

**FINAL**

April 1, 2022



**MT. SHASTA SKI PARK**

**MOUNT SHASTA SKI PARK  
LIFT EXTENSION PROJECT  
SUBSEQUENT  
MITIGATED NEGATIVE DECLARATION**

**COUNTY OF SISKIYOU**

Prepared by  
**GeoServ, Inc**



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## LIST OF ABBREVIATIONS

AB	Assembly Bill
AST	Aboveground Storage Tank
BACT	Best Available Control Technology
BGEPA	Bald and Golden Eagle Protection Act
BMP	Best management practice
BOF	Board of Forestry
BRA	Biological Resources Assessment
Business Plan Act	Hazardous Materials Release Response Plans and Inventory Act of 1985
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standard
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CAL FIRE	California Department of Forestry and Fire Protection
Cal/OSHA	California Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CAT	Climate Act Team
CBC	California Building Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CDTS	California Department of Toxic Substances
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations

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CH <sub>4</sub>	Methane
CIWMP	Countywide Integrated Waste Management Plan
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	Carbon Monoxide
CO <sub>2</sub>	Carbon Dioxide
CO <sub>2</sub> e	CO <sub>2</sub> -equivalent
CUPA	Certified Unified Program Agency
CVRWQCB	Central Valley Regional Water Quality Control Board
CWA	Clean Water Act
dB	Decibels
DTSC	Department of Toxic Substances Control
DWR	Department of Water Resources
EPA	U.S. Environmental Protection Agency
EIR	Environmental Impact Report
ESA	Federal Endangered Species Act
FEMA	Federal Emergency Management Agency
FHSZ	Fire Hazard Severity Zone
FMMP	California Farmland Mapping and Monitoring Program
FPA	California Forest Practice Act
FPRs	Forest Practice Rules
FR	Federal Register
FRA	Federal Responsibility Area
GHG	Greenhouse Gas
H&SC	Health and Safety Code
H <sub>2</sub> S	Hydrogen Sulfide
HAPs	Hazardous Air Pollutants



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HMBP	Hazardous Materials Business Plan
HWCA	Hazardous Waste Control Act
I-5	Interstate 5
IBC	International Building Code
IPaC	Information for Planning and Consultation
LDM	Land Development Manual
LRA	Local Responsibility Area
MACT	Maximum Achievable Control Technology
MBTA	Migratory Bird Treaty Act
MCE	Maximum Credible Earthquake
MSATs	Mobile Source Air Toxics
USFS	USDA Forest Service
SPH	Ski Park Highway

## MITIGATION MEASURE TABLE

4.1 Aesthetics				
	Environmental Issue Area	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
A.	Temporary visual impacts caused by construction activities?	Potentially Significant	Mitigation Measure AES-1: Project construction equipment and activities shall not be staged at or reach an elevation higher than the ridge of Grey Butte, ensuring that the cultural sites of Panther Meadows and Mount Shasta will be protected from temporary visual impacts.	Less than Significant
B.	Have a substantial adverse effect on a scenic vista?	Potentially Significant	Mitigation Measure AES-2: The ski lift facility shall be constructed so as not to reach an elevation higher than the ridge of Grey Butte, ensuring that the cultural sites of Panther Meadows and Mount Shasta will be protected from visual impacts.	Less than Significant
C.	Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	Less than Significant	NA	NA
D.	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings. (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	Less than Significant	NA	NA

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<b>E.</b>	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	No Impact	N	NA
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#### 4.2 Agriculture and Forestry Resources

	<b>Environmental Issue Area</b>	<b>Significance Before Mitigation</b>	<b>Mitigation Measure</b>	<b>Significance After Mitigation</b>
<b>A.</b>	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	No Impact	NA	NA
<b>B.</b>	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	No Impact	NA	NA
<b>C.</b>	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	No Impact	NA	NA
<b>D.</b>	Result in the loss of forest land or conversion of forest land to non-forest land?	Less than Significant	NA	NA
<b>E.</b>	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	Less than Significant	NA	NA

#### 4.3 Air Quality

	<b>Environmental Issue Area</b>	<b>Significance Before Mitigation</b>	<b>Mitigation Measure</b>	<b>Significance After Mitigation</b>
<b>A.</b>	Conflict with or obstruct implementation of the applicable air quality plan?	Less than Significant	NA	NA
<b>B.</b>	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-	No Impact	NA	NA

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	attainment under an applicable federal or state ambient air quality standard?			
<b>C.</b>	Expose sensitive receptors to substantial pollutant concentrations?	Less than Significant	NA	NA
<b>D.</b>	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Less than Significant	NA	NA

**4.4 Biological Resources**

	<b>Environmental Issue Area</b>	<b>Significance Before Mitigation</b>	<b>Mitigation Measure</b>	<b>Significance After Mitigation</b>
<b>A.</b>	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	Potentially Significant	Mitigation Measure BIO-1: Implement Preconstruction Nesting Bird Survey; Mitigation Measure Bio-2: Implement Timber Harvest Plan Surveys and Protection Buffers for sensitive wildlife species.	Less than Significant
<b>B.</b>	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	Less than Significant	NA	NA
<b>C.</b>	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Less than Significant	NA	NA

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<b>D.</b>	Interfere substantially with the movement of any native resident or migratory fish and wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	Potentially Significant	Mitigation Measures BIO-1 and BIO-2 (see item A.; Mitigation Measure BIO-3: Designate the Wildlife Protection Area and Botany Rare Plant Area as barred from mechanical entry.	Less than Significant
<b>E.</b>	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Potentially Significant	Mitigation Measure BIO-3: Designate the Wildlife Protection Area and Botany Rare Plant Area as barred from mechanical entry.	Less than Significant
<b>F.</b>	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	No Impact	NA	NA

**4.5 Cultural Resources**

	<b>Environmental Issue Area</b>	<b>Significance Before Mitigation</b>	<b>Mitigation Measure</b>	<b>Significance After Mitigation</b>
<b>A.</b>	Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	Potentially Significant	Mitigation Measure CUL-1: Implement Mitigation Measure AES-1 and AES-2	Less than Significant
<b>B.</b>	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	Less than Significant	NA	NA
<b>C.</b>	Substantially disturb human remains, including those interred outside of formal cemeteries?	Less than Significant	NA	NA

**4.6 ENERGY**

	<b>Environmental Issue Area</b>	<b>Significance Before Mitigation</b>	<b>Mitigation Measure</b>	<b>Significance After Mitigation</b>
<b>A.</b>	Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	Less than significant	NA	NA
<b>B.</b>	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	Less than significant	NA	NA

**4.7 Geology and Soils**

	<b>Environmental Issue Area</b>	<b>Significance Before Mitigation</b>	<b>Mitigation Measure</b>	<b>Significance After Mitigation</b>
<b>A.</b>	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:			
	i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology special Publication 42.	Less than Significant	NA	NA
	ii. Strong seismic ground shaking?	Less than Significant	NA	NA
	iii. Seismic-related ground failure, including liquefaction?	Less than Significant	NA	NA
	iv. Landslides?	Less than Significant	NA	NA
<b>B.</b>	Result in substantial soil erosion or the loss of topsoil?	Potentially Significant	Mitigation Measure GEO-1: The Ski Park shall adopt an updated erosion and sedimentation control plan that addresses erosion risk of	Less than Significant

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			the new and existing ski trail, roads, and trails during operational and non-operational seasons.	
<b>C.</b>	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in: on-or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	Less than Significant	NA	NA
<b>D.</b>	Be located on expansive soil, as defined in Table 18- 1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	Less than Significant	NA	NA
<b>E.</b>	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	Less than Significant	NA	NA
<b>F.</b>	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Less than Significant	NA	NA

**4.8 Greenhouse Gas Emissions**

	<b>Environmental Issue Area</b>	<b>Significance Before Mitigation</b>	<b>Mitigation Measure</b>	<b>Significance After Mitigation</b>
<b>A.</b>	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Less than Significant	NA	NA
<b>B.</b>	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Less than Significant	NA	NA

**4.9 Hazards and Hazardous Materials**

	<b>Environmental Issue Area</b>	<b>Significance Before Mitigation</b>	<b>Mitigation Measure</b>	<b>Significance After Mitigation</b>
<b>A.</b>	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Less than Significant	NA	NA
<b>B.</b>	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Less than Significant	NA	NA
<b>C.</b>	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	No Impact	NA	NA
<b>D.</b>	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	No Impact	NA	NA
<b>E.</b>	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	No Impact	NA	NA
<b>F.</b>	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Less than Significant	NA	NA
<b>G.</b>	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	Less than Significant	NA	NA

**4.10 Hydrology and Water Quality**

	<b>Environmental Issue Area</b>	<b>Significance Before Mitigation</b>	<b>Mitigation Measure</b>	<b>Significance After Mitigation</b>
<b>A.</b>	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	Less than Significant	NA	NA



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<b>B.</b>	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	Less than Significant	NA	NA
<b>C.</b>	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would:	Less than Significant	NA	NA
	i. Result in substantial on- or offsite erosion or siltation;	Potentially Significant	Mitigation Measure HYD-1: Implement Mitigation Measure GEO-1.	Less than Significant
	ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	Potentially Significant	Mitigation Measure HYD-1: Implement Mitigation Measure GEO-1.	Less than Significant
	iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	Less than Significant	NA	NA
	iv. Impede or redirect flood flows?	Less than Significant	NA	NA
<b>D.</b>	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	No Impact	NA	NA
<b>E.</b>	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	Less than Significant	NA	NA

**4.11 Land Use and Planning**

	<b>Environmental Issue Area</b>	<b>Significance Before Mitigation</b>	<b>Mitigation Measure</b>	<b>Significance After Mitigation</b>
<b>A.</b>	Physically divide an established community?	No Impact	NA	NA

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<b>B.</b>	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	Potentially Significant	Mitigation Measure LAN-1: Implement Mitigation Measure GEO-1.	Less than Significant
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**4.12 Mineral Resources**

	Environmental Issue Area	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
<b>A.</b>	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	No Impact	NA	NA
<b>B.</b>	Result in the loss of availability of a locally- important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	No Impact	NA	NA

**4.13 Noise**

	Environmental Issue Area	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
<b>A.</b>	Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?	Potentially Significant	Mitigation Measure NOS-1: Schedule helicopter construction activities so as not to overlap with tribal cultural ceremonies at Panther Meadows.	Less than Significant
<b>B.</b>	Generation of excessive ground borne vibration or ground borne noise levels?	Less than Significant	NA	NA
<b>C.</b>	For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people	No Impact	NA	NA

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residing or working in the project area to excessive noise levels?			
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**4.14 Population and Housing**

	Environmental Issue Area	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
<b>A.</b>	Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	Less than Significant	NA	NA
<b>B.</b>	Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	No Impact	NA	NA

**4.15 Public Services**

	Environmental Issue Area	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
<b>A.</b>	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, to maintain acceptable service ratios, response times or other performance objectives for any public services:			
	i. Fire protection?	Less than Significant	NA	NA
	ii. Police protection?	Less than Significant	NA	NA
	iii. Schools?	Less than Significant	NA	NA
	iv. Parks?	Less than Significant	NA	NA

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v. Other public facilities?	Less than Significant	NA	NA
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**4.16 Recreation**

	<b>Environmental Issue Area</b>	<b>Significance Before Mitigation</b>	<b>Mitigation Measure</b>	<b>Significance After Mitigation</b>
<b>A.</b>	Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	No Impact	NA	NA
<b>B.</b>	Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	Potentially Significant	MM REC-1: Implement the Mitigation Measures in this Initial Study.	NA

**4.17 Transportation**

	<b>Environmental Issue Area</b>	<b>Significance Before Mitigation</b>	<b>Mitigation Measure</b>	<b>Significance After Mitigation</b>
<b>A.</b>	Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	Less than Significant	NA	NA
<b>B.</b>	Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	Less than Significant	NA	NA
<b>C.</b>	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections)	No Impact	Mitigation Measure Trans-1: An overflow turn around will be constructed north of the SR 89 and SPH intersection to prevent	NA

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	or incompatible uses (e.g., farm equipment)?		vehicles from backing up onto SR 89. The use of this overflow turn around is triggered when the number of vehicles exceeds 1,955 vehicles in a given day. This is the threshold number of vehicles is based on traffic count data from 2019 to 2022. Once the Intersection Operational Analysis is complete adjustments to the vehicle cap may be made if justified.	
<b>D.</b>	Result in inadequate emergency access?	Less than Significant	NA	NA

**4.18 Tribal Cultural Resources**

	<b>Environmental Issue Area</b>	<b>Significance Before Mitigation</b>	<b>Mitigation Measure</b>	<b>Significance After Mitigation</b>
<b>A.</b>	Has a California Native American Tribe requested consultation in accordance with Public Resources Code section 21080.3.1 (b)?	No (see discussion)		
<p><b>Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:</b></p>				
<b>B.</b>	Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1 (k)?	Potentially Significant	Mitigation Measure TRI-1: Implement Mitigation	Less than significant.

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			Measures AES-1 and AES-2.	
<b>C.</b>	A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	No Impact	NA	NA

**4.19 Utilities and Service Systems**

	<b>Environmental Issue Area</b>	<b>Significance Before Mitigation</b>	<b>Mitigation Measure</b>	<b>Significance After Mitigation</b>
<b>A.</b>	Require or result in the relocation or construction of construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	Less than Significant	NA	NA
<b>B.</b>	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	Less than Significant	NA	NA
<b>C.</b>	Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	Less than Significant	NA	NA

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<b>D.</b>	Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	Less than Significant	NA	NA
<b>E.</b>	Comply with federal, state, and local statutes and regulations related to solid waste?	No Impact	NA	NA

**4.20 Wildfire**

	<b>Environmental Issue Area</b>	<b>Significance Before Mitigation</b>	<b>Mitigation Measure</b>	<b>Significance After Mitigation</b>
<b>A.</b>	Is the project located in or near state responsibility areas or lands classified as high fire hazard severity zones?	Yes		
	If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	NA		
<b>B.</b>	Substantially impair an adopted emergency response plan or emergency evacuation plan?	Less than significant	NA	NA
<b>C.</b>	Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	Less than significant	NA	NA
<b>D.</b>	Require the installation of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	Less than significant	NA	NA
<b>E.</b>	Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	Less than significant	NA	NA

## 4.1 AESTHETICS

4.1 Aesthetics				
	Environmental Issue Area	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
A.	Temporary visual impacts caused by construction activities?	Potentially Significant	Mitigation Measure AES-1: Project construction equipment and activities shall not be staged at or reach an elevation higher than the ridge of Grey Butte, ensuring that the cultural sites of Panther Meadows and Mount Shasta will be protected from temporary visual impacts.	Less than Significant
B.	Have a substantial adverse effect on a scenic vista?	Potentially Significant	Mitigation Measure AES-2: The ski lift facility shall be constructed so as not to reach an elevation higher than the ridge of Grey Butte, ensuring that the cultural sites of Panther Meadows and Mount Shasta will be protected from visual impacts.	Less than Significant
C.	Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	Less than Significant	NA	NA
D.	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings. (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	Less than Significant	NA	NA



<b>E.</b>	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	No Impact	N	NA
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### 4.1.1 Discussion

#### Regulatory Setting

##### *Federal and State Regulations*

The following roadways in the project region are part of the federally designated Volcanic Legacy Scenic Byway:

- State Route (SR) 89 from its intersection with SR 36 (south of Mount Lassen) to Interstate 5 (I-5), south of the City of Mt. Shasta.
- I-5 from its intersection with SR 89 north to its intersection with US Route 97 (US 97).
- US 97 from its intersection with I-5 into Oregon.

I-5 is approximately 7.2 miles west of the Project area, while US 97 is approximately 11.2 miles northwest of the Project area. SR 89 is approximately 4.5 miles south of the Project area. The Volcanic Legacy Scenic Byway is designated as an All-American Road under the Federal Highway Administration National Scenic Byways Program (Federal Highway Administration 2007). Although recognized for their scenic qualities by the Federal Highway Administration, these designated byways fall under local county, state (Caltrans), or USFS (if on national forest lands) jurisdiction and are therefore not protected under federal scenic byway policies (Steele pers. comm.).

There are no roadways in or near the project area that are designated in federal or state plans as a scenic highway or route worthy of protection for maintaining and enhancing scenic viewsheds. Therefore, federal and state guidelines do not apply. However, the sections of I-5, SRs 89, and US 97, as described above, are designated as Eligible State Scenic Highways (Caltrans 2007).

##### *Local Regulations*

The Siskiyou County General Plan (Siskiyou County 1980) contains the following aesthetics-related policies:

#### ***Conservation Element, IV. Conservation Plan***

##### E. Natural Resource Lands

- **Policy #1:** To preserve areas of natural scenic beauty as areas of active and passive recreation.

## G. Scenic Lands

The General Plan recognizes that “the entire county is considered as scenic land.

- **Policy #1:** Continue to work for the conservation of Siskiyou County's scenic beauty.
- **Policy #3:** Encourage private developers to utilize conservation methods of using land. Discourage development on steep slopes unless special techniques of construction are used.
- **Policy #6:** Encourage private reforestation of hillsides to enhance the beauty of the county.
- **Policy #7:** Adopt regulations requiring the landscaping and maintenance of vegetation on all cut slopes.
- **Policy #8:** Prohibit encroachment of excessive cut and fill slopes into corridors on scenic highways.

## I. The Plan

- **Policy #1:** Retain the character and natural beauty of Siskiyou County by sound conservation practices.
- **Policy #4:** To plan for mineral production and performance so as to avoid destruction, pollution, or degradation of surrounding land and of water and air resources. After mineral extraction has been completed, land use for mineral production should be revegetated and restored to its original site conditions.

### ***Scenic Highways Element***

## III. Objectives

- **Policy #2:** To conserve, enhance, and protect scenic views observable from scenic routes without unduly restricting the primary uses of the lands involved.
- **Policy #4:** To preserve for all travelers the outstanding characteristics of Siskiyou County, primarily clean air, and magnificent scenery, so that it may remain, providing incentives for tourism, and to stabilize and increase property values and the economy of Siskiyou County.

## IV. Scenic Routes of Siskiyou County

The General Plan designates the portion of I-5 that is part of the Volcanic Legacy Scenic Byway, as described above, as a Scenic Freeway. SR 89 and US 97, also parts of the Volcanic Legacy Scenic Byway as described above, are designated as Scenic Highways.

## V. Principles

### C. The Scenic Route Corridor

- **Policy #1:** Provide for normal use of the land and protect against unsightly features.
- **Policy #2:** Locate transmission lines and towers outside the Scenic Corridors when feasible.
- **Policy #4:** Use landscaping to increase scenic qualities.

#### D. Range of Visibility

- **Policy #1:** Encourage owners of large holdings to protect and enhance areas of scenic value.
- **Policy #3:** Encourage property owners to develop holdings with good conservation practices.

#### **A. Temporary visual impacts caused by construction activities?**

Project construction could have a temporary significant visual impact on Panther Meadows. According to the cultural resources survey conducted for the Ski Park Conversion THP (THP # 2-21-00103-SIS) and Ski Park II THP (THP # 2-21-00185-SIS), Panther Meadows is an important cultural site for Native American groups such as the Wintu, Klamath, Shasta, and Karuk tribes. Panther meadows is also a popular recreational site. If construction activities or equipment are visible from Panther Meadows, this could significantly impact the scenic vista, degrade the visual character of the area, and harm the cultural/recreational value of the scenic vista.

However, temporary visual changes will be mitigated by keeping all construction activities, equipment, and staging areas below the ridge line of Grey Butte. Temporary impacts will be mitigated to less than significant levels with the implementation of **Mitigation Measure AES-1**.

#### **B. Have a substantial adverse effect on vista?**

Project implementation could have a significant visual impact on Panther Meadows. According to the cultural resources survey conducted for the Ski Park Conversion THP (THP # 2-21-00103-SIS) and Ski Park II THP (THP # 2-21-00185-SIS), Panther Meadows is an important cultural site for Native American groups such as the Wintu, Klamath, Shasta, and Karuk tribes. Panther meadows is also a popular recreational site. If the proposed lift structure is visible from Panther Meadows, this could significantly impact views from Panther Meadows, degrading the visual character of the area and harming the cultural and recreational value of the scenic vista. However, these visual impacts would be mitigated by installing the ski lift structure in an area where it would not be visible from Panther meadows. This can be achieved by keeping the ski lift's highest point below the ridge line of Grey Butte. Impacts would be mitigated to less than significant levels with the implementation of **Mitigation Measure AES-1**.

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

According to THP # 2-21-00103-SIS and THP # 2-21-00185-SIS, the upper portions of the Project area within Section 3, Township 40 North, Range 3 West are visible within some parts of the town of McCloud and SR 89 at a distance of approximately 6.5 miles. However, for the implementation of the Project, no trees, rock outcroppings, or historic buildings are proposed to be removed or altered. The previously approved THPs will remove trees; however, even the timber conversion areas will retain significant patches of forested areas for aesthetic, erosion control, and technical skiing purposes. According to the Ski Park Conversion THP, "ski runs would be developed with the intention of retaining scattered trees and pockets of trees while providing sufficient spacing to allow snow grooming equipment (20 feet) in between. Low growing shrubs such as pine mat manzanita, smaller snowbrush and Greenleaf manzanita will be retained where feasible for slope stability, erosion protection and aesthetics." As such, the visual character of the Project area remains consistent with the forested appearance of the surrounding landscape.

Construction of the lift structure and use of the area for ski runs would prevent the revegetation of the area with conifers; additionally, use of the area for winter and summer recreational activities such as snowboarding, and mountain biking could potentially result in the damage of rocks in the immediate vicinity of the Project. Most of the visual changes—such as potential damage to rocks and the installation of warming huts and other structures—would not be visible anywhere outside the immediate Project area. Therefore, these changes would pose no visual impact to SR 89, the town of McCloud, or the City of Mt. Shasta. While the ski lift structure would be visible on SR 89 at distances of up to 6.5 miles, the distance of the lift structure from the highway plus the speed at which motorists would be traveling on SR 89 would keep the visual impacts to less than significant levels. Similarly, the town of McCloud and City of Mt. Shasta would only have long-distance views of the ski lift structure, and these visual impacts would be less than significant.

See discussion under item b), above. Impacts would be less than significant.

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

See discussion under item b), above. Sufficient trees would be left in the project area to allow the Project to blend into the forest mosaic landscape, given that the surrounding area is a patchwork of timber harvest operations (including clearcuts) and federal land/open space. Therefore, impacts would be less than significant.

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

No additional lighting is proposed for the implementation of the Project; therefore, there would be no impact.

### Cumulative Impacts

The previously approved THPs and the proposed Project would both affect the aesthetic environment of the area. However, considered cumulatively, these impacts would remain less than significant. The timber harvest in the area would still retain enough forested terrain to blend into the forest mosaic that surrounds the Project, while the visual impacts of the ski lift facility would be mitigated by **Mitigation Measure AES-1**. Therefore, cumulative visual impacts would be less than significant.

### Mitigation Measures

*Mitigation Measure AES-1:* Project construction equipment and activities shall not be staged at or reach an elevation higher than the ridge of Grey Butte, ensuring that the cultural sites of Panther Meadows and Mount Shasta will be protected from temporary visual impacts.

*Mitigation Measure AES-2:* The ski lift facility shall be constructed so as not to reach an elevation higher than the ridge of Grey Butte, ensuring that the cultural sites of Panther Meadows and Mount Shasta will be protected from visual impacts.

## 4.2 AGRICULTURE AND FORESTRY RESOURCES

4.2 Agriculture and Forestry Resources				
	Environmental Issue Area	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
<b>A.</b>	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	No Impact	NA	NA
<b>B.</b>	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	No Impact	NA	NA
<b>C.</b>	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	No Impact	NA	NA
<b>D.</b>	Result in the loss of forest land or conversion of forest land to non-forest land?	Less than Significant	NA	NA
<b>E.</b>	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	Less than Significant	NA	NA

### 4.2.1 Discussion

#### Regulatory Setting

##### Federal Regulations

Timber production on federal land in Siskiyou County, including the Shasta-Trinity National Forest, is governed by federal regulations administered by the USFS and through resource management plans established for each forest. The role of local government is limited with respect to projects, planning, and management of lands under USFS jurisdiction. If a proposed project on national forest lands is determined to be incompatible with the direction of an adopted forest plan, the project will be

revised or not permitted. Projects on private lands that could affect USFS land located in the vicinity of the project would be evaluated by USFS for cumulative or indirect impacts on federal lands.

## **State Regulations**

### ***California Farmland Mapping and Monitoring Program***

The goal of the California Farmland Mapping and Monitoring Program (FMMP) is to provide consistent and impartial data to decision makers for use in assessing present statuses, reviewing trends, and planning for the future of California's agricultural land resources. The FMMP produces updated Important Farmland maps, which are a hybrid of resource quality (soils) and land use information, every 2 years. These maps identify Prime Farmland, Unique Farmland, Farmland of Statewide Importance, Farmland of Local Importance, urbanized land, and other lands. Data also are released in statistical formats, principally the biennial California Farmland Conversion Report.

### ***California Land Conservation Act of 1965 (Williamson Act)***

The purpose of the California Land Conservation Act of 1965 (California Government Code 51200–51295), commonly known as the Williamson Act, is to provide incentives, through reduced property taxes, to deter the early conversion of agricultural and open space lands. In return for the preferential tax rate, the landowner is required to sign a contract with the county or city agreeing not to develop the land for a minimum 10-year period. Contracts are automatically renewed annually unless a party to the contract files a notice of nonrenewal or petitions for cancellation. All lands defined by the state as “prime farmland, other than prime farmland, and open space land” are eligible for coverage by a Williamson Act contract. Land classified as other than Prime Farmland or open space land can be placed under contract if it is located in an area designated by a county or city as an agricultural preserve.

### ***Forest Taxation Reform Act of 1976***

Private timberlands in California are governed by the Forest Taxation Reform Act of 1976. This act created the TPZ concept to preserve forest lands from encroachment by other incompatible land uses. The act identifies five compatible uses: management for watershed; management for fish and wildlife (i.e., hunting and fishing); uses related to the growing, harvesting, and processing of forest products; construction, alteration, or maintenance of utility facilities; and grazing. Other uses, such as residential use, may be discouraged but allowed by approval of a special use permit. Landowners of timber harvests on private lands not located within a TPZ are required to submit and obtain approval of a THP from the California Department of Forestry and Fire Protection (CAL FIRE) or file for an exemption.

### ***Z'berg-Nejedly Forest Practice Act of 1973—California Forest Practice Act***

The first California Forest Practice Act (FPA) was adopted in California in 1946 to regulate the harvest of timber on private lands. The original FPA was superseded by the Z'berg-Nejedly Forest Practice Act of 1973, which is now the primary forest regulation statute in California and is generally referred to as the FPA. This new law reestablished a nine-member State Board of Forestry (BOF), whose mandate is to manage forest practices and forest resources in California. The BOF developed a set of Forest Practice Rules (FPRs) to coincide with implementation of the FPA. The BOF is the policy arm of CAL FIRE.

CAL FIRE has enforcement responsibility for requirements of the FPA. CAL FIRE is also the lead agency for those parts of projects involving the scope of the FPA. If any timber operations (as defined by PRC Section 4527) are involved with a project, they must be approved by CAL FIRE prior to undertaking operations. Accordingly, the potential conversion of the 92 acres of timberland to developed uses for the proposed quarry may require a Timberland Conversion Permit (TCP) from CAL FIRE. The FPA requires owners of nonfederal timberland to apply for a TCP using form RM-56. If a TCP is determined to be required by CAL FIRE, a THP or notice of exemption may also be required to be filed in conjunction with the landowners. THPs are submitted to CAL FIRE for review and approval of commercial timber harvesting on all nonfederal timberlands. The THPs are reviewed for compliance with the FPA and FPRs. THPs must be prepared by Registered Professional Foresters (RPFs), and operations must be carried out by timber operators licensed by CAL FIRE. THPs are considered functionally equivalent to EIRs under CEQA, and require the detailed evaluation of forestry, soil, water, plant, fish, and wildlife resources. The timber owner is responsible to pay all yield taxes for the timber harvested.

### ***Local Regulations***

The following local ordinances, plans and policies related to land use and planning apply to the project site:

#### ***Siskiyou County General Plan—Land Use Element***

The Land Use Element of the Siskiyou County General Plan outlines and maps countywide constraints to development related to natural and physical barriers and resource production. The Siskiyou County General Plan land use designations for the project site include the following: Soil— Erosion Hazard (High), Excessive Slope, and Wildfire Hazard Area (High), (Siskiyou County 1980). These classifications are the County General Plan land use designations for the Project site, and they identify specific conditions and restrictions for development. The following policies from the County's General Plan apply to this Project.

#### **Map 2. Soils—Erosion Hazard**



- Policy #7: Specific mitigation measures will be provided that lessen soil erosion, including contour grading, channelization, revegetation of disturbed slopes and soils, and project timing (where feasible) to lessen the effect of seasonal factors (rainfall and wind).

#### Map 5. Excessive Slope

- Policy #11: All areas with 30% or greater natural slope shall not be developed with facilities requiring septic tanks for sewage disposal.
- Policy #12: If areas designated as 30% or greater natural slope are proven to be less than 30% slope, the minimum parcel size shall be one acre on 0 – 15% slope, and 5 acres on 16-29% slope.
- Policy #13: Proof that an area is not an excessive slope area can only be made by an on-site inspection.
- Policy #14: Reducing the percentage of slope below 30% by grading is prohibited, and not acceptable as a means of conforming to the density requirement of Policy 12 for sewage disposal purposes.
- Policy #15: Areas designated 30% of greater natural slope but proven to be less than 30% slope shall only be developed when a grading plan for roads, acceptable to the Department of Public Works, has been submitted.
- Policy #16: Single family residential, light industrial, light commercial, open space, non-profit and non-organizational in nature recreational uses, commercial/recreational uses, and public or quasi-public uses only may be permitted if the area is proven to be less than 30% slope.

The permitted uses will not create erosion or sedimentation problems.

#### Map 10. Wildfire Hazard Area

- Policy #30: All development proposed within a wildfire hazard area shall be designed to provide safe ingress, egress, and have an adequate water supply for fire suppression purposes in accordance with the degree of wildfire hazard.

#### Composite Overall Policies

- Policy #41.3: The following policies shall determine the location of any proposed use of land:
  - a. All heavy commercial and heavy industrial uses must provide or have direct access onto major thoroughfares or existing industrial/commercial streets capable of accommodating the traffic that could be generated from the proposed use.
  - b. All heavy commercial and heavy industrial uses should be located away from areas clearly committed to residential use.

- c. All proposed uses of the land shall be clearly compatible with the surrounding and planned uses of the area.
- d. All proposed uses of the land may only be allowed if they clearly will not be disruptive or destroy the intent of protecting each mapped resource.
- e. Existing or planned industrial areas shall not be developed in a manner that will destroy industrial potential.
- Policy #41.5: All development will be designed so that every proposed use and every individual parcel of land created is a buildable site, and will not create erosion, runoff, access, fire hazard or any other resource or environmentally related problems.
- Policy #41.9: Buildable, safe access must exist to all proposed uses of land. The access must also be adequate to accommodate the immediate and cumulative traffic impacts of the proposed development.

### ***Siskiyou County General Plan—Conservation Element***

The Conservation Element of the Siskiyou County General Plan outlines objectives and goals to conserve and protect the land resources of Siskiyou County (Siskiyou County 1980). One of the objectives of the Conservation Element is to “plan for mineral production and performance so as to avoid destruction, pollution, or degradation of surrounding land, water, and air resources. After mineral extraction has been completed, land used for mineral production should be revegetated and restored to its original site condition” (Siskiyou County 1980).

### ***Siskiyou County Code***

The County Code notes that uses requiring use permits have a greater potential for negative impacts to the health, safety, and general welfare; thus, their use is controlled by the permitting process. The County Code states that the Planning Commission “shall consider the following factors to determine that the characteristics of the listed uses will not be unreasonably incompatible with the uses permitted in surrounding areas: damages or nuisances from noise, smoke, odor, dust, or vibration; hazards from explosions, contamination, or fire; and hazards occasioned by an unusual volume or character of traffic or the congregating of a large number of people or vehicles” (Siskiyou County 2007).

Section 10-6.5101 of the County Code outlines the purpose of the TPZ, which is to provide a zoning district consistent with the requirements of the Z'berg-Warren-Keene-Collier Forest Taxation Reform Act of 1976, to encourage the production of timber, and to protect immature trees so that they may eventually be harvested, and to provide for the restricting of the uses of timber land to the production of timber products and compatible uses. The TPZ is directed to those areas dedicated to the growing, conserving and production of timber in areas of sufficient size to be economically feasible. The TPZ is designed to protect such areas from intrusion by incompatible uses.

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

According to the California Department of Conservation's California Important Farmland Finder, no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance is present within the Project area. Thus, no impact would occur.

**B. Conflict with existing zoning for agricultural use, or a Williamson Act contract?**

The Project area under Ski Park ownership is not zoned for agricultural use, nor would it conflict with a Williamson Act contract. The Ski Park's ownership is zoned Planned Development – Ski Park Uses (PD) by Siskiyou County, as stated in the Ski Park's 1997 Planned Development Master Plan. A portion of the Project (the underground power line) leaves Ski Park property and enters US Forest Service land in Section 10. This land is zoned Agricultural-Forestry(A-F); however, the only Project development in this area would be the construction of the underground powerline, which would occur under existing Forest Service roads and would not conflict with zoning. Therefore, no impact would occur.

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

See section B., above. The Project area was re-zoned from Timber Preserve (TPZ) to Planned Development – Ski Park Uses (PD) by Siskiyou County in 1983 (Section 9) and 1997 (section 3). As discussed above, the portion of the Project on Forest Service ownership would not conflict with existing zoning for forestry resources. Therefore, there would be no impact to areas zoned for forest land, timberland, or Timberland Production.

**D. Result in the loss of forest land or conversion of forest land to non-forest land?**

As stated above, the Project area is not zoned for timber production. The Ski Park Conversion THP (THP # 2-21-00103-SIS) approved the conversion of approximately 88 acres of forested land to ski runs and the chair lift corridor central to the Project. However, as discussed in Section 4.1b, trees were retained where feasible in the conversion area to prevent erosion and to create a more scenic and technically challenging skiing experience. Therefore, while 88 acres of timberland was converted to non-timberland, existing zoning and timber harvest design ensure that impacts to forest land would be less than significant.

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

The Project incorporates activities other than the ski lift and runs that would slightly restrict the ability to produce and harvest timber on the area. Multiple small structures such as the warming huts would remove a negligible area from timber production potential. Areas set aside for wildlife and rare plants (which are barred from mechanical entry) similarly would not be open to timber harvest. Nevertheless, the areas would remain significantly forested, and the existing zoning of Planned Development (PD) indicate that timber production and harvest are not the main objectives of this land use. Thus, impacts would be less than significant.

**Cumulative Impacts**

The 88 acres of converted forestland was not within a TPZ; therefore, the Project would not contribute to cumulative impacts to agricultural and forestry resources.

**Mitigation Measures**

No mitigation measures are required.

## 4.3 AIR QUALITY

4.3 Air Quality				
	Environmental Issue Area	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
<b>A.</b>	Conflict with or obstruct implementation of the applicable air quality plan?	Less than Significant	NA	NA
<b>B.</b>	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	No Impact	NA	NA
<b>C.</b>	Expose sensitive receptors to substantial pollutant concentrations?	Less than Significant	NA	NA
<b>D.</b>	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Less than Significant	NA	NA

### 4.3.1 Discussion

#### Regulatory Setting

Criteria air pollutants are defined as those for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. The project area and surrounding areas are subject to air quality regulations developed and implemented at the federal, state, and local levels. At the federal level, the U.S. Environmental Protection Agency (EPA) is responsible for implementation of the federal Clean Air Act (CAA). Some portions of the CAA (e.g., certain mobile source and other requirements) are implemented directly by EPA. Other portions of the CAA (e.g., stationary source requirements) are implemented by state and local agencies.

Responsibility for attaining and maintaining ambient air quality standards in California is divided between the California Air Resources Board (CARB) and regional air pollution control or air quality management districts—in this case, the Siskiyou County Air Pollution Control District (SCAPCD). Areas of control for the regional districts are set by CARB, which divides the state into air basins. These air basins are defined by topography, which limits air flow access, or by county boundaries. Plans, policies, and regulations relevant to the proposed project are discussed below.

## **Federal Regulations**

### **Clean Air Act**

The CAA establishes federal air quality standards, known as National Ambient Air Quality Standards (NAAQS), and specifies future dates for achieving compliance. The standards are divided into primary and secondary standards; the former is set to protect human health within an adequate margin of safety, and the latter to protect environmental values, such as plant and animal life.

The 1990 amendments to the CAA identify specific emission reduction goals for areas not meeting the NAAQS. These amendments require both a demonstration of reasonable further progress toward attainment and an incorporation of additional sanctions for failure to attain or meet interim milestones. The sections of the CAA that are most applicable to the proposed project include Title I (Nonattainment Provisions) and Title II (Mobile Source Provisions). Title I of the CAA identifies attainment, nonattainment, and unclassifiable areas with regard to criteria pollutants and sets deadlines for all areas to reach attainment for the following criteria pollutants: ozone (O<sub>3</sub>), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), fine particulates, carbon monoxide (CO), and lead. The NAAQS were amended in July 1997 to include the 8-hour ozone standard and a NAAQS for particulate matter less than 2.5 microns in aerodynamic diameter (PM<sub>2.5</sub>).

The CAA requires states to submit a State Implementation Plan (SIP) for areas in nonattainment for federal standards. The SIP, which is reviewed and approved by EPA, must demonstrate how the federal standards will be achieved. Failing to submit a plan or secure approval could lead to denial of federal funding and permits. In cases where the SIP is submitted by the state but fails to demonstrate achievement of the standards, EPA is directed to prepare a federal implementation plan.

Title II of the CAA contains a number of provisions regarding mobile sources, including requirements for reformulated gasoline, new tailpipe emission standards for cars and trucks, nitrogen oxide (NO<sub>x</sub>) standards for heavy-duty vehicles, and a program for cleaner fleet vehicles. Identification and regulation of hazardous air pollutants (HAPs) are addressed in Title III. Under Title V, conditions for operating permits are specified.

Under the CAA (42 USC § 7401 et seq.) there are two major components of air pollution control requirements for stationary sources: New Source Review (NSR) and Prevention of Significant Deterioration (PSD). NSR is a regulatory process for evaluation of those pollutants that violate federal ambient air quality standards. Conversely, PSD is a regulatory process for evaluation of those pollutants that do not violate federal ambient air quality standards. Nonattainment NSR requires a permit and requires Best Available

Control Technology (BACT). The PSD requirements apply only to those projects (known as major sources) that emit more than 250 tons per year for any attainment pollutants.

### ***National Emission Standards for Hazardous Air Pollutants***

As amended in 1990, the CAA contained a list of 187 HAPs designated by Congress. EPA's current list has 189 HAPs for which EPA has established or will be establishing National Emission Standards for Hazardous Air Pollutants (NESHAPs). NESHAPs are emissions standards set by EPA for an air pollutant not covered by NAAQS that may cause serious human health effects. The standards for a particular source category require the maximum degree of emission reduction that EPA determines to be achievable, which is known as the Maximum Achievable Control Technology (MACT). These are technology-based source-specific regulations that limit the allowable emissions of HAPs through MACT standards.

### ***Mobile Source Air Toxics Regulations***

Mobile source air toxics (MSATs) are compounds emitted from highway vehicles and nonroad equipment. Some toxic compounds are present in fuel and emitted to the air when the fuel evaporates or passes through the engine unburned. Other toxics are emitted from the incomplete combustion of fuels or as secondary combustion products. Metal air toxics result from engine wear or impurities in oil or gasoline. The CAA identifies 189 pollutants as being air toxics, which are also known as HAPs. From this list, EPA identified a group of 21 as MSATs in its final rule, Control of Emissions of Hazardous Air Pollutants from Mobile Sources (66 Federal Register [FR] 17235), in March 2001. From this list of 21 MSATs, EPA has identified six MSATs—benzene, formaldehyde, acetaldehyde, diesel particulate matter/diesel exhaust organic gases, acrolein, and 1,3 butadiene—as being priority MSATs. To address emissions of MSATs, EPA has issued a number of regulations that will dramatically decrease MSATs through cleaner fuels and cleaner engines.

### ***Emission Standards for Nonroad Diesel Engines***

To reduce emissions from off-road diesel equipment, EPA established a series of increasingly strict emission standards for new off-road diesel engines. Tier 1 standards were phased in from 1996 to 2000 (year of manufacture), depending on the engine horsepower category. Tier 2 standards were phased in from 2001 to 2006. Tier 3 standards were phased in from 2006 to 2008. Tier 4 standards, which required add-on emission control equipment to attain them, were phased in 2008 to 2015. These standards apply to new construction and other off-road equipment.

### ***Federal Regulations on Greenhouse Gases and Climate Change***

In *Massachusetts v. EPA* (2007), the Supreme Court found that the EPA has authority to regulate greenhouse gases as air pollutants under the language of the Clean Air Act. Prior to this, the EPA did not regulate greenhouse gases such as carbon dioxide.

## State Regulations

### **California Clean Air Act**

In 1988, the state legislature adopted the California Clean Air Act, which established a statewide air pollution control program. The California CAA requires all areas of the state to achieve and maintain the California Ambient Air Quality Standards (CAAQS) by the earliest practical date. The CAAQS incorporate additional standards for most criteria pollutants and set standards for other pollutants recognized by the state. In general, the CAAQS are more stringent than the corresponding NAAQS.

CARB and local air districts bear responsibility for achieving California's air quality standards, which are to be achieved through district-level air quality management plans that will be incorporated into the SIP. In California, EPA has delegated authority to prepare SIPs to CARB, which, in turn, has delegated that authority to individual air districts. CARB has traditionally established state air quality standards, maintaining oversight authority in air quality planning, developing programs for reducing emissions from motor vehicles, developing air emission inventories, collecting air quality and meteorological data, and approving SIPs. Responsibilities of air districts include overseeing stationary source emissions, approving permits, maintaining emissions inventories, maintaining air quality stations, overseeing agricultural burning permits, and reviewing air quality-related sections of environmental documents required by CEQA.

The California CAA of 1988 substantially added to the authority and responsibilities of air districts. The California CAA designates air districts as lead air quality planning agencies, requires air districts to prepare air quality plans, and grants air districts authority to implement transportation control measures. The California CAA focuses on attainment of the state ambient air quality standards, which, for certain pollutants and averaging periods, are more stringent than the comparable federal standards.

The California CAA requires designation of attainment and nonattainment areas with respect to CAAQS. The California CAA also requires that local and regional air districts expeditiously adopt and prepare an air quality attainment plan if the district violates state air quality standards for CO, SO<sub>2</sub>, NO<sub>2</sub>, or O<sub>3</sub>. These Clean Air Plans are specifically designed to attain these standards and must be designed to achieve an annual 5% reduction in district-wide emissions of each nonattainment pollutant or its precursors. No locally prepared attainment plans are required for areas that violate the state PM<sub>10</sub> (particulate matter less than 10 microns in diameter) standards.

The California CAA requires that the state air quality standards be met as expeditiously as practicable but, unlike the federal CAA, does not set precise attainment deadlines. Instead, the act established increasingly stringent requirements for areas that will require more time to achieve the standards.



### ***Assembly Bill 1493***

Signed by Governor Gray Davis in 2002, Assembly Bill (AB) 1493 required CARB to develop and adopt, by January 1, 2005, regulations that achieve “the maximum feasible reduction of greenhouse gases emitted by passenger vehicles and light-duty truck and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the state.” The bill recognizes that “global warming is a matter of increasing concern for public health and the environment in the state.”

AB 1493 required CARB to develop and adopt the nation’s first greenhouse gas (GHG) emissions standards for automobiles. The legislature declared in AB 1493 that global warming was a matter of increasing concern for public health and the environment in the state. It cited several risks that California faces from climate change, including a reduction in the state’s water supply; increased air pollution from higher temperatures; harm to agriculture; an increase in wildfires; damage to the coastline; and economic losses caused by higher food, water, energy, and insurance prices. Further, the legislature stated that a technological solution to reduce GHG emissions would stimulate California’s economy and provide jobs (California Assembly 2002).

### ***Executive Order S-3-05***

Signed by Governor Arnold Schwarzenegger in 2005, Executive Order S-3-05 asserts that California is vulnerable to the impacts of climate change. The executive order puts forth that increased temperatures could reduce the Sierra snowpack, further exacerbate California’s air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the executive order established total greenhouse gas (GHG) emissions targets. Executive Order S-3-05 established the following GHG emissions reduction targets for California:

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80% below 1990 levels.

The executive order directed the secretary of the California Environmental Protection Agency (CalEPA) to initiate a multi-agency effort to reduce GHG emissions to target levels. The secretary is responsible for submitting biannual reports to the governor and state legislature that outline: (1) the progress made toward reaching emissions targets, (2) the impacts of global warming on California’s resources, and (3) measures and adaptation plans to mitigate these impacts.

To comply with the executive order, the secretary of CalEPA created a Climate Act Team (CAT) composed of members of various state agencies and commissions. CAT released its first report in March 2006. The report proposes achieving GHG targets

through the voluntary actions of California businesses, local government and community actions, and state incentive and regulatory programs.

***Assembly Bill 32, California Climate Solutions Act of 2006***

Signed by Governor Schwarzenegger in September 2006, AB 32, also referred to as the California Global Warming Solutions Act of 2006, requires statewide GHG emissions to be reduced to 1990 levels by 2020. An enforceable statewide cap on GHG emissions will be phased in, starting in 2012, to help accomplish this reduction. To effectively implement the cap, AB 32 directs CARB to develop and implement appropriate regulations to reduce statewide GHG emissions from stationary sources. AB 32 provides that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also mandates that if AB 1493 regulations cannot be implemented, then CARB shall develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

AB 32 requires CARB to adopt a quantified cap on GHG emissions representing 1990 emissions levels and to disclose how it arrived at the cap. Under the bill, CARB must establish a schedule to meet the emissions cap and develop a system of tracking, reporting, and enforcement to ensure that the state achieves the reductions in GHG emissions necessary to meet the cap. AB 32 also provides guidance to institute emissions reductions in an economically efficient manner and conditions to ensure that businesses and consumers are not unfairly affected by the reductions. This bill serves as the first enforceable statewide program in the United States to cap all GHG emissions from major industries and includes penalties for noncompliance (California Air Resources Board 2006).

While acknowledging that national and international actions will be necessary to fully address the issue of global warming, AB 32 provides a program to inventory and reduce GHG emissions in California as well as emissions from power generation facilities located outside the state that serve California residents and businesses.

Key AB 32 milestones are listed below (California Air Resources Board 2008):

- June 30, 2007: Identification of “discrete” early-action GHG emissions reduction measures.
- January 1, 2008: Identification of the 1990 baseline GHG emissions level and approval of a statewide limit equivalent to that level; adoption of reporting and verification requirements concerning GHG emissions.
- January 1, 2009: Adoption of a scoping plan for achieving GHG emission reductions.
- January 1, 2010: Adoption and enforcement of regulations to implement the “discrete” actions.

- January 1, 2011: Adoption of GHG emissions limits and reduction measures by regulation.
- January 1, 2012: GHG emissions limits and reduction measures adopted in 2011 become enforceable.

### **Local Regulations**

At the local level, responsibilities of air districts include overseeing stationary source emissions, approving permits, maintaining emissions inventories, maintaining air quality stations, overseeing agricultural burning permits, and reviewing air quality-related sections of environmental documents required by CEQA. Air quality is managed through land use and development planning practices. These practices are implemented in Siskiyou County through the general planning process, primarily conducted by the municipalities and Siskiyou County. The SCAPCD is responsible for establishing and enforcing local air quality rules and regulations that address the requirements of federal and state air quality laws, but it does not have any land use or development planning authority.

The air quality management agencies of direct importance in Siskiyou County include EPA, CARB, and the SCAPCD. EPA has established federal ambient air quality standards for which CARB and the SCAPCD have primary implementation responsibility. CARB and the SCAPCD are also responsible for ensuring that state ambient air quality standards are met.

SCAPCD is responsible for enforcing federal, state, and local air quality regulations and ensuring that federal and state air quality standards are met within the county. These standards are set to protect the health of sensitive individuals by restricting how much pollution is allowed in the air. To meet the standards, the district enforces federal laws and state laws on stationary sources of pollution and passes and enforces its own regulations as they become necessary for air quality issues. SCAPCD has promulgated numerous rules and regulations governing the construction and operation of new or modified sources of air pollutant emissions within the Northeast Plateau Air Basin.

SCAPCD Rule 2.1. Permits Required: Before any individual builds or operates anything that may cause the issuance of air contaminants, or the use of which may eliminate, reduce, or control the issuance of air contaminants, such person must obtain a written permit to construct and permit to operate from an air pollution control officer.

SCAPCD Rule 4.1 and Rule 4.2. Visible Emissions and Nuisance: Rule 4.1 requires that airborne particles that are designated as No. 2 on the Ringelmann chart, as published by the United States Bureau of Mines remain on the site, they originate from under normal wind conditions. Proper mitigation techniques approved by SCAPCD must be implemented to ensure that fugitive dust is contained. This does not apply to dust emissions discharged through a stack or other point source. Rule 4.2 states that any air

discharge that may cause injury or detriment, nuisance or annoyance, or damage to any public property or considerable number of people shall be regulated. This rule discusses all the health and safety issues that may interfere with public and private areas surrounding the site.

SCAPCD Rule 4.4. Specific Air Contaminants: Rule 4.4, subpart B.2 requires that no person from any single source whatsoever shall discharge any combustion contaminants of 0.20 grains per cubic foot of exhaust gas calculated to 12 percent carbon dioxide, at standard conditions, and oxides of nitrogen in excess of 140 pounds per hour for new or expanded installations, calculated as nitrogen dioxide.

SCAPCD Rule 4.5. Particulate Matter: Rule 4.5 states that a person shall not discharge from any source whatsoever, particulate matter in excess of 0.3 grain per standard dry cubic foot of exhaust gas or in anyone-hour total quantities in excess of the amount shown in the table under Rule 4.5, whichever is the more restrictive condition.

SCAPCD Rule 4.12. New Source Performance Standards: Rule 4.12 requires all new stationary sources of air pollution, and all modified or reconstructed stationary sources of air pollutants shall comply with the standards, criteria, and requirements set forth in the Part 60, Chapter I, Title 40 of the Code of Federal regulations (40 CFR Part 60), which are incorporated as part of the rules and regulations of SCAPCD.

SCAPCD Rule 6.1 and Rule 6.2. Construction Permit Standards for Criteria Pollutants and Standards for Permits to Operate: These rules require a permit for any new stationary source or modification with a net increase of 2,500 or more pounds of CO or 250 pounds or more for all other criteria pollutants and implement best available control technology.

SCAPCD Toxic Risk Assessment Policy. SCAPCD regulates new toxic air emission sources under the air toxics "Hot Spots" assessment policy. The policy requires all new or modified sources that would emit Toxic Air Contaminants (TACs) to compute separate prioritization scores for cancer and non-cancer effects. If the cancer score is less than one in one million, and/or the non-cancer score is less than 1, then the applicant's permit will be granted; if the cancer score is between one and 10 in one million, and/or the noncancer score is between 1 and 5, then public notification is required by letter before the permit is granted; if the cancer score is greater than 10 in one million, and/or the non-cancer score is above 5, then public meeting is required before the permit can be granted.

### ***Background Information on Air Pollutants***

The federal and state governments have established ambient air quality standards for seven pollutants called "criteria" pollutants: ozone, carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), particulate matter less than 10 microns in diameter

(PM<sub>10</sub>), particulate matter less than 2.5 microns in diameter (PM<sub>2.5</sub>), and lead. The State of California has also established ambient standards for lead, hydrogen sulfide (H<sub>2</sub>S), vinyl chloride, ozone (O<sub>3</sub>) and sulfates. Ozone and NO<sub>2</sub> are considered to be regional pollutants because they or their precursors affect air quality on a regional scale: NO<sub>2</sub> reacts photochemically with reactive organic gases (ROGs) to form ozone, and this reaction occurs at some distance downwind of the source of pollutants. Pollutants such as CO, PM<sub>10</sub>, and PM<sub>2.5</sub> are considered to be local pollutants because they tend to disperse rapidly with distance from the source. The health effects of the pollutants of concern are discussed below. Ozone forms in the atmosphere when NO<sub>x</sub> and ROGs combine in the presence of sunlight. Sources of NO<sub>x</sub>, which are a byproduct of fuel combustion, include gasoline-powered vehicle engines, power plants, and refineries. ROGs are emitted by vehicles and can result from industrial and commercial processes as well, including the use of paints, coatings, and solvents. NO<sub>2</sub> is a secondary contaminant that is formed when NO<sub>x</sub> combines in the atmosphere with oxygen. SO<sub>2</sub> results when sulfur oxides (SO<sub>x</sub>) that are emitted from burning fuel containing high amounts of sulfur combine with oxygen. CO results from incomplete combustion. Gasoline-fueled automobiles were the major source of CO before extensive controls, including seasonal changes in gasoline composition, were enacted. Lead is no longer a major air pollutant since it was banned from gasoline. Fine particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) and larger particulates are emitted from many natural and artificial sources and processes, including soil disturbance, salts in sea spray, vehicle exhausts, and smoke from smokestacks as a byproduct of fuel combustion.

### Ozone

Ozone is a respiratory irritant that increases susceptibility to respiratory infections. It is also an oxidant that can cause substantial damage to vegetation and other materials. Ozone is a severe eye, nose, and throat irritant. Ozone also attacks synthetic rubber, textiles, plants, and other materials. Ozone causes extensive damage to plants by leaf discoloration and cell damage.

Ozone is not emitted directly into the air but is formed by a photochemical reaction in the atmosphere. Ozone precursors—ROG and NO<sub>x</sub>—react in the atmosphere in the presence of sunlight to form ozone. Because photochemical reaction rates depend on the intensity of ultraviolet light and air temperature, ozone is primarily a summer air pollution problem. The ozone precursors, ROG, and NO<sub>x</sub> are mainly emitted by mobile sources and by stationary combustion equipment.

State and federal standards for ozone have been set for an 8-hour averaging time. The state 8-hour standard is 0.07 parts per million (ppm), not to be exceeded, while the federal 8-hour standard is 0.08 ppm, not to be exceeded more than three times in any 3-year period. The state has also established a 1-hour ozone standard of 0.09 ppm, not

to be exceeded, while the federal 1-hour ozone standard was revoked and was replaced by the 8-hour standard of 0.08 ppm.

Carbon Monoxide

CO is a public health concern because it combines readily with hemoglobin and reduces the amount of oxygen transported in the bloodstream. CO can cause health problems such as fatigue, headache, confusion, dizziness, and even death. Motor vehicles are the dominant source of CO emissions in most areas. High CO levels develop primarily during winter when periods of light winds combine with the formation of ground-level temperature inversions (typically from the evening through early morning). These conditions result in reduced dispersion of vehicle emissions. Motor vehicles also exhibit increased CO emission rates at low air temperatures. State and federal CO standards have been set for 1-hour and 8-hour averaging times. The state 1-hour standard is 20 ppm by volume, whereas the federal 1-hour standard is 35 ppm. Both state and federal standards for the 8-hour averaging period are 9 ppm.

**A. Conflict with or obstruct implementation of the applicable air quality plan?**

Project construction emissions were estimated using the California Emissions Estimator Model (CalEEMod), version 2020.4.0. Detailed results can be found in (Attachment C), CalEEMod Results. Construction estimates are shown below:

Project Construction Criteria Air Pollutant Estimates						
Criteria Pollutant	ROG	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO	SO <sub>2</sub>
Value (lbs/day)	2.1573	18.1447	84.9879	8.1112	14.4285	0.0458
SCAPCD Maximum (lbs/day)	250	250	250	250	2500	250
Violation?	No	No	No	No	No	No

Note. Data is from Siskiyou County Air Pollution Control District. 2001. Regulation VI – New Source Siting. Rule 6.1 Construction Permit Standards for Criteria Pollutants. Available Online: <https://ww2.arb.ca.gov/sites/default/files/classic/technology-clearinghouse/rules/RuleID3181.pdf>. Accessed March 2022.

As demonstrated, Project construction would not have significant impacts on criteria air pollutants, as regulated by the Siskiyou County Air Pollution Control District (SCAPCD 2001). Furthermore, the Ski Park intends to routinely water down construction areas and roads during Project construction as a BMP; this would substantially reduce fugitive dust levels, the main contributors to PM<sub>10</sub> and PM<sub>2.5</sub> emissions.

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Emissions for Project operation was generated separately by CalEEMod, and has been summarized below:

Project Construction Criteria Air Pollutant Estimates						
Criteria Pollutant	ROG	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO	SO <sub>2</sub>
Value (lbs/day)	3.7638	28.5907	1.0395	0.9567	23.9255	0.0942
SCAPD Maximum (lbs/day)	250	250	250	250	2500	250
Violation?	No	No	No	No	No	No

Note. Data is from Siskiyou County Air Pollution Control District. 2001. Regulation VI – New Source Siting. Rule 6.1 Construction Permit Standards for Criteria Pollutants. Available Online: <https://ww2.arb.ca.gov/sites/default/files/classic/technology-clearinghouse/rules/RuleID3181.pdf>. Accessed March 2022.

As demonstrated by the above table, operational impacts of this Project are sufficiently below Criteria Air Pollutant emissions maximums for impacts to be considered less than significant (SCAPCD 2001). This remains true even when considering cumulative impacts with the current facilities at the Ski Park.

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

The Northeast Plateau Air Basin (which contains Siskiyou County) is not in non-attainment for any air pollutant regulated under federal, state, or local laws. Therefore, there would be no impact.

**C. Expose sensitive receptors to substantial pollutant concentrations?**

Construction activities for the Project could potentially expose sensitive receptors to pollution through the use of gasoline and diesel vehicles, emissions from concrete, and fugitive dust from earth-moving and trenching activities. However, there are no nearby sensitive receptors to the Project area. The Project is bounded by forested public land to the North (Panther Meadows, Mount Shasta, and associated trails and campgrounds), the South (USFS-controlled land in Section 10, County Road 31), the east (Squaw Valley Creek), and west (Wagon Camp Road and associated trails and campgrounds). No sensitive receptors are present within a mile of the Project area. Recreators may be potentially present along nearby trails or roads, and tribal ceremonial activities may occur at panther meadows approximately 0.74 miles away. However, pollution impacts to individuals only temporarily near the Project area would be less than significant.

Operation of the Project could generate small-scale pollutants from gasoline and diesel-powered maintenance vehicles, snowmobiles/recreational vehicles, and snow-making machines. However, as with construction impacts, the distances from sensitive receptors would make these impacts less than significant.

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

Construction activities would generate odor-causing emissions associated with gasoline and diesel-powered construction. These odor-causing emissions could potentially adversely affect people in close proximity to the activities. However, the Project is over three miles from the closest outskirts of the communities of Mt. Shasta and McCloud. The nearest site that would potentially contain substantial numbers of odor-averse people would be Panther Meadows, which is approximately 0.74 miles away. At this distance, odors would have diluted to less than significant levels.

Project operations would utilize maintenance and operations equipment such as gasoline and diesel-powered trucks, snowcats, and snowmakers. However, odors have not been an issue for the Ski Park in its current operations. The expansions associated with this Project would not change that. Therefore, impacts would be less than significant.

### **Cumulative Impacts**

As demonstrated above, the Project would follow all applicable regulations regarding air quality. Operational and construction air quality impacts would be consistent with existing Ski Park operations and would not create cumulatively significant impacts.

### **Mitigation Measures**

No mitigation measures are required.



## 4.4 BIOLOGICAL RESOURCES

4.4 Biological Resources				
	Environmental Issue Area	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
<b>A.</b>	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	Potentially Significant	Mitigation Measure BIO-1: Implement Preconstruction Nesting Bird Survey; Mitigation Measure Bio-2: Implement Timber Harvest Plan Surveys and Protection Buffers for sensitive wildlife species.	Less than Significant
<b>B.</b>	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	Less than Significant	NA	NA
<b>C.</b>	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Less than Significant	NA	NA
<b>D.</b>	Interfere substantially with the movement of any native resident or migratory fish and wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	Potentially Significant	Mitigation Measures BIO-1 and BIO-2 (see item A.); Mitigation Measure BIO-3: Designate the Wildlife Protection Area and Botany	Less than Significant

			Rare Plant Area as barred from mechanical entry.	
<b>E.</b>	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Potentially Significant	Mitigation Measure BIO-3: Designate the Wildlife Protection Area and Botany Rare Plant Area as barred from mechanical entry.	Less than Significant
<b>F.</b>	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	No Impact	NA	NA

#### 4.4.1 Discussion

##### Regulatory Setting

##### *Federal Regulations*

##### ***Endangered Species Act (ESA)***

ESA of 1973 protects fish and wildlife species (and their habitats) that have been identified by US Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS) as threatened or endangered. Endangered refers to species, subspecies, or distinct population segments that are in danger of extinction through all or a significant portion of their range; threatened refers to species, subspecies, or distinct population segments that are likely to become endangered in the near future. ESA is administered by USFWS and NMFS.

##### ***Migratory Bird Treaty Act***

The federal Migratory Bird Treaty Act (MBTA) (16 USC 703) enacts the provisions of treaties between the United States, Great Britain, Mexico, Japan, and the former Soviet Union and authorizes the U.S. Secretary of the Interior to protect and regulate the taking of migratory birds. It establishes seasons and bag limits for hunted species and protects migratory birds, their occupied nests, and their eggs (16 USC 703, 50 CFR 21, 50 CFR 10). Most actions that result in taking or in permanent or temporary possession of a protected species constitute violations of the MBTA. USFWS is responsible for overseeing compliance with MBTA, and the U.S. Department of Agriculture's Animal Damage Control Officer makes recommendations on related animal protection issues.

### ***Bald and Golden Eagle Protection Act***

The Bald and Golden Eagle Protection Act (BGEPA) prohibits the taking or possession of and commerce in bald and golden eagles, with limited exceptions. The BGEPA makes it unlawful for any person to take, possess, sell, purchase, barter, offer to sell or purchase or barter, transport, export, or import at any time or in any manner a bald or golden eagle, alive or dead; or any part, nest, or egg of these eagles; or violate any permit or regulations issued under the BGEPA. Take includes pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb. Transport includes convey or carry by any means and also deliver or receive for conveyance.

### ***Clean Water Act Section 404***

CWA Section 404 regulates the discharge of dredged and fill material into waters of the United States, which include oceans, bays, rivers, streams, lakes, ponds, and wetlands. Project proponents must obtain a permit from the U.S. Army Corps of Engineers (USACE) for all discharges of dredged or fill material into waters of the United States, including wetlands, before proceeding with a proposed activity. Before any actions that may affect surface waters are carried out, a delineation of jurisdictional waters of the United States must be completed, following USACE protocols, in order to determine whether the project area encompasses wetlands or other waters of the United States that qualify for CWA protection. Jurisdictional waters are broadly defined as areas within the ordinary high-water mark (OHWM) of a stream, including nonperennial streams and abutting wetlands.

## ***State Regulations***

### ***California Endangered Species Act***

CESA protects wildlife and plants listed as threatened and endangered under the act by the California Fish and Game Commission. It is administered by CDFW. CESA prohibits all persons from taking species that are State listed as threatened or endangered except under certain circumstances; the CESA definition of take is any action or attempt to "hunt, pursue, catch, capture, or kill."

### ***California Native Plant Protection Act***

The California Native Plant Protection Act of 1977 prohibits importation of rare and endangered plants into California; take of rare and endangered plants; and sale of rare and endangered plants (the "threatened" category replaced "rare" when CESA was enacted in 1984). CESA prohibits take of listed plants except as otherwise authorized by the California Native Plant Protection Act, which ensures that state-listed plant species are protected when state agencies are involved in projects subject to CEQA.

### ***California Fish and Game Code***

The California Fish and Game Code (Code) provides protection from take for a variety of species, defining take as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” Certain species are considered fully protected, meaning that the Code explicitly prohibits all take of individuals of these species, except for take required for scientific research, which may be authorized by the California Department of Fish and Wildlife (CDFW) in some situations. Section 5050 of the Code lists fully protected amphibians and reptiles, Section 5515 lists fully protected fishes, Section 3511 lists fully protected birds, and Section 4700 lists fully protected mammals. The Code provides less stringent protection for other species, prohibiting most take but permitting CDFW to issue regulations authorizing take under some circumstances. Eggs and nests of all birds are protected under Section 3503, nesting birds (including raptors and passerines) under Sections 3513 and 3503.5, birds of prey under Section 3503.5, migratory nongame birds under Section 3800, and other specified birds under Section 3505.

### ***Local Regulations***

#### ***Siskiyou County General Plan-Conservation Element***

The Conservation Element of the Siskiyou County General Plan (Siskiyou County 1973) calls for Siskiyou County to protect habitat for fish and wildlife, especially endangered species. Specific policies applicable to the proposed project are listed below:

#### Conservation Element Objectives:

1. Retain the character and natural beauty of Siskiyou County by sound conservation practices.
2. Retain agricultural lands for its prime purpose.
3. Protect and conserve natural areas worth of special consideration.
4. Plan for mineral production and performance so as to avoid destruction, pollution, or degradation of surrounding land, water and air resources. After mineral extraction has been completed, land used for mineral production should be revegetated and restored to its original site condition.
5. Provide a comprehensive program to sustain multiple use of watershed lands through reduction of fire hazards, erosion control of burned-over lands, and type of conversion of vegetation where desirable and feasible.

A Biological Resources Assessment (BRA) has been completed for this Project and can be found in Attachment F. Its findings have been summarized in the discussion questions below.

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

The Project would result in temporary construction activities for the installation of the ski lift, underground power and communication lines, vault privy toilet, maintenance shed, and warming hut structures. The Project would also include the permanent alteration of the land in the areas of the ski lift, vault privy toilet, and maintenance shed.

Additionally, the Project would cause increased human use of the Project area, particularly around the ski lift area on Grey Butte, with smaller increases occurring in the backcountry touring area within section 3. These Project construction and implementation activities all have the potential to impact special-status species if they or their habitat occurs throughout the Project area.

Special-status Plant Species:

The Ski Park Conversion THP (THP # 2-21-00103-SIS) and Ski Park II THP (THP # 2-21-00185-SIS) included an extensive botanical scoping process and survey. The botanical survey report can be found in Section V of both THPs.

The botanical scoping process included a sensitive species search from the California Native Plant Society (CNPS) and California Natural Diversity Database within a nine-quadrangle area centered around the Project area. The records searches yielded 64 species detections within the 9-quadrangle area. Of these 64 species, 14 were deemed to have no potential to occur due to the Project's elevational range, while 3 were deemed to have no potential to occur due to the absence of their needed habitat. Nineteen species were considered non-status species, as they have a CNPS Rare Plant Rank of 4. The remaining 28 special status species were surveyed for throughout the Project area from May to October 2021. All species observed were recorded, regardless of rare plant status.

One special-status species, Wilkins' harebell (*Campanula wilkinsiana*, Rare Plant Rank 1B.2), was found in the THP area on Ski Park property. However, the plants were observed outside of the Project area, in a 100-foot protection zone that was not altered in the THP and is not utilized in Ski Park activities. Therefore, impacts to Wilkins' harebell would be less than significant.

Historical populations of northwestern moonwort (*Botrychium pinnatum*, Rare Plant Rank 2B.3), discovered in a 2006 THP, were searched for but not found. These populations may be in dormancy due to the severe drought conditions that were present during the botanical survey. The populations are within the Project area, though not within the ski

lift area where the most intensive use would occur. Therefore, impacts to northwestern moonwort would be less than significant; however, see section 4.4e.

Whitebark pine (*Pinus albicaulis*, US Proposed Threatened) was identified in the US Fish & Wildlife Service Information for Planning & Consultation (USFWS IPaC) report as potentially being impacted by the Project. The botanical survey for the Ski Park Conversion THP and Ski Park II THP did locate whitebark pine stands on Ski Park ownership. However, the whitebark pine stands are located in the highest areas of Section 3, outside of the area where any Project construction will occur. Outdoor camping activities associated with the Project are not expected to affect the whitebark pine stands.

#### Special-status Fish Species:

Fish: A records search was conducted within the Project area for special-status fish, critical habitat, and essential fish habitat through the following sources: CNDDDB, National Marine Fisheries Services (NMFS) species layer<sup>1</sup>, National Oceanic and Atmospheric Administration (NOAA) essential fish habitat mapper, NOAA Protected Resources App, and the USFWS IPaC report (See BRA, Attachment F)

No critical habitat or essential fish habitat were recorded within the Project area. The USFWS IPaC report does list two fish species, Delta smelt (*Hypomesus transpacificus*, US Threatened) and longfin smelt (*Spirinchus thaleichthys*, US Candidate), as potentially being impacted by the Project. However, there are no fish-bearing streams within the Project area; therefore, Delta smelt, and longfin smelt have no potential to occur on the Project area. Significant impacts to these species could occur if erosion or hazardous materials entered the Sacramento River watershed and polluted downstream habitat. However, with the implementation of best management practices for erosion control and spill prevention during Project construction and operation, impacts to these species would be less than significant.

#### Special-Status Wildlife Species:

*Species Addressed in the Timber Harvest Plans:* The THPs examined the following special-status wildlife species that CNDDDB records indicated could potentially occur in the Project area: Northern spotted owl (*Strix occidentalis*, US Threatened, State Threatened), Northern goshawk (*Accipiter gentilis*, Board of Forestry sensitive) gray wolf (*Canus lupus*, State Endangered), Pacific fisher (*Pekania pennanti*, State Species of Special Concern), Pacific marten (*Martes caurina*, USFS Sensitive) Sierra Nevada red fox (*Vulpes vulpes necator*, US Proposed Threatened, State Threatened), and wolverine (*Gulo gulo luscus*, US Proposed Endangered, State Endangered).

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<sup>1</sup> The NMFS layer was consulted; however, it does not keep data for the McCloud USGS 7.5-minute quadrangle.

*Northern Spotted Owl:* As discussed in Section 2 of the THPs, the Project area is within the geographic range of the Northern Spotted Owl. However, communication with CalFire representatives confirmed that the Project area does not contain suitable habitat for the Northern spotted owl (see Section V, page 210 of the Ski Park Conversion THP and Section V, page 217 of the Ski Park II THP). Therefore, impacts to the Northern Spotted Owl would be less than significant.

*Northern Goshawk and Nesting Birds:* Northern goshawks or goshawk nests could potentially be built within the Project area in the intervening periods between completion of the timber harvest operations and the start of construction activities for the Project. Construction activities could disturb northern goshawks or their nests. These impacts would be significant. However, **Mitigation Measure BIO-1** would implement a preconstruction nesting bird survey less than one week prior to the start of construction activities. Additional nesting bird surveys would be conducted if a break in construction activities of seven days or more occurred. If any nesting birds (including Northern goshawks) are discovered within the Project area or near enough to the Project area to be impacted by construction noise, CDFW would be consulted to advise how to protect the nesting birds during construction. **Mitigation Measure BIO-2** would additionally protect Northern goshawks by extending the Protection buffers detailed in the THPs to include any goshawk nests discovered during Project construction or operation. With the implementation of **Mitigation Measures BIO-1 and BIO-2**, impacts to the Northern goshawk would be less than significant. Note Specific impacts related to helicopter noise have been examined in the Helicopter Impacts Analysis (Attachment D), and found the above mitigations remain sufficient.

**Gray Wolf:** According to the Ski Park Conversion THP and Ski Park II THP, CDFW reports evidence that a successful breeding wolf pack was present east of McCloud in 2015. In early 2021, it appeared that another wolf pair was establishing a territory on the northeast side of Mount Shasta in the Whaleback area. If a gray wolf den or rendezvous site is present on the Project area, construction activities could potentially impact the gray wolf. These impacts would be significant. However, **Mitigation Measure BIO-2** would designate a qualified biologist to conduct a gray wolf survey prior to construction activities; if a gray wolf den or rendezvous point is discovered during the survey, or during Project construction or operation, CDFW would be notified and operations within 0.25 miles of the site would be suspended until the Designated Biologist consults with CDFW. With the implementation of **Mitigation Measure BIO-2**, impacts to the gray wolf would be less than significant.

*Pacific Fisher:* Pacific fishers typically require the following habitat conditions: live trees with cavities, broken tops, or other similar features; snags, particularly those with broken tops or cavities; platforms formed by other nesting animals or witches broom associated with mistletoe; existing individual logs or aggregations of coarse woody material;

ground cavities, caves, or rock outcroppings; high levels (>60%) of canopy cover; and stands with taller and larger-diameter trees in relation to surrounding areas. Most of the Project area does not consist of this habitat type. Nevertheless, suitable habitat for the Pacific fisher exists in the Project area. To protect the Pacific fisher, **Mitigation Measure BIO-2** would require a Designated Biologist to conduct fisher surveys prior to construction activities. If a fisher or fisher den is discovered during the survey or Project construction/operations, the biologist would establish a protection buffer around the site and would consult with CDFW. With the implementation of **Mitigation Measure BIO-2**, impacts to Pacific fishers would be less than significant.

*Pacific Marten:* The Pacific Marten (*Martes caurina*, USFS Sensitive) occurs in multi-storied mature and old-growth white and red fir forests with moderate to dense canopy closure and understory of slash, rotten logs, and stumps to provide hiding cover and denning areas. Habitat for the species occurs primarily adjacent to the THP on USFS property. Structural elements used by Pacific marten include: 1) live trees with cavities, broken tops or other similar features; 2) snags, particularly those with cavities or broken tops; 3) platforms formed by other nesting animals or witches broom associated with mistletoe; 4) existing logs; and 5) ground cavities, caves, and rock outcroppings.

Project construction could significantly impact the Pacific marten if a marten or marten den is present in the Project area. However, **Mitigation Measure BIO-2** would require a survey for the Pacific marten prior to Project construction by a qualified biologist. If a marten den is discovered during the survey or during Project construction/operation, operations would be suspended within 0.25 miles of the site until the Designated Biologist consults with CDFW. With the implementation of **Mitigation Measure BIO-2**, impacts to the Pacific marten would be less than significant.

*Sierra Nevada Red Fox:* The Sierra Nevada red fox (*Vulpes vulpes necator*, US endangered, State Threatened) has suitable habitat on the Project area and on adjacent USFS ownership. The Sierra Nevada red fox requires rock outcrops, hollow logs, stumps, or loose soil for denning. Sierra Nevada red foxes may occur on the Project area; impacts to the species, if present, could be potentially significant. **Mitigation Measure BIO-2** would require a survey for the Sierra Nevada red fox prior to Project construction by a qualified biologist. If a Sierra Nevada red fox den or rendezvous site is discovered during the survey or during Project construction/operation, operations would be suspended within 0.25 miles of the site until the Designated Biologist consults with CDFW. With the implementation of **Mitigation Measure BIO-2**, impacts to the Sierra Nevada red fox would be less than significant.

Wolverine: Wolverines (*Gulo gulo luscus*, State Endangered) occur in Douglas-fir, mixed conifer, red fir, lodgepole, and subalpine conifer forests, as well as alpine Krumholtz, wet meadow, and montane riparian habitats. The species uses caves as well as hollows in



logs, rock outcrops, and burrows for cover. Wolverines may occur on the Project area; impacts to wolverines, if present, could be potentially significant. **Mitigation Measure BIO-2** would require a survey for wolverines prior to Project construction by a qualified biologist. If a wolverine den or rendezvous site is discovered during the survey or during Project construction/operation, operations would be suspended within 0.25 miles of the site until the Designated Biologist consults with CDFW. With the implementation of **Mitigation Measure BIO-2**, impacts to wolverines would be less than significant.

Mitigation Measures, as carried forward from the THPs into **Mitigation Measure BIO-2**, are summarized below:

Species	Protection Trigger	Protection Buffer	Follow-up Action
<b>Northern Goshawk</b>	Nest Site	0.25 miles	CDFW Consultation
<b>Gray Wolf</b>	Den, Rendezvous Site	0.25 miles	CDFW Consultation
<b>Pacific Fisher</b>	Individual	1,000 feet	Den Search by Biologist
<b>Pacific Fisher</b>	Den	375 feet	CDFW Consultation
<b>Pacific Marten</b>	Den	0.25 Miles	CDFW Consultation
<b>Sierra Nevada Red Fox</b>	Den, Rendezvous Site	0.25 Miles	CDFW Consultation
<b>Wolverine</b>	Den, Rendezvous Site	0.25 miles	CDFW Consultation

Wildlife Species Unaddressed by the Timber Harvest Plans:

**Crustaceans:** The USFWS IPaC report for the Project identified vernal pool fairy shrimp (*Branchinecta lynchi*, US Threatened), Conservancy fairy shrimp (*Branchinecta conservation* US Endangered), and vernal pool tadpole shrimp (*Lepidurus packardi*, US Endangered) as potentially occurring in the Project area. The vernal pool fairy shrimp and Conservancy fairy shrimp are both dependent on vernal pools and vernal pool-like habitats (USFWS 2005). The vernal pool tadpole shrimp occurs in a wider variety of ephemeral wetland habitats in addition to vernal pools (USFWS 2007). However, no ephemeral wetland habitats that could support these shrimp species are present on the project site; therefore, vernal pool fairy shrimp, Conservancy fairy shrimp, and vernal pool tadpole shrimp have no potential to occur in the Project area, and Project implementation would have no impacts on these species.

**Insects:** The USFWS IPaC report for the Project identified the monarch butterfly (*Danaus plexippus*, US Candidate) as potentially occurring in the Project area. The monarch butterfly requires its host plant, milkweed (*Asclepias* sp.) in order to breed in the area. No milkweed was observed during the 2021 botanical survey for the THPs within the Project area; this demonstrates that there is no potential for monarch butterflies to breed on the project site. Migratory monarch butterflies would not necessarily require

milkweed to pass through an area on its way to overwintering grounds. The USFWS Monarch Species Status Assessment Report (Version 2.1, September 2020) states that adult monarch butterflies require a diversity of blooming nectar resources during breeding and migration. While the flowering species present in the Project may provide nectar for monarch butterflies returning to overwintering sites, it is unlikely that implementation of the Project would harm monarch butterflies. This is because the butterfly's nectar sources are generally restricted to riparian areas (USFWS 2020), which would not be altered for the implementation of the Project. Thus, impacts to the monarch butterfly would be less than significant.

*Yellow-billed Cuckoo:* The USFWS IPaC report for the Project identified the yellow-billed cuckoo (*Coccyzus americanus*, U.S. Threatened) as potentially occurring in the Project area. Yellow-billed cuckoos generally breed in large blocks of riparian habitats; in particular, cottonwood trees are an important foraging habitat for yellow-billed cuckoos in California (USFWS 2001). Western, yellow-billed cuckoos therefore have a very minimal potential to occur in the Project area. The Project area supports riparian habitat through its Class II – Class IV streams, but these areas do not comprise the typical large riparian areas that support the yellow-billed cuckoo. In addition, no cottonwood species were observed during the 2021 botanical surveys throughout the Project area, despite an intensive survey effort along these watercourses. Thus, yellow-billed cuckoos have no potential to occur in the Project area, and there would be no impacts to the species.

*Amphibians:* The USFWS IPaC report for the Project identified the California red-legged frog as potentially occurring in the Project area. According to the Recovery Plan for the California red-legged frog (USFWS 2002), the California red-legged frog generally occupies habitats below 3,500 feet in elevation, though some historical sightings have occurred as high as 5,200 feet. All project developments would occur at elevations of at least 5,400 feet; therefore, there is no potential for the California red-legged frog to occur on the Project area; with the implementation of BMPs for erosion and sedimentation, no impacts would occur to the species.

*Franklin's Bumblebee:* The THPs did not address Franklin's bumblebee (*Bombus franklini*). Franklin's bumblebee was listed as federally endangered in September 2021. CNDDB records indicate that the nearest occurrence of Franklin's bumblebee occurred at least 2 miles away from the Project area near Red Fir Flat along Everitt Memorial Highway. According to the Recovery Outline for Franklin's Bumblebee (USFWS 2021), specific habitat needs are poorly understood. For example, it is unknown why the species has been historically restricted to seven counties in Southern Oregon and Northern California, despite apparently suitable habitat across a much wider region (USFWS 2021). As such, it is difficult to assess the potential for this species to occur in the Project area. However, the last sighting of Franklin's bumblebee occurred in 2006 near

Mt. Ashland, over 50 miles away. Additionally, the recorded nearby occurrence is 24 years old (from 1998), has low locational accuracy (1 mile radius), is centered approximately 3 miles away, and the record itself states Franklin's bumblebee is extirpated from California. Therefore, Franklin's bumblebee is not expected to occur in the Project area, and no impacts to Franklin's bumblebee would occur as a result of the Project.

Additional species not considered by the THPs include obscure bumblebee (*Bombus caliginosus*), silver-haired bat (*Lasiurus noctivagans*), long-eared myotis (*Myotis evotis*), and gray-headed pika (*Ochotona princeps schisticeps*). These species were included in the CNDDDB records search; however, they are not listed or proposed to be listed as threatened or endangered by federal or state law (CDFW 2022).

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

CNDDDB Records did not find any sensitive natural areas occurring on or near the Project site. The Ski Park Conversion THP and Ski Park II THP identified several Class II, Class III, Class IV, and unclassified streams that occur in the Project area. Nevertheless, riparian vegetation buffers were retained around these streams, and the Project does not propose any alteration or heavy use of these sites. Proposed ski trails would cross several unclassified and Class III streams, resulting in wintertime skier crossing of these streams; however, these small streams would not be impacted by crossover when covered with snow. Therefore, impacts would be less than significant.

Additional natural areas on the Project area include a small pond identified within the botanical survey. While the pond does occur on the Project area, no alterations or use of the pond are proposed for the implementation of this Project. It is possible that guests to the Ski Park engaging in backcountry touring may encounter the pond, but the occasional presence of recreationists would result in less than significant impacts to the pond.

**C. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

The Ski Park Conversion THP and Ski Park II THP did not locate any wetlands within the Project area. A small pond exists in Section 3 of the Project area; however, the Project does not propose any actions to this pond. The Project could bring more people near

the pond for backcountry campground activities but would not cause any alteration or use of the pond as a result of the implementation of the Project. Therefore, impacts would be less than significant.

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

See discussion in 4.4a. impacts to nesting migratory birds would be reduced through the implementation of nesting bird surveys (**Mitigation Measure BIO-1**). Additionally, no migratory fish are expected to occur in the Project area, and no barriers to fish migration would arise as a result of the Project. The Siskiyou County General Plan, Land Use Element (Siskiyou County 1980) includes a deer wintering area map, which confirms the Project area would not impact deer during critical wintering periods. Sensitive wildlife, such as the gray wolf, Pacific marten, wolverine, and Pacific fisher, have been discussed at length, with **Mitigation Measures BIO-2** and **BIO-3** (discussed in item e) protecting the persistence, breeding, and movement of these species. Lastly, riparian buffers (which would facilitate migratory wildlife dispersal and resident wildlife persistence) were retained during THP operations and would not be altered for the implementation of this Project. Therefore, impacts to native resident and migratory wildlife would be less than significant.

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

The Project does not conflict with any local policies or ordinances protecting biological resources. As discussed in the Regulatory Context, the Conservation Element of the Siskiyou County General Plan includes the following objectives relevant to the Project:

- **Objective #1:** Retain the character and natural beauty of Siskiyou County by sound conservation practices.
- **Objective #3:** Protect and conserve natural areas worth of special consideration.

The Project would fully comply with these objectives.

The Project area does include natural areas worth special consideration. Specifically, there is an approximately 28-acre area adjacent to the Mt. Shasta Wilderness Boundary in the northern portion of Section 3 with high value to wildlife. The area possesses many terrain features desirable for wildlife diversity, including live old growth trees, cavity trees, snags, downed woody material, rock outcroppings, and hollow logs, as well as a watercourse at the edge of the area. Additionally, there is a 55-acre area in the southern portion of Section 3 that encompasses most of the historic and current special-

status plant detections on the Project area. These detections include the historic northwestern moonwort populations found in 2006, as well as limited-distribution plant (Rare Plant Rank 4) Mt. Shasta arnica (*Arnica viscosa*). Project operations that degrade these areas could potentially conflict with Objective 3 of the Siskiyou County General Plan Conservation Element. However, the Ski Park proposes to designate these areas as a Wildlife Mitigation Area and Botany Rare Plant Area, and to bar the areas from mechanical entry. This is a substantial conservation action, as the proposed Wildlife Mitigation Area was originally slated to be part of a helicopter harvest operation from a 2006 Timber Harvest Plan (THP # 2-06-105-SIS). **Mitigation Measure BIO-3** would designate these areas as excluded from mechanical entry and would bring the Project into compliance with Objective 3 of the Siskiyou County General Plan Conservation Element. Therefore, impacts would be less than significant.

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

As demonstrated on the CDFW Conservation Plan Boundaries layer, there are currently no Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, regional, or state habitat conservation plans that include any portion of the Project area. Therefore, there would be no impact to any conservation plans.

### Cumulative Impacts

If additional development were to occur surrounding the Project area, cumulative impacts could significantly impact sensitive wildlife or plant species. However, the area is surrounded by federal land such as USFS ownership, which only sees occasional timber harvest subject to federal and state wildlife regulations. Additionally, **Mitigation BIO-3** preserves crucial potential habitat that maintains the resilience of wildlife species in the area. Therefore, cumulative impacts would be less than significant.

### Mitigation Measures

**Mitigation Measure BIO-1:** If Project construction or vegetation-removal activities are conducted during the nesting bird season (February 1 through August 31), a preconstruction nesting bird survey shall be conducted. These surveys shall be conducted by a qualified biologist no more than one week prior to vegetation removal or construction activities during the nesting season; this survey shall be repeated if a break in construction activities of greater than one week occurs. The survey shall include the Project area as well as the proposed flight path of construction helicopters where they travel above forested landscapes. If an active nest is located during the pre-construction surveys, a non-disturbance buffer shall be established around the nest by a qualified biologist in consultation with the Department. No vegetation removal or construction activities shall occur within this non-disturbance buffer until the young have

fledged, as determined through additional monitoring by the qualified biologist. The results of the pre-construction surveys shall be sent electronically to CDFW at [R1CEQARedding@wildlife.ca.gov](mailto:R1CEQARedding@wildlife.ca.gov).

*Mitigation Measure BIO-2:* With the exception of sensitive bird species (which will be covered under the nesting bird survey), all sensitive wildlife (animal) species mitigated for in THP # 2-21-00103-SIS and THP # 2-21-00185-SIS shall be surveyed for by a qualified biologist Prior to the start of Project construction. Detection of any sensitive wildlife individual, den, or rendezvous area during the surveys, or during Project construction or operation, shall trigger the relevant species-specific protection buffer as specified in the aforementioned THPs. Following a positive detection, the Designated Biologist shall contact CDFW for a consultation.

*Mitigation Measure BIO-3:* The 28-acre Wildlife Mitigation Area and 55-acre Botany Rare Plant Area, as designated by the Mt. Shasta Ski Park, shall be barred from mechanical entry to facilitate the persistence of habitat complexity, and wildlife and botanical diversity within the Ski Park.

## 4.5 CULTURAL RESOURCES

4.5 Cultural Resources				
	Environmental Issue Area	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
A.	Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?	Potentially Significant	Mitigation Measure CUL-1: Implement Mitigation Measure AES-1 and AES-2.	Less than Significant
B.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	Less than Significant	NA	NA
C.	Substantially disturb human remains, including those interred outside of formal cemeteries?	Less than Significant	NA	NA

### 4.5.1 Discussion

#### Regulatory Setting

Cultural resources in California are protected by a number of federal, state, and local regulations, statutes, and ordinances. Management of cultural resources in the state is guided in large part by the National Historic Preservation Act (NHPA) of 1966 and the provisions of CEQA.

#### Federal Regulations

Section 106 (36 Code of Federal Regulations [CFR] Part 800) of the NHPA does not apply to this proposed project because there is no known federal agency approval or oversight involved and there is no federal funding or federal permitting required.

#### State Regulations

Cultural resources are defined as buildings, sites, structures, or objects, each of which may have historic, architectural, archaeological, cultural, or scientific importance. Under the State CEQA Guidelines, an impact on a cultural resource is considered significant if a project would result in an effect that may change the significance of the resource (Public Resources Code [PRC] Section 21084.1). Demolition, replacement, substantial alteration, and relocation of historic properties are actions that would change the significance of an historic resource (14 California Code of Regulations [CCR] 15064.5). Before the level of significance of impacts can be determined and appropriate mitigation measures developed, the significance of cultural resources must

be determined. The following steps are normally part of a cultural resources investigation to comply with CEQA:

- Identify cultural resources.
- Evaluate the significance of the cultural resources based on established thresholds of significance.
- Evaluate the effects of a project on all cultural resources.
- Develop and implement measures to mitigate the effects of the project on significant cultural resources.

Because the proposed project is located on nonfederal land in California, it is also necessary to comply with state laws pertaining to the inadvertent discovery of human remains of Native American origin.

### **Local Regulations**

The general plans for Siskiyou County provide only broad recommendations for the protection of cultural resources.

#### **County of Siskiyou General Plan**

The Conservation Element of the Siskiyou County General Plan is dated 1973. The archaeology section of the Conservation Element states that Siskiyou County "has a wealth of archaeological history within its borders" and the County shall "preserve, protect, and develop the County's Archaeological, Paleontological, and Historic as well as Geologic sites." The County will strictly enforce state laws which prohibit unauthorized excavation on all lands under its jurisdiction and encourage scientific excavation, with all projects directed to the Siskiyou County Museum or Historical Society for guidance to assure that the proper procedures are followed which will ensure the validity and authenticity of any and all finds.

#### **A. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?**

As stated in section 4.1a, implementation of the Project could have visual impacts to Panther Meadows, an important cultural resource to the Wintu, Klamath, Shasta, and Karuk Native American tribes. Panther Meadows is utilized for organized ceremonial activities by several of these Native American tribes. If the ski lift is built at too high of an elevation, it could be visible to observers within Panther Meadows who are participating in cultural activities. These impacts could be potentially significant unless mitigation is implemented. **Mitigation Measure AES-2** would ensure the ski lift's highest point would be below the ridge line of Grey Butte, thus preventing any visual (and therefore cultural) impacts to Panther Meadows. To prevent temporary visual/cultural impacts in relation to construction activities and equipment, **Mitigation Measure AES-1**



would prohibit construction equipment from being used or staged above the ridge line of Grey Butte.

Additionally, an archaeological survey of the THP areas was conducted by Cliff Kennedy, Registered Professional Forester #2286, as detailed in Section 6 of the Ski Park Conversion THP (THP # 2-21-00103-SIS) and Ski Park II THP (THP# 2-21-00185-SIS). Between the two THPs, the surveyed area consists of the entirety of Sections 3 and 9, Township 40 North, Range 3 West of the McCloud USGS 7.5-minute quadrangle. This encompasses the entirety of the Project Area with the exception of the US Forest Service ownership in Section 10, where the only Project activities would be laying the underground power line beneath existing roads.

The survey included a records search for Sections 3 and 9 through the Northeast Information Center (Chico, CA) on March 29, 2021. The record search did not reveal any cultural resources within the plan area, but it did indicate that the Project is located in an area considered to be highly sensitive for prehistoric, protohistoric, and historic cultural resources. Mount Shasta, north of the Project area, was indicated in the record search as a significant cultural resource. Similar to Panther Meadows, Mount Shasta holds a vital cultural role to several Native American tribes in the area.

In addition to the record search, a field survey of approximately 150 hours was conducted throughout Sections 3 and 9. No prehistoric, protohistoric, or historic cultural resources were uncovered during the field survey. These results are consistent with previous archaeological surveys in the area conducted from 1981 to 2016 for ski park construction and timber harvest purposes.

Overall, with the implementation of **Mitigation Measures AES-1 and AES-2**, impacts to historical resources (Panther Meadows and Mount Shasta) as a result of the Project would be reduced to less than significant levels.

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

As stated in item a), the archeological survey did not uncover any archaeological resources (including human remains) within the surveyed area. Per AB 52, local tribes have been consulted as part of the THP and as part of this project in November 2021; no cultural resources to date have been identified. Therefore, impacts to archaeological resources and human remains would be less than significant.

**C. Substantially disturb human remains, including those interred outside of formal cemeteries?**

See item B. There would be no impact.

### Cumulative Impacts

Repeated cultural resources surveys since 1981 in the Project area have not found any cultural resources. It is possible that timber harvest in surrounding public lands will detect previously unknown cultural resources; however, these finds would be preserved according to federal and state law. Therefore, cumulative impacts to cultural resources would be less than significant.

### Mitigation Measures

*Mitigation Measure CUL-1:* Implement **Mitigation Measures AES-1** and **AES-2** to prevent visual impacts from the ski lift structure or construction activities to Panther Meadows and Mount Shasta.

## 4.6 ENERGY

4.6 ENERGY				
	Environmental Issue Area	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
A.	Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	Less than Significant	NA	NA
B.	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	Less than Significant	NA	NA

### 4.61 Discussion

#### Regulatory Setting

##### Federal Regulations

There is no federal regulation that apply to the Project in the area of energy.

##### State Regulations

California Energy Commission Building Energy Efficiency Standards: The California Energy Commission (CEC) was developed after the U.S. energy crises that occurred in the early 1970s. The CEC was designed to address energy demand that was outpacing available energy supply through policies that would reduce energy use through energy efficiency. Since 1978, Energy Code standards have generally focused on energy efficient buildings and structures, but in 2019 the Energy Code began developing policy for on-site energy development such as on-site solar panels. Most of these policies deal primarily with home and office buildings rather than un-heated ski lift structures and outbuildings.

##### Local Regulations

Siskiyou County General Plan Energy Element (1993): The Siskiyou County General Plan Energy Element describes broad goals involving energy use and planning in the county. These include:

- promoting a diverse, least-cost energy supply portfolio that is in balance with county energy demands.
- arranging land uses and transportation systems that maximize energy efficiency.
- constructing and maintaining buildings to be as energy efficient as practical in light of sound economic principles.

- operating businesses and agricultural enterprises as efficiently as possible in light of sound economic principles.
- constructing and maintaining community services as efficiently as possible in light of sound economic principles.
- using renewable energy for power generation where technically and environmentally feasible; and
- thoroughly and expeditiously evaluating energy facility proposals.

Most of these goals pertain to actions to be taken by the county at the planning level, though some goals have relevance for individual projects.

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

The Project would not result in wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation. The new ski lift would be built to current state energy standards and would not result in inefficient energy consumption. Specifically, the ski lift is electrically powered, utilizing a 300-horsepower variable-speed motor. Its electricity is provided by a 480-volt feed from PacifiCorp. The proposed ski lift is a standard model for ski parks and would not be inefficient.

Project construction would similarly comply with state standards for energy efficiency. Energy consumption for Project construction would primarily come in the form of fuel consumption for construction equipment and worker commutes. Best management practices such as driving equipment the shortest feasible distance as it moves around the construction site and reducing engine idling times by shutting equipment off when not in use would ensure that energy use would not be wasteful, inefficient, or unnecessary. Therefore, impacts would be less than significant.

**B. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency**

The Siskiyou County General Plan Energy Element describes broad goals involving energy use, including in energy efficiency, renewable energy sources, land use and transportation, and building construction. Particular to this Project, the Energy Element states a goal of minimizing transportation needs using intelligent land use planning. The Project location is constrained by both its need for snow/slopes and the Ski Park's particular land ownership, and as such represents the most energy-efficient option for the Ski Park's expansion plans. In addition, the Project would not change the location where recreators would park to access either existing or proposed Ski Park facilities, and so would not increase their travel-related energy use. Therefore, impacts would be less than significant.

The Energy Element also states a goal to design buildings to be as energy efficient as feasible in consideration of sound economic principles. The Project's ski lift would be

constructed to state energy efficiency standards and would fully comply with the Energy Element. Additional buildings such as the vault privy toilet and warming huts would similarly be built to state energy efficiency standards.

The California Energy Commission Building Energy Efficiency Standards are generally concerned with home and office buildings, which produce artificial lighting and indoor heat. The elements of this Project (a ski lift structure, vault privy toilet, and backcountry warming huts) would be generally exempt from these standards outside of general energy efficiency.

Therefore, the Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency, and impacts would be less than significant.

### **Cumulative Impacts**

Considered cumulatively with other projects in Siskiyou County and California, the Project would not significantly contribute to energy impacts.

### **Mitigation Measures**

No mitigation measures are required.

## 4.7 GEOLOGY AND SOILS

4.7 Geology and Soils				
	Environmental Issue Area	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
<b>A.</b>	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:			
	i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology special Publication 42.	Less than Significant	NA	NA
	ii. Strong seismic ground shaking?	Less than Significant	NA	NA
	iii. Seismic-related ground failure, including liquefaction?	Less than Significant	NA	NA
	iv. Landslides?	Less than Significant	NA	NA
<b>B.</b>	Result in substantial soil erosion or the loss of topsoil?	Potentially Significant	Mitigation Measure GEO-1: The Ski Park shall adopt an updated erosion and sedimentation control plan that addresses erosion risk of the new and existing ski trail, roads, and trails during operational and non-operational seasons.	Less than Significant
<b>C.</b>	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially	Less than Significant	NA	NA

	result in: on-or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?			
<b>D.</b>	Be located on expansive soil, as defined in Table 18- 1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	Less than Significant	NA	NA
<b>E.</b>	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	Less than Significant	NA	NA
<b>F.</b>	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Less than Significant	NA	NA

## 4.7.1 Discussion

### Regulatory Setting

#### Federal Regulations

##### **Federal Earthquake Hazards Reduction Act**

The U.S. Congress passed the Earthquake Hazards Reduction Act in 1977 to reduce the risks to life and property from future earthquakes. The act established the National Earthquake Hazards Reduction Program (NEHRP). The mission of NEHRP includes improved understanding, characterization, and prediction of hazards and vulnerabilities; improved building codes and land use practices; risk reduction through post-earthquake investigations and education; development and improvement of design and construction techniques; improved mitigation capacity; and, accelerated application of research results. The NEHRPA designates the Federal Emergency Management Agency as the lead agency of the program and assigns several planning, coordinating, and reporting responsibilities.

#### State Regulations

##### **Alquist-Priolo Earthquake Fault Zoning Act**

California's Alquist-Priolo Earthquake Fault Zoning Act (PRC Sec. 2621 et seq.), originally enacted in 1972 as the Alquist-Priolo Special Studies Zones Act and renamed in 1994, is intended to reduce the risk to life and property from surface fault rupture during earthquakes. The Alquist-Priolo Act prohibits the location of most types of structures intended for human occupancy across the traces of active faults and strictly regulates construction in the corridors along active faults (earthquake fault zones). It also defines criteria for identifying active faults, giving legal weight to terms such as active, and

establishes a process for reviewing building proposals in and adjacent to Earthquake Fault Zones. Under the Alquist-Priolo Act, faults are zoned and construction along or across them is strictly regulated if they are “sufficiently active” and “well-defined.” A fault is considered sufficiently active if one or more of its segments or strands shows evidence of surface displacement during Holocene time (defined for purposes of the Act as referring to approximately the last 11,000 years). A fault is considered well defined if its trace can be clearly identified by a trained geologist at the ground surface or in the shallow subsurface, using standard professional techniques, criteria, and judgment (Hart and Bryant 2007).

### ***Seismic Hazards Mapping Act***

Like the Alquist-Priolo Act, the Seismic Hazards Mapping Act of 1990 (PRC Sections 2690–2699.6) is intended to reduce damage resulting from earthquakes. While the Alquist-Priolo Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake-related hazards, including strong ground shaking, liquefaction, and seismically induced landslides. Its provisions are similar in concept to those of the Alquist-Priolo Act: the state is charged with identifying and mapping areas at risk of strong ground shaking, liquefaction, landslides, and other corollary hazards, and cities and counties are required to regulate development within mapped Seismic Hazard Zones.

Under the Seismic Hazards Mapping Act, permit review is the primary mechanism for local regulation of development. Specifically, cities and counties are prohibited from issuing development permits for sites within Seismic Hazard Zones until appropriate site-specific geologic and/or geotechnical investigations have been carried out and measures to reduce potential damage have been incorporated into the development plans.

### ***California Building Code***

The California Building Code (CBC) (California Code of Regulations, Title 24) is based on the International Building Code (IBC). The CBC has been modified for California conditions with more detailed and/or more stringent regulations. Specific minimum seismic safety and structural design requirements are set forth in Chapter 16 of the CBC and identifies seismic factors that must be considered in structural design. Chapter 18 of the CBC regulates the excavation of foundations and retaining walls, while Chapter 18A regulates construction on unstable soils, such as expansive soils and areas subject to liquefaction. Appendix J regulates grading activities, including drainage and erosion control.

## ***Local Regulations***

### ***Siskiyou County Code***

Siskiyou County has adopted the Uniform Building Code (UBC) 1994 and appendices, and all subsequent revisions, with the following exceptions: Appendix Chapter 3,



Divisions I and III; Appendix Chapter 4, Division I; Appendix Chapter 10; Appendix Chapter 11, Divisions I and II; Appendix Chapter 13; Appendix Chapter 21; Appendix Chapter 23; and Appendix Chapter 33, Sections 3306, 3309.1 and 3309.2. Except for Appendix 33, these sections are not directly relevant to geologic practice. Appendix 33 sections apply “only when there is or is to be a structure or building associated with the grading work for which a building permit was or is required.” (Siskiyou County Code Sec. 9-1.021).

Improper grading can lead to erosion, slope failure, and other geologic hazards. Siskiyou County does not require a grading permit for approval of building permits. However, all building plans must comply with the Siskiyou County Improvement Standards and Specifications as laid out in the Siskiyou County Land Development Manual (Siskiyou County 2006) (Siskiyou County Code Sec. 10-4.105.1). The LDM includes grading design standards. Further, the County requires that a grading plan be submitted with the building plot plan for approval of a building permit (Siskiyou County Sect. 10-4.108). The LDM specifies that, under some conditions—such as erodible soils, steep slopes, and proximity to surface waters—some projects may require a Revegetation and Slope Stabilization Plan that addresses grade transitions, erosion control measures, and maintenance and monitoring. The preceding requirements are intended to ensure that construction activities and buildings be designed to withstand potential geologic hazards within a margin of safety.

### ***Siskiyou County General Plan—Seismic Safety and Safety Element***

The Seismic Safety and Safety Element (Siskiyou County 1975) provides direction for planning and building decisions (pg. 73).

- Building should not be permitted along the four areas identified as active faults within the 13-county region of northeastern California, i.e., in eastern Sierra County near Truckee, Plumas County in Mohawk Valley, Lassen County southeast of Honey Lake, and Modoc County near Fort Bidwell (p. 64). None of these listed active faults is within the project area.
- Planning should be based on a maximum intensity earthquake of VIII (Modified Mercalli). This earthquake could occur anywhere in the region. For this reason, building in any part of the County should assume that this maximum intensity earthquake could occur at the site.

#### **A. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:**

- i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priola Earthquake Fault Zoning Map issued by the State Geologist***

***for the area or based on other substantial evidence of a known fault?  
(Refer to California Geological Survey Special Publication 42.)***

Surface Fault Rupture

Surface fault rupture is disruption at the ground surface as a result of fault activity. Areas potentially subject to surface fault rupture are mapped by the state of California under the Alquist-Priolo Earthquake Fault Zoning Act (see Alquist-Priolo Earthquake Fault Zoning Act in the Regulatory Setting discussion).

Ground shaking: Ground shaking is ground movement caused by seismic activity. Unlike surface rupture, ground shaking is not confined to the trace of a fault, but rather propagates into surrounding areas during an earthquake. Because the project area is located in a seismically active region, it is likely to be affected by seismic ground shaking in the future. Appendix XXX lists the current information on earthquake recurrence intervals and maximum credible earthquake (MCE) for key faults in and near the project area. The intensity of ground shaking at any given location is a function of earthquake magnitude, distance from the earthquake epicenter, and the nature of the soil and/or rock.

According to the California Department of Conservation's Earthquake Zones of Required Investigation mapping application (as referenced in The California Division of Mines and Geology Special Publication 42), there are no Alquist-Priolo Fault Zones within the Project area or within the McCloud 7.5-minute quadrangle. The closest Alquist-Priolo Fault Zone is the Cedar Mountain Fault Zone, approximately 16 miles northeast of the Project area. While the fault zone is a significant distance away from the Project, earthquakes originating from this fault line (and further ones) could potentially cause damage to the Project structures as well as people visiting the Ski Park as a result of the Project.

The California Department of Conservation's Fault Activity Map indicates that a Quaternary fault runs through the Project area, less than one mile east of the proposed ski lift. However, this quaternary fault is not considered to pose a significant risk to infrastructure or people in the area, as it is considered inactive.

Nevertheless, the Hazard Mitigation Plan acknowledges that earthquakes from within or out of the County of a sufficient magnitude could still cause damage within the Project area. All permanent structures such as the proposed ski lift will be constructed to current federal, state, and local seismic specifications. Temporary structures such as the backcountry huts and special event tents could potentially become dismantled in the event of an earthquake, but their potential to cause harm to people or the environment is minimal. Therefore, impacts would be less than significant.

**ii) Strong seismic ground shaking?**

See discussion under item i), above.

**iii) Seismic-related ground failure, including liquefaction?**

Liquefaction and Other Types of Ground Failure

Liquefaction is a phenomenon in which the strength and stiffness of a soil are reduced by earthquake shaking or other rapid loading. Poorly consolidated, water-saturated fine- and medium-grained sands located within 50 feet of the surface are typically considered the most susceptible to liquefaction. Soils and sediments that are not water-saturated and consist of coarse, finer, or less well-sorted materials are generally less susceptible to liquefaction (California Division of Mines and Geology 2008). Related types of ground failure are lateral spreading and co-seismic settlement). Lateral spreading is the lateral movement of fractured rock or soil caused by liquefaction in underlying materials (Jackson 1997:359). Co-seismic settlement is subsidence resulting from compression or movement of soil, caused by seismic activity (Jackson 1997:584).

Seismically Induced Slope Failure—Landslide and Other Slope Stability Hazards

Seismically induced land sliding refers to landslides triggered by ground shaking. Slope stability is a function of many factors, including rainfall, slope gradient, rock and soil type, slope aspect, vegetation, seismic conditions, and human activities.

According to the Ski Park Conversion THP (THP # 2-21-00103-SIS) and Ski Park II THP (THP # 2-21-00185-SIS), the soils contained within the Project area are as follows: Andic Cryumbrepts-Dystric cryopsammets, 0-70% slopes (4); Andic Cryumbrepts-Rock outcrop complex, 25 – 50% slopes (5); Revit Family, 10-40% slopes (246); Revit-Shield complex, 15-45% slopes (247); Shield-Revit complex, 20 – 50% slopes (296); Shield Rock outcrop, 15 – 50% slopes (298); and Washougal-Germany, deep families complex, 20 – 40% slopes (333). The Siskiyou County Draft Hazard Mitigation Plan (2018) states that soils underlain with glacial outwash deposits consisting of loose sands, silty sands and gravelly sands may be subject to liquefaction. Liquefaction typically occurs because of seismic events that cause the sudden loss of soil shear strength. The cyclic loading from an earthquake triggers liquefaction. The risk of liquefaction is based on the expected seismic event, soil properties, and groundwater depth. For liquefaction to occur the following must be present:

- Granular soils.
- Low soil density; and
- High water table

The Siskiyou County Hazard Mitigation Plan also discusses risk factors for landslides, including greater than 33 percent slopes; the presence of an alluvial fan; presence of impermeable soils such as silt or clay, which are mixed with granular soils such as sand or gravel; potential for avalanches; a history of prior landslide activity; and stream activity that has caused erosion in the area. Portions of the Project area exceed 33 percent slopes. The project site is within a wider region with moderate to high landslide susceptibility. However, based on the Project location, topography, seismic risk, and soil and rock properties, there is a low landslide risk within the Project area.

**iv) Landslides?**

See discussion in item iii), above.

**B. Result in substantial soil erosion or the loss of topsoil?**

Construction activities conducted during implementation of the Project have the potential to cause erosion or the loss of topsoil. In particular, the earth-moving activities associated with power line trenching, ski lift installation, and transformer replacement could disturb the soil, leading to erosion or topsoil loss. However, with the implementation of BMPs during construction and after construction as summarized in the erosion and sedimentation control plan, these impacts would be less than significant.

In regard to Project operation, the ski run areas have a potential to experience erosion and topsoil loss as a result of the vegetation removal activities and grading activities. However, as discussed in section 4.1, scattered trees and pockets of trees were retained within the ski run areas, as well as low growing shrubs such as pine mat manzanita, smaller snowbrush, and Greenleaf manzanita. This vegetation retention helps to reduce erosion risk; still, the new ski runs could potentially lead to significant erosion and sedimentation impacts. The Ski Park is in the process of developing an updated erosion and sedimentation control plan that will mitigate erosion risk along the new ski runs and the overall Project area. Implementation of **Mitigation Measure GEO-1** will require MSSP to adopt and adhere to an updated erosion and sedimentation control plan. With this mitigation, impacts would be reduced to less than significant.

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

The project area is within a wider region with moderate to high landslide susceptibility. However, based on the new ski lift location, topography, and subsurface geology there is a low to moderate landslide risk within the Project area. The ski park lodge and

parking lot are susceptible to debris torrents that occur within the confined valleys and stream channels. Proper drainage design is critical to minimizing impacts from landslide risks.

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

Potentially expansive clay soils are not present within the Project area. The new lift and building foundation depths will likely extend into rock at the site. The risk of expansive soils within the Project area is low.

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

The Project does not propose the creation of any new septic or alternative waste-water disposal systems. Therefore, there would be no impact.

**F. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?**

According to the Geologic Map of California (California Department of Conservation 2020), the Project area is split between two geological designations: Qv (Quaternary volcanic flow rocks; minor pyroclastic deposits) and Qrv (Recent (Holocene) volcanic flow rocks; minor pyroclastic deposits). These volcanic rock types have minimal potential for containing fossils, which overwhelmingly occur in sedimentary rocks. Thus, the Project would have no impact on paleontological resources.

## Cumulative Impacts

The Project is an expansion of the existing Mt. Shasta Ski Park. The existing facilities at the Ski Park include ski runs which also present an erosion risk. However, the Ski Park has had an erosion and sedimentation control plan in place since November 1990, which has made erosion impacts less than significant. With the adoption of **Mitigation Measure GEO-1**, this erosion and sedimentation control plan will be updated to include the Project Area and its specific features. With this mitigation measure, cumulative impacts would be reduced to less than significant levels.

## Mitigation Measures

*Mitigation Measure GEO-1:* The Ski Park will develop an updated erosion and sedimentation control plan that addresses chronic and episodic erosion risk from the new and existing ski trail areas, lift lines, roads, and trails during operational and non-operational seasons.

## 4.8 GREENHOUSE GAS EMISSIONS

### 4.9 Hazards and Hazardous Materials

	Environmental Issue Area	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
<b>A.</b>	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Less than Significant	NA	NA
<b>B.</b>	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Less than Significant	NA	NA

### 4.8.1 Discussion

#### Federal Regulations

##### ***Massachusetts v. Environmental Protection Agency (2007):***

In *Massachusetts v. Environmental Protection Agency (EPA)*, the Supreme Court ruled that greenhouse gas emissions (GHGs) are “air pollutant agents” under regulation of the EPA through the federal Clean Air Act.

#### Federal Clean Air Act:

The Clean Air Act (CAA) is the comprehensive federal law that regulates air emissions from stationary and mobile sources. Among other things, this law authorizes EPA to establish National Ambient Air Quality Standards (NAAQS) to protect public health and public welfare and to regulate emissions of hazardous air pollutants.

#### State Regulations

##### ***California Executive Order S-3-05 (2005):***

California Executive Order S-3-05, signed by Governor Arnold Schwarzenegger, directed the state to reduce greenhouse gas emissions to 2000 levels by the year 2010, to 1990 levels by the year 2020, and to 80% below 1990 levels by the year 2050.

##### ***California Assembly Bill 32 (2006)***

California Assembly Bill 32 (AB32), or the California Global Warming Solutions Act of 2006, required the state to adopt regulations to require the reporting and verification of statewide greenhouse gas emissions, and to monitor and enforce compliance with the reporting program. AB 32 also required the state to adopt a statewide greenhouse gas emissions limit equivalent to the statewide greenhouse gas emissions levels in 1990, to be achieved by the year 2020. AB 32 defined “greenhouse gases” as the following

gases: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride (SF<sub>6</sub>).

### ***California Senate Bill 32 (2016)***

California Senate Bill 32 (SB 32) builds upon the emissions standards put in place by Executive Order S-3-05 and AB 32. SB 32 requires the state board to ensure that statewide greenhouse gas emissions are reduced to 40% below 1990 levels by 2030. This bill required the passage of California Assembly Bill 197 (AB 197) of 2016 to go into effect.

### ***California Assembly Bill 197 (2016)***

Assembly Bill 197 requires: "the state board, when adopting rules and regulations to achieve greenhouse gas emissions reductions beyond the statewide greenhouse gas emissions limit and to protect the state's most impacted and disadvantaged communities, to follow specified requirements, consider the social costs of the emissions of greenhouse gases, and prioritize specified emission reduction rules and regulations." That is, AB 197 aims to take into consideration the needs of disadvantaged communities as the state moves towards emissions reduction goals. This bill required the passage of SB 32 of 2016 to go into effect.

### ***California Executive Order B-55-18 (2018):***

California Executive Order B-55-18 was signed by Edmund G. Brown Jr. in 2018. The executive order specified that the state should reach carbon neutrality by the year 2045 and reach a carbon negative emissions status after 2045.

### ***California Environmental Quality Act Section 15064.4:***

Section 15064.4 of the California Environmental Quality Act directs how greenhouse gas emissions are treated within state environmental review documents such as this one. GHG emission significance levels may be determined to be significant through a scientifically established model or methodology, or through significance thresholds established by the lead agency (in this case, Siskiyou County; see Local Regulations, below). GHG emissions must be considered compared to the existing environmental setting and must consider reasonably foreseeable incremental contributions to greenhouse gas emissions; that is, a project whose emissions are relatively small compared to statewide emissions may still have a significant incremental increase in GHG emissions.

## **Local Regulations**

Siskiyou County has not established significance thresholds for greenhouse gas emissions. To address emissions significance levels, the California Emissions Estimator Model (CalEEMod) was utilized as a scientifically robust emissions model.

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

MOUNT SHASTA SKI PARK LIFTEXENSION PROJECT SUBSEQUENT MITIGATED NEGATIVE  
DECLARATION

Project construction would generate greenhouse gas emissions from various sources. Construction vehicles and the helicopter that would fly the ski lift components into place would emit gasoline or diesel fuel as they traveled to, from, and on the Project site.

Project operation would similarly generate greenhouse gas emissions. Gasoline and diesel emissions would be generated from vehicles used in the operations and maintenance of the Project. These would include maintenance trucks, ski patrol snowmobiles, snow grooming vehicles, mechanical brush clearing equipment, and snowmaking machines. The ski lift would be electrically powered, however. Below is a summary of CalEEMod estimates for construction GHG emissions:

<b>Project Construction Greenhouse Gas Emissions</b>				
<b>Criteria Pollutant</b>	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
<b>Value (metric tons/year)</b>	734.8622	.2346	.00045	740.8609
<b>Siskiyou County Threshold (metric tons/year)</b>	No threshold	No threshold	No threshold	No threshold
<b>Violation?</b>	n/a	n/a	n/a	n/a

Operational emissions for the Project were estimated as follows:

<b>Project Operational Greenhouse Gas Emissions</b>				
<b>Criteria Pollutant</b>	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
<b>Value (metric tons/year)</b>	1508.3570	0.4878	0	1520.5528
<b>Siskiyou County Threshold (metric tons/year)</b>	No threshold	No threshold	No threshold	No threshold
<b>Violation?</b>	n/a	n/a	n/a	n/a

As discussed above, Siskiyou County has not adopted numerical significance thresholds for greenhouse gas emissions.

Nevertheless, the Project is subject to federal and state laws regarding greenhouse gas emissions. The Ski Park's maintenance and operational equipment meet or exceed state emissions standards. For example, the Ski Park's snowcat vehicles are all certified by the California Air Resources Board as Tier 2, Tier 3, or Tier 4 vehicles.

As such, impacts would be less than significant.

**B. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.**



The Project would not conflict with any applicable local plans, policies, or regulations adopted for the purpose of reducing the emissions of greenhouse gases. The state regulations listed in the Regulatory Context limit the amount of greenhouse gas emissions in a statewide context, and this Project would contribute to GHG emissions. However, the Project is consistent with the typical construction and operational emissions of a ski park facility and represent far fewer emissions than the construction of a completely new facility. Therefore, greenhouse gas impacts would be less than significant.

### **Cumulative Impacts**

Greenhouse gas emissions as a result of Project construction and operation would add to the global cumulative production of GHGs in the atmosphere. Nevertheless, the Project would follow all applicable federal, state, and local laws regarding GHG emissions. The Project's construction and operational emissions are consistent with similar recreational facilities.

Therefore, this Project would not significantly contribute to cumulative GHG emissions.

### **Mitigation Measures**

No mitigation measures are required.

## 4.9 HAZARDS AND HAZARDOUS MATERIALS

4.9 Hazards and Hazardous Materials				
	Environmental Issue Area	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
<b>A.</b>	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Less than Significant	NA	NA
<b>B.</b>	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Less than Significant	NA	NA
<b>C.</b>	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	No Impact	NA	NA
<b>D.</b>	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	No Impact	NA	NA
<b>E.</b>	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	No Impact	NA	NA
<b>F.</b>	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Less than Significant	NA	NA
<b>G.</b>	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	Less than Significant	NA	NA

### 4.9.1 Discussion

#### Regulatory Setting

Regulations and policies considered relevant to the assessment of the proposed project are summarized below. The Siskiyou County Community Development and Environmental Health Division is the administering agency for state and federal laws pertaining to hazardous materials handling.

### ***Federal Regulations***

The key federal regulations pertaining to hazardous wastes, as administered by the U.S. Environmental Protection Agency (EPA), are described below. Other applicable federal regulations are contained primarily in 29 CFR, 40 CFR, and 49 CFR. Because state regulations are as stringent or more stringent than federal regulations and the state has been granted primacy (primary responsibility for oversight) by EPA to administer and enforce hazardous waste management programs, further discussion focuses on state regulations.

#### ***Resource Conservation and Recovery Act***

The Resource Conservation and Recovery Act (RCRA) enables EPA to administer a “cradle-to-grave” regulatory program (i.e., from manufacture of the hazardous material to its disposal) regulating the generation, transportation, treatment, storage, and disposal of hazardous wastes at all facilities and sites in the nation.

#### ***Comprehensive Environmental Response Compensation and Liability Act***

The Comprehensive Environmental Response Compensation and Liability Act, also known as Superfund, was passed to facilitate the cleanup of the nation's toxic waste sites. In 1986, Superfund was amended by the Superfund Amendments and Reauthorization Act (SARA) Title III (Community Right-to-Know laws), which stated that past and present owners of land contaminated with hazardous substances can be liable for the entire cost of the cleanup, even if the material was illegally dumped when the property was under different ownership.

#### ***Spill Prevention and Countermeasure Plan Rule***

The Spill Prevention, Control, and Countermeasure (SPCC) Rule includes requirements for oil spill prevention, preparedness, and response to prevent oil discharges to surface. The rule requires specific facilities to prepare, amend, and implement SPCC Plans (EPA 2008). Under 40 CFR 112, EPA requires owners and operators of aboveground storage tanks (ASTs) that store more than 1,320 gallons of oil to implement a SPCC Plan. The term oil includes gasoline, diesel, heating oil, and solvents. All SPCC plans must be certified by a professional engineer. Unlike oil spill contingency plans that address cleanup measures after a spill, SPCC Plans are preventive measures to ensure that a spill from an AST is contained and countermeasures are established to prevent oil spills that could reach surface waters. A spill contingency plan is required as part of the SPCC Plan if a facility is unable to provide secondary containment (e.g., berms surround the oil storage tank). The EPA or state representatives periodically performs on-site inspections to assure compliance with the SPCC Plan regulations.

#### ***National Fire Protection Association Code 30***

The National Fire Protection Association's (NFPA) Flammable and Combustible Liquids Code 30 is a nationally recognized fire safety standard that requires that any fuel tanks

be diked. The Siskiyou County Fire Warden is responsible for requiring the proposed project to conform with NFPA Code 30.

### State Regulations

State regulations also contain detailed planning and management requirements to ensure that hazardous wastes are properly handled, stored, and disposed of to reduce human health risks and environmental risks. Key state laws pertaining to hazardous wastes include:

- The Hazardous Materials Release Response Plans and Inventory Act of 1985 (Business Plan Act) (Chapter 6.95 of the California Health and Safety Code).
- The Hazardous Waste Control Act (HWCA).
- The Emergency Services Act.
- Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986), which requires the Governor to publish a list of chemicals known to the state to cause cancer or reproductive toxicity and California Government Code, Section 2.65962.5, which requires the Office of Permit Assistance to compile a list of potentially contaminated sites in the state (Cortese List).

Several of these laws are discussed in more detail below.

#### ***Hazardous Waste Control Act***

HWCA is the primary state hazardous waste law. HWCA created the state hazardous waste management program, which is like the federal RCRA program but generally more stringent. HWCA is implemented by regulations contained in 26 CCR, which describes the requirements for the proper management of hazardous wastes, including the following:

- Criteria for identification and classification of hazardous wastes.
- Requirements for generation and transportation of hazardous wastes.
- Standards for design and permitting of facilities that recycle, treat, store, and dispose of hazardous wastes.
- Treatment standards.
- Guidelines for operation of facilities and staff training.
- Requirements for closure of facilities and liability requirements.

26 CCR lists more than 800 materials that may be hazardous, as well as the criteria for identifying, packaging, and disposing of wastes identified as hazardous. 26 CCR also establishes permit requirements for facilities that recycle, treat, store, or dispose of hazardous wastes. Under HWCA and 26 CCR, the generator of a hazardous waste must complete a manifest that accompanies the waste from the generator to the transporter to the ultimate disposal location.

Copies of the manifest must be filed with the Department of Toxic Substances Control (DTSC).

### ***Hazardous Materials Release Response Plans and Inventory Act of 1985***

The state Business Plan Act requires businesses using hazardous materials to prepare a plan describing their facilities, inventories, emergency response plans, and training programs. (The federal SARA Community Right-to-Know requirements are similar to state hazardous materials management planning regulations, except that the state regulations are more stringent.)

### ***Unified Hazardous Waste and Hazardous Materials Management Regulatory Program***

In January 1996, Cal EPA adopted regulations implementing a Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program). The program has six elements: hazardous waste generators and hazardous waste on-site treatment; underground storage tanks; ASTs; hazardous materials release response plans and inventories; risk management and prevention programs; and Uniform Fire Code hazardous materials management plans and inventories. The program is implemented at the local level. The local agency responsible for the implementation of the Unified Program is called the Certified Unified Program Agency (CUPA). In Siskiyou County, the Siskiyou County Environmental Health Division is the designated CUPA.

### ***Emergency Services Act***

Under the Emergency Services Act, the state developed an Emergency Response Plan to coordinate emergency services provided by federal, state, and local agencies. Response to hazardous material or waste incidents is a key part of the plan. The plan is administered by the state Office of Emergency Services (OES). OES coordinates the responses of other agencies, including Cal EPA, the California Highway Patrol, RWQCBs, air quality management districts, and county disaster response offices.

### ***Public Resources Code Sections 4290***

Fire fuel breaks and other fire safety measure may be required per the California Fire Safe Regulations (PRC Section 4290).

### ***Occupational Safety***

The California Occupational Safety and Health Administration (Cal/OSHA) assumes primary responsibility for developing and enforcing workplace safety regulations. Because California has a federally approved OSHA program, it is required to adopt regulations that are at least as stringent as those found in 29 CFR. Cal/OSHA standards are generally more stringent than federal regulations.

Cal/OSHA regulations (8 CCR) concerning the use of hazardous materials in the workplace require employee safety training, safety equipment, accident and illness

prevention programs, hazardous substance exposure warnings, and emergency action and fire prevention plan preparation. Cal/OSHA enforces hazard communication program regulations, which contain training and information requirements, including procedures for identifying and labeling hazardous substances and communicating hazard information relating to hazardous substances and their handling. The hazard communication program also requires that Materials Safety Data Sheets (MSDSs) be available to employees and that employee information and training programs be documented. These regulations also require preparation of emergency action plans (escape and evacuation procedures, rescue and medical duties, alarm systems, and training in emergency evacuation).

### ***Mosquito Abatement and Vector Control***

California Health and Safety Code Sections 2000–2093 provide for the creation of mosquito abatement and vector control districts as independent special districts (as defined by Section 56044 of the U.S. Government Code [USC]) and define the powers and authorities of the districts. The intent of these districts is to conduct effective programs for the surveillance, prevention, abatement, and control of mosquitoes and other vectors and to cooperate with other public agencies to protect the public health, safety, and welfare. The Siskiyou County Public Health and Community Development Department, Environmental Health Division, operates within Siskiyou County to control mosquito and other vector populations. However, the primary responsibility for nuisance abatement falls on the person or agency claiming ownership, title, or right to the property.

## ***Local Regulations***

### ***Siskiyou County Environmental Health Division***

The Hazardous Materials Management Group, an arm of the Environmental Health Division of the Siskiyou Community Development Department, monitors and enforces state and federal environmental and health codes in Siskiyou County (Siskiyou County 2008).

### ***Hazardous Materials Management Group***

The Environmental Health Division is certified by the Cal/EPA Secretary to implement the Unified Program specified by Health and Safety Code § 25404(a)(1)(A), within Siskiyou County. The Hazardous Materials Management Group implements the Unified Program at the local government level pursuant to Title 27 § 15110(a)(2). The Unified Program regulates underground tanks, hazardous materials (including but not limited to hazardous substances, hazardous waste, and any material that a handler or the Environmental Health Division believes would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment). In addition, a state-Registered Environmental Health Specialist is also on

call 24 hours a day to respond to incidents involving release or threatened release of hazardous materials in Siskiyou County.

### ***Hazardous Materials Business Plans***

The amount of detail required to be reported depends on whether or not a facility is subject to State Hazardous Materials Business Plan (HMBP) reporting requirements. Facilities subject to HMBP reporting requirements must complete and submit to the health department a HMBP. Depending upon the nature of storage/handling of hazardous materials at the facility, additional information may be required to be submitted as appendices to the HMBP. Examples of such appendices include an AST SPCC.

A HMBP is a document containing detailed information on the storage of hazardous materials at a facility. Chapter 6.95 of the California Health & Safety Code (H&SC) requires that facilities that use or store such materials at or above reporting thresholds (see below) submit this information.

The intent of the HMBP is to satisfy federal and state Community Right-to-Know laws and provide detailed information for use by emergency responders. All persons at the facility qualified to serve as emergency coordinators must be thoroughly familiar with the contents and use of the HMBP, the operations and activities of the facility, and the locations of all hazardous materials records maintained by the facility.

The owner of a facility must complete a HMBP and submit a copy to the Public Health Department in the following instances:

- For each site that handles any individual hazardous material or mixture containing a hazardous material that has a quantity at any one time during the reporting year equal to or greater than 500 pounds for solid hazardous materials [H&SC §25503.5(a)].
  - For liquid hazardous materials:
    - Lubricating oil as defined by H&SC §25503.5(b)(2)(B): 55 gallons of each type or 275 gallons aggregate quantity on site.
    - All others, including waste oil: 55 gallons. [H&SC §25503.5(a)]
  - For hazardous material gases:
    - Oxygen or nitrous oxide stored/handled at a physician, dentist, podiatrist, veterinarian, or pharmacist's place of business: 1,000 cubic feet of each material on site. [H&SC §25503.5(b)(1)]
  - All others: 200 cubic feet. [H&SC, §25503.5(a)]
- Amounts of radioactive materials requiring an emergency plan under Parts 30, 40, or 70 of 10 CFR or equal to or greater than applicable amounts specified in items 1, 2 or 3 above, whichever amount is smaller. [H&SC, §25503.5(a)].

- Amounts of California Accidental Release Prevention Program-regulated substances exceeding threshold quantity amounts published in 19 CCR 2770.5 or in quantities equal to or greater than applicable amounts specified in items 1, 2, or 3 above, whichever amount is smaller. [H&SC, §25533(c)(1)] (Siskiyou County 2008).

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

The Project would include the construction of a U.S. Forest Service-style vault privy. Vault privies are not treated with a septic system, but rather periodically emptied of human waste. During routine maintenance of the vault privy, human waste would be transported from the Project area to a waste management facility. This exposes the public and the environment to the risk of exposure to hazardous materials in the event the human waste spills out either during privy cleaning or waste transport. These effects could be potentially significant. However, the Ski Park has a Spill Prevention, Control, and Countermeasure (SPCC) Plan designed to prevent and address spills during use, disposal, or transport of hazardous materials. With the implementation of the SPCC plan and BMPs regarding vault privy waste cleanup and transport, these impacts would be less than significant.

Another hazardous waste that would be generated from the proposed project would be engine oil associated with the operation of the Ski Park's maintenance vehicles, snowmobiles, and other motorized machines associated with recreation, land, and snow maintenance, and first aid activities on the Project area. Engine oils pose the risk of significant environmental impacts if they were to leak from a vehicle or spill during the transport of waste oil from the Project area to an oil disposal facility. However, with the implementation of BMPs for vehicle maintenance and hazardous material transportation, as well as adherence to the Ski Park's SPCC Plan, these impacts would be less than significant.

During Project construction, similar risks to the public and environment exist through construction vehicles and potential hazardous fluid spills. BMPs for construction activities and vehicle maintenance would ensure these impacts would be less than significant.

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

See item A. above.

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



As a Project located on the lower slopes of Mount Shasta, there are no existing or proposed schools within 0.25 miles of the Project area. Therefore, there would be no impact.

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

According to the California Department of Toxic Substances Enviro-Stor database (CDTS 2022), there are no hazardous materials sites within one mile of the Project area. According to the State Water Resources Control Board Geo-Tracker database (SWRCB 2022), there are no hazardous materials sites within one mile of the Project area. Therefore, there would be no impact.

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

The Siskiyou County website (Siskiyou County 2022) did not identify any airports within 15 miles of the Project area. However, the Mott Airport is approximately six miles away from the Project activities within the Douglass Butte Envelope. Nevertheless, the distance between the Project and the Mott Airport ensures there would be no impact.

**F. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

The Project would not impair the implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. The Project is located off of Ski Park Highway, by Grey Butte and Douglas Butte near Mount Shasta. Implementation of the Project would increase traffic along Ski Park Highway for travel to and from the Project site, which would lead to an increase in traffic along SR 89, a main regional transit route from I-5 in the City of Mt. Shasta to SR 299 near Burney, CA. During Project construction, there would be an increase in traffic associated with construction vehicles. During Project implementation, an additional increase in traffic related to winter and summer recreation activities at the Ski Park would occur. However, the increased traffic along the Ski Park's access road (Ski Park Highway) would not place the Ski Park over its current capacity, according to the 1997 Mt. Shasta Ski Park Master Plan. Therefore, it would not create increases in traffic sufficient to strain the capacity of

the much more able SR 89, and it would not interfere with any established emergency response plan. Therefore, impacts would be less than significant.

**G. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?**

See Section 4.20, Wildfires.

Implementation of the Project would result in an increased use of the Ski Park during both winter and summer recreational seasons. As the Project area and the surrounding landscape is densely forested, this could potentially expose people and the new structures built to a risk of loss, injury, or death involving wildland fires. However, the Ski Park Conversion THP and Ski Park II THP were implemented on the Project area as a measure to protect the Ski Park and surrounding regions from wildfire impacts. Additionally, the Ski Park has a current Emergency Action Plan that can be found in (Attachment B) which details steps to be taken in the event of a wildfire, and the Ski Park intends to continue periodically harvesting timber from its ownership as a strategy to prevent wildfires. Therefore, wildfire risk impacts would be less than significant.

### **Cumulative Impacts**

The Project would not contribute to cumulative hazard impacts. Most hazard risks are easily prevented with BMPs and existing Ski Park protocols.

### **Mitigation Measures**

No mitigation measures are necessary.

## 4.10 HYDROLOGY AND WATER QUALITY

4.10 Hydrology and Water Quality			
Environmental Issue Area	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
<b>A.</b> Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	Less than Significant	NA	NA
<b>B.</b> Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	Less than Significant	NA	NA
<b>C.</b> Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would:	Less than Significant	NA	NA
i. Result in substantial on- or offsite erosion or siltation;	Potentially Significant	Mitigation Measure HYD-1: Implement Mitigation Measure GEO-1.	Less than Significant
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	Potentially Significant	Mitigation Measure HYD-1: Implement Mitigation Measure GEO-1.	Less than Significant
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	Less than Significant	NA	NA
iv. Impede or redirect flood flows?	Less than Significant	NA	NA
<b>d.</b> In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	No Impact	NA	NA
<b>e.</b> Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	Less than Significant	NA	NA

## 4.10.1 Discussion

### Regulatory Setting

#### *Federal Regulations*

##### ***Clean Water Act***

In 1972, the Federal Water Pollution Control Act—hereafter referred to as the Clean Water Act (CWA)—was amended to require National Pollutant Discharge Elimination System (NPDES) permits for discharge of pollutants into so-called waters of the United States, which include oceans, bays, rivers, streams, lakes, ponds, and wetlands, from any point source. In 1987, the CWA was amended to require that EPA establish regulations for permitting municipal and industrial stormwater discharges under the NPDES permit program. EPA published final regulations regarding stormwater discharges on November 16, 1990. The regulations require that cities that discharge to surface waters be regulated through the NPDES process by obtaining a municipal separate storm sewer system permit. Other point source discharges such as treated wastewater are also obligated to obtain an NPDES permit with specific effluent limitations to protect water quality.

In addition, the CWA requires states to adopt water quality standards for water bodies and have those standards approved by EPA. Water quality standards consist of designated beneficial uses (e.g., wildlife habitat, agricultural supply, fishing) for individual water bodies, along with water quality criteria necessary to support those uses. Water quality criteria are prescribed concentrations or levels of constituents—such as lead, suspended sediment, and fecal coliform bacteria—or narrative statements that represent the quality of water that supports a particular use. Because California has not established a complete list of acceptable water quality criteria, EPA established numeric water quality criteria for certain toxic constituents in the form of the California Toxics Rule (40 CFR 131.38).

Water bodies that do not meet water quality standards are deemed impaired and, under CWA Section 303(d), are placed on a list of impaired waters for which a Total Maximum Daily Load (TMDL) must be developed for the impairing pollutant(s). A TMDL is an estimate of the total load of pollutants from point, non-point, and natural sources that a water body may receive without exceeding applicable water quality standards with a “factor of safety” included.

##### ***Construction Activities***

As of February 2003, EPA requires that the project owner or contractor apply for an NPDES stormwater permit and develop a Storm Water Pollution Prevention Plan (SWPPP) for ground-disturbing activities that would affect 1 acre or more. The Central Valley Regional Quality Control Board (CVRWQCB) administers the NPDES stormwater permitting program for construction activities in the Project area. For the purposes of

the NPDES, construction activities are defined as clearing, excavating, grading, or other land-disturbing activities. The CVRWQCB authorizes stormwater discharges to waters of the United States under the State Water Resources Control Board's (State Water Board's) General Construction Permit. For qualifying projects, the project applicant must submit to the CVRWQCB a Notice of Intent to be covered by the General Construction Permit before the beginning of construction. The General Construction Permit requires the preparation and implementation of a SWPPP, which must be completed before construction begins. Implementation of the SWPPP starts with the commencement of construction and continues through completion of the project. On completion of the project, the applicant must submit a Notice of Termination to the CVRWQCB to indicate that construction is completed.

The SWPPP must include a site map and a description of proposed construction activities, along with demonstration of compliance with relevant local ordinances and regulations and an overview of BMPs that will be implemented to prevent soil erosion and discharge of other construction-related pollutants that could contaminate nearby water resources. Permittees are further required to conduct annual monitoring and reporting to ensure that BMPs are correctly implemented and effective in controlling the discharge of stormwater-related pollutants.

#### **Section 404**

CWA Section 404 regulates the discharge of dredged and fill material into waters of the United States, which include oceans, bays, rivers, streams, lakes, ponds, and wetlands. Project proponents must obtain a permit from the U.S. Army Corps of Engineers (USACE) for all discharges of dredged or fill material into waters of the United States, including wetlands, before proceeding with a proposed activity. Before any actions that may affect surface waters are carried out, a delineation of jurisdictional waters of the United States must be completed, following USACE protocols, to determine whether the project area encompasses wetlands or other waters of the United States that qualify for CWA protection. Jurisdictional waters are broadly defined below:

- Areas within the ordinary high-water mark (OHWM) of a stream, including nonperennial streams with a defined bed and bank and any stream channel that conveys natural runoff, even if it has been realigned.
- Seasonal and perennial wetlands, including coastal wetlands.
- Wetlands are defined for regulatory purposes as areas "inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3; 40 CFR 230.3).

Section 404 permits may be issued only for the least environmentally damaging practicable alternative. That is, authorization of a proposed discharge is prohibited if there is a practicable alternative that would have fewer adverse impacts and that lacks other significant adverse consequences.

### ***Safe Drinking Water Act***

The Safe Drinking Water Act, as amended in 1986 and 1996, requires protection of drinking water and its sources (i.e., rivers, lakes, reservoirs, springs, and groundwater wells). The act authorizes EPA to set national standards for drinking water to protect against pollutants. EPA, states, and local agencies work together to enforce these standards.

### ***Regulations Covering Development of Floodplains***

#### National Flood Insurance Program

Alarmed by increasing costs of disaster relief, Congress passed the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. The intent of these acts was to reduce the need for large, publicly funded flood control structures and disaster relief by restricting development on floodplains.

FEMA administers the National Flood Insurance Program (NFIP) to provide subsidized flood insurance to communities that comply with FEMA regulations limiting development in floodplains. FEMA issues Flood Insurance Rate Maps for communities participating in the NFIP. These maps delineate flood hazard zones in the community. The locations of FEMA-designated floodplains in the project area are discussed in Flooding above.

#### Executive Order 11988

Executive Order 11988 (Floodplain Management) addresses floodplain issues related to public safety, conservation, and economics. It generally requires federal agencies constructing, permitting, or funding to meet the obligations listed below:

- Avoid incompatible floodplain development.
- Be consistent with the standards and criteria of the NFIP.
- Restore and preserve natural and beneficial floodplain values.

### ***State Regulations***

#### ***Porter-Cologne Water Quality Control Act***

The Porter-Cologne Water Quality Control Act, passed in 1969, provides statutory authority for the State Water Board and the Regional Water Quality Control Boards (RWQCBs) to regulate water quality; it was amended in 1972 to extend the federal CWA authority to these agencies (see Clean Water Act above). Porter-Cologne

established the State Water Board and divided the state into nine regions, each overseen by an RWQCB. The State Water Board is the primary state agency responsible for protecting the quality of the state's surface and groundwater supplies, but much of the daily implementation of water quality regulations is carried out by the RWQCBs.

### **Basin Plan**

The Porter-Cologne Water Quality Control Act provides for the development and periodic review of water quality control plans (also known as basin plans). The basin plan designates beneficial uses and water quality objectives for water bodies in the region. Specific objectives are provided for the larger water bodies in the region as well as general objectives for ocean waters, bays and estuaries, inland surface waters, and groundwaters. In general, narrative objectives require that degradation of water quality does not occur because of increases in pollutant loads that will affect the beneficial uses of a water body. Basin plans are primarily implemented by using the NPDES permitting system to regulate waste discharges so that water quality objectives are met.

The proposed project is located in the jurisdiction of the CVRWQCB, and the Central Valley Region Basin Plan applies to this area.

### Wastewater Discharges to Land

Discharges of wastewater to land are commonly called non-Chapter 15 or Non-15 discharges by the RWQCB, in reference to the group of wastes excluded from the full containment, prescriptive requirements of Chapter 15, Title 27 of the California Code of Regulations that apply to hazardous, designated, and other wastes. If an applicant proposes to discharge wastewater to land, i.e., in settling ponds, the RWQCB would adopt waste discharge requirements, which specify acceptable levels of pollutants that may be discharged, special studies to be conducted, and a monitoring program to assess compliance. Compliance is usually evaluated by Regional Board staff through field inspections and review of submitted monitoring reports by the discharger.

### **Local Regulations**

#### **Siskiyou County General Plan**

The objectives of the Siskiyou County General Plan in relation to hydrology and water quality are the conservation, development, and utilization of water and its hydraulic force. Applicable General Plan Policies include pertaining to the issues below:

- Reclamation of land and water.
- Flood control.
- Prevention and control of the pollution of streams and other water bodies.
- Regulation of land and stream channels.
- Prevention, control, and correction of erosion of soils.

- Protection of watersheds.

### ***Land Use and Circulation Element***

The following policies are reproduced from the Siskiyou County General Plan Land Use and Circulation Element.

- **Policy #30:** All development proposed within a wildfire hazard area shall be designed to provide safe ingress, egress and have an adequate water supply for fire suppression purposes in accordance with the degree of wildfire hazard.
- **Policy #41.5:** All development will be designed so that every proposed use and every individual parcel of land created is a buildable site, and will not create erosion, runoff, access, fire hazard or any other resource or environmentally related problem.
- **Policy #41.6:** There shall be a demonstration to the satisfaction of the Siskiyou County Health Department and/or the California Regional Water Quality Control Board that sewage disposal from all proposed development will not contaminate groundwater.
- **Policy #41.7:** Evidence of water quality and quantity acceptable to the Siskiyou County Health Department must be submitted prior to development approval.
- **Policy #41.8:** All proposed development shall be accompanied by evidence acceptable to the Siskiyou County Health Department as to the adequacy of on-site sewage disposal or the ability to connect into an acceptable central sewer system serving an existing city or community services district with adequate capacity to accommodate the proposed development. In these cases, the minimum parcel sizes and uses of the land permitted for all development will be the maximum density and land uses permitted that will meet minimum water quality and quantity requirements, and the requirements of the County's flood plain management ordinance.

### ***Siskiyou County—Septic Tank Requirements***

The proposed project would be required to comply with the Siskiyou County Sewage Disposal Law enforced by Siskiyou County Department of Public Health and Community Development. Regulation and enforcement of these septic tank requirements is provided by the County's septic system permit process. A septic system permit is required prior to the installation of a new or replacement septic tank and leach field. A permit application must be submitted along with a complete site plan, fees, and soil test data. Section 5-2.21 of the County Code requires the following information to be submitted to the Department of Environmental Health:

- A plot plan drawn to scale, completely dimensioned, showing the direction and approximate slope of the surface; the location of all present or proposed retaining walls, drainage channels, water supply lines, or wells, paved areas, or



structures on the plot; the number of rooms and plumbing fixtures in each structure; and the location of the building sewer and private sewage disposal system in relation to lot lines and structures.

- Details of construction necessary to ensure compliance with the requirements of this chapter, together with a full description of the complete installation, including the quality, kind, and grade of all materials, equipment, construction workmanship, and methods of assembly and installation.
- A log of soil formations and groundwater level as determined by test holes dug in close proximity to any proposed seepage pit or disposal field, together with a statement of the water absorption characteristics of the soil at the proposed site as determined by approved percolation tests.

This phase of the project does not propose any new septic systems.

### ***Siskiyou County—Groundwater Well Requirements***

The proposed project would be required to comply with the Siskiyou County Standards for Wells enforced by Siskiyou County Community Development (Siskiyou County 1990). A groundwater well construction permit must be applied for and received prior to the initiation of any bore hole or groundwater well construction. The standards for well construction are set forth in the Department of Water Resources (DWR) Bulletin 74-81 State of California Water Well Standards. All groundwater well construction must be performed by a person who possesses an active C-57 contractor's license (Siskiyou County 1990).

This phase of the project does not propose any new groundwater wells. MSSP has an existing public water system fed by existing groundwater wells and is regulated by the State Water Board.

#### **A. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?**

The Project would not degrade water quality in any capacity. The only activities that would utilize water would be snowmaking activities, which the Ski Park already performs in compliance with applicable water quality laws in the existing developed areas of the Ski Park. The Project would likely bring a greater number of daily visitors to the Ski Park, which would increase water use and the generation of wastewater. Specifically, the 2022 Master Plan allows for 5,400 visitors per day. However, according to the 1997 Master Plan and 2022 Master Plan, water use capacity and wastewater use capacity are currently at 8,600 people per day and 7,720 people per day, respectively (Mt. Shasta Ski Park 1997, 2022). Therefore, changes in water use and waste discharge would still be well below capacity, and impacts would be less than significant. Construction activities and ground-moving activities such as ski lift installation and power line

trenching could potentially cause erosion and sedimentation, which could impact water quality. With the implementation of best management practices for erosion and sedimentation, impacts would be less than significant. In addition, MSSP has existing surface water rights with three active Points of Diversion that are regulated by the State Water Board.

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

As discussed in item a) above, the Project would increase the Ski Park's water needs from the current peak of 3,000+ visitors per day to a maximum of 5,400 visitors per day. The ski park's water supply consists of both stream diversions and underground wells. While the increased water use would cause a greater draw from groundwater resources, the maximum of 5,400 visitors per day would be well below the Ski Park's total water capacity. Therefore, impacts would be less than significant.

**C. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would:**

- Result in substantial on- or off-site erosion or siltation.
- Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite.
- Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
- Impede or redirect flood flows?

The Project would not alter the course of a stream or river by the addition of impervious surfaces or by any other activity. The Ski Park Conversion THP (THP # 2-21-00103-SIS) and the Ski Park II THP (THP #2-21-00185-SIS) documented the watercourses that occur within the Project area. Two Class 3 watercourses and several unclassified swales occur in the ski run area of the Project; however, these are ephemeral streams and would not be significantly impacted by recreational use when covered with snow. The concrete foundations of the ski lift and vault privy would create impermeable surfaces that would alter the flow of rain and snowmelt immediately around the ski lift and vault privy toilet. Similar, smaller effects would occur around the warming huts, overnight shelters, and maintenance hut. Nevertheless, these impermeable surfaces would not drastically change water flow patterns. No significant changes would occur in relation to stormwater discharge or flood flows. However, the continued maintenance of the ski runs with minimal vegetation could potentially create significant impacts related to erosion and sedimentation; additionally, the reduced vegetation in the area could

lead to greater rates of surface runoff on these ski trail areas, potentially leading to significant impacts. However, with the implementation of **Mitigation Measure GEO-1** (adoption of an updated erosion control plan), these impacts would be reduced to less than significant.

**D. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?**

The Project is nearly 100 miles east of the nearest ocean, with the Klamath mountains serving as a barrier between the Project and any potential tsunami event. Similarly, the nearest body of water to the Project area is a small (approximately 2-acre) pond adjacent to existing ski runs at the Ski Park, as well as a smaller pond in the Backcountry Touring Area of the Project. These ponds are too small to experience any seiche activities that would be potentially destructive, and no lake large enough to the Project to generate significant seiche events occurs near the Project area. Therefore, the risk of water quality degradation from Project inundation due to a tsunami or seiche would be less than significant. According to the FEMA flood map for the Project area, the Project is within Zone D, an area of undetermined flood risk (FEMA 2021). However, as a Ski Park, the Project area is naturally sloped and would be unlikely to flood. Therefore, impacts as a result of inundation-related pollutant release would be less than significant.

**E. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?**

The Project would not conflict with any applicable local, state, or federal water quality control plan or sustainable groundwater management plan. As discussed in items a) and b) above, the Ski Park's water and wastewater uses are well below the Ski Park's capacity, and implementation of the Project would still leave wastewater and water use well below Ski Park capacity. Therefore, impacts would be less than significant.

### Cumulative Impacts

As an expansion to an existing Ski Park, the Project would add less-than-significant impacts on hydrology/water quality to existing less-than-significant impacts. However, as discussed, the Ski Park would remain well below its capacity for water use, groundwater use, and wastewater use, as demonstrated in the 2022 Mt. Shasta Ski Park Planned Development Master Plan. Current erosion-related risks have been mitigated through the Ski Park's existing erosion control plan, and the Project-related erosion risks would be mitigated through **Mitigation Measure 4.7.1**. Therefore, the Project would not create cumulatively significant impacts to hydrology or water quality.

### Mitigation Measures

*Mitigation Measure HYD-1*: Implement **Mitigation Measure GEO-1**

## 4.11 LAND USE PLANNING

4.11 Land Use and Planning				
	Environmental Issue Area	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
A.	Physically divide an established community?	No Impact	NA	NA
B.	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	Potentially Significant	Mitigation Measure LAN-1: Implement Mitigation Measure GEO-1.	Less than Significant

### 4.11.1 Discussion

#### Regulatory Setting

##### Local Regulations

#### *Siskiyou County General Plan—Land Use Element*

The Land Use Element of the Siskiyou County General Plan outlines and maps countywide constraints to development related to natural and physical barriers and resource production. The Siskiyou County General Plan land use designations for the project site include the following: Soil—Erosion Hazard (High), Excessive Slope, and Wildfire Hazard Area (High), (Siskiyou County 1980). These classifications are the County General Plan land use designations for the Project site, and they identify specific conditions and restrictions for development. The following policies from the County's General Plan apply to this Project.

#### Map 2. Soils—Erosion Hazard

- **Policy #7:** Specific mitigation measures will be provided that lessen soil erosion, including contour grading, channelization, revegetation of disturbed slopes and soils, and project timing (where feasible) to lessen the effect of seasonal factors (rainfall and wind).

#### Map #5: Excessive Slope

- **Policy #11:** All areas with 30% or greater natural slope shall not be developed with facilities requiring septic systems for sewage disposal.

- **Policy #12:** If areas designated as 30% or greater natural slope are proven to be less than 30% slope, the minimum parcel size shall be one acre on 0 – 15% slope, and 5 acres on 16-29% slope.
- **Policy #13:** Proof that an area is not an excessive slope area can only be made by an on-site inspection.
- **Policy #14:** Reducing the percentage of slope below 30% by grading is prohibited, and not acceptable as a means of conforming to the density requirement of Policy #12 for sewage disposal purposes.
- **Policy #15:** Areas designated 30% of greater natural slope but proven to be less than 30% slope shall only be developed when a grading plan for roads, acceptable to the Department of Public Works, has been submitted.
- **Policy #16:** Single family residential, light industrial, light commercial, open space, non-profit and non-organizational in nature recreational uses, commercial/recreational uses, and public or quasi-public uses only may be permitted if the area is proven to be less than 30% slope.

The permitted uses will not create erosion or sedimentation problems.

#### Map 10. Wildfire Hazard Area

- **Policy #30:** All development proposed within a wildfire hazard area shall be designed to provide safe ingress, egress, and have an adequate water supply for fire suppression purposes in accordance with the degree of wildfire hazard.

#### Composite Overall Policies

- **Policy #41.3:** The following policies shall determine the location of any proposed use of land:
  - a. All heavy commercial and heavy industrial uses must provide or have direct access onto major thoroughfares or existing industrial/commercial streets capable of accommodating the traffic that could be generated from the proposed use.
  - b. All heavy commercial and heavy industrial uses should be located away from areas clearly committed to residential use.
  - c. All proposed uses of the land shall be clearly compatible with the surrounding and planned uses of the area.
  - d. All proposed uses of the land may only be allowed if they clearly will not be disruptive or destroy the intent of protecting each mapped resource.
  - e. Existing or planned industrial areas shall not be developed in a manner that will destroy industrial potential.

- **Policy #41.5:** All development will be designed so that every proposed use and every individual parcel of land created is a buildable site, and will not create erosion, runoff, access, fire hazard or any other resource or environmentally related problems.
- **Policy #41.9:** Buildable, safe access must exist to all proposed uses of land. The access must also be adequate to accommodate the immediate and cumulative traffic impacts of the proposed development.

**A. Physically divide an established community.**

The Project is located outside of any established communities, near the base of Mount Shasta. The two nearest communities—the City of Mt. Shasta and the town of McCloud—are connected by SR 89, and this Project will not alter or impede this transit route. Therefore, the Project would not physically divide an established community, and there would be no impact.

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

As shown in the regulatory context above, the Project would be subject to local policies related to erosion risk (Map 2, Policy 7), wildfire risk (Map 10, Policy 30), and safe road access, ingress, and egress (Composite Overall Policy 41.5). These risks are addressed in other areas, mainly section 4.7 (Geology and Soils) and section 4.20 (Wildfire). Briefly, erosion risk would be mitigated by the Ski Park's forthcoming erosion control plan, as implemented in **Mitigation Measure GEO-1**. Wildfire risk has been mitigated both by the Ski Park's Emergency Action Plan (Attachment B) and regular timber harvest conducted to reduce fuel loads in the area (Most recently THP # 2-21-00103-SIS and THP # 2-21-00185-SIS). Safe ingress and egress and emergency access are addressed by the Ski Park's 1997 Planned Development Master Plan, which confirms the access road to the Project area would still be well below capacity with the Project-related increase in visitors to the Ski Park.

With the implementation of **Mitigation Measure GEO-1**, the Project would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding an environmental effect, and impacts would be less than significant.

### Cumulative Impacts

This Project would have minimal impact on the community and would comply with all local planning policies. As such, it would not contribute to cumulative impacts on land use and planning.

## Mitigation Measures

*Mitigation Measure LAN-1*: Implement **Mitigation Measure GEO-1**.

## 4.12 MINERAL RESOURCES

4.12 Mineral Resources				
	Environmental Issue Area	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
A.	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	No Impact	NA	NA
B.	Result in the loss of availability of a locally- important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	No Impact	NA	NA

### 4.12.1 Discussion

#### Regulatory Setting

##### State Regulations

#### ***Surface Mining and Reclamation Act of 1975 (SMARA)***

The principal piece of legislation addressing mineral resources in California is the Surface Mining and Reclamation Act of 1975 (SMARA) (PRC Sections 2710–2719), was enacted in response to land use conflicts between urban growth and essential mineral production. The stated purpose of SMARA is to provide a comprehensive surface mining and reclamation policy that will encourage the production and conservation of mineral resources while ensuring that adverse environmental effects of mining are prevented or minimized; that mined lands are reclaimed and residual hazards to public health and safety are eliminated; and that consideration is given to recreation, watershed, wildlife, aesthetic, and other related values.

SMARA provides for the evaluation of an area's mineral resources using a system of Mineral Resource Zone (MRZ) classifications that reflect the known or inferred presence and significance of a given mineral resource. The MRZ classifications are based on available geologic information, including geologic mapping and other information on surface exposures, drilling records, mine data, and socioeconomic factors such as market conditions and urban development patterns. The MRZ classifications are defined as follows:

- MRZ-1: Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.



- MRZ-2: Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood for their presence exists.
- MRZ-3: Areas containing mineral deposits, the significance of which cannot be evaluated from available data.
- MRZ-4: Areas where available information is inadequate for assignment into any other MRZ.

## Local Regulations

### ***Siskiyou County Code***

Siskiyou County Code Title 10 Planning and Zoning, Chapter 5 Surface Mining and Reclamation implements and supplements SMARA. County code notes that the County considers extraction of minerals to be essential to its economic well-being, and that reclamation of mined lands is essential to prevent or minimize adverse effects on the environment and on public health and safety. The code incorporates by reference the provisions of the California Surface Mining and Reclamation Act of 1975 (Public Resources Code, Division 2, Chapter 9, Section 2710 et seq.), Public Resources Code, Division 2, Chapter 9, Section 2207, and the California Code of Regulations implementing the act (CCR Title 14, Division 2, Chapter 8, Subchapter 1, Article 1, Article 6, Sections 3675 and 3676, Article 9 and Article 11), as those provisions are amended. County code also incorporates Public Resources Code Sections 2762, 2763 and 2764 and Chapter 14 California Code of Regulations Section 3676, and subsequent amendments regarding mineral classification studies and general plan resource management policies. An operator conducting mining operations under vested rights is not subject to conditions imposed by the use permit granted by the County.

County code details requirements of mine reclamation plans and conditions for approval and describes conditions under which the County's Planning Director can approve of modifications to these plans without public notice or consultation with the Department of Conservation. Further, County code requires an interim management plan to be filed for review and approval within 90 days of a surface mine becoming idle.

### ***Siskiyou County General Plan—Conservation Element***

The Conservation Element (Siskiyou County 1973) lists the minerals present in the County and provides direction for managing the County's mineral resources.

- Mining tailings should be considered as possible sources for gravel, and used, when possible, in order both to preserve undeveloped resources and to return disturbed landscapes to a more natural state.

- Mineral extraction should be done in such a way to prevent the degradation of other natural resources. Measures to protect these resources should include monitoring of air and water, wildlife, and disposal of mining by-products. The element explicitly recognizes forested lands, fish, and wildlife habitat and both game and non-game fish and wildlife species, mineral resources, water resources, and recreation and park lands as important natural resources in the County.

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

The California Geological Survey Land Mineral Classification Map application does not list any known mineral resources within Siskiyou County (California Geological Survey 2022). The Siskiyou County general plan does not list any known mineral sources within the Project area. Therefore, there would be no impact on the availability of a known mineral resource or a locally important mineral resource as a result of implementation of the Project.

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

See discussion in item A., above.

### Cumulative Impacts

The Project would have no impacts on known or locally important mineral resources. Therefore, it would not contribute to cumulative impacts.

### Mitigation Measures

No mitigation measures are required.

## 4.13 NOISE

4.13 Noise				
	Environmental Issue Area	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
A.	Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?	Potentially Significant	Mitigation Measure NOS-1: Schedule helicopter construction activities so as not to overlap with tribal cultural ceremonies at Panther Meadows.	Less than Significant
B.	Generation of excessive ground borne vibration or ground borne noise levels?	Less than Significant	NA, Vibration impacts from helicopters would not apply to the closer Panther Meadows, as they would not occur during tribal cultural ceremonies, per Mitigation Measure NOS-1.	NA
C.	For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people be residing or working in the project area to excessive noise levels?	No Impact	NA	NA

### 4.13.1 Discussion

#### Regulatory Setting

##### *Federal Regulations*

There are no federal regulations that apply to the Project in the area of noise impacts.

## State Regulations

### **California Government Code Section 65302**

Section 65302 of the California Government Code directs the creation of a noise element in county general plans. Section 65302 states the noise element “shall identify and appraise noise problems in the community.” The noise element is also required to produce noise contours for known noise-emitting sources, and to use these noise contours to establish patterns of land use in the county, for the purpose of reducing noise exposure and impacts to community residents. Siskiyou county has complied with this law (see below).

## Local Regulations

### **Siskiyou County General Plan Noise Element (1978)**

The Siskiyou County General Plan Noise Element provides a list of land use categories and acceptable noise ranges within these land use categories (see Table 13, page 54). The noise element also lists three critical noise levels: 76 decibels for hearing loss, 55 decibels for outdoor activity interference and annoyance, and 45 decibels for indoor activity interference and annoyance (page 55). Suggested peak noise levels from construction equipment are listed in Table A-5, measured in decibels from a distance of 100 feet (Technical Appendix page 11).

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

The Project would generate construction noise from various sources. In general, noise impacts decrease with distance, with noise attenuation estimated to occur at a rate of six decibels per doubling of distance (WKC Group 2021). For example, a source of noise that produces a noise impact of 50 decibels from a distance of 100 feet would attenuate to 44 decibels at 200 feet, 38 at 400 feet, and so on. Additional considerations, such as physical barriers due to topography or vegetation type, can cause noise attenuation to occur more rapidly. As discussed in the regulatory context, Siskiyou County considers 55 decibels to be the threshold for outdoor activity interference/annoyance.

Below is a list of familiar noises and their associated decibel levels:

MOUNT SHASTA SKI PARK LIFTEXENSION PROJECT SUBSEQUENT MITIGATED NEGATIVE  
DECLARATION

Source	Intensity Level
<b>Instant Perforation of Eardrum</b>	160 dB
<b>Military Jet Takeoff</b>	140 dB
<b>Threshold of Pain</b>	130 dB
<b>Front Rows of Rock Concert</b>	110 dB
<b>Walkman at Maximum Level</b>	100 dB
<b>Vacuum Cleaner</b>	80 dB
<b>Busy Street Traffic</b>	70 dB
<b>Normal Conversation</b>	60 dB
<b>Whisper</b>	20 dB
<b>Rustling Leaves</b>	10 dB
<b>Threshold of Hearing (TOH)</b>	0 dB

Source: California Department of Transportation, 2022

The decibel scale is logarithmic; an increase in 10 decibels represents a tenfold increase in sound intensity. This logarithmic relationship also means that two noise sources with identical sound impacts would only be 3 decibels higher than one noise source by itself.

The greatest source of construction noise would come from helicopters, which would be used to fly the Grey Butte Ski Lift towers, lower lift terminal, and upper lift terminal into place. Helicopter noise impacts have been discussed in more detail in (Attachment D), Helicopter Impacts Analysis. Briefly, helicopter noise levels are estimated at 87.9 decibels at a distance of 50 feet. Using the noise attenuation model discussed above, construction impacts from helicopters would reach the town of McCloud at a level of 33.3 decibels, and reach the City of Mt. Shasta at a level of 35.4 decibels, as the outskirts of these communities are both at least three miles away from the Project area. Therefore, noise impact levels to nearby towns (and therefore most of the nearest sensitive receptors) would be less than significant. Between the Project area and these communities, land use consists of public (USFS) and private timberland. Therefore, sensitive receptors such as schools, residences, or churches are absent in this area with the exception of Panther Meadows.

As discussed in Section 4.5 and 4.18, Panther Meadows is a significant cultural resource for several Native American tribes. Panther Meadows is the site of cultural ceremonies which would be disturbed by noise impacts if construction occurred during these ceremonies. From a distance of 3,900 feet (the nearest point of construction activities to Panther Meadows), helicopter impacts would reach Panther Meadows at about 50.1 decibels. This is below Siskiyou County's outdoor annoyance threshold of 55 decibels, but given the sensitive nature of tribal cultural ceremonies, these impacts would still be significant.

Additional construction operations would require additional noise-producing equipment such as bulldozers, excavators, a soils drill, a mobile crane, and work trucks. These all would produce additional noise impacts. However, construction equipment on the ground would be attenuated at a more rapid rate than helicopter noise due to the topography and vegetation of the Project area and surrounding landscape. The region is densely forested, with trees serving as physical barriers to dampen sound impacts as the construction noise traverses the landscape. Additionally, because the topography is so mountainous, the ground itself would be an additional physical barrier to travelling sound. This is especially true in regard to on-the-ground noise impacts to Panther Meadows. As most of the work would occur on the southern slope of Grey Butte and Panther Meadows is located north of Grey Butte's northern slope, the butte serves as a significant noise-attenuating object.

All noise impacts considered, the sensitive receptors in or near the communities of McCloud and Mt. Shasta would not be significantly impacted by construction noise. On-the-ground construction noise would not significantly disrupt cultural ceremonies at Panther Meadows due to the noise attenuation provided by distance, the physical barrier of Grey Butte and other surrounding topography, and the physical barriers of the densely forested landscape.

With the implementation of **Mitigation Measure NOS-1**, helicopter noise impacts would be reduced to less than significant levels by conducting helicopter activities on days no tribal ceremonial activities are occurring at Panther Meadows.

Permanent changes to the acoustic environment as a result of the Project would be less than significant. The Project would result in an increase in the number of visitors at the Ski Park's ownership in Section 3. However, because this area has been previously undeveloped for ski park uses, the additional visitors in this area would not cause noise levels to be higher than typical levels at a recreational facility, such as those occurring in the Ski Park's ownership in Section 9. Additionally, the ski lift would be electrically powered, and as such would be a relatively quiet structure. In the backcountry areas of the Project, changes to the acoustic environment would be negligible, consisting of a small number of recreators traversing through the area at any given time. Therefore, operational impacts as a result of the Project would be less than significant.

### **B. Generation of excessive ground borne vibration or ground borne noise levels?**

The Project would require the use of helicopters, bulldozers, work trucks, and other construction equipment that would generate ground borne vibrations. Nearby sensitive receptors could be disturbed by these vibrations.

As discussed in item a), construction activities are over three miles from the outskirts of the communities of McCloud and Mt. Shasta. At this distance, vibration from

construction activities would be reduced to less than significant levels. Additionally, vibration impacts from helicopters would not apply to the closer Panther Meadows, as they would not occur during tribal cultural ceremonies, per **Mitigation Measure NOS-1**.

Remaining sources of construction vibration would be reduced to less than significant levels from the distance between Panther Meadows and construction activities, a minimum of 3,900 feet.

The Project itself consists of a ski lift, which are not known to produce significant levels of ground borne vibration or noise. Therefore, operational impacts would be less than significant.

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

The nearest airport to the Project, the Weed airport, is over 15 miles away from the Project area (Siskiyou County 2022). Therefore, there would be no impact.

### Cumulative Impacts

The Project would attract more visitors to the Ski Park property, up to the currently allowed 5,400 visitors per day under the Ski Park's current Master Plan (Mount Shasta Ski Park 1997). This would increase the noises produced at the Ski Park. However, much of the additional attendance would be focused in the previously undeveloped area in Section 3; the new ski lift area would see the largest increase in ambient sound levels, while the backcountry area would only have a negligible increase. The additional noise levels, because they would be spread across a large geographical area, would not significantly contribute to cumulative impacts in a region already accustomed to timber harvest activities and the daily operations of the Union Pacific Railroad.

### Mitigation Measures

*Mitigation Measure NOS-1:* Schedule helicopter construction activities so as not to overlap with tribal cultural ceremonies at Panther Meadows.

## 4.14 POPULATION AND HOUSING

4.14 Population and Housing				
	Environmental Issue Area	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
A.	Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	Less than Significant	NA	NA
B.	Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	No Impact	NA	NA

### 4.14.1 Discussion

#### Regulatory Setting

##### *Federal and State Regulations*

There are no federal or state regulations that apply to the Project in the area of Population and Housing.

##### *Local Regulations*

The Siskiyou County General Plan, Housing Element (Siskiyou County 2014) addresses the continued need for affordable in its list of long-term goals and short-term policies, as printed below:

##### Maintaining Affordable Housing

- **Goal HE.7:** Ensure that sufficient affordable housing is available to serve lower income households in the County.
- **Policy HE.7.1:** The County will continue to cooperate with the Great Northern Corporation and other public and private agencies to increase opportunities for residents to obtain affordable housing.
- **Program HE.7.1:** The County will continue to cooperate with and support the efforts of non-profit organizations and other public and private agencies working to increase the number of Section 8 vouchers in the County and/or working to maintain the affordability of low-income housing.



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

The Project would likely result in an increase in the use of the Ski Park, an increased need for employees to staff the Ski Park facilities, and an increase in revenue for the Ski Park. This increase in economic output and employment need could potentially result in unplanned population growth in the area if people from outside Siskiyou County responded to job listings in large numbers. Similar effects could potentially occur as Mt. Shasta Ski Park's increased success bolstered the local economies of Mt. Shasta and McCloud, and Siskiyou County as a whole. However, according to 2020 US Census data for Siskiyou County, the County has a higher poverty rate and lower median household income than the State of California as a whole, as well as a downward trend in employment from 2018-2019 (U.S. Census Bureau 2020). As such, the projected increase in employees would likely be hired from the existing local workforce rather than from out-of-area workers. Therefore, impacts would be less than significant.

**B. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?**

The Project would not displace any people or housing. As discussed in item a), population growth is not likely to occur as a result of the Project. Therefore, there would be no need for additional housing, and there would be no impact.

### **Cumulative Impacts**

As discussed above, the Project is within a county that is currently facing downward pressures in employment. Cumulatively, population growth is not an issue, and therefore housing demand is not being strained. Furthermore, the Project does not place any pressures on population or housing. There would be no cumulative impacts.

### **Mitigation Measures**

No mitigation measures are required.

## 4.15 PUBLIC SERVICES

4.15 Public Services			
Environmental Issue Area	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
<b>A.</b> Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, to maintain acceptable service ratios, response times or other performance objectives for any public services:			
i. Fire protection?	Less than Significant	NA	NA
ii. Police protection?	Less than Significant	NA	NA
iii. Schools?	Less than Significant	NA	NA
iv. Parks?	Less than Significant	NA	NA
v. Other public facilities?	Less than Significant	NA	NA

### 4.15.1 Discussion

#### Regulatory Setting

##### *Federal and State Regulations*

There are no federal, state, or local regulations that apply to the Project in the area of Public Services.

- A. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services: Fire protection, Police protection, Schools, Parks, or Other Public Facilities?**

The Project would cause an increase in the number of visitors to the Mt. Shasta Ski Park, which could potentially increase the activities of fire protection services. However, the expected growth of the Ski Park as a result of the implementation of the Project is well within the Ski Park's accepted capacities for visitor use, fire flows, wastewater/sewage, road access, and parking as detailed in the Ski Park's 1997 Planned Development Master Plan. Therefore, impacts to public services would be less than significant. Fire protection, police protection, schools, parks, and other public facilities could potentially be impacted if population growth greatly increases as a result of the Project. However, as stated in section 4.14, the increase in Siskiyou County's employment opportunities as a result of the Project would likely be accommodated by the County's existing local workforce (U.S. Census Bureau 2020). Therefore, population growth is not expected, and impacts would be less than significant.

### **Cumulative Impacts**

The Project would not contribute to cumulative impacts to public services. 2020 Census data indicates that population declined in Siskiyou County from 2010 to 2020 by an estimated 824 people (U.S. Census Bureau 2020). The Project would not create an increase in population that would convert this downward trend into a cumulatively upward one.

### **Mitigation Measures**

No mitigation measures would be required.

## 4.16 RECREATION

4.16 Recreation				
	Environmental Issue Area	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
A.	Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	No Impact	NA	NA
B.	Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	Potentially Significant	MM REC-1: Implement the Mitigation Measures in this Initial Study.	NA

### 4.16.1 Discussion

#### Regulatory Setting

There are no federal, state, or local regulations that apply to the Project in the area of Recreation.

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

The Project itself is a set of recreational facilities, consisting of a ski lift and various structures to accommodate skiing and backcountry activities. As such, the Project is more likely to reduce the use of existing neighborhood and regional parks or other recreational facilities rather than increase use. Therefore, there would be no impact.

**B. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?**

As stated in item a) above, the Project itself is a set of recreational facilities, consisting of a ski lift and various structures to accommodate skiing and backcountry activities.

These recreational facilities could potentially have adverse physical effects on the environment. However, with the implication of Mitigation Measures REC-1 these effects would be less than significant.

### **Cumulative Impacts**

This Project is an extension of the Mt. Shasta Ski Park. As such, it would add to the existing recreational facilities developed in Siskiyou County; however, the Mt. Shasta Ski Park, as it currently operates, has mitigated for potentially significant environmental effects. With the implementation of the Mitigation Measures listed in this document, the expansion would not contribute to any significant cumulative impacts on recreational facilities or the environment.

### **Mitigation Measures**

*Mitigation Measure REC-1*: Implement Mitigation Measures discussed throughout this document.

## 4.17 TRANSPORTATION

4.17 Transportation				
	Environmental Issue Area	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
A.	Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	Less than Significant	NA	NA
B.	Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	Less than Significant	NA	NA
C.	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	No Impact	Mitigation Measure Trans-1: An overflow turn around will be constructed north of the SR 89 and SPH intersection to prevent vehicles from backing up onto SR 89. The use of this overflow turn around is triggered when the number of vehicles exceeds 1,955 vehicles in a given day. This is the threshold number of vehicles is based on traffic count data from 2019 to 2022. Once the Intersection Operational Analysis is complete adjustments to the vehicle cap may be made if justified.	NA
D.	Result in inadequate emergency access?	Less than Significant	NA	NA

## 4.17.1 Discussion

### Regulatory Setting

There are no federal laws or regulations that are relevant to potential transportation impacts of the project.

#### *State Regulations*

Caltrans owns, operates, and maintains the roads that access the Project Area, namely I-5 and SR 89. Caltrans (District 2) is responsible for the permitting and regulating state highways. SR 89 is the main roadway in the Project area that falls under Caltrans' jurisdiction. SR 89 is a 2-lane conventional highway that runs east-west and begins at I-5 in Mount Shasta and ends at US 395 near Coleville, California in Mono County. SR 89 has a length of approximately 243 miles and is a major thoroughfare for many mountain communities. SR 89 is designated as a State Scenic Highway.

The west end of SR 89 is the main access route to the MSSP from the west (Mount Shasta) and east (McCloud). Most of the vehicles access the park from the west.

#### *Local Regulations*

The Circulation Element of the adopted Siskiyou County General Plan (Siskiyou County 1988) sets forth transportation policies for County transportation facilities. In addition, Siskiyou County (2021) outlines the long-term transportation plan for the County. There are no County roads within the Project area. Within the Project area, the County classifies I-5, SR 139, US 97, and SR 89 as principal arterials. There are no recommended improvements to the SR 89 and Ski Park Highway intersection in the 2021 Transportation Plan.

### ***MSSP Transportation Analysis***

A Transportation Analysis was completed for the proposed Project. Overall design capacity of the Mount Shasta Ski Park is deemed 4,500 individuals per day (or 5,400 persons total per day) for the purposes of this Project. Infrastructure capacities will be maintained which are sufficient to accommodate visitors to MSSP in accordance with all applicable health and safety regulations to include Transportation. The following summarizes the current and potential individual capacity and parking lot capacity.

#### Access

- Current Not to exceed 15,000 individuals per day with widening
- Potential Not to exceed 15,000 individuals per day with widening

#### Parking

- Current 3,500 vehicles per day (peak capacity with parking attendant assistance)
- Potential Not to exceed 10,000 vehicles under present USFS Use Permit (10 acres)

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

The Project would not conflict with any program, plan, ordinance, or policy addressing the circulation system, transit, roadway, bicycle or pedestrian facilities. Additional traffic along SR 89 as a result of the Project would not reduce the level of service of the highway. Therefore, impacts would be less than significant.

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

The 2021 revised VMT for Siskiyou County is  $1,721.7 \times 10^6$  per year. If MSSP is approximately  $2,348 \times 10^3$  for season currently then an 80% to 15% no change equals a 65% increase that equals  $1,526 \times 10^3$  increase MSSP VMT. The Maximum Peak Increase in VMT for Siskiyou County: Approximately 0.09%. Therefore, the transportation impact less than significant.

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

The Project does not propose any geometric design features related to transportation such as sharp curves or dangerous intersections. The Project would not alter existing roads or create new roads with the exception of the installation of the underground power and communication lines underneath Forest Service Road 40N65 and Spur A. Once the power line trench is filled, the road would be virtually identical to its previous conditions.

This Project does not propose any changes to the original Traffic Control Plan (CalTrans and MSSP have made infrastructure improvements since the 1983 Traffic Control Plan), and MSSP has not exceeded the authorized individuals per day (or 5,400 persons total per day).

Given the observed conditions at the SR 89 and SPH intersection, the Transportation Impact Analysis identified a potentially significant impact and recommends the mitigation measure listed below.

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

The Project would increase the daily attendance at the Ski Park from approximately 3,000 individuals to a maximum of 5,400 persons total per day during the peak winter



season, as well as smaller increases in the summer. On rare occasions, the maximum number of visitors would only be able to exceed 5,400 for four consecutive days (MSSP 2022). These increases would result in increased use of SR 89 to travel to and from MSSP. However, the increased attendance is well within the Ski Park's permitted capacity for access road and parking, ensuring emergency services would be able to perform their duties without being inhibited by transportation issues. Therefore, impacts to emergency access would be less than significant.

### **Cumulative Impacts**

Overall, the Project has the potential to slightly increase the use of SR 89, Ski Park Highway, and I-5 as visitors travel to and from the Ski Park. Cumulatively, these impacts would be less than significant, as Siskiyou County as a whole has seen a decline in population (U.S. Census Bureau 2020). Therefore, impacts would be less than significant.

### **Mitigation Measures**

*Mitigation Measures Trans-1*: An overflow turn around will be constructed north of the SR 89 and SPH intersection to prevent vehicles from backing up onto SR 89. The use of this overflow turn around is triggered when the number of vehicles exceeds 1,955 vehicles in a given day. This is the threshold number of vehicles is based on traffic count data from 2019 to 2022. Once the Intersection Operational Analysis is complete adjustments to the vehicle cap may be made if justified.

## 4.18 TRIBAL CULTURAL RESOURCES

4.18 Tribal Cultural Resources				
	Environmental Issue Area	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
A.	Has a California Native American Tribe requested consultation in accordance with Public Resources Code section 21080.3.1 (b)?	No (see discussion)		
<p><b>Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:</b></p>				
B.	Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1 (k)?	Potentially Significant	Mitigation Measure TRI-1: Implement Mitigation Measures AES-1 and AES-2.	Less than significant.
C.	A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	No Impact	NA	NA

## 4.18.1 Discussion

### Regulatory Setting

#### *Federal Regulations*

There are no federal regulations that apply to the Project in the area of Tribal Cultural Resources.

#### *State Regulations*

##### ***California Assembly Bill 52 (2014)***

Assembly Bill 52 altered the California Environmental Quality Act to “separate the consideration of paleontological resources from tribal cultural resources and update the relevant sample questions.” AB 52 is the reason that this section has been separated from Section 4.5 of this document (Cultural Resources).

Assembly Bill 52 specifies that “a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource, as defined, is a project that may have a significant impact on the environment.” AB 52 requires a lead agency to begin consultation with a California Native American Tribe that is traditionally or culturally affiliated with the geographic area of the proposed project if the tribe requests such a consultation. This consultation must be requested to the lead agency in writing. If requested, this consultation must occur before the determination of a negative declaration or mitigated negative declaration for any project. AB 52 formally recognizes that “California Native American Tribes may have expertise with regard to their tribal history and practices, which concern the tribal cultural resources with which they are traditionally and culturally affiliated.”

#### *Local Regulations*

The general plans for Siskiyou County provide only broad recommendations for the protection of cultural resources.

##### ***County of Siskiyou General Plan***

The Conservation Element of the Siskiyou County General Plan is dated 1973. The archaeology section of the Conservation Element states that Siskiyou County “has a wealth of archaeological history within its borders” and the County shall “preserve, protect, and develop the County’s Archaeological, Paleontological, and Historic as well as Geologic sites.” The County will strictly enforce state laws which prohibit unauthorized excavation on all lands under its jurisdiction and encourage scientific excavation, with all projects directed to the Siskiyou County Museum or Historical Society for guidance to assure that the proper procedures are followed which will ensure the validity and authenticity of any and all finds.

**A. Has a California Native American Tribe requested consultation in accordance with Public Resources Code section 218-0.3.1(b)?**

As a part of the archaeological survey conducted for the Ski Park Conversion THP and Ski Park II THP, 11 notification letters were sent to Native American individuals or groups to seek input on the Proposed project. No California Native American Tribe has requested consultation, but the Klamath Tribes did provide a comment (as shown in section 6 of the THPs) recommending avoidance measures for any discovered cultural resources, as well as the protection of culturally significant plants. As discussed in Section 4.4, rare plants (including any rare culturally significant plants) would be avoided during Project implementation and operation, and no significant impacts would occur. As discussed in Section 4.5, no cultural resources would be significantly impacted as a result of Project construction or operation.

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

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

As discussed in Section 4.5, Mount Shasta is listed in the California Register of Historical Resources. Mount Shasta is a vital cultural resource to various Native American tribes in the area. Additionally, the Ski Park has recognized Panther Meadows as an important cultural resource to Native American peoples. Impacts to Mount Shasta or Panther Meadows as a result of the Project would therefore result in significant impacts to tribal cultural resources.

Significant impacts would occur to Mount Shasta and Panther Meadows if the ski lift or construction activities dominated views from these areas and degraded the ceremonial activities of Native American tribes utilizing these cultural resources. To mitigate these effects, the Ski Park has chosen to implement **Mitigation Measures AES-1 and AES-2**, which would ensure the ski lift's highest point remains lower than the ridge of Grey Butte and would also prevent construction equipment visual impacts, ensuring visual impacts to Panther Meadows or Mount Shasta would be less than significant.

**C. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision**

**(c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?**

The lead agency (Siskiyou County) has not identified any additional significant tribal cultural resources on the Project site or in the vicinity of the Project. Additionally, through the AB52 consultation, no additional resources were brought up. Therefore, no impact would occur.

### **Cumulative Impacts**

The Project area does not contain any tribal cultural resources, so it would not contribute to cumulative impacts to tribal cultural resources on Ski Park property. Impacts to Panther Meadows would be eliminated with the implementation of **Mitigation Measures AES-1** and **AES-2**, while impacts to Mount Shasta would be less than significant. Nevertheless, if development were to continue around the foothills of Mount Shasta, it is possible that numerous less-than-significant impacts could cumulatively impact Mount Shasta's role as a tribal cultural resource. However, due to the vast public land holdings surrounding Mount Shasta (see Section 2.3, Existing Setting), the regulations constraining development on slopes and high wildfire severity zones (see Section 4.1.1), and the practical difficulties of developing in such areas, additional development around Mount Shasta is not expected. Therefore, the Project would not significantly contribute to cumulative impacts.

### **Mitigation Measures**

*Mitigation Measure TRI-1*: Implement **Mitigation Measure AES-1 and AES-2**.

## 4.19 UTILITES AND SERVICE SYSTEMS

4.19 Utilities and Service Systems				
	Environmental Issue Area	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
A.	Require or result in the relocation or construction of construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	Less than Significant	NA	NA
B.	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	Less than Significant	NA	NA
C.	Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	Less than Significant	NA	NA
D.	Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	Less than Significant	NA	NA
E.	Comply with federal, state, and local statutes and regulations related to solid waste?	No Impact	NA	NA

## 4.19.1 Discussion

### Regulatory Setting

#### *Federal Regulations*

There are no federal regulations that apply to the proposed Project in the area of Utilities and Service Systems.

#### *State Regulations*

##### ***California's Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24)***

The Energy Efficiency Standards for Residential and Nonresidential Buildings were established in 24 CCR Part 6 in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated every three years to allow for consideration and possible incorporation of new energy efficiency technologies and methods. New standards were adopted in 2019 as mandated by AB 970 to reduce California's electricity demand. The new standards went into effect on January 1, 2020.

##### ***California Integrated Waste Management Act***

In 1989, AB 939, known as the Integrated Waste Management Act, was passed into law. Enactment of AB 939 established the California Integrated Waste Management Board and set aggressive solid waste diversion requirements. Under AB 939, every city and county in California was required to reduce the volume of waste sent to landfills by 50% by 2000 and assure maintenance of at least a 15-year landfill capacity for solid wastes that are generated in the county and cannot be reduced or recycled. Reduction of the waste stream would be accomplished through recycling, reuse, composting, and other means. AB 939 requires counties to prepare a Countywide Integrated Waste Management Plan (CIWMP). An adequate CIWMP contains a summary plan that includes goals and objectives, a summary of waste management issues and problems identified in the incorporated and unincorporated areas of the county, a summary of waste management programs and infrastructure, information about existing and proposed solid waste facilities, and an overview of specific steps that will be taken to achieve the goals outlined in the components of the CIWMP.

#### *Local Regulations*

##### ***Siskiyou County General Plan***

The goals and policies of the Siskiyou County General Plan that are potentially applicable to the proposed project are listed below:

### Land Use and Circulation Element

- **Policy #30:** All development proposed within a wildfire hazard area shall be designed to provide safe ingress, egress, and have an adequate water supply for fire suppression purposes in accordance with the degree of wildfire hazard.
  - **Policy #41.5:** All development will be designed so that every proposed use and every individual parcel of land created is a buildable site, and will not create erosion, runoff, access, fire hazard or any other resource or environmentally related problem.
  - **Policy #41.6:** There shall be a demonstration to the satisfaction of the Siskiyou County Health Department and/or the California Regional Water Quality Control Board that sewage disposal from all proposed development will not contaminate groundwater.
  - **Policy #41.7:** Evidence of water quality and quantity acceptable to the Siskiyou County Health Department must be submitted prior to development approval.
  - **Policy #41.8:** All proposed development shall be accompanied by evidence acceptable to the Siskiyou County Health Department as to the adequacy of on-site sewage disposal or the ability to connect into an acceptable central sewer system serving an existing city or community services district with adequate capacity to accommodate the proposed development. In these cases, the minimum parcel sizes and uses of the land permitted for all development will be the maximum density and land uses permitted that will meet minimum water quality and quantity requirements, and the requirements of the County's flood plain management ordinance.
- A. Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?**

As described in the Section 2.1 (Project Overview), the Project would require the replacement of an existing transformer with a more capable transformer in the North Saddle envelope, as well as the construction of an underground power line and communication line from this transformer to the top of the ski lift facility. This would require underground trenching to install the power and communications lines, and other construction activities for the installation of the new transformer. Construction, trenching, and similar earth-moving activities could result in impacts to the environment through erosion, sedimentation, and fugitive dust. However, with the implementation of BMPs for construction and trenching activities, these impacts would be less than significant.



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

The Project would result in an increased demand for water throughout the Project area, as a greater number of visitors to the Ski Park would likely result from implementation of the Project. However, the anticipated increase of visitors from the current peak of 3,000+ visitors per day to a future peak of 5,400 visitors per day has been addressed in the 1997 Mount Shasta Ski Park Master Plan (Mt. Shasta Ski Park 1997). The current capacity for water resources sits at 8,600 visitors per day, well above the allowed uses of 5,400 visitors per day. Additionally, fire flow capacity can accommodate 6,000 to 7,000 visitors per day, again well above the allowed uses of 5,400 visitors per day. Thus, impacts on the water supply would be less than significant.

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

The Project would not result in significant increases in wastewater at the Ski Park. The proposed USFS-style vault privy toilet would not generate any wastewater demands, as the waste is disposed of via routine cleanings. Increases in wastewater and sewage disposal are addressed 1997 Mt. Shasta Ski Park Master Plan. At present, the current wastewater capacity is set at 7,720 visitors per day; this is well above the permitted peak Ski Park attendance of 5,400 visitors per day (Mt. Shasta Ski Park 1997). Therefore, while there would be an increase in wastewater demands at the Ski Park as a result of the Project, these impacts would be less than significant.

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

Project construction activities would generate solid waste in the form of construction waste. Construction material packaging and other waste materials would be disposed of at the Black Butte—Mt. Shasta Transfer Station (approximately 15 miles away) in accordance with all applicable state and local standards. Therefore, impacts would be less than significant.

Solid waste in the form of sewage would be generated by the vault privy toilet. The vault privy toilet proposed by the Project would sequester human waste until the vault became full. At that time, the human waste would be removed and transported to the nearest sewage treatment facility for processing. The amount of solid waste generated would not be in excess of any State or local standards, or in excess of the capacity of the local infrastructure. As discussed above, attendance levels at the Ski Park are well

within allowed maximums (Mt. Shasta Ski Park 2022). Therefore, impacts would be less than significant.

**E. Comply with federal, state, and local statutes and regulations related to solid waste?**

As discussed in item D. above, the Project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste. Thus, there would be no impact.

**Cumulative Impacts**

As an expansion of the Mt. Shasta Ski Park, the Project would add to utilities and service system impacts at the Ski Park which are currently less than significant. Nevertheless, as discussed above, the Mt. Shasta Ski Park's 1997 Planned Development Master Plan shows that the impacts on these utilities and service systems are not sufficient to exceed the current capacity of these service systems. Therefore, there would be no significant cumulative impacts.

**Mitigation Measures**

No mitigation measures would be required.

## 4.20 WILDFIRE

4.20 Wildfire				
	Environmental Issue Area	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
<b>A.</b>	Is the project located in or near state responsibility areas or lands classified as high fire hazard severity zones?	Yes		
	If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	NA		
<b>B.</b>	Substantially impair an adopted emergency response plan or emergency evacuation plan?	Less than Significant	NA	NA
<b>C.</b>	Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	Less than Significant	NA	NA
<b>D.</b>	Require the installation of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	Less than Significant	NA	NA
<b>E.</b>	Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	Less than Significant	NA	NA

### 4.20.1 Discussion

#### Regulatory Setting

##### *Federal Regulations*

There are no federal regulations that apply to the Project in the area of Wildfire.

## **State Regulations**

### **California Assembly Bill (AB) 337 (September 29, 1992)**

Assembly Bill 337 (known as the Bates Bill) requires CalFire to work with local fire authorities to identify Very High Fire Severity Zones (VHFSZs) throughout California. California Government Code Sections 51175 – 51189 extends this bill to apply to Local Responsibility Areas (LRAs).

### **California Fire Code, Part 9, Chapter 49**

Part 9, Chapter 49 of the California Fire Code was developed to “provide minimum standards to increase the ability of a building to resist the intrusion of flame or burning embers being projected by a vegetation fire and contributes to a systematic reduction in conflagration losses through the use of performance and prescriptive requirements.” These standards include the creation of defensible space around structures in the Wildland-Urban Interface. Additionally, construction materials and methods should be chosen for wildfire exposure protection in areas “where a wildfire burning in vegetative fuels may readily transmit fire to buildings and threaten to destroy life, overwhelm fire suppression capabilities, or result in large property losses.”

## **Local Regulations**

### **General Plan Safety Element**

The Siskiyou County General Plan Safety Element (Siskiyou County, 1975) was developed “to introduce safety considerations into the planning process in order to reduce loss of life, injuries, damage to property, and economic and social dislocation resulting from fire and dangerous geologic occurrences.” The Safety Element states that “the Public Resources Code defines hazardous fire areas, restriction on use, and minimum protection requirements”. These requirements, as stated in the Safety Element, indicate that for buildings located on land which is covered with flammable material:

- “A fire break of at least 30 feet is required to be maintained around buildings by removing all flammable vegetation or other combustible growth.
- “Firebreak clearance is, also, required around electrical transmission poles and towers.”
- “Provisions must be made to control erosion in areas where vegetation has been removed for firebreaks.”

### **Land Use Element**

The Siskiyou County Land Use Element was developed in 1980 to “allow the physical environment to determine the appropriate future land use pattern that will develop in Siskiyou County.” The Land Use Element includes a Wildfire Hazard Map (Map 10), which indicates that the Project area is within the High Wildfire Hazard area (Siskiyou County, 1980). Therefore, the Project Area is subject to the following Policy:

- **Policy #30:** All development proposed within a wildfire hazard area shall be designed to provide safe ingress, egress, and have an adequate water supply for fire suppression purposes in accordance with the degree of wildfire hazard.

The 1997 update to the Siskiyou County Land Use Element did not alter this policy.

**A. Is the Project located in or near state responsibility areas or lands classified as High Fire Hazard Severity Zones?**

The Project is located on State Responsibility Areas (SRA) and Federal Responsibility Areas (FRA) according to the CalFire Fire Hazard Severity Zone (FHSZ) Viewer (Cal Fire 2022). Additionally, the CalFire FHSZ Viewer indicates the majority of the Project is within a very high fire severity zone.

**If located in or near state responsibility areas or lands classified as Very High Fire Severity Zones, would the Project:**

**B. Substantially impair an adopted emergency response plan or emergency evacuation plan?**

The Project would not substantially impair an adopted emergency response plan or evacuation plan. The Ski Park has an existing emergency response plan related to wildfire, as shown on pages 9-10 of their Emergency Action Plan (Attachment B). The attendance capacity is well below the current fire flow limit of 6,000 – 7,000 skiers per day. Additionally, the emergency response and evacuation plan currently in place by the Ski Park are updated yearly and would account for growth in Ski Park attendance. Therefore, impacts to emergency response and evacuation plans would be less than significant.

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

The Project area would be constructed on steep slopes for the sake of Ski Park activities, and the elevations of the Project area would expose the area to significant winds. However, the Ski Park would close in the event of a wildfire, protecting people from any wildfire risks associated with the Project.

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

The Project would require the installation of a new transformer as well as a power and communications line to power the new ski lift structure. Aging electric lines and structures such as these could pose a fire risk if the equipment or lines were to malfunction and throw sparks. However, the Project proposes replacing an aging, existing transformer with a new transformer, which would reduce the fire risk from the electric equipment. Similarly, the Project proposes underground trenched power and communication lines to power the ski lift structure. Underground lines are much less likely to cause a fire in the event of a malfunction, as the sparks would be quickly put out by the lack of oxygen and presence of moisture in the compacted dirt surrounding the line. Therefore, impacts resulting from Project operations would be less than significant in the short term.

Construction activities related to the installation of the new transformer and underground lines could potentially increase wildfire risk at the Project site; however, with the implementation of best management practices for fire prevention for construction activities, these impacts would be less than significant.

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

In the event of a wildfire, the Project area would not expose structures or people to post-fire downstream/downslope risks in any greater capacity than would occur in the absence of Project implementation. The Park would temporarily close in the event of a wildfire, protecting people from any post-fire dangers onsite. Downslope of the Project, various low-volume roads could potentially be impacted by landslides or flooding from post-fire storm activities. Nevertheless, installation of the ski lift, power line, and all Project structures would not significantly change drainage patterns or slope stability; post-fire landslide and flooding risks would not be increased as a result of the Project. Therefore, impacts would be less than significant.

### Cumulative Impacts

In regard to cumulative impacts, the Project would ultimately contribute to the reduction of fire risk in the area; as discussed in Section 2.1 (Project Overview), the Power Company intends to extend the power and communications lines from the top of the ski lift structure to the Grey Butte communications towers in a future project (estimated completion date of 2023). This would ultimately allow the Power Company to cease using two overhead lines in the area, eliminating the fire risk from these aging aboveground utilities. Therefore, impacts would be less than significant.

### Mitigation Measures

No mitigation measures would be required.

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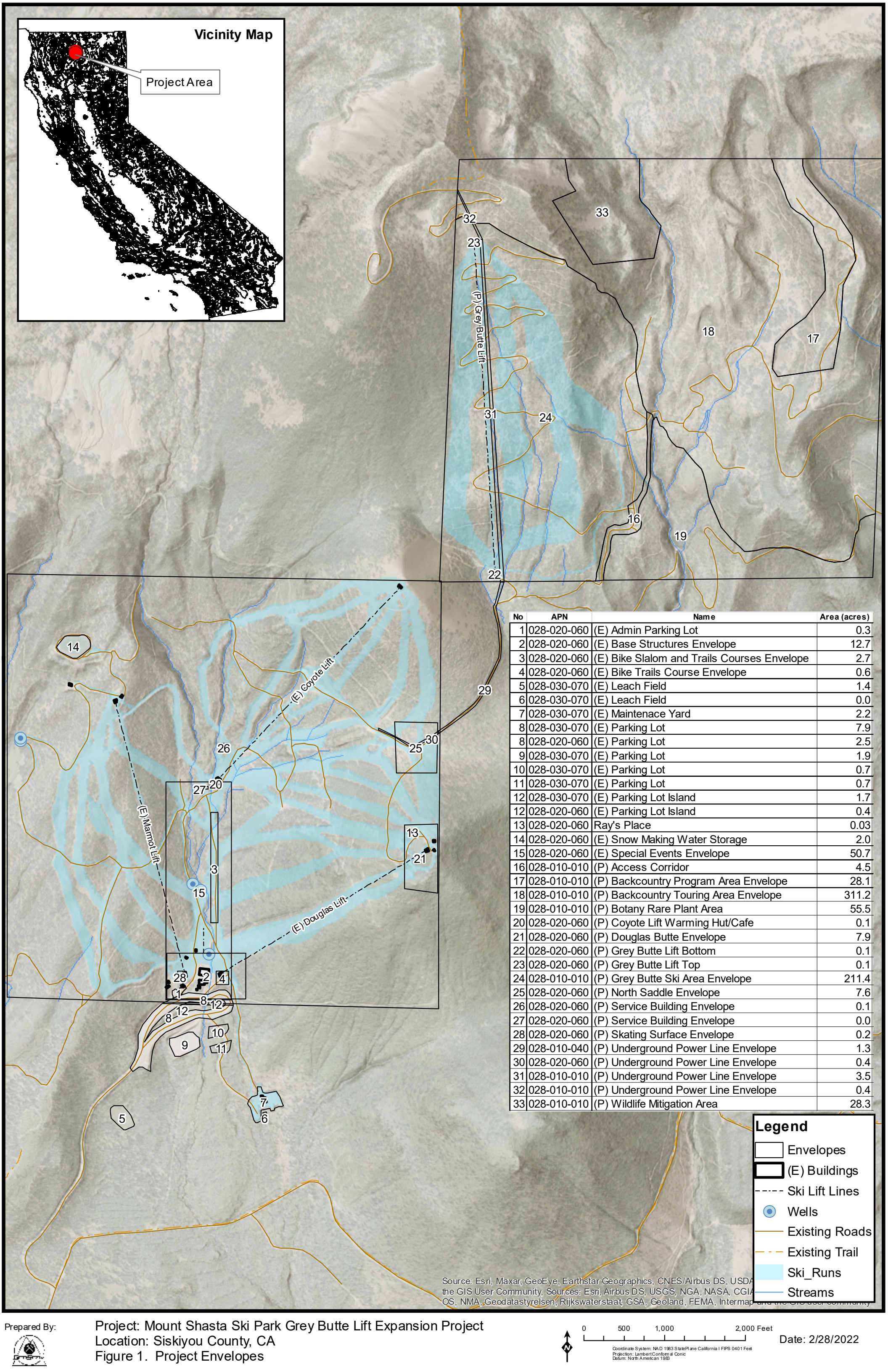
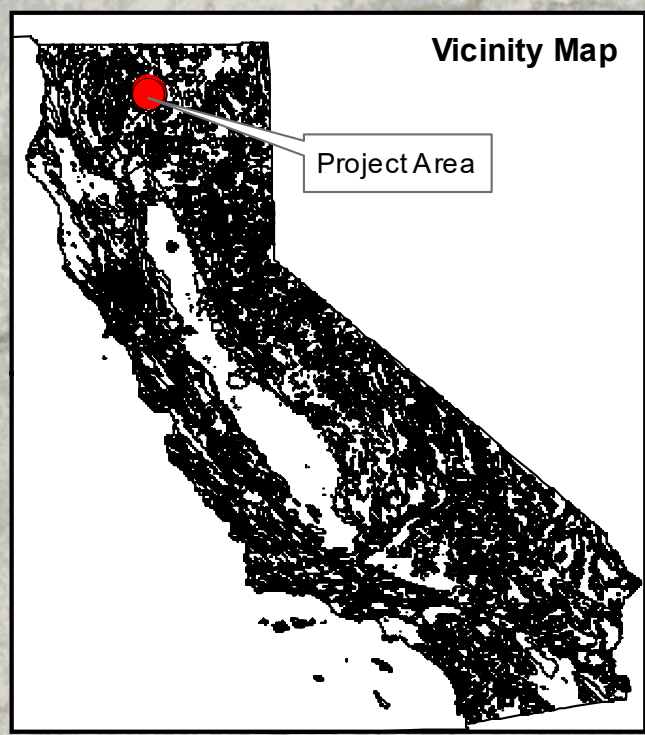
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## FIGURES



No	APN	Name	Area (acres)
1	028-020-060	(E) Admin Parking Lot	0.3
2	028-020-060	(E) Base Structures Envelope	12.7
3	028-020-060	(E) Bike Slalom and Trails Courses Envelope	2.7
4	028-020-060	(E) Bike Trails Course Envelope	0.6
5	028-030-070	(E) Leach Field	1.4
6	028-030-070	(E) Leach Field	0.0
7	028-030-070	(E) Maintenance Yard	2.2
8	028-030-070	(E) Parking Lot	7.9
8	028-020-060	(E) Parking Lot	2.5
9	028-030-070	(E) Parking Lot	1.9
10	028-030-070	(E) Parking Lot	0.7
11	028-030-070	(E) Parking Lot	0.7
12	028-030-070	(E) Parking Lot Island	1.7
12	028-020-060	(E) Parking Lot Island	0.4
13	028-020-060	Ray's Place	0.03
14	028-020-060	(E) Snow Making Water Storage	2.0
15	028-020-060	(E) Special Events Envelope	50.7
16	028-010-010	(P) Access Corridor	4.5
17	028-010-010	(P) Backcountry Program Area Envelope	28.1
18	028-010-010	(P) Backcountry Touring Area Envelope	311.2
19	028-010-010	(P) Botany Rare Plant Area	55.5
20	028-020-060	(P) Coyote Lift Warming Hut/Cafe	0.1
21	028-020-060	(P) Douglas Butte Envelope	7.9
22	028-020-060	(P) Grey Butte Lift Bottom	0.1
23	028-020-060	(P) Grey Butte Lift Top	0.1
24	028-010-010	(P) Grey Butte Ski Area Envelope	211.4
25	028-020-060	(P) North Saddle Envelope	7.6
26	028-020-060	(P) Service Building Envelope	0.1
27	028-020-060	(P) Service Building Envelope	0.0
28	028-020-060	(P) Skating Surface Envelope	0.2
29	028-010-040	(P) Underground Power Line Envelope	1.3
30	028-020-060	(P) Underground Power Line Envelope	0.4
31	028-010-010	(P) Underground Power Line Envelope	3.5
32	028-010-010	(P) Underground Power Line Envelope	0.4
33	028-010-010	(P) Wildlife Mitigation Area	28.3

**Legend**

- Envelopes
- (E) Buildings
- Ski Lift Lines
- Wells
- Existing Roads
- Existing Trail
- Ski\_Runs
- Streams

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, the GIS User Community, Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS User Community





No	APN	Name	Area (acres)
1	028-020-060	(E) Admin Parking Lot	0.3
2	028-020-060	(E) Base Structures Envelope	12.7
3	028-020-060	(E) Bike Slalom and Trails Courses Envelope	2.7
4	028-020-060	(E) Bike Trails Course Envelope	0.6
5	028-030-070	(E) Leach Field	1.4
6	028-030-070	(E) Leach Field	0.0
7	028-030-070	(E) Maintenance Yard	2.2
8	028-030-070	(E) Parking Lot	7.9
8	028-020-060	(E) Parking Lot	2.5
9	028-030-070	(E) Parking Lot	1.9
10	028-030-070	(E) Parking Lot	0.7
11	028-030-070	(E) Parking Lot	0.7
12	028-030-070	(E) Parking Lot Island	1.7
12	028-020-060	(E) Parking Lot Island	0.4
13	028-020-060	(E) Ray's Place	0.03
14	028-020-060	(E) Snow Making Water Storage	2.0
15	028-020-060	(E) Special Events Envelope	50.7
16	028-010-010	(P) Access Corridor	4.5
17	028-010-010	(P) Backcountry Program Area Envelope	28.1
18	028-010-010	(P) Backcountry Touring Area Envelope	311.2
19	028-010-010	(P) Botany Rare Plant Area	55.5
20	028-020-060	(P) Coyote Lift Warming Hut/Cafe	0.1
21	028-020-060	(P) Douglas Butte Envelope	7.9
22	028-020-060	(P) Grey Butte Lift Bottom	0.1
23	028-020-060	(P) Grey Butte Lift Top	0.1
24	028-010-010	(P) Grey Butte Ski Area Envelope	211.4
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31	028-010-010	(P) Underground Power Line Envelope	3.5
32	028-010-010	(P) Underground Power Line Envelope	0.4
33	028-010-010	(P) Wildlife Mitigation Area	28.3

Source: Esri, Maxar, GeoEye, the GIS User Community, Source, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, Geo, Geoland, FEMA, Intermap and the GIS user community

**ATTACHMENT A**  
**Initial Study**



## INITIAL STUDY

### County of Siskiyou

### Initial Study Environmental Checklist Form

1. Project title: Mount Shasta Ski Park Lift Extension Project Subsequent Mitigated Negative Declaration
2. Lead agency name and address: County of Siskiyou  
Planning Department  
806 Main Street  
Yreka, CA 96097
3. Contact person and phone number: Hailey Lang, Deputy Director  
Planning Department  
530-841-210  
hlang@co.siskiyou.ca.us

4. Project location: The Project is located in an unincorporated part of Siskiyou County near the base of Mount Shasta, approximately six miles north of the town of McCloud, California (Figure 1). It is located partially on the Mt. Shasta Ski Park's existing facilities, with the bulk of the Project occurring on the Ski Park's undeveloped ownership to the northeast. Refer to Figure 1, Figure 2, and Figure 3 (Project Envelopes) for specific information on the Project location and activities.

Project Address: 4500 Ski Park Highway, McCloud, CA 96057

County: Siskiyou County

APNs: 028-010-010, 028-010-040, and 028-020-060

USGS Quad: Township 40 North, Range 3 West, Sections 3, 9, and 10, McCloud United States Geological Survey (USGS) 7.5-minute quadrangle

Long./Lat.: Ski Lift Facility: 41°20'37.41"N, 122°11'26.11"W

5. General plan designation: Woodland Productivity Overlay
6. Zoning: Planned Development (PD)
7. Description of project: The Project would include the development of a new ski lift, associated restroom and first aid facilities, power and communications



capabilities for the ski lift, and temporary backcountry touring facilities in the Project area.

**Ski Lift Area:** The ski lift would be located on the south slope of Grey Butte and would extend approximately 4,300 feet in a roughly south to north trajectory, lifting skiers from 6,392 ft to 7,536 ft., for a total elevation gain of 1,144 feet.

Timber harvest to create the ski runs have previously been approved via two Timber Harvest Plans (THP # 2-21-00103-SIS and THP # 2-21-00185-SIS).

Additionally, there would be two ski patrol/first aid warming station huts installed near the top and bottom terminals of the ski lift. The huts would facilitate first aid care for guests and employees. In addition, one storage/maintenance structure would be constructed near the bottom lift terminal. Lastly, one FS-style vault privy would be constructed near the bottom terminal of the ski lift. Exact locations of the ski patrol/first aid warming station huts, vault privy, and storage/maintenance structure would be determined after the proposed lift is constructed.

**New Transformer & Underground Power Line:** PacifiCorp Power Company (Power Company) would replace an existing transformer with a larger transformer, and an underground power line would be installed. The power line would be trenched beneath Forest Service Road 40N65 and its spur road (Spur A) before running the length of the Ski lift.

**Backcountry Program:** To accommodate the Ski Park's backcountry program within the Backcountry Touring Area Envelope (See Figure 3), up to four temporary structures would be installed seasonally as backcountry guest warming huts/temporary overnight shelters.

8. **Surrounding land uses and setting:** The parcels immediately surrounding the project are public land held by the USDA Forest Service (FS). Access to the site is provided via Ski Park Highway, a road off of State Route (SR) 89. Vegetation in the area consists primarily of mixed conifer forest. Further from the Project area, surrounding uses are still dominated by public use and recreation. Mount Shasta is directly to the north of the Project, while Panther Meadows and the Everitt Memorial trail are located to the northwest. Additional FS and private forest operations surround the Project area to the east and south.

## ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

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

**DETERMINATION:** (To be completed by the Lead Agency)

On behalf of this initial evaluation:

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

\_\_\_\_\_  
Planner's Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
County of Siskiyou Planner's Printed Name

\_\_\_\_\_  
County of Siskiyou



**EVALUATION OF ENVIRONMENTAL IMPACTS:** Pursuant to Section 15063 of the California Environmental Quality Act Guidelines, a brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the projects outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).



### 4.1 Aesthetics

	Environmental Issue Area	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
a.	Temporary visual impacts caused by construction activities?	No impact	Mitigation Measure AES-1: Project construction equipment and activities shall not be staged at or reach an elevation higher than the ridge of Grey Butte, ensuring that the cultural sites of Panther Meadows and Mount Shasta will be protected from temporary visual impacts.	NA
b.	Have a substantial adverse effect on a scenic vista?	Potentially significant	Mitigation Measure AES-2: The ski lift facility shall be constructed so as not to reach an elevation higher than the ridge of Grey Butte, ensuring that the cultural sites of Panther Meadows and Mount Shasta will be protected from visual impacts.	Less than Significant
c.	Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	Less than Significant	NA	NA
d.	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	Less than Significant	NA	NA



e.	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	No impact	NA	NA
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**Questions A, C, and D:** The upper portions of the Project area within Section 3, Township 40 North, Range 3 West are visible within some parts of the town of McCloud and SR 89 at a distance of approximately 6.5 miles (see Timber Harvest Plan [THP] # 2-21-00103-SIS and THP # 2-21-00185-SIS). However, for the implementation of the Project, no trees, rock outcroppings, or historic buildings are proposed to be removed or altered, as tree removal for ski runs were removed during previously approved THPs. Construction of the lift structure and use of the area for ski runs would prevent the revegetation of the area with conifers; additionally, use of the area for winter and summer recreational activities such as snowboarding, and mountain biking could potentially result in the damage of rocks in the immediate vicinity of the Project. Most of the visual changes would not be visible anywhere outside the immediate Project area. Therefore, these changes would pose no visual impact to SR 89, the town of McCloud, or the City of Mt. Shasta. While the ski lift structure would be visible on SR 89 at distances of up to 6.5 miles, the distance of the lift structure from the highway plus the speed at which motorists would be traveling on SR 89 would keep the visual impacts to less than significant levels. Similarly, the town of McCloud and City of Mt. Shasta would only have long-distance views of the ski lift structure, and these visual impacts would be less than significant.

**Question B:** Project implementation could have a significant visual impact on Panther Meadows. According to the cultural resources survey conducted for the Ski Park Conversion Timber Harvest Plan (THP # 2-21-00103-SIS) and Ski Park II Timber Harvest Plan (THP # 2-21-00185-SIS), Panther Meadows is an important cultural site for Native American groups such as the Wintu, Klamath, Shasta, and Karuk tribes. Panther meadows is also a popular recreational site. If the proposed lift structure is visible from Panther Meadows, this could significantly impact views from Panther Meadows, degrading the visual character of the area and harming the cultural and recreational value of the scenic vista. However, these visual impacts would be mitigated by installing the ski lift structure in an area where it would not be visible from Panther meadows. This can be achieved by keeping the ski lift's highest point below the ridge line of Grey Butte. Impacts would be mitigated to less than significant levels with the implementation of Mitigation Measure AES-1.

**Question E:** No additional lighting is proposed for the implementation of the Project.



Cumulative Impacts: The previously approved THPs and the proposed Project would both affect the aesthetic environment of the area. However, considered cumulatively, these impacts would remain less than significant. The timber harvest in the area would still retain enough forested terrain to blend into the forest mosaic that surrounds the Project, while the visual impacts of the ski lift facility would be mitigated by Mitigation Measure AES-1. Therefore, cumulative visual impacts would be less than significant.

**Mitigation Measures:** The following Mitigation Measure would be required:

**Mitigation Measure AES-1:** The ski lift facility shall be constructed so as not to reach an elevation higher than the ridge of Grey Butte, ensuring that the cultural sites of Panther Meadows and Mount Shasta will be protected from visual impacts.

**Mitigation Measure AES-2:** The ski lift facility shall be constructed so as not to reach an elevation higher than the ridge of Grey Butte, ensuring that the cultural sites of Panther Meadows and Mount Shasta will be protected from visual impacts.

## 4.2 Agriculture & Forestry Resources

	Environmental Issue Area	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
a.	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	No impact	NA	NA
b.	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	No impact	NA	NA
c.	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	No impact	NA	NA
d.	Result in the loss of forest land or conversion of forest land to non-forest land?	Less than Significant	NA	NA
e.	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	Less than Significant	NA	NA

**Questions A-C:** No Prime Farmland, Unique Farmland, or Farmland of Statewide Importance is Present in the Project Area (California Department of Conservation 2016). The Project area under Ski Park ownership is not zoned for agricultural use, nor would it conflict with a Williamson Act contract. The Ski Park's ownership is zoned Planned Development – Ski Park Uses (PD) by Siskiyou County, as stated in the Ski Park's 1997 Planned Development Master Plan (Mt. Shasta Ski Park 1997). A portion of the Project (the underground power line) leaves Ski Park property and enters US Forest Service land in Section 10. This land is zoned Agricultural-Forestry(A-F); however, the only Project development in this area would be the construction of the underground powerline, which would occur under existing Forest Service roads and would not conflict with zoning.

**Question D:** the Project area is not zoned for timber production. The Ski Park Conversion THP (THP # 2-21-00103-SIS) approved the conversion of approximately 88 acres of forested land to ski runs and the chair lift corridor central to the Project. However, trees were retained where feasible in the conversion area to prevent erosion and to create a more scenic and technically challenging skiing experience. Therefore, while 88 acres of



timberland was converted to non-timberland, existing zoning and timber harvest design ensure that impacts to forest land would be less than significant.

**Question E:** Outside of the 88-acre timber conversion area (addressed in item D above), the areas would remain significantly forested, and the existing zoning of Planned Development (PD) indicate that timber production and harvest are not the main objectives of this land use (Mt. Shasta Ski Park 1997). Thus, impacts would be less than significant.

**Cumulative Impacts:** The 88 acres of converted forestland was not within a TPZ; therefore, the Project would not contribute to cumulative impacts to agricultural and forestry resources.

**Mitigation Measures:** No mitigation measures are required.

### 4.3 Air Quality

	Environmental Issue Area	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
a.	Conflict with or obstruct implementation of the applicable air quality plan?	Less than significant	NA	NA
b.	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	Less than significant	NA	NA
c.	Expose sensitive receptors to substantial pollutant concentrations?	Less than significant	NA	NA
d.	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Less than significant	NA	NA

**Questions A-B:** Siskiyou County is not in non-attainment for any air pollutant regulated under federal, state, or local laws. Therefore, there would be no impact. The Project would produce emissions during construction activities, and it would produce emissions during ski park activities. However, these levels would not be enough to conflict with any applicable air quality plan.

**Questions D-E:** No sensitive receptors are present within a mile of the Project area. While recreators may be potentially present along nearby trails or roads, pollution impacts and impacts from objectionable odors to these recreators would be less than significant. Operation of the Project could generate small-scale pollutants from gasoline and diesel-powered maintenance vehicles, snowmobiles/recreational vehicles, and snow-making machines. However, the distances from sensitive receptors would also make these impacts less than significant.

**Cumulative Impacts:** As demonstrated above, the Project would follow all applicable regulations regarding air quality and would not significantly contribute to cumulative air pollution impacts.

**Mitigation Measures:** No mitigation measures are required.

### 4.4 Biological Resources

	Environmental Issue Area	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
a.	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	Potentially Significant	Mitigation Measure BIO-1: Implement Preconstruction Nesting Bird Survey; Mitigation Measure Bio-2: Implement Timber Harvest Plan Surveys and Protection Buffers for sensitive wildlife species.	Less than Significant
b.	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	Less than significant	NA	NA
c.	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Less than significant	NA	NA
d.	Interfere substantially with the movement of any native resident or migratory fish and wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	Potentially Significant	Mitigation Measures BIO-1 and BIO-2 (see item a); Mitigation Measure BIO-3: Designate the Wildlife Protection Area and Botany Rare Plant Area as barred from mechanical entry.	Less than Significant
e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Potentially Significant	Mitigation Measure BIO-3: Designate the Wildlife Protection Area and Botany Rare Plant Area as barred from mechanical entry.	Less than Significant
f.	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	No impact	NA	NA



**Question A:** The Project would result in temporary construction activities for the installation of the ski lift, underground power and communication lines, vault privy, maintenance shed, and warming hut structures. The Project would also include the permanent alteration of the land in the areas of the ski lift, vault privy, and maintenance shed. Additionally, the Project would cause increased human use of the Project area, particularly around the ski lift area on Grey Butte, with smaller increases occurring in the backcountry touring area within section 3. These Project construction and implementation activities all have the potential to impact special-status species if they or their habitat occurs throughout the Project area.

**Nesting Birds:** Nesting birds could potentially build nests within the Project area in the intervening periods between completion of the timber harvest operations and the start of construction activities for the Project. Construction activities could disturb nesting birds or their young. These impacts would be significant. However, Mitigation Measure BIO-1 would implement a preconstruction nesting bird survey less than one week prior to the start of construction activities. Additional nesting bird surveys would be conducted if a break in construction activities of seven days or more occurred. If any nesting birds (including Northern goshawks, see below) are discovered within the Project area or near enough to the Project area to be impacted by construction noise, CDFW would be consulted to advise how to protect the nesting birds during construction. With the implementation of Mitigation Measure BIO-1, impacts to nesting birds would be less than significant.

**Special-status Plant Species:** The Ski Park Conversion THP (THP # 2-21-00103-SIS) and Ski Park II THP (THP # 2-21-00185-SIS) included an extensive botanical scoping process and survey. The botanical survey report can be found in Section V of both THPs. Additional sensitive species were highlighted through the U.S. Fish and Wildlife Service Information Planning and Consultation (USFWS IPaC) web application.

One special-status species, Wilkins' harebell (*Campanula wilkinsiana*, Rare Plant Rank 1B.2), was found in the THP area on Ski Park property. However, the plants were observed outside of the Project area, in a 100-foot protection zone that was not altered in the THP and is not utilized in Ski Park activities. Therefore, impacts to Wilkins' harebell would be less than significant.

Historical populations of northwestern moonwort (*Botrychium pinnatum*, Rare Plant Rank 2B.3), discovered in a 2006 THP (THP # 2-06-105-IS), were searched for during the botanical survey but not found. These populations may be in

dormancy due to the severe drought conditions that were present during the botanical survey. The populations are within the Project area, though not within the ski lift area where the most intensive use would occur. Therefore, impacts to northwestern moonwort would be less than significant; however, see Question E.

Whitebark pine (*Pinus albicaulis*, US Proposed Threatened) was identified through the USFWS IPaC application as potentially being impacted by the Project. However, whitebark pine was not observed during the May – October 2021 botanical survey for the THPs, and therefore is not expected to occur in the area. Therefore, there would be no impacts to whitebark pine.

Special-status Fish Species: No critical habitat or essential fish habitat were recorded found within the Project area. The USFWS IPaC application did list two fish species, Delta smelt (*Hypomesus transpacificus*, US Threatened) and longfin smelt (*Spirinchus thaleichthys*, US Candidate), as potentially being impacted by the Project. However, there are no fish-bearing streams within the Project area; therefore, Delta smelt, and longfin smelt have no potential to occur on the Project area. Significant impacts to these species could occur if erosion or hazardous materials entered the Sacramento River watershed and polluted downstream habitat. However, with the implementation of best management practices for erosion control and spill prevention during Project construction and operation, impacts to these species would be less than significant.

Special-Status Wildlife Species: Species Addressed in the Timber Harvest Plans: The THPs examined the following special-status wildlife species that California National Diversity Database (CNDDDB) records indicated could potentially occur in the Project area: Northern spotted owl (*Strix occidentalis*, US Threatened, State Threatened), Northern goshawk (*Accipiter gentilis*, Board of Forestry sensitive) gray wolf (*Canus lupus*, State Endangered), Pacific fisher (*Pekania pennanti*, State Species of Special Concern), Pacific marten (FS Sensitive) Sierra Nevada red fox (*Vulpes necator*, US Proposed Threatened, State Threatened), and wolverine (*Gulo luscus*, US Proposed Endangered, State Endangered).

Northern Spotted Owl: As discussed in Section II of the THPs, the Project area is within the geographic range of the Northern Spotted Owl. However, communication with CalFire representatives confirmed that the Project area does not contain suitable habitat for the Northern spotted owl (see Section V, page 210 of the Ski Park Conversion THP and Section V, page 217 of the Ski Park II THP). Therefore, impacts to the Northern Spotted Owl would not be significant.

Additional Animal Species Protected by the Timber Harvest Plans: The Gray wolf, Northern goshawk, Pacific fisher, Pacific marten, Sierra Nevada red fox, and wolverine were all protected with mitigations during the implementation of the

THPs that preceded this Project. The THPs included specific mitigations for each species which involved a protection buffer if a special-status animal or its nest, den, or rendezvous point is discovered during THP implementation. Similar impacts to these species-special status animal species could potentially occur during Project construction and implementation. These impacts would be potentially significant. These impacts would be reduced with the implementation of Mitigation Measure BIO-2. This Mitigation Measure would designate a qualified biologist to survey for each of these species (with the Northern Goshawk covered under the nesting bird species) prior to the start of Project construction. Additionally, Mitigation Measure BIO-2 would apply the protection distance buffers and CDFW consultation requirements listed in the THP mitigations. Specific protection measures are summarized below:

Species	Protection Trigger	Protection Buffer	Follow-up Action
Northern Goshawk	Nest Site	0.25 miles	CDFW Consultation
Gray Wolf	Den, Rendezvous Site	0.25 miles	CDFW Consultation
Pacific Fisher	Individual	1,000 feet	Den Search by Biologist
Pacific Fisher	Den	375 feet	CDFW Consultation
Pacific Marten	Den	0.25 Miles	CDFW Consultation
Sierra Nevada Red Fox	Den, Rendezvous Site	0.25 Miles	CDFW Consultation
Wolverine	Den, Rendezvous Site	0.25 miles	CDFW Consultation

#### Wildlife Species Unaddressed by the Timber Harvest Plans:

**Crustaceans:** The USFWS IPaC web application for the Project area identified vernal pool fairy shrimp (*Branchinecta lynchi*, US Threatened), Conservancy fairy shrimp (*Branchinecta conservation* US Endangered), and vernal pool tadpole shrimp (*Lepidurus packardi*, US Endangered) as potentially occurring in the Project area. The vernal pool fairy shrimp and Conservancy fairy shrimp are both dependent on vernal pools or vernal pool-like habitats (USFWS 2005). The vernal pool tadpole shrimp occurs in a wider variety of ephemeral wetland habitats in addition to vernal pools (USFWS 2007). However, no ephemeral wetland habitats, including vernal pools, are present on the project site; therefore, vernal pool fairy shrimp, Conservancy fairy shrimp, and vernal pool tadpole shrimp have no potential to occur in the Project area, and Project implementation would have no impacts on these species.

**Insects:** The USFWS IPaC report for the Project identified the monarch butterfly (*Danaus plexippus*, US Candidate) as potentially occurring in the Project area. The monarch butterfly requires its host plant, milkweed (*Asclepias* sp.) in order to breed in the area. No milkweed was observed during the 2021 botanical survey for the THPs within the Project area; this demonstrates that there is no potential for monarch butterflies to breed on the project site. Migratory monarch

butterflies would not necessarily require milkweed to pass through an area on its way to overwintering grounds. The USFWS Monarch Species Status Assessment Report (Version 2.1, September 2020) states that adult monarch butterflies require a diversity of blooming nectar resources during breeding and migration. While the flowering species present in the Project may provide nectar for monarch butterflies returning to overwintering sites., it is unlikely that implementation of the Project would harm monarch butterflies. This is because the butterfly's nectar sources are generally restricted to riparian areas, which would not be altered for the implementation of the Project. Thus, impacts to the monarch butterfly would be less than significant.

**Yellow-billed Cuckoo:** The USFWS IPaC report for the Project identified the yellow-billed cuckoo (*Coccyzus americanus*) as potentially occurring in the Project area. Yellow-billed cuckoos generally breed in large blocks of riparian habitats; in particular, cottonwood trees are an important foraging habitat for yellow-billed cuckoos in California (USFWS 2001). Western, yellow-billed cuckoos therefore have a very minimal potential to occur in the Project area. The Project area supports very little riparian habitat through its Class II – Class IV streams and does not represent the typical large riparian areas that support the yellow-billed cuckoo. In addition, no cottonwood species were observed during the 2021 botanical surveys throughout the Project area, despite an intensive survey effort along these watercourses. Thus, yellow-billed cuckoos have no potential to occur in the Project area, and there would be no impacts on the species.

**Amphibians:** The USFWS IPaC report for the Project identified the California red-legged frog and Oregon spotted frog as potentially occurring in the Project area. According to the Recovery Plan for the California red-legged frog (USFWS 2002), the California red-legged frog generally occupies habitats below 3,500 feet in elevation, though some historical sightings have occurred as high as 5,200 feet. All project developments would occur at elevations of at least 5,400 feet; therefore, there is no potential for the California red-legged frog to occur on the Project area; with the implementation of BMPs for erosion and sedimentation, no impacts would occur to the species.

According to the final rule listing the Oregon spotted frog as threatened (Federal Register 2014, 79 FR 51657), the species (*Rana pretiosa*, US Threatened) utilizes "shallow water areas for egg and tadpole survival; perennially deep, moderately vegetated pools for adult and juvenile survival in the dry season; and perennial water for protecting all age classes during cold wet weather." The final rule additionally states that "Oregon spotted frogs have been found at elevations ranging from near sea level in the Puget Trough lowlands in Washington to approximately 5,000 feet." As the Project area sits at elevations of

5,400 feet or higher, there is no potential for the Oregon spotted frog to occur. Therefore, there would be no impact on the Oregon spotted frog.

**Franklin's Bumblebee:** The THPs did not address Franklin's bumblebee (*Bombus franklini*). Franklin's bumblebee was listed as federally endangered in September 2021. CNDDDB records indicate that the nearest occurrence of Franklin's bumblebee occurred at least 2 miles away from the Project area near Red Fir Flat along Everitt Memorial Highway. According to the Recovery Outline for Franklin's Bumblebee (USFWS 2021), specific habitat needs are poorly understood. For example, it is unknown why the species has been historically restricted to seven counties in Southern Oregon and Northern California, despite apparently suitable habitat across a much wider region (USFWS 2021). As such, it is difficult to assess the potential for this species to occur in the Project area. However, the last sighting of Franklin's bumblebee occurred in 2006 near Mt. Ashland, over 50 miles away. Additionally, the recorded nearby occurrence is 24 years old (from 1998), has low locational accuracy (1 mile radius), is centered approximately 3 miles away, and the record itself states Franklin's bumblebee is extirpated from California. Therefore, Franklin's bumblebee is not expected to occur in the Project area, and no impacts to Franklin's bumblebee would occur as a result of the Project.

Additional species not considered by the THPs include obscure bumblebee (*Bombus caliginosus*), silver-haired bat (*Lasionycteris noctivagans*), and long-eared myotis (*Myotis evotis*). These species were included in the CNDDDB records search; however, they are not listed or proposed to be listed as threatened or endangered by federal or state law (CDFW 2022).

**Question B and C:** Records searches for the Ski Park Conversion and Ski Park II THPs did not find any sensitive natural areas occurring on or near the Project site (THP # 2-21-00103-SIS, THP# 2-21-00185-SIS). The THPs identified several Class II, Class III, Class IV, and unclassified streams occur in the Project area. Nevertheless, riparian vegetation buffers were retained around these streams, and the Project does not propose any alteration or heavy use of these sites. Proposed ski trails would cross several unclassified and Class III streams, resulting in wintertime skier crossing of these streams; however, these small streams would not be impacted by crossover when covered with snow.

Additional natural areas on the Project area include a small pond identified within the botanical survey. While the pond does occur on the Project area, no alterations or use of the pond are proposed for the implementation of this Project. Therefore, impacts would be less than significant.



**Question D:** See discussion in Question A. Impacts to nesting migratory birds would be mitigated through the implementation of nesting bird surveys (Mitigation Measure BIO-1). Additionally, no migratory fish are expected to occur in the Project area, and no barriers to fish migration would arise as a result of the Project. The Siskiyou County General Plan, Land Use Element (Siskiyou County 1980) includes a deer wintering area map, which confirms the Project area would not impact deer during critical wintering periods. Sensitive wildlife, such as the gray wolf, Pacific marten, wolverine, and Pacific fisher, have been discussed at length, with Mitigation Measures BIO-2 and BIO-3 (discussed in Question E) protecting the persistence, breeding, and movement of these species. Lastly, riparian buffers (which would facilitate migratory wildlife dispersal and resident wildlife persistence) were retained during THP operations and will not be altered for the implementation of this Project. Therefore, impacts to native resident and migratory wildlife would be less than significant.

**Question E:** The Conservation Element of the Siskiyou County General Plan (Siskiyou County 1973) includes the following objectives relevant to the Project: 1) Retain the character and natural beauty of Siskiyou County by sound conservation practices; and 3) Protect and conserve natural areas worth of special consideration.

The Project area does include natural areas worth special consideration. Specifically, there is an approximately 28-acre area adjacent to the Mt. Shasta Wilderness Boundary in the northern portion of Section 3 with high value to wildlife. The area possesses many terrain features desirable for wildlife diversity, including live old growth trees, cavity trees, snags, downed woody material, rock outcroppings, and hollow logs, as well as a watercourse at the edge of the area. Additionally, there is a 55-acre area in the southern portion of Section 3 that encompasses most of the historic and current special-status plant detections on the Project area (see Figure XXX, Project Envelopes). These detections include the historic northwestern moonwort populations found in 2006, as well as limited-distribution plant (Rare Plant Rank 4) Mt. Shasta arnica (*Arnica viscosa*). Project operations that degrade these areas could potentially conflict with Objective 3 of the Siskiyou County General Plan Conservation Element. However, the Ski Park proposes to designate these areas as a Wildlife Mitigation Area and Botany Rare Plant Area, and to bar the areas from mechanical entry. This is a substantial conservation action, as the proposed Wildlife Mitigation Area was originally slated to be part of a helicopter harvest operation from a 2006 THP on the Ski Park's ownership (THP # 2-06-105-SIS). Mitigation Measure BIO-3 would designate these areas as excluded from mechanical entry and would bring the Project into compliance with Objective 3

of the Siskiyou County General Plan Conservation Element. Therefore, impacts would be less than significant.

**Question F:** The CDFW Conservation Plan Boundaries layer (CDFW 2021) shows that there are currently no Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, regional, or state habitat conservation plans that include any portion of the Project area.

**Cumulative Impacts:** If additional development were to occur surrounding the Project area, cumulative impacts could significantly impact sensitive wildlife or plant species. However, the area is surrounded by federal land such as FS ownership, which only sees occasional timber harvest subject to federal and state wildlife regulations. Additionally, Mitigation BIO-3 preserves crucial potential habitat that maintains the resilience of wildlife species in the area. Therefore, cumulative impacts would be less than significant.

**Mitigation Measures:** The following Mitigation Measures would be implemented:

Mitigation Measure BIO-1: If Project construction or vegetation-removal activities are conducted during the nesting bird season (February 1 through August 31), a preconstruction nesting bird survey shall be conducted. These surveys shall be conducted by a qualified biologist no more than one week prior to vegetation removal or construction activities during the nesting season; this survey shall be repeated if a break in construction activities of greater than one week occurs. The survey shall include the Project area as well as the proposed flight path of construction helicopters where they travel above forested landscapes. If an active nest is located during the pre-construction surveys, a non-disturbance buffer shall be established around the nest by a qualified biologist in consultation with the Department. No vegetation removal or construction activities shall occur within this non-disturbance buffer until the young have fledged, as determined through additional monitoring by the qualified biologist. The results of the pre-construction surveys shall be sent electronically to CDFW at R1CEQARedding@wildlife.ca.gov.

Mitigation Measure BIO-2: With the exception of sensitive bird species (which will be covered under the nesting bird survey), all sensitive wildlife (animal) species mitigated for in THP # 2-21-00103-SIS and THP # 2-21-00185-SIS shall be surveyed for by a qualified biologist Prior to the start of Project construction. Detection of any sensitive wildlife nest, den, or rendezvous area during the surveys, or during Project construction or operation, shall trigger the relevant species-specific protection buffer as specified in the THPs. Following the positive detection, the Designated Biologist shall contact CDFW for a consultation.

Mitigation Measure BIO-3: The 28-acre Wildlife Mitigation Area and 55-acre Botany Rare Plant Area, as designated by the Mt. Shasta Ski Park, shall be barred from mechanical entry to facilitate the persistence of habitat complexity, and wildlife and botanical diversity within the Ski Park.



### 4.5 Cultural Resources

	Environmental Issue Area	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
a.	Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	Potentially Significant	Mitigation Measure CUL-1: Implement Mitigation Measure AES-1.	Less than Significant
b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	Less than Significant	NA	NA
c.	Substantially disturb human remains, including those interred outside of formal cemeteries?	Less than Significant	NA	NA

**Question A:** Implementation of the Project could have visual impacts to Panther Meadows, an important cultural resource to the Wintu, Klamath, Shasta, and Karuk Native American tribes. Panther Meadows is utilized for organized ceremonial activities by several of these Native American tribes. If the ski lift is built at too high of an elevation, it could be visible to observers within Panther Meadows who are participating in cultural activities. These impacts could be potentially significant unless mitigation is implemented. Mitigation Measure AES-1 would ensure the ski lift’s highest point would be below the ridge line of Grey Butte, thus preventing any visual (and therefore cultural) impacts to Panther Meadows.

In regard to historical resources, an archaeological survey of the Project area was conducted by Cliff Kennedy, Registered Professional Forester #2286, as detailed in Section VI of THP # 2-21-00103-SIS and THP# 2-21-00185-SIS. The survey included a records search through the Northeast Information Center (Chico, CA) on March 29, 2021. The record search did not reveal any cultural resources within the plan area, but it did indicate that the Project is located in an area considered to be highly sensitive for prehistoric, protohistoric, and historic cultural resources. Mount Shasta, north of the Project area, was indicated in the record search as a significant cultural resource. Similar to Panther Meadow, Mount Shasta holds a vital cultural role to several Native American tribes in the area. However, with the implementation of Mitigation Measure AES-1, visual impacts to Mount Shasta would be less than significant.

In addition to the record search, a field survey of approximately 150 hours was conducted throughout the Project area. No prehistoric, protohistoric, or historic cultural resources were uncovered during the field survey. These results are



consistent with previous archaeological surveys in the area conducted from 1981 to 2016 for ski park construction and timber harvest purposes.

Overall, with the implementation of Mitigation Measure AES-1, impacts to historical resources as a result of the Project would be reduced to less than significant levels.

**Questions B-C:** As stated in item A, the archeological survey did not uncover any archaeological resources within the Project area, including human remains. Therefore, impacts to archaeological resources and human remains would be less than significant.

**Cumulative Impacts:** Repeated cultural resources surveys since 1981 in the Project area have not found any cultural resources. It is possible that timber harvest in surrounding public lands will detect previously unknown cultural resources; however, these finds would be preserved according to federal and state law. Therefore, cumulative impacts to cultural resources would be less than significant.

**Mitigation Measures:** The following mitigation measure would be implemented:

Mitigation Measure CUL-1: Implement Mitigation Measure AES-1 to prevent visual impacts from the ski lift structure to Panther Meadows and Mount Shasta.

## 4.6 Energy

	Environmental Issue Area	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
a.	Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	Less than significant	NA	NA
b.	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	Less than significant	NA	NA

**Questions A-B:** The Project would not result in wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation. The Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Therefore, impacts would be less than significant.

**Cumulative Impacts:** Considered cumulatively with other Project in Siskiyou County and California, the Project would not significantly contribute to energy impacts.

**Mitigation Measures:** No Mitigation Measures are required.

### 4.7 Geology and Soils

	Environmental Issue Area	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
<b>a.</b>	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:			
	i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology special Publication 42.	Less than significant	NA	NA
	ii. Strong seismic ground shaking?	Less than significant	NA	NA
	iii. Seismic-related ground failure, including liquefaction?	Less than significant	NA	NA
	iv. Landslides?	Less than significant	NA	NA
<b>b.</b>	Result in substantial soil erosion or the loss of topsoil?	Potentially Significant	Mitigation Measure GEO-1: The Ski Park shall adopt an updated erosion and sedimentation control plan that addresses erosion risk of the new and existing ski trail, roads, and trails during operational and non-operational seasons.	Less than significant
<b>c.</b>	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in: on-or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	Less than significant	NA	NA
<b>d.</b>	Be located on expansive soil, as defined in Table 18- 1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	Less than significant	NA	NA
<b>e.</b>	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	Less than significant	NA	NA



f.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Less than significant	NA	NA
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**Question A-D:** There are no Alquist-Priolo Fault Zones on the Project area or within the McCloud 7.5-minute quadrangle, where the Project is located (California Department of Conservation 2022). The nearest Alquist-Priolo Fault Zone is the Cedar Mountain Fault Zone, approximately 16 miles northeast of the Project area. While the fault zone is a significant distance away from the Project, earthquakes originating from this fault line (and further ones) could potentially cause damage to the Project structures as well as people visiting the Ski Park as a result of the Project.

The California Department of Conservation's Fault Activity Map indicates that a Quaternary fault runs through the Project area, less than one mile east of the proposed ski lift. However, this quaternary fault is not considered to pose a significant risk to infrastructure or people in the area, as it is considered inactive.

Nevertheless, the Hazard Mitigation Plan concedes that earthquakes from outside the County or of a sufficient magnitude could still cause damage within the County, unlikely as these scenarios may be. All permanent structures such as the ski lift would be constructed to current federal, state, and local seismic specifications. Temporary structures such as the backcountry guest warming huts/temporary overnight shelters and special event tents could potentially become dismantled in the event of an earthquake, but their potential to cause harm to people or the environment is minimal. Therefore, impacts would be less than significant.

According to the Ski Park Conversion THP and Ski Park II THP, the soils contained within the Project area are as follows: Andic Cryumbrepts-Dystric cryopsammets, 0-70% slopes (4); Andic Cryumbrepts-Rock outcrop complex, 25 – 50% slopes (5); Revit Family, 10-40% slopes (246); Revit-Shield complex, 15-45% slopes (247); Shield-Revit complex, 20 – 50% slopes (296); Shield Rock outcrop, 15 – 50% slopes (298); and Washougal-Germany, deep families complex, 20 – 40% slopes (333). The Siskiyou County Draft Hazard Mitigation Plan (2018) states that soils underlain with glacial outwash deposits consisting of loose sands, silty sands and gravelly sands may be subject to liquefaction. The site soils are non-cohesive, have low clay content soil, and there is no shallow groundwater present within the proposed structure footprints. The overall risk of liquefaction due to a seismic event is low. The Siskiyou County Draft Hazard Mitigation Plan also discusses risk factors for landslides, including greater than 33 percent slopes; the presence of an alluvial fan; presence of impermeable soils such as silt or





clay, which are mixed with granular soils such as sand or gravel; potential for avalanches; a history of prior landslide activity; and stream activity that has caused erosion in the area. Portions of the Project area exceed 33 percent slopes; however, there are no active landslides mapped within the Project Area.

Construction activities conducted during implementation of the Project have the potential to cause erosion or the loss of topsoil. In particular, the earth-moving activities associated with power line trenching, ski lift installation, and transformer replacement could disturb the soil, leading to erosion or topsoil loss. However, with the implementation of BMPs during construction, these impacts would be less than significant.

In regard to Project operation, the ski run areas have a potential to experience erosion and topsoil loss as a result of the vegetation removal activities that were carried out to create the ski runs. However, as discussed item 1, scattered trees and pockets of trees were retained within the ski run areas, as well as low growing shrubs such as pinemat manzanita, smaller snowbrush and greenleaf manzanita were retained where feasible. This vegetation retention helps to reduce erosion risk; still, the new ski runs could potentially lead to significant erosion and sedimentation impacts. The Ski Park is in the process of developing an updated erosion control plan that would mitigate erosion risk along the new ski run areas and the rest of the Project area. Implementation of Mitigation Measure GEO-1 would see the Ski Park adopt and adhere to an updated erosion control plan. With this mitigation, impacts would be reduced to less than significant.

**Question E:** The Project does not propose the creation of any new septic or alternative waste-water disposal systems. Therefore, there would be no impact.

**Questions F:** According to the Geologic Map of California (California Department of Conservation 2020), the Project area is split between two geological designations: Qv (Quaternary volcanic flow rocks; minor pyroclastic deposits) and Qrv (Recent (Holocene) volcanic flow rocks; minor pyroclastic deposits). These volcanic rock types have minimal potential for containing fossils, which overwhelmingly occur in sedimentary rocks. Therefore, the Project would have no impact on paleontological resources.

**Cumulative Impacts:** The Ski Park has had an erosion control plan in place since November 1990, which has made existing erosion impacts less than significant. With the adoption of Mitigation Measure GEO-1, this erosion control plan would be updated to include the Project Area and its specific features. With the implementation of the mitigation measure, cumulative impacts would be reduced to less than significant levels.

**Mitigation Measures:** The following Mitigation Measure would be implemented:

Mitigation Measure GEO-1: The Ski Park shall adopt an updated erosion control plan that addresses erosion risk of the new and existing ski trail areas during operational and non-operational seasons.



### 4.8 Greenhouse Gas Emissions

	Environmental Issue Area	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
a.	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Less than significant	NA	NA
b.	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	No impact	NA	NA

**Question A:** Project construction would generate greenhouse gas emissions from various sources. Construction vehicles and the helicopter that would fly the ski lift components into place would emit gasoline or diesel fuel as they traveled to, from, and on the Project site. Project operation would similarly generate greenhouse gas emissions. Gasoline and diesel emissions would be generated from vehicles used in the operations and maintenance of the Project. These would include maintenance trucks, ski patrol snowmobiles, snow grooming vehicles, mechanical brush clearing equipment, and snowmaking machines. The ski lift would be electrically powered. Increased visitor traffic to the park would also result in additional greenhouse gas emissions from their vehicles. In total, these impacts would be less than significant.

**Question B:** The Project would not conflict with any applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of greenhouse gases. Therefore, there would be no impact.

**Cumulative Impacts:** Greenhouse gas emissions as a result of Project construction and operation would add to the global cumulative production of GHGs in the atmosphere. Nevertheless, the Project would follow all applicable federal, state, and local laws regarding GHG emissions, and therefore would not significantly contribute to cumulative GHG emissions.

**Mitigation Measures:** No mitigation measures are required.

### 4.9 Hazards and Hazardous Materials

	Environmental Issue Area	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Less than significant	NA	NA
b.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Less than significant	NA	NA
c.	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	No impact	NA	NA
d.	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	No impact	NA	NA
e.	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	No impact	NA	NA
f.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Less than significant	NA	NA
g.	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	Less than significant	NA	NA

**Questions A-B:** The Project would include the construction of a U.S. Forest Service-style vault privy. During routine maintenance of the vault privy, human waste would be transported from the Project area to a waste management facility. This would expose the public and the environment to the risk of exposure to hazardous materials in the event that human waste spills out during privy cleaning or waste transport. Another hazardous waste that would be generated from the proposed project would be engine oil associated with the operation of the Ski Park's maintenance vehicles, snowmobiles, and other motorized machines associated with recreation, land and snow maintenance, and first aid activities on the Project area. Engine oils pose the risk of environmental impacts



if they were to leak from a vehicle or spill during the transport of waste oil from the Project area to an oil disposal facility. Similar risks to the public and environment would exist during Project construction through hazardous fluid leaks from construction vehicles. Best Management Practices (BMPs) for construction activities, vehicle maintenance, and hazardous waste transport would ensure these impacts would be less than significant.

**Questions C and E:** As a Project located on the lower slopes of Mount Shasta, there are no existing or proposed schools within 0.25 miles of the Project area. According to the Siskiyou County website (Siskiyou County 2022), the nearest airport to the Project area is the Weed airport, which is over 15 miles away from the proposed project. Therefore, there would be no impact to schools or airports.

**Question D:** According to the California Department of Toxic Substances EnviroStor database (CDTS 2022), there are no hazardous materials sites within one mile of the Project area. According to the State Water Resources Control Board GeoTracker database (SWRCB 2022), there are no hazardous materials sites within one mile of the Project area. Therefore, there would be no impact.

**Question F:** The Project would not impair the implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. During Project construction, there would be an increase in traffic associated with construction vehicles. During Project implementation, an additional increase in traffic related to winter and summer recreation activities at the Ski Park would occur. However, the increased traffic along the Ski Park's access road (Ski Park Highway) would not place the Ski Park over its current capacity of 6,000 – 7,000 visitors per day (Mt. Shasta Ski Park 1997).

**Question G:** See section on Wildfires.

Implementation of the Project would result in an increased use of the Ski Park during both winter and summer recreational seasons. However, the Ski Park Conversion THP and Ski Park II THP were implemented on the Project area as a measure to protect the Ski Park and surrounding regions from wildfire impacts. Additionally, the Ski Park has a current emergency preparedness plan document which details steps to be taken in the event of a wildfire, and the Ski Park intends to regularly harvest timber from its ownership as a continuing strategy to prevent wildfires. Therefore, wildfire risk impacts would be less than significant.

**Cumulative Impacts:** The Project would not contribute to cumulative hazard impacts. Most hazard risks are easily prevented with BMPs, and in the case of

wildfire, the timber harvest and fire preparedness of the Project area improves overall safety and fire preparedness in the region.

**Mitigation Measures:** No mitigation measures are necessary.



### 4.10 Hydrology and Water Quality

	Environmental Issue Area	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
a.	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	Less than significant	NA	NA
b.	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	Less than significant	NA	NA
c.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would:	Less than significant	NA	NA
	i. Result in substantial on- or offsite erosion or siltation;	Potentially Significant	Mitigation Measure HYD-1: Implement Mitigation Measure GEO-1.	Less than Significant
	ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	Potentially Significant	Mitigation Measure HYD-1: Implement Mitigation Measure GEO-1.	Less than significant
	iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	Less than significant	NA	NA
	iv. Impede or redirect flood flows?	Less than significant	NA	NA
d.	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	No impact	NA	NA
e.	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	Less than significant	NA	NA

**Questions A-B:** The Project would not degrade water quality in any capacity. The only activities that would utilize water would be snowmaking activities, which the Ski Park already performs in compliance with applicable water quality laws in the existing developed areas of the Ski Park. The Project would likely bring a greater number of daily visitors to the Ski Park, which would increase water use (some of which is drawn from groundwater) and the generation of wastewater. Specifically, the 1997 Master Plan allows for 5,400 visitors per day, with special event exceptions not to exceed this number for more than four consecutive



days. However, water use capacity and wastewater use capacity are currently at 8,600 people per day and 7,720 people per day, respectively (Mt. Shasta Ski Park 1997). Therefore, total water use, and waste discharge would still be well below capacity, and impacts would be less than significant. Construction activities and ground-moving activities such as ski lift installation and power line trenching could potentially cause erosion and sedimentation, which could impact water quality. However, with the implementation of best management practices for erosion and sedimentation, impacts would be less than significant.

**Question C:** The Project would not alter the course of a stream or river by the addition of impervious surfaces or by any other activity. Two Class 3 watercourses and several unclassified swales occur in the ski run area of the Project; however, these are ephemeral streams and would not be significantly impacted by recreational use when covered with snow. The concrete foundations of the ski lift and vault privy would create impermeable surfaces that would alter the flow of rain and snowmelt immediately around the ski lift and vault privy. Similar, smaller effects would occur around the warming huts, overnight shelters, and maintenance hut. Nevertheless, these impermeable surfaces would not drastically change water flow patterns. No significant changes would occur in relation to stormwater discharge or flood flows. However, the continued maintenance of the ski runs with minimal vegetation could potentially create significant impacts related to erosion and sedimentation; additionally, the reduced vegetation in the area could lead to greater rates of surface runoff on these ski trail areas, potentially leading to significant impacts. However, with the implementation of Mitigation Measure GEO-1 (adoption of an updated erosion control plan), these impacts would be reduced to less than significant.

**Question D:** The Project is nearly 100 miles east of the nearest ocean, eliminating any tsunami risk. Similarly, no lake large enough to the Project to generate significant seiche events occurs near the Project area. Therefore, the risk of water quality degradation from Project inundation due to a tsunami or seiche would be less than significant. According to the FEMA flood map for the Project area, the Project is within Zone D, an area of undetermined flood risk (FEMA 2021). However, as a Ski Park, the Project area is naturally sloped and would be unlikely to flood. Therefore, impacts as a result of inundation-related pollutant release would be less than significant.

**Question E:** The Project would not conflict with any applicable local, state, or federal water quality control plan or sustainable groundwater management plan. Therefore, there would be no impact.



**Cumulative Impacts:** As discussed above, the Ski Park would remain well below its capacity for water use, groundwater use, and wastewater use, as detailed in the 1997 Mt. Shasta Ski Park Planned Development Master Plan. Current erosion-related risks have been mitigated through the Ski Park's existing erosion control plan, and the Project-related erosion risks would be mitigated through Mitigation Measure GEO-1. Therefore, the Project would not create cumulatively significant impacts to hydrology or water quality.

**Mitigation Measures:** The following Mitigation Measure would be implemented:

Mitigation Measure HYD-1: Implement Mitigation Measure GEO-1

### 4.11 Land Use and Planning

	Environmental Issue Area	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
a.	Physically divide an established community?	No impact	NA	NA
b.	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	Potentially Significant	Mitigation Measure LAN-1: Implement Mitigation Measure GEO-1.	Less than Significant

**Question A:** The Project is located outside of any established communities, near the base of Mount Shasta. The two nearest communities, the City of Mt. Shasta and the town of McCloud, are connected by CA 89, and this Project would not alter or impede this transit route. Therefore, the Project would not physically divide an established community, and there would be no impact.

**Question B:** The Project would be subject to local policies related to erosion risk found in the Siskiyou County General Plan Land Use Element (Siskiyou County 1980) related to erosion risk (Map 2, Policy 7), wildfire risk (Map 10, Policy 30), and safe road access, ingress, and egress (Composite Overall Policy 41.5). These risks are addressed in other areas, mainly Geology and Soils and Wildfire. Briefly, erosion risk would be mitigated by the Ski Park’s forthcoming erosion control plan, as implemented in Mitigation Measure GEO-1. Wildfire risk has been mitigated both by the Ski Park’s emergency preparedness plan and regular timber harvest conducted to reduce fuel loads in the area (Most recently through THP # 2-21-00103-SIS and THP # 2-21-00185-SIS, which preceded this Project). Safe ingress and egress, as well as emergency access, are addressed by the Ski Park’s 1997 Planned Development Master Plan, which demonstrates that the access road to the Project area is well below its capacity of 6,000 – 7,000 visitors per day (Mt. Shasta Ski Park 1997).

With the implementation of Mitigation Measure GEO-1, the Project would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding an environmental effect, and impacts would be less than significant.

**Cumulative Impacts:** This Project would not have any impact on a community and would comply with all local planning policies. As such, it would not contribute to cumulative impacts.

**Mitigation Measures:** The following Mitigation Measure would be implemented:  
Mitigation Measure LAN-1: Implement Mitigation Measure GEO-1



## 4.12 Mineral Resources

	Environmental Issue Area	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
a.	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	No impact	NA	NA
b.	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	No impact	NA	NA

**Questions A-B:** The California Geological Survey Land Mineral Classification Map application does not list any known mineral resources within Siskiyou County (California Geological Survey 2022). The Siskiyou County general plan does not list any known mineral sources within the Project area. Therefore, there would be no impact on the availability of a known mineral resource or a locally important mineral resource as a result of implementation of the Project.

**Cumulative Impacts:** The Project would have no impacts on known or locally important mineral resources. Therefore, it would not contribute to cumulative impacts.

**Mitigation Measures:** No mitigation measures are required.

### 4.13 Noise

	Environmental Issue Area	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
a.	Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?	Potentially significant	Mitigation Measure NOS-1: Schedule helicopter construction activities so as not to overlap with tribal cultural ceremonies at Panther Meadows.	Less than significant
b.	Generation of excessive groundborne vibration or groundborne noise levels?	Less than significant	NA	NA
c.	For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	No impact	NA	NA

**Question A:** Noise from construction with heavy equipment associated with the project will have characteristics of both “point” and “line” sources. Noise attenuation will generally range between 4.5 and 7.5 dBA per doubling of distance. Atmospheric absorption of sound varies depending on the weather conditions during construction (e.g., temperature and relative humidity) and the frequency content of the source. The “average day” atmospheric conditions result in attenuation at a rate of approximately 1.5 dB per thousand feet of distance.

**Question B:** Typically, noise is generated by transportation systems, primarily motor vehicles, aircraft, and railroads. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it.

**Question C:** The nearest airport to the Project, the Weed airport, is over 15 miles away from the Project area (Siskiyou County 2022). Therefore, there would be no impact.



**Cumulative Impacts:** Cumulative projects in the vicinity of this Project are unlikely to be within a distance where cumulative noise impacts would occur. The closest cumulative project is timber harvest and recreational uses within adjacent parcels. These are unlikely to increase the cumulative noise significantly.

**Mitigation Measures:** The following Mitigation Measure would be implemented:

**Mitigation Measure NOS-1:** Schedule helicopter construction activities so as not to overlap with tribal cultural ceremonies at Panther Meadows.

### 4.14 Population and Housing

	Environmental Issue Area	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
a.	Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	Less than significant	NA	NA
b.	Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	No impact	NA	NA

**Questions A-B:** The Project would likely result in an increase in the use of the Ski Park, an increased need for employees to staff the Ski Park facilities, and an increase in revenue for the Ski Park. This increase in economic output and employment need could potentially result in unplanned population growth in the area if people from outside Siskiyou County responded to job listings in large numbers. Similar effects could potentially occur as Mt. Shasta Ski Park's increased success bolstered the local economies of Mt. Shasta and McCloud, and Siskiyou County as a whole. However, according to 2020 US Census data for Siskiyou County, the County has a higher poverty rate and lower median household income than the State of California as a whole, as well as a downward trend in employment from 2018-2019 (U.S. Census Bureau 2020). As such, the projected increase in employees would likely be hired from the existing local workforce rather than from out-of-area workers, population growth would be less than significant, and housing availability would not be affected.

**Cumulative Impacts:** As discussed above, the Project is within a county that is currently facing downward pressures in employment. Cumulatively, population growth is not an issue, and therefore housing demand is not being strained. Furthermore, the Project does not place any pressures on population or housing. There would be no cumulative impacts.

**Mitigation Measures:** No Mitigation Measures are required.



### 4.15 Public Services

	Environmental Issue Area	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
a.	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, to maintain acceptable service ratios, response times or other performance objectives for any public services:			
	i. Fire protection?	Less than Significant	NA	NA
	ii. Police protection?	Less than Significant	NA	NA
	iii. Schools?	Less than Significant	NA	NA
	iv. Parks?	Less than Significant	NA	NA
	v. Other public facilities?	Less than Significant	NA	NA

**Questions A i-v:** The Project would cause an increase in the number of visitors to the Mt. Shasta Ski Park, which could potentially increase the activities of fire protection services. However, the expected growth of the Ski Park as a result of the implementation of the Project is well within the Ski Park’s accepted capacities for visitor use, fire flows, wastewater/sewage, road access, and parking as detailed in the Ski Park’s 1997 Planned Development Master Plan. Therefore, impacts to public services would be less than significant. Fire protection, police protection, schools, parks, and other public facilities could potentially be impacted if population growth greatly increases as a result of the Project. However, the increase in Siskiyou County’s employment opportunities as a result of the Project would likely be accommodated by the County’s existing local workforce (U.S. Census Bureau 2020). Therefore, population growth is not expected, and impacts would be less than significant.

**Cumulative Impacts:** The Project would not contribute to cumulative impacts to public services. 2020 Census data indicates that population declined in Siskiyou County from 2010 to 2020 by an estimated 824 people (U.S. Census Bureau 2020). The Project would not create an increase in population that would convert this downward trend into a cumulatively upward one.

**Mitigation Measures:** No Mitigation Measures would be required.



### 4.16 Recreation

	Environmental Issue Area	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
a.	Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	No impact	NA	NA
b.	Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	Potentially Significant	Mitigation Measure REC-1: Implement the Mitigation Measures in this Initial Study.	NA

**Question A:** The Project itself is a set of recreational facilities, consisting of a ski lift and various structures to accommodate skiing and backcountry activities. As such, the Project is more likely to reduce the use of existing neighborhood and regional parks or other recreational facilities rather than increase use. Therefore, there would be no impact.

**Question B:** The Project itself is a set of recreational facilities which could potentially have adverse physical effects on the environment. However, with the implementation of the Mitigation Measures discussed throughout this document, these effects would be less than significant.

**Cumulative Impacts:** This Project is an extension of the Mt. Shasta Ski Park. As such, it would add to the cumulative recreational facilities developed in Siskiyou County; however, the Mt. Shasta Ski Park, as it currently operates, has mitigated for potentially significant environmental effects. With the implementation of the Mitigation Measures listed in this document, the expansion would not contribute to any significant cumulative impacts on recreational facilities or the environment.

**Mitigation Measures:** The following Mitigation Measure would be implemented:  
Mitigation Measure REC-1: Implement Mitigation Measures discussed throughout this document.





### 4.17 Transportation

	Environmental Issue Area	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
a.	Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	Less than Significant	NA	NA
b.	Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	Less than Significant	NA	NA
c.	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	No impact	Mitigation Measure Trans-1: An overflow turn around will be constructed north of the SR 89 and SPH intersection to prevent vehicles from backing up onto SR 89. The use of this overflow turn around is triggered when the number of vehicles exceeds 1,955 vehicles in a given day. This is the threshold number of vehicles is based on traffic count data from 2019 to 2022. Once the Intersection Operational Analysis is complete adjustments to the vehicle cap may be made if justified.	NA
d.	Result in inadequate emergency access?	Less than Significant	NA	NA

**Question A:** The Project would not conflict with any program, plan, ordinance or policy addressing the circulation system, transit, roadway, bicycle or pedestrian facilities. Additional traffic along State Route (SR) 89 as a result of the Project would not reduce the level of service of the highway. Therefore, impacts would be less than significant.

**Question B:** The Project would increase vehicle miles traveled (VMT) by 1,955 . This does not exceed the standard level of significance for land use Projects in the area. Therefore, Project impacts would be less than significant.

**Question C:** The Project does not propose any geometric design features related to transportation such as sharp curves or dangerous intersections. The Project would not alter existing roads or create new roads with the exception of



the installation of the underground power and communication lines underneath Forest Service Road 40N65 and Spur A. Once the power line trench is filled, the road would be virtually identical to its previous conditions. Thus, there would be no impact.

**Question D:** The Project would potentially increase the daily attendance at the Ski Park from approximately 3,000 visitors per day to a maximum of 5,400 visitors per day. On rare occasions, the maximum number of visitors would only be able to exceed 5,400 for four consecutive days (Mt. Shasta Ski Park 1997). These increases would result in increased use of SR 89 to travel to and from the Ski Park. However, the increased attendance is well within the Ski Park's permitted capacity for access road and parking, ensuring emergency services would be able to perform their duties without being inhibited by transportation issues. Therefore, impacts to emergency access would be less than significant.

**Cumulative Impacts:** Overall, the Project has the potential to slightly increase the use of SR 89, Ski Park Highway, and Interstate 5 as visitors travel to and from the Ski Park. Cumulatively, these impacts would be less than significant, as Siskiyou County as a whole has seen a decline in population (U.S. Census Bureau 2020). Therefore, impacts would be less than significant.

#### **Mitigation Measures:**

**Mitigation Measure Trans-1:** An overflow turn around will be constructed north of the SR 89 and SPH intersection to prevent vehicles from backing up onto SR 89. The use of this overflow turn around is triggered when the number of vehicles exceeds 1,955 vehicles in a given day. This is the threshold number of vehicles is based on traffic count data from 2019 to 2022. Once the Intersection Operational Analysis is complete adjustments to the vehicle cap may be made if justified.

### 4.18 Tribal Cultural Resources

	Environmental Issue Area	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
a.	Has a California Native American Tribe requested consultation in accordance with Public Resources Code section 21080.3.1(b)?	No	NA	NA
	Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:			
b.	Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?	Potentially significant	Mitigation Measure TRI-1: Implement Mitigation Measure AES-1 and AES-2	Less than significant
c.	A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	No impact	NA	NA

**Question A:** As a part of the archaeological survey conducted for the Ski Park Conversion THP and Ski Park II THP, 11 notification letters were sent to Native American individuals or groups to seek input on the Proposed project. No California Native American Tribe has requested consultation, but the Klamath Tribes did provide a comment (as shown in section VI of THP # 2-21-00103-SIS and THP # 2-21-00185-SIS) recommending avoidance measures for any discovered cultural resources, as well as the protection of culturally significant plants. As discussed in Biological Resources, rare plants would not be significantly impacted as a result of the Project. As discussed in the Cultural Resources section, no cultural resources would be significantly impacted as a result of the Project.



**Question B:** As discussed in Cultural Resources, Mount Shasta is listed in the California Register of Historical Resources. Mount Shasta is a vital cultural resource to various Native American tribes in the area. Additionally, the Ski Park has recognized Panther Meadows as an important cultural resource to Native American peoples. Impacts to Mount Shasta or Panther Meadows as a result of the Project would therefore result in significant impacts to tribal cultural resources.

Significant impacts would occur to Mount Shasta and Panther Meadows if the ski lift dominated views from these areas and degraded the ceremonial activities of Native American tribes utilizing these cultural resources. To mitigate these effects, the Ski Park has chosen to implement Mitigation Measure AES-1, which would ensure the ski lift's highest point remains lower than the ridge of Grey Butte, ensuring visual impacts to Panther Meadows or Mount Shasta would be less than significant.

**Question C:** The lead agency (Siskiyou County) has not identified any additional significant tribal cultural resources on the Project site or in the vicinity of the Project. Therefore, no impact would occur.

**Cumulative Impacts:** The Project area does not contain any tribal cultural resources, so it would not contribute to impacts to tribal cultural resources on Ski Park property. Impacts to Panther Meadows would be eliminated with the implementation of Mitigation Measure AES-1, while impacts to Mount Shasta would be less than significant. Nevertheless, if development were to continue around the foothills of Mount Shasta, it is possible that numerous less-than-significant impacts could cumulatively impact Mount Shasta's role as a tribal cultural resource. However, due to the vast public land holdings surrounding Mount Shasta (see Existing Setting), the regulations constraining development on slopes and high wildfire severity zones (see Land Use and Planning), and the practical difficulties of developing in such areas, additional development around Mount Shasta is not expected. Therefore, the Project would not significantly contribute to cumulative impacts.

**Mitigation Measures:** The following Mitigation Measure would be implemented:

Mitigation Measure TRI-1: Implement Mitigation Measure AES-1

### 4.19 Utilities and Service Systems

	Environmental Issue Area	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
a.	Require or result in the relocation or construction of construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	Less than Significant	NA	NA
b.	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	Less than Significant	NA	NA
c.	Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	Less than Significant	NA	NA
d.	Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	Less than Significant	NA	NA
e.	Comply with federal, state, and local statutes and regulations related to solid waste?	No impact	NA	NA

**Question A:** The Project would require the replacement of an existing transformer with a more capable transformer in the North Saddle envelope (See Figure XXX), as well as the construction of an underground power line and communication line from this transformer to the top of the ski lift facility. This would require underground trenching to install the power and communications lines, and other construction activities for the installation of the new transformer. Construction, trenching, and similar earth-moving activities could result in impacts to the environment through erosion, sedimentation, and fugitive dust. However, with the implementation of BMPs for construction and trenching activities, these impacts would be less than significant.

**Question B:** The anticipated increase of visitors from the current peak of 3,000+ visitors per day to a maximum allowed peak of 5,400 visitors per day has been addressed in the 1997 Mount Shasta Ski Park Master Plan (Mt. Shasta Ski Park 1997). The current capacity for water resources sits at 8,600 visitors per day, while fire flow capacity can accommodate 6,000 to 7,000 visitors per day. These



capacities are well above the allowed uses of 5,400 visitors per day. Thus, impacts on the water supply would be less than significant.

**Question C:** Solid waste would be generated by the vault privy. However, this would not be in excess of any State or local standards, or in excess of the capacity of the local infrastructure. Thus, impacts would be less than significant.

**Questions D-E:** Solid waste would be generated by the vault privy. However, this would not be in excess of any State or local standards, or in excess of the capacity of the local infrastructure. The Project would comply with federal, state, and local management and reduction statuses and regulations related to solid waste. Thus, there would be no impact.

**Cumulative Impacts:** As an expansion of the Mt. Shasta Ski Park, the Project would add to utilities and service system impacts at the Ski Park which are currently less than significant. Nevertheless, as discussed above, the increased use of these utilities and service systems are not sufficient to exceed the current capacity of these service systems. Therefore, cumulative impacts would be less than significant.

**Mitigation Measures:** No mitigation Measures would be required.

### 4.20 Wildfire

	Environmental Issue Area	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
a.	Is the project located in or near state responsibility areas or lands classified as high fire hazard severity zones? If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Yes		
b.	Substantially impair an adopted emergency response plan or emergency evacuation plan?	Less than significant	NA	NA
c.	Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	Less than significant	NA	NA
d.	Require the installation of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	Less than significant	NA	NA
e.	Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	Less than significant	NA	NA

**Question A:** According to the CalFire Fire Hazard Severity Zone (FHSZ) Viewer (Cal Fire 2022), the Project is located on State Responsibility Areas (SRAs) and Federal Responsibility Areas (FRAs), and the majority of the Project is within a very high fire severity zone.

**Question B:** The Project would not substantially impair an adopted emergency response plan or evacuation plan. The Ski Park has an existing emergency response plan related to wildfire in their current Emergency Action Plan document (Mt. Shasta Ski Park 2021). While the Project would likely increase attendance at the Ski Park, attendance would not be permitted to increase above 5,400 people for more than four consecutive days (Mt. Shasta Ski Park 1997). This attendance capacity is well below the current fire flow limit of 6,000 – 7,000 skiers per day. Additionally, the emergency response and evacuation plans currently in place by the Ski Park are updated yearly and would account for growth in Ski Park attendance. Therefore, impacts to emergency response and evacuation plans would be less than significant.



**Questions C:** The Project area would be constructed on steep slopes for the sake of Ski Park activities, and the elevations of the Project area would expose the area to significant winds. However, the Ski Park would close in the event of a wildfire, protecting people from any wildfire risks associated with the Project.

**Questions D:** The Project proposes replacing an aging, existing transformer with a new transformer, which would reduce the fire risk from the electric equipment. Similarly, the Project proposes underground trenched power and communication lines to power the ski lift structure. Underground lines are unlikely to cause a fire in the event of a malfunction, as the sparks would be quickly put out by the lower oxygen levels and higher presence of moisture in the compacted dirt surrounding the line. Construction activities related to the installation of the new transformer and underground lines could potentially increase wildfire risk at the Project site; however, with the implementation of best management practices for fire prevention for construction activities, these impacts would be less than significant.

**Question E:** In the event of a wildfire, the Project area would not expose structures or people to post-fire downstream/downslope risks in any greater capacity than would occur in the absence of Project implementation. The Park would close in the event of a wildfire, protecting people from any post fire dangers onsite. Downslope of the Project, various low-volume roads could potentially be impacted by landslides or flooding from post-fire storm activities. Nevertheless, these risks would not be increased as a result of the Project. Therefore, impacts would be less than significant.

**Cumulative Impacts:** The Project would ultimately contribute to the reduction of fire risk in the area. Pacificorp Power Company (which would supply power to the ski lift) intends to extend the power and communications lines from the top of the ski lift structure to the Grey Butte communications towers in a future project (estimated completion date of 2023). This would ultimately allow the power company to cease using two overhead lines in the area, eliminating the fire risk from these aging aboveground utilities. Therefore, impacts would be less than significant.

**Mitigation Measures:** No Mitigation Measures would be required.



### 4.21 Mandatory Findings of Significance

	Environmental Issue Area	Significance before Mitigation	Mitigation Measure	Significance after Mitigation
a.	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare or threatened species or eliminate important examples of the major periods of California history or prehistory?	Potentially Significant	Discussed throughout document	Less than Significant
b.	Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when view in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	Potentially Significant	Discussed throughout document	Less than Significant
c.	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	Potentially Significant	Discussed throughout document	Less than Significant

**Questions A-C:** As discussed throughout the document, the Project does have elements that could potentially create significant impacts to the environment if not properly mitigated. However, with the implementation of the Mitigation Measures described, these impacts would be reduced to less than significant levels, both when considering this Project alone and when considering cumulative impacts.

**ATTACHMENT B**  
**Emergency Action Plan**



# Emergency Action Plan

Company: Mt. Shasta Ski Park

Date: Season 2021/2022

Facility Location: 4500 Ski Park Highway, McCloud, CA 96057

**1. Persons responsible for emergency planning and information are:**

- Paul Hosler - Safety Director/Risk Manager, 530-200-4574
- Jim Mullins - General Manager, 530-859-8349

**2. The following is a list of potential emergencies and their locations:** (This list is not all-inclusive, as all potential and theoretical situations, circumstances and variations are impossible to predict)

Emergency	Location
Ski/board/slide/bike-related Injuries	All Ski Runs/Out of Bounds/Mountain Bike Trails
Slip & Fall Injury	Facilities/Other locations on premises
Medical Emergencies	Anywhere on the premises
Fire (Structure/Wildland)	Anywhere on the premises/vehicles and equipment
Child Abduction	Lodge/Base/Parking Lot/On-hill
Lift Failure Incident	Lifts (Douglas/Marmot/Coyote/Carpets (2))
Shooter/Disorderly Conduct	Lodge/Base/Parking Lot/ Other location on premises
Environmental Hazards (Earthquake)	Facilities/Equipment Shop/Other locations on premises
Lost/Overdue Skier/Hiker/MBT Rider	On-hill/Other locations on premises
Collision (Person/Fixed Objects)	Oh-hill/Road/Facilities
Robbery	Cash Stations (Bar, money room, ticket window, sales venues)
Lighting/Power Outage	Facilities/Other locations on premises
Equipment Failure/Accident	Roadway, parking lots, other locations on premises

### **3. Reporting Emergencies**

Report emergencies immediately, first to Mountain Operations; or if not immediately available, then to your Manager or Supervisor. This may be done by radio, land line or cellular telephone; or verbally if they are in close proximity.

**If the emergency is life-threatening, immediately dial 911.**

**Mountain Operations Dispatcher 926-8610 (Internal phone dial 8609 or Radio Call)**

**Police/Fire/Medical: 911**

- Be prepared to provide the 911 Dispatcher with Your Name, a Callback Number, the Nature of Incident, the Exact Location, Background Information, Current Status, Number and Nature of Injuries (Who/What When/Where). **REMAIN CALM and speak slowly.**

### **4. The methods used to alert employees of an emergency are:**

- Radio (Mountain Operations, Guest Services, a Manager or Supervisor, or any other person may announce an emergency over the radio)
- Phone (Mountain Operations, Guest Services, a Manager or Supervisor, or any other person may alert employees of an emergency by calling land lines or cellular telephones)
- Verbal (A Manager or Supervisor, or any other person, may verbally notify an employee of an emergency)

### **5. Fire and Evacuation Procedures**

- Take Initial Action – **If** a fire extinguisher is readily available and easily accessible, and **if** you have been trained in its use, and **if** you can deploy the fire extinguisher **without endangering yourself or another person**; do so using the P.A.S.S. method (**P**ULL pin, **A**IM at base of fire, **S**QUEEZE handle, and **S**WEEP across entire base of flame).
- **Dial 911** or notify Mountain Operations via radio; or direct a nearby employee to do so. You can also ask a guest to dial 911 if you cannot do so and no other employee is nearby.
- Secure Your Work Station, if this can be done without endangering you or someone else. (**Notify Cash Room and all other isolated offices/workstations of the emergency** if this can be done without endangering you or someone else)
- Evacuate quickly (without running) to the nearest safe exit (as specified in safety training and/or on the posted facility diagram). Use an alternate route if the nearest

one is blocked or presents a hazard. **You should know all available exits.** Assist other employees and customers as you can, unless this endangers your own safety.

- Proceed to the assembly area, gather by specific department, and remain there until accounted for and authorized to leave the premises by an authorized manager or supervisor. **Assembly/rally points will be announced via radio and/or verbal instruction. If no assembly point has been announced, the rally point for all departments will be the Manager's Parking Lot.**
- Managers/supervisors will account for all employees (roll call by department managers/supervisors).
- Managers/supervisors will direct appropriate staff to account for all guests (accomplished by a sweep of the entire premises and property by Patrol and other designated staff)
- Employees and guests will not return to work stations/property/mountain until authorized by the General Manager or his designee.
- General Manager and/or his designee will provide final instructions. (reporting requirements, cleanup/mop-up, follow-up with outside agencies/entities, etc). The General Manager will also proctor an after-action meeting with appropriate staff.

## **6. Earthquake Procedures**

- Remain calm.
- Secure Work Station if this can be done without endangering you or someone else. **(Notify Cash Room and all other isolated offices/workstations of Emergency)**
- Seek immediate shelter. If you are indoors, under a desk or sturdy table is preferred to a doorway. Stay away from windows and shelves, racks or areas that could fall. If you are outdoors, proceed to an open area away from trees, towers, buildings or anything that could fall or crumble.
- Follow instructions from responsible persons (Managers/Supervisors).
- If you are indoors and have sought shelter, once the building stops shaking, follow evacuation route(s) quickly. **(Do not use the elevator. Do not run.)** Once outside, stay away from buildings, trees and electrical lines and proceed to the assembly/rally area, gather by specific department, and remain there until accounted for and authorized to leave the premises by an authorized manager or supervisor. **Assembly/rally points will be announced via radio and/or verbal instruction. If no assembly point has been announced, the rally point for all departments will be the Manager's Parking Lot.**
- If you are on a lift, remain seated and wait to be evacuated [Follow Chair Lift Evacuation Plan]

- Managers/supervisors will account for all employees (roll call by department managers/supervisors).
- Managers/supervisors will direct appropriate staff to account for all guests (accomplished by a sweep of the entire premises and property by Patrol and other designated staff)
- Employees and guests will not return to work stations/property/mountain until authorized by the General Manager or his designee.
- General Manager and/or his designee will provide final instructions. (reporting requirements, cleanup/mop-up, follow-up with outside agencies/entities, etc)

## **7. First Aid and Medical Emergency**

- In the event of a medical emergency (radio call code is “10-50”), request medical assistance by calling the Mountain Operations via radio or telephone. Report your exact location and the nature and extent of the injuries. (ie: “Mountain Operations, this is 204; I have a 10-50 in the Marmot Base area. I have a teenage male with a lower leg injury and am requesting Ski Patrol. I am uphill from the maze near the slow sign. The victim is laying down wearing an orange jacket and I am with him.”) Remain on scene until Ski Patrol or other competent authority arrives and relieves you.
- Do not attempt to provide medical attention unless you are trained and have the necessary supplies available.
- Avoid contact with blood, body fluids, or other potentially infectious material by using protective equipment and safe practices. **Any exposure must be promptly reported to your Manager or Supervisor, the Risk Manager, and H.R.**
- The first Ski Patroller on scene will be the “Incident Commander” until relieved by a higher authority.
- If the injured party is an on-duty employee, the employee’s supervisor, as well as the Risk Manager and H.R. Manager will complete all required documentation, to include the Employee Injury Accident Report. The Risk manager will make any mandated notifications (Executive Management, OSHA, etc)

## 8. First Aid Stations

**First Aid Stations and Available First Aid Resources are located at:**

- Ski Patrol Office/First Aid Room, located in the lower lodge on the East (Douglas) side at the bottom of the stairs
- Ski Patrol “Bump” Shacks, located adjacent to the top terminals of each lift.
- Every Ski Patroller carries a First Aid Kit
- First Aid kits, with bandages and assorted basic first aid supplies, are located in the food services areas, Guest Services, Maintenance Shop and other areas/offices.
- A.E.D.’s (Automated External Defibrillators) are located in the First Aid Room, Guest Services and in the Maintenance Shop.

## 9. Evacuation Route and Assembly Area Map

- Evacuation routes are indicated on “Evacuation Route” maps, posted throughout the premises.
- Employees should know all exits and primary and alternate evacuation routes.
- **Assembly/rally points will be announced via radio and/or verbal instruction. If no assembly point has been announced, the rally point for all departments will in the Manager’s Parking Lot.**

## 10. Child Abduction

- Quickly obtain critical information:
  - Name and age of victim
  - Type of abduction (estranged spouse, relative, stranger, etc...)
  - Name of suspect, if known. Vehicle description and possible destination
- **Call 911 Immediately, followed by notification of Mountain Operations**
- ASAP Stop all outgoing vehicle traffic until law enforcement arrives
- Hold child’s parent, reporting party and witnesses in Guest Services until law enforcement arrives
- Complete speed form in Guest Services
- Hasty search of Base Facilities/ Property/Vehicles utilizing all available staff

## 11. Lost Overdue Skier/Hiker/Mountain Biker

- Gather Information (Speed Form in Guest Services/Patrol Rm.)
- Notify Mountain Operations...Ski Patrol will respond and take over investigation
- Follow Mountain Protocol for 10-50 Incidents
- Patrol will:

- Attempt to Call victim's cell phone-(if contact is made, keep line open)
- Organize Hasty Search
- If Unsuccessful– Patrol supervisor will direct Mountain Operations to contact Sheriff and request Search & Rescue

## **12. Civil Disturbance (“Active Shooter” or Disorderly Conduct Incident)**

- **Active Shooter:**
  - **Fight, Flight or Hide**
  - **Lock yourself inside office, closet, etc...**
  - **Call 911 and provide as much information as possible**
  - **Call Mountain Operations**
  - **If it is safe or if you have to do so to protect yourself, evacuate to another location or to your vehicle and flee the premises**
  - **Assist others if you can do so without endangering your own safety**
  - **Remain calm and make a plan**
  - **When you receive an “all clear” from competent authority, respond to the rally location. If none has been provided, respond to the Manager's parking lot.**
- **Disorderly Conduct:**
  - **In the event of an unruly customers or other person, avoid conflict and evacuate the area**
  - **Immediately contact Mountain Operations and request Security and Management to the location. Provide as much information as possible (ie: “25 year old male wearing a blue jacket and red beanie is breaking objects in the bar and challenging others to fight”) Mountain Operations will notify Law Enforcement if the situation dictates the need**
  - **Advise Mountain Operations if the suspect is armed (knife, gun, broken bottle, etc)**
  - **Assist others in leaving the area if you can do so without endangering yourself**
  - **If anyone is injured, report their location, type of injury, extent of injuries, and other critical information**



### **13. Skier/Boarder Collision [Including Solo Collision with Fixed Objects]**

- Contact Mountain Operations and request Ski Patrol for a “10-50 Collision”
- Render Assistance as Needed. Do not provide First Aid unless you are trained and equipped. Avoid contact with bodily fluids or other hazardous materials.
- Keep all witnesses at the scene until Ski Patrol arrives and interviews them. If a witness leaves the scene, provide a description and direction of travel to Mountain Operations
- Ski Patrol will investigate all collisions as a “Red Flag” incident. All reporting and notification requirements will be followed.

### **14. Robbery**

- Cooperate with the suspect(s). **DO NOT** attempt to thwart the robbery.
- Take a mental note of suspect description, clothing, facial hair, age, accent
- As soon as it is safe, notify anyone to Dial 911, Then notify Mountain Operations and any supervisor or manager
- Provide suspect description, direction of travel, whether suspect was armed, and what was taken
- Remain on scene until Law Enforcement arrives and interviews you. Identify other potential witnesses

### **15. Adverse Weather**

- **Lightning:**
  - If weather forecast predicts lightning, monitor weather and updated forecasts
  - If there is a lightning Strike within 10 miles – evacuate lifts **NOW** and sweep the hill. All guests should be advised to seek shelter in the lodge or in their vehicles until the “all clear” is given
  - If towering Cumulus Clouds are observed, consistently monitor for signs of lightning/thunder
- **Blizzard Conditions/High Winds**
  - If visibility becomes obscured by falling snow or fog so as to prevent visibility in the Surface Lift areas, so as to prevent one from seeing from the bottom of the lift to the top, the lift supervisor will direct operators to stop loading the surface lifts.
  - If winds create cross-line “chair swing” that could cause the chairlift to de-rope (as determined by observations by, or reported to, the Mountain Manager) loading will be stopped and the chair will be slowed or stopped. (NOTE: There is no wind velocity threshold. Determinations are

made based upon winds' effect on the lifts). The duty Ski Patrol supervisor, after consulting with the Mountain Manager, will make the determination whether to offload the chair by either running it on slow, or by performing an evacuation.

## **16. Power Outage**

- In the event of a power outage, emergency lighting should immediately activate in the lodge and base facilities. The General Manager will make the determination, based upon the projected duration of the outage, whether to vacate the lodge, or allow customers to remain. If the determination is made to vacate the lodge, all available staff will be assigned to assist with the evacuation; and will escort customers to their vehicles as needed. Staff will also assist with sweeping the entire premises.
- In the event of a power outage, all chairlifts have an Auxiliary Power Unit (APU), which will allow the lifts to run at a reduced speed. When a power outage occurs, at the direction of the Mountain Manager, Lift Maintenance will start the APU's on each chairlift. (Note: No chairs will be loaded during APU operations, unless it is necessary to load Ski Patrol or Lift Maintenance personnel). Under the supervision of Lift Maintenance, lifts will be run until all chairs are offloaded. Ski Patrol will remain at the top of each lift to ensure all chairs are offloaded, and then will ski the lift line, inspecting each chair to ensure no persons are on the lift.

## **17. Catastrophic Incidents**

- Incidents involving or having the potential to involve multiple victims include, but are not limited to: Explosion, avalanche, volcano, weather anomaly, terrorist attack, building collapse, traffic collision, catastrophic lift failure, and a plethora of other scenarios.
- Avalanches are announced by the radio code "Code 500" and are managed by Ski Patrol, with the assistance of multiple staff from all departments. Response to avalanche incidents is covered, in detail, in the Patrol Manual.
- Should a catastrophic incident occur, employees shall evacuate and seek shelter in a protected and safe location quickly as possible. It should be noted that the employee may not be able to safely evacuate, in which case the employee should shelter in place.
- Employees should warn and assist other employees and customers if it is safe to do so.
- Dial 911 as quickly as possible and provide as much information as possible. If you are unable to do so, ask another employee, or a guest, so make the call.

- When it is safe to do so, employees should proceed to the rally area. If none has been designated, the rally area will be the Manager's parking lot.
- When the General Manager or, in his absence, the next Manager in line, has determined that it is safe to do so; all available employees will be gathered to form Hasty Search teams. These teams will be deployed at the direction of the Risk manager and the Patrol Director and will remain active until relieved by Law Enforcement or Search & Rescue.
- Upon final resolution of the event, the General Manager will proctor an After-Action meeting with all relevant staff.

## **18. Fire Prevention & Response**

- The Mt Shasta Ski Park will incorporate aggressive and continuous preventative measures designed to alleviate conditions that could result in a structure/wildfire.
- Emergency evacuation maps will be posted in the workstation, and employees will be trained on emergency procedures
- During summer season, open fires or smoking in non-designated areas is prohibited.
- Annually, required permits for outdoor burning as well as welding/cutting/permits will be obtained from state or federal agencies.
- The terms and conditions of burning permit (s) will be adhered to.
- In addition, any outdoor burning/welding/cutting/grinding will have fire precautionary measures in place (On site Fire Pumper/Fire Hoses/Extinguisher to include a "Fire Watch")
- Annually, the Mountain Manager will conduct fire training on wildland/structure protection measures in place to include reporting, safety precautions, fire equipment/tool use.
- Prior to all outdoor burning, cutting, grinding, or welding projects, the Risk Manager or the Mountain Manager will inspect the site to determine fire prevention measures are met.
- Annually, the Mountain Manager will ensure that all fire related equipment is fully operational and ready for immediate response.
  - Fire Truck
  - Water Truck
  - Ski Steer with Blade
  - Snowmaking Infrastructure hydrants – mountain water source
  - Lodge hydrants/Hose Box
  - UTV with Fire Pumper/Tools
  - Snowmaking Pond for Helicopter Dipping capability
  - Tools

- Structures/Vehicles – fire extinguishers
- In the event of a fire; the on-site supervisor or employee will:
  - Call 911, calmly report the fire and current situation
  - Direct on-site personnel to deploy initial attack firefighting equipment and resources with personal SAFETY given the highest priority.
- If a wildland fire is started on Ski Park property either by guest, contractor, or internal personnel, the Risk Manager shall conduct a preliminary investigation and assist with outside agency investigation.

## **19. Spill Prevention**

- The Mt Shasta Ski Park will take all actions necessary to prevent the discharge of hazardous materials. The Mt Shasta Ski Park Spill Prevention, Control and Countermeasure (SPCC) Plan will serve as the procedure document. This plan meets the requirements of the Code of Federal Regulations (CFR Title 40, Part 112). This plan is easily accessible and readily available to any manager, supervisor.
- The entire SPCC document is not included in this IAP; however, for the purposes of this section, the SPCC provides for:
  - Annually Spill Prevention Training for all employees (SPCC).
  - At each spill storage facility, a reporting poster will be displayed on site.
  - Risk Manager/Shop Supervisor will inspect daily and weekly spill storage facilities and containers.
  - A Spill Response Kit(s) will be stored and maintained at the equipment shop.
  - In the event of a spill, Siskiyou County Emergency Services/911 will be promptly notified along with CFWD
  - Discharge of more than 1000 gallons is reported to EPA (See SPCC)
  - The Risk Manager shall conduct an internal investigation and assist outside agencies.

Approved by:

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Jim Mullins, General Manager

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Paul Hosler, Safety Director/Risk Manager

Revised 11/01/2021 by PH

**ATTACHMENT C**  
**CalEEMod**

Mount Shasta Ski Park Lift Expansion Project - Siskiyou County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**Mount Shasta Ski Park Lift Expansion Project  
Siskiyou County, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Recreational	1.00	User Defined Unit	6.00	0.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Rural	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	85
<b>Climate Zone</b>	14			<b>Operational Year</b>	2022
<b>Utility Company</b>	PacifiCorp				
<b>CO2 Intensity (lb/MWhr)</b>	1185.98	<b>CH4 Intensity (lb/MWhr)</b>	0.033	<b>N2O Intensity (lb/MWhr)</b>	0.004

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

Project Characteristics - Mount Shasta Ski Park is expanding operations into its currently undeveloped portion of its ownership. Construction activities include the construction of a new ski lift along Gray Butte. A backcountry touring area would include four backcountry warming hut areas as well. The vast majority of emissions would come from the ski lift installation.

Land Use - The footprint of the ski lift area, power line area, and replaced transformer total approximately six acres.

Construction Phase - 90-day construction estimate.

Off-road Equipment - Excavators for trenching,

Off-road Equipment - Per Mount Shasta Ski Park, equipment to be used would include: 2 Dozers, 2 Excavators, one soils drill, 3 to 4 line trucks, fire truck, trencher, water truck, spooler, service trucks/flatbeds (no number given, so estimated total trucks at 10), a mobile crane, and a helicopter.

Trips and VMT - There are 19 total pieces of equipment. This was rounded to 20 workers. Hauling would be required to get materials to the job site.

On-road Fugitive Dust - California State Highway 89 (which leads to the Ski Park Highway) is paved, as is Ski Park Highway. Unpaved road begins at the Ski Park parking lot. Therefore, hauling and vendor activity would occur on mostly paved roads, while work would occur on mostly unpaved surfaces.

Vehicle Trips -

Vehicle Emission Factors -

Vehicle Emission Factors -

Mount Shasta Ski Park Lift Expansion Project - Siskiyou County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Vehicle Emission Factors -

Road Dust - The ski park parking lot is unpaved, and maintenance operations on site are not fully paved. However, much of the maintenance activities occur on snow or on snow-wetted surfaces during the winter, when the bulk of maintenance and operational activities are needed. Therefore, these areas can be considered functionally paved for much of the year, and when the vast majority of maintenance operations are needed.

Consumer Products - No pesticides are used, per the Mt. Shasta Ski Park Master Plan.

Area Coating - The new Gray Butte ski lift does not require architectural coating.

Landscape Equipment - Assuming a 5-month winter for ski park use (november through march). Summer maintenance and activities would be lighter but more consistent.

Energy Use - The Gray Butte ski lift would be purely electric. It is a new construction, so it would meet new energy standards. It is a 300-horsepower engine, which converts to 223.71 kilowatts.

Operational Off-Road Equipment - Various trucks and snow-cats are utilized for winter and summer operations.

Stationary Sources - Emergency Generators and Fire Pumps -

Land Use Change -

Sequestration -

Area Mitigation -

Fleet Mix -

Water And Wastewater -

Solid Waste -

Construction Off-road Equipment Mitigation - Of the snowcats, 3 are Tier 4, 2 are Tier 3, 4 are Tier 2. The remaining trucks are standard.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_EF_Nonresidential_Exterior	250	0
tblAreaCoating	Area_EF_Nonresidential_Interior	250	0
tblAreaCoating	Area_EF_Parking	250	0
tblAreaCoating	Area_EF_Residential_Exterior	250	0
tblAreaCoating	Area_EF_Residential_Interior	250	0
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	230.00	90.00
tblConstructionPhase	PhaseEndDate	7/28/2023	1/13/2023



Mount Shasta Ski Park Lift Expansion Project - Siskiyou County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tblEnergyUse	T24E	0.00	223.71
tblLandscapeEquipment	NumberSnowDays	0	150
tblLandscapeEquipment	NumberSummerDays	180	215
tblLandUse	LotAcreage	0.00	6.00
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Dozers
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentType		Other General Industrial Equipment
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOnRoadDust	HaulingPercentPave	100.00	90.00
tblOnRoadDust	VendorPercentPave	100.00	99.00
tblOnRoadDust	WorkerPercentPave	100.00	10.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	10.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblRoadDust	MeanVehicleSpeed	40	15
tblRoadDust	RoadPercentPave	100	75
tblTripsAndVMT	HaulingTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripNumber	0.00	20.00

**2.0 Emissions Summary**

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Mount Shasta Ski Park Lift Expansion Project - Siskiyou County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.3529	2.9857	2.3488	7.4300e-003	13.6623	0.1266	13.7889	1.3639	0.1165	1.4803	0.0000	653.1987	653.1987	0.2085	4.0000e-004	658.5317
2023	0.0408	0.3267	0.2844	9.3000e-004	1.7078	0.0136	1.7214	0.1705	0.0125	0.1830	0.0000	81.6643	81.6643	0.0261	5.0000e-005	82.3301
<b>Maximum</b>	<b>0.3529</b>	<b>2.9857</b>	<b>2.3488</b>	<b>7.4300e-003</b>	<b>13.6623</b>	<b>0.1266</b>	<b>13.7889</b>	<b>1.3639</b>	<b>0.1165</b>	<b>1.4803</b>	<b>0.0000</b>	<b>653.1987</b>	<b>653.1987</b>	<b>0.2085</b>	<b>4.0000e-004</b>	<b>658.5317</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2795	2.3231	2.8625	7.4300e-003	13.6623	0.1017	13.7640	1.3639	0.0939	1.4578	0.0000	653.1980	653.1980	0.2085	4.0000e-004	658.5309
2023	0.0322	0.2550	0.3504	9.3000e-004	1.7078	0.0109	1.7187	0.1705	0.0101	0.1805	0.0000	81.6642	81.6642	0.0261	5.0000e-005	82.3300
<b>Maximum</b>	<b>0.2795</b>	<b>2.3231</b>	<b>2.8625</b>	<b>7.4300e-003</b>	<b>13.6623</b>	<b>0.1017</b>	<b>13.7640</b>	<b>1.3639</b>	<b>0.0939</b>	<b>1.4578</b>	<b>0.0000</b>	<b>653.1980</b>	<b>653.1980</b>	<b>0.2085</b>	<b>4.0000e-004</b>	<b>658.5309</b>

Mount Shasta Ski Park Lift Expansion Project - Siskiyou County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	20.81	22.17	-22.01	0.00	0.00	19.67	0.18	0.00	19.37	1.50	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	8-1-2022	10-31-2022	1.5503	1.2086
2	11-1-2022	1-31-2023	2.1605	1.6851
		Highest	2.1605	1.6851

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Offroad	0.6869	5.2178	4.3663	0.0172		0.1897	0.1897		0.1746	0.1746	0.0000	1,508.3569	1,508.3569	0.4878	0.0000	1,520.5528
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.6869</b>	<b>5.2178</b>	<b>4.3664</b>	<b>0.0172</b>	<b>0.0000</b>	<b>0.1897</b>	<b>0.1897</b>	<b>0.0000</b>	<b>0.1746</b>	<b>0.1746</b>	<b>0.0000</b>	<b>1,508.3570</b>	<b>1,508.3570</b>	<b>0.4878</b>	<b>0.0000</b>	<b>1,520.5528</b>

Mount Shasta Ski Park Lift Expansion Project - Siskiyou County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Offroad	0.6869	5.2178	4.3663	0.0172		0.1897	0.1897		0.1746	0.1746	0.0000	1,508.3569	1,508.3569	0.4878	0.0000	1,520.5528
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.6869</b>	<b>5.2178</b>	<b>4.3664</b>	<b>0.0172</b>	<b>0.0000</b>	<b>0.1897</b>	<b>0.1897</b>	<b>0.0000</b>	<b>0.1746</b>	<b>0.1746</b>	<b>0.0000</b>	<b>1,508.3570</b>	<b>1,508.3570</b>	<b>0.4878</b>	<b>0.0000</b>	<b>1,520.5528</b>

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

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Building Construction	Building Construction	9/10/2022	1/13/2023	5	90	Construction of top and bottom terminals, 14 towers. Replacement of transformer in Section 9.

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**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0**

**Acres of Paving: 0**

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

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Building Construction	Excavators	2	8.00	158	0.38
Building Construction	Rubber Tired Dozers	2	8.00	247	0.40
Building Construction	Bore/Drill Rigs	1	8.00	221	0.50
Building Construction	Off-Highway Trucks	10	8.00	402	0.38
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Trenchers	1	8.00	78	0.50
Building Construction	Other General Industrial Equipment	2	8.00	88	0.34

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Building Construction	19	20.00	1.00	1.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

Use Cleaner Engines for Construction Equipment

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**3.2 Building Construction - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3473	2.9794	2.3066	7.3300e-003		0.1265	0.1265		0.1164	0.1164	0.0000	643.7140	643.7140	0.2082	0.0000	648.9188
<b>Total</b>	<b>0.3473</b>	<b>2.9794</b>	<b>2.3066</b>	<b>7.3300e-003</b>		<b>0.1265</b>	<b>0.1265</b>		<b>0.1164</b>	<b>0.1164</b>	<b>0.0000</b>	<b>643.7140</b>	<b>643.7140</b>	<b>0.2082</b>	<b>0.0000</b>	<b>648.9188</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	7.0000e-005	1.0000e-005	0.0000	1.0100e-003	0.0000	1.0100e-003	1.0000e-004	0.0000	1.0000e-004	0.0000	0.0256	0.0256	0.0000	0.0000	0.0268
Vendor	1.2000e-004	2.1500e-003	8.9000e-004	1.0000e-005	3.2100e-003	2.0000e-005	3.2300e-003	3.7000e-004	2.0000e-005	3.8000e-004	0.0000	0.7537	0.7537	1.0000e-005	1.1000e-004	0.7858
Worker	5.5000e-003	4.0500e-003	0.0413	9.0000e-005	13.6581	8.0000e-005	13.6581	1.3634	7.0000e-005	1.3635	0.0000	8.7055	8.7055	3.2000e-004	2.9000e-004	8.8004
<b>Total</b>	<b>5.6200e-003</b>	<b>6.2700e-003</b>	<b>0.0422</b>	<b>1.0000e-004</b>	<b>13.6623</b>	<b>1.0000e-004</b>	<b>13.6624</b>	<b>1.3639</b>	<b>9.0000e-005</b>	<b>1.3640</b>	<b>0.0000</b>	<b>9.4847</b>	<b>9.4847</b>	<b>3.3000e-004</b>	<b>4.0000e-004</b>	<b>9.6129</b>

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**3.2 Building Construction - 2022**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2739	2.3168	2.8203	7.3300e-003		0.1016	0.1016		0.0938	0.0938	0.0000	643.7133	643.7133	0.2082	0.0000	648.9180
<b>Total</b>	<b>0.2739</b>	<b>2.3168</b>	<b>2.8203</b>	<b>7.3300e-003</b>		<b>0.1016</b>	<b>0.1016</b>		<b>0.0938</b>	<b>0.0938</b>	<b>0.0000</b>	<b>643.7133</b>	<b>643.7133</b>	<b>0.2082</b>	<b>0.0000</b>	<b>648.9180</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	7.0000e-005	1.0000e-005	0.0000	1.0100e-003	0.0000	1.0100e-003	1.0000e-004	0.0000	1.0000e-004	0.0000	0.0256	0.0256	0.0000	0.0000	0.0268
Vendor	1.2000e-004	2.1500e-003	8.9000e-004	1.0000e-005	3.2100e-003	2.0000e-005	3.2300e-003	3.7000e-004	2.0000e-005	3.8000e-004	0.0000	0.7537	0.7537	1.0000e-005	1.1000e-004	0.7858
Worker	5.5000e-003	4.0500e-003	0.0413	9.0000e-005	13.6581	8.0000e-005	13.6581	1.3634	7.0000e-005	1.3635	0.0000	8.7055	8.7055	3.2000e-004	2.9000e-004	8.8004
<b>Total</b>	<b>5.6200e-003</b>	<b>6.2700e-003</b>	<b>0.0422</b>	<b>1.0000e-004</b>	<b>13.6623</b>	<b>1.0000e-004</b>	<b>13.6624</b>	<b>1.3639</b>	<b>9.0000e-005</b>	<b>1.3640</b>	<b>0.0000</b>	<b>9.4847</b>	<b>9.4847</b>	<b>3.3000e-004</b>	<b>4.0000e-004</b>	<b>9.6129</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.2 Building Construction - 2023**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0401	0.3260	0.2796	9.2000e-004		0.0136	0.0136		0.0125	0.0125	0.0000	80.5152	80.5152	0.0260	0.0000	81.1662
<b>Total</b>	<b>0.0401</b>	<b>0.3260</b>	<b>0.2796</b>	<b>9.2000e-004</b>		<b>0.0136</b>	<b>0.0136</b>		<b>0.0125</b>	<b>0.0125</b>	<b>0.0000</b>	<b>80.5152</b>	<b>80.5152</b>	<b>0.0260</b>	<b>0.0000</b>	<b>81.1662</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.0000e-005	0.0000	0.0000	1.3000e-004	0.0000	1.3000e-004	1.0000e-005	0.0000	1.0000e-005	0.0000	3.1000e-003	3.1000e-003	0.0000	0.0000	3.2400e-003
Vendor	1.0000e-005	2.3000e-004	1.0000e-004	0.0000	4.0000e-004	0.0000	4.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.0915	0.0915	0.0000	1.0000e-005	0.0953
Worker	6.4000e-004	4.4000e-004	4.6700e-003	1.0000e-005	1.7073	1.0000e-005	1.7073	0.1704	1.0000e-005	0.1704	0.0000	1.0546	1.0546	4.0000e-005	3.0000e-005	1.0654
<b>Total</b>	<b>6.5000e-004</b>	<b>6.8000e-004</b>	<b>4.7700e-003</b>	<b>1.0000e-005</b>	<b>1.7078</b>	<b>1.0000e-005</b>	<b>1.7078</b>	<b>0.1705</b>	<b>1.0000e-005</b>	<b>0.1705</b>	<b>0.0000</b>	<b>1.1491</b>	<b>1.1491</b>	<b>4.0000e-005</b>	<b>4.0000e-005</b>	<b>1.1640</b>



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**3.2 Building Construction - 2023**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0316	0.2543	0.3456	9.2000e-004		0.0109	0.0109		0.0100	0.0100	0.0000	80.5151	80.5151	0.0260	0.0000	81.1661
<b>Total</b>	<b>0.0316</b>	<b>0.2543</b>	<b>0.3456</b>	<b>9.2000e-004</b>		<b>0.0109</b>	<b>0.0109</b>		<b>0.0100</b>	<b>0.0100</b>	<b>0.0000</b>	<b>80.5151</b>	<b>80.5151</b>	<b>0.0260</b>	<b>0.0000</b>	<b>81.1661</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	1.0000e-005	0.0000	0.0000	1.3000e-004	0.0000	1.3000e-004	1.0000e-005	0.0000	1.0000e-005	0.0000	3.1000e-003	3.1000e-003	0.0000	0.0000	3.2400e-003
Vendor	1.0000e-005	2.3000e-004	1.0000e-004	0.0000	4.0000e-004	0.0000	4.0000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.0915	0.0915	0.0000	1.0000e-005	0.0953
Worker	6.4000e-004	4.4000e-004	4.6700e-003	1.0000e-005	1.7073	1.0000e-005	1.7073	0.1704	1.0000e-005	0.1704	0.0000	1.0546	1.0546	4.0000e-005	3.0000e-005	1.0654
<b>Total</b>	<b>6.5000e-004</b>	<b>6.8000e-004</b>	<b>4.7700e-003</b>	<b>1.0000e-005</b>	<b>1.7078</b>	<b>1.0000e-005</b>	<b>1.7078</b>	<b>0.1705</b>	<b>1.0000e-005</b>	<b>0.1705</b>	<b>0.0000</b>	<b>1.1491</b>	<b>1.1491</b>	<b>4.0000e-005</b>	<b>4.0000e-005</b>	<b>1.1640</b>

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4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Recreational	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Recreational	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Recreational	0.448973	0.066897	0.196737	0.156554	0.053985	0.010211	0.005386	0.023019	0.000640	0.000158	0.030754	0.000893	0.005793

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**5.0 Energy Detail**

Historical Energy Use: Y

**5.1 Mitigation Measures Energy**

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



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**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
Unmitigated	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005

**6.2 Area by SubCategory**

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.0000e-005</b>

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**6.2 Area by SubCategory**

**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	2.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	4.0000e-005	4.0000e-005	0.0000	0.0000	4.0000e-005
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>2.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.0000e-005</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>4.0000e-005</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>



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**7.2 Water by Land Use**

**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Recreational	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**8.0 Waste Detail**

---

**8.1 Mitigation Measures Waste**

**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

Mount Shasta Ski Park Lift Expansion Project - Siskiyou County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**8.2 Waste by Land Use**

**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Recreational	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Off-Highway Trucks	10	8.00	260	402	0.38	Diesel

Mount Shasta Ski Park Lift Expansion Project - Siskiyou County, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**UnMitigated/Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Off-Highway Trucks	0.6869	5.2178	4.3663	0.0172		0.1897	0.1897		0.1746	0.1746	0.0000	1,508.3569	1,508.3569	0.4878	0.0000	1,520.5528
<b>Total</b>	<b>0.6869</b>	<b>5.2178</b>	<b>4.3663</b>	<b>0.0172</b>		<b>0.1897</b>	<b>0.1897</b>		<b>0.1746</b>	<b>0.1746</b>	<b>0.0000</b>	<b>1,508.3569</b>	<b>1,508.3569</b>	<b>0.4878</b>	<b>0.0000</b>	<b>1,520.5528</b>

**10.0 Stationary Equipment**

**Fire Pumps and Emergency Generators**

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

**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

**User Defined Equipment**

Equipment Type	Number
----------------	--------

**11.0 Vegetation**

**ATTACHMENT D**  
**Helicopter Impacts Analysis**

# **Helicopter Impacts Analysis: Mt. Shasta Ski Park Lift Expansion Project**

## **Introduction and Purpose:**

The Mt. Shasta Ski Park (Ski Park) is a ski resort with both winter and summer operations located near the community of McCloud. The Ski Park's ownership consists of the land in Sections 3 and 9, Township 40 North, Range 3 West of the US Geological Survey McCloud 7.5-minute quadrangle.

Annual ski park attendance has grown steadily over the years from approximately 35,000 skiers in 1985, to 120,000 in 2021. Peak attendance during the winter holidays is approximately 3,000 skiers per day. Lift, lodge, service building, and parking capacities have been progressively increased to accommodate the numbers of skiers attending the park on such peak days. In the fall of 1996, construction was completed on an additional lift to the top of Coyote Butte, and increased lodge space from 12,000 to approximately 20,000 square feet. Later developments include the replacement of a surface ski lift with a beginner chair lift, the addition of a maintenance building dedicated to snowmaking, and the expansion of the parking lots to accommodate an additional 300 vehicle parking capacity within the USFS Special Use Permit boundary. An existing deeded easement connects Sections 9 and 3 and is developed within a roadway.

The Ski Park is seeking to develop infrastructure for additional skiing and backcountry recreational opportunities within the Ski Park's ownership. Most notably, the Ski Park intends to build a new ski lift facility along the southern slope of Gray Butte in Section 3.

The construction of the proposed ski lift would be completed using helicopters. Helicopters would be required to fly the lift towers into place.

The proposed helicopter use creates the potential for noise impacts to wildlife and sensitive receptors to occur during Project construction. This Helicopter Impacts Analysis was developed to assess these impacts and develop recommendations to mitigate for any impacts from the proposed helicopter use.

**Description of Helicopter Operations:**

Doppelmayr USA, Inc. (Doppelmayr) has agreed to install the new ski lift for the Mt. Shasta Ski Park. The ski lift would extend approximately 4,300 feet in a roughly south to north trajectory, lifting skiers from 6,392 ft to 7,536 ft., for a total elevation gain of 1,144 feet (See Figure 1, Project Envelopes and Figure 3, Section 3 Project Envelopes).

The helicopter to be used would be a Sikorsky S-64 Sky Crane. The helicopter would be utilized to fly 14 lift towers and the upper and lower terminal structures into place. Additionally, concrete may be flown into place using the helicopter, though that has not been decided.

In total, helicopter operations are expected to take three days. The helicopter would be staged in the Ski Park's parking lot and would follow a predetermined flight path (See Figure 4, Proposed Nesting Bird Survey Area). Upon taking off from the parking lot area, the helicopter would follow the Highland Glide Ski Trail to the base of the Coyote Lift, following the Coyote Lift path before reaching the Gray Butte Lift area. Approximately 10 helicopter trips would be required for each project component (the bottom lift terminal, 14 lift towers, and the top lift terminal). Total flight time is therefore estimated at 15 hours divided into approximately 160 three to six-minute trips (depending on the location of the lift components being installed).

Prior to the development of this Helicopter Impacts Analysis, Doppelmayr and the Ski Park already implemented several measures to mitigate noise impacts from these helicopter activities. As discussed above, the

helicopter would begin its flight at the Ski Park’s parking lot rather than starting from a more populated staging area with nearby sensitive receptors such as residences schools, or churches. Additionally, the flight plan provided ensures the helicopter would remain in relatively developed areas compared to the surrounding landscape; the parking lot and lift lines below the helicopter on its flight provide lower-quality wildlife habitat compared to the more vegetated areas surrounding the flight path. Therefore, noise impacts to wildlife have been considered prior to this analysis. Nevertheless, helicopter noise impacts are a unique and potentially significant impact to both wildlife and sensitive receptors; these potential impacts are discussed below.

**Potential Helicopter Impacts**

Helicopters are an extremely loud source of construction noise disturbances. For example, the Squaw Valley/Alpine Meadows Base-to-Base Gondola Project Final EIS/EIR stated “that helicopters can emit noise levels of 87.9 decibels at 50 feet overhead”, and that “helicopter flyovers would exceed daytime noise standards of 55 decibels within 1,520 feet of helicopter flight” (U.S. Forest Service 2020, page 18 of Section 4.9). See Table 1, Typical Noise Levels, below:

Source	Intensity Level
Instant Perforation of Eardrum	160 dB
Military Jet Takeoff	140 dB
Threshold of Pain	130 dB
Front Rows of Rock Concert	110 dB
Walkman at Maximum Level	100 dB
Vacuum Cleaner	80 dB
Busy Street Traffic	70 dB
Normal Conversation	60 dB
Whisper	20 dB
Rustling Leaves	10 dB
Threshold of Hearing (TOH)	0 dB

Source: California Department of Transportation, 2022

In general, sound intensity can be expected to drop at a rate of six decibels per doubling of distance. So, for the examples provided above, helicopter sound intensity, if 87.9 decibels at 50 feet, would drop to 81.9 decibels at 100 feet, 75.9 decibels at 200 feet, and so on. This metric of noise attenuation assumes a relatively unimpeded flow of noise. So, while noise sources on the ground may have their sound impacts dampened by surrounding buildings, terrain, or vegetation, helicopter impacts are more likely to reach a sensitive receptor without hitting any of these physical barriers. Sensitive receptors such as schools, churches, residences, or ceremonial areas could potentially face significant noise impacts if helicopters fly too close to these receptors.

Nesting birds are also highly sensitive to helicopter noise impacts. For example, Pacific Gas & Electric Company (PG&E) developed a list of construction buffers which take into account the particular bird species and type of construction noise to determine how large of a distance to work from any discovered nesting birds. While the PG&E construction buffer guidelines cover a wide range of noise-generating construction activities, the document states “helicopters are the main exception that may require increased buffers” (PG&E 2015).

### **Impacts to Sensitive Receptors:**

The helicopter flight path would travel through portions of Sections 3, 9, and 10, Township 40 North, Range 3 West of the US Geological Survey McCloud 7.5-minute quadrangle (see Figure 4, Proposed Nesting Bird Survey Area).

The baseline noise levels of the Project area include daily locomotive noise from the nearby Union Pacific Railroad. These locomotives add significant sources of noise. For example, Union Pacific states that the required sound intensity of train horns is between 96 and 110 decibels



(Union Pacific Railroad 2020). Additional noise is generated by diesel train engines, and train wheels moving over the train tracks.

The Ski Park is located on the southern foothills of Mount Shasta and is surrounded by public (U.S. Forest Service) and private timberland. As such, the Project is relatively far from any sensitive receptors. For example, the helicopter flight path is over 3.3 miles north of California State Route 89, over 2.7 miles from the John Everitt Memorial Vista Point, over four miles from the City of Mt. Shasta, and over five miles from the town of McCloud. At these distances, noise levels will have attenuated to the point where impacts would be less than significant to sensitive receptors.

However, Panther Meadows is a significant cultural/religious site near the Project area. Various Native American tribes regard Panther Meadows as sacred and conduct ceremonies at the site. The flight path would pass as close as 3,900 feet from Panther Meadows. While sound would attenuate to approximately 50.1 decibels at this distance, the typical sounds of nature expected from Native American tribes would be disrupted by helicopter noise impacts in two ways. The helicopter noise would still be audible to people participating in cultural ceremonies, and startled wildlife in the area would change their acoustic behaviors (likely by becoming quieter) in response to the helicopter noise. These changes to the acoustic environment could significantly impact sensitive receptors at Panther Meadows.

To mitigate for these impacts, helicopter activities should be conducted on days where no Native American religious/cultural ceremonies are occurring at Panther Meadows. This would completely eliminate noise impacts to sensitive receptors near the Project area.

### **Impacts to Nesting Birds:**

As discussed above, helicopter noise poses the potential for significant impacts to nesting birds. Typically, nesting birds can be protected in one of two ways from construction impacts. The first option would be to conduct construction activities outside of the nesting bird season (February 1 to August 31). However, the Mt. Shasta Ski Park's construction timelines would place construction activities within this season.

To mitigate for construction impacts during the nesting bird season, projects typically employ preconstruction nesting bird surveys throughout the construction footprint and a predefined distance from the construction footprint. These surveys are conducted by a qualified biologist. Nesting birds, if discovered, are reported to the California Department of Fish and Wildlife (CDFW). After consultation with CDFW, appropriate actions are taken to protect the nesting bird. Most commonly, construction activities are ceased within a species-specific protection buffer until nesting activities have been completed.

Species-specific protection buffers are typically significantly larger for helicopter activities than for typical construction activities. For example, the California Public Utilities Commission (CPUC) developed a helicopter impacts buffer list for different species and categories of nesting birds potentially impacted in the West of Devers Upgrade Project (CPUC 2019, pp. 22-23). These helicopter buffers incorporated both minimum horizontal and minimum vertical buffers for discovered nesting birds.

To mitigate for nesting bird impacts from helicopters, the Ski Park should implement a preconstruction nesting bird survey within a 500-foot radius of the Project construction footprint. As typical, any nesting birds should be reported to CDFW for a consultation on how to protect the species. If required, vertical and horizontal helicopter distance buffers should be applied to protect the nest site, as approved by CDFW.

These buffers would be feasible for the helicopter model proposed for construction. The Sikorski S-64 Skycrane has a maximum flight altitude of 10,600 feet, so vertical and horizontal evasion of the nesting bird location is possible.

See Figure 4, Proposed Nesting Bird Survey Area for the planned survey route.

## **Conclusions**

By scheduling helicopter activities on days that Native American cultural ceremonies are not occurring on Panther Meadows, noise impacts to sensitive receptors would be reduced to less than significant levels. Additionally, by conducting preconstruction nesting bird surveys within 500 feet of the helicopter flight path and implementing helicopter-specific construction activity buffers (subject to CDFW approval), impacts to nesting birds would be reduced to less than significant levels.

## **References:**

California Department of Transportation. 2022. *Typical Noise Levels*. Available online: <https://dot.ca.gov/programs/maintenance/pavement/noise-levels>. Accessed March 2022.

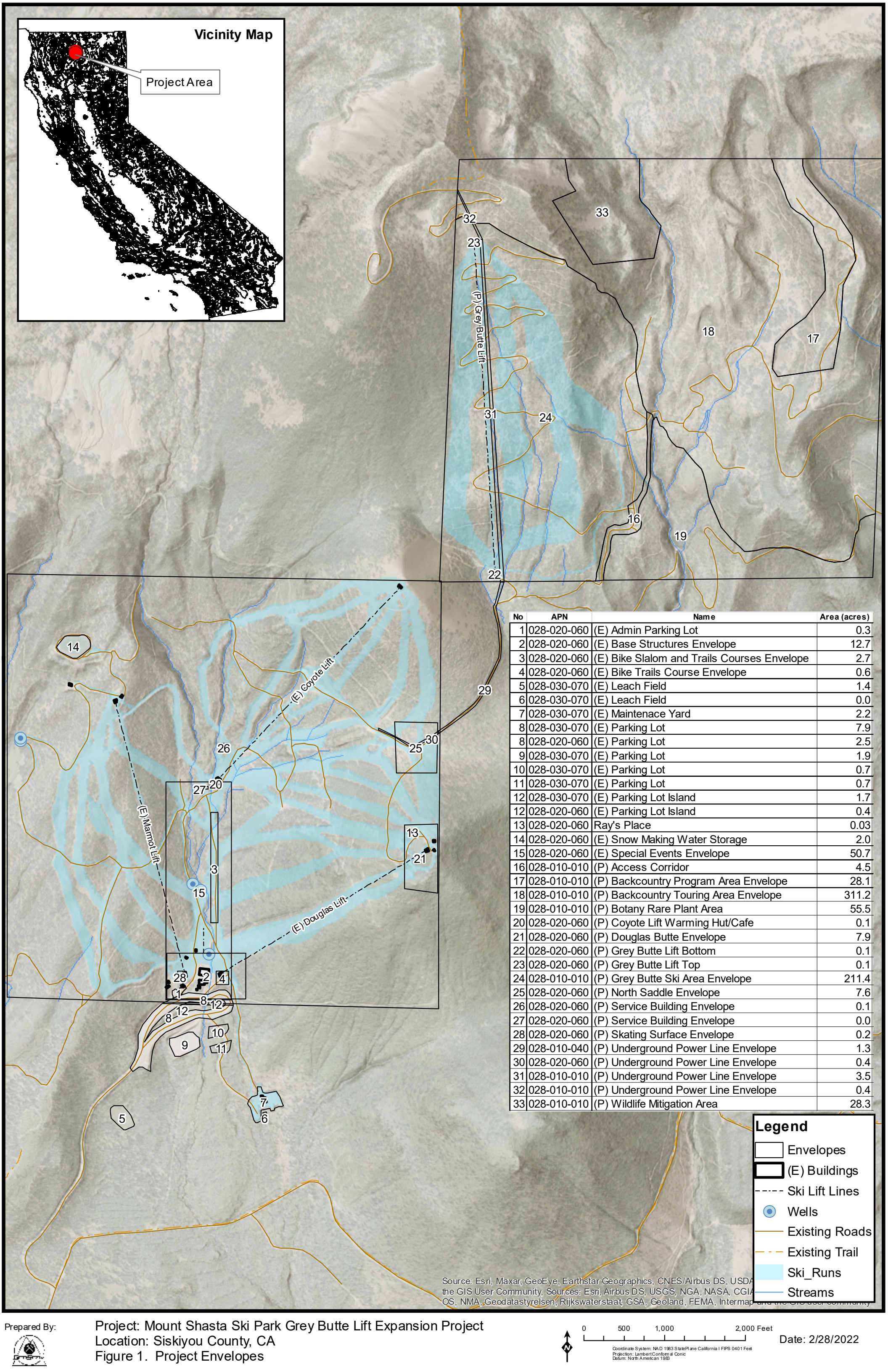
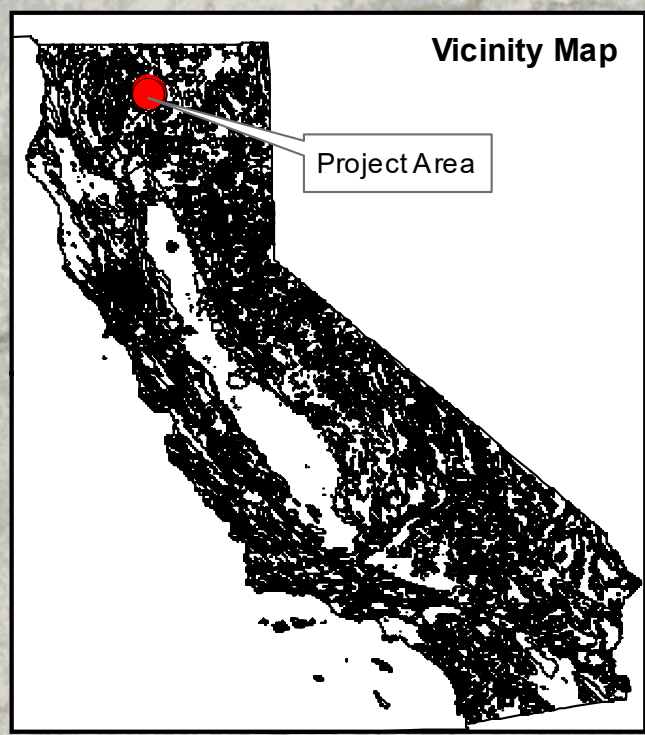
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No	APN	Name	Area (acres)
1	028-020-060	(E) Admin Parking Lot	0.3
2	028-020-060	(E) Base Structures Envelope	12.7
3	028-020-060	(E) Bike Slalom and Trails Courses Envelope	2.7
4	028-020-060	(E) Bike Trails Course Envelope	0.6
5	028-030-070	(E) Leach Field	1.4
6	028-030-070	(E) Leach Field	0.0
7	028-030-070	(E) Maintenance Yard	2.2
8	028-030-070	(E) Parking Lot	7.9
8	028-020-060	(E) Parking Lot	2.5
9	028-030-070	(E) Parking Lot	1.9
10	028-030-070	(E) Parking Lot	0.7
11	028-030-070	(E) Parking Lot	0.7
12	028-030-070	(E) Parking Lot Island	1.7
12	028-020-060	(E) Parking Lot Island	0.4
13	028-020-060	Ray's Place	0.03
14	028-020-060	(E) Snow Making Water Storage	2.0
15	028-020-060	(E) Special Events Envelope	50.7
16	028-010-010	(P) Access Corridor	4.5
17	028-010-010	(P) Backcountry Program Area Envelope	28.1
18	028-010-010	(P) Backcountry Touring Area Envelope	311.2
19	028-010-010	(P) Botany Rare Plant Area	55.5
20	028-020-060	(P) Coyote Lift Warming Hut/Cafe	0.1
21	028-020-060	(P) Douglas Butte Envelope	7.9
22	028-020-060	(P) Grey Butte Lift Bottom	0.1
23	028-020-060	(P) Grey Butte Lift Top	0.1
24	028-010-010	(P) Grey Butte Ski Area Envelope	211.4
25	028-020-060	(P) North Saddle Envelope	7.6
26	028-020-060	(P) Service Building Envelope	0.1
27	028-020-060	(P) Service Building Envelope	0.0
28	028-020-060	(P) Skating Surface Envelope	0.2
29	028-010-040	(P) Underground Power Line Envelope	1.3
30	028-020-060	(P) Underground Power Line Envelope	0.4
31	028-010-010	(P) Underground Power Line Envelope	3.5
32	028-010-010	(P) Underground Power Line Envelope	0.4
33	028-010-010	(P) Wildlife Mitigation Area	28.3

**Legend**

- Envelopes
- (E) Buildings
- Ski Lift Lines
- Wells
- Existing Roads
- Existing Trail
- Ski\_Runs
- Streams

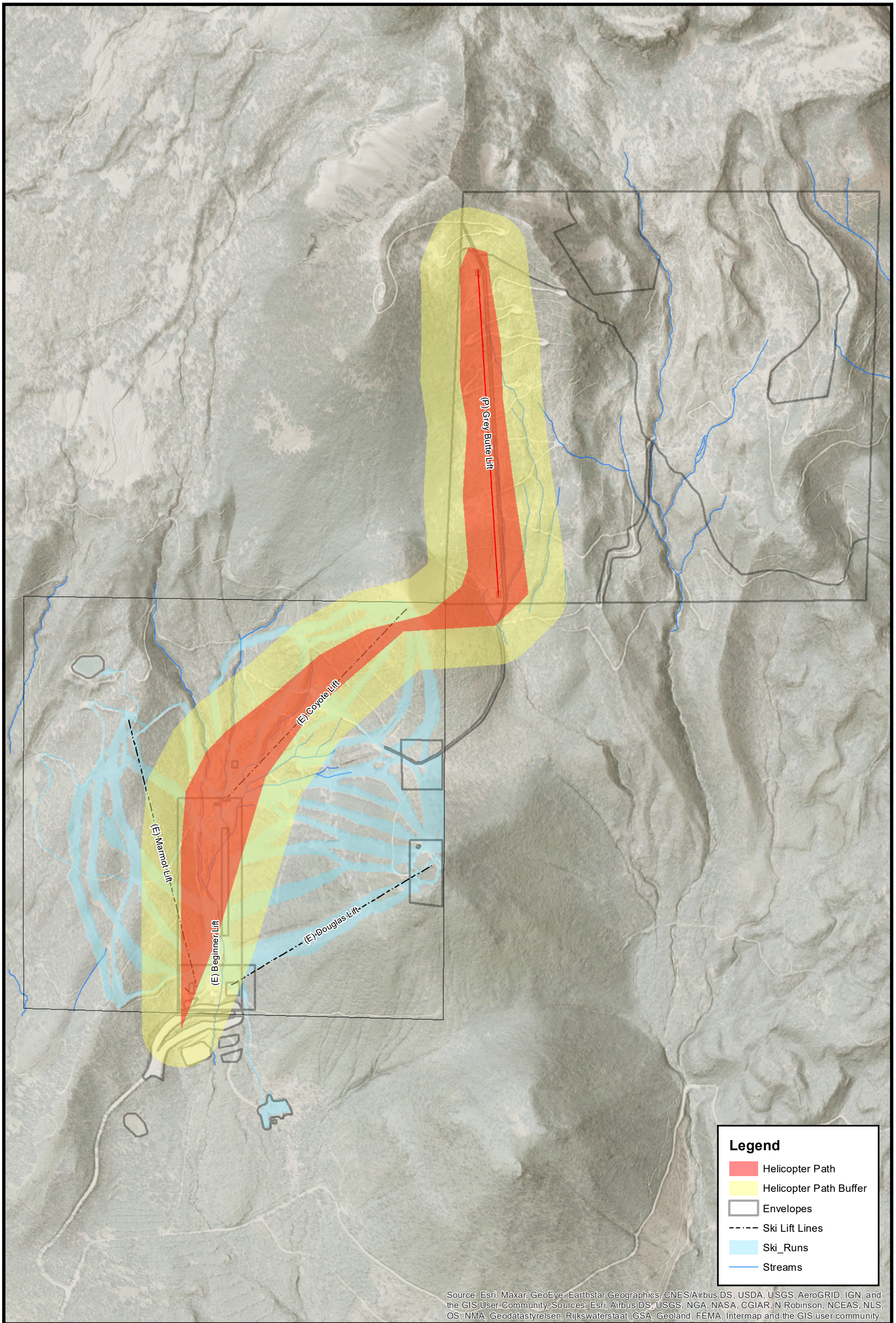
Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, the GIS User Community, Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS User Community





No	APN	Name	Area (acres)
1	028-020-060	(E) Admin Parking Lot	0.3
2	028-020-060	(E) Base Structures Envelope	12.7
3	028-020-060	(E) Bike Slalom and Trails Courses Envelope	2.7
4	028-020-060	(E) Bike Trails Course Envelope	0.6
5	028-030-070	(E) Leach Field	1.4
6	028-030-070	(E) Leach Field	0.0
7	028-030-070	(E) Maintenance Yard	2.2
8	028-030-070	(E) Parking Lot	7.9
8	028-020-060	(E) Parking Lot	2.5
9	028-030-070	(E) Parking Lot	1.9
10	028-030-070	(E) Parking Lot	0.7
11	028-030-070	(E) Parking Lot	0.7
12	028-030-070	(E) Parking Lot Island	1.7
12	028-020-060	(E) Parking Lot Island	0.4
13	028-020-060	(E) Ray's Place	0.03
14	028-020-060	(E) Snow Making Water Storage	2.0
15	028-020-060	(E) Special Events Envelope	50.7
16	028-010-010	(P) Access Corridor	4.5
17	028-010-010	(P) Backcountry Program Area Envelope	28.1
18	028-010-010	(P) Backcountry Touring Area Envelope	311.2
19	028-010-010	(P) Botany Rare Plant Area	55.5
20	028-020-060	(P) Coyote Lift Warming Hut/Cafe	0.1
21	028-020-060	(P) Douglas Butte Envelope	7.9
22	028-020-060	(P) Grey Butte Lift Bottom	0.1
23	028-020-060	(P) Grey Butte Lift Top	0.1
24	028-010-010	(P) Grey Butte Ski Area Envelope	211.4
25	028-020-060	(P) North Saddle Envelope	7.6
26	028-020-060	(P) Service Building Envelope	0.1
27	028-020-060	(P) Service Building Envelope	0.0
28	028-020-060	(P) Skating Surface Envelope	0.2
29	028-010-040	(P) Underground Power Line Envelope	1.3
30	028-020-060	(P) Underground Power Line Envelope	0.4
31	028-010-010	(P) Underground Power Line Envelope	3.5
32	028-010-010	(P) Underground Power Line Envelope	0.4
33	028-010-010	(P) Wildlife Mitigation Area	28.3

Source: Esri, Maxar, GeoEye, the GIS User Community, Source OS, NMA, Geodatastyrelsen, Rijkswaterstaat, Geo, Geoland, FEMA, Intermap and the GIS user community



**Legend**

- Helicopter Path
- Helicopter Path Buffer
- Envelopes
- Ski Lift Lines
- Ski\_Runs
- Streams

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community



**ATTACHMENT E**  
**Spill Prevention, Control, and Countermeasure Plan (SPCC)**

**MOUNT SHASTA BOARD AND SKI PARK  
SKI PARK HIGHWAY  
MOUNT SHASTA, CALIFORNIA**

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**SPILL PREVENTION, CONTROL, AND  
COUNTERMEASURE PLAN (SPCC)**

---

UPDATED MARCH 2013

Physical Location:

Mt. Shasta Ski Park Maintenance Yard

4500 Ski Park Hwy., McCloud, CA



Maintenance Yard Manager: Richard Coots

Phone Number : (530) 926-8600

Prepared By: **GUDGEL ENGINEERING**

401 Berry Street

Mount Shasta, California 96067

## MANAGEMENT ENDORSEMENT

In accordance with 40 CFR Part 112.7, this Spill Prevention, Control, and Countermeasure (SPCC) Plan is fully approved by the management of the Mt. Shasta Ski Park Maintenance Yard Facility which commits the manpower, equipment, and materials required to expeditiously control and remove any quantity of petroleum discharged that may be harmful and to fully implement this plan.

Signature: Richard Coats Date: 4/2/13

Name: Richard Coats Title: Mtn. Mgr.

## CERTIFICATION

Upon examination of the Mount Shasta Board and Ski Park facility located in Mount Shasta, California, and review of the Spill Prevention, Control, and Countermeasures Plan. I certify that this document has been prepared in accordance with the provisions of 40 CFR 112, U.S. Environmental Protection Agency regulations on Oil Pollution Prevention.

I am familiar with the requirements of 40 CFR 112 and have verified that this Plan has been prepared in accordance with the requirements of this Part.

I have visited and examined the facility and and collected information provided by the owner's representative.

I have verified that this Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards.

I have verified that the required inspection and testing procedures described in the plan have been established.

I have verified that the plan is adequate for the facility.

Shannon Gudgel  
Shannon Gudgel, P.E.  
C63341



3/29/13  
Date

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## REVISION SHEET

NAME Richard COOTS POSITION G.M.  
DATE 7/7/17 COMMENTS SPECIAL USE PERMIT  
MSSP CHANGE OWNERSHIP: USFS  
NEW: RAY MERLOW (OWNER) ←  
104 SISKIYOU AVE  
MT. SHASTA, CA 96067  
(530)-520-1955

NAME Richard COOT POSITION G.M.  
DATE 7/7/17 COMMENTS  
NEW: G.M.  
Richard COOTS  
104 SISKIYOU AV  
MT. SHASTA, CA  
(530)-859-1935

NAME Richard COOTS POSITION G.M.  
DATE 7/7/17 COMMENTS  
SIS community DEV. (SNUR. HEALTH)  
BEVERLY SHAW  
806 SMAN STR., Yuba CA  
530-841-2117

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## **1.0 INTRODUCTION**

The provisions contained within the code of Federal Regulations Title, 40, Part 112 (40 CFR 112) require a Spill Prevention Control and Countermeasure (SPCC) Plan to be implemented by facilities possessing units of or conducting operational activities involving the storage or transfer of petroleum products. Mount Shasta Board and Ski Park (MSSP), located in Mount Shasta, California, is subject to these requirements.

The purpose of the SPCC plan is to establish procedures, methods, equipment, and other criteria to prevent the discharge of petroleum products from non-transportation related onshore and offshore facilities into or upon navigable waters of the United States or adjoining shorelines. The SPCC plan will address the following:

- Existing facilities at MSSP with potential for a spill of petroleum products.
- Existing containment and diversionary structures constructed to control spill occurrences.
- A conformance evaluation relative to existing facilities' compliance with SPCC guidelines.
- Recommendations for operational changes and facility modifications to minimize the probability of a spill occurrence.
- Responsibilities for maintaining records, inspections, personnel training, security, and notifications relative to plan implementation.

Section 2.0 of this plan provides federal information concerning the MSSP facility, personnel responsibilities, and the SPCC requirements as stated in 40 CFR 112. Section 3.0 identifies those individual units within the MSSP facility with the potential for spills that could be a threat to navigable waters, human health, or environmentally sensitive areas. Section 4.0 provides information concerning spill prevention methods, including personnel training and inspections. Section 5.0 contains spill containment and cleanup procedures. Section 6.0 describes the notification requirements and procedures, and Section 7.0 contains procedures for plan review and amendment.

## **2.0 GENERAL INFORMATION**

Mount Shasta Ski Park is a recreational ski area located 4.0 miles north of State Highway 89 and nine miles east of the city of Mount Shasta. The park is open year round with most of its business during the winter ski season. The site is within the boundaries of Shasta National Forest and is in Sections 9 and 16 Township 40 N, Range 3 W. The facility sits in open land and is accessed by a service road off the



main parking area for the ski park. Maintenance staff are at the facility year-round from 7:00 am to 5:00 pm. Figure 1 provides a vicinity map of the site.

The address and phone numbers are as follows:

Facility

Mount Shasta Board and Ski Park  
Ski Park Highway  
Mount Shasta, California 96067  
(530) 926-8610

Land Owner

USDA Forest Service  
Mt. Shasta Ranger District  
204 W. Alma St.  
Mt. Shasta, CA 96067  
(530) 926-4511

The facility is operated by Mount Shasta Board and Ski Park, with corporate offices located in the nearby city of Mount Shasta. The address and phone are as follows:

Mount Shasta Board and Ski Park  
104 Siskiyou Avenue  
Mount Shasta, California 96067  
(916) 926-8600

## **2.1 Oil Spill Prevention Planning Requirements**

The U.S. Environmental Protection Agency (EPA) regulations on oil pollution prevention, 40 CFR 112, require the development of SPCC plans as an engineering and management strategy preventing facility from discharging petroleum products which may impact the quality of surface waters. These regulations are applicable to the MSSP facility for its storage capacity of petroleum products. A brief summary of the 40 CFR 112 requirements are as follows:

- Storage tanks and pipelines must be compatible with the product stored and be inspected on a regular schedule, or whenever material repairs are performed.
- Storage tanks and pipelines must have corrosion protection; overflow prevention devices, and adequate pipe supports.
- Storage tanks and pipelines must have provisions for traffic protection and early departure prevention.
- A subject facility must have spill containment structures, facility drainage control, and security measures.
- Personnel must be instructed and briefed on proper spill prevention procedures and requirements.
- Standardized written operating procedures must be used.
- Inspections must be routinely performed to ensure proper operation of equipment.

- Records must be maintained to document the successful implementation of personnel and inspection requirements.

## **2.2 Designation of Responsibility**

The primary responsibility for petroleum spill prevention, spill control and countermeasures at MSSP lies with the Vehicle Maintenance Foreman. Additionally, other staff have been designated to ensure compliance with various components of this plan and as alternates for some of the individual responsibilities.

## **2.3 Emergency Coordinator**

The Mountain Operations Manager, Richard Coats, has been designated as the Emergency Coordinator at the facility. The responsibilities include the following:

- Ensure the implementation of this SPCC plan.
- Facility surveys at least once every three years to determine if modifications are required to achieve compliance with SPCC guidelines.
- Review off all plans and drawings related to petroleum product storage, handling, or transfer for maintenance or remodeling to determine if an amendment to the SPCC plan is required.
- Coordinate with administrative staff in the development of safety, security, and facility inspection logs for the equipment and storage facility.
- Coordinate inspection logs as required by 40CFR 112.
- Performance of routine inspections of storage, secondary containment structures, pipelines, pumps, and boilers.
- Initiation of corrective action for deficiencies found during inspections.
- Development of safety inspection logs and perform safety inspections as designated.
- Visual inspections for leaks of vehicles delivering petroleum products to MSSP and for any obvious mechanical deficiency which could cause a spill event or accident.

- Initiate modifications to achieve compliance with the SPCC guidelines and recommendations within six months of plan date or any change in design, construction, operations or maintenance has occurred.
- Update the SPCC plan to ensure that it is current and responsive to the activities and operations of MSSP.
- Participate in or conduct annual training sessions to update skills and knowledge as relates to implementation of the SPCC plan. Training shall comply with the requirements of 40CFR 112 and include spill recognition, reporting, and containment/cleanup procedures.

### **2.3.1 Record Keeping Requirements**

All documentation shall be retained onsite for a minimum of three years. This shall include inspection records, written reports to regulatory agencies, spill documentation, delivery invoices, and disposal information.

## **3.0 PETROLEUM FACILITIES**

This section summarizes the facilities at MSSP, which have the potential for a petroleum spill. The MSSP site has two storage tanks subject to the SPCC requirements. These areas, referred to as the Tank Containment Area 1 & 2, and the respective loading areas for these units are shown in Figure 2. The following sections provide information on the tank storage, containment and loading areas.

### **3.1 Oil Storage Tank**

#### **3.1.1 Plant Description**

MSSP utilizes standard petroleum products to fuel snow vehicles and equipment. The three 2,000 gallon Convault above ground storage tanks are located on a raised berm on the northwest side of the vehicle maintenance shop. Pump and fill access is on a level area uphill of the tanks and the lower portion is raised above the sloping ground level and exposed lines and pumps are protected by a concrete wall. The pumps are supplied by ¾ inch black iron pipe. These tanks are situated on rocky soil native to this area. Nighttime illumination is provided by area floodlights on a light pole adjacent to the tanks. Additionally, located in a storage shed attached to the maintenance building, is an approximately 400 gallon waste oil storage tank. Within the maintenance shop drums of other products are stored for use in the shop.

#### **3.1.2 Spill Prediction**

The largest potential for a spill at this site is 2,000 gallons. The internal containment design of the Convaults will accommodate 100% of this volume. The containment basin in which it is located is more than adequate for this amount. No other structures are presently in place for spill containment at the fuel storage area. The waste oil tank is located on a concrete floor whose drain has been plugged so the surrounding walls would provide containment if there were a spill. The drums in the maintenance shop are situated on concrete and a spill should be observed and contained within the shop area.

### **3.1.3 Transfer**

Petroleum products are delivered to this site by a local vendor who is responsible for safe handling during delivery of fuel to the tanks. Transfer of fuel to the snow equipment is done by operators and vehicle maintenance personnel and they are responsible for safe handling.

## **3.2 Administration**

The storage tanks and pipelines are inspected each working day by the Vehicle Maintenance Foreman. Records of these inspections are maintained in the Vehicle Maintenance Office. Audits of these records will be performed by the designated administrative staff. Records of inspections and audits will be maintained with other records maintained in the Maintenance Office with associated information including manufacturing data, installation, and tank and pump specifications. Additionally, periodic, detailed inspections of external pipelines for soundness, corrosion, or leakage should be scheduled.

## **4.0 SPILL PREVENTION**

### **4.1 Training**

All employees who are involved in handling of oils, solvents, or surfactants will be properly instructed in accordance with Sections 5.0 and 6.0 of this plan. Periodic training of employees will be conducted to maintain awareness of pollution dangers and to assure adequate understanding of this plan. Training topics will include:

- Operation and maintenance of equipment to prevent discharge of petroleum products.
- Applicable pollution control laws, rules, and regulations.
- Description of known spill events.
- Description of malfunctioning components.
- Contents of this plan and any recently developed precautionary measures.

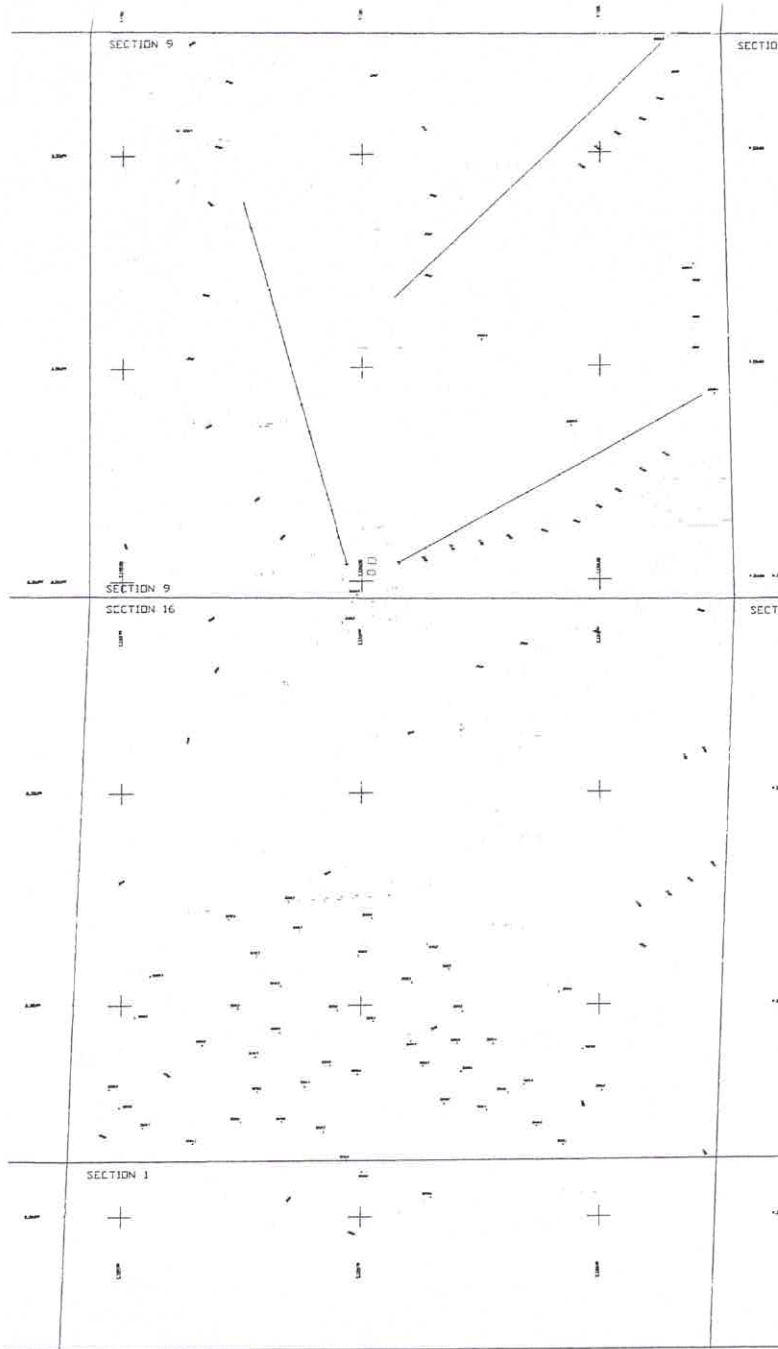


FIGURE 2 – SITE PLAN

The Vehicle Maintenance Foreman is responsible for planning and implementing training programs and procedures for this purpose.

## **4.2 Inspections**

### **4.2.1 Daily Visual Inspections**

Visual inspection of the storage tank area and external pipelines will be conducted by designated personnel each working day. Records of daily inspections will be maintained.

### **4.2.2 Weekly Systems Inspections**

Routine visual inspections of the storage tank, tank containment vessel, external pipelines, pump and boiler operations subject to oils or petroleum product spillage will be scheduled weekly by the Designated employee. Preventative maintenance will be accomplished to minimize potential spills. Records of these inspections and maintenance will be maintained.

### **4.2.3 Detailed System Inspection**

Detailed inspections of the storage tank, containment vessel, external and internal pipeline, pumps, gauges, valves, and controls will be scheduled by the Vehicle Maintenance Foreman at least once each year. Records of this inspection and any resulting maintenance will be maintained with daily and weekly inspection records.

## **5.0 SPILL CONTAINMENT AND CLEANUP**

### **5.1 Immediate Actions**

The initial action to be taken in the event of a spill, or upon observation of spillage, is to prevent the pollutant from entering the drainage ditches or storm water drains. Immediate action will be taken to prevent further spillage and confine the spilled material. The general instructions to contain a spill are:

- If possible, stop the spill. This includes such actions as shutting appropriate valves, securing pumps, and attempting to plug any holes in tanks or pipelines. The mentioned actions must be accomplished with regard to personal safety first and only with minimal danger to responding personnel. Safety of personnel is of the highest priority and must be considered in all actions in the event of a spill.
- Notify administrative staff of the existence of the spill.

- Warn other employees of the existence of the spill by the most expedient method. Establish boundaries at a safe distance from the spill and post staff to maintain the established distance for all personnel.
- Contain the spill. Utilize absorbent materials, dirt, sand, or other relative impervious material to dam up the spill and prevent further flow of the material from the spill area. If spillage should occur, use any means available to prevent contamination to enter drainage ditches, waterways, or storm drains.
  - For oil or other floating material, use hay, straw, or any broom arrangement to confine the spill.
  - For soluble materials, use chemical absorbents, makeshift dams, or any other means of confinement to prevent contamination of nearby waterways or storm drains.

No burning or chemical treatment of the spill should be undertaken without approval of local authorities.

## **5.2 Internal Notification**

The discoverer of a spill must notify the administrative staff or Vehicle Maintenance Foreman as soon as possible after completion of immediate spill containment actions. Should the discoverer of the spill be unable to stop and/or contain the spill, administrative staff should be provided the following information:

- Location of spillage.
- Type of material.
- Estimated quantity and extent of spillage/containment area.
- Brief description of measures that have been taken to confine the spilled materials and prevent further contamination.

The administrative staff should make any required notifications to appropriate local, state, and federal agencies, as described in Section 6.0 of this plan. If conditions exist which require immediate notification (see Section 6.2.2) and efforts to contact the above personnel are unsuccessful, the administrative staff should make the appropriate verbal notifications within 30 minutes following the discovery of the spill.

## **5.3 Spill Confinement**

If the spillage cannot be contained with the materials on hand, the emergency coordinator s to immediately procure the necessary materials to confine the spill.

## **5.4 Manpower Assignments**

The administrative staff or Vehicle Maintenance Foreman will supervise any spill cleanup activities and personnel, provided such responsibility is not superseded by the regulatory agencies. The emergency coordinator shall contract outside personnel as required/needed to assist in cleanup activities (see Contact List – Contingency Plan).

## **5.5 Spill Cleanup**

### **5.5.1 Materials Location**

An Emergency Spill Response Kit is on-hand at MSSP (see Section 8.2). Additional containment materials are available at the site.

### **5.5.2 Disposal of Spilled Material**

After containment has been achieved, the spilled materials and the containment materials will be removed and placed in appropriate containers for proper disposal in accordance with the procedures below.

The facility is not equipped to perform remedial activities for large quantities of contained materials; therefore, outside contractors shall be retained as soon as possible to control the remedial activities, MSSP personnel shall perform such actions as required by the regulatory agency.

The procedures for the removal and disposal of small quantities of contained oil, surfactants, or solvent material are outlined below.

## **Safety Precautions**

Spilled oils, due to their inherent physical characteristics must be assumed to be hazardous. As such, personnel must take appropriate measure to prevent accidental ignition or detonation of any waste materials during spill remedial activities. The most prominent threat arises from external ignition sources such as open flames, sparks, etc. The following safety guidelines are to be strictly enforced to ensure that accidental ignition does not result. These guidelines include, but are not limited to, the following:

- No smoking will be permitted within 100 feet of the area impacted by the spill. NO SMOKING signs shall be posted at the spill area.
- Ignition sources shall be prohibited in the spill area.
- Spark-producing equipment and tools shall be prohibited from use near spilled material or petroleum-contaminated materials unless specifically authorized by the Emergency Coordinator.



- The Vehicle Maintenance Foreman or the onsite supervisor shall perform inspections of hand tools and mechanical devices to ensure that they have not become unsafe for use as designated either to the item or to the operator.
- Motor vehicles used to transport any waste fuels, petroleum contaminated materials, or any other potentially hazardous materials found at the spill site, shall meet all applicable Department of Transportation safety standards.
- No oil handling operations shall be conducted during electrical storms.

### **Free Product (Oils, Solvents, or Surfactants)**

- Free product is to be collected by experienced or trained personnel.
- In no event shall dispersing materials or methods be used unless specifically authorized by the regulatory agency.
- Free product shall be collected using absorbent materials. The absorbent shall be applied until all free liquids are retained.
- Free product may be stored in waste collection containers (tank or drums) until removal from the site. Storage time onsite should be kept to a minimum.
- Transfers of collected materials shall take place within areas equipped with temporary containment and prevent leaks or spill from escaping.
- Used absorbents of a flammable free product shall be collected with non-spark producing tools and placed in drums or pails, which shall be sealed upon filling. All containers shall be clearly marked FLAMMABLE.
- All containerized waste products shall be transported offsite for reclamation/disposal as soon as practical.
- Appropriate manifests and disposal documentation shall be maintained for all such remedial actions.

### **Contaminated Soils, Absorbents, Etc.**

- Soils, absorbents, temporary diking materials, and other debris contaminated during the spill shall be collected with non-spark producing tools and placed in drums or pails, which shall be sealed upon filling. All containers shall be labeled PETROLEUM WASTE – FLAMMABLE.
- All containerized waste products shall be transported offsite for reclamation/disposal as soon as practical.

- All manifest, disposal documentation, and written reports shall be retained onsite per the requirements in Section 2.3 of this Plan.

The removal and disposal of spilled material and related materials will be supervised by the Vehicle Maintenance Foreman.

## **5.6 Receipt of External Notification of Spill**

In the event of notification of a spill or contaminant problem received from any external source, the following information is to be requested:

1. Where is the spillage located?
2. What is the nature of the material?
3. When did the observation occur?
4. Is the spill continuous or a single event?
5. Does the caller wish to identify him/herself so that results of the investigation can be recorded?
6. Can the caller be contacted for further assistance if the spill cannot be located?

## **6.0 NOTIFICATION REQUIREMENTS AND PROCEDURES**

### **6.1 Internal Alert Procedure**

If oil is accidentally spilled or discharged into a public waterway or storm sewer leading to surface waters, the discoverer of the spill should contact the Vehicle Maintenance Foreman as soon as spill containment activities are completed. If the spill cannot be contained, the Vehicle Maintenance Foreman or administrative staff should be notified.

### **6.2 External Alert Procedure**

The Vehicle Maintenance Foreman or administrative staff will normally perform all notifications to appropriate local, state, and federal agencies within 30 minutes after discovery/initiation of the spill.

Attempts should be made to contact the designated reporting personnel upon discovery of the spill. However, rapid communications is extremely important because the California Office of emergency

Services (COES) in Sacramento, California, must be notified immediately if a spill occurs. In no case should spill notification exceed 30 minutes from the time of discovery.

## 6.2.2 Regulatory Notifications

The following agency notifications will be made as required:

### 1. Local Protection Agencies

If danger to the public health or safety exists, immediately notify the following:

Siskiyou County Health Department	(800) 442-2333
McCloud CDF	911 or (530) 964-2150
Siskiyou County Sheriff Department	911 or (530) 841-2941
USFS Emergency Dispatch	(530) 246-5235

### 2. Federal/State Agencies

In the case of a discharge that threatens to escape site property, notify:

Federal National Response Center / U.S. Coast Guard	(800)424-8802
California Office of Emergency Services (Sacramento, CA)	(800) 852-7550
Central Valley Regional Water Quality Control Board	(530) 224-4845

### 3. In the event of a fire hazard beyond handling capability of local units notify:

Siskiyou County Office of Emergency Services	911 or (530) 842-8011
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### 4. If leakage into a drainage outlet is known to have happened, will happen, or is suspected, notify the following:

Siskiyou County Office of Emergency Services	<u>OR</u> 911 or (530) 842-8011
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## 6.2.3 Notification Content

The information to be relayed to the contacted agencies shall include:

- Name and position of person reporting
- Address of MSSP
- Substance spilled
- Estimated quantity
- Time spill occurred
- Person to contact and telephone number at MSSP

530-841-2117  
SIS COMMUNITY  
DEV.  
(ENVIR. HEALTH Sp.)  
BEVERLT SHAW

☆  
Cots  
1/2/17

## **6.2.4** Written Reports

All environmental oil spills that result in any of the following are considered reportable under EPA 40 CFR Part 110, Discharge of Oil:

1. 1,000 gallons or more spilled.
2. Creates a slick, shine, or discoloration on an environmental surface (water, dirt, grass, outside or into a sewer) regardless of the amount.
3. Violates local standards.

After verbal notification to the various personnel, a written report must be issued containing pertinent details relating to the cause of spillage, corrective actions taken, final results of corrective actions, and proposed plans to prevent future recurrence of the problem. The written report will be filed within 60 days by the administrative staff or Vehicle Maintenance Foreman to the following:

1. Environmental Protection Agency  
Regional Administrator, Region IX  
215 Fremont Street  
San Francisco, CA 94105  
(415) 744-1500
2. California Emergency Response Commission  
C/o California Office of Emergency Services  
2800 Meadowview Road  
Sacramento, CA 95832  
(800) 852-7550
3. USDA Forest Service  
Mt. Shasta Ranger District  
204 W. Alma St.  
Mt. Shasta, CA 96067  
(530) 926-4511

The report should include the following information:

1. Name of Facility.
2. Name of Operator.
3. Location of Facility
4. Month and Year of initial placement of storage tank.
5. Maximum oil and hazardous substance storage or handling capacity of the facility.
6. Description of the facility, including map, flow diagrams, and topographic maps.
7. A complete copy of the SPCC plan with any amendments.
8. A description of the cause of the spill including an analysis of the failure that allowed the spill.
9. Corrective actions or countermeasures taken including a description of additional training procedures, equipment, repairs, and equipment placement.

10. Additional preventive measures or countermeasures to minimize the possibility of a reoccurrence.
11. Additional comments regarding the SPCC plan and spill event which may be required to clarify the report.

## **7.0 PLAN REVIEW AND AMENDMENT PROCEDURES**

MSSP is required to amend the SPCC plan for the following reasons:

- When required by the EPA, after review of the SPCC plan, submitted because of a spill event.
- Whenever there is a change in facility design, construction, operations, or maintenance materially affecting the potential for an oil spill.
- If the required three-year review of the plan indicates more effective control and prevention technology will significantly reduce the likelihood of a spill.

All SPCC plan amendments, except those proposed by the EPA Regional Administrator, must be certified by a Registered Professional Engineer. The Maintenance Custodial will keep a copy of all amendments to this plan and will note such amendments in the *Amendments and Revisions* page at the front of this plan. Copies of all amendments will also be distributed to all required agencies.

### **7.1 EPA Required Review and Amendments**

MSSP must submit the SPCC plan with any amendments to the EPA and to the Central Valley Regional Water Quality Control Board whenever:

- A discharge of more than 1,000 gallons of oil occurs into navigable waters in a single spill event.
- A discharge of oil in harmful quantities, as defined in 40 CFR 110, occurs into navigable waters in two reportable spill events within a 12-month period.

Within 60 days of the occurrence of either of these two conditions, MSSP must submit to the EPA Regional Administrator:

- Name of facility
- Name of Operator
- Location of facility
- Month and year of initial placement of storage tank
- Maximum oil and hazardous substance storage or handling capacity of facility.
- Description of the facility, including map, flow diagrams, and topographic maps.
- A complete copy of the SPCC plan with any amendments.
- The cause of the spill including a failure analysis of the system or subsystem in which the failure occurred. The failure analysis examines and explains the reason for the failure resulting in the spill event. The analysis should be explicit, definitive, and specific.
- The corrective actions or countermeasures taken including a description of additional training procedures, equipment, repairs, and equipment replacement.

- Additional preventive measures or countermeasures to minimize the possibility of a recurrence.
- Additional information the EPA regional Administrator may require.

A complete copy of all information provided to the EPA must also be sent at the same time to the Central Valley Regional Water Quality Control Board (CVRWQCB). The CVRWQCB may review the information and make recommendations to the EPA to prevent and to contain discharges of oil from the facility. The EPA will review the information and any recommendations made by the CVRWQCB. The EPA may also require MSSP to amend the SPCC plan. If required to amend the SPCC plan, MSSP will be notified by certified mail or by personal delivery. The EPA will specify the terms of such amendment. Within 30 days from receipt of this notice, MSSP may submit written information, view, and arguments on the proposed amendment requirements. After consideration of all materials presented, the EPA will notify MSSP of the amendment required or will rescind the notice. The amendment required becomes a part of the SPCC plan 30 days after such notice, unless MSSP appeals. The amendment must be implemented as soon as possible (but not later than six months) after the amendment becomes a part of the SPCC plan.

## **7.2 Facility Modification Review and Amendments**

Whenever there is a change in facility design, construction, operations, or maintenance materially affecting the potential for an oil spill, MSSP is required to amend the SPCC plan to reflect such change. This change could be the result of construction of a new facility, or modifications to an existing facility.

As specified in Section 2.0, the Mountain Operations Manager is responsible for reviewing all plans for new construction, maintenance or remodeling to determine if an amendment of the SPCC plan is required. If the plan must be amended, the Mountain Operations Manager is responsible for having the plan amended and the amendments implemented as soon as possible, but no later than six months after the change in design, construction, operations, or maintenance occurred.

## **7.3 Three Year Review and Amendments**

MSSP is required to review and evaluate the SPCC plan at least once every three years. A complete facility inspection must be performed to verify conformance with the requirements of the SPCC plan and that past recommendations have been implemented. This review includes an assessment of new field proven technology that may provide an improvement in prevention and control of spill events at this site. If the technology will significantly reduce the likelihood of a spill event, the SPCC plan must be amended within six months to include the more effective measures/equipment.

## **8.0 RECOMMENDATIONS**

- A roof over the fuel tank storage area would be beneficial in that it would eliminate heavy snow deposits in the re-fueling area which make it difficult to identify leaks or spills.

**ATTACHMENT 1 – Five Year Review and Technical Amendment Logs**

**ATTACHMENT 1.1 – Five Year Review Log**

I have completed a review and evaluation of the SPCC Plan for this facility, and will/will not amend this Plan as a result.

Table G-13 Review and Evaluation of SPCC Plan for Facility			
Review Date	Plan Amendment		Name and signature of person authorized to review this Plan
	Will Amend	Will Not Amend	
6/13/17	<input checked="" type="checkbox"/>	<input type="checkbox"/>	OWNERSHIP CHANGE SEE REVISION SHEET AND MINOR CONTACT CHANGES
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	
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	<input type="checkbox"/>	<input type="checkbox"/>	

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**ATTACHMENT F**  
**Biological Resources Assessment**



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# BIOLOGICAL RESOURCES ASSESSMENT

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**Mount Shasta Ski Park Lift Expansion Project**  
McCloud, CA 96057

Siskiyou County APNs:  
**028-010-010, 028-010-040, 028-020-060**

MARCH 2022  
GeoServ, Inc.  
Mount Shasta, CA

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## **INTRODUCTION**

GeoServ, Inc. conducted a Biological Resources Assessment (BRA) for a 1,280-acre Property (Study Area) located in an unincorporated portion of Siskiyou County, California, north of the Town of McCloud on the lower slopes of Mount Shasta. The purpose of the assessment was to collect information on sensitive biological resources present or with the potential to occur in the Study Area.

## **PURPOSE**

The purpose of this reconnaissance-level BRA is to evaluate the presence of special-status species and/or habitats, as well as assess the potential for special-status species discussed in this BRA and listed in Appendices B-E to occur on or near the site of the proposed Mt. Shasta Ski Park (Ski Park) Expansion Project (Project), pursuant to applicable Federal, State and local regulations. This BRA also analyzes the potential for jurisdictional wetlands and other Waters of the United States to exist onsite.

This BRA supplements the biological assessments conducted for the Ski Park Conversion Timber Harvest Plan (THP # 2-21-00103-SIS) and Ski Park II Timber Harvest Plan (THP # 2-21-00185-SIS), which preceded this Project.

## **PROJECT DESCRIPTION**

The proposed Project will include the development of a new ski lift, associated restroom and first aid facilities, power and communications capabilities for the ski lift, and temporary backcountry touring facilities.

**Gray Butte Ski Area:** The Gray Butte Ski Area Envelope will be a structure envelope consisting of a ski lift and several facilities described below. The ski lift will extend approximately 4,300 feet in a roughly south to north trajectory, lifting skiers from 6,392 feet above mean sea level (amsl) to 7,536 feet amsl, for a total elevation gain of 1,144 feet. The proposed ski lift and associated ski trails will be constructed within the timber conversion area of THP # 2-21-00103-SIS. Additionally, there will be two ski patrol/first aid warming station huts installed near the top and bottom terminals of the ski lift. The huts will facilitate first aid care for guests and employees. In addition, one storage/maintenance structure will be constructed near the bottom lift terminal. Lastly, one United States Forest Service (USFS)-style vault privy toilet will be constructed near the bottom terminal of the ski lift. Exact locations of the ski patrol/first aid warming station huts, vault privy (toilet), and storage/maintenance structure will be determined after the proposed lift is constructed.

**New Transformer & Underground Power Line:** To power the proposed ski lift, PacifiCorp Power Company (Power Company) will replace an existing transformer with a larger transformer within the North Saddle Envelope. Additionally, an underground power line will be installed in the Underground Power Line Envelope. The power line will

be trenched beneath Forest Service Road 40N65 starting in Section 9 and continuing onto USFS ownership in Section 10. The underground power line will continue up Spur A into the proposed bottom terminal location in Section 3 of the Ski Park's property. The underground powerline at the bottom terminal site will then continue up the lift line corridor to the top terminal site.

At a later development phase, the Power Company will extend the underground powerline through Section 3, crossing back onto USFS ownership to service the Gray Butte Communication Facility. This final power line extension phase will partly serve as a mitigation measure to protect the Panther Meadows Cultural Site. It is the Power Company's intent to cease using the existing overhead line near Panther Meadows and the underground line on the west face of Gray Butte overlooking the Panther Meadows Cultural Site as a protection measure for cultural resources. However, except for anticipating cumulative impacts, this future project is outside the scope of this Initial Study.

**Backcountry Program:** A Backcountry Touring Area Envelope will be created to allow for backcountry recreational use for Ski Park guests. To accommodate the backcountry program within the Backcountry Touring Area Envelope, a structure envelope (the Backcountry Envelope) will be created. A maximum of four temporary overnight shelters are proposed within the Backcountry Program Area Envelope to facilitate backcountry recreational activities in this area.

Collectively, these areas are known as the Project Area, and represent a subset of the Study Area. See Figures 1- 4 in Appendix A (Area Maps) for the exact locations of these project activities within the Study Area.

## **LOCATION**

### **Site Overview**

The Study Area is located in an unincorporated part of Siskiyou County near the base of Mount Shasta, approximately six miles north of the town of McCloud, California. The Study Area encompasses Sections 3 and 9 (as well as a portion of Section 10) of the McCloud, California USGS 7.5-minute Quadrangle. It is situated at an elevation range between approximately 5,400 feet and 8,100 feet above mean sea level. The Study Area is located on Siskiyou County Assessor Parcel Numbers (APNs) 028-010-010, 028-010-040, and 028-020-060. The approximate center of the Study Area is located at latitude 41°20'23.78"N (WGS84) and longitude 122°11'22.12"W (WGS84) within the McCloud (Hydrologic Unit Code #18020004) Watershed (Natural Resources Conservation Service [NRCS], USGS, and U.S. Environmental Protection Agency [USEPA] 2016). Refer to Figure 4 (BRA Study Area) of Appendix A (Area Maps) for specific information on the Study Area boundary.

### **Critical Habitat & Special-Status Species Occurrences**

Critical Habitat is designated by the U.S. Fish & Wildlife Service and provides special protections for habitats considered important for long-term persistence of endangered or threatened species. Specific to fish species, critical habitat and essential fish habitat are also designated by the National Oceanic and Atmospheric Administration (NOAA).

There are no designated Federal Critical Habitats or essential fish habitats within the Study Area (see Results).

### **Landforms & Water Features**

The Study Area is characterized by rolling to steep terrain which primarily consists of coniferous forest dominated by red fir (*Abies magnifica*). The North Saddle Envelope and Douglas Butte Envelope (See Appendix A) have been previously developed for Ski Park uses, and therefore contain lower densities of coniferous forest habitat. Several Class II, Class III, Class IV, and unclassified watercourses run through the Study Area. A small pond is located within the Backcountry Touring Envelope in the eastern portion of Section 3.

### **Existing Structures**

Existing structures within the Study Area consist of the Ski Park's current ski lifts and associated facilities in Section 9. These include a current transformer (due to be replaced during Project implementation) in the North Saddle Envelope (See Appendix A).

### **Regional Land Uses**

Regional land use in the vicinity of the project is primarily undeveloped, consisting of public lands (mainly USFS) and private timber owners. Mount Shasta continues directly north of the Project, attracting significant recreational activity in the surrounding area. Panther Meadows (a native American cultural site) and the Everitt Memorial Trail (a hiking trail) are northwest of the Project. California State Route (SR) 89 and the town of McCloud are present to the south of the Project.

## **METHODS**

### **Records Search & Literature Review Conducted for the Timber Harvest Plans**

The Ski Park Conversion Timber Harvest Plan (THP # 2-21-00103-SIS) and Ski Park II Timber Harvest Plan (THP # 2-21-00185-SIS), approved in 2021, analyzed the potential for special-status species to occur within the THP Biological Assessment Areas (BAAs) and Watershed Planning Area (WAA). The BAAs were defined as a 1.3-mile radius around the THP areas. The WAA, common to both THPs, consists of the Upper Panther Creek (5505.220105) CALWATER 2.2 Planning Watershed. See Appendix B (CNDDDB Results) for more information on the THP areas, Biological Assessment Areas, and Watershed Assessment Area.

The THPs included an extensive treatment of sensitive plant and animal species, critical habitats, and sensitive natural areas. The THPs included the following record searches:

- California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB) record search for the “McCloud, California” 7.5-minute quadrangle and the eight surrounding USGS quadrangles (CDFW 2021);
- California Native Plant Society (CNPS) electronic Inventory of Rare and Endangered Plants of California was queried for the “McCloud, California” 7.5-minute quadrangle and the eight surrounding USGS quadrangles (CNPS 2021).

#### **Additional Records Search & Literature Review Conducted by GeoServ, Inc.**

In addition to the resources listed above, GeoServ consulted the following databases and web applications to address sensitive species or habitats not covered by the THPs.

- United States Fish and Wildlife Service (USFWS) Information, Planning, and Consultation (IPaC) System Resource Report List for the Study Area (USFWS 2022).
- National Oceanic and Atmospheric Administration (NOAA) Protected Resources Map Application (NOAA 2022a).
- NOAA Essential Fish Habitat Map Application (NOAA 2022b).
- National Marine Fisheries Service (NMFS) species list was also consulted; however, NMFS does not maintain a species list for the “McCloud, California” USGS 7.5-minute quadrangle due to the lack of anadromous fish as a result of the Shasta Dam.

Additional literature was consulted to determine if sensitive species discussed have any potential to occur in the Study Area. See the References section for a full list.

#### **Field Surveys**

A botanical survey was conducted throughout the Study Area between May 2021 and October 2021. Using CNDDDB and CNPS records, the botanist developed a target list of sensitive species. Prior to the survey, this target list was narrowed down by removing species which will not occur in the area due to characteristics such as elevation and habitat type. The survey was conducted by an experienced botanist. The botanist extensively searched the Study Area, focusing on areas that contained habitat elements that may include one of the target species, such as riparian areas or ponds. Particular attention was paid to the conversion areas of the THP (and therefore the ski lift area of the Project). A map of the botanist’s routes can be found in Appendix C, THP Botanical Surveys.

Field reconnaissance was conducted for the THPs by the Registered Professional Forester (RPF) and other forestry personnel. No sensitive animal species, wetlands, or natural communities were found.

GeoServ, Inc. personnel did not conduct any field surveys for the preparation of this Biological Resource Assessment. However, as part of Mitigation Measures (discussed later in this document), field surveys will be conducted prior to Project construction.

## **RESULTS**

### **NATURAL COMMUNITIES IN THE EVALUATION AREA**

Using the THPs, a review of published literature, and the knowledge of GeoServ, Inc. staff, the natural communities present in the Study Area were catalogued and evaluated to determine the presence or likely presence of sensitive natural communities (state rarity rank of 1, 2, or 3).

### **NATURAL COMMUNITIES WITHIN THE PROJECT SITE**

Vegetation communities were identified within the Study Area based on the classification system presented in the *Manual of California Vegetation* (Sawyer, et al. 2009). CNDDDB results (Appendix B) conducted for the THPs indicate that there are no sensitive natural communities within the study area.

No sensitive natural communities were observed within the Study Area during the botanical survey for the THPs. Vegetation types and communities observed during the field survey include the following:

#### **Red Fir Forest**

Canopy is intermittent to continuous. Trees are less than 60 m in height. Tree canopy is comprised of 50% or more red fir (*Abies magnifica*). Other mixed conifer species are present, such as white fir, Jeffrey Pine, and sugar pine (CNPS 2022). Red fir forests are high-elevation communities (6,000 to 9,000 feet above sea level), with the composition of red fir in relation to other tree species increasing with elevation (CDFW 1988a).

#### **Montane Riparian Corridor**

Montane riparian zones typically occur as a narrow, dense area of broad-leaved, winter deciduous trees with a sparse understory (CDFW 1988b). The mountain riparian areas in the Study Area tend to be characterized by various willow species (*Salix sp.*) as well as maple (*Acer sp.*). Montane riparian areas have a high value to many wildlife species.

### **SPECIAL-STATUS PLANTS WITHIN THE PROJECT SITE**

The Ski Park Conversion THP (THP # 2-21-00103-SIS) and Ski Park II THP (THP # 2-21-00185-SIS) included an extensive botanical scoping process and survey. The botanical survey report can be found in Section V of both THPs, as well as Appendix C of this BRA. The botanical scoping process included a sensitive species search from the California Native Plant Society (CNPS) and California Natural Diversity Database within a nine-quadrangle area centered around the Study Area. The records searches yielded 64



species detections within the 9-quadrangle area. Of these 64 species, 14 were deemed to have no potential to occur due to the Project's elevational range, while 3 were deemed to have no potential to occur due to the absence of their needed habitat. Nineteen species were considered non-status species, as they have a CNPS Rare Plant Rank of 4. The remaining 28 special status species were surveyed for throughout the Study Area from May to October, 2021. Focal plants included:

Scientific Name	Common Name	CNPS Rare Plant Rank
<i>Ageratina shastensis</i>	Shasta ageratina	1B.2
<i>Androsace filiformis</i>	Slender-stemmed androsace	2B.3
<i>Botrychium crenulatum</i>	Scalloped moonwort	2B.2
<i>Botrychium pinnatum</i>	Northwestern moonwort	2B.3
<i>Campanula wilkinsiana</i>	Wilkins' harebell	1B.2
<i>Carex halliana</i>	Hall's sedge	2B.3
<i>Chaenactis suffrutescens</i>	Shasta chaenactis	1B.3
<i>Cuscuta jepsonii</i>	Jepson's dodder	1B.2
<i>Draba carnosula</i>	Mt. Eddy draba	1B.3
<i>Epilobium oreganum</i>	Oregon fireweed	1B.3
<i>Erigeron bloomer var. nudatus</i>	Waldo daisy	2B.3
<i>Erigeron nivalis</i>	Northern daisy	2B.3
<i>Eriogonum pyrolifolium var. pyrolifolium</i>	Shasta buckwheat	2B.3
<i>Erythronium klamathense</i>	Klamath fawn lily	2B.2
<i>Eurybia merita</i>	Subalpine aster	2B.3
<i>Hulsea nana</i>	Dwarf hulsea	2B.3
<i>Lewisia cotyledon var. howellii</i>	Howell's lewisia	3.2
<i>Lomatia peckianum</i>	Peck's lomatium	2B.2
<i>Meesia uliginosa</i>	Broad-nerved hump-moss	2B.2
<i>Ophioglossum pusillum</i>	Northern adder's tongue	2B.2
<i>Orthotrichum holzingeri</i>	Holzinger's orthotrichum moss	1B.3
<i>Parnassia cirrata var. intermedia</i>	Cascade grass of parnassus	2B.2
<i>Phacelia cookei</i>	Cooke's phacelia	1B.1
<i>Potentilla cristae</i>	Crested cinquefoil	1B.3
<i>Scutellaria galericulata</i>	Marsh skullcap	2B.2
<i>Stuckenia filiformis ssp. alpina</i>	Fineleaf pondweed	2B.2
<i>Silene suksdorfii</i>	Cascade alpine campion	2B.3
<i>Trichodon cylindricus</i>	Trichodon moss	2B.2

All species observed during the survey were recorded, regardless of rare plant status.

One special-status species, Wilkins' harebell (*Campanula wilkinsiana*, CNPS Rank 1B.2), was found in the Study Area. However, the plants were observed within a 100-foot protection zone that was not altered in the THPs and is not utilized in Ski Park activities.

See Appendix C (Botanical Surveys) for the exact location of the *Campanula wilkinsiana* detections; the detections are abbreviated as “CAWI” on the Appendix C maps.

Historical populations of northwestern moonwort (*Botrychium pinnatum*, CNPS Rank 2B.3), discovered in a 2006 THP, were searched for but not found. These populations may be in dormancy due to the severe drought conditions that were present during the botanical survey. The populations are within the Study Area, though not within the ski lift area where the most intensive use will occur. The Ski Park intends to create a Botany Rare Plant area to protect *Botrychium pinnatum* (as well *Arnica viscosa*, a CNPS Rank 4 species). The Botany Rare Plant Area (see Figures 1 and 3 in Appendix A, Area Maps) will be barred from mechanical entry, removing risk to *Botrychium* from future development or timber harvest activities.

After submission of the THPs, GeoServ generated a USFWS IPaC report for the Study Area (Appendix D). Whitebark pine (*Pinus albicaulis*, US Proposed Threatened) was identified in the USFWS IPaC report as potentially being impacted by the Project. The botanical survey for the Ski Park Conversion THP and Ski Park II THPs did locate whitebark pine stands. However, the whitebark pine stands are located in the highest areas of Section 3, outside of the area where any Project construction will occur. Outdoor camping activities associated with the Project are not expected to affect the whitebark pine stands.

## **WILDLIFE**

### **Special-status Fish Species:**

Fish: A records search was conducted within the Study Area for special-status fish, critical habitat, and essential fish habitat through the following sources: CNDDDB, National Marine Fisheries Services (NMFS) species layer<sup>1</sup>, National Oceanic and Atmospheric Administration (NOAA) essential fish habitat mapper, NOAA Protected Resources App, and the USFWS IPaC report.

No critical habitat or essential fish habitat were recorded within the Study Area. The USFWS IPaC report (Appendix D) does list two fish species, Delta smelt (*Hypomesus transpacificus*, US Threatened) and longfin smelt (*Spirinchus thaleichthys*, US Candidate), as potentially being impacted by the Project. However, there are no fish-bearing streams within the Study Area; therefore, Delta smelt and longfin smelt have no potential to occur on the Study Area. Significant impacts to these species could occur if erosion or hazardous materials entered the Sacramento River watershed and polluted downstream habitat. However, with the implementation of Best Management Practices (BMPs) for erosion control and spill prevention during Project construction and operation, impacts to these species will be less than significant.

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<sup>1</sup> The NMFS layer was consulted; however, it does not keep data for the McCloud USGS 7.5-minute quadrangle.

### **Special-Status Wildlife Species:**

Species Addressed in the Timber Harvest Plans: The THPs examined the following special-status wildlife species that CNDDDB records indicated could potentially occur in the Study Area:

- Northern spotted owl (*Strix occidentalis*, US Threatened, State Threatened);
- Northern goshawk (*Accipiter gentilis*, Board of Forestry sensitive);
- Gray wolf (*Canus lupus*, State Endangered);
- Pacific fisher (*Pekania pennanti*, State Species of Special Concern);
- Pacific marten (*Martes caurina*, USFS Sensitive);
- Sierra Nevada red fox (*Vulpes vulpes necator*, US Proposed Threatened, State Threatened); and
- Wolverine (*Gulo gulo luscus*, US Proposed Endangered, State Endangered).

Northern Spotted Owl: As discussed in Section II of both THPs, the Study Area is within the geographic range of the Northern Spotted Owl. However, communication with CalFire representatives confirmed that the Study Area does not contain suitable habitat for the Northern spotted owl (see Appendix E, Northern Spotted Owl Technical Communication). Therefore, impacts to the Northern Spotted Owl will not be significant.

Northern Goshawk and Nesting Birds: Northern goshawks or goshawk nests could potentially be built within the Project Area in the intervening periods between completion of the timber harvest operations and the start of construction activities for the Project. Construction activities could disturb northern goshawks or their nests. These impacts will be significant. However, these effects will be mitigated by implementing a preconstruction nesting bird survey less than one week prior to the start of construction activities. Additional nesting bird surveys will be conducted if a break in construction activities of seven days or more occurred. If any nesting birds (including Northern goshawks) are discovered within the Project Area or near enough to the Project Area to be impacted by construction noise, CDFW will be consulted to advise how to protect the nesting birds during construction.

The Ski Park Conversion THP and Ski Park II THPs include protection measures for the Northern goshawk. Extending the protection buffers detailed in the THPs to include any goshawk nests discovered during Project construction or operation will ensure that Northern goshawks are not significantly impacted.

Gray Wolf: According to the Ski Park Conversion THP and Ski Park II THP, CDFW reports evidence that a successful breeding wolf pack was present east of McCloud in 2015. In early 2021, it appeared that another wolf pair was establishing a territory on the northeast side of Mount Shasta in the Whaleback area. If a gray wolf den or rendezvous site is present on the Project Area, construction activities could potentially impact the gray wolf. These impacts will be significant.

The gray wolf will be protected by designating a qualified biologist to conduct a gray wolf survey prior to construction activities. If a gray wolf den or rendezvous point is discovered during the survey, or during Project construction or operation, CDFW will be notified and operations within 0.25 miles of the site will be suspended.

Pacific Fisher: Pacific fishers typically require the following habitat conditions: live trees with cavities, broken tops, or other similar features; snags, particularly those with broken tops or cavities; platforms formed by other nesting animals or witches broom associated with mistletoe; existing individual logs or aggregations of coarse woody material; ground cavities, caves, or rock outcroppings; high levels (>60%) of canopy cover; and stands with taller and larger-diameter trees in relation to surrounding areas. Most of the Study Area does not consist of this habitat type. Nevertheless, suitable habitat for the Pacific fisher exists in the Study Area.

The Pacific fisher will be protected by designating a qualified biologist to conduct fisher surveys within the Project Area prior to construction activities. If a fisher or fisher den is discovered during the survey or Project construction/operations, the biologist will establish a protection buffer around the site and will consult with CDFW.

Pacific Marten: The Pacific Marten (*Martes caurina*, USFS Sensitive) occurs in multi-storied mature and old-growth white and red fir forests with moderate to dense canopy closure and understory of slash, rotten logs, and stumps to provide hiding cover and denning areas. Habitat for the species occurs primarily adjacent to the THP on USFS property. Structural elements used by Pacific marten include: 1) live trees with cavities, broken tops or other similar features; 2) snags, particularly those with cavities or broken tops; 3) platforms formed by other nesting animals or witches broom associated with mistletoe; 4) existing logs; and 5) ground cavities, caves, and rock outcroppings. Project construction could significantly impact the Pacific marten if a marten or marten den is present in the Project Area.

The Pacific marten will be protected by designating a qualified biologist to conduct marten surveys within the Project Area prior to construction activities. If a marten den is discovered during the survey or during Project construction/operation, operations will be suspended within 0.25 miles of the site until the designated biologist consults with CDFW.

Sierra Nevada Red Fox: The Sierra Nevada red fox (*Vulpes vulpes necator*, US endangered, State Threatened) has suitable habitat in the Study Area and on adjacent USFS ownership. The Sierra Nevada red fox requires rock outcrops, hollow logs, stumps, or loose soil for denning. Sierra Nevada red foxes may occur on the Project Area; impacts to the species, if present, could be potentially significant.

The Sierra Nevada red fox will be protected by designating a qualified biologist to conduct red fox surveys within the Project Area prior to construction activities. If a Sierra Nevada red fox den or rendezvous site is discovered during the survey or during Project construction and operation, operations will be suspended within 0.25 miles of the site until the Designated Biologist consults with CDFW.

Wolverine: Wolverines (*Gulo gulo luscus*, State Endangered) occur in Douglas-fir, mixed conifer, red fir, lodgepole, and subalpine conifer forests, as well as alpine Krumholtz, wet meadow, and montane riparian habitats. The species uses caves as well as hollows in logs, rock outcrops, and burrows for cover. Wolverines may occur on the Project Area; impacts to wolverines, if present, could be potentially significant.

Wolverines will be protected by designating a qualified biologist to conduct wolverine surveys within the Project Area prior to construction activities. If a wolverine den or rendezvous site is discovered during the survey or during Project construction/operation, operations will be suspended within 0.25 miles of the site until the Designated Biologist consults with CDFW.

Protection measures are summarized below:

Species	Protection Trigger	Protection Buffer	Follow-up Action
Northern Goshawk	Nest Site	0.25 miles	CDFW Consultation
Gray Wolf	Den, Rendezvous Site	0.25 miles	CDFW Consultation
Pacific Fisher	Individual	1,000 feet	Den Search by Biologist
Pacific Fisher	Den	375 feet	CDFW Consultation
Pacific Marten	Den	0.25 Miles	CDFW Consultation
Sierra Nevada Red Fox	Den, Rendezvous Site	0.25 Miles	CDFW Consultation
Wolverine	Den, Rendezvous Site	0.25 miles	CDFW Consultation

With the implementation of these protection measures, sensitive species potentially occurring on the Project Area will not be significantly impacted.

Wildlife Species Unaddressed by the Timber Harvest Plans:

Crustaceans: The USFWS IPaC report (Appendix D) for the Project identified vernal pool fairy shrimp (*Branchinecta lynchi*, US Threatened), Conservancy fairy shrimp (*Branchinecta conservation* US Endangered), and vernal pool tadpole shrimp (*Lepidurus*

*packardi*, US Endangered) as potentially occurring in the Study Area. The vernal pool fairy shrimp and Conservancy fairy shrimp are both dependent on vernal pools or vernal pool-like habitats (USFWS 2005). The vernal pool tadpole shrimp occurs in a wider variety of ephemeral wetland habitats in addition to vernal pools (USFWS 2007). However, no ephemeral wetland habitats that could support these shrimp species are present in the Study Area; therefore, vernal pool fairy shrimp, Conservancy fairy shrimp, and vernal pool tadpole shrimp have no potential to occur in the Study Area, and Project implementation will have no impacts on these species.

Insects: The USFWS IPaC report for the Project identified the monarch butterfly (*Danaus plexippus*, US Candidate) as potentially occurring in the Study Area. The monarch butterfly requires its host plant, milkweed (*Asclepias sp.*) in order to breed in the area. No milkweed was observed during the 2021 botanical survey for the THPs within the Study Area; this demonstrates that there is no potential for monarch butterflies to breed on the project site. Migratory monarch butterflies will not necessarily require milkweed to pass through an area on its way to overwintering grounds. The USFWS Monarch Species Status Assessment Report (Version 2.1, September 2020) states that adult monarch butterflies require a diversity of blooming nectar resources during breeding and migration. While the flowering species present in the Project may provide nectar for monarch butterflies returning to overwintering sites., it is unlikely that implementation of the Project will harm monarch butterflies. This is because the butterfly's nectar sources are generally restricted to riparian areas, which will not be altered for the implementation of the Project. Thus, impacts to the monarch butterfly will not be significant.

The THPs did not address Franklin's bumblebee (*Bombus franklini*). Franklin's bumblebee was listed as federally endangered in September 2021. CNDDDB records indicate that the nearest occurrence of Franklin's bumblebee occurred at least 2 miles away from the Study Area near Red Fir Flat along Everitt Memorial Highway. According to the Recovery Outline for Franklin's Bumblebee (USFWS 2021), specific habitat needs are poorly understood. For example, it is unknown why the species has been historically restricted to seven counties in Southern Oregon and Northern California, despite apparently suitable habitat across a much wider region (USFWS 2021). As such, it is difficult to assess the potential for this species to occur in the Project Area. However, the last sighting of Franklin's bumblebee occurred in 2006 near Mt. Ashland, over 50 miles from the Study Area. Additionally, the recorded nearby occurrence is 24 years old (from 1998), has low locational accuracy (1 mile radius), is centered approximately 3 miles away from the Study Area, and the record itself states Franklin's bumblebee is extirpated from California. Therefore, Franklin's bumblebee is not expected to occur in the Study Area, and no impacts to Franklin's bumblebee will occur as a result of the Project.

Birds: The USFWS IPaC report for the Project identified the yellow-billed cuckoo (*Coccyzus americanus*, U.S. Threatened) as potentially occurring in the Study Area.

Yellow-billed cuckoos generally breed in large blocks of riparian habitats; in particular, cottonwood trees are an important foraging habitat for yellow-billed cuckoos in California (USFWS 2001). Western yellow-billed cuckoos therefore have a very minimal potential to occur in the Study Area. The Study Area supports riparian habitat through its Class II – Class IV streams, but these areas do not comprise the typical large riparian areas that support the yellow-billed cuckoo. In addition, no cottonwood species were observed during the 2021 botanical surveys throughout the Study Area, despite an intensive survey effort along these watercourses. Thus, yellow-billed cuckoos have no potential to occur in the Study Area, and there will be no impacts to the species.

Amphibians: The USFWS IPaC report for the Project identified the California red-legged frog as potentially occurring in the Study Area. According to the Recovery Plan for the California red-legged frog (USFWS 2002), the California red-legged frog generally occupies habitats below 3,500 feet in elevation, though some historical sightings have occurred as high as 5,200 feet. All project developments will occur at elevations of at least 5,400 feet; therefore, there is no potential for the California red-legged frog to occur in the Study Area; with the implementation of BMPs for erosion and sedimentation, no impacts will occur to the species.

Additional species not considered by the THPs include obscure bumblebee (*Bombus caliginosus*), silver-haired bat (*Lasiorycteris noctivagans*), long-eared myotis (*Myotis evotis*), and gray-headed pika (*Ochotona princeps ssp. schisticeps*). These species were included in the CNDDDB records search; however, they are not listed or proposed to be listed as threatened or endangered by federal or state law (CDFW 2022).

## **WETLANDS & STREAMS**

The presence of streams, riparian areas, ponds, and wetlands were assessed by the Registered Professional Forester (RPF) in the THPs.

- The THPs identified Class II, Class III, Class IV, and unclassified watercourses within the Study Area. Timber harvest operations established riparian buffers of up to 100 feet (depending on the watercourse), which included Equipment Limitation Zones or Wildlife Protection Zones. Watercourse areas with rare plant occurrences were placed under 100' or 200' no harvest zones. As such, the vast majority of riparian vegetation surrounding these streams remain undisturbed.
- A pond was mapped in the eastern portion of Section 3 for the Ski Park II THP. The pond was also protected by an equipment exclusion zone.
- No yew species (genus *Taxus*) were observed during the THP botanical surveys.
- No wetlands potentially subject to U.S. Army Corps of Engineers jurisdiction were identified on the site.

## SOILS & LOCAL GEOMORPHOLOGY

According to the Ski Park Conversion THP and Ski Park II THP (see Section V of the THPs), seven soil types were found within the Study Area:

- Andic Cryumbrepts-Dystric cryopsamments, 0 – 70% slopes (4)
- Andic Cryumbrepts-Rock outcrop complex, 25 – 50% slopes (5)
- Revit family, 10 – 40% slopes (246)
- Revit-Shield families complex, 15 – 45% slopes (247)
- Shield-Revit complex, 20 – 50% slopes (296)
- Shield Rock outcrop, 15 – 50% slopes (298)
- Washougal-Germany, deep families complex, 20 – 40% slopes (333)

The soil units are composed of glacial outwash, volcanic ash, volcanic flow deposits, and/or basal till derived from basalt (NRCS 2022).

## SUMMARY & CONCLUSIONS

### Plants

Three special-status plant species were discovered during the THP botanical survey or are historically present:

- Wilkins' harebell (*Campanula wilkinsiana*, CNPS Rank 1B.2) was found within the Study Area; however, it is outside the Project Area (where construction impacts would occur) and is not in an area where existing Ski Park activities occur. Therefore, Wilkins' harebell does not require any additional protections.
- Historical populations of northwestern moonwort (*Botrychium pinnatum*, CNPS Rank 2B.3) were not found during the THP botanical survey; nevertheless, the Ski Park should protect these areas. The Ski Park should implement its proposed Botany Rare Plant Area (which encompasses these historic moonwort populations) as a mitigation measure in the Project Initial Study.
- Whitebark pine (*Pinus albicaulis*, US Proposed Threatened) stands were found within the Study Area, but not within the Project Area or within areas used in existing Ski Park activities. Therefore, whitebark pine will not be impacted by Project construction or recreational activities. No protection measures are required.

### Animals

Special-status fish and wildlife with a potential to occur in the Study Area were given protection measures during the Ski Park Conversion THP and Ski Park II THP. These protection measures should be carried forward into the Project Initial Study as mitigation measures to ensure continued protection of these species if they occur in the Project Area.

Additional records searches did not yield any additional sensitive fish or wildlife with the potential to be impacted by the Project, and no further protections will be required.



## **Wetlands**

Class II – IV and unclassified watercourses were discovered throughout the Study Area, as discussed above. A pond was discovered within the Backcountry Touring Area of the project. Nevertheless, these were provided with riparian protection buffers in the THPs, and substantial vegetation was retained in these areas.

Several Class III streams cross proposed ski trails in the Project Area; however, these streams will not be impacted by the Project, as they will be covered in snow during Ski Park operations.

No potential for vernal pools was observed.

## **REGULATORY FRAMEWORK**

### **FEDERAL ENDANGERED SPECIES ACT**

The U.S. Fish and Wildlife Service (USFWS) has jurisdiction over federally-listed threatened and endangered species under the federal Endangered Species Act (ESA). The ESA protects plants and animals that are listed as endangered or threatened by USFWS and the National Marine Fisheries Service (NMFS). Section 9 of ESA prohibits, without authorization, the taking of listed wildlife, where take is defined as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct” [50 Code of Federal Regulations (CFR) 17.3]. For plants, this statute governs removing, possessing, maliciously damaging, or destroying any listed plant under federal jurisdiction and removing, cutting, digging up, damaging, or destroying any listed plant in any other area in knowing violation of state law [16 U.S. Code (USC) 1538].

Under Section 7 of ESA, federal agencies are required to consult with USFWS and/or NMFS if their actions, including permit approvals and funding, could adversely affect a listed (or proposed) species (including plants) or its critical habitat. Through consultation and the issuance of a biological opinion (BO), USFWS and NMFS may issue an incidental take statement allowing take of the species that is incidental to an otherwise authorized activity provided the activity will not jeopardize the continued existence of the species. Section 10 of ESA provides for the issuance of incidental take permits where no other federal actions are necessary provided a habitat conservation plan is developed.

### **CALIFORNIA ENDANGERED SPECIES ACT**

The California Endangered Species Act (CESA) protects any plant or animal listed or proposed for listing as rare (plants only), threatened, or endangered. Species identified as candidates for listing may also receive protection. Section 2080 of the California ESA prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit. Take is defined in Section 86 of the California Fish and Game Code as “hunt, pursue, catch,

capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” The California ESA allows for take incidental to otherwise lawful projects under permits issued by CDFW.

### **CALIFORNIA ENVIRONMENTAL QUALITY ACT**

Section 15380(b) of the California Environmental Quality Act (CEQA) Guidelines provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria. These criteria include definitions similar to definitions used in ESA, the California ESA, and NPPA. Section 15380 was included in the CEQA Guidelines primarily to address situations in which a project under review may have a significant effect on a species that has not been listed under ESA, the California ESA, or NPPA, but that may meet the definition of endangered, rare, or threatened. Animal species identified as species of special concern (SSC) by CDFW, and plants identified by the CNPS as rare, threatened, or endangered may meet the CEQA definition of rare or endangered.

### **CLEAN WATER ACT**

Under Section 404 of the federal Clean Water Act, the U.S. Army Corps of Engineers (Corps) is responsible for regulating the discharge of fill material into waters of the United States. Waters of the U.S. and their lateral limits are defined in 33 CFR Part 328.3 (a) and include streams that are tributary to navigable waters and their adjacent wetlands. Wetlands that are not adjacent to waters of the U.S. are termed "isolated wetlands" and, depending on the circumstances, may also be subject to Corps jurisdiction.

Projects involving activities that have no more than minimal individual and cumulative adverse environmental effects may meet the conditions of one of the Nationwide Permits already issued by USACE (Federal Register [FR] 82:1860, January 6, 2017). If impacts on wetlands could be substantial, an individual permit is required. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions; this certification or waiver is issued by the Regional Water Quality Control Board (RWQCB).

### **CALIFORNIA WATER QUALITY REGULATORY PROGRAMS**

Pursuant to Section 401 of the federal Clean Water Act and the state's Porter-Cologne Act, projects that are regulated by the Corps must obtain water quality certification from the Regional Water Quality Control Board (RWQCB). These regulations require compliance with the National Pollutant Discharge Elimination System (NPDES), including compliance with the California Storm Water NPDES General Construction Permit for discharges of stormwater runoff associated with construction activities. General Construction Permits for projects that disturb one or more acres of land require development and implementation of a Storm Water Pollution Prevention Plan.

Under the Porter-Cologne Water Quality Act, the RWQCB regulates actions that will involve “discharging waste, or proposing to discharge waste, with any region that could affect the water of the state” [Water Code 13260(a)]. Waters of the State are defined as “any surface water or groundwater, including saline waters, within the boundaries of the state” [Water Code 13050 (e)]. The RWQCB regulates all such activities, as well as dredging, filling, or discharging materials into Waters of the State, that are not regulated by USACE due to a lack of connectivity with a navigable water body. The RWQCB may require issuance of a Waste Discharge Requirements for these activities.

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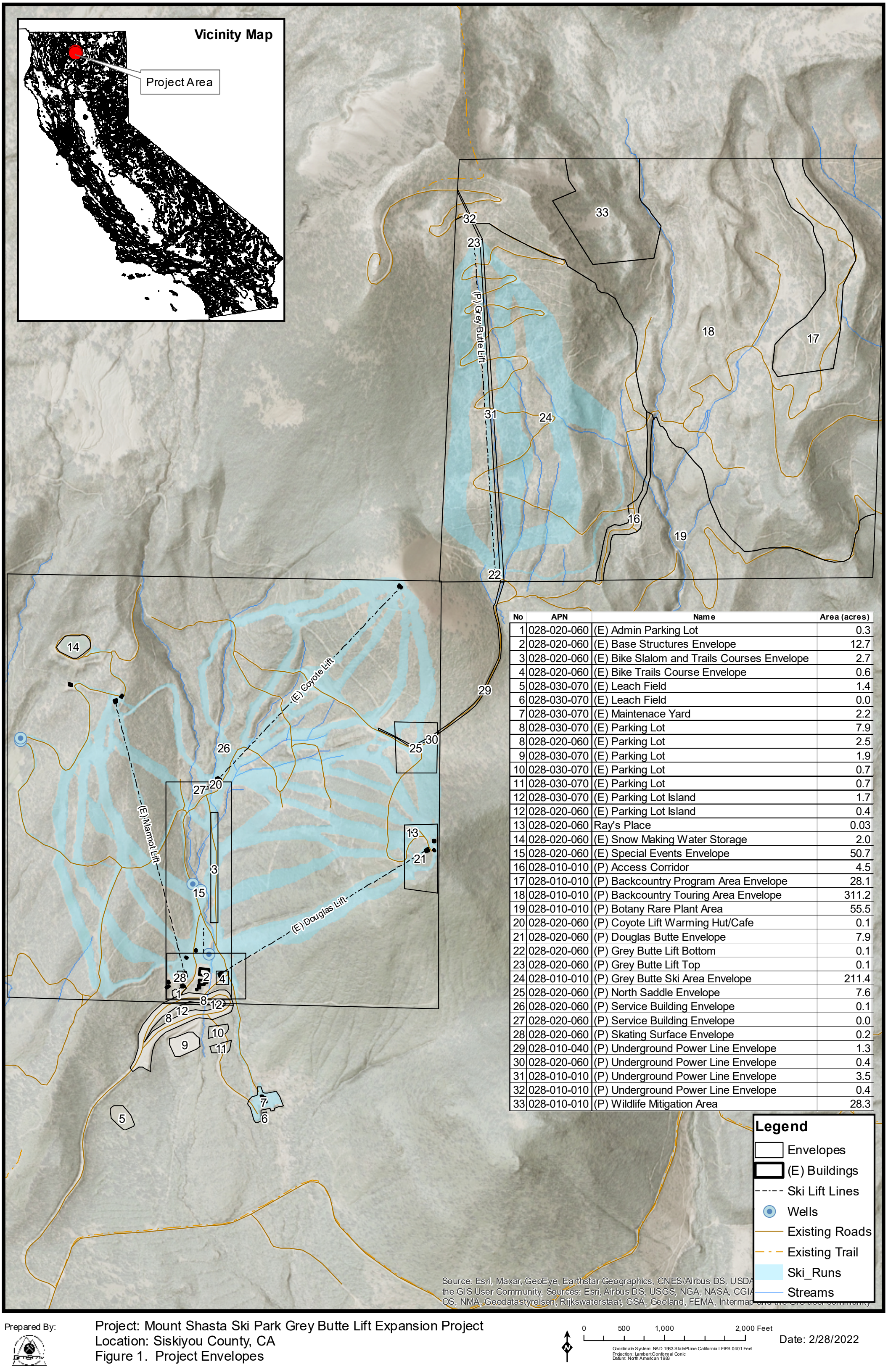
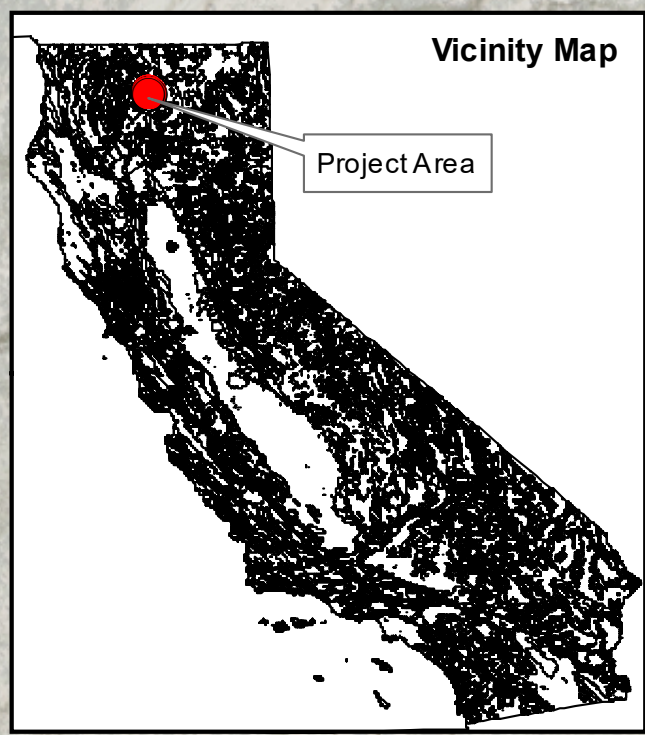
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## Appendix A – Area Maps

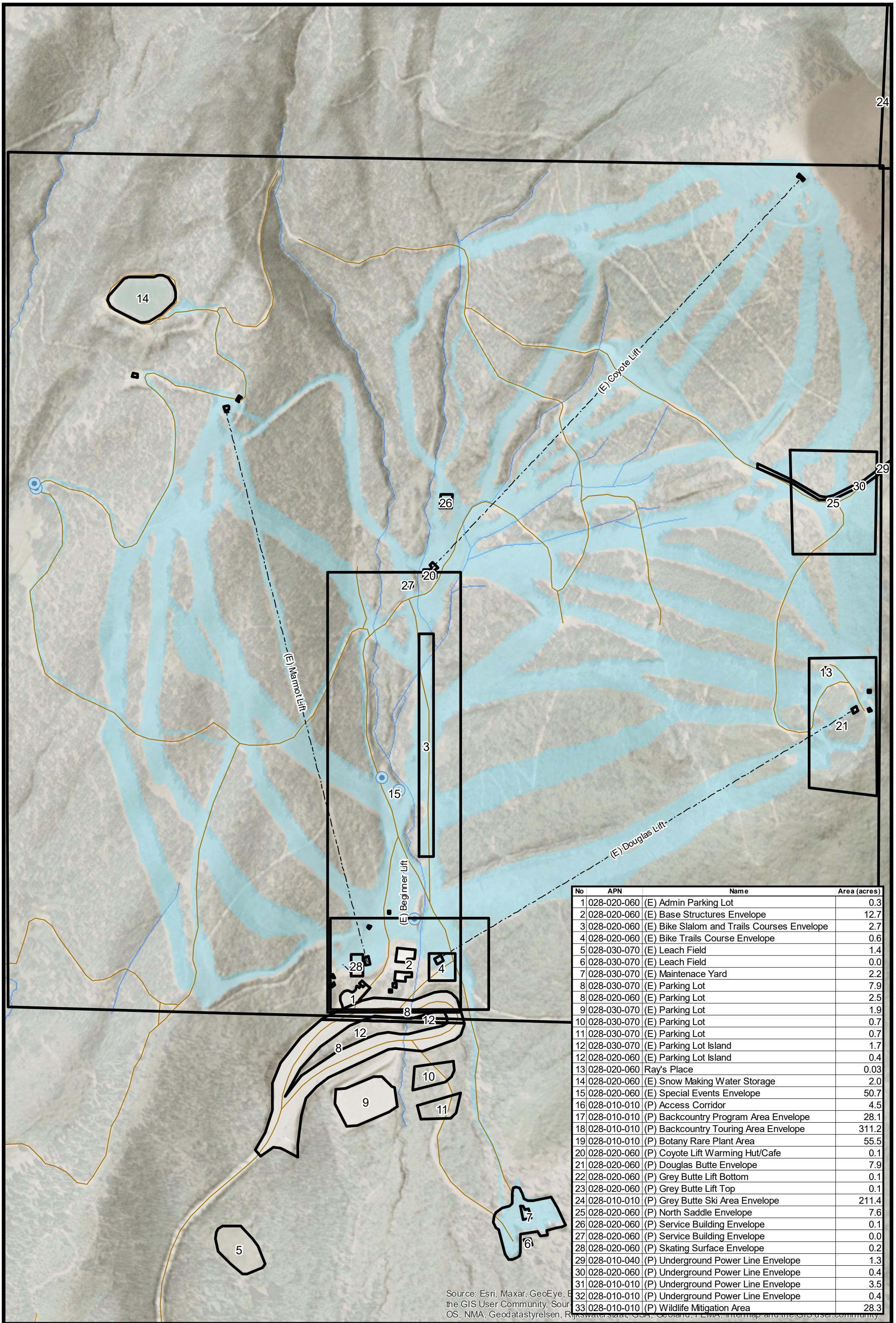


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2	028-020-060	(E) Base Structures Envelope	12.7
3	028-020-060	(E) Bike Slalom and Trails Courses Envelope	2.7
4	028-020-060	(E) Bike Trails Course Envelope	0.6
5	028-030-070	(E) Leach Field	1.4
6	028-030-070	(E) Leach Field	0.0
7	028-030-070	(E) Maintenance Yard	2.2
8	028-030-070	(E) Parking Lot	7.9
8	028-020-060	(E) Parking Lot	2.5
9	028-030-070	(E) Parking Lot	1.9
10	028-030-070	(E) Parking Lot	0.7
11	028-030-070	(E) Parking Lot	0.7
12	028-030-070	(E) Parking Lot Island	1.7
12	028-020-060	(E) Parking Lot Island	0.4
13	028-020-060	Ray's Place	0.03
14	028-020-060	(E) Snow Making Water Storage	2.0
15	028-020-060	(E) Special Events Envelope	50.7
16	028-010-010	(P) Access Corridor	4.5
17	028-010-010	(P) Backcountry Program Area Envelope	28.1
18	028-010-010	(P) Backcountry Touring Area Envelope	311.2
19	028-010-010	(P) Botany Rare Plant Area	55.5
20	028-020-060	(P) Coyote Lift Warming Hut/Cafe	0.1
21	028-020-060	(P) Douglas Butte Envelope	7.9
22	028-020-060	(P) Grey Butte Lift Bottom	0.1
23	028-020-060	(P) Grey Butte Lift Top	0.1
24	028-010-010	(P) Grey Butte Ski Area Envelope	211.4
25	028-020-060	(P) North Saddle Envelope	7.6
26	028-020-060	(P) Service Building Envelope	0.1
27	028-020-060	(P) Service Building Envelope	0.0
28	028-020-060	(P) Skating Surface Envelope	0.2
29	028-010-040	(P) Underground Power Line Envelope	1.3
30	028-020-060	(P) Underground Power Line Envelope	0.4
31	028-010-010	(P) Underground Power Line Envelope	3.5
32	028-010-010	(P) Underground Power Line Envelope	0.4
33	028-010-010	(P) Wildlife Mitigation Area	28.3

**Legend**

- Envelopes
- (E) Buildings
- Ski Lift Lines
- Wells
- Existing Roads
- Existing Trail
- Ski\_Runs
- Streams

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, the GIS User Community, Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS User Community



No	APN	Name	Area (acres)
1	028-020-060	(E) Admin Parking Lot	0.3
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3	028-020-060	(E) Bike Slalom and Trails Courses Envelope	2.7
4	028-020-060	(E) Bike Trails Course Envelope	0.6
5	028-030-070	(E) Leach Field	1.4
6	028-030-070	(E) Leach Field	0.0
7	028-030-070	(E) Maintenance Yard	2.2
8	028-030-070	(E) Parking Lot	7.9
8	028-020-060	(E) Parking Lot	2.5
9	028-030-070	(E) Parking Lot	1.9
10	028-030-070	(E) Parking Lot	0.7
11	028-030-070	(E) Parking Lot	0.7
12	028-030-070	(E) Parking Lot Island	1.7
12	028-020-060	(E) Parking Lot Island	0.4
13	028-020-060	Ray's Place	0.03
14	028-020-060	(E) Snow Making Water Storage	2.0
15	028-020-060	(E) Special Events Envelope	50.7
16	028-010-010	(P) Access Corridor	4.5
17	028-010-010	(P) Backcountry Program Area Envelope	28.1
18	028-010-010	(P) Backcountry Touring Area Envelope	311.2
19	028-010-010	(P) Botany Rare Plant Area	55.5
20	028-020-060	(P) Coyote Lift Warning Hut/Cafe	0.1
21	028-020-060	(P) Douglas Butte Envelope	7.9
22	028-020-060	(P) Grey Butte Lift Bottom	0.1
23	028-020-060	(P) Grey Butte Lift Top	0.1
24	028-010-010	(P) Grey Butte Ski Area Envelope	211.4
25	028-020-060	(P) North Saddle Envelope	7.6
26	028-020-060	(P) Service Building Envelope	0.1
27	028-020-060	(P) Service Building Envelope	0.0
28	028-020-060	(P) Skating Surface Envelope	0.2
29	028-010-040	(P) Underground Power Line Envelope	1.3
30	028-020-060	(P) Underground Power Line Envelope	0.4
31	028-010-010	(P) Underground Power Line Envelope	3.5
32	028-010-010	(P) Underground Power Line Envelope	0.4
33	028-010-010	(P) Wildlife Mitigation Area	28.3

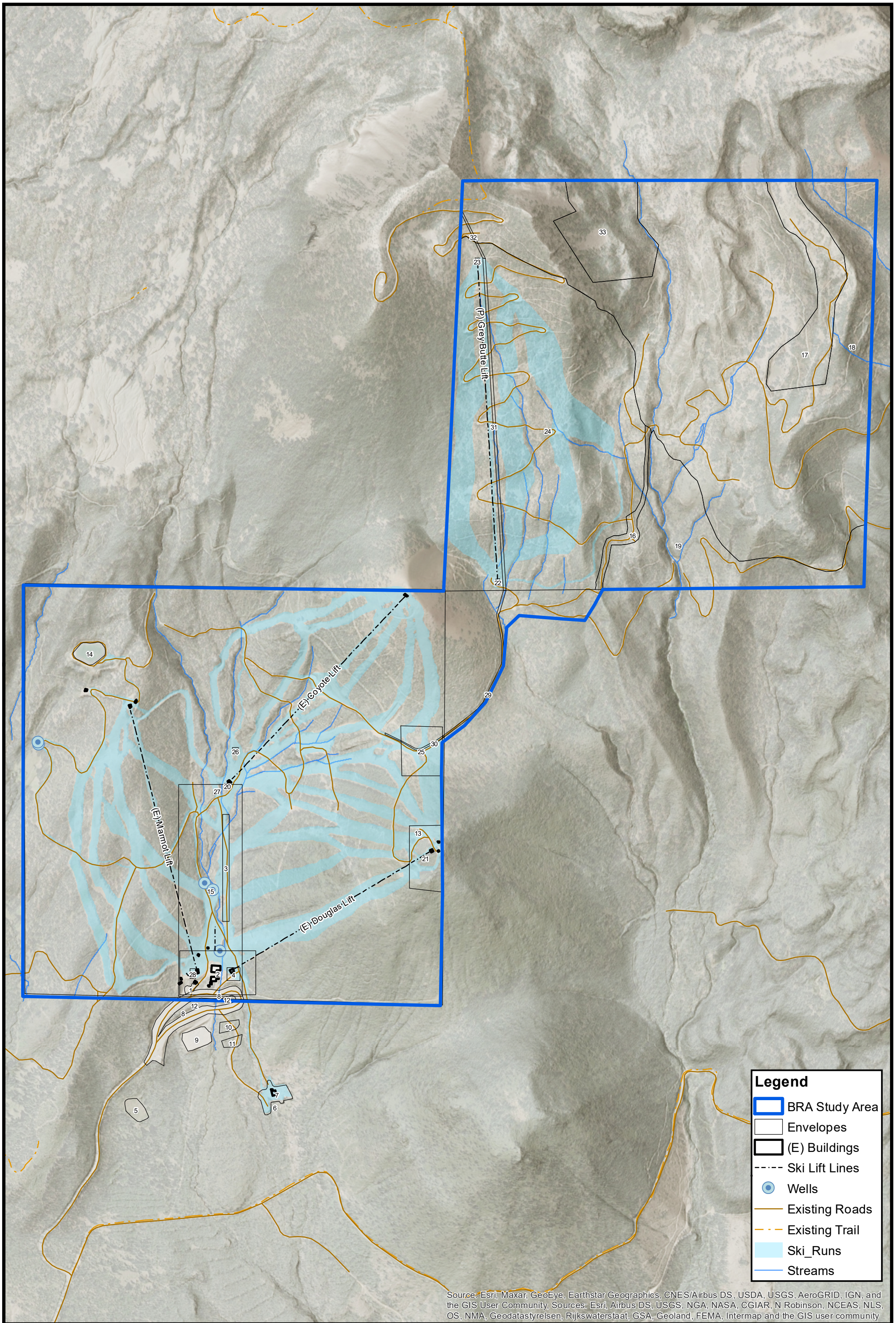
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2	028-020-060	(E) Base Structures Envelope	12.7
3	028-020-060	(E) Bike Slalom and Trails Courses Envelope	2.7
4	028-020-060	(E) Bike Trails Course Envelope	0.6
5	028-030-070	(E) Leach Field	1.4
6	028-030-070	(E) Leach Field	0.0
7	028-030-070	(E) Maintenance Yard	2.2
8	028-030-070	(E) Parking Lot	7.9
8	028-020-060	(E) Parking Lot	2.5
9	028-030-070	(E) Parking Lot	1.9
10	028-030-070	(E) Parking Lot	0.7
11	028-030-070	(E) Parking Lot	0.7
12	028-030-070	(E) Parking Lot Island	1.7
12	028-020-060	(E) Parking Lot Island	0.4
13	028-020-060	(E) Ray's Place	0.03
14	028-020-060	(E) Snow Making Water Storage	2.0
15	028-020-060	(E) Special Events Envelope	50.7
16	028-010-010	(P) Access Corridor	4.5
17	028-010-010	(P) Backcountry Program Area Envelope	28.1
18	028-010-010	(P) Backcountry Touring Area Envelope	311.2
19	028-010-010	(P) Botany Rare Plant Area	55.5
20	028-020-060	(P) Coyote Lift Warming Hut/Cafe	0.1
21	028-020-060	(P) Douglas Butte Envelope	7.9
22	028-020-060	(P) Grey Butte Lift Bottom	0.1
23	028-020-060	(P) Grey Butte Lift Top	0.1
24	028-010-010	(P) Grey Butte Ski Area Envelope	211.4
25	028-020-060	(P) North Saddle Envelope	7.6
26	028-020-060	(P) Service Building Envelope	0.1
27	028-020-060	(P) Service Building Envelope	0.0
28	028-020-060	(P) Skating Surface Envelope	0.2
29	028-010-040	(P) Underground Power Line Envelope	1.3
30	028-020-060	(P) Underground Power Line Envelope	0.4
31	028-010-010	(P) Underground Power Line Envelope	3.5
32	028-010-010	(P) Underground Power Line Envelope	0.4
33	028-010-010	(P) Wildlife Mitigation Area	28.3

Source: Esri, Maxar, GeoEye, the GIS User Community, Source OS, NMA, Geodatastyrelsen, Rijkswaterstaat, Geo, Geoland, FEMA, Intermap and the GIS user community





Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community, Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community

Prepared By:



Project: Mount Shasta Ski Park Grey Butte Lift Expansion Project  
 Location: Siskiyou County, CA  
 Figure 4. BRA Study Area

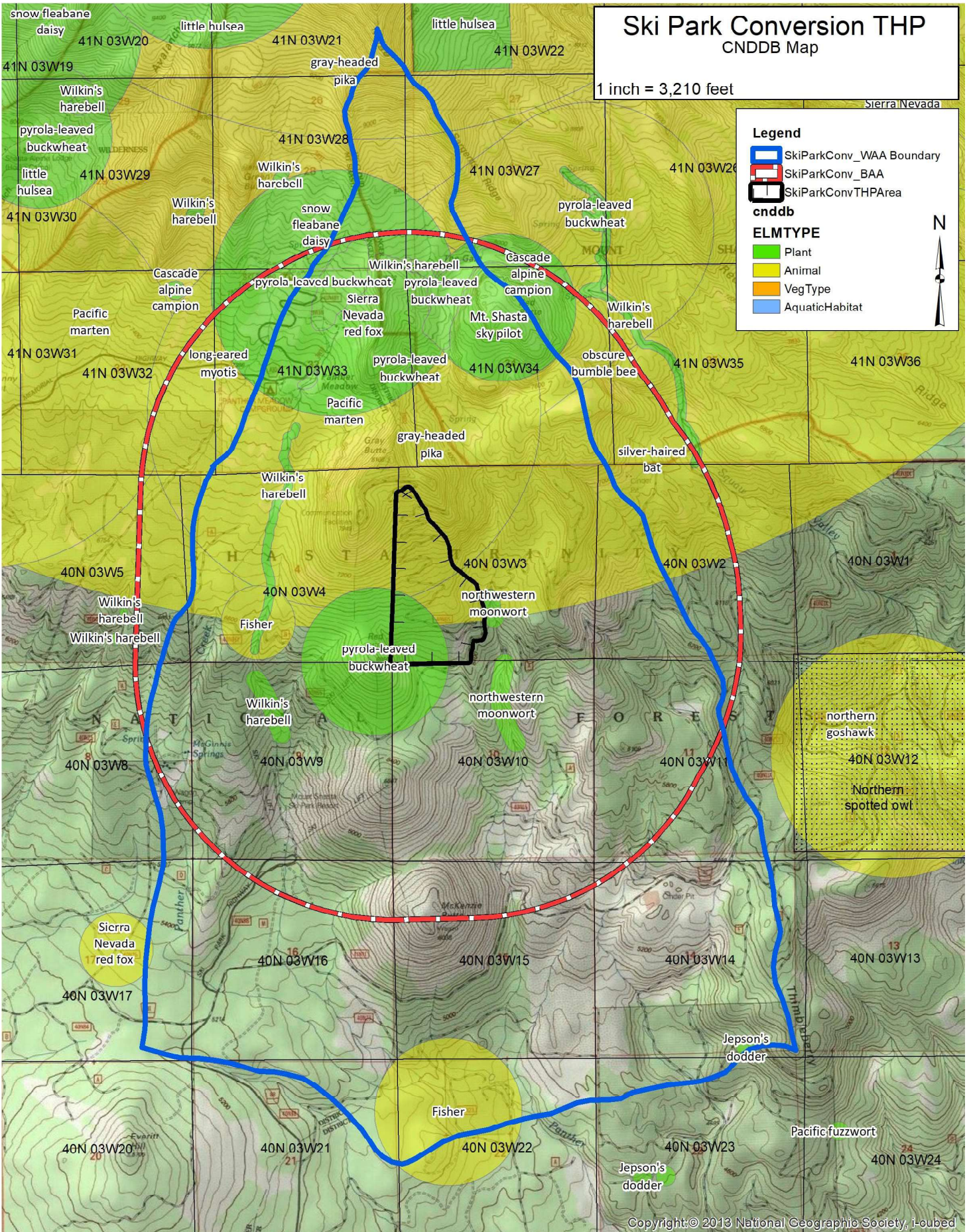


0 500 1,000 2,000 Feet

Coordinate System: NAD 1983 StatePlane California 1 FIPS 0401 Feet  
 Projection: Lambert Conformal Conic  
 Datum: North American 1983

Date: 3/28/2022




## Appendix B – CNDDDB Results



# Ski Park II THP CNDDDB Map





1 inch = 3,349 feet

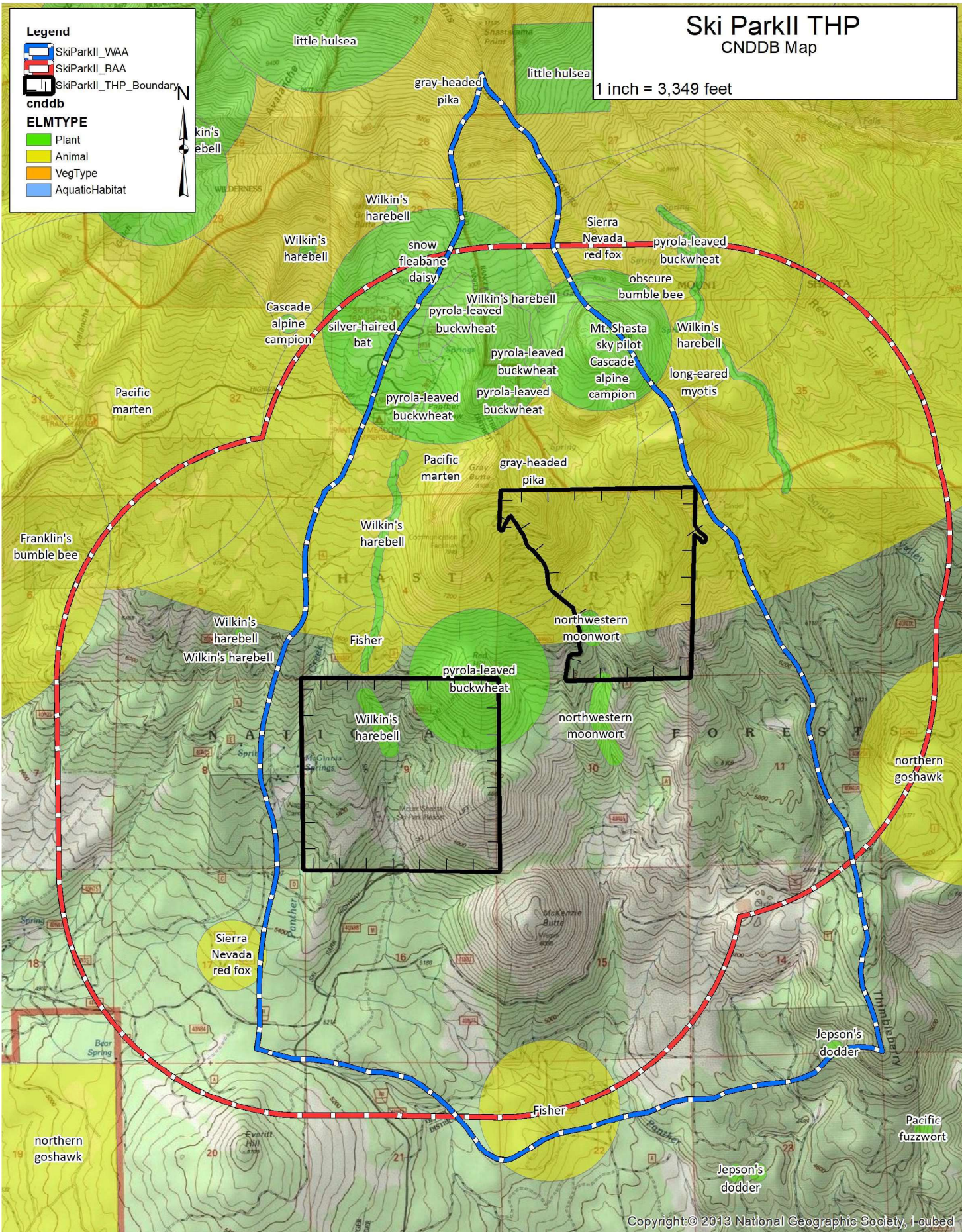
**Legend**

-  SkiParkII\_VAA
-  SkiParkII\_BAA
-  SkiParkII\_THP\_Boundary

**cnddb**

**ELMTYPE**

-  Plant
-  Animal
-  VegType
-  AquaticHabitat



## **Appendix C – Botanical Surveys**

**Botanical Scoping Report**  
**Ski Park Conversion THP**

**Prepared by**  
**Marie Kennedy**  
**June 2021**

## Ski Park Conversion THP Botanical Scoping Report June 2021

In May-June 2021, a survey was initiated at the request of Slivertip Forest Consultants for rare, threatened or endangered plants in the areas to be included in a proposed timber harvest plan. The plan is in the Upper Panther Creek drainages of Siskiyou County, and includes all or parts of section 3, T40N, R03W. Elevations range from about 6,400 feet to about 7,700 feet. The area is covered on the McCloud USGS 7.5' topographic quad map.

A search was made of the California Native Plant Society's Inventory of Rare and Endangered Plants of California, v8-03 0.39 (CNPS Inventory), and of the California Department of Fish and Wildlife's (DFW) Natural Diversity Database (CNDDDB) v5.77.14, covering the following quad map areas, to develop a list of species that may be potential issues in the area.

Hotlum	Mt Shasta	Ash Creek Butte
City of Mount Shasta	McCloud	Elk Spring
Dunsmuir	Girard Ridge	Lake McCloud

The list consisted of the following species:

Scientific Name	Common Name	Family	CNPS
<i>Androsace filiformis</i>	Slender-stemmed androsace	Primulaceae	List 2B.3
<i>Arnica viscosa</i>	Mt. Shasta arnica	Asteraceae	List 4.3
<i>Botrychium crenulatum</i>	Scalloped moonwort	Ophioglossaceae	List 2B.2
<i>Botrychium pinnatum</i>	Northwestern moonwort	Ophioglossaceae	List 2B.3
<i>Campanula wilkinsiana</i>	Wilkin's harebell	Campanulaceae	List 1B.2
<i>Cardamine bellidifolia</i> var. <i>pachyphylla</i>	Fleshy toothwort	Brassicaceae	List 4.3
<i>Carex halliana</i>	Oregon sedge	Cyperaceae	List 2B.3
<i>Castilleja schizotricha</i>	split-hair paintbrush	Orobanchaceae	List 4.3
<i>Chaenactis suffrutescens</i>	Shasta chaenactis	Asteraceae	List 1B.3
<i>Cuscuta jepsonii</i>	Jepson's dodder	Convolvulaceae	List 1B.2
<i>Darlingtonia californica</i>	California pitcher plant	Sarraceniaceae	List 4.2
<i>Draba carnosula</i>	Mt. Eddy draba	Brassicaceae	List 1B.3
<i>Erigeron bloomeri</i> var. <i>nudatus</i>	Waldo daisy	Asteraceae	List 2B.3
<i>Erigeron nivalis</i>	Snow fleabane daisy	Asateraceae	List 2B.3
<i>Erigeron petrophilus</i> var. <i>viscidulus</i>	Klamath rock daisy	Asteraceae	List 4.3
<i>Eriogonum pyrolifolium</i> var. <i>pyrolifolium</i>	Pyrola-leaved buckwheat	Polygonaceae	List 2B.3
<i>Eriogonum umbellatum</i> var. <i>humistratum</i>	Mt. Eddy buckwheat	Polygonaceae	List 4.3
<i>Eriophorum gracile</i>	Slender cottongrass	Cyperaceae	List 4.3
<i>Eucephalus glabratus</i>	Sisikyou aster	Asteraceae	List 4.3
<i>Eurybia merita</i>	Subalpine aster	Asteraceae	List 2B.3
<i>Hulsea nana</i>	Little hulsea	Asteraceae	List 2B.3
<i>Hymenoxys lemmonii</i>	Alkali hymenoxys	Asteraceae	List 2B.2
<i>Iliamna bakeri</i>	Baker's globe mallow	Malvaceae	List 4.2
<i>Lewisia cotyledon</i> var. <i>howellii</i>	Howell's lewisia	Montiaceae	List 3.2
<i>Meesia triquetra</i>	Three-ranked hump moss	Meesiaceae	List 4.2
<i>Meesia uliginosa</i>	Broad-nerved hump moss	Meesiaceae	List 2B.2
<i>Ophioglossum pusillum</i>	Northern adder's-tongue	Ophioglossaceae	List 2B.2
<i>Orthocarpus bracteosus</i>	Rosy owl's clover	Orobanchaceae	List 2B.1
<i>Orthotrichum holzingeri</i>	Holzinger's orthotrichum moss	Orthotrichaceae	List 1B.3
<i>Parnassia cirrata</i> var. <i>intermedia</i>	Cascade grass-of-Parnassus	Parnassiaceae	List 2B.2

Scientific Name	Common Name	Family	CNPS
<i>Potentilla cristae</i>	Crested potentilla	Rosaceae	List 1B.3
<i>Scutellaria galericulata</i>	marsh skullcap	Lamiaceae	List 2B.2
<i>Stuckenia filiformis ssp. alpina</i>	Slender-leaved pondweed	Potamogetonaceae	List 2B.2
<i>Silene suksdorfii</i>	Cascade alpine campion	Caryophyllaceae	List 2B.3
<i>Trichodon cylindricus</i>	Cylindrical trichodon	Ditrichaceae	List 2B.2
<i>Triteleia crocea var. crocea</i>	Yellow triteleia	Themidaceae	List 4.3

The following species are on the CNPS List 4. These species are not the main focus of the survey, but if found will be noted.

Scientific Name	Common Name	Family	CNPS
<i>Arnica viscosa</i>	Mt. Shasta arnica	Asteraceae	List 4.3
<i>Cardamine bellidifolia var. pachyphylla</i>	Fleshy toothwort	Brassicaceae	List 4.3
<i>Castilleja schizotricha</i>	split-hair paintbrush	Orobanchaceae	List 4.3
<i>Darlingtonia californica</i>	California pitcher plant	Sarraceniaceae	List 4.2
<i>Erigeron petrophilus var. viscidulus</i>	Klamath rock daisy	Asteraceae	List 4.3
<i>Eriogonum umbellatum var. humistratum</i>	Mt. Eddy buckwheat	Polygonaceae	List 4.3
<i>Eriophorum gracile</i>	Slender cottongrass	Cyperaceae	List 4.3
<i>Eucephalus glabratus</i>	Siskiyou aster	Asteraceae	List 4.3
<i>Iliamna bakeri</i>	Baker's globe mallow	Malvaceae	List 4.2
<i>Meesia triquetra</i>	Three-ranked hump moss	Meesiaceae	List 4.2
<i>Triteleia crocea var. crocea</i>	Yellow triteleia	Themidaceae	List 4.3

The following species were removed from the list due to the absence of sage brush scrub, northern Juniper woodland, and /or Yellow Pine forest habitat in the plan area:

*Hymenoxys lemmonii*, *Orthocarpus bracteosus*

These amendments yielded the revised list of target species shown in the following table, for which descriptions, illustrations, and photographs, if available, from the references below and from previous encounters were reviewed to update familiarity. An analysis of blooming period and habitat/plant community type was made and compared with proposed timber harvest areas to determine most probable times and places to search.

Species	Bloom Period	Habitat	Elev (ft)	CNPS
<i>Androsace filiformis</i>	June-Oct	Wetlands, meadows, Red fir forest, Lodgepole forest	328-9843	2B
<i>Botrychium crenulatum</i>	June-Sep	Bogs and fens, lower and upper montane coniferous forests. Meadows and seeps, marshes and swamps.	5905-8400	2B
<i>Botrychium pinnatum</i>	July-Oct	Meadows, Yellow pine forest, Red fir forest, Lodgepole pine forest	6234-9186	2B
<i>Campanula wilkinsiana</i>	July-Sep	Meadow and seeps. Subalpine coniferous forest, upper montane coniferous forest	5905-8530	1B
<i>Carex halliana</i>	(May) July-Sep	Meadows	5805-6760	2B
<i>Chaenactis suffrutescens</i>	May-Sep	Lower montane coniferous forest, Upper montane coniferous forest,	2460-9187	1B



Species	Bloom Period	Habitat	Elev (ft)	CNPS
		sandy, serpentinite		
<i>Cuscuta jepsonii</i>	July-Sep	Streambanks. North Coast coniferous forest	3937-7546	1B
<i>Draba carnosula</i>	July-Aug	Red fir forest, Lodgepole forest, Subalpine forest	6562-9022	1B
<i>Erigeron bloomeri</i> var. <i>nudatus</i>	June-July	Yellow pine forest, Red fir forest, Lodgepole pine forest	1968-7546	2B
<i>Erigeron nivalis</i>	July-Aug	Alpine boulder and rock field, Meadows and seeps, Subalpine coniferous forest, volcanic, rocky	5695-9515	2B
<i>Eriogonum pyrolifolium</i> var. <i>pyrolifolium</i>	July-Sep	Alpine Fell-fields	5249-10827	2B
<i>Eurybia merita</i>	July-Aug	Montane forest	4265-6562	2B
<i>Hulsea nana</i>	July-Aug	Alpine Fell-fields	5840-9020	2B
<i>Lewisia cotyledon</i> var. <i>howellii</i>	April-June	Broadleaved upland forest, Chaparral, Cismontane woodland, Lower montane coniferous forest/rocky	492-6595	3.2
<i>Meesia uliginosa</i>	July, Oct	Rich fens, moist calcareous soil banks, soil covered rock crevices	6170-7480	2B
<i>Ophioglossum pusillum</i>	July	Freshwater-marsh, edges, Freshwater Wetlands, Valley Grassland, wetland-riparian	3608-6562	2B
<i>Orthotrichum holzingeri</i>		Usually on rock in and along streams, rarely on tree limbs. Cismontane woodland. Lower montane coniferous forest. Pinyon and juniper woodland. Upper montane coniferous forest	2345-5905	1B
<i>Parnassia cirrata</i> var. <i>intermedia</i>	(July) Aug-Sep	Bogs and fens, meadows and seeps, Rocky serpentine soil	2296-9514	2B
<i>Potentilla cristae</i>	Aug-Sep	Alpine boulder and rock field, Subalpine coniferous forest/seasonally mesic, often serpentinite seeps, gravelly or rocky	5905-9186	1B
<i>Scutellaria galericulata</i>	June-Sep	Lower montane coniferous forest, meadows and seeps, marshes and swamps	3281-6890	2B
<i>Stuckenia filiformis</i> ssp. <i>alpina</i>	May-July	Freshwater-marsh, Freshwater wetlands, wetland-riparian	984-7054	2B
<i>Silene suksdorfii</i>	July-Sep	Alpine Fell-fields	7874-10171	2B
<i>Trichodon cylindricus</i>		Broadleafed upland forest, Upper montane coniferous forest, sandy, exposed soil, road banks	100-6560	2B

Searches for the occurrences of the above species have been conducted by foot and vehicle in the areas under consideration on the following dates: May 5, 10, 11, 12, 14, 18, 19, 24, 25, 29, 31; June 22, 23, 2021.

Proposed roads, skid trails, landings, meadows and wet areas were checked by foot. Watercourses were sampled by walking up and down them several hundred feet wherever they intersected or paralleled one of the

above. The routes followed and areas searched during the course of this survey are indicated on the attached map.

**The results of this survey to date are summarized as follows:**

**None of the species on the above target list were found to be present in the plan area. Surveys will continue through the summer.**

Marie Kennedy, who holds a degree in Forestry and Resource Management from the University of California, Berkeley, conducted this survey. She has eleven years experience working for the USFS, conducting forest and botanical inventories and ten years experience conducting botanical surveys for High Country Forestry. Cliff Kennedy also assisted in the survey. He has a Master of Forestry and Bachelor of Science degree in Forestry from UC Berkeley. He has 34 years of experience working for private industry and High Country Forestry.

## References and Resources

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## Appendix A.

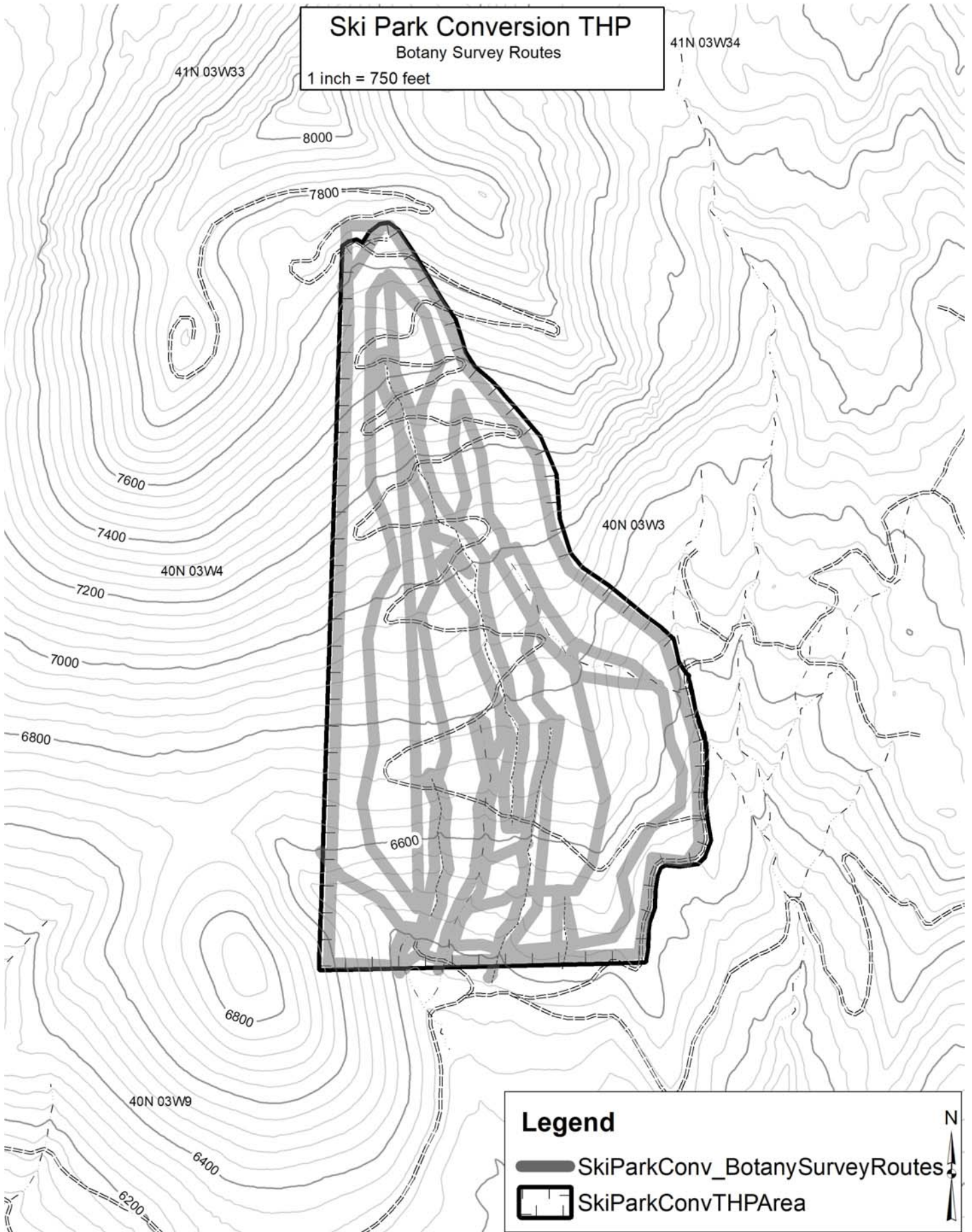
**Vascular Plant Species Observed within the Ski Park Conversion THP  
2021**

Species	Common Name
<b>Trees</b>	
<i>Abies concolor</i>	White fir
<i>Abies magnifica</i> var. <i>shastensis</i>	Shasta Red fir
<i>Calocedrus decurrens</i>	Incense cedar
<i>Pinus albicaulis</i>	White-bark pine
<i>Pinus attenuata</i>	Knobcone pine
<i>Pinus contorta</i>	Lodgepole pine
<i>Pinus jeffreyi</i>	Jeffrey pine
<i>Pinus monticola</i>	Western white pine
<i>Pinus ponderosa</i>	Ponderosa pine
<i>Populus tremuloides</i>	Quaking aspen
<i>Pseudotsuga menziesii</i>	Douglas fir
<i>Quercus kelloggii</i>	California black oak
<i>Salix</i> sp.	Willow
<i>Sorbus scopulina</i>	Western mountain ash
<i>Tsuga mertensiana</i>	Mountain Hemlock
<b>Shrubs</b>	
<i>Acer glabrum</i> var. <i>glabrum</i>	Mountain maple
<i>Amelanchier utahensis</i>	Service berry
<i>Arctostaphylos nevadensis</i>	Pinemat manzanita
<i>Arctostaphylos patula</i>	Greenleaf manzanita
<i>Berberis aquifolium</i>	Oregon grape
<i>Ceanothus cordulatus</i>	Whitethorn
<i>Ceanothus integerrimus</i>	Deer brush
<i>Ceanothus prostratus</i>	Mahala mat
<i>Ceanothus velutinus</i>	Tobacco brush
<i>Chrysolepis sempervirens</i>	Bush chinquapin
<i>Holodiscus microphyllus</i> var. <i>glabrescens</i>	Mountain spray
<i>Paxistima myrsinites</i>	Oregon boxwood
<i>Prunus emarginata</i>	Bitter cherry
<i>Prunus virginiana</i> var. <i>demissa</i>	Western choke cherry
<i>Purshia tridentata</i>	Bitterbrush
<i>Ribes cereum</i> var. <i>cereum</i>	Wax Currant
<i>Ribes nevadense</i>	Sierra currant
<i>Ribes roezlii</i>	Gooseberry
<i>Ribes viscociccimum</i>	Sticky current
<i>Rosa</i> sp.	Wild rose
<i>Rubus parviflorus</i>	Thimbleberry
<i>Salix lasiolepis</i>	Arroyo willow
<i>Salix lucida</i> ssp. <i>lasiandra</i>	Yellow willow

Species	Common Name
<i>Sambucus mexicana</i>	Blue elderberry
<i>Spiraea densiflora</i>	Mountain spiraea
<i>Symphoricarpos mollis</i>	Snowberry
<i>Vaccinium sp.</i>	Huckleberry
<b>Herbs</b>	
<i>Achillea millefolium</i>	Yarrow
<i>Actaea rubra</i>	Baneberry
<i>Adenocaulon bicolor</i>	Trail plant
<i>Agoseris sp.</i>	Mountain dandelion
<i>Allotropa virgata</i>	Sugar stick
<i>Anaphalis margaritacea</i>	Pearly everlasting
<i>Apocynum androsaemifolium</i>	Bitter dogbane
<i>Aquilegia formosa</i>	Red Columbine
<i>Arabis platysperma var platysperma</i>	Pioneer Rock cress
<i>Arnica longifolia</i>	Arnica
<i>Arnica viscosa</i>	Mt Shasta arnica
<i>Aster ledophyllus</i>	Cascade aster
<i>Calyptridium umbellatum</i>	Pussy paws
<i>Castilleja miniata</i>	Scarlet paintbrush
<i>Chaenactis douglasii var douglasii</i>	Pin cushion
<i>Chamaesaracha nana</i>	Dwarf false ground cherry
<i>Chamerion angustifolium</i>	Fireweed
<i>Chimaphila umbellata</i>	Pipsissewa
<i>Corallorhiza maculate</i>	Spotted coralroot
<i>Cycladenia humilis var humilis</i>	Sacramento waxdogbane
<i>Cynoglossum officinale</i>	Burgundy hound's tongue
<i>Epilobium glaberrimum ssp glaberrimum</i>	Willow herb
<i>Ericameria bloomeri</i>	Bloomer's Golden Bush
<i>Erigeron inornatus</i>	Pine Daisy
<i>Eriogonum marifolium</i>	Mountain buckwheat
<i>Eriogonum nudum</i>	Barestem buckwheat
<i>Fritillaria atropurpurea</i>	Spotted mountain bells
<i>Galium bifolium</i>	Low mountain bedstraw
<i>Gayophytum heterozygum</i>	Zigzag groundsmoke
<i>Hackelia californica</i>	California stickseed
<i>Hieraceum albiflorum</i>	White-flowered hawkweed
<i>Hieraceum horridum</i>	Shaggy Hawkweed
<i>Horkelia fusca</i>	Dusky horkelia
<i>Horkelia californica</i>	Stickseed
<i>Ipomopsis aggregata</i>	Scarlet gilia
<i>Lathyrus lanszwertii</i>	Mountain pea
<i>Ligusticum grayi</i>	Gray's Lovage
<i>Linum lewisii</i>	Western blue flax
<i>Lilium validum</i>	Swamp onion

<b>Species</b>	<b>Common Name</b>
<i>Lomatium dissectum</i>	Fernleaf lomatium
<i>Lotus crassifolius</i>	Big deervetch
<i>Lupinus sp.</i>	Lupine
<i>Maianthemum racemosum</i>	False solomon's seal
<i>Maianthemum stellatum</i>	Star solomon's seal
<i>Mimulus sp</i>	Monkeyflower
<i>Monardella odoratissima</i>	Penny-royal
<i>Nama lobbii</i>	Purple Mat
<i>Orthilia secunda</i>	One-sided wintergreen
<i>Osmorhiza berteroi</i>	Mountain sweet cicely
<i>Penstemon davidsonii</i>	Davidson's penstemon
<i>Penstemon gracilentus</i>	Slender penstemon
<i>Penstemon newberryi</i>	Mountain pride
<i>Phacelia hastata ssp hastata</i>	Phacelia
<i>Phlox diffusa</i>	Alpine Phlox
<i>Phyllodoce empetriformis</i>	Mountain heather
<i>Polygonum shastense</i>	Shasta shrubby knotweed
<i>Potentilla glandulosa</i>	Cinquefoil
<i>Potentilla gracillis</i>	Slender cinquefoil
<i>Prunella vulgaris</i>	Self-heal
<i>Pterospora andromedea</i>	Pinedrops
<i>Pyrola picta</i>	White-veined wintergreen
<i>Ranunculus occidentalis</i>	Western buttercup
<i>Rubus parviflorus</i>	Thimbleberry
<i>Sarcodes sanguinea</i>	Snow plant
<i>Sedum obtusatum ssp boreale</i>	Stonecrop
<i>Senecio triangularis</i>	Arrowhead Butterweed
<i>Sidalcea oregana</i>	Oregon checker mallow
<i>Silene grayi</i>	Catchfly
<i>Solidago canadensis ssp elongata</i>	Goldenrod
<i>Stephanthus tortuosus var orbiculatus</i>	Mountain Jewel flower
<i>Symphotrichum spathulatum</i>	Western mountain aster
<i>Tragopogon dubius</i>	Yellow salsify
<i>Veratrum californica var californicum</i>	Corn lily
<i>Verbascum thapsus</i>	Woolly Mullein
<i>Veronica americana</i>	American speedwell
<i>Vicia sp.</i>	Vetch
<i>Viola purpurea</i>	Mountain Violet
<b>Grasses</b>	
<i>Achnatherum occidentale ssp californicum</i>	Needlegrass
<i>Agrostis gigantea</i>	Red top
<i>Bromus carinatus var carinatus</i>	California brome
<i>Bromus laevipes</i>	Dropping woodreed

<b>Species</b>	<b>Common Name</b>
<i>Carex brainerdii</i>	Brainerd's Sedge
<i>Carex fracta</i>	Fragile sheath sedge
<i>Carex multicaulis</i>	Man-stemmed Sedge
<i>Carex ssp.</i>	Sedge
<i>Elymus elymoides ssp californicus</i>	Squirrel tail grass
<i>Elymus glaucus ssp glaucus</i>	Blue wild rye
<i>Juncus mertensianus</i>	Merten's Rush
<i>Juncus orthophyllus</i>	Broad-leaved rush
<i>Juncus parryi</i>	Parry's rush
<i>Muhlenbergia jonesii</i>	Jones' muhly
<i>Phleum alpinum</i>	Mountain Timothy
<i>Poa ssp</i>	Bluegrass
<i>Trisetum spicatum</i>	Spike Trisetum
<b>Ferns</b>	
<i>Athyrium filix femina</i>	Lady fern
<i>Botrychium pinnatum</i>	Northwestern moonwort
<i>Cheilanthes gracillima</i>	Lace fern
<i>Cryptogramma acrostichoides</i>	American parsley fern
<i>Cystopteris fragilis</i>	Fragile fern
<i>Pteridium aquilinum var. pubescens</i>	Bracken Fern





# **Botanical Survey Report**

## **Ski Park THP**

**Prepared by**

**Marie Kennedy**

**October 2021**

## Ski Park THP Botanical Survey Report 2021

In May 2021, a survey was initiated at the request of Silvertip Forest Consultants for rare, threatened, or endangered plants in the areas to be included in a proposed timber harvest plan. The plan is in the Panther Creek drainage of Siskiyou County, and includes section 3 and 9 of T40N, R03W. Elevations range from 5400 feet to 8000 feet. The area is covered on the McCloud USGS 7.5' topographic quad map.

A database query was conducted of the California Native Plant Society's Inventory of Rare and Endangered Plants of California, v7-18mar 3-19-18 (CNPS Inventory), and of the California Department of Fish and Wildlife's (DFW) Natural Diversity Database (CNDDDB) v5.96.99, covering the following quad map areas within the ranges of 5,400 to 8,000 feet elevation, to develop a list of species that may be present in the plan area.

Hotlum	Mt. Shasta	Ash Creek Butte
City of Mt. Shasta	McCloud	Elk Spring
Dunsmuir	Girard Ridge	Lake McCloud

The list consisted of the following species:

Scientific Name	Common Name	Family	CNPS
<i>Agertina shastensis</i>	Shasta ageratina	Asteraceae	List 1B.2
<i>Androsace filiformis</i>	Slender-stemmed androsace	Primulaceae	List 2B.3
<i>Arnica viscosa</i>	Mt. Shasta arnica	Asteraceae	List 4.3
<i>Botrychium crenulatum</i>	Scalloped moonwort	Ophioglossaceae	List 2B.2
<i>Botrychium pinnatum</i>	Northwestern moonwort	Ophioglossaceae	List 2B.3
<i>Campanula wilkinsiana</i>	Wilkin's harebell	Campanulaceae	List 1B.2
<i>Cardamine bellidifolia</i> var. <i>pachyphylla</i>	Fleshy toothwort	Brassicaceae	List 4.3
<i>Carex halliana</i>	Oregon sedge	Cyperaceae	List 2B.3
<i>Castilleja schizotricha</i>	Split-hair paintbrush	Orobanchaceae	List 4.3
<i>Claytonia palustris</i>	Marsh claytonia	Montiaceae	List 4.3
<i>Cuscuta jepsonii</i>	Jepson's dodder	Convolvulaceae	List 1B.2
<i>Cypripedium fasciculatum</i>	Clustered lady's slipper	Orchidaceae	List 4.2
<i>Cypripedium montanum</i>	Mountain lady's slipper	Orchidaceae	List 4.2
<i>Chaenactis suffrutescens</i>	Shasta chaenactis	Asteraceae	List 1B.3
<i>Cuscuta jepsonii</i>	Jepson's dodder	Convolvulaceae	List 1B.2
<i>Darlingtonia californica</i>	California pitcher plant	Sarraceniaceae	List 4.2
<i>Draba carnosula</i>	Mt. Eddy draba	Brassicaceae	List 1B.3
<i>Epilobium oreganum</i>	Oregon fireweed	Onagraceae	List 1B.2
<i>Erigeron bloomeri</i> var. <i>nudatus</i>	Waldo daisy	Asteraceae	List 2B.3
<i>Erigeron inornatus</i> var. <i>calidpetris</i>	Hot rock daisy	Asteraceae	List 4.3
<i>Erigeron nivalis</i>	Snow fleabane daisy	Asateraceae	List 2B.3
<i>Erigeron petrophilus</i> var. <i>viscidulus</i>	Klamath rock daisy	Asteraceae	List 4.3
<i>Eriogonum pyrolifolium</i> var. <i>pyrolifolium</i>	Pyrola-leaved buckwheat	Polygonaceae	List 2B.3
<i>Eriogonum umbellatum</i> var. <i>humistratum</i>	Mt. Eddy buckwheat	Polygonaceae	List 4.3
<i>Eriophorum gracile</i>	Slender cottongrass	Cyperaceae	List 4.3
<i>Erythronium klamathense</i>	Klamath fawn lily	Liliaceae	List 2B.2
<i>Eucephalus glabratus</i>	Sisikiyou aster	Asteraceae	List 4.3
<i>Eurybia merita</i>	Subalpine aster	Asteraceae	List 2B.3
<i>Howellanthus dalesianus</i>	Scott Mountain howellanthus	Hydrophyllaceae	List 4.3
<i>Hulsea nana</i>	Little hulsea	Asteraceae	List 2B.3

<i>Hymenoxys lemmonii</i>	Alkali hymenoxys	Asteraceae	List 2B.2
<i>Iliamna bakeri</i>	Baker's globe mallow	Malvaceae	List 4.2
<i>Lewisia cotyledon</i> var. <i>howellii</i>	Howell's lewisia	Montiaceae	List 3.2
<i>Lomatium peckianum</i>	Peck's lomatium	Apiaceae	List 2B.2
<i>Meesia triquetra</i>	Three-ranked hump moss	Meesiaceae	List 4.2
<i>Meesia uliginosa</i>	Broad-nerved hump moss	Meesiaceae	List 2B.2
<i>Ophioglossum pusillum</i>	Northern adder's-tongue	Ophioglossaceae	List 2B.2
<i>Orthocarpus bracteosus</i>	Rosy owl's clover	Orobanchaceae	List 2B.1
<i>Orthotrichum holzingeri</i>	Holzinger's orthotrichum moss	Orthotrichaceae	List 1B.3
<i>Parnassia cirrata</i> var. <i>intermedia</i>	Cascade grass-of-Parnassus	Parnassiaceae	List 2B.2
<i>Penstemon filiformis</i>	Thread-leaved beardtongue	Plantaginaceae	List 4.2
<i>Phacelia cookei</i>	Cooke's phacelia	Hydrophyllaceae	List 1B.1
<i>Piperia colemanii</i>	Coleman's rein orchid	Orchidaceae	List 4.3
<i>Potentilla cristae</i>	Crested potentilla	Rosaceae	List 1B.3
<i>Ptilidium californicum</i>	Pacific fuzz wort	Ptilidaceae	List 4.3
<i>Scutellaria galericulata</i>	Marsh skullcap	Lamiaceae	List 2B.2
<i>Stuckenia filiformis</i> ssp. <i>alpina</i>	Slender-leaved pondweed	Potamogetonaceae	List 2B.2
<i>Silene suksdorfii</i>	Cascade alpine campion	Caryophyllaceae	List 2B.3
<i>Trichodon cylindricus</i>	Cylindrical trichodon	Ditrichaceae	List 2B.2
<i>Triteleia crocea</i> var. <i>crocea</i>	Yellow triteleia	Themidaceae	List 4.3

Note: without the elevational constraints mentioned above the list would include 14 additional species.

The following species are on the CNPS List 4. These species are not the main focus of the survey, but if found will be noted.

<b>Scientific Name</b>	<b>Common Name</b>	<b>Family</b>	<b>CNPS</b>
<i>Arnica viscosa</i>	Mt. Shasta arnica	Asteraceae	List 4.3
<i>Cardamine bellidifolia</i> var. <i>pachyphylla</i>	Fleshy toothwort	Brassicaceae	List 4.3
<i>Castilleja schizotricha</i>	Split-hair paintbrush	Orobanchaceae	List 4.3
<i>Claytonia palustris</i>	Marsh claytonia	Montiaceae	List 4.3
<i>Cypripedium fasciculatum</i>	Clustered lady's slipper	Orchidaceae	List 4.2
<i>Cypripedium montanum</i>	Mountain lady's slipper	Orchidaceae	List 4.2
<i>Darlingtonia californica</i>	California pitcher plant	Sarraceniaceae	List 4.2
<i>Erigeron inornatus</i> var. <i>calidpetris</i>	Hot rock daisy	Asteraceae	List 4.3
<i>Erigeron petrophilus</i> var. <i>viscidulus</i>	Klamath rock daisy	Asteraceae	List 4.3
<i>Eriogonum umbellatum</i> var. <i>humistratum</i>	Mt. Eddy buckwheat	Polygonaceae	List 4.3
<i>Eriophorum gracile</i>	Slender cottongrass	Cyperaceae	List 4.3
<i>Eucephalus glabratus</i>	Siskiyou aster	Asteraceae	List 4.3
<i>Howellanthus dalesianus</i>	Scott Mountain howellanthus	Hydrophyllaceae	List 4.3
<i>Iliamna bakeri</i>	Baker's globe mallow	Malvaceae	List 4.2
<i>Meesia triquetra</i>	Three-ranked hump moss	Meesiaceae	List 4.2
<i>Penstemon filiformis</i>	Thread-leaved beardtongue	Plantaginaceae	List 4.2
<i>Piperia colemanii</i>	Coleman's rein orchid	Orchidaceae	List 4.3
<i>Ptilidium californicum</i>	Pacific fuzz wort	Ptilidaceae	List 4.3
<i>Triteleia crocea</i> var. <i>crocea</i>	Yellow triteleia	Themidaceae	List 4.3

The following species were removed from the list due to the absence of sage brush scrub, northern Juniper woodland, and /or Yellow Pine Forest habitat in the plan area:

*Hymenoxys lemmonii*, *Orthocarpus bracteosus*

The following species were removed from the list due to the absence of bogs and fens in the plan area:

*Pinguicula macroceras*

These amendments yielded the revised list of target species shown in the following table, for which descriptions, illustrations, and photographs, if available, from the references below and from previous encounters were reviewed to update familiarity. An analysis of blooming period and habitat/plant community type was made and compared with proposed timber harvest areas to determine most probable times and places to search.

<b>Species</b>	<b>Bloom Period</b>	<b>Habitat</b>	<b>Elevation (ft)</b>	<b>CNPS List</b>
<i>Agertina shastensis</i>	June-Oct	Chaparral, Lower montane coniferous forest/rocky, often carbonate	1312-5905	1B
<i>Androsace filiformis</i>	June-Oct	Wetlands, meadows, Red fir forest, Lodgepole forest	328-9843	2B
<i>Botrychium crenulatum</i>	June-Sep	Bogs and fens, lower and upper montane coniferous forests. Meadows and seeps, marshes, and swamps.	5905-8400	2B
<i>Botrychium pinnatum</i>	July-Oct	Meadows, Yellow pine forest, Red fir forest, Lodgepole pine forest	6234-9186	2B
<i>Campanula wilkinsiana</i>	July-Sep	Meadow and seeps. Subalpine coniferous forest, upper montane coniferous forest	5905-8530	1B
<i>Carex halliana</i>	(May) July-Sep	Meadows	5805-6760	2B
<i>Chaenactis suffrutescens</i>	May-Sep	Lower montane coniferous forest, Upper montane coniferous forest, sandy, serpentinite	2460-9187	1B
<i>Cuscuta jepsonii</i>	July-Sep	Streambanks. North Coast coniferous forest	3937-7546	1B
<i>Draba carnosula</i>	July-Aug	Red fir forest, Lodgepole forest, Subalpine Forest	6562-9022	1B
<i>Epilobium oreganum</i>	June-Sep	Bogs and fens, Lower montane coniferous forest, meadows, and seeps, Upper montane coniferous forest	1804-5905	1B
<i>Erigeron bloomeri</i> var. <i>nudatus</i>	June-July	Yellow pine forest, Red fir forest, Lodgepole pine forest	1968-7546	2B
<i>Erigeron nivalis</i>	July-Aug	Alpine boulder and rock field, Meadows and seeps, Subalpine coniferous forest, volcanic, rocky	5695-9515	2B
<i>Eriogonum pyrolifolium</i> var. <i>pyrolifolium</i>	July-Sep	Alpine Fell-fields	5249-10827	2B
<i>Erythronium klamathense</i>	April-July	Meadows and seeps, Upper montane coniferous forest	3937-6070	2B
<i>Eurybia merita</i>	July-Aug	Montane forest	4265-6562	2B

<i>Hulsea nana</i>	July-Aug	Alpine Fell-fields	5840-9020	2B
<i>Lewisia cotyledon</i> var. <i>howellii</i>	April-June	Broadleaved upland forest, Chaparral, Cismontane woodland, Lower montane coniferous forest/rocky	492-6595	3.2
<i>Lomatium peckianum</i>	April-May	Chaparral, Cismontane woodland, Lower montane coniferous forest, Pinyon and juniper woodland	2624-5906	2B
<i>Meesia uliginosa</i>	July, Oct	Rich fens, moist calcareous soil banks, soil covered rock crevices	6170-7480	2B
<i>Ophioglossum pusillum</i>	July	Freshwater-marsh, edges, Freshwater Wetlands, Valley Grassland, wetland-riparian	3608-6562	2B
<i>Orthotrichum holzingeri</i>		Usually on rock in and along streams, rarely on tree limbs. Cismontane woodland. Lower montane coniferous forest. Pinyon and juniper woodland. Upper montane coniferous forest	2345-5905	1B
<i>Parnassia cirrata</i> var. <i>intermedia</i>	(July) Aug-Sep	Bogs and fens, meadows and seeps, Rocky serpentine soil	2296-9514	2B
<i>Phacelia cookei</i>	June-July	Lower montane coniferous forest	4265-5577	1B
<i>Potentilla cristae</i>	Aug-Sep	Alpine boulder and rock field, Subalpine coniferous forest/seasonally mesic, often serpentinite seeps, gravelly or rocky	5905-9186	1B
<i>Scutellaria galericulata</i>	June-Sep	Lower montane coniferous forest, meadows and seeps, marshes and swamps	3281-6890	2B
<i>Stuckenia filiformis</i> ssp. <i>alpina</i>	May-July	Freshwater-marsh, Freshwater wetlands, wetland-riparian	984-7054	2B
<i>Silene suksdorfii</i>	July-Sep	Alpine Fell-fields	7874-10171	2B
<i>Trichodon cylindricus</i>		Broadleaved upland forest, Upper montane coniferous forest, sandy, exposed soil, road banks	100-6560	2B

Searches for the occurrences of the above species have been conducted by foot and vehicle in the areas under consideration on the following dates: May 5, 10, 11, 12, 14, 18, 19, 24, 25, 29, 31; June 22, 23, 30 July 8, 9, 16, 26, 28, 29; August 2, 5, 10, 20, 23, 25, 26, 27, 31; September 1, 24, 27, 29, 30; October 1, 4, 5, 2021.

Proposed roads, skid trails, landings, meadows, and wet areas were checked by foot. Watercourses were sampled by walking up and down them several hundred feet wherever they intersected or paralleled one of the above. The routes followed and areas searched during this survey are indicated on the attached map.

**The results of this survey are summarized as follows:**

*Arnica viscosa* was found in multiple locations per attached maps. It is a List 4.3 CNPS rank and therefore no protection measures are proposed.

*Campanula wilkinsiana*, CNPS List 1B.2, was found along the Class II watercourse in section 9. These locations are within a 100 ft protection zone (Special Treatment Zone). No ground or vegetation disturbance is permitted. These measures will prevent disturbance of these populations.

*Botrychium pinnatum*, CNPS List 2B.3, was searched for multiple times in the locations near and adjacent to populations observed in 2006. No plants were found. Class III channel zones have experienced scouring and bank sloughing from thunderstorm runoff which may have impacted these populations. In addition, these populations may be in dormancy due to the current severe drought conditions. Although the plant was not observed in this survey effort, a 200 foot No Harvest Zone (Special Treatment Zone) around the previous locations will be implemented. No ground or vegetation disturbance is permitted. These measures will prevent disturbance of these previously observed populations.

No other sensitive species were found in this survey. A list of observed species is provided in Appendix A.

Marie Kennedy, who holds a degree in Forestry and Resource Management from the University of California, Berkeley, conducted this survey. She has eleven years experience working for the USFS, conducting forest and botanical inventories and twelve years' experience conducting botanical surveys for High Country Forestry and Silvertip Forest Consultants. Cliff Kennedy also assisted in the survey. He has a Master of Forestry and Bachelor of Science degree in Forestry from UC Berkeley. He has 36 years of experience working for private industry, High Country Forestry, and Silvertip Forest Consultants.

## References and Resources

- CalFlora, a comprehensive database of plant distribution information for California SpeciesDatabase, Occurrence Database, Nomenclature Database
- CalPhotos, Digital Library Project, University of California, Berkeley
- California Department of Fish and Game, Guidelines For Assessing The Effects of Proposed Developments on Rare, Threatened, And Endangered Plants And Plant Communities, December 9, 1983, Revised May 8, 2000
- California Department of Fish and Wildlife, Natural Diversity Database, 6/2021
- California Department of Forestry and Fire Protection, Timber Harvesting Plan Form, Instructions and Information, January 2000, “CDF Guidelines For Species Surveys, Avoidance of Significant Impacts And Identified Mitigations”
- CNPS, Rare Plant Program. 6/2021. Inventory of Rare and Endangered Plants (online edition, v7-18mar 3-19-18). California Native Plant Society, Sacramento, CA. Website <http://www.rareplants.cnps.org>
- Munz, Phillip A., A California Flora, 1959, and Supplement, 1968, Published by the University of California Press, Fifth Printing, 1970
- Munz, Phillip A., Introduction to California Mountain Wildflowers, New Addition 2003, Published by the University of California Press
- Nakamura, Gary, and Nelson, Julie K., Selected Rare Plants of Northern California, University of California, Division of Agriculture and Natural Resources, 2001
- North California Wildflowers App. July 2017. <http://www.wildflowersearch.com>. Steven.K.Sullivan@WildflowerSearch.org.
- Oswald, Vernon H., Selected Plants of Northern California and Adjacent Nevada, Studies From The Herbarium, California State University, Chico. Chico, CA 2002.
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- Stuart, John D. and Sawyer, John O., Trees and Shrubs of California, University of California Press, Berkeley and Los Angeles, CA, 2001
- Turner, Mark and Gustafson, Phyllis, Wildflowers of the Pacific Northwest, Published by Timber Press, Portland, OR, 2006
- USDA, NRCS.2002. The PLANTS Database, Version 3.5 (<http://plants.usda.gov>) National Plant Data Center, Baton Rouge, LA 70874-4490 USA
- Weeden, Norman F., A Sierra Nevada Flora, Published by Wilderness Press, Berkeley, CA, 1991

## Appendix A.

**Vascular Plant Species Observed within the Ski Park THP  
2021**

<b>Species</b>	<b>Common Name</b>
<b>Trees</b>	
<i>Abies concolor</i>	White fir
<i>Abies magnifica</i> var. <i>shastensis</i>	Shasta Red fir
<i>Calocedrus decurrens</i>	Incense cedar
<i>Pinus albicaulis</i>	White-bark pine
<i>Pinus attenuata</i>	Knobcone pine
<i>Pinus contorta</i>	Lodgepole pine
<i>Pinus jeffreyi</i>	Jeffrey pine
<i>Pinus monticola</i>	Western white pine
<i>Pinus ponderosa</i>	Ponderosa pine
<i>Populus tremuloides</i>	Quaking aspen
<i>Pseudotsuga menziesii</i>	Douglas fir
<i>Quercus kelloggii</i>	California black oak
<i>Salix</i> sp.	Willow
<i>Sorbus scopulina</i>	Western mountain ash
<i>Tsuga mertensiana</i>	Mountain Hemlock
<b>Shrubs</b>	
<i>Acer glabrum</i> var. <i>glabrum</i>	Mountain maple
<i>Amelanchier utahensis</i>	Service berry
<i>Arctostaphylos nevadensis</i>	Pinemat manzanita
<i>Arctostaphylos patula</i>	Greenleaf manzanita
<i>Berberis aquifolium</i>	Oregon grape
<i>Ceanothus cordulatus</i>	Whitethorn
<i>Ceanothus integerrimus</i>	Deer brush
<i>Ceanothus prostratus</i>	Mahala mat
<i>Ceanothus velutinus</i>	Tobacco brush
<i>Chrysolepis sempervirens</i>	Bush chinquapin
<i>Holodiscus microphyllus</i> var. <i>glabrescens</i>	Mountain spray
<i>Paxistima myrsinites</i>	Oregon boxwood
<i>Prunus emarginata</i>	Bitter cherry
<i>Prunus virginiana</i> var. <i>demissa</i>	Western choke cherry
<i>Purshia tridentata</i>	Bitterbrush
<i>Ribes cereum</i> var. <i>cereum</i>	Wax Currant
<i>Ribes nevadense</i>	Sierra currant
<i>Ribes roezlii</i>	Gooseberry
<i>Ribes viscosicicum</i>	Sticky current
<i>Rosa</i> sp.	Wild rose
<i>Rubus parviflorus</i>	Thimbleberry
<i>Salix lasiolepis</i>	Arroyo willow
<i>Salix lucida</i> ssp. <i>lasiandra</i>	Yellow willow
<i>Sambucus mexicana</i>	Blue elderberry
<i>Spiraea densiflora</i>	Mountain spiraea
<i>Symphoricarpos mollis</i>	Snowberry



<b>Species</b>	<b>Common Name</b>
<i>Vaccinium sp.</i>	Huckleberry
<b>Herbs</b>	
<i>Achillea millefolium</i>	Yarrow
<i>Actaea rubra</i>	Baneberry
<i>Adenocaulon bicolor</i>	Trail plant
<i>Agoseris sp.</i>	Mountain dandelion
<i>Allotropa virgata</i>	Sugar stick
<i>Anaphalis margaritacea</i>	Pearly everlasting
<i>Apocynum androsaemifolium</i>	Bitter dogbane
<i>Aquilegia formosa</i>	Red Columbine
<i>Arabis platysperma var platysperma</i>	Pioneer Rock cress
<i>Arnica longifolia</i>	Seep spring arnica
<i>Arnica viscosa</i>	Mt Shasta arnica
<i>Aster ledophyllus</i>	Cascade aster
<i>Calyptridium umbellatum</i>	Pussy paws
<i>Campanula wilkinsiana</i>	Wilkin's harebell
<i>Castilleja miniata</i>	Scarlet paintbrush
<i>Chaenactis douglasii var douglasii</i>	Pin cushion
<i>Chamaesaracha nana</i>	Dwarf false ground cherry
<i>Chamerion angustifolium</i>	Fireweed
<i>Chimaphila umbellata</i>	Pipsissewa
<i>Corallorhiza maculate</i>	Spotted coralroot
<i>Cycladenia humilis var humilis</i>	Sacramento waxydogbane
<i>Cynoglossum officinale</i>	Burgundy hound's tongue
<i>Epilobium glaberrimum ssp glaberrimum</i>	Willow herb
<i>Ericameria bloomeri</i>	Bloomer's Golden Bush
<i>Erigeron inornatus</i>	Pine Daisy
<i>Eriogonum marifolium</i>	Mountain buckwheat
<i>Eriogonum nudum</i>	Barestem buckwheat
<i>Fritillaria atropurpurea</i>	Spotted mountain bells
<i>Galium bifolium</i>	Low mountain bedstraw
<i>Gayophytum heterozygum</i>	Zigzag groundsmoke
<i>Hackelia californica</i>	California stickseed
<i>Hieraceum albiflorum</i>	White-flowered hawkweed
<i>Hieraceum horridum</i>	Shaggy Hawkweed
<i>Horkelia fusca</i>	Dusky horkelia
<i>Horkelia californica</i>	Stickseed
<i>Ipomopsis aggregata</i>	Scarlet gilia
<i>Lathyrus lanszwertii</i>	Mountain pea
<i>Ligusticum grayi</i>	Gray's Lovage
<i>Linum lewisii</i>	Western blue flax
<i>Lilium validum</i>	Swamp onion
<i>Lomatium dissectum</i>	Fernleaf lomatium
<i>Lotus crassifolius</i>	Big deervetch
<i>Lupinus sp.</i>	Lupine
<i>Maianthemum racemosum</i>	False solomon's seal
<i>Maianthemum stellatum</i>	Star solomon's seal

<b>Species</b>	<b>Common Name</b>
<i>Mimulus sp</i>	Monkeyflower
<i>Monardella odoratissima</i>	Penny-royal
<i>Nama lobbii</i>	Purple Mat
<i>Orthilia secunda</i>	One-sided wintergreen
<i>Osmorhiza berteroi</i>	Mountain sweet cicely
<i>Penstemon davidsonii</i>	Davidson's penstemon
<i>Penstemon gracilentus</i>	Slender penstemon
<i>Penstemon newberryi</i>	Mountain pride
<i>Phacelia hastata ssp hastata</i>	Phacelia
<i>Phlox diffusa</i>	Alpine Phlox
<i>Phyllodoce empetriformis</i>	Mountain heather
<i>Polygonum shastense</i>	Shasta shrubby knotweed
<i>Potentilla glandulosa</i>	Cinquefoil
<i>Potentilla gracillis</i>	Slender cinquefoil
<i>Prunella vulgaris</i>	Self-heal
<i>Pterospora andromedea</i>	Pinedrops
<i>Pyrola picta</i>	White-veined wintergreen
<i>Ranunculus occidentalis</i>	Western buttercup
<i>Rubus parviflorus</i>	Thimbleberry
<i>Sarcodes sanguinea</i>	Snow plant
<i>Sedum obtusatum ssp boreale</i>	Stonecrop
<i>Senecio triangularis</i>	Arrowhead Butterweed
<i>Sidalcea oregana</i>	Oregon checker mallow
<i>Silene grayi</i>	Catchfly
<i>Solidago canadensis ssp elongata</i>	Goldenrod
<i>Stephanthus tortuosus var orbiculatus</i>	Mountain Jewel flower
<i>Symphotrichum spathulatum</i>	Western mountain aster
<i>Tragopogon dubius</i>	Yellow salsify
<i>Veratrum californica var californicum</i>	Corn lily
<i>Verbascum thapsus</i>	Woolly Mullein
<i>Veronica americana</i>	American speedwell
<i>Vicia sp.</i>	Vetch
<i>Viola purpurea</i>	Mountain Violet
<b>Grasses</b>	
<i>Achnatherum occidentale ssp californicum</i>	Needlegrass
<i>Agrostis gigantea</i>	Red top
<i>Bromus carinatus var carinatus</i>	California brome
<i>Bromus laevipes</i>	Dropping woodreed
<i>Carex brainerdii</i>	Brainerd's Sedge
<i>Carex fracta</i>	Fragile sheath sedge
<i>Carex multicaulis</i>	Man-stemmed Sedge
<i>Carex ssp.</i>	Sedge
<i>Elymus elymoides ssp californicus</i>	Squirrel tail grass
<i>Elymus glaucus ssp glaucus</i>	Blue wild rye
<i>Juncus mertensianus</i>	Merten's Rush
<i>Juncus orthophyllus</i>	Broad-leaved rush

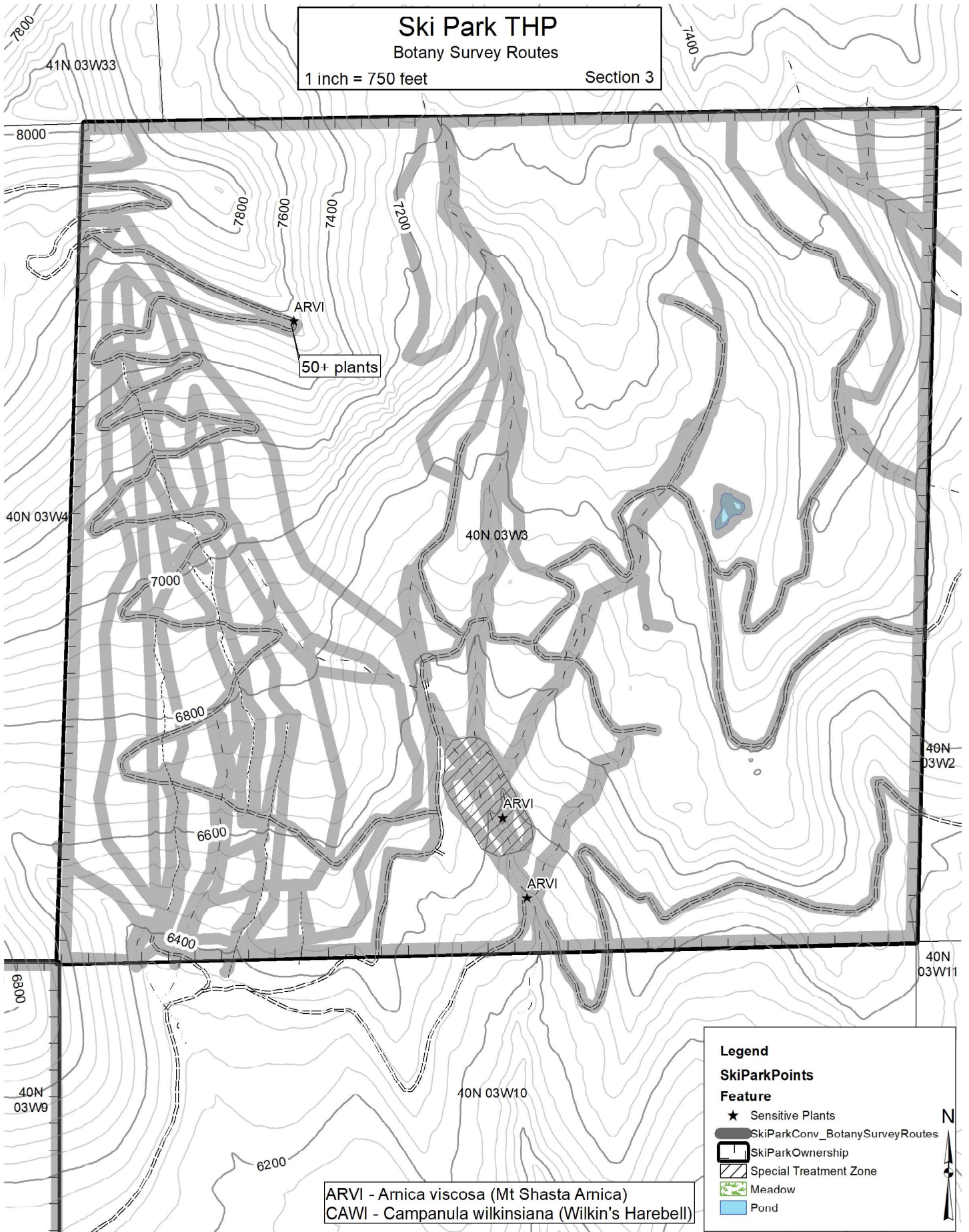
<b>Species</b>	<b>Common Name</b>
<i>Juncus parryi</i>	Parry's rush
<i>Muhlenbergia jonesii</i>	Jones' muhly
<i>Phleum alpinum</i>	Mountain Timothy
<i>Poa ssp</i>	Bluegrass
<i>Trisetum spicatum</i>	Spike Trisetum
<b>Ferns</b>	
<i>Athyrium filix femina</i>	Lady fern
<i>Botrychium pinnatum</i>	Northwestern moonwort
<i>Cheilanthes gracillima</i>	Lace fern
<i>Cryptogramma acrostichoides</i>	American parsley fern
<i>Cystopteris fragilis</i>	Fragile fern
<i>Pteridium aquilinum var. pubescens</i>	Bracken Fern

# Ski Park THP

Botany Survey Routes

1 inch = 750 feet

Section 3



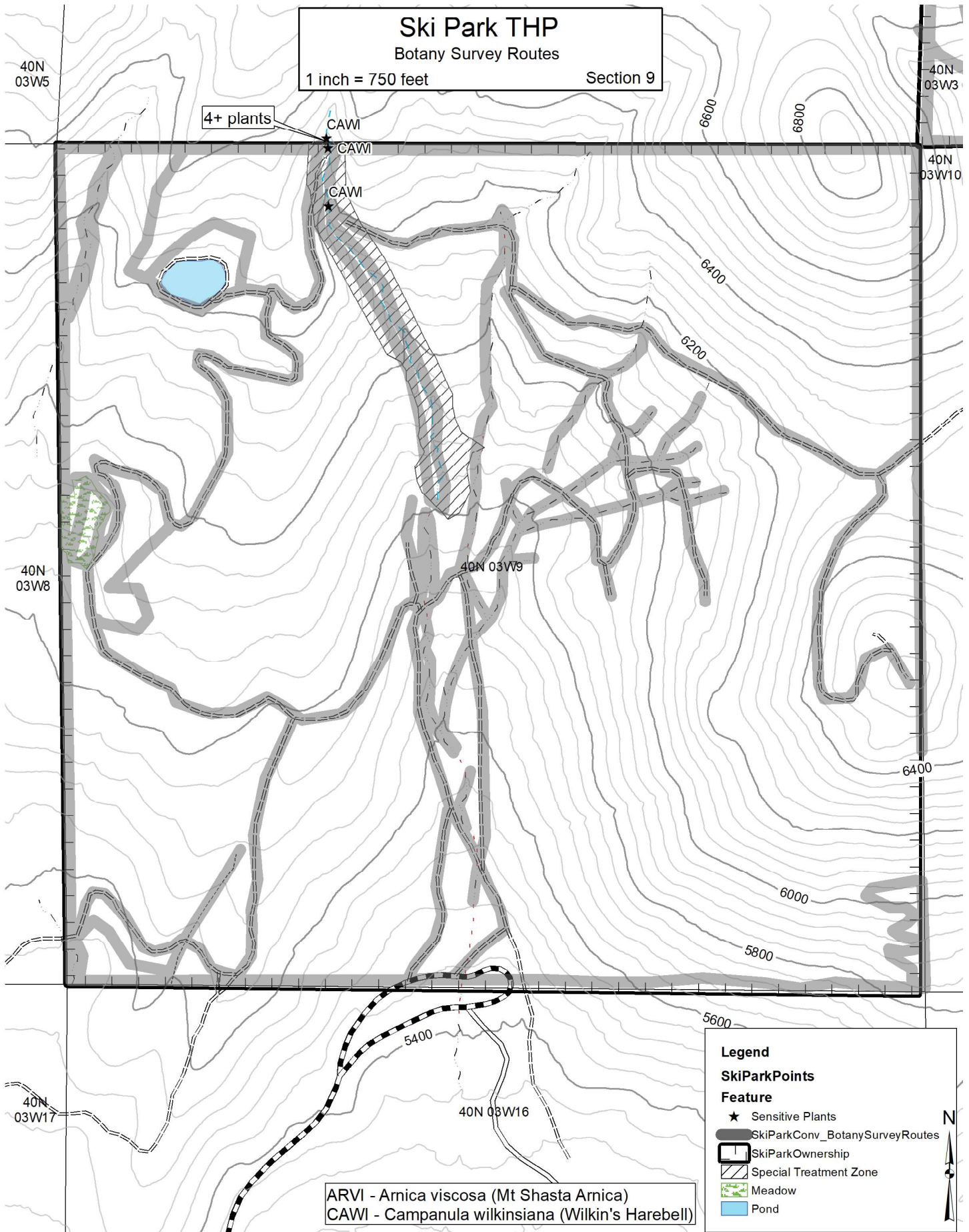
ARVI - *Arnica viscosa* (Mt Shasta Arnica)  
CAWI - *Campanula wilkinsiana* (Wilkin's Harebell)

# Ski Park THP

## Botany Survey Routes

1 inch = 750 feet

Section 9



4+ plants

CAWI

CAWI

CAWI

40N 03W9

40N 03W16

ARVI - Arnica viscosa (Mt Shasta Arnica)  
 CAWI - Campanula wilkinsiana (Wilkin's Harebell)

**Legend**

**SkiParkPoints**

**Feature**

- ★ Sensitive Plants
- SkiParkConv\_BotanySurveyRoutes
- ▭ SkiParkOwnership
- ▨ Special Treatment Zone
- 🌿 Meadow
- 💧 Pond

## **Appendix D – USFWS IPaC Report**



# United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Yreka Fish And Wildlife Office  
1829 South Oregon Street  
Yreka, CA 96097-3446  
Phone: (530) 842-5763 Fax: (530) 842-4517

In Reply Refer To:

March 28, 2022

Project Code: 2022-0024826

Project Name: Mount Shasta Ski Park Lift Expansion Project

Subject: List of threatened and endangered species that may occur in your proposed project location 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, 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 U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

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>

**Migratory Birds:** In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/birds/policies-and-regulations.php>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php>.

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 Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

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Attachment(s):

- Official Species List

## **Official Species List**

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

This species list is provided by:

**Yreka Fish And Wildlife Office**

1829 South Oregon Street

Yreka, CA 96097-3446

(530) 842-5763

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## Project Summary

Project Code: 2022-0024826

Event Code: None

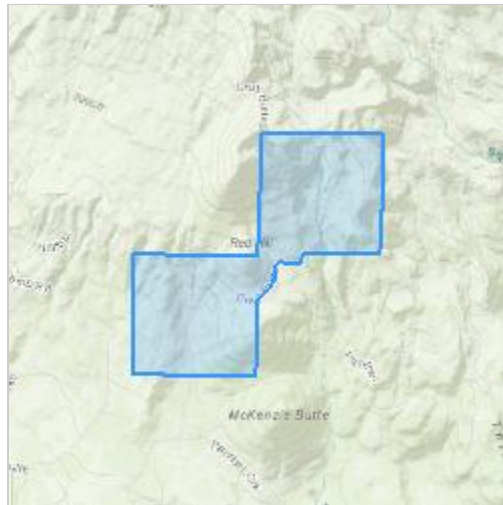
Project Name: Mount Shasta Ski Park Lift Expansion Project

Project Type: Commercial Development

Project Description: Mount Shasta Ski Park is building an additional ski lift and associated ski runs in its ownership within Section 3 of the McCloud, California USGS 7.5-minute quadrangle. The project will also consist of a backcountry touring area with minimal development other than several backcountry warming huts. Associated facilities for the ski lift include a vault privy toilet, an underground powerline, and various service/maintenance huts. The Project will be completed during the Summer/Fall of 2022 before the 2022/2023 ski season.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@41.334307550000005,-122.1990240912781,14z>



Counties: Siskiyou County, California

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## Endangered Species Act Species

There is a total of 12 threatened, endangered, or candidate species on this species list.

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

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

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

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

### Mammals

NAME	STATUS
Gray Wolf <i>Canis lupus</i> Population: U.S.A.: All of AL, AR, CA, CO, CT, DE, FL, GA, IA, IN, IL, KS, KY, LA, MA, MD, ME, MI, MO, MS, NC, ND, NE, NH, NJ, NV, NY, OH, OK, PA, RI, SC, SD, TN, TX, VA, VT, WI, and WV; and portions of AZ, NM, OR, UT, and WA. Mexico. There is <b>final</b> critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/4488">https://ecos.fws.gov/ecp/species/4488</a>	Endangered

### Birds

NAME	STATUS
Northern Spotted Owl <i>Strix occidentalis caurina</i> There is <b>final</b> critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/1123">https://ecos.fws.gov/ecp/species/1123</a>	Threatened
Yellow-billed Cuckoo <i>Coccyzus americanus</i> Population: Western U.S. DPS There is <b>final</b> critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/3911">https://ecos.fws.gov/ecp/species/3911</a>	Threatened

### Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is <b>final</b> critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/2891">https://ecos.fws.gov/ecp/species/2891</a>	Threatened

## Fishes

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> There is <b>final</b> critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/321">https://ecos.fws.gov/ecp/species/321</a>	Threatened
Longfin Smelt <i>Spirinchus thaleichthys</i> Population: San Francisco Bay-Delta DPS No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9011">https://ecos.fws.gov/ecp/species/9011</a>	Candidate

## Insects

NAME	STATUS
Franklin's Bumble Bee <i>Bombus franklini</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/7022">https://ecos.fws.gov/ecp/species/7022</a>	Endangered
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Candidate

## Crustaceans

NAME	STATUS
Conservancy Fairy Shrimp <i>Branchinecta conservatio</i> There is <b>final</b> critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/8246">https://ecos.fws.gov/ecp/species/8246</a>	Endangered
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> There is <b>final</b> critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/498">https://ecos.fws.gov/ecp/species/498</a>	Threatened
Vernal Pool Tadpole Shrimp <i>Lepidurus packardii</i> There is <b>final</b> critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/2246">https://ecos.fws.gov/ecp/species/2246</a>	Endangered

## Conifers and Cycads

NAME	STATUS
Whitebark Pine <i>Pinus albicaulis</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/1748">https://ecos.fws.gov/ecp/species/1748</a>	Proposed Threatened

## Critical habitats

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

## **IPaC User Contact Information**

Agency: GeoServ

Name: Jake Ewald

Address: PO Box 831

City: Mount Shasta

State: CA

Zip: 96067

Email: je@geoscienceserv.com

Phone: 5304088492

---

## **Appendix E – Northern Spotted Owl Technical Communication**

**hcf@snowcrest.net**

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**From:** Stanish, Anastasia@CALFIRE <Anastasia.Stanish@fire.ca.gov>  
**Sent:** Tuesday, June 1, 2021 5:25 PM  
**To:** hcf@snowcrest.net; Ramaley, John@CALFIRE; Klug, Richard@Wildlife  
**Subject:** RE: Ski Park NSO

Cliff, thanks for your patience. CAL FIRE has reviewed the previous USFWS Technical Assistance, maps, and summary you provided for the Ski Park THP. You are requesting a survey waiver for the proposed THP as well as consistency in determining non-NSO habitat. CAL FIRE agrees with your determination that take of NSO is unlikely based on the following factors:

- There are no known NSO Activity Centers within 1.3 miles of the proposed THP
- The THP elevation ranges between 5,400 and 8,000' in white fir/red fir which pushes and exceeds the upper elevation range of NSO as well as not providing suitable habitat for NSO
- Consistent with the 2006 USFWS Technical Assistance, there is no suitable NSO habitat within the THP area.

Please let me know if you have any further questions.

**Stacy Stanish, RPF No. 3000**  
Senior Environmental Scientist - Forest Practice Biologist  
Spotted Owl Expert (SOE)



CA Department of Forestry and Fire Protection  
PO Box 944246  
1416 9<sup>th</sup> Street  
Sacramento 94244-2460  
Phone: (916) 616-8643  
[Anastasia.Stanish@fire.ca.gov](mailto:Anastasia.Stanish@fire.ca.gov)

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**From:** hcf@snowcrest.net <hcf@snowcrest.net>  
**Sent:** Tuesday, June 1, 2021 3:50 PM  
**To:** Stanish, Anastasia@CALFIRE <Anastasia.Stanish@fire.ca.gov>; Ramaley, John@CALFIRE <John.Ramaley@fire.ca.gov>; Klug, Richard@Wildlife <Richard.Klug@Wildlife.ca.gov>  
**Subject:** RE: Ski Park NSO

**Warning: this message is from an external user and should be treated with caution.**

Stacy & Rich,  
Please see the request below for guidance on NSO for the Mount Shasta Ski Park area. There will be 2 separate documents; a conversion THP for the new lift and runs in section 3, and a standard THP for the remaining areas in section 3 & 9 which will include selection, commercial thin, sanitation-salvage.  
Thanks,  
Cliff Kennedy  
RPF #2286



---

From: Stanish, Anastasia@CALFIRE <[Anastasia.Stanish@fire.ca.gov](mailto:Anastasia.Stanish@fire.ca.gov)>  
Sent: Tuesday, May 11, 2021 7:56 PM  
To: Ramaley, John@CALFIRE <[John.Ramaley@fire.ca.gov](mailto:John.Ramaley@fire.ca.gov)>; Klug, Richard@Wildlife <[Richard.Klug@Wildlife.ca.gov](mailto:Richard.Klug@Wildlife.ca.gov)>  
Cc: [hcf@snowcrest.net](mailto:hcf@snowcrest.net)  
Subject: Re: Ski Park NSO

I will take a look Friday afternoon.

**Stacy Stanish, RPF No. 3000**  
Senior Environmental Scientist – Forest Practice Biologist

**CAL FIRE**

CA Department of Forestry and Fire Protection  
6105 Airport Road  
Redding, CA 96002  
Phone: (916) 616-8643  
[Anastasia.Stanish@fire.ca.gov](mailto:Anastasia.Stanish@fire.ca.gov)

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From: Ramaley, John@CALFIRE <[John.Ramaley@fire.ca.gov](mailto:John.Ramaley@fire.ca.gov)>  
Sent: Tuesday, May 11, 2021 8:33 AM  
To: Stanish, Anastasia@CALFIRE <[Anastasia.Stanish@fire.ca.gov](mailto:Anastasia.Stanish@fire.ca.gov)>; Klug, Richard@Wildlife <[Richard.Klug@Wildlife.ca.gov](mailto:Richard.Klug@Wildlife.ca.gov)>  
Cc: [hcf@snowcrest.net](mailto:hcf@snowcrest.net) <[hcf@snowcrest.net](mailto:hcf@snowcrest.net)>  
Subject: FW: Ski Park NSO

Rich – Stacy, please see request for assistance on take avoidance for NSO.

Cliff – the runs / lift may be determined to be a conversion, and ski lifts are specifically mentioned in the definition of timber operations.

**4527. Timber Operations; commercial purposes; criteria.**

(a) (1) "Timber Operations" means the cutting or removal, or both, of timber or other solid wood forest products, including Christmas trees, from Timberlands for commercial purposes, together with all the incidental work, including, but not limited to, construction and maintenance of roads, fuel breaks, firebreaks, stream crossings, Landings, skid trails, and beds for the falling of trees, fire hazard abatement, and Site Preparation that involves disturbance of soil or burning of vegetation following timber harvesting activities, but excluding preparatory work such as treemarking, surveying, or roadflagging.

(2) "Commercial purposes" includes (A) the cutting or removal of trees that are processed into logs, lumber, or other wood products and offered for sale, barter, exchange, or trade, or (B) the cutting or removal of trees or other forest products during the conversion of Timberlands to land uses other than the growing of timber that are subject to the provisions of Section 4621, including, but not limited to, residential or commercial developments, production of other agricultural crops, recreational developments, **ski developments**, water development Projects, and transportation Projects.

---

From: [hcf@snowcrest.net](mailto:hcf@snowcrest.net) [<mailto:hcf@snowcrest.net>]  
Sent: Tuesday, May 11, 2021 8:12 AM  
To: Ramaley, John@CALFIRE <[John.Ramaley@fire.ca.gov](mailto:John.Ramaley@fire.ca.gov)>  
Subject: Ski Park NSO

**Warning: this message is from an external user and should be treated with caution.**

John,

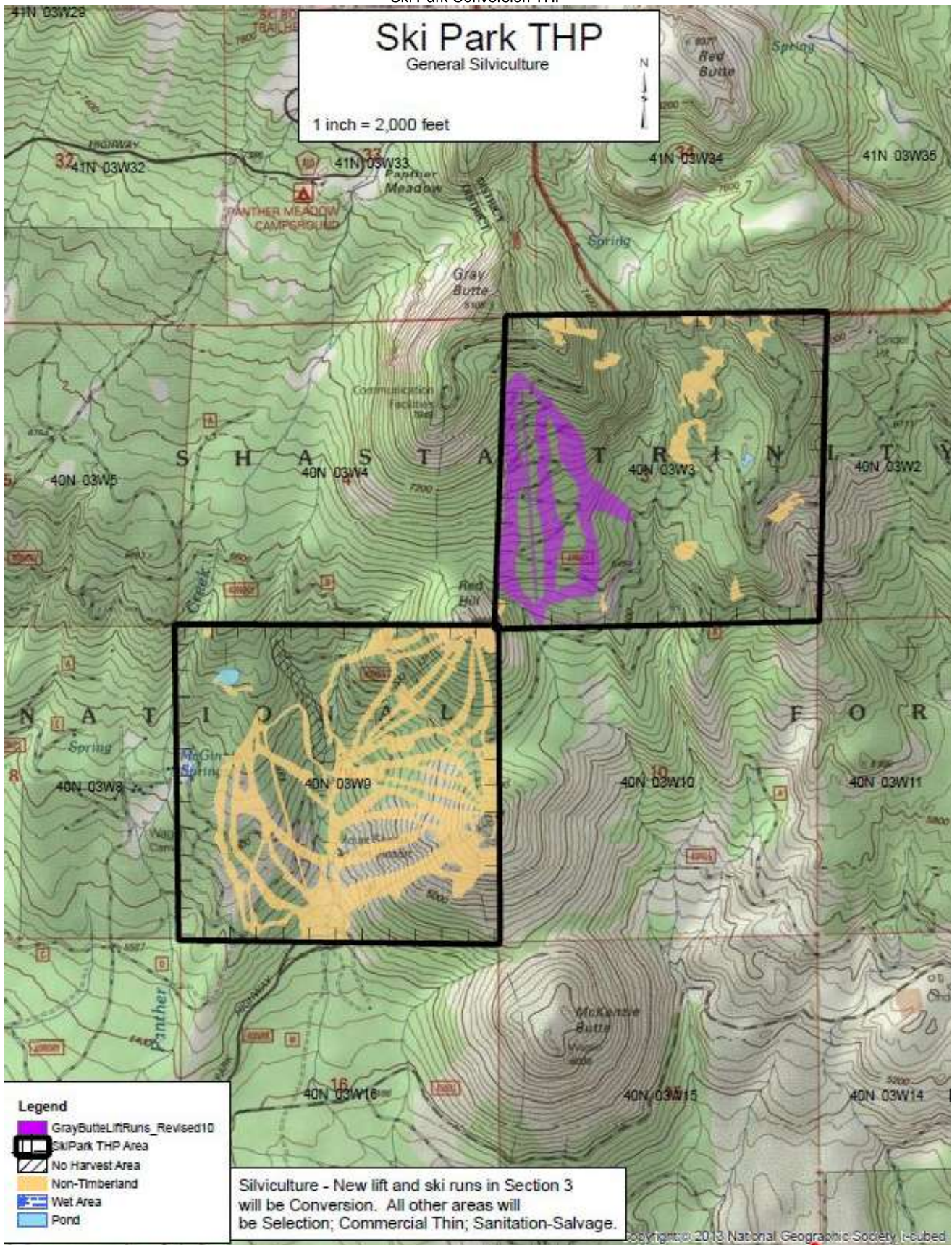
The purpose of this email is to request Northern Spotted Owl guidance for the Ski Park Timber Harvest Plan (THP) located in section 3 and 9 of T40N, R03W; MDBM. The logging operation is planned for fall of 2021. The plan ranges in elevation from 5,400 feet to 8,000 feet within the Shasta Red Fir / White Fir forest types. We conducted a NSO Technical Assistance consultation with USFWS for a plan with the same footprint in 2006 and received a Technical Assistance Letter (see attached) indicating no NSO surveys were required due to lack of habitat and no known activity areas within 1.3 miles.

A search of the California NSO Database (April 2021) indicates no known spotted owl activity centers within 1.3 miles of the plan boundaries. The nearest center is located 2 miles to the east-southeast in section 18 of T40N, R02W.

I have attached a general silviculture map for the plan area. A new ski lift and associated runs are proposed for an area in the western portion of section 3 where Variable Retention silviculture will be employed. All other areas will be Selection, Commercial Thin and Sanitation-Salvage.

I discussed these plans with Bob Carey at USFWS in Yreka and he indicated we should go through CALFIRE, but he didn't see any issues that would change the previous USFWS determination. Please let us know how best to proceed.

Sincerely,  
Cliff Kennedy  
RPF #2286





IN REPLY REFER TO:

## United States Department of the Interior

### FISH AND WILDLIFE SERVICE



Yreka Fish and Wildlife Office  
1829 South Oregon Street  
Yreka, California 96097

1-11-06-TA-117

Tel: (530) 842-5763 Fax: (530) 842-4517

September 26, 2006

Mr. Cliff Kennedy  
High Country Forestry  
438 Shasta Way  
Mt. Shasta, California 96067

Subject: Technical Assistance for Ski Park Timber Harvest Plan (2-06-105-SIS(6))

Dear Mr. Kennedy:

This is in response to your August 17, 2006, request for U.S. Fish and Wildlife Service (Service) technical assistance, received in this office on August 22, 2006. At issue is the potential for incidental take of the federally listed northern spotted owl (*Strix occidentalis caurina*) (NSO) as a result of timber harvest operations conducted on this timber harvest plan (THP). After reviewing the information, the Service offers the following technical assistance.

This approved THP consists of 1,280 acres (32 acres of Shelterwood Removal Step, 78 acres Seed Tree/ Seed Tree Removal, 264 acres Selection, 109 acres Transition, 58 acres Commercial Thin, 62 acres Sanitation Salvage, 254 acres Alternative resembling Shelterwood Removal, 159 acres Alternative resembling Commercial Thin, and 264 acres Non-Timberland Area) and is located in Sections 3 and 9 of Township 40N, Range 03W; M. D. B. & M.; in Siskiyou County. The California Department of Fish and Game Northern Spotted Owl Database contains no records of NSO activity centers within 1.3 miles of the THP boundaries.

This THP is within the Mt. Shasta Ski Park and does not contain suitable habitat. Similarly, there is no suitable habitat within 0.25 mile of the THP boundaries. Surveys are waived for the Ski Park THP due to the lack of known NSOs within 1.3 miles of the THP and the lack of habitat within and immediately adjacent to the THP.

Based on the information submitted with your request, the Service concurs that timber harvest operations as described above would not be likely to incidentally take northern spotted owls. Additional technical assistance for this THP is unnecessary unless new information reveals effects to NSOs in a manner or to an extent not considered in this analysis.



Page 2

All maps and data used to provide this technical assistance are on file at this office. If you have questions please contact Elizabeth Frost, Fish and Wildlife Biologist, at the number above.

Sincerely,

A handwritten signature in black ink, appearing to read 'Phil Detrich', written over a horizontal line.A small, stylized handwritten mark or initials, possibly 'PS', located to the left of the typed name.

Phil Detrich  
Field Supervisor

cc: William Schultz, CDF, Redding, CA  
Steve Gasaway, CDF, Yreka, CA

**ATTACHMENT G**  
**Transportation Impact Analysis**



## Technical Memorandum

<b>To:</b>	Siskiyou County Planning Department
<b>From:</b>	GeoServ, Inc.
<b>Date:</b>	March 29, 2022
<b>Re:</b>	<b>Mount Shasta Ski Park (MSSP) Lift Expansion Project Transportation Impact Analysis</b>

### INTRODUCTION

This Transportation Impact Analysis was completed for the MSSP Grey Butte Lift Expansion Project (Project) and analyzes the current and potential transportation conditions. The analysis evaluates the potential impacts to vehicle flow and parking at MSSP. The analysis presents the available information on the local roadway networks and provides an analysis of the effects on transportation facilities associated with the Project, summarizes potential environmental impacts, and provides recommended mitigation measures.

The following is a summary of the findings of the analysis:

- No internal site circulation or access issues have been identified that would cause traffic safety problems or any new traffic problems.
- At the project entrance at SR 89 and SPH, there are no capacity problems identified with the roads or intersection. However, limited data

are available at the time of this analysis and additional intersection monitoring is recommended as a mitigation measure.

- The Project is not expected to significantly impact or change the design of any existing vehicle infrastructure or create any new safety problems.
- The Project provides adequate parking lot capacity (i.e., 3,500 parking spaces).
- The construction activities associated with the Project will not result in any significant traffic or safety impacts (Ski Park Conversion THP, Section F).
- The Project is not expected to result in any significant impacts regarding emergency vehicle access.

## METHODS

This study has been conducted in accordance with the requirements and methodologies set forth by the Siskiyou County, Caltrans, and the applicable provisions of CEQA. The analysis relies on traffic county data from the railroad crossing north of SR 89 on the Ski Park Highway (SPH).

According to the MSSP Master Plan, the maximum persons allowed is 5,400 persons per day. This is an increase from a peak of around 3,000 persons per day in the busiest winter skiing weekends. Using these allowances, this analysis assumed that there will be an 80% increase in peak vehicle traffic. This is a conservative assumption, but it is warranted given the limited traffic count data available.



## RESULTS AND DISCUSSION

### **Project Access and Parking**

This Transportation Analysis was completed for the proposed Project. Overall design capacity of the MSSP is deemed to be 4,500 individuals per day (or 5,400 persons total per day) for the purposes of this Project. Infrastructure capacities will be maintained which are sufficient to accommodate visitors to MSSP in accordance with all applicable health and safety regulations to include Transportation. The following summarizes the current and potential individual capacity and parking lot capacity.

#### Access

- Current Not to exceed 15,000 individuals per day with widening.
- Potential Not to exceed 15,000 individuals per day with widening.

#### Parking

- Current 3,500 vehicles per day (peak capacity with parking attendant assistance).
- Potential Not to exceed 10,000 vehicles under present USFS Use Permit (10 acres).

The MSSP conducts the following traffic control operations to ensure safe and efficient vehicle access as part of their standard operating procedures:

- USFS maintains a traffic counter at RR (see Traffic Count Data).
- MSSP Manages Ski Park Highway chain control sign daily.
- MSSP Traffic Control Plan (peak use times (e.g., holidays and weekends)):
  - 2 Message Boards – 1# Located at RR and Chain Control area informing guest of parking lot status;
  - #2 Parking Lot entrance;
  - No shoulder turnouts at bottom of Ski Park Highway at Stop Sign to avoid tubers from crossing intersection;

- Traffic Control Station – Ski Park Highway at Cinder Shed an on-demand traffic control station; regulating traffic into resort and to avoid impact on Highway 89 Intersection;
- Constant Social Media Updates on parking lot status;
- MSSP notifies/updates CHP on congested weekends;
- MSSP daily monitors Ski Park traffic flow;
- MSSP daily plows and cinders road per USFS-MSSP Operating Plan;
- MSSP regularly cuts snowbank inside CalTrans' right-of-way intersection;
- MSSP chain control turnout 350 yards from SR 89 on Ski Park Highway; and
- MSSP limits delivery truck traffic on peak us days to include weekends and holidays.

The MSSP parking lot capacity was increased from 2008 to 2021 as follows:

- 2008 - 400 vehicle parking lot constructed (USFS Lands).
- 2021- 400 and 500 vehicle parking lots constructed (USFS Lands).
- Additional Parking Spaces 150 Vehicles added to the upper and middle parking lots (USFS Lands).
- Total parking lot capacity is 3,500 vehicles (i.e., increased by 800 and 1,000 vehicles since 1997 Project Description).

### **Project Intersection**

Based on the Project's trip generation and the potential for traffic impacts at the primary intersection, this analysis was prepared to evaluate the potential for significant transportation impacts. The main impact of concern is the intersection located on SR 89 at Post Mile 29.40. This intersection is controlled with side street stop signs and turning lanes (Figure 1).

The MSSP SR 89 and SPH Intersection improvements have been made as follows:

- 2006 Ski Park chain control area widened, both sides.
- 2018 and 2019 the intersection was resurfaced and improved:
  - Small Turnout Lane widened (stripped) – Outgoing off SPH;
  - Turn Lane widened, signed / stripped west bound traffic;
  - Widened Overall Intersection Footprint by 36 inches; and
  - Upgraded Signage/Stripping Tapering Turnout (Uphill-McCloud. Side)
- 2020 USFS removed “Frost Line Trees at Intersection” both sides highway intersection – Improved intersection visibility/slippery road surface.
- Improved highway lighting features.
- CalTrans added intersection camera.

The MSSP SR 89 and SPH intersection improvements that need to be implemented include:

- Coordinate with CalTrans to schedule snow removal at Snowman Hill’s Tubing Park to reduce traffic congestion during peak use periods.
- The USFS authorized CalTrans to develop a dump site that could be used to extend the outgoing turnout lane off of the SPH. To date, CalTrans has not developed the dump site or increased the turnout lane.
- Install traffic congestion signs.
- Monitor traffic conditions at the intersection during peak ski season to quantify traffic volume and measure the increase in MSSP users.

## **Traffic Analysis Scenarios**

The analysis intersection was evaluated for the following two scenarios:

- Scenario-1: Existing conditions – Vehicle Miles Traveled based on existing peak hour volumes and existing intersection configurations.
- Scenario-2: Existing plus proposed 80% increase in traffic .

## **Existing Road Network**

The Project are roads are shown in Figure 1. The following is a list of roads that may be impacted by the project:

- SR 89 is a 2-lane conventional highway that runs east-west and begins at I-5 in Mount Shasta and ends at US 395 near Coleville, California in Mono County. SR 89 has a length of approximately 243 miles and is a major thoroughfare for many mountain communities. SR 89 is designated as a State Scenic Highway.
- SPH is a 2-lane paved road that runs north-south arterial road that extends north from SR 89 to terminate to the north at MSSP. This road crossed USFS and private timber lands, and the use of this road by MSSP is covered by a Special Use Permit with the USFS.

## **Traffic and Intersection Analysis**

Existing operational conditions at the SR 89 and SPH intersection were evaluated according to the requirements of CalTrans and Siskiyou County with the available data. Analysis of traffic operations was conducted using the 2010 Highway Capacity Manual (HCM) methodology. This methodology presumes that as the amount of traffic moving through an intersection increases, the traffic flow conditions that motorists experience rapidly deteriorates as the capacity of the intersection is reached.

No site specific intersection data were available at the time of this analysis. This analysis relies on traffic count data taken at the railroad crossing about feet north of the SR 89 and SPH intersection by the USFS.

The traffic count data were analyzed and indicate that over the past three ski seasons there is an average daily traffic count of 659 vehicles and an average peak traffic count of 1,855 vehicles (Figure 2 and Attachment A).

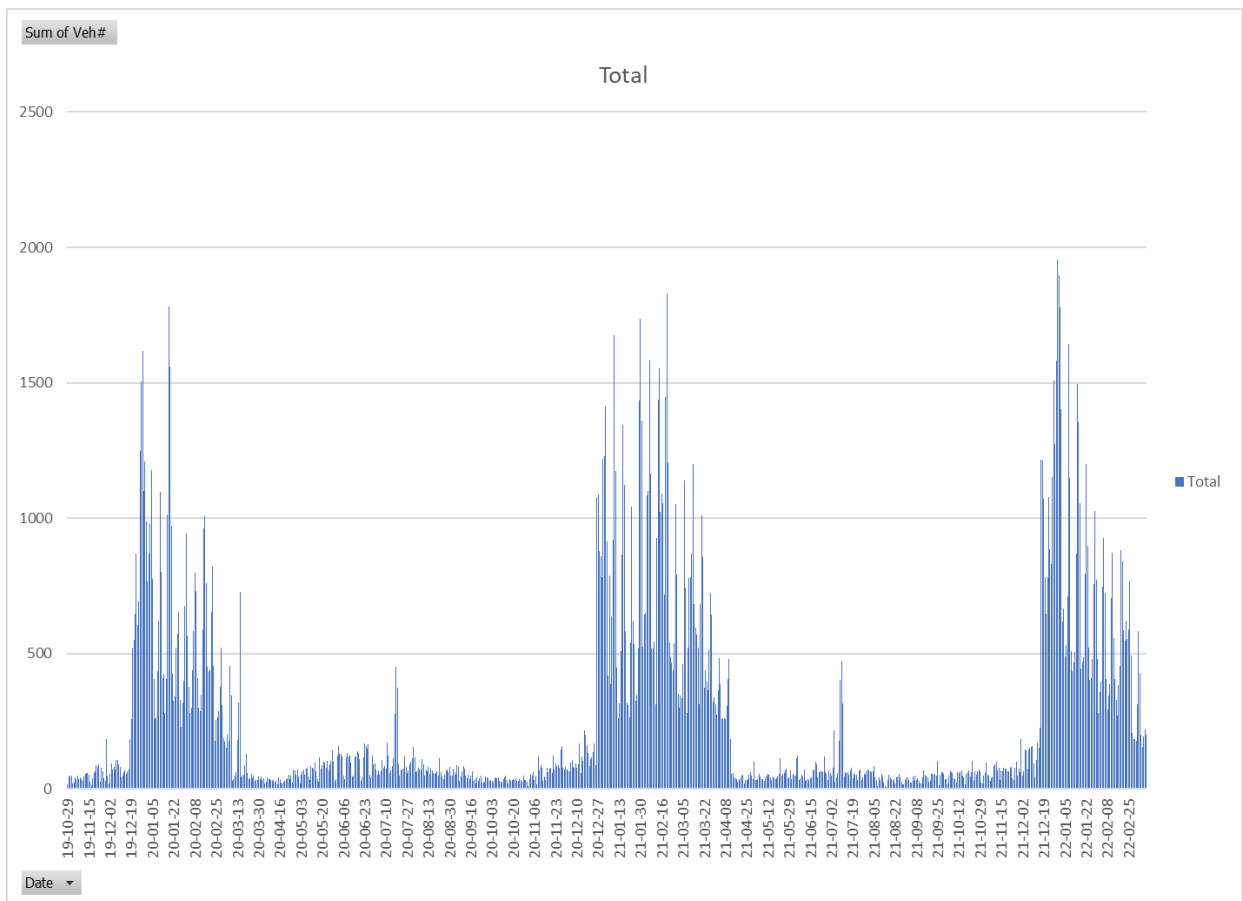


Figure 2. Chart showing daily traffic counts from 2019 to 2022 at the railroad crossing on the SPH.

The analysis assumes that there are 2.3 skiers per vehicle on average. For Scenaro-1, the analysis assumes that there is a daily peak average of 1,500

vehicles per day during the ski season and a parking lot capacity of 2,000. For Scenario-2, this analysis assumes that there is a daily peak average of 2,625 vehicles per day during the ski season with a parking lot capacity of 3,500. For both scenarios, there is adequate parking available to accommodate the incoming users.

The SR 89 and Ski Park Highway intersection is a limiting point in the traffic flow where on peak ski use days with heavy snow along the roadway traffic congestion can occur at the intersection. The traffic to the ski park is often compounded by people accessing the Snowmans Hill parking area (Figure 1). A review of the safe passage has been made over the past years with mitigation measures completed with CalTrans and USFS. Measures included left turn lane storage expansion, accel and decel lanes and traffic lane markings. The combination of SR 89 users during this peak traffic case can cause problems at the intersection. This appears to be most critical on several weekends during winter with large snow packs, good weather, icy road conditions. As a result, mitigation measures were identified to help reduce the impact of increased traffic as part of Scenario-2.

## **Vehicle Miles Traveled (VMT) Impacts**

### **Calculations**

The assumption made is that 2,400 additional people will travel to MSSP on peak days as a result of this project. Using the measured average of 2.3 people per vehicle, which equates to 1,043 additional vehicles per peak day.

MSSP has provided information showing that 80% of ticket sales come from within a 150 mile radius with concentrations in Chico, Humboldt Co, southern Oregon, and Redding. The remaining 20% of sales originate beyond that 150 mile radius (e.g., Sacramento/Bay Area/Santa Rosa/Other).

Assuming a 100 mile average distance for all trips within the 150 mile radius yields a 200 mile round trip. The choice of a 100 mile average distance was a conservative, educated guess based on low population density in the local area and likely predominance of skiers from the Redding area.

Without more detailed information, an average distance for trips outside the 150 mile radius is hard to determine. Given that most of these trips originate in the Sacramento/Bay Area/Santa Rosa area, one can assume that distance is not much greater than the distance to Tahoe resorts. A 200 mile average distance for all trips outside the 150 mile radius was chosen and yields a 400 mile round trip.

### **Significance Threshold**

Any threshold would need to be supported by substantial evidence (Mission Bay Alliance v. Office of Community Investment & Infrastructure (2016) 6 Cal.App.5th 160, 206; see also CEQA Guidelines, § 15064(b)(1) (“The determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data.”)). Rural areas outside of metropolitan planning organizations (MPOs) are addressed separately in state guidance on VMT impact thresholds. The document titled “Technical Advisory On Evaluating Transportation Impacts” published by the California Office of Planning and Research (OPR) in December 2018 ([https://opr.ca.gov/docs/20190122-743\\_Technical\\_Advisory.pdf](https://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf)) is the current official guidance on significance thresholds for VMT within a CEQA process. Page 19 of this technical advisory states “In rural areas of non-MPO counties (i.e., areas not near established or incorporated cities or towns), fewer options may be available for reducing VMT, and significance thresholds may be best determined on a case-by-case basis.”

Caltrans guidance reflects this approach. The document titled “Vehicle Miles Traveled-Focused Transportation Impact Study Guide” published by Caltrans in May 2020 (<https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb-743/2020-05-20-approved-vmt-focused-tisg-a11y.pdf>) is Caltrans’ current guidance on using VMT to establish transportation impacts. Page 15 of that document references OPR’s position on rural projects in its technical advisory and states “In these rural areas, programmatic VMT mitigation is sometimes the most effective.”

This statement is supported by additional text that advocates for measures such as better public transit, active transportation facilities, General Plan policies, etc. rather than project-specific mitigation measures. Because a significance threshold is not available from the lead agency and because Caltrans advocates programmatic measures, a qualitative analysis is performed.

Assuming that this project will create few new skiers, then all new trips to MSSP will either be the result of current skiers coming to MSSP more often or skiers deciding to recreate at MSSP rather than at another resort. In the scenario where current skiers are coming to MSSP more often, one could assume that impacts on peak day attendance would be minimal since those days already encounter attendance-limiting factors, e.g., lack of convenient parking, congestion, long lift lines, etc. It would seem likely that current skiers would choose to travel to MSSP more often on non-peak days. This would increase average attendance but provide less impact on peak day attendance. In the scenario where skiers are choosing MSSP rather than another resort because of the project, this is merely a reallocation of VMT rather than an absolute increase. Given that some skiers will travel further to find more



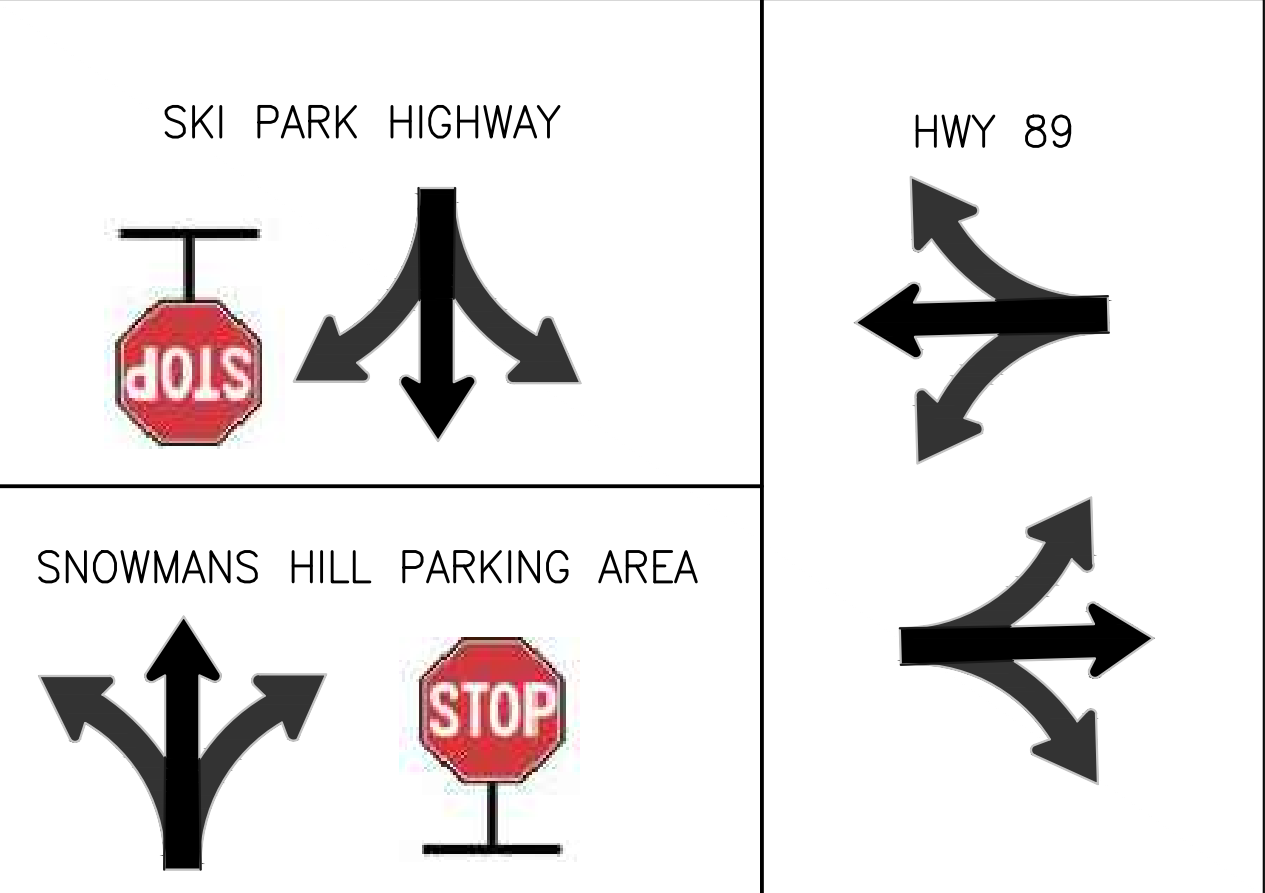
challenging terrain and that this project will provide more challenging skiing terrain, this reallocation of VMT may actually result in a reduction of total VMT.

Given the data available on current conditions, it is likely that the conservative predictions made in this assessment will result in increases in attendance on non-peak days and limited increases on peak days.

The 2021 revised VMT for Siskiyou County is  $1,721.7 \times 10^6$  per year. If MSSP is approximately  $2,348 \times 10^3$  for season currently then an 80% to 15% no change equals a 65% increase that equals  $1,526 \times 10^3$  increase MSSP VMT. The Maximum Peak Increase in VMT for Siskiyou County: Approximately 0.09%. Therefore, the transportation impact less than significant.

### **Recommended Mitigation Measure**

Mitigation Measure Trans-1: An overflow turn around will be constructed north of the SR 89 and SPH intersection to prevent vehicles from backing up onto SR 89. The use of this overflow turn around is triggered when the number of vehicles exceeds 1,955 vehicles in a given day. This is the threshold number of vehicles is based on traffic count data from 2019 to 2022. Once the Intersection Operational Analysis is complete adjustments to the vehicle cap may be made if justified.



SHEET NAME:

SR89 AND SKI PARK  
HIGHWAY INTERSECTION  
DIAGRAM

REVISIONS:

PROJECT NO:  
201201

ISSUE DATE:  
3/29/2022

SCALE:  
AS NOTED

DRAWN BY:  
KJF

ENGINEERED:  
CPS

CHECKED:  
CPS

FIGURE:

**1**

**Attachment A: Transportation Impact Analysis Data and Calculations**

## Spreadsheet Showing Calculation of Current VMT and Predicted VMT

**Current Peak Day Attendance (# of People):** 3000  
**Predicted Peak Day Attendance (# of People):** 5400  
**Average Number of People per Vehicle:** 2.3

### Calculation of Current VMT

	% of Attendance	# of People (% of Attendance * Peak Day Attendance)	Average # of People/Vehicle	# of Vehicles (# of People/People per Vehicle)	Miles/Round Trip	VMT Subtotals	Total VMT
<150 mile radius	80%	2400	2.3	1043	200	208,696	
>= 150 mile radius	20%	600	2.3	261	400	104,348	
							<b>313,043</b>

### Calculation of Predicted VMT

	% of Attendance	# of People (% of Attendance * Peak Day Attendance)	Average # of People/Vehicle	# of Vehicles (# of People/People per Vehicle)	Miles/Round Trip	VMT Subtotals	Total VMT
<150 mile radius	80%	4320	2.3	1878	200	375,652	
>= 150 mile radius	20%	1080	2.3	470	400	187,826	
							<b>563,478</b>

### Summary

Current Peak Day VMT is calculated to be 313,043  
 Predicted Peak Day VMT is calculated to be 563,478  
 Because the increase in peak day attendance is 80% and all other factors are constant, the increase in VMT is also 80%.  
 Miles/Round Trip are estimates only.

**Traffic Count Data Statistics**

Average	261	2019-2020	# Veh	2020-2021	# Veh	2021-2022	# Veh	
Maximum	1955	Average Dec 15-March 15	548	Average Dec 15-March 15	729	Average Dec 15-March 15	699	1855
Minimum	8	Maximum Dec 15-March 15	1781	Maximum Dec 15-March 15	1830	Maximum Dec 15-March 15	1955	4267
Median	75	Average 2 Skiers per car					5865	
		Average 150 employees per day						
		Persons	Veh	PEAK VEH:	Veh Total	3575 Parking Spaces		
	Scenario 1	3000	1304	Maximum	1955			
	Scenario 2	5400	2283	Additional 80%	3519 Peak Parking Recommended			
	Change in People	2400						
	Percent Increase	80 %						

Peak one-way traffic increase from 1955 to 3519 vehicles per day is well within the maximum allowable (FS 10,000 vpd) for Ski Park Highway.

The County Circulation Element is not substantially affected by the increase traffic on Highway 89 and the increase in vehicle miles traveled (vmt).

The intersection at Hwy 89 and Ski Park Hwy is potentially affected by congestion at the intersection due to the parking lot for Snowmans Hill where winter recreation has

## Daily Traffic Count Data for SPH at the Railroad Tracks

Date	Veh#
19-10-29	17
19-10-30	47
19-10-31	44
19-11-01	47
19-11-02	19
19-11-03	23
19-11-04	41
19-11-05	37
19-11-06	47
19-11-07	37
19-11-08	43
19-11-09	37
19-11-10	30
19-11-11	50
19-11-12	56
19-11-13	59
19-11-14	59
19-11-15	51
19-11-16	27
19-11-17	14
19-11-18	40
19-11-19	59
19-11-20	64
19-11-21	86
19-11-22	81
19-11-23	89
19-11-24	26
19-11-25	77
19-11-26	65
19-11-27	39
19-11-28	28
19-11-29	183
19-11-30	49
19-12-01	21
19-12-02	56
19-12-03	95
19-12-04	71
19-12-05	80
19-12-06	70
19-12-07	108
19-12-08	105
19-12-09	89
19-12-10	80
19-12-11	42
19-12-12	48

19-12-13	63
19-12-14	68
19-12-15	54
19-12-16	64
19-12-17	71
19-12-18	183
19-12-19	257
19-12-20	520
19-12-21	549
19-12-22	648
19-12-23	867
19-12-24	604
19-12-25	690
19-12-26	1247
19-12-27	1504
19-12-28	1619
19-12-29	1099
19-12-30	1210
19-12-31	988
20-01-01	766
20-01-02	869
20-01-03	980
20-01-04	1177
20-01-05	776
20-01-06	405
20-01-07	256
20-01-08	263
20-01-09	433
20-01-10	621
20-01-11	1097
20-01-12	801
20-01-13	409
20-01-14	426
20-01-15	281
20-01-16	405
20-01-17	1012
20-01-18	1781
20-01-19	1558
20-01-20	971
20-01-21	424
20-01-22	326
20-01-23	342
20-01-24	520
20-01-25	572
20-01-26	654
20-01-27	327
20-01-28	228

20-01-29	319
20-01-30	400
20-01-31	674
20-02-01	943
20-02-02	567
20-02-03	375
20-02-04	279
20-02-05	299
20-02-06	439
20-02-07	581
20-02-08	799
20-02-09	731
20-02-10	410
20-02-11	299
20-02-12	286
20-02-13	347
20-02-14	589
20-02-15	961
20-02-16	1007
20-02-17	758
20-02-18	450
20-02-19	434
20-02-20	441
20-02-21	654
20-02-22	821
20-02-23	455
20-02-24	176
20-02-25	255
20-02-26	263
20-02-27	287
20-02-28	377
20-02-29	521
20-03-01	310
20-03-02	187
20-03-03	174
20-03-04	151
20-03-05	199
20-03-06	177
20-03-07	454
20-03-08	343
20-03-09	30
20-03-10	36
20-03-11	49
20-03-12	63
20-03-13	179
20-03-14	320
20-03-15	726



20-03-16	41
20-03-17	50
20-03-18	53
20-03-19	87
20-03-20	130
20-03-21	59
20-03-22	36
20-03-23	40
20-03-24	54
20-03-25	39
20-03-26	50
20-03-27	28
20-03-28	34
20-03-29	31
20-03-30	46
20-03-31	35
20-04-01	45
20-04-02	31
20-04-03	39
20-04-04	21
20-04-05	27
20-04-06	43
20-04-07	35
20-04-08	37
20-04-09	32
20-04-10	29
20-04-11	31
20-04-12	24
20-04-13	28
20-04-14	18
20-04-15	42
20-04-16	37
20-04-17	22
20-04-18	16
20-04-19	27
20-04-20	28
20-04-21	36
20-04-22	39
20-04-23	51
20-04-24	36
20-04-25	47
20-04-26	22
20-04-27	72
20-04-28	67
20-04-29	51
20-04-30	71
20-05-01	44

20-05-02	19
20-05-03	52
20-05-04	65
20-05-05	70
20-05-06	53
20-05-07	75
20-05-08	77
20-05-09	45
20-05-10	33
20-05-11	83
20-05-12	77
20-05-13	74
20-05-14	96
20-05-15	64
20-05-16	37
20-05-17	26
20-05-18	117
20-05-19	73
20-05-20	88
20-05-21	100
20-05-22	97
20-05-23	78
20-05-24	102
20-05-25	68
20-05-26	91
20-05-27	102
20-05-28	142
20-05-29	101
20-05-30	28
20-05-31	36
20-06-01	123
20-06-02	157
20-06-03	128
20-06-04	130
20-06-05	118
20-06-06	50
20-06-07	36
20-06-08	115
20-06-09	132
20-06-10	119
20-06-11	121
20-06-12	97
20-06-13	45
20-06-14	48
20-06-15	118
20-06-16	119
20-06-17	140

20-06-18	132
20-06-19	110
20-06-20	28
20-06-21	46
20-06-22	116
20-06-23	167
20-06-24	157
20-06-25	147
20-06-26	165
20-06-27	53
20-06-28	41
20-06-29	122
20-06-30	89
20-07-01	95
20-07-02	70
20-07-03	53
20-07-04	68
20-07-05	51
20-07-06	65
20-07-07	106
20-07-08	79
20-07-09	84
20-07-10	75
20-07-11	171
20-07-12	121
20-07-13	58
20-07-14	67
20-07-15	84
20-07-16	114
20-07-17	277
20-07-18	449
20-07-19	372
20-07-20	90
20-07-21	48
20-07-22	72
20-07-23	70
20-07-24	73
20-07-25	121
20-07-26	80
20-07-27	57
20-07-28	68
20-07-29	91
20-07-30	100
20-07-31	114
20-08-01	155
20-08-02	117
20-08-03	61

20-08-04	65
20-08-05	77
20-08-06	70
20-08-07	70
20-08-08	111
20-08-09	89
20-08-10	49
20-08-11	72
20-08-12	66
20-08-13	81
20-08-14	56
20-08-15	77
20-08-16	68
20-08-17	57
20-08-18	54
20-08-19	58
20-08-20	66
20-08-21	47
20-08-22	114
20-08-23	63
20-08-24	45
20-08-25	36
20-08-26	51
20-08-27	68
20-08-28	72
20-08-29	62
20-08-30	81
20-08-31	48
20-09-01	47
20-09-02	73
20-09-03	63
20-09-04	53
20-09-05	88
20-09-06	81
20-09-07	29
20-09-08	45
20-09-09	66
20-09-10	85
20-09-11	73
20-09-12	47
20-09-13	39
20-09-14	53
20-09-15	36
20-09-16	48
20-09-17	64
20-09-18	29
20-09-19	37

20-09-20	19
20-09-21	42
20-09-22	29
20-09-23	39
20-09-24	49
20-09-25	24
20-09-26	26
20-09-27	23
20-09-28	45
20-09-29	43
20-09-30	39
20-10-01	29
20-10-02	31
20-10-03	30
20-10-04	24
20-10-05	38
20-10-06	41
20-10-07	38
20-10-08	43
20-10-09	28
20-10-10	27
20-10-11	22
20-10-12	37
20-10-13	43
20-10-14	47
20-10-15	33
20-10-16	21
20-10-17	35
20-10-18	30
20-10-19	34
20-10-20	35
20-10-21	33
20-10-22	39
20-10-23	28
20-10-24	28
20-10-25	35
20-10-26	32
20-10-27	27
20-10-28	49
20-10-29	33
20-10-30	32
20-10-31	26
20-11-01	11
20-11-02	37
20-11-03	55
20-11-04	50
20-11-05	62

20-11-06	33
20-11-07	48
20-11-08	16
20-11-09	119
20-11-10	69
20-11-11	86
20-11-12	78
20-11-13	29
20-11-14	44
20-11-15	32
20-11-16	76
20-11-17	63
20-11-18	73
20-11-19	79
20-11-20	57
20-11-21	121
20-11-22	72
20-11-23	95
20-11-24	83
20-11-25	88
20-11-26	79
20-11-27	145
20-11-28	159
20-11-29	79
20-11-30	70
20-12-01	81
20-12-02	70
20-12-03	69
20-12-04	66
20-12-05	98
20-12-06	108
20-12-07	82
20-12-08	77
20-12-09	93
20-12-10	78
20-12-11	92
20-12-12	169
20-12-13	59
20-12-14	118
20-12-15	103
20-12-16	215
20-12-17	199
20-12-18	160
20-12-19	131
20-12-20	85
20-12-21	111
20-12-22	117

20-12-23	136
20-12-24	166
20-12-25	86
20-12-26	1076
20-12-27	1087
20-12-28	879
20-12-29	860
20-12-30	783
20-12-31	1218
21-01-01	1230
21-01-02	1413
21-01-03	913
21-01-04	418
21-01-05	787
21-01-06	386
21-01-07	638
21-01-08	921
21-01-09	1675
21-01-10	1175
21-01-11	446
21-01-12	261
21-01-13	316
21-01-14	508
21-01-15	864
21-01-16	1344
21-01-17	1121
21-01-18	581
21-01-19	320
21-01-20	308
21-01-21	265
21-01-22	541
21-01-23	1043
21-01-24	621
21-01-25	535
21-01-26	326
21-01-27	349
21-01-28	517
21-01-29	1435
21-01-30	1736
21-01-31	1361
21-02-01	526
21-02-02	643
21-02-03	650
21-02-04	1084
21-02-05	1099
21-02-06	1581
21-02-07	1164

21-02-08	519
21-02-09	517
21-02-10	545
21-02-11	313
21-02-12	927
21-02-13	1436
21-02-14	1552
21-02-15	1024
21-02-16	1090
21-02-17	1056
21-02-18	716
21-02-19	1448
21-02-20	1830
21-02-21	1207
21-02-22	541
21-02-23	485
21-02-24	466
21-02-25	436
21-02-26	537
21-02-27	1051
21-02-28	792
21-03-01	350
21-03-02	300
21-03-03	344
21-03-04	336
21-03-05	461
21-03-06	1137
21-03-07	744
21-03-08	279
21-03-09	522
21-03-10	777
21-03-11	783
21-03-12	867
21-03-13	1198
21-03-14	683
21-03-15	594
21-03-16	570
21-03-17	521
21-03-18	311
21-03-19	683
21-03-20	1009
21-03-21	854
21-03-22	372
21-03-23	436
21-03-24	396
21-03-25	365
21-03-26	516



21-03-27	725
21-03-28	644
21-03-29	321
21-03-30	338
21-03-31	312
21-04-01	274
21-04-02	364
21-04-03	483
21-04-04	387
21-04-05	259
21-04-06	262
21-04-07	260
21-04-08	257
21-04-09	306
21-04-10	404
21-04-11	478
21-04-12	184
21-04-13	55
21-04-14	59
21-04-15	42
21-04-16	38
21-04-17	37
21-04-18	27
21-04-19	31
21-04-20	40
21-04-21	48
21-04-22	51
21-04-23	21
21-04-24	31
21-04-25	32
21-04-26	37
21-04-27	51
21-04-28	62
21-04-29	49
21-04-30	37
21-05-01	99
21-05-02	31
21-05-03	34
21-05-04	35
21-05-05	55
21-05-06	44
21-05-07	37
21-05-08	37
21-05-09	30
21-05-10	42
21-05-11	49
21-05-12	54

21-05-13	51
21-05-14	43
21-05-15	31
21-05-16	44
21-05-17	40
21-05-18	35
21-05-19	40
21-05-20	46
21-05-21	56
21-05-22	114
21-05-23	47
21-05-24	54
21-05-25	58
21-05-26	67
21-05-27	75
21-05-28	40
21-05-29	43
21-05-30	69
21-05-31	35
21-06-01	55
21-06-02	47
21-06-03	48
21-06-04	113
21-06-05	123
21-06-06	34
21-06-07	38
21-06-08	52
21-06-09	46
21-06-10	70
21-06-11	28
21-06-12	32
21-06-13	35
21-06-14	34
21-06-15	38
21-06-16	43
21-06-17	69
21-06-18	70
21-06-19	100
21-06-20	90
21-06-21	42
21-06-22	62
21-06-23	65
21-06-24	66
21-06-25	63
21-06-26	120
21-06-27	61
21-06-28	54

21-06-29	34
21-06-30	67
21-07-01	57
21-07-02	48
21-07-03	78
21-07-04	217
21-07-05	25
21-07-06	43
21-07-07	59
21-07-08	176
21-07-09	402
21-07-10	474
21-07-11	317
21-07-12	46
21-07-13	60
21-07-14	57
21-07-15	62
21-07-16	52
21-07-17	69
21-07-18	76
21-07-19	39
21-07-20	57
21-07-21	51
21-07-22	52
21-07-23	34
21-07-24	68
21-07-25	72
21-07-26	31
21-07-27	42
21-07-28	54
21-07-29	52
21-07-30	64
21-07-31	71
21-08-01	67
21-08-02	65
21-08-03	60
21-08-04	65
21-08-05	85
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21-08-07	32
21-08-08	10
21-08-09	41
21-08-10	31
21-08-11	54
21-08-12	45
21-08-13	24
21-08-14	10

21-08-15	8
21-08-16	31
21-08-17	51
21-08-18	41
21-08-19	36
21-08-20	29
21-08-21	37
21-08-22	19
21-08-23	42
21-08-24	44
21-08-25	55
21-08-26	41
21-08-27	27
21-08-28	16
21-08-29	15
21-08-30	34
21-08-31	41
21-09-01	42
21-09-02	32
21-09-03	24
21-09-04	23
21-09-05	45
21-09-06	28
21-09-07	50
21-09-08	34
21-09-09	40
21-09-10	29
21-09-11	19
21-09-12	20
21-09-13	43
21-09-14	67
21-09-15	53
21-09-16	48
21-09-17	42
21-09-18	26
21-09-19	30
21-09-20	54
21-09-21	56
21-09-22	54
21-09-23	52
21-09-24	48
21-09-25	104
21-09-26	13
21-09-27	51
21-09-28	63
21-09-29	60
21-09-30	55

21-10-01	35
21-10-02	37
21-10-03	21
21-10-04	48
21-10-05	67
21-10-06	62
21-10-07	58
21-10-08	39
21-10-09	36
21-10-10	22
21-10-11	60
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21-10-13	61
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21-10-15	50
21-10-16	42
21-10-17	15
21-10-18	54
21-10-19	60
21-10-20	68
21-10-21	44
21-10-22	60
21-10-23	103
21-10-24	34
21-10-25	66
21-10-26	52
21-10-27	64
21-10-28	71
21-10-29	64
21-10-30	23
21-10-31	21
21-11-01	48
21-11-02	59
21-11-03	97
21-11-04	52
21-11-05	49
21-11-06	28
21-11-07	38
21-11-08	45
21-11-09	84
21-11-10	89
21-11-11	101
21-11-12	67
21-11-13	79
21-11-14	34
21-11-15	68
21-11-16	64

21-11-17	79
21-11-18	73
21-11-19	73
21-11-20	64
21-11-21	64
21-11-22	79
21-11-23	81
21-11-24	40
21-11-25	33
21-11-26	78
21-11-27	101
21-11-28	49
21-11-29	75
21-11-30	63
21-12-01	184
21-12-02	48
21-12-03	65
21-12-04	145
21-12-05	141
21-12-06	75
21-12-07	146
21-12-08	151
21-12-09	155
21-12-10	159
21-12-11	94
21-12-12	41
21-12-13	107
21-12-14	171
21-12-15	153
21-12-16	227
21-12-17	1216
21-12-18	1211
21-12-19	1071
21-12-20	781
21-12-21	647
21-12-22	781
21-12-23	1077
21-12-24	886
21-12-25	831
21-12-26	1151
21-12-27	1509
21-12-28	1273
21-12-29	1581
21-12-30	1955
21-12-31	1897
22-01-01	1777
22-01-02	1402

22-01-03	617
22-01-04	665
22-01-05	488
22-01-06	530
22-01-07	711
22-01-08	1643
22-01-09	1149
22-01-10	509
22-01-11	434
22-01-12	468
22-01-13	504
22-01-14	870
22-01-15	1494
22-01-16	1355
22-01-17	1055
22-01-18	443
22-01-19	469
22-01-20	486
22-01-21	796
22-01-22	1200
22-01-23	898
22-01-24	521
22-01-25	403
22-01-26	408
22-01-27	479
22-01-28	755
22-01-29	1026
22-01-30	772
22-01-31	478
22-02-01	280
22-02-02	356
22-02-03	395
22-02-04	746
22-02-05	925
22-02-06	725
22-02-07	407
22-02-08	294
22-02-09	343
22-02-10	387
22-02-11	704
22-02-12	873
22-02-13	555
22-02-14	407
22-02-15	329
22-02-16	272
22-02-17	383
22-02-18	455

22-02-19	880
22-02-20	839
22-02-21	586
22-02-22	547
22-02-23	620
22-02-24	553
22-02-25	588
22-02-26	764
22-02-27	491
22-02-28	206
22-03-01	184
22-03-02	183
22-03-03	176
22-03-04	313
22-03-05	582
22-03-06	428
22-03-07	201
22-03-08	156
22-03-09	194
22-03-10	219
22-03-11	199