

Appendix C: Biological Resource Inventory for the Analysis Area – From the Independence Lake Timber Harvest Plan (Whitlock 2011)

Species List Identifier:

Federal

FE – Listed as Endangered under the federal Endangered Species Act.

FT – Listed as Threatened under the federal Endangered Species Act.

FPE – Petitioned for federal listing as Endangered

MNB – USFWS Migratory Nongame Birds of Management Concern

BLM – Bureau of Land Management, Sensitive Species

FS – USFS, Sensitive Species

- No federal status

State

CE – California listed, Endangered

CT – California listed, Threatened

CCR – Calif. Code of Reg. Title 14, Fully Protected Species

CFP – DF&G Code, Fully Protected Species (3511, 4700, 5050)

CSC – DF&G, Species of Special Concern

CDF – Dept. of Forestry, Sensitive Species

CRPR – California Rare Plant Rank (CRPR) designations:

1B Plants rare, threatened or endangered in California and elsewhere.

2 Plants rare, threatened or endangered in California, but more common elsewhere.

3 Plants for which more information is needed – a review list.

4 Plants of limited distribution – a watch list.

California Rare Plant Rank threat categories:

.1 Seriously endangered in California.

.2 Fairly endangered in California.

.3 Not very endangered in California.

- No state status

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Analysis of Special-Status Avian species that may occur within the Biological Assessment Area				
Scientific name Common name Status Federal/State	Habitat (Critical Period)	Analysis	Potential Impacts	Recommendation
<i>Accipiter gentilis</i> Northern Goshawk FS, MNB/CSC, CDF	Found in coniferous and aspen forest habitats; usually nests on north facing slopes, near water sources. High tree canopy closure for nest stands. Documented nesting in the Independence Lake USGS 7.5' Quadrangle (CNDDDB 2011). March 15 - August 15	Suitable habitat for nesting. Suitable habitat present for foraging.	No impact to nesting habitat. Increase in foraging habitat from marginal to moderate	Review of the site will be conducted within 10 days of the onset of operations by the RPF responsible for marking timber. If discovered, DFG will be contacted.
<i>Haliaeetus leucocephalus</i> Bald Eagle -/CE, CDF, CFP	The breeding range is mainly in mountainous habitats near reservoirs, lakes, and rivers. Large nests are normally built in the upper canopy of large trees, usually conifers. Documented nesting in the Independence Lake USGS 7.5' Quadrangle, including just southwest of Independence Lake (CNDDDB 2011). January - August	Suitable habitat for nesting. Suitable habitat present for foraging.	No impact to nesting habitat. No impact to foraging habitat.	Review of the site will be conducted within 10 days of the onset of operations by the RPF responsible for marking timber. If discovered, DFG will be contacted.

<i>Strix occidentalis</i> California Spotted Owl FS, MNB/CSC	Large old trees and snags, high basal area of trees and snags, dense canopies(>70) canopy closure, multiple canopy layers, and downed woody debris (Verner et al. 1992a). Documented nesting in the Independence Lake USGS 7.5' Quadrangle (CNDDDB 2011). March 15 – September 15	Suitable habitat for nesting. Suitable habitat present for foraging.	No impact to nesting habitat. Increase in foraging habitat from marginal to moderate.	Review of the site will be conducted within 10 days of the onset of operations by the RPF responsible for marking timber. If discovered, DFG will be contacted. To protect the 432 acres from disturbance, implement a limited operating season in so that activities do not occur between March 1 through and including August 31 Apply a limited operating period from January 1 to August 31 to avoid adverse impacts to potential breeding
<i>Strix nebulosa</i> Great Gray Owl FS/CE, CDF	Found in or near meadows. During the breeding season nesting takes place in the broken tops of snags or large conifer trees, 35 feet or more from the ground. Documented at Perazzo Meadow (CNDDDB 2011). February - September	Suitable habitat for nesting. Suitable habitat present for foraging.	No impact to nesting habitat. Increase in foraging habitat from marginal to moderate	Review of the site will be conducted within 10 days of the onset of operations by the RPF responsible for marking timber. If discovered, DFG will be contacted.
<i>Grus canadensis tabida</i> Greater Sandhill Crane -/CT	Summers and breeds in open terrain near shallow lakes or freshwater marshes; winters in plains and valleys in flooded rice fields or near bodies of fresh water. Documented in the Independence Lake USGS 7.5' Quadrangle (CNDDDB 2011).	Potentially suitable habitat for nesting. Suitable habitat present for foraging.	No impact to nesting habitat. Increase in foraging habitat from marginal to moderate	No measures required.
<i>Empidonax trailii</i> Willow Flycatcher FS/CE, CDF	Typically found in riparian areas often dominated by willow and/or alder, and permanent water in the form of low gradient watercourse, ponds, lakes and wet meadows. Documented nesting in the Independence Lake USGS 7.5' Quadrangle, including adjacent to Independence Lake (CNDDDB 2011). May - September	Suitable habitat for nesting. Suitable habitat present for foraging.	No impact to nesting or foraging habitat.	No measures required.
<i>Dendroca petechia brewsteri</i> California Yellow warbler -/CSC	Nests and forages in riparian habitats dominated by willows, cottonwoods, sycamores, or alders or in mature chaparral; in migration may also use oaks, conifers, and urban centers near stream courses	Suitable habitat for nesting. Suitable habitat present for foraging.	No impact to nesting or foraging habitat	No measures required.

Analysis of Special-Status Mammal species that may occur within the Biological Assessment Area

Scientific name Common name Status Federal/State	Habitat (Critical Period)	Analysis	Potential Impacts	Recommendation
<i>Martes pennati pacifica</i> Pacific fisher FPE, FS, BLM/CSC	Breeding, resting, and foraging habitat <u>usually consists of old-growth or late successional coniferous</u> forests with greater than 50% canopy closure (Zeiner et al. 1990b). Uses cavities in trees, snags and logs March 1 – July 31	No suitable breeding habitat, but suitable habitat may be present for foraging, however, very unlikely as most documented records south of the project area (CNDDDB 2011). Project located within the historic range.	Increase in foraging habitat from marginal to moderate	Report any sightings to CAL FIRE & DFG; Leave den sites and habitat components undisturbed, stop operations within 0.25 mile
<i>Martes Americana sierrae</i> Sierra Marten FS/CSC	Inhabits late successional forest communities throughout North America. Optimal habitats include various mixed conifer forests with more than 40% canopy. Riparian forest for foraging. Documented in the Independence Lake USGS 7.5' Quadrangle (CNDDDB 2011). March – August	Suitable habitat and documented occurrence at the adjacent Sagehen Creek Field Station (CNDDDB 2011). Project located within the historic range	Increase in foraging habitat from marginal to moderate	Report any sightings to CAL FIRE & DFG; Leave den sites and habitat components undisturbed, stop operations with .25 mile
<i>Gulo gulo luteus</i> California Wolverine FS/CT, CFP	Inhabits a variety of habitat types within an elevation range between 1,600 feet and 14,200 feet. Prefers areas of low human disturbance. Uses caves, hollows in cliffs, logs, and burrow for cover, generally in denser forest stages. Documented in the Independence Lake USGS 7.5' Quadrangle (CNDDDB 2011). Breeding: May-July Birth: January - April	Suitable habitat may be present for foraging-very unlikely but an individual has been recorded at Sagehen Creek Field Station (CNDDDB 2011).	Increase in foraging habitat from marginal to moderate	Report any sightings to CAL FIRE & DFG; Leave den sites and habitat components undisturbed, stop operations with 0.25 mile
<i>Vulpes vulpes necator</i> Sierra Nevada red fox FS/CT	Preferred habitat appears to be red fir and lodgepole pine forests in the subalpine zone and alpine fell-fields of the Sierra Nevada between 4,000 and 12,000 feet. Hunts in forest openings and meadows, and barren rocky areas. Documented in the Independence Lake USGS 7.5' Quadrangle (CNDDDB 2011). February - July	No suitable habitat, but project located within the historic range	No impact to suitable habitat	Report any sightings to CAL FIRE & DFG; Leave den sites and habitat components undisturbed, stop operations with 0 .25 mile

<i>Taxidea taxus</i> American badger -CSC	Suitable habitats include herbaceous and shrub communities and open stages of most other habitats with dry, friable soils where dens are excavated; home ranges can be up to 243 hectares	Suitable habitats include herbaceous and shrub communities and open stages of most other habitats with dry, friable soils where dens are excavated; Documented in the Independence Lake USGS 7.5' Quadrangle (CNDDDB 2011).	No impact to suitable habitat	Report any sightings to CAL FIRE & DFG; Leave den sites and habitat components undisturbed, stop operations with 0.25 mile
<i>Aplodontia rufa californica</i> Sierra Nevada mountain beaver -CSC	Moist montane and eastside riparian thickets; burrows within and under dense understory vegetation; does not build dams. Documented in the Independence Lake USGS 7.5' Quadrangle (CNDDDB 2011).	Suitable habitat and documented occurrence at the adjacent Sagehen Creek Field Station (CNDDDB 2011). Project located within the historic range	No impact to suitable habitat as all riparian zones will be avoided	Report any sightings to CAL FIRE & DFG; Leave den sites and habitat components undisturbed, stop operations with 0.25 mile
<i>Lepus americanus tahoensis</i> Sierra Nevada snowshoe hare -CSC	Found in dense thickets of conifers, riparian vegetation, or chaparral in boreal life zones. Documented in the Independence Lake USGS 7.5' Quadrangle (CNDDDB 2011).	Suitable habitat and documented occurrence at the adjacent Sagehen Creek Field Station (CNDDDB 2011). Project located within the historic range	Increase in foraging habitat from marginal to moderate	
<i>Lasiurus blossevillei</i> Western Red Bat FS/CSC	Habitat includes forests and woodlands from sea level up through mixed conifer forests. Roosts in trees, found in wooded, riparian, and edge habitats adjacent to streams, fields, or urban areas. April - August	No suitable habitat, usually found at lower elevations associated with agriculture lands.	Not applicable	As a precaution prior to felling, any tree with a hollow, or opening in the bole, the fallers will hit the tree with their falling ax to make noise.
<i>Corynorhinus townsendii</i> Townsend's big-eared bat FS, BLM/CSC	Suitable roosting sites are restricted to caves and cave-like structures such as tunnels, mines, and bridges. April - August	No suitable habitat, not usually found east of the coast range.	Not applicable	As a precaution prior to felling, any tree with a hollow, or opening in the bole, the fallers will hit the tree with their falling ax to make noise.
<i>Myotis yumanensis</i> Yuma myotis BLM/-	Suitable roosting sites are restricted to caves and cave-like structures such as tunnels, mines, and bridges. Found in open forests and woodlands and is almost always associated with water. May - July	No suitable habitat.	Not applicable	As a precaution prior to felling, any tree with a hollow, or opening in the bole, the fallers will hit the tree with their falling ax to make noise.

<i>Myotis evotis</i> Long-eared myotis BLM/-	Found in brush, woodland and forests habitats up to 9,000 feet , possibly preferring coniferous woodlands and forests, found using rock outcroppings, crevices, mines, caves, loose bark on trees and snags May - July	Suitable habitat may be present	Potential Impacts mitigated to negligible	As a precaution prior to felling, any tree with a hollow, or opening in the bole, the fallers will hit the tree with their falling ax to make noise.
			Note: Due to the sensitive nature of maternity bat roosts (potentially large numbers and non-volant young), is a maternity bat roost is discovered in a tree marker for harvest, the marked roost tree shall remain until after the critical period (June-July), when young bats are able to fly.	
<i>Euderma maculatum</i> Spotted bat BLM/ CSC	Found in brush, woodland and forests habitats. Horizontal rock crevices provide the optimal roost sites (Watkins 1977) although they may occasionally use caves and buildings as well. May - July	Suitable habitat may be present	Potential Impacts mitigated to negligible	As a precaution prior to felling, any tree with a hollow, or opening in the bole, the fallers will hit the tree with their falling ax to make noise.
			Note: Due to the sensitive nature of maternity bat roosts (potentially large numbers and non-volant young), is a maternity bat roost is discovered in a tree marker for harvest, the marked roost tree shall remain until after the critical period (June-July), when young bats are able to fly.	
<i>Eumops perotis californicus</i> California mastiff bat BLM/CSC	Roost in crevices in vertical cliffs, usually granite or consolidated sandstone, and in broken terrain with exposed rock faces. Inhabits arid and semiarid lowlands in the lower sonoran life zone. March - August	No suitable habitat.	Not applicable	No measures required
<i>Myotis thysanodes</i> Fringed myotis BLM/CSC	Found in brush, woodland and forests habitats. Suitable roosting sites are restricted to caves and cave-like structures such as tunnels, mines, and bridges. April - August	Suitable habitat may be present	Potential Impacts mitigated to negligible	As a precaution prior to felling, any tree with a hollow, or opening in the bole, the fallers will hit the tree with their falling ax to make noise.
			Note: Due to the sensitive nature of maternity bat roosts (potentially large numbers and non-volant young), is a maternity bat roost is discovered in a tree marker for harvest, the marked roost tree shall remain until after the critical period (June-July), when young bats are able to fly.	
<i>Myotis ciliolabrum</i> Small-footed myotis BLM/-	Found in arid wooded and brushy uplands near water. Suitable roosting sites are caves, buildings, mines, crevices, and occasionally under bridges and under bark. May -June	Suitable habitat may be present	Potential Impacts mitigated to negligible	As a precaution prior to felling, any tree with a hollow, or opening in the bole, the fallers will hit the tree with their falling ax to make noise.
			Note: Due to the sensitive nature of maternity bat roosts (potentially large numbers and non-volant young), is a maternity bat roost is discovered in a tree marker for harvest, the marked roost tree shall remain until after the critical period (June-July), when young bats are able to fly.	

Analysis of Special-Status Aquatic species that may occur within the Biological Assessment Area				
Scientific name Common name Status	Habitat (Critical Period)	Analysis	Potential Impacts	Recommendation
<i>Rana sierrae</i> Sierra Nevada Yellow-Legged Frog FPE, FS/CSC	Rocky streams and rivers with rocky substrate and open, sunny banks. Isolated pools, vegetated backwater, and deep, shaded, spring-fed pools. Documented in the Independence Lake USGS 7.5' Quadrangle (CNDDDB 2011). April - September	Suitable habitat in creeks tributary to Independence Lake in the project area, but these would be entirely avoided.	Not applicable	To reduce the potential of impacts to mountain yellow-legged frog (MYLF), the following mitigation is provided: Limited operating period (LOP) of August 31 to November 1st. This LOP is needed to avoid possible interference with MYLF during a time when they may move away from stream courses Nov - July.
			1. The following mitigation is provided to avoid impacts to MYLF, at all drafting sites to be used: Each year, prior to the limited operating period (Aug 31st to Nov 1st), the project area targeted for treatment will be surveyed for mountain yellow-legged frogs.	2. If MYLF is found to be present, the biologist will determine whether water drafting mitigations measures are needed. Use suction strainers with screens less than 2 mm in size. Place draft suction strainer in a bucket to avoid substrate and amphibian disturbance. Draft from deepest water source, near bottom.
<i>Oncorhynchus clarki henshawi</i> Lahontan Cutthroat Trout FT/-	A large population exists in Independence Lake, the only existing wild population (CNDDDB 2011)		No impact to suitable habitat as all riparian zones will be avoided by equipment.	No mechanical operations will occur within 150 feet miles of the lakeshore.

Analysis of Special-Status Plant species that may occur within the Biological Assessment Area

Scientific name Common name Fed./ State/ CRPR	Habitat <i>(Identification Period)</i>	Analysis/ Possibility of Occurrence	Potential Impacts	Recommendation
<i>Astragalus whitneyi</i> var. <i>lenophyllus</i> woolly-leaved milk-vetch --/--/ 4.3	In alpine boulder and rock fields within subalpine coniferous forest (rocky). July - Aug	Suitable habitat / possible	Tractor/Skidder/ work	Each year, prior to the limited operating period (Aug 31st to Nov 1st), the project area targeted for treatment will be surveyed by a Botanist.
<i>Botrychium ascendens</i> , --/--2.3 Moonwort species <i>B. crenulatum</i> , --/--2.2 <i>B. lunaria</i> , --/--2.3 <i>B. minganense</i> --/--2.2 <i>B. montanum</i> --/--2.1 <i>B. pinnatum</i> --/--2.3	Suitable habitats are mesic areas such as seeps, meadows, bogs, fens, marshes, and swamps in montane coniferous forest; may also occur in drier subalpine forest habitats at higher elevations. (Ferns may be identified (June) July-Sept (Oct))	Suitable habitat / possible	No impact to suitable habitat as all riparian zones will be avoided by equipment.	No measures required.
<i>Bulbostylis capillaris</i> thread-leaved beakseed --/--/ 4.2	Coniferous forest, and meadows and seeps; also known from grasslands. June - Aug.	Upper end of elevation range / not likely	Not applicable	No measures required.
<i>Camissonia tanacetifolia</i> ssp. <i>quadriperforata</i> Sierra Valley evening-primrose - --/--/ 4.3	In clay or sandy soil within Great Basin scrub and lower montane coniferous forest. May - July	Outside elevation range/No suitable habitat / not likely	Not applicable	No measures required.
<i>Carex davyi</i> (<i>constanceana</i>) Davy's sedge --/--/ 1B.3	Edges of meadows in lodgepole pine. May - Aug.	Suitable habitat / likely	No impact to suitable habitat as all riparian zones will be avoided by equipment.	Each year, prior to the limited operating period (Aug 31st to Nov 1st), the project area targeted for treatment will be surveyed by a Botanist.
<i>Carex geyeri</i> Geyer's sedge --/--/ 4.2	In Great Basin scrub and lower montane coniferous forest. May - Aug.	Suitable habitat / likely	Tractor/Skidder/ mastication work, slash pile and burning.	Each year, prior to the limited operating period (Aug 31st to Nov 1st), the project area targeted for treatment will be surveyed by a Botanist.
<i>Carex limosa</i> mud sedge --/--/ 2.2	Bogs and fens, meadows and seeps, marshes and swamps within montane coniferous forest. June - Aug.	Suitable habitat / possible	No impact to suitable habitat as all riparian zones will be avoided by equipment.	No measures required.
<i>Claytonia megarhiza</i> fell-fields claytonia --/--/ 2.3	Wetlands above 3,000 meters. July- Sept.	No suitable habitat / no	Not applicable	No measures required.
<i>Cryptantha glomeriflora</i> clustered-flower cryptantha --/--/ 4.3	On granitic or volcanic, sandy soils within Great Basin scrub, meadows and seeps, subalpine coniferous forest and upper montane coniferous forest. June - Sept.	Suitable habitat / possible	Tractor/Skidder/ mastication work, slash pile and burning.	Each year, prior to the limited operating period (Aug 31st to Nov 1st), the project area targeted for treatment will be surveyed by a Botanist.

<i>Cypripedium fasciculatum</i> clustered lady's-slipper --/--/4.2	Known habitat is lower or upper montane coniferous forest. Often found on cooler north facing slopes with large trees and gaps, associated with dogwood or hazelnut. Can also occur on serpentine seeps. Mar. - Aug.	Suitable habitat may be present / not likely	Tractor/Skidder/ mastication work, slash pile and burning.	Each year, prior to the limited operating period (Aug 31st to Nov 1st), the project area targeted for treatment will be surveyed by a Botanist.
<i>Cypripedium montanum</i> Mountain lady's-slipper --/--/4.2	Broad-leafed upland forest, Cismontane woodland, Lower montane coniferous forest, North Coast coniferous forest Mar - Aug	Suitable habitat may be present / not likely	Tractor/Skidder/ mastication work, slash pile and burning.	Each year, prior to the limited operating period (Aug 31st to Nov 1st), the project area targeted for treatment will be surveyed by a Botanist.
<i>Drosera anglica</i> English sundew --/--/ 2.3	Fens, bogs, wet meadows. June - Sept.	Suitable habitat / possible	No impact to suitable habitat as all riparian zones will be avoided by equipment.	No measures required.
<i>Epilobium howellii</i> subalpine fireweed --/ --/4.3	Mesic areas such as meadows and seeps and subalpine coniferous forest. July - Aug.	Suitable habitat/ likely	No impact to suitable habitat as all riparian zones will be avoided by equipment.	No measures required.
<i>Erigeron miser</i> starved daisy --/--/ 1B.3	Granite outcrops. June - Oct.	Suitable habitat / possible	Tractor/Skidder/ mastication work, slash pile and burning.	Each year, prior to the limited operating period (Aug 31st to Nov 1st), the project area targeted for treatment will be surveyed by a Botanist.
<i>Eriogonum umbellatum</i> var. <i>Torreyanum</i> Donner Pass Buckwheat --/--/ 1B.2	In gravelly or sandy sites, often on harsh exposures such as ridge tops or steep slopes. Sometimes within depressions or near seeps in volcanic or granitic soils. July - Sept.	Suitable habitat may be present / not likely	Tractor/Skidder/ mastication work, slash pile and burning.	Each year, prior to the limited operating period (Aug 31st to Nov 1st), the project area targeted for treatment will be surveyed by a Botanist.
<i>Eriophorum gracile</i> slender cottongrass --/--/ 4.3	Acidic soils in bogs, fens, meadows, seeps within upper montane coniferous forest. May - Sept.	Suitable habitat / possible	No impact to suitable habitat as all riparian zones will be avoided by equipment.	No measures required.
<i>Ivesia sericoleuca</i> Plumas ivesia --/--/ 1B.2	Meadows, vernal pools, areas with an underlying clay pan and slow drainage in the spring. Often associated with low sagebrush. May - Oct.	Suitable habitat/ likely	No impact to suitable habitat as all riparian zones will be avoided by equipment.	No measures required.
<i>Juncus hemiendytus</i> var. <i>abjectus</i> Center Basin rush --/--/ 4.3	Mesic areas such as meadows and seeps within subalpine coniferous forest. May - July	Suitable habitat / possible	No impact to suitable habitat as all riparian zones will be avoided by equipment.	No measures required.

<i>Lewisia kelloggii</i> ssp. <i>Hutchisonii</i> Hutchison's lewisia --/--/ 3.3	Suitable habitat is rocky slopes, generally with slate soils. June - Aug.	Suitable habitat / possible	Tractor/Skidder/ mastication work, slash pile and burning.	Each year, prior to the limited operating period (Aug 31st to Nov 1st), the project area targeted for treatment will be surveyed by a Botanist.
<i>Lewisia longipetala</i> long-petaled lewisia --/--/ 1B.3	Subalpine to alpine areas, boulder fields and rocky areas. July - Aug.	Suitable habitat may be present / not likely	Tractor/Skidder/ mastication work, slash pile and burning.	Each year, prior to the limited operating period (Aug 31st to Nov 1st), the project area targeted for treatment will be surveyed by a Botanist.
<i>Lupinus dalesiae</i> Quincy lupine --/--/ 4.2	Suitable habitat is openings in chaparral, cismontane woodland, and lower montane coniferous forest. May - Aug.	Suitable habitat / possible	Tractor/Skidder/ mastication work, slash pile and burning.	Each year, prior to the limited operating period (Aug 31st to Nov 1st), the project area targeted for treatment will be surveyed by a Botanist.
<i>Lycopus uniflorus</i> Bugleweed --/--/ 4.3	In bogs, fens, marshes and swamps. July - Sept.	Suitable habitat/ likely	No impact to suitable habitat as all riparian zones will be avoided by equipment.	No measures required.
<i>Meesia triquetra</i> three-ranked hump moss --/--/ 4.2	Suitable habitat is bogs, fens, seeps and similar mesic areas in subalpine and upper montane coniferous forest. n/a	Suitable habitat / possible	No impact to suitable habitat as all riparian zones will be avoided by equipment.	No measures required.
<i>Meesia uliginosa</i> broad-nerved hump moss --/--/ 2.2	In permanently wet, primarily spring fed meadows within montane coniferous forests and subalpine forests. n/a	Suitable habitat / possible	No impact to suitable habitat as all riparian zones will be avoided by equipment.	No measures required.
<i>Muhlenbergia jonesii</i> Jones' muhly --/--/ 4.3	Within montane coniferous forest. June - Aug.	Suitable habitat / possible	Tractor/Skidder/ mastication work, slash pile and burning.	Each year, prior to the limited operating period (Aug 31st to Nov 1st), the project area targeted for treatment will be surveyed by a Botanist.
<i>Piperia leptopetala</i> narrow-petaled rein orchid --/--/ 4.3	Cismontane woodland and montane coniferous forest. May - July	Suitable habitat / possible	Tractor/Skidder/ mastication work, slash pile and burning.	Each year, prior to the limited operating period (Aug 31st to Nov 1st), the project area targeted for treatment will be surveyed by a Botanist.
<i>Polystichum fremontii</i> var. <i>fremontii</i> Fremont's combleaf --/--/ 4.3	Playas, mesic areas in Great Basin scrub and lower montane coniferous forest, pinyon and juniper woodland. Apr. - July	Outside the range /not likely	Not applicable	No measures required.
<i>Polystichum kruckebergii</i> Kruckeberg's sword fern --/--/ 4.3	Rocky areas in subalpine coniferous forest and upper, montane coniferous forests. June - Aug.	Suitable habitat / possible	Tractor/Skidder/ mastication work, slash pile and burning.	Each year, prior to the limited operating period (Aug 31st to Nov 1st), the project area targeted for treatment will be surveyed by a Botanist.

<i>Pseudostellaria sierrae</i> Sierra starwort --/--/ 4.2	Habitat is chaparral, cismontane woodland, and lower and upper coniferous forest. May - Aug.	Suitable habitat / possible	Tractor/Skidder/ mastication work, slash pile and burning.	Each year, prior to the limited operating period (Aug 31st to Nov 1st), the project area targeted for treatment will be surveyed by a Botanist.
<i>Rhamnus alnifolia</i> alder buckthorn --/--/ 2.2	Within montane coniferous forest in meadows, seeps and riparian scrub May - July	Upper end of elevation range/not likely	No impact to suitable habitat as all riparian zones will be avoided by equipment.	No measures required.
<i>Scutellaria galericulata</i> marsh skullcap --/--/ 2.2	Within lower montane coniferous forest in mesic-wet areas such as meadows, seeps, marshes and swamps June - Sept.	Suitable habitat / possible	No impact to suitable habitat as all riparian zones will be avoided by equipment.	No measures required.
<i>Silene occidentalis</i> ssp. <i>occidentalis</i> Western campion --/--/ 4.3	Dry, open sites within chaparral and montane coniferous forests. June - Aug.	Suitable habitat / likely	Tractor/Skidder/ mastication work, slash pile and burning.	Each year, prior to the limited operating period (Aug 31st to Nov 1st), the project area targeted for treatment will be surveyed by a Botanist.
<i>Stellaria obtuse</i> obtuse starwort --/--/ 4.3	Mesic areas, streambanks within montane coniferous forest and riparian woodland. May - Oct.	Suitable habitat / possible	No impact to suitable habitat as all riparian zones will be avoided by equipment.	No measures required.
<i>Subularia aquatica</i> ssp. <i>americana</i> water avlwort --/--/ 4.3	Lake margins within upper montane coniferous forest. July-Sept	Suitable habitat / possible	No impact to suitable habitat as all riparian zones will be avoided by equipment.	No measures required.
<i>Trifolium andersonii</i> ssp. <i>andersonii</i> Anderson's clover --/--/ 4.3	In Great Basin scrub, lower montane coniferous forest, meadows, seeps and pinyon and juniper woodland. June-July	Outside the range /not likely	Not applicable	No measures required.
<i>Trifolium lemmonii</i> Lemmon's clover --/--/ 4.2	Suitable habitat is Great Basin scrub and lower montane coniferous forest. May-June	Outside the range /not likely	Not applicable	No measures required.
<i>Utricularia minor</i> lesser bladderwort --/--/ 4.2	In calcium-rich water within bogs, fens, marshes and swamps. July	Suitable habitat / likely	No impact to suitable habitat as all riparian zones will be avoided by equipment.	No measures required.
<i>Vaccinium coccineum</i> Siskiyou Mountains huckleberry --/--/ 3.3	Lower montane coniferous forest, Upper montane coniferous forest /often serpentinite Jun - Aug	No suitable habitat/ not likely	Not applicable	No measures required.
<i>Veronica cusickii</i> Cusick's speedwell --/--/ 4.3	In alpine boulder and rock fields, meadows and seeps within subalpine coniferous forests and upper montane coniferous forests. July - Aug	Suitable habitat / possible	Tractor/Skidder/ mastication work, slash pile and burning.	Each year, prior to the limited operating period (Aug 31st to Nov 1st), the project area targeted for treatment will be surveyed by a Botanist.

Viola tomentosa felt-leaved violet --/--/ 4.2	Suitable habitat is gravelly openings in lower, upper, and subalpine montane coniferous forest. May - Oct	Suitable habitat / possible	Tractor/Skidder/ mastication work, slash pile and burning.	Each year, prior to the limited operating period (Aug 31st to Nov 1st), the project area targeted for treatment will be surveyed by a Botanist.
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