the wooded portion of California and frequently nests in dense stands of live oak, deciduous riparian, second-growth conifer stands, deciduous forests, or other forest habitats near streams or other water sources. Some individuals may remain year-round where they nest, but most individuals vacate the northern half of their range during winter (Polite 1990). Nests are built in deciduous trees in crotches 3–23 meters (10–80 feet) above the ground or in conifers on horizontal branches, in the main crotch, often just below the lowest live limbs. Nesting season occurs February through October.

The Study Area is located within the current range of Cooper's hawk, but no CNDDDB occurrences of this species were recorded within 3 miles of the Study Area. Potentially suitable foraging and nesting habitat for the species is present; therefore, this species may be present, or pass through, the Study Area.

Black-backed Woodpecker (*Picoides arcticus*)

In California, black-backed woodpecker is species of special concern (CDFW 2014). It was also considered for listing under CESA in 2013 (CDFW 2013); however, this species was not listed as threatened or endangered at that time. The black-backed woodpecker breeds from central Alaska and northern Canada, to montane areas of California and New England. This species is dependent on fire disturbance for feeding and is confined mostly to areas of burned-over coniferous forest sites. Black-backed woodpeckers forage opportunistically on outbreaks of wood-boring beetles in recently burned habitats (Dixon and Saab 2000). This restricted diet renders the species vulnerable to local and regional extinction as fire-suppression programs and post-fire salvage logging increase. Black-backed woodpeckers nest in cavities of both live and dead trees from April to June. Population studies of this species are difficult due to the ephemeral nature of their preferred habitat.

The Study Area is located within the current range of black-backed woodpecker; however, no CNDDDB occurrences were recorded within 3 miles of the Study Area. Three occurrences have been reported within the wider nine-quad CNDDDB search area. Although no recently burned areas are present within the vicinity of the Study Area, some potentially suitable foraging and nesting habitat is present. Therefore, this species may be present in low densities or pass through the Study Area.

Sierra Nevada Snowshoe Hare (*Lepus americanus tahoensis*)

The Sierra Nevada snowshoe hare is designated a species of special concern by CDFW. In California they inhabit the mid-elevations of the northern and central Sierra Nevada from approximately Mount Lassen to Yosemite National Park (north to south) and to Mono and

Mariposa counties. They have also been recorded from Nevada in the general vicinity of Lake Tahoe (Collins 1998). They are known from elevations of approximately 1,460 to 2,440 meters (4,800 to 8,000 feet).

The Sierra Nevada snowshoe hare occurs in riparian communities characterized by thickets of deciduous trees and shrubs such as willows and alders (Collins 1998). In the vicinity of Lake Tahoe, it has been reported in dense deciduous streamside vegetation; forest undergrowth; dense thickets of young conifers, especially firs where the branches droop to the ground; and patches of chaparral composed of *Ceanothus* and manzanita (*Arctostaphylos* spp.). During the summer, snowshoe hares in the Lake Tahoe area are associated with brush situated close to meadows or deciduous riparian vegetation, rather than on ridgetops or brush-covered upper slopes. Snowshoe hares typically spend the day hiding from predators under vegetation, logs, or jumbled piles of fallen trees or shrubs (Collins 1998). They do not frequent open spaces or mature closed canopy conifer forests. They are active year-round, mostly at night and early morning. In the summer, snowshoe hares feed on various green succulent plants, grasses, sedges, ferns, and forbs (Collins 1998). In the winter, their diet changes to bark and twigs of conifers, evergreen shrubs, and deciduous trees. Breeding occurs from early spring to late summer.

The Study Area is located within the current range of Sierra Nevada snowshoe hare. One CNDDDB occurrence is known within 3 miles of the Study Area, but it was from 1915. Potentially suitable habitat for the species is present, therefore, this species may be present, or pass through, the Study Area.

Western White-tailed Jackrabbit (*Lepus townsendii townsendii*)

The western white-tailed jackrabbit is designated a species of special concern by CDFW. This species is a year-round resident of the crest and upper eastern slope of the Sierra Nevada, primarily from the Oregon border south to Tulare and Inyo counties. The western white-tailed jackrabbit was formerly widespread throughout its range, but it is now uncommon to rare with a fragmented and small population (Hoefler 1990). This species' preferred habitats are sagebrush, subalpine conifer, juniper, alpine dwarf-shrub, and perennial grassland. It also inhabits low sagebrush, wet meadow, and early successional stages of conifer habitats. Western white-tailed jackrabbits move seasonally from higher to lower elevations in winter (Hoefler 1990). They primarily feed in open meadows on grasses and herbaceous plants during the growing season. In winter they feed on buds, bark, and twigs of shrubs, particularly sagebrush, creambush (*Holodiscus discolor*), and small trees (Hoefler 1990). Like other hares, western white-tailed jackrabbits use shrubby underbrush and dense thickets of young conifers or low branches for cover. Breeding occurs from February to July.

The Study Area is located within the current range of western white-tailed jackrabbit; however, no CNDDDB records are reported within 3 miles of the Study Area (CDFW 2014). In the wider nine-quad CNDDDB search, one record for this species was documented near Tahoe City from 1920. Suitable habitat for foraging and breeding is present, including open meadows dominated by sagebrush, therefore, this species may be present, or pass through, the Study Area.

Sierra Nevada Red Fox (*Vulpes vulpes necator*)

The Sierra Nevada red fox is listed as threatened by the state, and sensitive by the USFS. These foxes utilize many habitats in the high Sierra, including barrens, conifer forests, shrublands, meadows, and subalpine woodlands (Perrine et al. 2010). They are known from elevations of

1,200 to 3,600 meters (3,937 to 11,811 feet). In the summer, they tend to live at very high elevation habitats with little cover. In the winter, they move downslope into more forested areas; their habitat is positively associated with large trees (greater than 60 centimeters diameter at breast height) and greater than 40 percent canopy closure (Perrine et al. 2010). Typically these foxes create dens in natural cavities, such as talus slopes, rock slides, or boulder piles. However, they have been known to occasionally utilize human structures for dens or create earthen dens (Perrine et al. 2010).

The Study Area is located within the current range of Sierra Nevada red fox. One CNDDDB occurrence is known within 3 miles of the Study Area, and potentially suitable forested habitat for the species is present. Therefore, Sierra Nevada red fox may be present, or pass through, the Study Area.

Silver-haired Bat (*Lasionycteris noctivagans*)

Silver-haired bat is designated a species of special concern by CDFW. This species is common and widespread in California, and during spring and fall migrations can be found anywhere in the state (Harris 1990). Summer habitats include coastal and montane coniferous forests, valley foothill woodlands, pinyon-juniper woodlands, and valley foothill and montane riparian habitats. Summer range is generally below 2,750 meters (9,000 feet) (Harris 1990). These bats create roosts in hollow trees, snags, buildings, rock crevices, caves, and under bark. Open habitats are used for foraging. Individuals will often forage over water or open areas using echolocation to locate prey, typically less than 6 meters (20 feet) off the ground. Mating occurs in autumn, but females store sperm internally over winter with young being born in the spring from May through July. Silver-haired bats migrate in the winter to hibernation sites further south, likely into Mexico (Harris 1990).

The Study Area is located within the current range of silver-haired bat; however, no CNDDDB records are known within 3 miles of the Study Area (CDFW 2014). One CNDDDB record for this species has been recorded in the wider nine-quad research area, in the Sagehen Creek Basin from 1955. The Study Area contains conifer forests and buildings where roosts may be established. Open areas are available for foraging, although open water is not present. Therefore, silver-haired bat may be present in the Study Area. However, the Study Area has a moderate level of human disturbance and is surrounded by roadways and runway traffic, which may discourage use by this and other species of bat.

3.5 Critical Habitat

The ESA of 1973 requires the federal government to designate critical habitat for any species it lists under the ESA. Critical habitat is designated to describe areas that are both essential to the management of the species, and may require special management considerations.

No federally-designated critical habitat for any species occurs within the Study Area or within 3 miles of the Study Area.

4.0 Avoidance and Minimization Recommendations

Recommendations for additional surveys and minimization and avoidance of impacts are discussed below. The Study Area has the potential to support special-status plant and animal species; special habitats, namely wetlands, are also present. Because the project may fall under the jurisdiction of, and will likely be subject to review by both state and federal agencies, it is recommended that further biological studies be performed to a level that will best inform the permitting and review processes. These studies are discussed below.

4.1 Wetlands and Other Waters

No current information specifically detailing TTAD's plans for development of the Study Area are available. Depending on the configuration of any new development, natural habitats within the Study Area, including wetland and other water features, may or may not be impacted. At least portions of the project will likely undergo review by federal and state agencies that regulate various types of wetlands and non-wetland waters. These agencies include USACE, CDFW, USFS, and/or the Regional Water Quality Control Board (RWQCB). Information regarding the presence, type, and location and size of any wetland or water features will be needed in order to adequately address the reviews required by these agencies.

Therefore, we recommend that a jurisdictional delineation meeting the requirements of USACE be conducted in portions of the Study Area that may experience project-related disturbance, particularly if habitat mapping in the subject area has identified wetlands or other water features (Appendix B). Additional agency jurisdictions should also be addressed and mapped (CDFW, RWQCB). This delineation and other associated mapping can then be used to address specific impacts to wetlands or waters from any planned project disturbance.

4.2 Special-status Plants

No current information specifically detailing TTAD's plans for development of the Study Area are available. Depending on the configuration of any new development, natural habitats within the Study Area may or may not be impacted. These natural habitats are suitable habitat for special-status plant species. Portions of the Study Area will likely undergo review by federal and state agencies, including USFWS (federally listed species), CDFW (state-listed species, and those with CRPR status), and USFS (those with sensitive status). Information regarding the presence of special-status species, including plants, will be needed in order to adequately address the reviews required by these agencies.

Therefore, we recommend that surveys meeting the protocol requirements of CDFW (CDFG 2009) be performed in naturally vegetated portions of the Study Area that may experience project-related disturbance. This protocol includes vegetation mapping using the current version of *A Manual of California Vegetation, Second Edition* (Sawyer, Keeler-Wolf and Evens 2009), a floristic plant list, multiple visits to sites based on suitable plant bloom times, and submission of any special-status plant finds into the CNDDDB.

If special-status plants are found during protocol-level surveys within areas proposed for disturbance, a rare plant mitigation plan should be developed with agency consultation.

4.3 Special-status Wildlife

No current information specifically detailing TTAD's plans for development of the Study Area are available. Depending on the configuration of any new development, most potential habitat for special-status wildlife can likely be avoided (trees, snag habitat, and wetlands). General survey or avoidance measures are presented below; however, once details of planned development activities are known, more specific and targeted surveys for special-status animal species may be necessary.

Protection Measures for Nesting Birds. To avoid or minimize potential impacts to nesting birds (including special-status species), we recommend that all project construction activities such as site grubbing, excavation, grading, and the operation of heavy equipment occur between September 1 and January 31, outside of the nesting season, to the extent feasible. If project construction activities must occur during the period from February 1 to August 31, we recommend that a qualified wildlife biologist conduct pre-construction surveys for nesting birds. During the surveys, the qualified biologist shall carefully search for active nests/burrows within the work zone and a surrounding buffer zone. If an active nest is found, the bird species shall be identified and the approximate distance from the closest work site to the nest shall be estimated. Appropriate buffer distances shall be established by a qualified biologist. If active nests are closer than the appropriate buffer distance to the nearest work site, then the active nest(s) shall be monitored for signs of disturbance. Coordination with USFWS and CDFW shall occur as necessary. Disturbance of active nests should be avoided, to the extent possible, until it is determined that nesting is complete and the young have fledged.

Protection Measures for Bats. Potential bat roosting sites occur within the Study Area. In addition to impacts to special-status bats, the project has the potential to affect native wildlife nursery sites if trees, snags, or other structures on the site support a maternity colony of any species of bat. The loss of a large colony of any native bat species (e.g., silver-haired bat, long-legged myotis [*Myotis volans*]) would be a significant impact under CEQA. All potential impacts to bats will be avoided if the project does not disturb trees or any existing buildings in the Study Area. If impacts to any medium or larger trees (greater than 30.5 centimeter [12-inch] diameter) that may harbor roosting bats cannot be avoided, we recommend that the measures described below be implemented.

1. Any medium or larger (greater than 30.5 centimeter [12-inch] diameter) tree or snag that is selected for removal would be inspected by a qualified wildlife biologist for the presence of foliage-roosting bats and potential dens (e.g., cavities, entrance holes). Cavities suitable as special-status bat roosts would be examined for roosting bats using a portable camera probe or similar technology. Buildings or other structures with potential for supporting special-status bats would be inspected by a qualified biologist for evidence of roosting colonies. If present, roosts of special-status or other bats (including day and night roosts, hibernacula, and maternity colonies) would be flagged and construction activities would be avoided within a minimum of 91.5 meters (300 feet) surrounding each occupied roost.

2. If a portion of the Study Area is being used as a winter roost, project activity would not take place during the period of hibernation (November 1 to March 1). If a portion of the Study Area is being used as a maternity colony, project activity would not occur during the maternity roost season (March 1 to July 31). If a non-maternity bat roost is found within the Study Area, the roosting bats would be safely evicted under the direction of a qualified biologist (as determined by a Memorandum of Understanding with CDFW). The qualified biologist would facilitate the removal of roosting bats using the following methods:
 - a. Opening the roosting area to allow airflow through the cavity or building (air flow disturbance).
 - b. Waiting a minimum of one night for roosting bats to respond to air flow disturbance, thereby allowing bats to leave during nighttime hours when predation risk is relatively low and chances of finding a new roost is greater than in the daytime.
 - c. Disturbing roosts at dusk just prior to roost removal the same evening to allow bats to escape during nighttime hours.

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Appendix A

Special-status Species Identified from Background Research

Appendix A, Table 1. Special-status Plant Species Identified from Background Research

| <i>Scientific Name</i> Common Name (Blooming Period) | Status ¹ Federal/State/ CRPR/USFS | Suitable Habitat (Known Elevation Range) | Potential to Occur in Study Area ² |
|--|--|--|--|
| Plants within a 3-mile Buffer | | | |
| <i>Eriogonum umbellatum</i> var. <i>torreyanum</i> Donner Pass buckwheat (July–September) | None / None / 1B.2 / FSS | Habitat for species is volcanic, rocky areas, and mesic areas such as meadows and seeps in upper montane coniferous forest (1,855 to 2,620 meters) | Known occurrence within 3 miles (CDFW 2014), but no suitable rocky habitat in Study Area. Not expected. |
| <i>Ivesia sericoleuca</i> Plumas ivesia (May–October) | None / None / 1B.2 / FSS | Species is found in vernal mesic areas, such as meadows, seeps, and vernal pools, usually with volcanic soils. Also found in seasonally mesic areas in Great Basin scrub and lower montane forest communities (1,310 to 2,200 meters). | Known occurrence within and/or adjacent to Study Area (CDFW 2014) and several occurrences within 3 miles. Suitable habitat present. High potential to occur in grassland and wetland areas. |
| <i>Juncus luciensis</i> Santa Lucia dwarf rush (April–July) | None / None / 1B.2 / FSS | Species is found in seasonally mesic areas such as meadows, seeps, and vernal pools, in chaparral, Great Basin scrub, and lower montane coniferous forest (300 to 2,040 meters). | Known occurrence within a mile of Study Area, in a mesic area in sagebrush scrubland (CDFW 2014). Suitable habitat present. High potential to occur in wetlands. |
| <i>Rorippa subumbellata</i> Tahoe yellow cress (May–September) | Candidate / Endangered / 1B.1 / Federal Endangered | Species has a very narrow range near Lake Tahoe, and specific habitat of lake margins with decomposed granitic beaches. Historically known from riparian areas on this same soil type (1,895 to 1,900 meters). | Historical occurrence from late 1800's within 3 miles of Study Area; the exact location of this occurrence is unknown and thought to be extirpated (CDFW 2014). No suitable lake margin or beach habitat present. Not expected. |
| <i>Scutellaria galericulata</i> Marsh skullcap (June–September) | None / None / 2B.2 / None | Suitable habitat is long-term mesic areas such as meadows, seeps, marshes, and swamps in montane coniferous forest (0 to 2,100 meters). | Historical occurrence from late 1800's within 3 miles of Study Area; the exact occurrence location is unknown (CDFW 2014). No suitable marsh habitat present. Not expected. |
| Plants with Forest Service Sensitive Status or within Nine-quad Search (greater than 3 miles from Study Area) | | | |
| <i>Arabis rigidissima</i> var. <i>demota</i> Galena Creek rockcress (August) | None / None / 1B.2 / FSS | Species is known from rocky areas in broad-leaved upland forest and upper montane coniferous forest (2,255 to 2,560 meters). | Study Area lower than known distribution of the species (CNPS 2014). Only small areas of rocky habitat present. Not expected. |
| <i>Artemisia tripartita</i> ssp. <i>tripartita</i> Threetip sagebrush (August) | None / None / 2B.3 / None | Species is found in rocky, volcanic openings in upper montane coniferous forest (2,200 to 2,600 meters). | Suitable open areas present but taxon is not known nearby (CDFW 2014), and Study Area elevation is somewhat lower than known distribution of the species (CNPS 2014). Low potential to occur. |
| <i>Astragalus austiniiae</i> Austin's milk-vetch (July–September) | None / None / 1B.3 / None | Species is found in high elevation rocky areas, such as alpine boulder and rock fields, or rocky areas in subalpine coniferous forest (2,440 to 2,965 meters). | Study Area much lower than known elevation range of the species (CNPS 2014), and no suitable rock or boulder fields present. Not expected. |

Appendix A, Table 1. Special-status Plant Species Identified from Background Research

| <i>Scientific Name</i> Common Name (Blooming Period) | Status ¹ Federal/State/ CRPR/USFS | Suitable Habitat (Known Elevation Range) | Potential to Occur in Study Area ² |
|--|--|---|--|
| <i>Astragalus lemmonii</i> Lemmon's milk-vetch (May–September) | None / None / 1B.2 / FSS | Species is found in Great Basin scrub, meadows, and lake shores (1,007 to 2,200 meters). | Study Area has suitable habitat for the species (CNPS 2014). Species is not known from nine-quad search area, but known from both north and south of the Study Area. Moderate potential to occur. |
| <i>Astragalus pulsiferae</i> var. <i>coronensis</i> Modoc plateau milk-vetch (May–July) | None / None / 4.2 / FSS | Species is found in sandy, gravelly, or volcanic substrates in Great Basin scrub, lower montane coniferous forest, and pinyon and juniper woodland (1,345 to 1,890 meters). | Study Area has generally suitable habitat for the species, but species only known from Lassen, Modoc, and Plumas counties. Low potential to occur. |
| <i>Astragalus webberi</i> Webber's milk-vetch (May–July) | None / None / 1B.2 / FSS | Species is known from various habitats including broad-leaved upland forest, lower montane coniferous forest, meadows, and seeps (731 to 1,250 meters). | Study Area is well above the known elevation range of this species, and species only known from a small range in Plumas County (CNPS 2014). Not expected. |
| <i>Astragalus whitneyi</i> var. <i>lenophyllus</i> Woolly-leaved milk-vetch (July–August) | None / None / 4.3 / None | Species is found in high elevation rocky areas, such as alpine boulder and rock fields, or rocky areas in subalpine coniferous forest (2,135 to 3,050 meters). | Study Area somewhat lower than known elevation range of the species (CNPS 2014), and no suitable subalpine rock or boulder fields present. Not expected. |
| <i>Boletus pulcherrimus</i> Red-pored bolete (Late fall–mid-winter) | None / None / None / FSS | Mixed conifer/hardwood woods (Mykoweb 2014a). | No suitable mixed conifer/ hardwood forest present. Not expected. |
| <i>Botrychium ascendens</i> Upswept moonwort (July–August) | None / None / 2B.3 / FSS | Species is found in mesic areas such as meadows and seeps in lower montane coniferous forest (1,500 to 2,595 meters). | Limited areas of minimally suitable meadow habitat present. Low potential to occur. |
| <i>Botrychium crenulatum</i> Scalloped moonwort (June–September) | None / None / 2B.2 / FSS | Species is found in mesic areas such as bogs, fens, meadows, seeps, marshes, and swamps in lower and upper montane coniferous forest (1,268 to 3,280 meters). | Limited areas of minimally suitable meadow habitat present. Low potential to occur. |
| <i>Botrychium lunaria</i> Common moonwort (August) | None / None / 2B.3 / None | Species is found in mesic areas such as meadows or seeps in lower and upper montane coniferous forest (1,980 to 3,400 meters). | Limited areas of minimally suitable meadow habitat present. Low potential to occur. |
| <i>Botrychium minganense</i> Mingan moonwort (July–September) | None / None / 2B.2 / FSS | Species is found in areas such as bogs and fens in lower and upper montane coniferous forest (1,455 to 2,180 meters). | Limited areas of minimally suitable meadow habitat present. Low potential to occur. |
| <i>Botrychium montanum</i> Western goblin (July–September) | None / None / 2B.1 / FSS | Species is found in mesic areas such as meadows and seeps, in lower and upper montane coniferous forest (1,465 to 2,180 meters). | Limited areas of minimally suitable meadow habitat present. Low potential to occur. |

Appendix A, Table 1. Special-status Plant Species Identified from Background Research

| <i>Scientific Name</i> Common Name (Blooming Period) | Status ¹ Federal/State/ CRPR/USFS | Suitable Habitat (Known Elevation Range) | Potential to Occur in Study Area ² |
|---|--|--|--|
| <i>Bruchia bolanderi</i> Boldander's bruchia (Moss) | None / None / 2B.2 / FSS | Suitable habitat is areas with damp soil, such as meadows or seeps, in lower or upper montane coniferous forest (1,700 to 2,800 meters). | Limited areas of minimally suitable meadow habitat present. Low potential to occur. |
| <i>Carex davyi</i> Davy's sedge (May–August) | None / None / 1B.3 / None | Suitable habitat is upper to subalpine montane coniferous forest (1,500 to 3,200 meters). | Moderately suitable habitat present at forested areas. Moderate potential to occur in forested areas. |
| <i>Carex lasiocarpa</i> Woolly-fruited sedge (June–July) | None / None / 2B.3 / None | Species is found in very mesic areas such as freshwater lake margins, or wet bogs and fens (1,700 to 2,100 meters). | No suitable lakeshore or marsh habitat present. Not expected. |
| <i>Carex limosa</i> Mud sedge (June–August) | None / None / 2B.2 / None | Suitable habitat is mesic areas such as bogs, fens, meadows, seeps, marshes, and swamps, in lower or upper montane coniferous forest (1,200 to 2,700 meters). | Limited amounts of minimally suitable mesic habitat present. Low potential to occur in wetlands. |
| <i>Ceanothus fresnensis</i> Fresno ceanothus (May–July) | None / None / 4.3 / None | Species is found in openings in cismontane woodland and lower montane coniferous forest (900 to 2,103 meters). | Not known from Truckee quad (CDFW 2014, CNPS 2014), but suitable habitat generally present. Moderate potential to occur. |
| <i>Claytonia megarhiza</i> Fell-fields claytonia (July–September) | None / None / 2B.3 / None | Species is found in crevices between rocks in alpine boulder and rock fields, and rocky or gravelly areas in subalpine coniferous forest (2,600 to 3,532 meters). | Study Area much lower than known elevation range of the species (CNPS 2014), and no suitable rock or boulder fields present. Not expected. |
| <i>Cryptantha glomeriflora</i> Truckee cryptantha (June–September) | None / None / 4.3 / None | Species is found in granitic, volcanic, and sandy areas in Great Basin scrub, meadows, and upper montane and subalpine coniferous forest (1,800 to 3,750 meters). | Not many occurrences are known in Nevada and Placer counties, but suitable open Great Basin scrub and forest habitats are present. Moderate potential to occur. |
| <i>Cypripedium fasciculatum</i> Clustered lady's-slipper (March–August) | None / None / 4.2 / FSS | Species is found in lower and upper lower montane coniferous forest. It can be associated with serpentinite, but not consistently. Often on shaded slopes, associated with hazelnut and dogwood (100 to 2,435 meters). | Small areas of minimally suitable forest habitat present. Low potential to occur. |
| <i>Cypripedium montanum</i> Mountain lady's-slipper (March–August) | None / None / 4.2 / FSS | Species is found in broad-leaved upland forest, cismontane woodland, lower montane coniferous forest, and North Coast coniferous forest. Sometimes but not always associated with a mesic area such as a seep (185 to 2,225 meters). | Forests in Study Area are not mesic. Species not known from nine-quad search area. Not expected. |
| <i>Dendrocollybia racemosa</i> Branched collybia (Late fall–mid-winter) | None / None / None / FSS | Species grows on decayed fungus or mushrooms, or in mixed conifer/hardwood forest duff (Mykoweb 2014b). | Suitable mixed conifer/ hardwood forest not present. Not expected |

Appendix A, Table 1. Special-status Plant Species Identified from Background Research

| <i>Scientific Name</i> Common Name (Blooming Period) | Status ¹ Federal/State/ CRPR/USFS | Suitable Habitat (Known Elevation Range) | Potential to Occur in Study Area ² |
|--|--|---|---|
| <i>Drosera anglica</i> English sundew (June–September) | None / None / 2B.3 / None | Suitable habitat for this species is mesic areas such as bogs, fens, meadows, and seeps (1,300 to 2,255 meters). | Not known from near the Study Area (CDFW 2014), but limited areas of minimally suitable meadow habitat present in the Study Area. Low potential to occur in wetlands. |
| <i>Epilobium howellii</i> Subalpine fireweed (July–August) | None / None / 4.3 / None | Suitable habitat for this species consists of mesic areas such as meadows and seeps, in subalpine coniferous forest (2,000 to 3,120 meters). | Not known from near the Study Area (CDFW 2014) and Study Area below known elevation range. No subalpine coniferous forest habitat present. Not expected. |
| <i>Epilobium oregonum</i> Oregon fireweed (June–September) | None / None / 1B.2 / FSS (but not known from TNF) | Suitable habitat for this species is mesic areas such as bogs and fens in lower and upper montane coniferous forest (500 to 2,240 meters). | Not known from the Truckee quad (CDFW 2014, CNPS 2014), but minimally suitable wet meadow habitat present in the Study Area. Low potential to occur. |
| <i>Erigeron eatonii</i> var. <i>nevadincola</i> Nevada daisy (May–July) | None / None / 2B.3 / None | Species is found in rocky areas in Great Basin scrub, lower montane coniferous forest, and pinyon and juniper woodland (1,400 to 2,900 meters). | While not recorded from the Truckee quad (CDFW 2014, CNPS 2014), the known range for the taxon is both slightly north and south of the Study Area (CNPS 2014). Suitable habitat is generally present. Moderate potential to occur. |
| <i>Erigeron miser</i> Starved daisy (June–October) | None / None / 1B.3 / FSS | Species is found in very rocky areas in upper montane coniferous forest (1,840 to 2,620 meters). | Not recorded from the Truckee quad (CDFW 2014, CNPS 2014), and no rocky areas in upper montane coniferous forest present. Not expected. |
| <i>Eriophorum gracile</i> Slender cotton-grass (May–September) | None / None / 4.3 / None | Suitable habitat is mesic areas with acidic soil, such as bogs, meadows, and seeps, and similar areas in upper montane coniferous forest (1,280 to 2,900 meters). | Not recorded from the Truckee quad, but known range extends both north and south of the Study Area (CDFW 2014, CNPS 2014). Limited areas of minimally suitable meadow habitat present. Low potential to occur. |
| <i>Fritillaria eastwoodiae</i> Butte County fritillary (March–June) | None / None / 3.2 / FSS | Found in openings in chaparral, cismontane woodland, and lower montane coniferous forest. Sometimes associated with serpentinite substrates (50 to 1,500 meters). | No suitable serpentine substrate present. Known range is in foothills well west of the Study Area. Not expected. |
| <i>Glyceria grandis</i> American manna grass (June–August) | None / None / 2B.3 / None | Suitable habitat for this species is very wet areas such as marshes, swamps, streambanks, and lake margins (15 to 1,980 meters). | Limited area of minimally suitable wetland habitat present. Low potential in wetlands. |
| <i>Hackelia amethystina</i> Amethyst stickseed (June–August) | None / None / 4.3 / None | Suitable habitat is openings and disturbed areas in meadows, and lower and upper montane coniferous forest. (1,500 to 2,315 meters). | Not recorded from the Truckee quad, but known range extends both north and south of the Study Area (CDFW 2014, CNPS 2014). Generally suitable open habitat present. Moderate potential to occur. |

Appendix A, Table 1. Special-status Plant Species Identified from Background Research

| <i>Scientific Name</i> Common Name (Blooming Period) | Status ¹ Federal/State/ CRPR/USFS | Suitable Habitat (Known Elevation Range) | Potential to Occur in Study Area ² |
|--|--|--|---|
| <i>Helodium blandowii</i> Blandow's bog moss (moss) | None / None / 2B.3 / FSS | Suitable habitat for this species is damp soil in meadows, seeps, and subalpine coniferous forest (1,862 to 2,700 meters). | Not known from near the Study Area (CDFW 2014), but no meadows in subalpine coniferous forest present. Not expected. |
| <i>Ivesia aperta</i> var. <i>aperta</i> Sierra Valley ivesia (June–September) | None / None / 1B.2 / FSS | Suitable habitat for this species is vernal mesic areas (such as vernal pools) in Great Basin scrub, lower montane coniferous forest, meadows, and pinyon and juniper woodland. Usually found on volcanic substrate (1,480 to 2,300 meters). | Suitable habitat present, but not known from near the Study Area; only known from Plumas, Sierra, and Lassen counties. Low potential to occur. |
| <i>Ivesia aperta</i> var. <i>canina</i> Dog Valley ivesia (June–August) | None / None / 1B.1 / FSS | Suitable habitat for this species is volcanic rocky substrate and xeric areas in meadows and openings in lower montane coniferous forest (1,600 to 2,000 meters). | Generally suitable habitat present, but taxon is known only from Dog Valley in Sierra County. Likely out of range and not expected. |
| <i>Ivesia webberi</i> Webber's ivesia (May–July) | Candidate / None / 1B.1 / FSS | Suitable habitat for this species is sandy or gravelly areas (with volcanic ash substrate) in Great Basin scrub, lower montane coniferous forest, and pinyon and juniper woodland (1,000 to 2,075 meters). | Generally suitable habitat present, but known only from Lassen, Plumas, and Sierra counties. Likely out of range and not expected. |
| <i>Lewisia cantelovii</i> Cantelow's lewisia (May–October) | None / None / 1B.2 / FSS | Suitable habitat is granitic or serpentinite rock; often mesic but can be dry. Found in broad-leaved upland forest, chaparral, cismontane woodland, or lower montane coniferous forest (330 to 1,370 meters) | Study Area well above the known elevation range of this species (CNPS 2014) and substrate not suitable. Not expected. |
| <i>Lewisia kelloggii</i> ssp. <i>hutchinsonii</i> Hutchinson's lewisia (May–August) | None / None / 3.2 / FSS | Suitable habitat is openings and ridgetops in upper montane coniferous forest, with slate or rhyolite tuff substrates (765 to 2,365 meters). | Taxon not known from surrounding nine-quad search area and suitable substrate not present in the Study Area. Not expected. |
| <i>Lewisia kelloggii</i> ssp. <i>kelloggii</i> Kellogg's lewisia (May–August) | None / None / 3.2 / FSS | Suitable habitat is openings and ridgetops in upper montane coniferous forest, with slate or rhyolite tuff substrates (1,465 to 2,365 meters). | Taxon not known from surrounding nine-quad search area and suitable substrate not present in the Study Area. Not expected. |
| <i>Lewisia longipetala</i> Long-petaled lewisia (July–September) | None / None / 1B.3 / FSS | Suitable habitat is granitic rocky (often mesic) substrates in high elevation areas. Suitable habitats include alpine boulder and rock field, and similar rocky areas in subalpine coniferous forest (2,500 to 2,925 meters). | Study Area much lower than known elevation range of the species (CNPS 2014), and no suitable rock or boulder fields present. Not expected. |

Appendix A, Table 1. Special-status Plant Species Identified from Background Research

| <i>Scientific Name</i> Common Name (Blooming Period) | Status ¹ Federal/State/ CRPR/USFS | Suitable Habitat (Known Elevation Range) | Potential to Occur in Study Area ² |
|--|--|---|---|
| <i>Lewisia serrata</i> Saw-toothed lewisia (May–June) | None / None / 1B.1 / FSS | Suitable habitat is mesic, rocky slopes in broad-leaved upland forest, lower montane coniferous forest, and riparian forest (900 to 1,435 meters). | Study Area somewhat higher than known elevation range of species (CNPS 2014), forests onsite not suitable, and known from a restricted range in seven quads well west of the Study Area. Not expected. |
| <i>Meesia triquetra</i> Three-ranked hump moss (most often found in July) | None / None / 4.2 / None | Species is found growing on damp soil in mesic areas such as bogs, fens, meadows, and seeps in upper montane and subalpine coniferous forest (1,300 to 2,953 meters). | Minimally suitable mesic meadow habitat present. Low potential to occur. |
| <i>Meesia uliginosa</i> Broad-nerved hump moss (most often found in October) | None / None / 2B.2 / FSS | Suitable habitat is damp soil in mesic areas such as bogs, fens, meadows, and seeps in upper montane and subalpine coniferous forest (1,210 to 2,804 meters). | Minimally suitable mesic meadow habitat present. Low potential to occur. |
| <i>Mielichhoferia elongata</i> Elongate copper moss (moss) | None / None / 2B.2 / FSS | Suitable habitat is metamorphic rock (usually mesic) in cismontane woodland (500 to 1,300 meters). | Study Area has higher elevation than that known for the species, and suitable habitat otherwise not present. Not expected. |
| <i>Monardella follettii</i> Follett’s monardella (June–September) | None / None / 1B.2 / FSS | Suitable habitat is rocky serpentine in lower montane coniferous forest (600 to 2,000 meters). | Known range well west of Study Area, and suitable substrate not present. Not expected. |
| <i>Nardia hiroshii</i> Hiroshi’s flapwort (Liverwort) | None / None / 2B.3 / None | Suitable habitat is damp soil with granitic bedrock (2,195 meters). | Single occurrence found in the Norden quad in 2012 (CNPS 2014). Suitable granite habitat not present in Study Area. Not expected. |
| <i>Peltigera gowardii</i> Veined water lichen (Summer) | None / None / 4.2 / FSS | Suitable habitat is on rocks in clear perennial creeks with little sediment or disturbance (1,065 to 2,375 meters). | No suitable creek habitat in Study Area. Not expected. |
| <i>Penstemon personatus</i> Closed-throated beardtongue (June–October) | None / None / 1B.2 / FSS | Suitable habitat is metavolcanic soils in chaparral, and lower or upper montane coniferous forest (1,065 to 2,120 meters). | Small areas of minimally suitable habitat present, but known range is well northwest of the Study Area. Not expected. |
| <i>Phacelia stebbinsii</i> Stebbins’ phacelia (May–July) | None / None / 1B.2 / FSS | Suitable habitat is meadows and seeps in cismontane woodland and lower montane coniferous forest (610 to 2,010 meters). | Minimally suitable habitat present in openings in forested areas, but known range west of Study Area. Low potential to occur. |
| <i>Phaeocollybia olivacea</i> Olive phaeocollybia (autumn) | None / None / None / FSS | Suitable habitat is mixed pine and oak woodlands. Typically found in coastal lowlands, but a few populations are known from Sierra Nevada foothills. | Suitable mixed oak/pine forests not present in Study Area. Study Area likely too high in elevation for this species. Not expected. |
| <i>Pinus albicaulis</i> Whitebark pine (all year) | Candidate / None / None / FSS | Suitable habitat is very high elevations in the mountains near timberline, on rock or talus slopes. | Suitable high elevation habitats not present in Study Area. Not expected. |

Appendix A, Table 1. Special-status Plant Species Identified from Background Research

| <i>Scientific Name</i> Common Name (Blooming Period) | Status ¹ Federal/State/ CRPR/USFS | Suitable Habitat (Known Elevation Range) | Potential to Occur in Study Area ² |
|---|--|---|---|
| <i>Poa sierrae</i> Sierra blue grass (April–June) | None / None / 1B.3 / FSS | Suitable habitat is openings in lower montane coniferous forest (365 to 1,500 meters) | Study Area is somewhat higher than the known elevation for the species, and well east of known distribution. Not expected. |
| <i>Potamogeton ephedrus</i> Nuttall’s ribbon-leaved pondweed (June–September) | None / None / 2B.2 / None | Suitable habitat is various shallow freshwater habitats (368 to 2,172 meters). | No suitable lake or other inundated habitat present. Not expected. |
| <i>Potamogeton robbinsii</i> Robbins’ pondweed (July–August) | None / None / 2B.3 / None | Suitable habitat is lakes and similar inundated deep water areas (1,530 to 3,300 meters). | No suitable lake or other inundated habitat present. Not expected. |
| <i>Pseudostellaria sierrae</i> Sierra starwort (May–August) | None / None / 4.2 / None | Many habitats are suitable including chaparral, cismontane woodland, and lower and upper montane coniferous forest (1,225 to 2,194 meters). | Suitable habitat is present in the Study Area, particularly in forested areas. Known from Truckee quad. High potential to occur. |
| <i>Pyrrocoma lucida</i> Sticky pyrrocoma (July–October) | None / None / 1B.2 / FSS | Suitable habitat is alkaline clay substrate in meadows and seeps in lower montane coniferous forest or Great Basin scrub (700 to 1,950 meters). | Known range is somewhat northwest of Study Area, and no alkaline clay substrate apparent. Not expected. |
| <i>Rhamnus alnifolia</i> alder buckthorn (May–July) | None / None / 2B.2 / None | Species is known from mesic areas like meadows, seeps, and riparian areas, in lower or upper montane coniferous forest (1,370 to 2,130 meters). | No riparian areas or suitable mesic coniferous forest. Not expected. |
| <i>Sphaeralcea munroana</i> Munro’s desert mallow (May–June) | None / None / 2B.2 / None | Suitable habitat is Great Basin scrub (2,000 meters). | Not known from Truckee quad. In California, only known from Squaw Creek (CNPS 2014). Generally suitable habitat present. Low potential to occur. |
| <i>Stuckenia filiformis</i> ssp. <i>alpina</i> Slender-leaved pondweed (May–July) | None / None / 2B.2 / None | Suitable habitat is shallow freshwater, such as streams, lake margins, marshes, or swamps (300 to 2,150 meters). | No suitable lake or other inundated habitat present. Not expected. |
| <i>Subularia aquatica</i> ssp. <i>americana</i> Water awlwort (July–September) | None / None / 4.3 / None | Suitable habitat is lake margins (or similar mesic areas) in upper montane coniferous forest (1,900 to 3,100 meters). | No suitable lake or other inundated habitat present. Not expected. |
| <i>Tauschia howellii</i> Howell’s tauschia (June–August) | None / None / 1B.3 / FSS | Suitable habitat is granitic or gravelly openings in subalpine or upper montane coniferous forest (1,705 to 2,500 meters). | Somewhat suitable gravelly openings present in Study Area, but known range of the species is well northwest of the Study Area. Low potential to occur. |

Appendix A, Table 1. Special-status Plant Species Identified from Background Research

| <i>Scientific Name</i> Common Name (Blooming Period) | Status¹ Federal/State/ CRPR/USFS | Suitable Habitat (Known Elevation Range) | Potential to Occur in Study Area² |
|--|--|---|---|
|--|--|---|---|

Sources: CNPS 2014; CNDDDB (CDFW 2014); USFWS 2014a; USFS 2013

¹ Conservation status:

U.S. Fish and Wildlife Service designations:

- Endangered: Any species in danger of extinction throughout all or a significant portion of its range.
- Threatened: Any species likely to become endangered within the foreseeable future.
- Candidate: Any species that is a candidate for listing.

California Department of Fish and Wildlife designations:

- Endangered: Any species in danger of extinction throughout all or a significant portion of its range.
- Threatened: Any species likely to become endangered within the foreseeable future.

California Rare Plant Rank designations (CNPS 2014):

- 1B Plants rare, threatened or endangered in California and elsewhere.
- 2 Plants rare, threatened or endangered in California, but more common elsewhere.
- 3 Plants about which more information is needed (review list)
- 4 Limited distribution (watch list).

California Rare Plant Rank threat categories:

- .1 Seriously endangered in California.
- .2 Fairly endangered in California.
- .3 Not very endangered in California.

FSS = Included on the Region 5 USFS Sensitive Plants List (plant taxa that are not “Forest Service Sensitive” may still be included on unpublished Special Interest or Watch Lists for individual forests or districts)

²The potential of occurrence (low, moderate, high) is based on habitat requirements (such as substrate, hydrology, vegetation type, and disturbance factors) and known spatial and elevation range, applied by using the following general guidelines:

Not Expected: Habitat within the Study Area and/or project vicinity satisfies some of the species’ requirements but the vicinity of the Study Area or the Study Area itself is outside the known or expected range of the species. The species’ presence within the Study Area is very unlikely.

Low: Habitat within the Study Area and/or project vicinity satisfies very few of the species’ requirements and/or the range of the species overlaps with the vicinity of the Study Area, but not with the Study Area itself. The species’ presence within the Study Area is unlikely.

Moderate: Habitat within the Study Area and/or Study Area vicinity meets some of the species’ requirements, and known locations for the species are found in the vicinity of the Study Area. Presence of the species within the Study Area is moderately likely.

High: Habitat within the Study Area and/or Study Area vicinity meets most or all of the species’ requirements, and known locations for the species are found within 3 miles of the Study Area. Presence of the species within the Study Area is highly likely.

Appendix A, Table 2. Special-Status Wildlife Species Identified from Background Research

| <i>Scientific Name</i> Common Name | Status ¹ Federal/State/ CDFW/USFS | Suitable Habitat | Potential to Occur in Study Area ² |
|---|--|--|---|
| Special-Status Wildlife Species within a 3-mile Buffer of Study Area | | | |
| Molluscs | | | |
| <i>Margaritifera falcata</i> Western pearlshell | None / None/ SA / None | Species inhabits cold creeks and rivers with clean water and sea-run salmon or native trout. Broadly distributed in western North America. | No suitable stream habitat is present within the Study Area. No potential to occur. |
| Birds | | | |
| <i>Empidonax traillii</i> Willow flycatcher | None / Endangered / SA / FSS | Suitable habitat includes montane riparian thickets; most frequent in willow thickets near ponds, meadows, etc. Breeding habitat often occurs within and adjacent to forested habitats. | The last record within 3 miles of the Study Area was in 2008 (near Martis Creek). Some potential nesting habitat occurs within forest habitats in Study Area. Foraging may occur along seasonally wet drainage ditches, swales and meadows. Marginal foraging and nesting habitat present. Low to Moderate potential to occur. |
| <i>Accipiter gentilis</i> Northern goshawk | None / None / SSC / FSS | Occurs throughout coniferous forests in the Southern Cascades and Sierra Nevada of California. Breed in most forested plant communities available throughout their range, including coniferous, deciduous, and mixed forest types. They may also use shrublands and open areas while foraging, migrating, or overwintering. Breeding period is from March to late August or early September. | Last recorded within 3 miles of Study Area in 1999. Coniferous and deciduous forest present in the Study Area. Foraging and nesting habitat present. Moderate to high potential to occur. |
| Mammals | | | |
| <i>Lepus americanus tahoensis</i> Sierra Nevada snowshoe hare | None / None / SSC / None | Inhabits mid-elevations of the northern and central Sierra Nevada from approximately Mount Lassen south through Yosemite National Park to Mono and Mariposa counties. Prefers thickets of riparian vegetation or dense small conifer trees, typically at edges of meadows. | Meadow and scrub habitat occur within the Study Area, but bordered mostly by sagebrush or tall, thin stands of trees. Record in CNDDDB is from 1915 within 3 miles of Study Area. Moderate potential to occur. |
| <i>Vulpes vulpes necator</i> Sierra Nevada red fox | None / Threatened / SA / FSS | Uses high elevation conifer forests for cover/breeding, and meadows or alpine fell-fields for hunting. Prefers a mix of these habitats. | Recorded crossing SR 89 in 1994, last record within 3 miles of Study Area. Some suitable habitat within the Study Area. Moderate potential to occur. |

Appendix A, Table 2. Special-Status Wildlife Species Identified from Background Research

| <i>Scientific Name</i> Common Name | Status ¹ Federal/State/ CDFW/USFS | Suitable Habitat | Potential to Occur in Study Area ² |
|---|--|---|---|
| Fish | | | |
| <i>Oncorhynchus clarkii henshawi</i> Lahontan cutthroat trout | Threatened / None / SA / None | Occurs in a wide variety of cold-water habitats and small headwater tributary streams. Prefers cool flowing water with available cover of well-vegetated and stable stream banks, where stream velocity breaks, and silt free, rocky riffle-run areas are present. Spawns in streams between February and July, depending on stream flow, elevation, and water temperature. | CNDDDB indicates habitat within 3 miles of the Study Area, but no suitable lake or stream habitat is present within the Study Area. No potential to occur. |
| Special-Status Wildlife Species within 9-quad Search Area (greater than 3 miles from Study Area) | | | |
| Crustaceans | | | |
| <i>Stygobromus laticolus</i> Lake Tahoe amphipod | None / None / SA / None | Endemic to the benthos of Lake Tahoe; occurs sympatrically with <i>S. tahoensis</i> . | No suitable habitat is present within the Study Area. No potential to occur. |
| <i>Stygobromus tahoensis</i> Lake Tahoe stygobromid | None / None / SA / None | Endemic to the benthos of Lake Tahoe; occurs sympatrically with <i>S. laticolus</i> . | No suitable habitat is present within the Study Area. No potential to occur. |
| Molluscs | | | |
| <i>Helisoma newberryi</i> Great Basin rams-horn | None / None / SA / FSS | Found in larger lakes and slow rivers, including larger spring sources and spring-fed creeks. Requires well-oxygenated but soft substrate and clear, very cold, slow flowing water. | No suitable habitat is present within the Study Area. No potential to occur. |
| Insects | | | |
| <i>Lepidostoma ermanae</i> Cold Spring caddisfly | None / None / SA / None | Larvae occur in cold spring (3–4° C) habitats that are permanently shaded at elevations greater than 1,830 meters. | No suitable spring habitat is present within the Study Area. No potential to occur. |
| <i>Goeracea oregona</i> Sagehen Creek goeracean caddisfly | None / None / SA / None | Larvae occur in relatively warm (9–11° C) spring sources. | No suitable spring habitat is present within the Study Area. No potential to occur. |
| <i>Ecclisomyia bilera</i> Kings Creek ecclisomyian caddisfly | None / None / SA / None | Larvae live in small, cold spring sources, and are often found among rocks and gravel. Adults emerge May to August. | No suitable spring habitat is present within the Study Area. No potential to occur. |

Appendix A, Table 2. Special-Status Wildlife Species Identified from Background Research

| <i>Scientific Name</i> Common Name | Status ¹ Federal/State/ CDFW/USFS | Suitable Habitat | Potential to Occur in Study Area ² |
|---|--|--|--|
| <i>Desmona bethula</i> amphibious caddisfly | None / None / SA / None | Larvae live in small spring streams with slow currents and in wet meadows. A population was found in a beaver pond in Sagehen Creek. Eggs and first and second instar larvae are typically found beginning in January, though early instar larvae can be encountered as late as April. | The seasonally wet meadows and wetlands within the Study Area are unlikely to have flowing water. However in wet years, these wetlands may provide marginally suitable habitat. Very low potential to occur. |
| <i>Cryptochia excella</i> Kings Canyon cryptochian caddisfly | None / None / SA / None | Restricted to cold spring streams and their sources. Adults emerge in June and July. | No suitable spring habitat is present within the Study Area. No potential to occur. |
| <i>Capnia lacustra</i> Lake Tahoe benthic stonefly | None / None / SA / None | Endemic to Lake Tahoe. This species is associated with deep-water plant beds and is most abundant at depths from 60 to 110 meters (200 to 360 feet) although it has been found as deep as 274 meters (899 feet) in McKinney Bay. | No suitable habitat is present within the Study Area. No potential to occur. |
| Reptiles and Amphibians | | | |
| <i>Rana sierra</i> Sierra Nevada yellow-legged frog | Endangered / Threatened / SSC / FSS | Found in lakes, ponds, tarns, and perennial streams above 1,524 meters elevation. | No suitable habitat is present within the Study Area. During wet years the wetlands and meadows may be marginally suitable, but given their distance from suitable perennial habitat may have low potential to occur. |
| <i>Lithobates pipiens</i> Northern leopard frog | None / None / SSC / None | Perennial streams and ponds. | No suitable habitat is present within the Study Area. During wet years the wetlands and meadows may be marginally suitable, but given their distance from suitable perennial habitat there is low potential to occur. |
| Birds | | | |
| <i>Accipiter cooperii</i> Cooper's Hawk | None / None / WL / None | Most frequently uses dense stands of live oak, riparian, deciduous or other forest habitats near water. Nesting season is February through October. | Coniferous and deciduous forest present in the Study Area. Some suitable foraging and nesting habitat is present. Moderate potential to occur. |

Appendix A, Table 2. Special-Status Wildlife Species Identified from Background Research

| <i>Scientific Name</i> Common Name | Status ¹ Federal/State/ CDFW/USFS | Suitable Habitat | Potential to Occur in Study Area ² |
|---|--|--|--|
| <i>Haliaeetus leucocephalus</i> Bald eagle | Delisted / Endangered / FP / FSS | Forages in habitats near rivers, lakes, and other large bodies of open water with an abundance of fish. Nests in large trees near foraging habitat in areas that experience little or no disturbances from human activities. Nests usually near permanent water source. Breeding season March 1 through August 31. | Neither nesting nor foraging habitats occur within the Study Area, which is frequently disturbed by vehicle and air plane traffic. No records occur within a 3-mile radius. Low potential to occur. |
| <i>Cypseloides niger</i> Black swift | None / None / SSC / FSBCC | Occurs in California as a summer resident and migrant from mid-April to mid-October. Breeding is restricted to areas behind or beside permanent or semi-permanent waterfalls, on perpendicular cliffs near water (above Sierran rivers or on the sea coast), and in sea caves. Foraging habitat is poorly known, but anecdotally relies on winged insect swarms. | No nesting habitat occurs within the study area and no records occur within a 3-mile radius. Low potential to occur. |
| <i>Grus canadensis tabida</i> Greater sandhill crane | None / Threatened / FP / FSS | Found primarily in open freshwater wetlands, including shallow marshes and wet meadows. Nests in moist areas at the margins of extensive wet meadows and marshes. | The seasonally wet swales and wetlands within the Study Area that may provide foraging habitat during wet periods. No extensive wetlands suitable for nesting occur within the Study Area. Low potential to occur. |
| <i>Pandion haliaetus</i> Osprey | None / None / WL / None | Associated strictly with large, fish-bearing waters, primarily in ponderosa pine through mixed conifer habitats. Nesting season March 1 through August 15. | No suitable foraging habitat is present within the Study Area. During wet years the wetlands and meadows may be marginally suitable, but given their distance from suitable fish habit, species has low potential to occur. |
| <i>Picoides arcticus</i> Black-backed woodpecker | None / None / SA* / None | Occurs within the range of coniferous forests across northern North America. Prefers recently burned coniferous forest areas. | Coniferous and deciduous forest present in the Study Area. Some snag habitat is present. Potential foraging and nesting habitat is present. Moderate potential to occur. |

Appendix A, Table 2. Special-Status Wildlife Species Identified from Background Research

| <i>Scientific Name</i> Common Name | Status ¹ Federal/State/ CDFW/USFS | Suitable Habitat | Potential to Occur in Study Area ² |
|---|--|---|---|
| <i>Setophaga petechia</i> Yellow warbler | None / None / SA / FSBCC | Generally occupies riparian vegetation in close proximity to water along streams and wet meadows. Occurs in California principally as a migrant and summer resident from late March through early October; breeds from April to late July. | Seasonal wetlands present within the Study Area have no riparian vegetation preferred by this species, and these areas are unlikely to be wet throughout the summer. Low potential to occur. |
| Mammals | | | |
| <i>Ochotona princeps schisticeps</i> gray-headed pika | None / None / SA / None | Inhabits talus fields fringed by suitable vegetation on rocky slopes of alpine areas throughout western North America. Restricted to cool, moist microhabitats on higher peaks or along watercourses. | No suitable habitat within the Study Area. Low potential to occur. |
| <i>Pekania pennanti</i> West Coast DPS Pacific fisher | Proposed Threatened / Candidate Threatened / SSC / FSS | Inhabits successional coniferous and mixed coniferous-deciduous forest with a high percentage of canopy cover. Large diameter trees, large snags, tree cavities, logs are most often used for den and rest sites, and are an important component of suitable habitat. Breeding season occurs March 1 through June 30. | Coniferous and deciduous forest present in the Study Area. However, tree diameters are not large and snag habitat is not abundant. Low potential to occur. |
| <i>Lepus townsendii townsendii</i> Western white-tailed jackrabbit | None / None / SSC / None | Prefers open grasslands but thrive in pastures and fields. This species can also be found in forested areas up to high alpine tundra, from 40 to 4,300 meters elevation. | Meadow and scrub habitat occur within the Study Area as well a mixed forest. Moderate potential to occur. |
| <i>Martes caurina sierrae</i> Sierra marten | None / None / SA / FSS | Occurs in forested habitats throughout boreal North America, reaching its southernmost extent in the Sierra Nevada of California. Inhabits mature, dense conifer forests or mixed conifer-hardwood forests with a high percentage canopy cover and large amounts of coarse woody debris on the forest floor. | Coniferous and deciduous forest is present in the Study Area. These forests are not dense, and the forest floor was fairly clean of wood debris. Low potential to occur. |

Appendix A, Table 2. Special-Status Wildlife Species Identified from Background Research

| <i>Scientific Name</i> Common Name | Status ¹ Federal/State/ CDFW/USFS | Suitable Habitat | Potential to Occur in Study Area ² |
|---|--|---|---|
| <i>Gulo gulo</i> California wolverine | None / Threatened / FP / FSS | Occurs within a wide variety of habitats, primarily boreal forests, tundra, and western mountains. In northern California habitat includes Douglas-fir/tanoak forest. | Coniferous (ponderosa and Jeffrey pine) and deciduous forest is present in the Study Area. However, the Study Area is fairly disturbed and surrounded by roadways with moderate traffic and airport runways. Low potential to occur. |
| <i>Aplodontia rufa californica</i> Sierra Nevada mountain beaver | None / None / SSC / None | Typical habitat in the Sierra Nevada is montane riparian areas with frequent open and intermediate-canopy coverage with a dense understory near water. Deep, friable soils are required for burrowing, along with a cool, moist microclimate. | No suitable habitat within the Study Area. No potential to occur. |
| <i>Myotis volans</i> Long-legged myotis | None / None/ SA / None | Primarily found in montane forests. Can occur from sea level up to 3,200 meters, but is usually found from 2,000-3,000 meters. They establish roosts in trees, rock crevices, fissures in stream banks, and buildings. | The Study Area (at 1,800 meters) is outside the typical distribution for this species. Coniferous and deciduous forest is present in the Study Area. Low potential to occur. |
| <i>Lasionycteris noctivagans</i> Silver-haired bat | None / None / SA / None | Primarily a forest dweller, feeding over streams, ponds, and open brushy areas. During spring and fall migrations they may be found anywhere in California. Roosts in hollow trees, snags, buildings, rock crevices, caves, and under bark. | Coniferous and deciduous forest habitats are present in the Study Area as well as open meadows and brushy habitats. Potential roosting habitat includes trees, snags and buildings associated with the airport. Moderate potential to occur. |

Sources: California Department of Fish and Game California Natural Diversity Database 2013; U.S. Fish and Wildlife Service 2013a.

¹ **Conservation status abbreviations:**

Endangered Species Act (ESA) designations regulated by U.S. Fish and Wildlife Service designations (USFWS):

Endangered: Any species in danger of extinction throughout all or a significant portion of its range.

Threatened: Any species likely to become endangered within the foreseeable future.

Candidate: Species whose status is in review for listing

Proposed for delisting

California Endangered Species Act (CESA) designations regulated by California Department of Fish and Wildlife (CDFW):

Endangered: Any species in danger of extinction throughout all or a significant portion of its range.

Threatened: Any species likely to become endangered within the foreseeable future

Candidate: Species whose status is in review for listing

California Department of Fish and Wildlife (CDFW) non-listed designations:

SSC Special Concern: Species that are at risk

FP Fully Protected: may not be taken or possessed at any time and/or no issuance of permits for "take"

WL Watch List: Taxa to watch

SA Special Animals List

² The likelihood of occurrence (low, moderate, high) is based on habitat requirements (such as, substrate, hydrology, vegetation type, and disturbance factors) and known spatial and elevation range, applied by using the following general guidelines:

None (no potential): Habitat within the Study Area and/or project vicinity does not satisfy the species' requirements. The species' natural

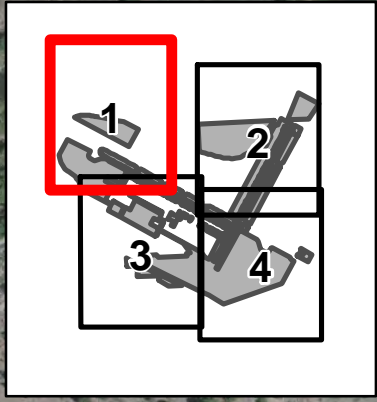
Appendix A, Table 2. Special-Status Wildlife Species Identified from Background Research

| <i>Scientific Name</i> Common Name | Status ¹ Federal/State/ CDFW/USFS | Suitable Habitat | Potential to Occur in Study Area ² |
|---|--|------------------|---|
| <p>presence within the Study Area is not probable.</p> <p>Low: Habitat within the Study Area and/or project vicinity satisfies very few of the species' requirements and/or the range of the species overlaps with the vicinity of the Study Area, but not with the Study Area itself. The species' presence within the Study Area is unlikely.</p> <p>Moderate: Habitat within the Study Area and/or project vicinity meets some of the species' requirements, and known locations for the species are found in the vicinity of the Study Area. Presence of the species within the Study Area is moderately likely.</p> <p>High: Habitat within the Study Area and/or project vicinity meets most or all of the species' requirements, and known locations for the species are found within 5 miles of the Study Area. Presence of the species within the Study Area is highly likely.</p> <p>Present: Individuals or their sign observed in the Study Area.</p> <p>USDA Forest Service, Pacific Southwest Region (Region 5) Sensitive Animals List for Sierra, Tahoe or Lake Tahoe Basin Forest Areas: FSS (Forest Service Sensitive), FSBCC (Forest Service Birds of Conservation Concern)</p> <p>*The black-backed woodpecker was listed on the 2014 Special Animals List (CDFW 2014), but was omitted from the 2015 list (CDFW 2015). This taxon is retained in this report as our professional judgment indicates that this species should be retained for evaluation of potential project impacts.</p> | | | |

Appendix B

Vegetation and Other Ground Cover Maps

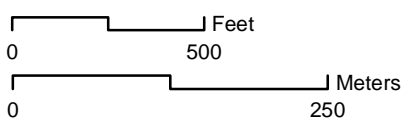
- Truckee Tahoe Airport Study Area**
- Forests**
- Pinus jeffreyi alliance
 - Pinus ponderosa alliance
- Shrubland and Steppe**
- Artemisia tridentata-Purshia tridentata stands
 - Purshia tridentata/Eriogonum umbellatum association
- Grasslands and Herblands**
- Brassica and other mustards semi-natural stands
 - Elytrigia intermedia-Festuca idahoensis stands
- Man-made and Managed Uplands**
- Gravel/Rock
 - Mowed
 - Pavement
 - Spoils
- Water Features**
- Dry ditch or swale



bing™



Source: CNDDDB (2014); Bing Maps Hybrid (2014); GANDA GIS 2014



1:6,000
1 inch = 500 feet

Appendix B. Truckee Tahoe Airport Vegetation and Other Ground Cover in the Study Area

Nevada and Placer Counties, CA
February 2015

Truckee Tahoe Airport Study Area

Forests

- Pinus jeffreyi alliance
- Pinus ponderosa alliance

Shrubland and Steppe

- Artemisia tridentata spp. vaseyana-Purshia tridentata/Festuca idahoensis stands
- Artemisia tridentata-Purshia tridentata stands
- Purshia tridentata/Eriogonum umbellatum association

Grasslands and Herblands

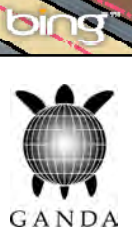
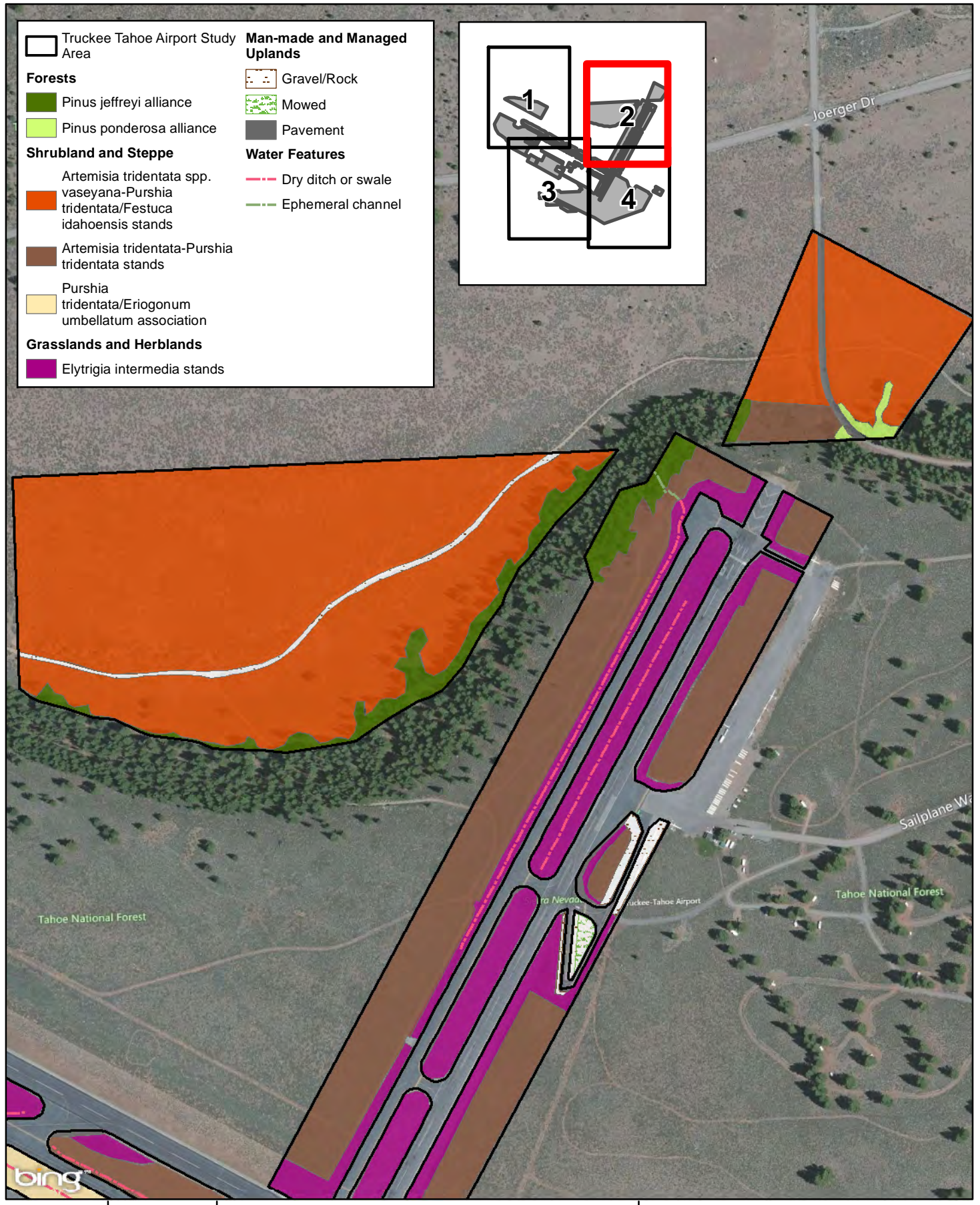
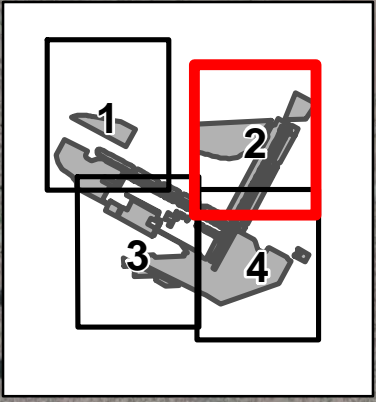
- Elytrigia intermedia stands

Man-made and Managed Uplands

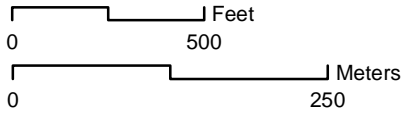
- Gravel/Rock
- Mowed
- Pavement

Water Features

- Dry ditch or swale
- Ephemeral channel



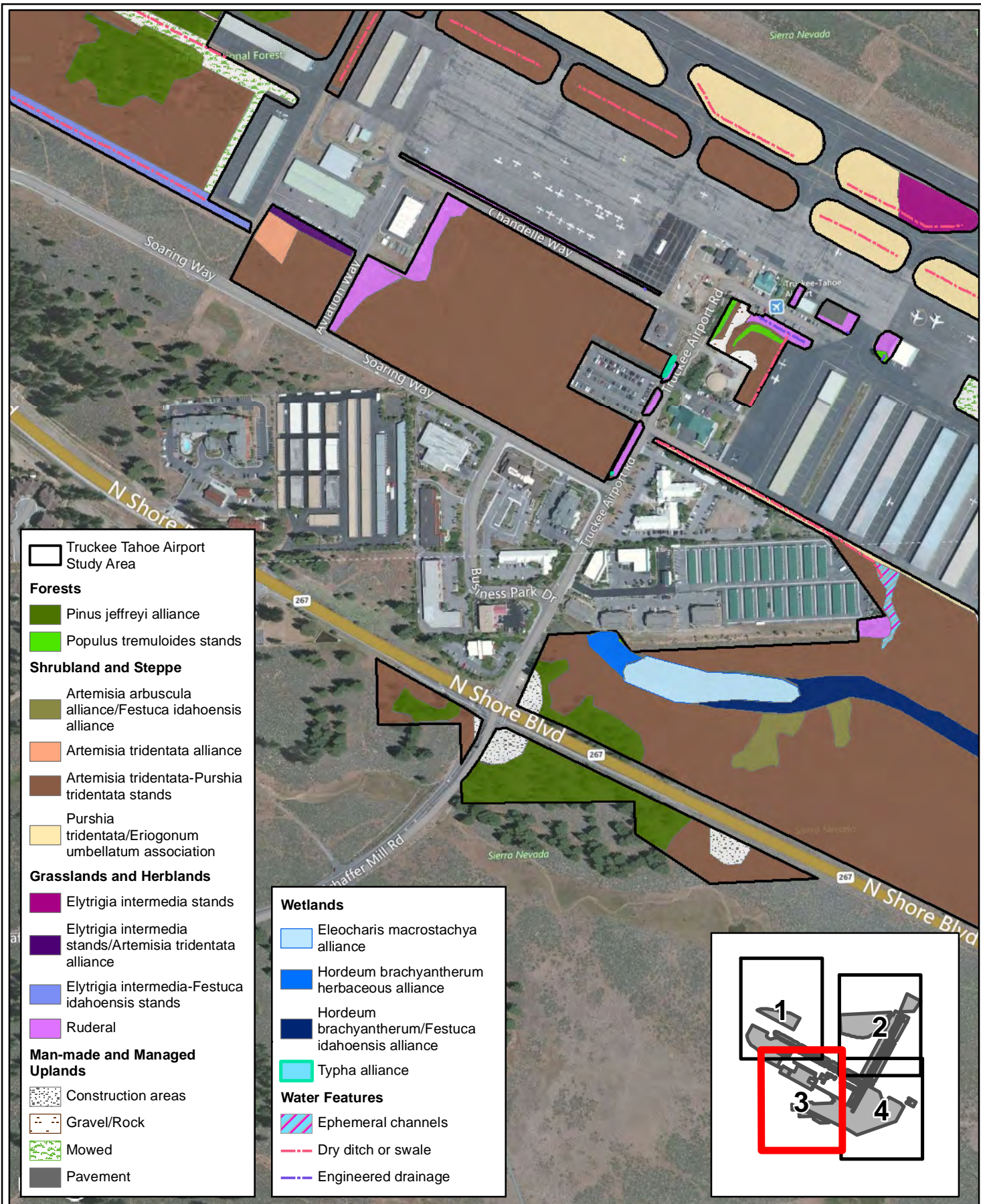
Source: CNDDDB (2014); Bing Maps Hybrid (2014); GANDA GIS 2014



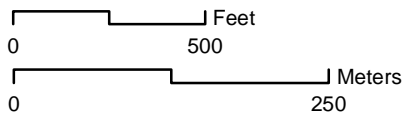
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1 inch = 500 feet

Appendix B. Truckee Tahoe Airport Vegetation and Other Ground Cover in the Study Area

Nevada and Placer Counties, CA
February 2015



Source: CNDDDB (2014); Bing Maps Hybrid (2014); GANDA GIS 2014

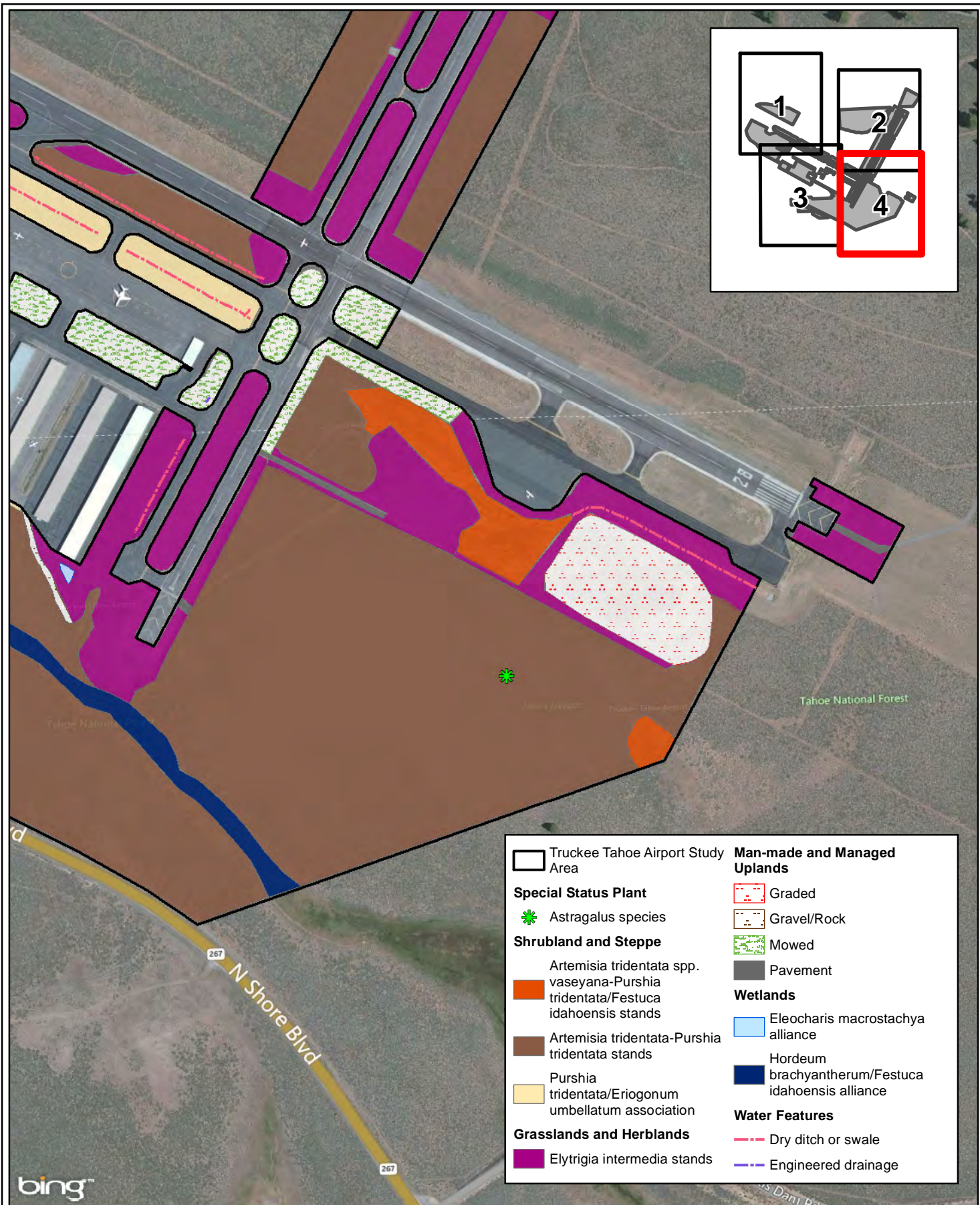


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Appendix B. Truckee Tahoe Airport
Vegetation and Other Ground Cover
in the Study Area

Nevada and Placer Counties, CA
February 2015

Map 3 of 4

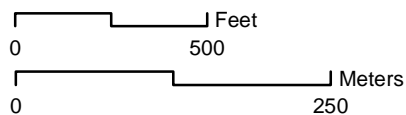


| | | | |
|--|---|--|--|
| | Truckee Tahoe Airport Study Area | | Graded |
| | Astragalus species | | Gravel/Rock |
| | Artemisia tridentata spp. vaseyana-Purshia tridentata/Festuca idahoensis stands | | Mowed |
| | Artemisia tridentata-Purshia tridentata stands | | Pavement |
| | Purshia tridentata/Eriogonum umbellatum association | | Eleocharis macrostachya alliance |
| | Elytrigia intermedia stands | | Hordeum brachyantherum/Festuca idahoensis alliance |
| | Dry ditch or swale | | Engineered drainage |

bing™



Source: CNDDDB (2014); Bing Maps Hybrid (2014); GANDA GIS 2014



1:6,000
1 inch = 500 feet

Appendix B. Truckee Tahoe Airport Vegetation and Other Ground Cover in the Study Area

Nevada and Placer Counties, CA
February 2015

Map 4 of 4

Appendix C

Representative Photographs



Photo 1. Conifer forest with little understory, facing approximately northwest. October 7, 2014.



Photo 2. Decadent sagebrush scrub (left), adjacent a semi-natural stand of intermediate wheatgrass (right). Facing approximately north. October 7, 2014.



Photo 3. Mowed and mulched area within a runway island. Facing approximately north. October 7, 2014.



Photo 4. Disturbed area with spoil piles. Facing approximately north. October 7, 2014.



Photo 5. Freshwater marsh and willow scrub in an engineered ditch. Facing approximately south. October 8, 2014.



Photo 6. Detention basin with standing water. Facing approximately west. October 7, 2014.



Photo 7. Overview of wetland surrounded by sagebrush scrub. Facing approximately east. October 8, 2014.



Photo 8. Unknown milk-vetch (*Astragalus* species), possibly special-status species. Past flowering and fruiting stage. October 7, 2014.



Photo 9. Semi-landscaped aspen stand around man-made/engineered drainage feature. Facing approximately north. October 7, 2014.

**Report on a Cultural Resources Survey
of the Proposed Truckee-Tahoe
Airport Master Plan Update Project,
Nevada and Placer Counties, California**

By:
Sharon A. Waechter
Allen McCabe

April 2015 FINAL

Prepared for:
Mead & Hunt, Inc.
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Santa Rosa, CA 95403



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- Appendix B. Native American Outreach.
- Appendix C. Site Records *(Confidential)*.

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INTRODUCTION

At the request of Mr. David Dietz of Mead & Hunt, Inc., Far Western Anthropological Research Group, Inc., (Far Western) conducted a cultural resources study for the proposed Truckee-Tahoe Airport (Airport) Master Plan Update project, in compliance with the California Environmental Quality Act (CEQA). This study has included archival research, Native American outreach, field inventory, site recordation, and the preparation of this report. All methods and results of the study are included here. It should be noted that the confidential appendices are to be used only as necessary for project planning, and are not to be made available for public review.

PROJECT DESCRIPTION (PROVIDED BY MEAD & HUNT, INC.)

The proposed project would be located at the Truckee-Tahoe Airport in Martis Valley, immediately northeast of State Route (SR) 267 (Figures 1 and 2). The airport is operated by the Truckee-Tahoe Airport District (District), which has prepared a Master Plan to guide development of the airport for the next 20 years. The District's Board of Directors intends to adopt this plan following completion of appropriate environmental review. This review will satisfy the requirements of CEQA.

The Master Plan is a comprehensive document that includes planned modifications and additions to the airfield, terminal area, and the instrument approach procedures. It will also require additional property acquisition. The principal proposed change to the airfield will be the extension and widening of Runway 2-20. This modification will be supported by a realignment and extension of the parallel taxiway that serves Runway 2-20. Additionally, the mid-field taxiways serving Runway 11-29 and the main aircraft parking apron will be modified to meet current Federal Aviation Administration design standards. This will involve eliminating angled taxiways and increasing the size of fillets at intersections. The depth of two holding aprons serving Runway 11-29 will be reduced to meet current standards.

A variety of facilities are included in the Master Plan to address aircraft parking and storage needs. A multi-use hangar is proposed that would provide both short-term storage of aircraft (particularly in the winter) and a venue for public events. Small box hangars (60 to 65 feet on each side) are planned in the western quadrant of the airport. The main aircraft parking apron will also be expanded on its northwestern edge. The Master Plan also includes several minor elements: relocation of the aircraft wash rack, relocation of the Experimental Aircraft Association hangar, and seasonal use of an air traffic control tower in the southern quadrant.

There are also several project elements related to surface transportation. A loop road would be created in front of the terminal building, and a transit hub would be created along Airport Road that would include expanded long-term parking, a rental car facility, and a transit hub providing access to transit buses. The terminal area also contains one parcel designated for non-aviation uses. This area would be used by compatible commercial and industrial uses.

Acquisition of two parcels of land is proposed. One property is in the approach to Runway 20. It would be acquired to ensure that inappropriate development did not occur in this sensitive area. The other parcel lies abeam the threshold for Runway 11. This parcel likely will be impacted by aircraft noise.

The Airport currently has one instrument approach procedure for Runway 20 and a circle-to-land procedure available to all runway ends. The Airport is intending to seek development of a non-precision approach to Runway 11.

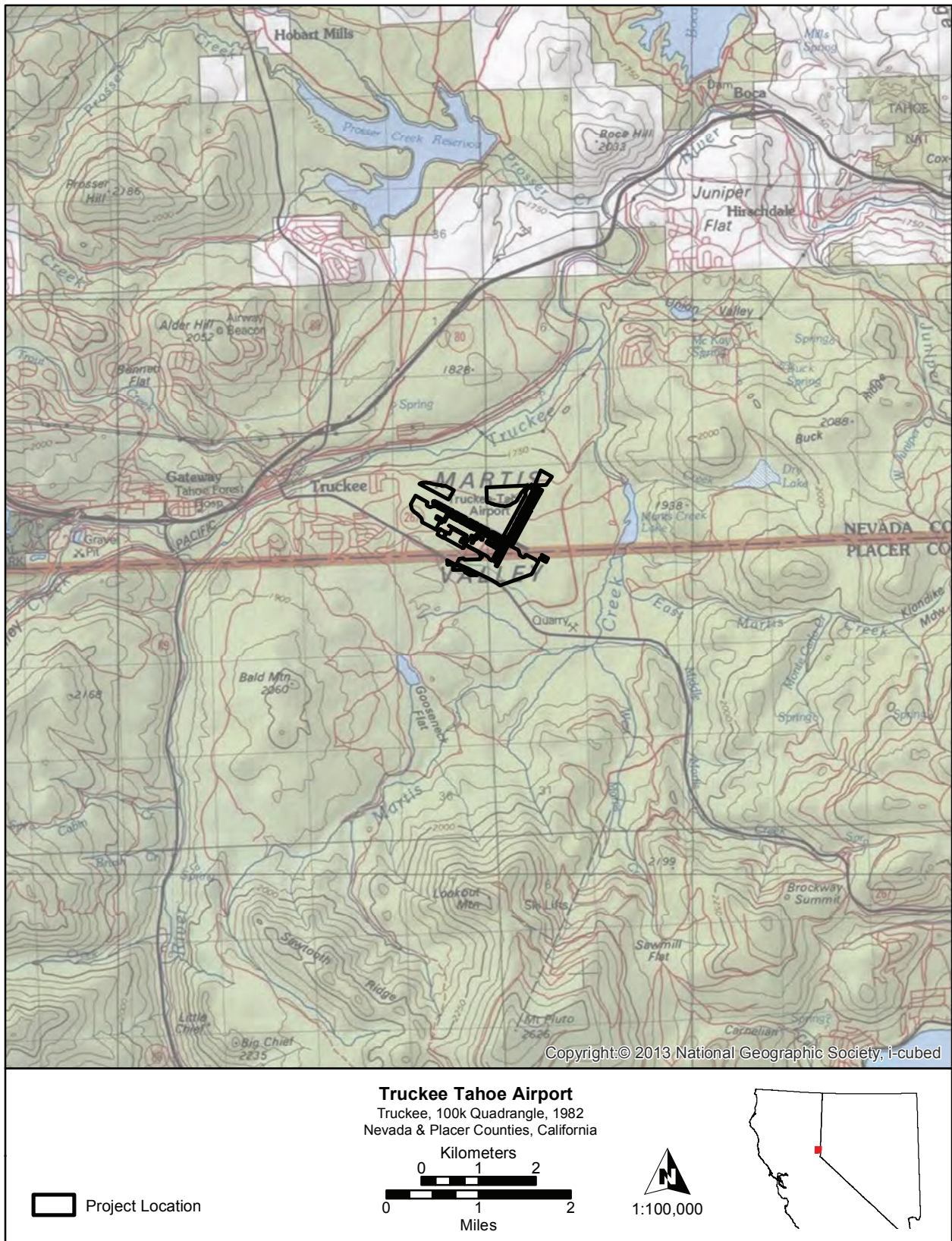


Figure 1. Project Vicinity.

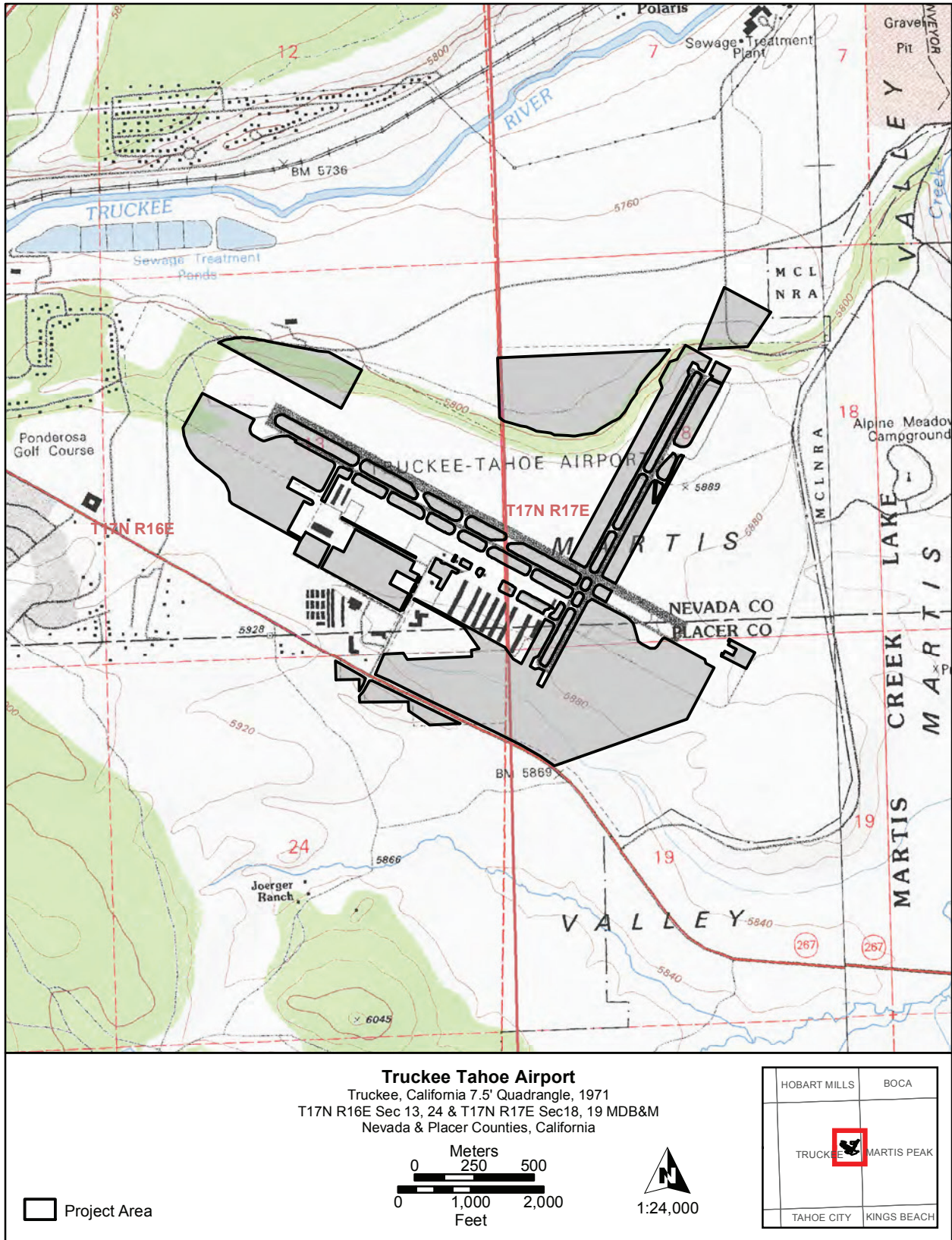


Figure 2. Project Location.

STUDY METHODS AND RESULTS

The cultural study documented here included prefield archival research, Native American outreach, and field survey. The work was carried out by Far Western’s Great Basin office in Carson City, Nevada, with input from Dr. Susan Lindström and the senior author. Senior Far Western archaeologist Allen McCabe served as field director for the survey work.

PREFIELD RESEARCH

Far Western requested a records search at the North Central Information Center (NCIC) of the Historical Resources Information System, housed at California State University, Sacramento. This included a review of Information Center base maps, reports, site records, historic maps, published literature, and State Office of Historic Preservation (SHPO) data files. The records search identified 31 previous studies and 27 known resources within the records search boundary (Tables 1 and 2). Of these, 10 of the studies overlap partially with the current Area of Potential Effects (APE), and seven of the resources were reported to be in the APE (Appendix A).¹ In most cases, however, the previously surveyed areas within the APE are negligible in size, and/or the studies are quite old. With the exception of 22 acres surveyed by Kautz and Jerrems (2002), all of the current APE required a complete, updated survey.

Table 1. Records Search Results – Studies.

| NCIC No. | AUTHOR(S) | YEAR | TITLE | RESOURCES |
|---|---------------------|------|--|---|
| <i>PREVIOUS STUDIES OVERLAPPING APE</i> | | | | |
| 145 | Lindström, Susan G. | 2001 | <i>Martis Valley Well No. 1 Pump Station and Easement Project</i> | P-29-1166 P-29-1167 P-29-1168 |
| 2438 | Hutchins, James | 2000 | <i>A Cultural Resources Inventory Survey for a Proposed Sports Complex, Truckee Donner Recreation and Park District, Nevada County, California</i> | P-29-733 |
| 3415 | Banka, William J. | 2001 | <i>Confidential Archaeological Addendum for Timber Operations on Non-Federal Lands in California Community Sports Park THP</i> | P-29-1109 |
| 3416 | Bass, Henry O. | 1989 | <i>Positive Archaeological Survey Report for the Proposed Truckee Bypass Project Nevada County, California</i> | P-29-589 P-29-590 |
| 3474 | Johnson, Gary | 1980 | <i>Archaeological Reconnaissance Report # 05-17-121 Land Exchange #2</i> | P-29-1186, P-31-1394 P-31-1395, P-31-1396 P-31-1397 |
| 4222 | Ferrier, Douglas C. | 2002 | <i>Archaeological Addendum to the Hopkins Ranch Timber Harvest Plan</i> | P-31-1394 P-31-1397 P-31-1874 |
| 4238 | Offerman, Janis | 1993 | <i>Report on an Archaeological Survey Across Martis Valley along State Route 267 in Placer County, California</i> | P-31-131, P-31-132 P-31-1895, P-31-1896 P-31-1898, P-31-1899 |
| 4239 | Toland, Tanis J. | 2002 | <i>Cultural Resources Survey for a Proposed Telephone and Power Replacement Project</i> | None |

¹ All site locations are confidential and are provided for planning purposes only; they are not to be made available for public review.

Table 1. Records Search Results – Studies *continued*.

| NCIC No. | AUTHOR(S) | YEAR | TITLE | RESOURCES |
|--|---|------|--|---|
| <i>PREVIOUS STUDIES OVERLAPPING APE CONTINUED</i> | | | | |
| 8906 | Kautz, Robert, and William Jerrems | 2002 | <i>Cultural Resource Survey of the Joerger Project; KEC Project 305</i> | P-29-3000 P-29-3001 |
| 10086 | Andolina, D., S. Waechter, and S. Lindström | 2009 | <i>Cultural Resources Inventory for the Proposed 625/650 Line Upgrade Project</i> | 34 sites in Placer County |
| <i>PREVIOUS STUDIES IN RECORDS SEARCH AREA BUT OUTSIDE APE</i> | | | | |
| 112 | Lindström, Susan G. | 1984 | <i>A Cultural Resource Reconnaissance of the Martis Valley Mini-Storage project, Gallagher Developments, LTD, Nevada County, CA</i> | P-29-44 P-29-45 |
| 394 | Wiant, Wayne | 1984 | <i>Negative Archeological Survey Report for Proposed Widening and Addition of a Left-turn Lane to Route 267 at Truckee Airport, East of Truckee, Placer County (03-PLA-267 PM 0.3)</i> | None |
| 630 | Derr, Eleanor H. | 1981 | <i>An Archaeological Survey for the Martis Valley Meadows, Placer and Nevada Counties, California</i> | None |
| 1944 | Jensen, Peter | 1999 | <i>Archaeological Survey, Zerweck Module Home/Subdivision Project, c. 30 acres, Nevada and Placer Counties, California</i> | None |
| 2655 | Offerman, Janis | 1999 | <i>Second Supplemental Historic Property Survey Report and Finding of Effect for the Proposed Truckee Bypass Project, Nevada County, California</i> | None |
| 2656 | Offerman, Janis | 1999 | <i>Second Addendum Archaeological Survey Report for the Proposed Truckee Bypass Project in Eastern Nevada County, California</i> | P-29-823 P-29-857 P-29-858 |
| 2657 | Clement, Dorene | 1997 | <i>Historic Resource Evaluation and Finding of Effect for the State Route 267 Truckee Bypass, Truckee, Nevada County 03-NEV-267, P.M. 0.0./R2.8 03226-291001</i> | None |
| 2658 | Clement, Dorene, and Jill Hupp | 1999 | <i>Supplemental Resource Evaluation Report and Finding of Effect for the State Route 267 Truckee Bypass, Truckee, Nevada County</i> | P-29-857 |
| 3384 | Christensen, Teri H., and Robert R. Kautz | 2001 | <i>Ponderosa Village, Town of Truckee, CA (survey)</i> | None |
| 3426 | Smith, Douglas | 1992 | <i>Confidential Archeological and Historical Resources Survey and Impact Assessment: A Supplemental Report for the Timberland Conversion Timber Harvest Plan</i> | None |
| 3483 | Jensen, Sean | 2000 | <i>Archaeological Survey, Percin Development Project, c. 5-acres, Nevada and Placer Counties, California</i> | None |
| 3484 | Jensen, Peter | 1999 | <i>Archaeological Inventory Survey Tahoe-Truckee Sanitation District Expansion Project, c. 500 acres near Truckee Airport, Nevada County, California</i> | None |
| 3640 | Lindström, Susan G. | 1999 | <i>Brockway Well Project</i> | P-29-1189 |
| 6189 | Lindström, Susan G. | 1999 | <i>Martis Valley Mini Storage Project, Heritage Resource Inventory</i> | P-31-2587 P-31-2588 |
| 8907 | Kimball, M., D. Simons, and R. Kautz | 2003 | <i>A Cultural Resources Inventory Survey of the Western Portion of the Proposed Truckee Pedestrian Trail; KEC Project 303</i> | P-29-3016, P-29-3019 P-29-3017 P-29-3018 |
| 8961 | Perry, Richard | 2007 | <i>Archaeology Survey of 35 Acres at Martis Creek Dam and Spillway for the Proposed Geotechnical Boring Program</i> | None |
| 9321 | Caltrans | 2008 | <i>Archaeological Survey Report for the United States Route 50, Interstate 80, and State Route 89 and 267</i> | None |
| 9326 | Leach-Palm, Laura | 2008 | <i>Cultural Resources Inventory of Caltrans District 3 Rural Conventional Highways in Butte, Colusa, El Dorado, Glenn, Nevada, Placer, Sacramento, Sierra, Sutter, Yolo, and Yuba Counties</i> | 50 sites in Nevada County, 52 sites in Placer County |
| 9665 | Gerike, C., S. Stewart, and B. F. Terhorst | 1994 | <i>Southwest Gas Expansion Project</i> | None |

Table 1. Records Search Results – Studies *continued*.

| NCIC No. | AUTHOR(S) | YEAR | TITLE | RESOURCES |
|--|---------------------|------|--|-----------|
| <i>PREVIOUS STUDIES IN RECORDS SEARCH AREA BUT OUTSIDE APE CONTINUED</i> | | | | |
| 10294 | Waechter, Sharon A. | 2009 | <i>Historic Property Survey Report for the Truckee River Legacy Trail Phase 3A, Nevada County, California</i> | None |
| 10711 | Haney, Jeff | 2011 | <i>(A) - Historic Property Survey Report 03-PLA-267 K.P. 1.30-1.95/P.M. 0.81-1.22 EA 03-0F0100; (B) - Archaeological Survey Report for a Proposed Left Turn Lane along State Route 267 Placer County, California</i> | None |

Notes: APE – Area of Potential Effects; NCIC – North Central Information Center.

Table 2. Records Search Results – Resources.

| PRIMARY NO. (P-) | TRINOMIAL (CA-) | DESCRIPTION |
|---|-----------------|---|
| <i>PREVIOUSLY RECORDED RESOURCES IN APE</i> | | |
| 29-1166 | - | Remains of nineteenth-century charcoal kiln |
| 29-1167 | - | Remains of nineteenth-century charcoal kiln |
| 29-1168 | - | Segments of pre-1932 road |
| 31-2587 | PLA-1845H | Segment of Donner & Tahoe Railroad (ca. 1893-1901) |
| 31-5504 | - | Abandoned irrigation ditch, age undetermined |
| 31-5505 | - | Abandoned fenceline, age undetermined |
| <i>PREVIOUSLY RECORDED RESOURCES IN RECORDS SEARCH AREA BUT OUTSIDE APE</i> | | |
| 29-44 | - | Isolated basalt projectile point |
| 29-45 | - | Segment of narrow-gauge railroad |
| 29-87 | - | Prehistoric “camp site” |
| 29-733 | - | Ca. 1900 refuse scatter |
| 29-1109 | - | Isolated basalt projectile point |
| 29-1110 | - | Isolated basalt biface |
| 29-1186 ^a | - | Historic-era refuse scatter, structural remains |
| 29-3000 | - | Refuse scatter, early/mid-twentieth century |
| 29-3001 | - | Mid-twentieth-century can scatter |
| 29-4416 | NEV-2182H | Remains of nineteenth-century charcoal kiln |
| 29-4421 | - | Hand-sawn, high-cut stumps |
| 31-2588 | - | Two chert flakes |
| 31-3358 | - | Small, sparse lithic scatter |
| 31-3693 | PLA-2332 | Small concentration of flaked stone tools and debitage |
| 31-5502 | PLA-2443 | Small basalt lithic scatter |
| 31-5503 | - | Early twentieth-century dirt road and debris scatter ^b |
| 31-5506 | - | Early/mid-twentieth-century road and debris scatter ^b |
| 31-5507 | - | Abandoned fenceline, age undetermined ^b |
| 31-5520 | - | Three widely scattered historic-era artifacts |
| 31-5521 | - | Seven widely scattered prehistoric artifacts |
| 31-5620 | PLA-2504H | Segment of Donner & Tahoe Railroad (ca. 1893-1901) ^c |

Notes: ^a Reported in records search as inside APE but found during survey to be outside. ^b Site evaluated as part of the Martis Valley Trail project and recommended ineligible (Waechter and Lindström 2014); recommendation recently accepted by the California SHPO. ^c Note that a separate segment has been recorded under different numbers (P-31-2587/PLA-1845H). APE – Area of Potential Effects.

NATIVE AMERICAN OUTREACH

On October 8, 2014, Far Western contacted the California Native American Heritage Commission, requesting a check of their sacred land files and a list of groups and individuals with traditional ties to the project vicinity. The Commission responded on October 15, 2014, that the Sacred Land File did not identify any known Native American cultural resources in the project area, but cautioned that a negative file search did not preclude the possibility that such resources are present. They also provided a list of several groups and individuals (which, surprisingly, did not include the Washoe Tribe of Nevada and California, whose traditional territory includes the Truckee area) who might have knowledge of or interest in the area. Far Western then sent letters to the groups and individuals identified by the Commission, and to the Washoe Tribe. To date, there have been two responses: the Shingle Springs Rancheria and the Washoe Tribe have asked that consultation continue through the course of the project, and that any information obtained during the cultural study be shared with the tribes. Outreach efforts are documented in Appendix B.

FIELD SURVEY

Before fieldwork began, the Far Western field crew completed a safety program administered by Truckee-Tahoe Airport personnel. At the end of the orientation, Far Western was issued a radio to carry during the survey, so the crew could be alerted to incoming and outgoing air traffic.

The cultural survey took place over the week of November 24, 2014. Crew included Far Western senior archaeologists Allen McCabe and Steven Neidig and archaeologist Susan McCabe. The surveyors walked the entire project APE (except the 22 acres that had already been surveyed to current standards) in 15- to 30-meter transects, for a total of 323 acres. In addition to the radio, the crew carried field maps, camera, and a handheld Trimble GeoXT GPS unit containing project parcel background files and locations of the seven previously recorded archaeological resources identified during the records search. Over the course of the survey they revisited those seven resources, determining that one (P-31-1186) actually lay outside the project APE.² The crew also identified 15 additional resources: five sites and nine isolated finds (Table 3). Sites and isolates were differentiated on the basis of density: isolates were defined as fewer than three artifacts within a 20-meter-diameter area. Isolates identified in the project APE are listed in Table 4; these were mapped and described but not formally recorded.

The archaeologists recorded all sites on standard DPR 523 site forms. Site recordation included notes on features, artifacts, and the local environment; overview and artifact/feature photographs; and GPS mapping. Site boundaries were defined on the basis of surface indicators (e.g., artifact distributions) and topography. The surveyors recorded all cultural remains in the APE and (for linear features) for a maximum of 100 meters beyond the APE. Site datum/reference points were plotted near the center of each site (or on either end of a linear feature); no physical datum was placed on any site. Mapping included site datum/reference points, boundaries, numbered artifacts, point and linear features, and isolates; collected data were based on the Universal Transverse Mercator coordinate system, Zone 10 North, referenced to the 1983 North American Datum (NAD 83). Raw GPS data collected for site points, lines, and polygons, as well as isolate point locations, were subsequently processed by GIS specialist Melissa Murphy at the Far Western Great Basin Office. Site records are included in Appendix C.

Site Descriptions

Site locations for all sites (previously recorded and newly identified) in the APE are shown on Figure 3. Again, these are not to be made available except as necessary for project planning.

² Far Western collected new GPS data for this site and will supply it to the NCIC.

SUMMARY AND RECOMMENDATIONS

Prefield research, Native American outreach, and field inventory of 345 acres (including 22 acres previously surveyed) at the Truckee-Tahoe Airport in Nevada and Placer Counties has identified 11 archaeological sites and nine isolated artifacts within the boundaries of the proposed Airport Master Plan Update project. For the isolated finds, recordation has exhausted their data potential, and no additional study is recommended. However, the archaeological sites will need to be considered further.

Under CEQA, state and local public agencies must identify the environmental impacts of proposed discretionary activities or projects, determine if the impacts will be significant, and identify alternatives and mitigation measures that will substantially reduce or eliminate significant impacts to the environment. A “substantial adverse change” to an important or unique cultural resource—defined as “demolition, destruction, relocation, or alteration such that the significance of an historical resource would be impaired” (PRC Section 5020.1(q)) is considered a significant environmental impact. CEQA defines an important or unique cultural resource as one that meets the criteria for listing on the California Register of Historical Resources (California Register). Those criteria can be found on the California SHPO web site (http://ohp.parks.ca.gov/?page_id=21238).

The standard recommendations for treatment of potentially significant resources involve either (1) avoidance of impacts or (2) evaluation of site significance. Avoidance is possible where project designs can be modified to leave the resources undisturbed. Where avoidance is not feasible, any resources within the project APE will need to be evaluated for their eligibility to the California Register. Resources that are evaluated and determined ineligible require no further consideration; those that are determined eligible will require mitigation of impacts through data recovery, archival research, public interpretation, and/or other means.

Table 5 provides a preliminary assessment of significance for the 11 sites in the project APE. This assessment is *not intended as formal evaluation*, however, but only as guidance to assist the project proponents in their decision-making process. Any evaluations should be carried out by a qualified archaeologist; work at prehistoric sites should be done in consultation with the Native American community.

Table 5. Recommendations.

| PRIMARY NO. (P-) | TRINOMIAL NO. (CA-) | TEMPORARY NO. | DESCRIPTION | PRELIMINARY ASSESSMENT |
|------------------------------------|------------------------|------------------|--|--|
| <i>NEWLY IDENTIFIED SITES</i> | | | | |
| 29-4470 | NEV-2193 | A-01 – 7149 | Road segment, ca. 1865-1960s | Not likely to be eligible |
| 29-4471 | NEV-2194 | A-02 – 7159 | Remains of charcoal kiln, ca. 1870-1880s | Potentially eligible |
| 29-4472 | NEV-2195 | A-03 – 7160 | Remains of charcoal kiln complex, ca. 1870-1880s | Potentially eligible |
| 29-447 | NEV-2196 | A-04 – 7161 | Chinese colliers’ work camp, ca. 1870-1880s | Potentially eligible |
| 29-4474 | NEV-2197 | A-05 – 7162 | Domestic dump, early/mid-twentieth century | Not likely to be eligible |
| <i>PREVIOUSLY DOCUMENTED SITES</i> | | | | |
| 29-1166 | - | MW1 | Remains of charcoal kiln, ca. 1870-1880s | Potentially eligible |
| 29-1167 | - | MW2 | Remains of charcoal kiln, ca. 1870-1880s | Potentially eligible |
| 29-1168 | - | MW-LF1 | Road segment, 1930s to present | Not likely to be eligible |
| 31-2587 | PLA-1845H | MM-LF1 | Segments of Donner & Tahoe Railroad, ca. 1893-1901 | Potentially eligible |
| 31-5504 | - | MVT-1-LF2 | Abandoned irrigation ditch | Ineligible (Waechter and Lindström 2014) |
| 31-5505 | - | MVT-1-LF3 | Abandoned fence line | Ineligible (Waechter and Lindström 2014) |

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- 1971 *Bottle Makers and their Marks*. Thomas Nelson, Inc., New York.

Waechter, Sharon A.

- 2013 *Archaeological Test Excavations at Historic-era Site FS 05-17-57-784 in Martis Valley, California Truckee Ranger District, Tahoe National Forest Report Number R2012-05-17-00073*

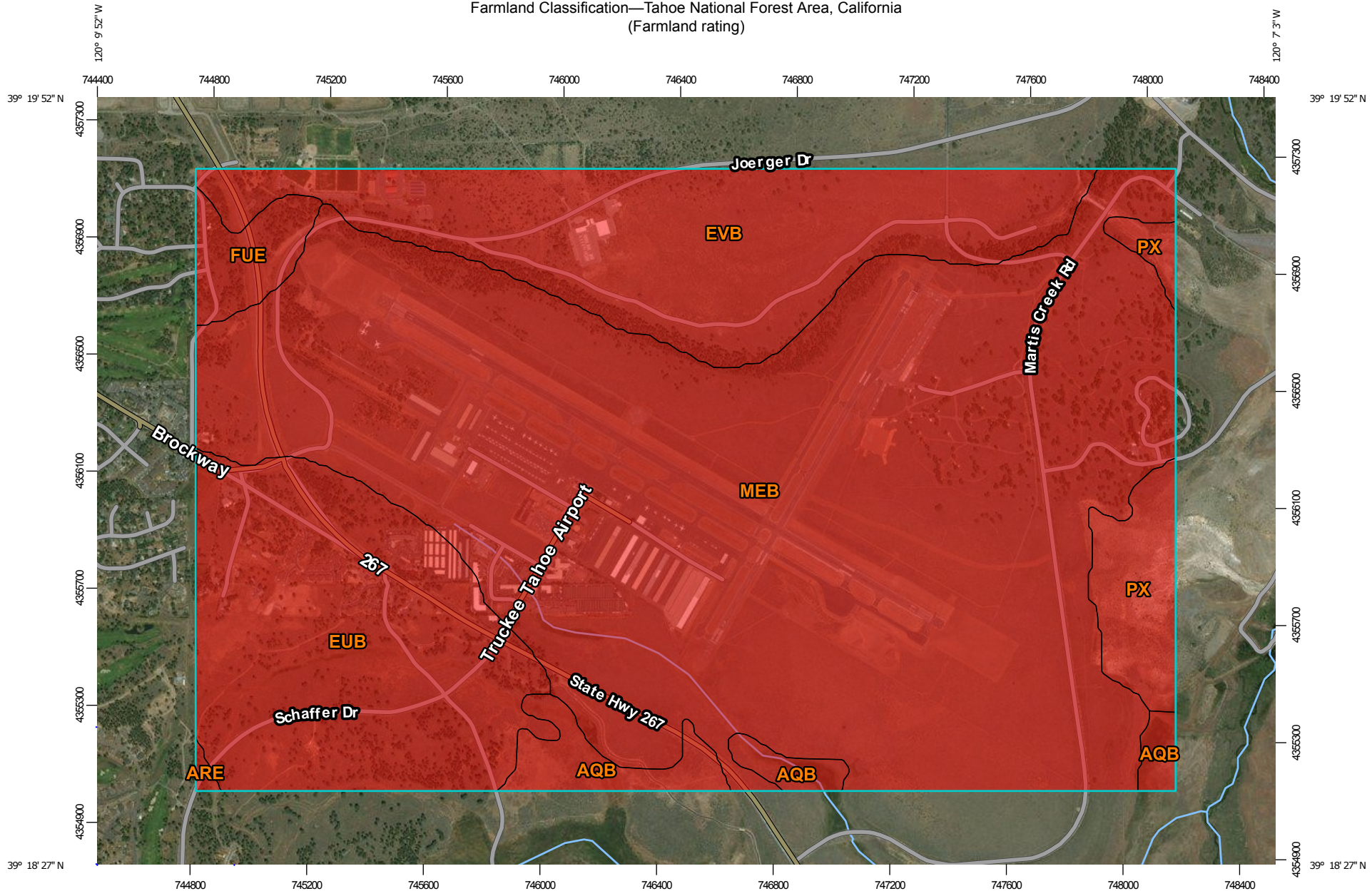
Waechter, Sharon A., and Susan G. Lindström

- 2014 *Archaeological Investigations for the Proposed Martis Valley Trail – Segments 1 and 3A, Placer County, California*. Far Western Anthropological Research Group, Inc., Davis, California. Prepared for Northstar Community Services District, Truckee, California. Submitted to US Army Corps of Engineers, Sacramento, California.

Whitten, David

- 2014 *Glass Bottle Marks: Glass Manufactures' Marks*. <http://www.glassbottlemarks.com/bottlemarks>, accessed January 2014.

Farmland Classification—Tahoe National Forest Area, California
(Farmland rating)



Map Scale: 1:18,500 if printed on A landscape (11" x 8.5") sheet.

0 250 500 1000 1500 Meters


0 500 1000 2000 3000 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

Farmland Classification—Tahoe National Forest Area, California
(Farmland rating)









MAP LEGEND








Area of Interest (AOI)

 Area of Interest (AOI)




Soils








Soil Rating Polygons






-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained
-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

-  Prime farmland if subsoiled, completely removing the root inhibiting soil layer
-  Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
-  Prime farmland if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance
-  Farmland of local importance
-  Farmland of unique importance
-  Not rated or not available







Soil Rating Lines










-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained

-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if subsoiled, completely removing the root inhibiting soil layer
-  Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60

-  Prime farmland if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance
-  Farmland of local importance
-  Farmland of unique importance
-  Not rated or not available

Soil Rating Points








-  Not prime farmland
-  All areas are prime farmland
-  Prime farmland if drained
-  Prime farmland if protected from flooding or not frequently flooded during the growing season
-  Prime farmland if irrigated
-  Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season

-  Prime farmland if irrigated and drained
-  Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
-  Prime farmland if subsoiled, completely removing the root inhibiting soil layer
-  Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
-  Prime farmland if irrigated and reclaimed of excess salts and sodium
-  Farmland of statewide importance
-  Farmland of local importance
-  Farmland of unique importance
-  Not rated or not available

Water Features

Farmland Classification—Tahoe National Forest Area, California
(Farmland rating)

MAP INFORMATION

-  Streams and Canals
- Transportation**
-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads
- Background**
-  Aerial Photography

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

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

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

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

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

Soil Survey Area: Tahoe National Forest Area, California
Survey Area Data: Version 11, Sep 12, 2017

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

Date(s) aerial images were photographed: Jul 28, 2012—Dec 6, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Farmland Classification

| Map unit symbol | Map unit name | Rating | Acres in AOI | Percent of AOI |
|------------------------------------|---|--------------------|----------------|----------------|
| AQB | Aquolls and Borolls, 0 to 5 percent slopes | Not prime farmland | 48.6 | 2.7% |
| ARE | Aldi-Kyburz complex, 2 to 30 percent slopes | Not prime farmland | 2.0 | 0.1% |
| EUB | Euer-Martis variant complex, 2 to 5 percent slopes | Not prime farmland | 272.7 | 15.4% |
| EVB | Inville-Martis variant complex, 2 to 5 percent slopes | Not prime farmland | 271.4 | 15.3% |
| FUE | Kyburz-Trojan complex, 9 to 30 percent slopes | Not prime farmland | 30.6 | 1.7% |
| MEB | Martis-Euer variant complex, 2 to 5 percent slopes | Not prime farmland | 1,090.3 | 61.5% |
| PX | Pits, borrow | Not prime farmland | 56.4 | 3.2% |
| Totals for Area of Interest | | | 1,772.0 | 100.0% |

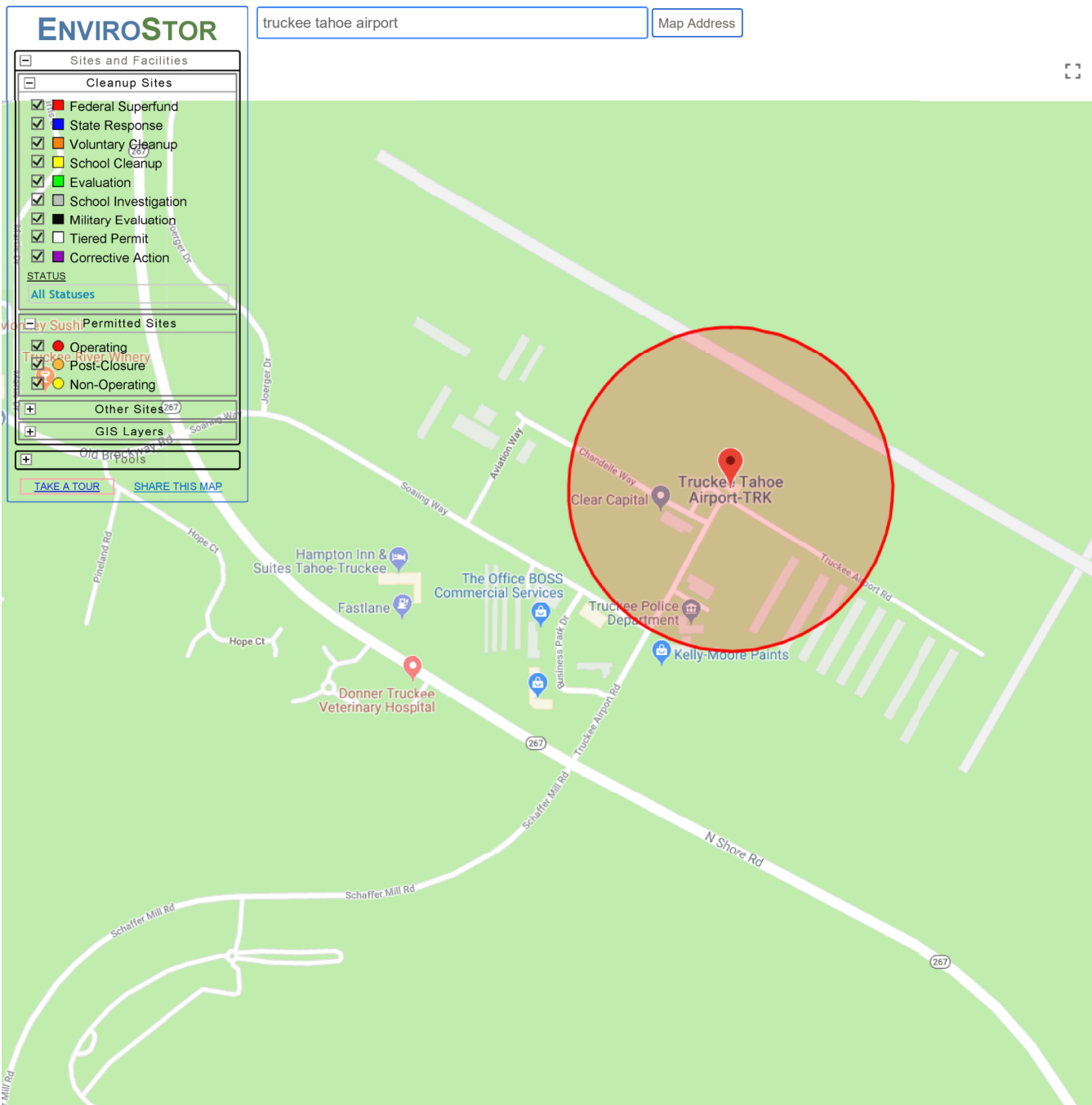
Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower



Google 100 m Map data ©2018 Google

SITES FOUND IN SEARCH RADIUS: 0 SITES LISTED [EXPORT THIS LIST TO EXCEL](#)

| PROJECT NAME | STATUS | PROJECT TYPE | ADDRESS | CITY |
|--------------|--------|--------------|---------|------|
|--------------|--------|--------------|---------|------|

IPaC Information for Planning and Consultation **U.S. Fish & Wildlife Service**

Last login July 03, 2018 03:57 PM MDT

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.

Project information

NAME

Truckee Tahoe Airport -- Hangar 1 Office

LOCATION



Nevada County, California



**DESCRIPTION****Construction**

of a 1,900 sq. ft. building to provide offices for an aircraft maintenance business already located on the Truckee Tahoe Airport. This building will be adjacent to the business's hangar.

Local office

Sacramento Fish And Wildlife Office

 (916) 414-6600 

 (916) 414-6713 

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

NOT FOR CONSULTATION

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. Log in to IPaC.
2. Go to your My Projects list.
3. Click PROJECT HOME for this project.
4. Click REQUEST SPECIES LIST.

Listed species

¹ 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 Fisheries²).

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 final critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/9529 | Endangered |

Fishes

| NAME | STATUS |
|---|------------|
| Lahontan Cutthroat Trout <i>Oncorhynchus clarkii henshawi</i> No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3964 | 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

¹ and the Bald and Golden Eagle Protection Act².

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

California Spotted Owl *Strix occidentalis occidentalis*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/7266>

Breeds Mar 10 to Jun 15

Cassin's Finch *Carpodacus cassinii*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9462>

Breeds May 15 to Jul 15

Golden Eagle *Aquila chrysaetos* Breeds Dec 1 to Aug 31

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/1680>

Olive-sided Flycatcher *Contopus cooperi* Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3914>

Rufous Hummingbird *selasphorus rufus* Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/8002>

Williamson's Sapsucker *Sphyrapicus thyroideus* Breeds May 1 to Jul 31

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/8832>

Willow Flycatcher *Empidonax traillii* Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

<https://ecos.fws.gov/ecp/species/3482>

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

- To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
- The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

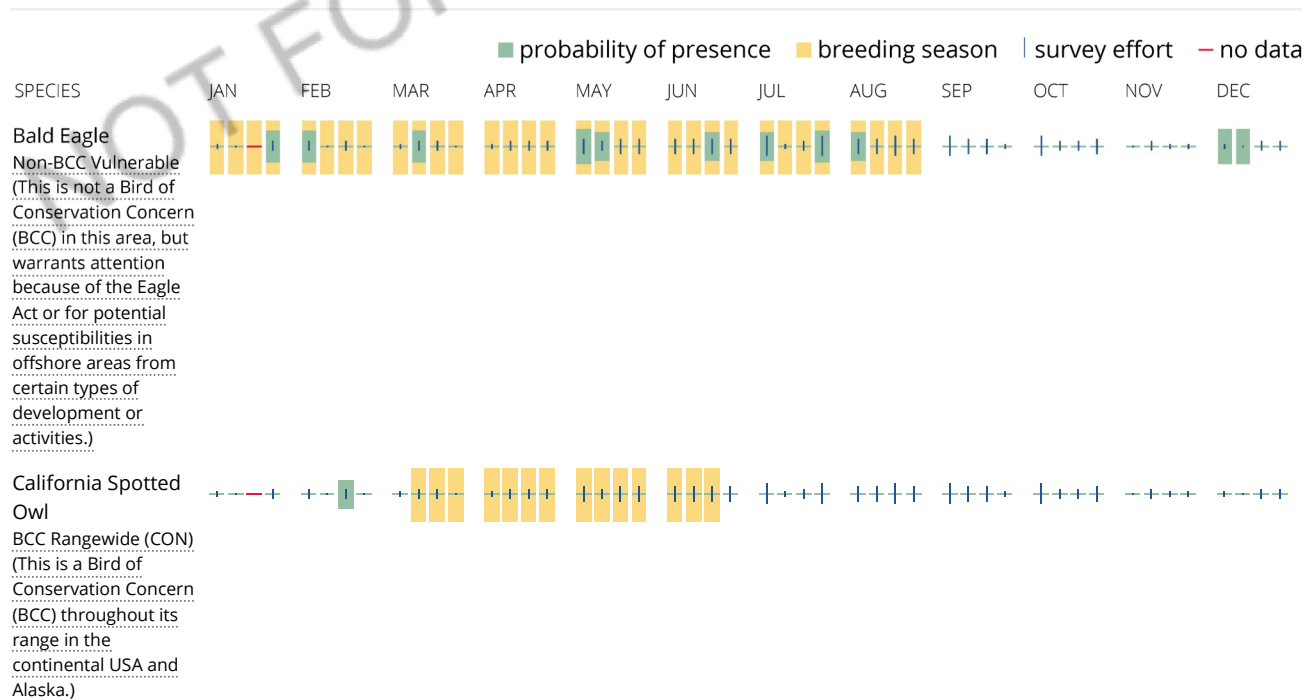
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (-)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





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 [E-bird Explore Data 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 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](#).

THERE ARE NO KNOWN WETLANDS AT THIS LOCATION.

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.



United States Department of the Interior



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

In Reply Refer To:
Consultation Code: 08ESMF00-2018-SLI-2650
Event Code: 08ESMF00-2018-E-07665
Project Name: Truckee Tahoe Airport -- Hangar 1 Office

July 03, 2018

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

To Whom It May Concern:

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

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

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

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

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

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

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

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

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

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

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

Attachment(s):

- Official Species List

Official Species List

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

This species list is provided by:

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

(916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2018-SLI-2650

Event Code: 08ESMF00-2018-E-07665

Project Name: Truckee Tahoe Airport -- Hangar 1 Office

Project Type: DEVELOPMENT

Project Description: Construction of a 1,900 sq. ft. building to provide offices for an aircraft maintenance business already located on the Truckee Tahoe Airport. This building will be adjacent to the business's hangar.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/39.31851221214278N120.14336125586738W>



Counties: Nevada, CA

Endangered Species Act Species

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

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

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

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

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

Amphibians

| NAME | STATUS |
|---|------------|
| Sierra Nevada Yellow-legged Frog <i>Rana sierrae</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9529 | Endangered |

Fishes

| NAME | STATUS |
|--|------------|
| Lahontan Cutthroat Trout <i>Oncorhynchus clarkii henshawi</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3964 | Threatened |

Critical habitats

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