HABITAT MANAGEMENT PROGRAM
PART 2

APPLICATION YEAR: 2023		
APPLICANT TYPE / NAME: U.S. Forest Service Example National Forest		
Is this Application supported by a HMP submitted by another Applicant? . . . . . Identify Applicant submitting HMP:_____	☐ YES	X NO
Has the Applicant previously submitted a HMP Part 2 that is currently in use in the proposed Project Area?	X YES	☐ NO

SECTION I. SUMMARY OF HMP CHANGES

Applicants must submit a complete HMP with all Tables, regardless of whether a HMP was previously submitted. Hardcopy maps may remain on file at the Division and do not need to be resubmitted if they have not changed. Submittal of all maps in an electronic format is encouraged.

Table 1 describes how the program has changed from last year. Summarize any changes including additions to the previous year's HMP.

Change From Previous Year – Describe a substantive change (e.g., new species being monitored, change in monitoring methodology) in the HMP from the previous year.

Section Where Change Occurs – List where the change is found in the HMP.

Table 1. Summary of HMP Changes

Change From Previous Year	Section Where Change Occurs
Addition of gray wolf (*Canis lupis*) to special-status species table.	Table 2
Removal of northern leopard frog (*Lithobates pipiens*) from special-status species table.	Table 2
Addition of California spotted owl (*Strix occidentalis occidentalis*), greater sandhill crane (*Antigone canadensis tabida*), northern goshawk (*Accipiter gentilis*), California red-legged frog (*Rana draytonii*), Nissenan manzanita (*Arctostaphylos nissenana*), common moonwort (*Botrychium lunaria*), clustered lady's slipper (*Cypripedium fasciculatum*), Santa Lucia dwarf rush (*Juncus luciensis*), Kellogg's lewisia (*Lewisia kelloggii* ssp. *kelloggii*), Goward's waterfan (*Peltigera gowardii)* to HMP.	Tables 2, 3, 4
Removal of Cantelow's lewisia (*Lewisia cantelovii*) from HMP.	Tables 2, 3, 4

NOTE: For all Applicants having not previously submitted a HMP that is currently in use in the proposed Project Area: Submit only Sections II-IV.

Whenever the HMP relies on a study, the HMP must clearly explain how that study applies to the specific ProjectArea.

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SECTION II. SPECIAL-STATUS SPECIES AND ANY OTHER SPECIES OF LOCAL CONCERN THAT WERE CONSIDERED FOR INCLUSION IN THE HMP

Complete Table 2 for all reviewed special-status species and any other species of local concern. List all special-status species that could occur within the Project Area of all proposed Projects with Ground Disturbing Activities. Special-status species are:

- Federally Endangered (FE)
- Federally Threatened (FT)
- Species proposed for federal listing as endangered or threatened (FPE/T)
- Federal Candidate (FC)
- United States Forest Service Sensitive Species (FSS)
- Bureau of Land Management Sensitive Species (BLMSS)
- State Endangered (SE)
- State Threatened (ST)
- Species proposed for state listing as endangered or threatened (SPE/T)
- State Candidate (SC)
- California Species of Special Concern (CSSC)
- State Fully Protected (SP)
- California Rare Plant Rank 1A-4 (CRPR)
- United States Forest Service Management Indicator Species “MIS” (FSMIS)
- Bureau of Land Management “MIS” (BLMMIS)
- Species of local concern and any other that the Grant or Cooperative Agreement Applicant has determined shall be included in the HMP (SLC)

Listing Status – Identify the list(s) that contain the identified species utilizing the acronym codes in parentheses above.

Habitat – Describe the listed species’ habitats.

Potential for Occurrence – Identify whether there is potential for the listed species to occur within the Project Area of applicable proposed Projects.

Addressed by HMP? – Indicate whether the species or habitat is addressed in the HMP. If not, explain why. If the species could potentially be affected by any Project activities, including the use directly facilitated by those activities, state YES and be sure to address the species in subsequent HMP sections. If the species could not be affected by Project activities, state NO. Include a brief explanation of the rationale for not including a particular species when the answer in the column box is NO. For example, if activities are limited to routine trail maintenance involving trail brushing, minor grading, and reinstallation of erosion control structures, those activities probably would not affect foraging special-status migratory birds.

NOTE: The Wildlife and Habitat Data Analysis Branch of the California Department of Fish and Wildlife (CDFW) produces complete lists of “special” plants and animals, which are updated as part of the California Natural Diversity Data Base (CNDDB). Subscribers to CNDDB receive the list data as part of their subscription. The lists can also be obtained from the CDFW website at: http://www.wildlife.ca.gov. Other useful California species lists can also be found at this website.

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Table 2. Table of All Special-Status Species and Any Other Species of Local Concern That Were Considered for Inclusion in the HMP

Species	Listing Status[1]	Habitat	Potential for Occurrence[2]	Addressed by HMP? If not, explain why?[3]
Invertebrates				
Western bumblebee (*Bombus occidentalis*)	FSS, SC	Meadows and other open habitats with flowering plants used for foraging.	Six records known from the Forest prior to 2000. One detection in a meadow in 2017; not detected in 2017-2020 meadow surveys.	No. Project activities and OHV recreation will not affect suitable meadow or open habitat required for western bumblebee. Recent surveys in suitable habitat within Project Area have not detected the species.
Monarch butterfly (*Danaus plexippus*)	FC	Found in wide variety of habitat types but reproduction is dependent on the presence of milkweed, the sole food source of larvae.	Suitable habitat and known occurrences in the Forest. Population of the western monarch has been declining over the past 30-40 years, including in the Sierras, based on long-term monitoring programs. Seasonal migrant.	No. Project activities and OHV recreation will not affect suitable habitat with milkweed for Monarch butterfly. The closest known occurrence of Monarch butterfly is over three miles from the Project Area.
California floater mussel (*Anodonta californiensis*)	FSS	Lakes and slow rivers, on soft substrates	Reported to occur in a lake on private land near the Forest, but location is an unconfirmed historic sighting from the 1950s.	No. While the Project Area does contain suitable habitat for California floater mussel, surveys in suitable habitat within Project Area have not detected the species. The closest known occurrence of California floater mussel is over five miles from the Project Area.
Great Basin rams-horn snail (*Helisoma newberryi*)	FSS	Large lakes and slow rivers	Suitable habitat occurs within slow segments of a river in the Forest and its tributaries.	No. While the Project Area does contain suitable habitat for Great Basin rams-horn snail, surveys in suitable habitat within Project Area have not detected the species. The closest known occurrence of this snail is over four miles from the Project Area.
Black juga (*Juga nigrina*)	FSS	Rivers and streams.	Suitable habitat occurs in the Forest. There was a recent discovery in a river within in the Forest.	No. While the Project Area does contain suitable habitat for Black juga, surveys in suitable habitat within Project Area have not detected the species. The closest known occurrence of black juga is over three miles from the Project Area.
Fish				
Hardhead (*Mylopharodon cynocephalus*)	FSS	Low to mid-elevation streams (up to 4,390 ft.) in the main Sacramento-San Joaquin drainage.	Occurs in the Forest in large stream systems below 4,390 feet elevation.	No. Project activities and OHV recreation will not affect suitable low-mid elevation stream habitat for hardhead. The nearest suitable habitat and known occurrences for hardhead are over one mile from the Project Area.

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Species	Listing Status[1]	Habitat	Potential for Occurrence[2]	Addressed by HMP? If not, explain why?[3]
Lahontan cutthroat trout (*Oncorhynchus clarki henshawi*)	FT	Habitat is found in a few isolated tributaries, primarily on the east side of the Forest.	Currently occupied habitat includes several creeks within the Forest	Yes
Lahontan Lake tui chub (*Siphateles bicolor pectinifer*)	FSS	Reservoirs and rivers in the Forest are potential habitat for this species.	Lake Tahoe population is the only confirmed population in the Sierra Nevada.	No. While the Project Area does contain suitable habitat for Lahontan Lake tui chub, surveys in suitable habitat within the Project Area have not detected the species. The nearest known occurrence is over two miles from the Project Area.
Amphibians & Reptiles				
California red-legged frog (CRLF) (*Rana draytonii*)	FT, CSSC	Breeds in a variety of aquatic/riparian habitats (streams, deep pools, backwater areas, ponds, and marshes) below 5,000 ft.	Suitable habitat is found below 5,200 feet but currently the only known breeding sites are on adjacent private land. There have been recent incidental observations on Forest land near this area. In 2021, the Forest constructed 18 new wetlands within 1 mile of the known population.	Yes
Foothill yellow-legged frog (*Rana boylii*)	FSS, ST	Rocky perennial streams and rivers in a variety of habitats below 6,000 ft.	Suitable habitat and known occurrences below 6,000 feet elevation and are found on the west side of the Forest.	Yes
Sierra Nevada yellow-legged frog *(Rana sierrae*)	FE, ST	Streams, lakes, ponds, and meadow wetlands at high elevations (> 5,000 feet).	Suitable habitat and known occurrences are found above 4,500 feet elevation.	Yes
Sierran treefrog (*Pseudacris sierra*)	FSMIS	Wet meadows	Common species occurs in a variety of habitats across the Forest at all elevations.	Yes
Western pond turtle (*Emys marmorata*)	FSS, CSSC	Permanent ponds, lakes, streams, irrigation ditches or permanent pools along intermittent streams below 6,000 ft.	Suitable habitat and known occurrences below 6,000 feet elevation are found in the Forest.	Yes
Birds				
American peregrine falcon (*Falco peregrinus anatum*)	SP	Uses vertical cliff habitat with large potholes or ledges for nesting.	Suitable nesting habitat occurs in the Forest. Nesting sites have been documented.	No. Project activities and OHV recreation do not occur on or near vertical cliffs and will not affect suitable nesting habitat for peregrine falcon. The nearest known nesting site for peregrine falcon is over five miles from the Project Area.

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Species	Listing Status[1]	Habitat	Potential for Occurrence[2]	Addressed by HMP? If not, explain why?[3]
American white pelican (*Pelecanus erythrorhynchos*)	CSSC	Nests in reservoirs and lakes.	Known occurrences in the Forest. Also known to occur on private land nearby.	No. Project activities and OHV recreation do not occur in or near reservoirs or lakes and will not affect suitable habitat for American white pelican. The nearest known nesting site for American white pelican is over two miles from the Project Area.
Bald eagle (*Haliaeetus leucocephalus*)	FSS, SE	Nests in conifer forest near large bodies of water (reservoirs). Nest tree is usually a ponderosa pine.	Known bald eagle nesting occurs in the Forest.	Yes
Black swift (*Cypseloides niger*)	CSSC	Nests on steep, rocky cliffs located behind or adjacent to waterfalls in deep canyons.	Potential habitat occurs along rivers within the Forest.	No. Project activities and OHV recreation do not occur on or near steep, rocky cliffs and will not affect suitable nesting habitat for black swift. The nearest known nesting site for black swift is over five miles from the Project Area.
California spotted owl (*Strix occidentalis occidentalis*)	FSS, CSSC	Mature and late-successional coniferous forests	California spotted owls occur Forest-wide and Protected Activity Centers overlap with OHV routes.	Yes
Golden eagle (*Aquila chrysaetos*)	SP	Nests on cliffs in rugged, open habitats with canyons and escarpments.	Suitable habitat occurs in the Forest along river drainages.	No. Project activities and OHV recreation do not occur within close proximity to suitable nesting habitat for golden eagle due to limited vehicular access to steep canyons. The nearest known nesting site for golden eagle is over two miles from the Project Area.
Great gray owl (*Strix nebulosa*)	FSS, SE	Typically known to nest in large broken top snags within coniferous forest in association with large meadows (usually > 20 acres). However, a west-side nest site is located in conifer-hardwood forests, not associated with a large meadow system.	A known nest site occurs in the Forest, but it is inaccessible to the public. Incidental sightings have been reported in other areas of the Forest, but nesting has not been confirmed.	No. While surveys have identified one known nesting site within the Forest, the nest site is inaccessible to project activities and OHV routes are not located within one mile of the site. As a result, impacts are not anticipated to this species.
Greater sandhill crane (*Antigone canadensis tabida*)	FSS, ST	Breeds in wet meadow, shallow lacustrine, and fresh emergent wetland habitat.	Known breeding sites in valleys and meadows in the Forest.	Yes
Northern goshawk (*Accipiter gentilis*)	FSS, CSSC	Breeds in mature and late-successional coniferous forests	Breeding territories are located across the Forest.	Yes

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Species	Listing Status[1]	Habitat	Potential for Occurrence[2]	Addressed by HMP? If not, explain why?[3]
Willow flycatcher (*Empidonax traillii*)	FSS, SE	Willow or other riparian shrub habitat associated with large, wet meadows.	Several breeding sites occur in the Forest within suitable habitat.	Yes
Mammals				
Fringed myotis (*Myotis thysanodes*)	FSS	Open habitats that have nearby dry forests and an open water source. From sea level to 6,500 feet in elevation in pinyon-juniper, valley foothill hardwood and hardwood-conifers. Usually roosts in rock crevices and caves.	Habitat for this species occurs in the Forest.	No. Project activities and OHV recreation do not occur in or near rock crevices and caves and will not affect suitable roosting habitat for fringed myotis and will not likely affect individuals.
Gray wolf (*Canis lupus*)	FE, SE	Highly variable in habitat requirements. Requires large home range with variety of prey species including large ungulates.	A wolf pack is located within a portion of the Forest. Species is unlikely to occur within the Project Area except as a transient. Denning has not been confirmed for this pack as of 2022, and no individuals have been sighted in the vicinity in 2022. Gray wolves in CA are rare, with only 3 known packs within the state based on regular monitoring conducted by the California Department of Fish and Wildlife (CDFW).	No. Current CDFW monitoring of wolves (including observations and GPS locations of collared wolves) show only occasional forays into or through the Project Area. There are no known den sites within the Project Area, and there have been no sightings of individuals in the Project Area in 2022. Project activities and OHV recreation will not affect suitable habitat for gray wolf and will not likely affect individuals.
North American wolverine (*Gulo gulo luscus*)	FC, FSS, ST	No specific vegetation or geological habitat requirements; selects areas that are cold and receive enough winter precipitation to reliably maintain deep persistent snow late into the warm season.	A single male wolverine was detected in the Forest between 2008-2018. Recent surveys indicate the wolverine is still in the vicinity and has been documented over a 200-square mile area. Species is unlikely to occur within the Project Area except as a transient.	No. Current monitoring for wolverine indicates only occasional forays into or through the Project Area by one single male. There are no known den sites in the Project Area. Project activities and OHV recreation will not affect suitable habitat for wolverine and will not likely affect individuals.
Pacific fisher, Northern California-Southern Oregon distinct population segment (*Pekania pennanti*)	FSS, ST (Note: Southern Sierra Nevada distinct population segment is FE)	Denning habitat: mixed coniferous forests with 60-100% canopy cover, within close proximity to dense riparian corridors.	Known populations occur in the Klamath region and the southern Sierra Nevada mountains. Habitat present but no known individuals.	No. Project Area is outside the range of the species according to US Fish and Wildlife Service. Regular monitoring by CDFW has not detected this species in the Forest.

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Pacific marten (*Martes caurina*)	FSS	Denning habitat: mixed coniferous forests with 60-100% canopy cover.	Species is well-distributed across the Forest within higher-elevation suitable habitat.	No. Project activities and OHV recreation will not affect suitable dense forest habitat for Pacific marten and will not likely affect individuals. In addition, studies in California have shown that OHV activity has no effect on marten occurrence, circadian activity, or sex ratio (Zielinski et al. 2008).
Pallid bat (*Antrozous pallidus*)	FSS, CSSC	Uses a variety of habitats, most common in open, dry habitats that contain rocky areas for roosting. Roosts in shallow caves, crevices, mines, and occasionally in hollow tree cavities of large snags and in buildings.	Suitable habitat for this species is distributed across the Forest.	No. Project activities and OHV recreation will not affect suitable cave, crevice, mine, or tree cavity roosting habitat for pallid bat and will not likely affect individuals.
Townsend's big-eared bat (*Corynorhinus townsendii*)	FSS, CSSC	Roosts in caves, abandoned mines, and buildings.	Known maternal roosts occur in certain sites within the Forest. There are no OHV trails near these sites.	No. Project activities and OHV recreation will not affect suitable cave, mine, or building roosting habitat for Townsend's big-eared bat and will not likely affect individuals. OHV routes are not located within close proximity to known roost sites.
Western red bat (*Lasiurus blossevillii*)	CSSC	Generally, found in oak woodlands below 3,000 feet	OHV trails in the Forest are generally located above 3,000 feet.	No. Project activities do not occur at lower elevations and will not affect suitable oak woodland habitat for western red bat and will not likely affect individuals.
Plants and Fungi				
Nissenan manzanita *(Arctostaphylos nissenana*)	FSS, CRPR 1B.2	1,400-5,400 ft; Placer-El Dorado counties; Open, rocky shale ridges, chaparral. Often growing with knobcone and grey pine.	Only one occurrence known in the Forest within a river drainage.	Yes
Lemmon's milkvetch (*Astragalus lemmonii*)	FSS, CRPR 1B.2	Moist alkaline meadows or lakeshores from 4,200-9,500 ft elev.	No known occurrence in the Forest. One known location on private land.	No. While the Project Area does contain suitable meadow and lakeshore habitat for Lemmon's milkvetch, surveys in suitable habitat within Project Area have not detected the species. The nearest known occurrence of this species is over one mile from the Project Area.

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Species	Listing Status[1]	Habitat	Potential for Occurrence[2]	Addressed by HMP? If not, explain why?[3]
Webber's milkvetch (*Astragalus webberi*)	FSS, CRPR 1B.2	Coniferous forests, 2,700-4,000 ft elev.	Suitable habitat for this species occurs on the east side of the Forest. It is only known from two National Forests, BLM land, and private land.	No. While the Project Area does contain suitable coniferous forest habitat for Webber's milkvetch, surveys in suitable habitat within project area have not detected the species. The nearest known occurrence of this species is over two miles from the Project Area.
Upswept moonwort (*Botrychium ascendens*)	FSS, CRPR 2B.3	Moist and riparian areas (seeps, meadows, and forested areas near streams) above 4,000 ft elev.	Known occurrences in the Forest.	Yes
Scalloped moonwort (*Botrychium crenulatum*)	FSS, CRPR 2B.2	Moist and riparian areas (seeps, meadows, and forested areas near streams) above 4,000 ft elev.	Known occurrences in the Forest.	Yes
Common moonwort (*Botrychium lunaria*)	FSS, CRPR 2B.3	Moist and riparian areas (seeps, meadows, and forested areas near streams) above 4,000 ft elev.	Undetermined in the Forest; there is one historic occurrence.	Yes
Mingan moonwort (*Botrychium minganense*)	FSS, CRPR 2B.2	Moist and riparian areas (seeps, meadows, and forested areas near streams) above 4,000 ft elev.	Known occurrences in the Forest.	Yes
Western goblin (*Botrychium montanum*)	FSS, CRPR 2B.1	Moist and riparian areas (seeps, meadows, and forested areas near streams) above 4,000 ft elev.	Suitable habitat occurs in the Forest.	No. While the Project Area does contain suitable meadow and forest habitat for Western goblin, surveys in suitable habitat within Project Area have not detected the species. The nearest known occurrence of this species is over two miles from the Project Area.
Bolander's candle moss (*Bruchia bolanderi*)	FSS, CRPR 2.2	Meadows and seeps along streambanks within montane coniferous forests, 5,000-8,000 ft elev.	Known occurrences in the Forest.	Yes
Large cudonia (*Cudonia monticola*)	FSS	Litter and decaying wood	Occurs in the Forest near a campground.	No. Project activities and OHV recreation will not affect suitable litter and decaying wood microhabitat required by large cudonia and will not likely affect individuals.
Clustered lady's slipper (*Cypripedium fasciculatum*)	FSS, CRPR 4.2	Moist mixed conifer, 500-7,200 ft elev.	Known occurrences in the Forest.	Yes

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Species	Listing Status[1]	Habitat	Potential for Occurrence[2]	Addressed by HMP? If not, explain why?[3]
Mountain lady's slipper (*Cypripedium montanum*)	FSS, CRPR 4.2	Openings in forested areas, below 7,000 ft elev.	Potential habitat exists in the Forest.	No. While the Project Area does contain suitable forest habitat for Mountain lady's slipper, surveys in suitable habitat within Project Area have not detected the species. The nearest known occurrence of this species is over four miles from the Project Area.
Branched collybia (*Dendrocollybia racemosa*)	FSS	Grows on decaying wood in mixed conifer forests	There are known recent occurrences in the Forest.	No. Project activities and OHV recreation will not affect suitable decaying wood microhabitat required for branched collybia. The nearest known occurrence of this species is over one mile from OHV trails and facilities.
Butte County fritillary (*Fritillaria eastwoodiae*)	FSS, CRPR 3.2	Dry slopes in chaparral, foothill woodland, and conifer forests; 100-5,000 ft elev.	Known occurrences located in the Forest.	Yes
Blandow's bogmoss (*Helodium blandowii*)	FSS, CRPR 2B.3	Wet meadows and seeps in subalpine coniferous forest and alpine lakes.	Nearest known location is in a neighboring National Forest.	No. While the Project Area does contain suitable meadow and forest habitat for Blandow's bogmoss, surveys in suitable habitat within Project Area have not detected the species. The nearest known occurrence of this species is over two miles from the Project Area.
Sierra Valley ivesia (*Ivesia aperta* var. *aperta*)	FSS, CRPR 1B.2	Great Basin scrub, coniferous forests, meadows and seeps, pinyon-juniper woodland, vernal pools, 4,000-7,500 ft elev.	Within suitable habitat, has been found along roads in the Forest.	Yes
Dog Valley ivesia (*Ivesia aperta* var. *canina*)	FSS, CRPR 1B.1	Openings of lower montane coniferous forest, meadows and seeps (xeric)/volcanic, rocky; elevation 5,000-7,000 ft elev.	Suitable habitat for this species on the east side of the Forest. Species is only known to occur in a valley in a neighboring National Forest.	No. While the Project Area does contain suitable meadow, forest, and seep habitat for Dog Valley ivesia, surveys in suitable habitat within Project Area have not detected the species. The nearest known occurrence of this species is over four miles from the Project Area.
Plumas ivesia (*Ivesia sericoleuca*)	FSS, CRPR 1B.2	Great Basin scrub, lower montane coniferous forest, meadows and seeps, vernal pools/vernally mesic, usually volcanic; 4,600-7,500 ft elev.	Many locations on the eastside of the Forest, including several occurrences along roads and motorized trails.	Yes

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Species	Listing Status[1]	Habitat	Potential for Occurrence[2]	Addressed by HMP? If not, explain why?[3]
Santa Lucia dwarf rush (*Juncus luciensis*)	FSS, CRPR 1B.2	Occupies wet, sandy soils of seeps, meadows, vernal pools, streams, and roadsides at elevations between 984-6,692 ft elev.	Two occurrences are known from the project county, one in the Forest and one on private land.	Yes
Cantelow's lewisia (*Lewisia cantelovii*)	FSS, CRPR 1B.2	Wet metamorphic rock cliffs and outcrops, moist granite cliffs, usually in moss or club moss; 1,300-5,000 ft elev.	Occurrences are found in the Forest in river drainages.	No. Project activities and OHV recreation do not occur on or near steep rock-faces and will not affect suitable habitat for Cantelow's lewisia. The nearest known occurrence of this species is a half a mile from the nearest OHV trail or facility.
Hutchison's lewisia (*Lewisia kelloggii* ssp. *hutchisonii*)	FSS, CRPR 3.2	Ridgetops or relatively flat open areas; generally full sun; gravelly soils; 4,800-7,000 ft elev.	There are known occurrences in the Forest.	Yes
Kellogg's lewisia (*Lewisia kelloggii* ssp. *kelloggii*)	FSS, CRPR 3.2	Ridgetops or relatively flat open areas; generally full sun; gravelly or sandy soils; above 6,500 ft elev in the Forest.	There are known occurrences in the Forest.	Yes
Long-petaled lewisia (*Lewisia longipetala*)	FSS, CRPR 1B.3	Alpine ridgetops in damp gravel along alpine benches; 8,300-9,500 ft elev.	Limited distribution above treeline on north and northeast slopes near mountain peaks in the Forest.	No. Project activities and OHV recreation do not occur within alpine ridgetop and bench habitat required by long-petaled lewisia. The nearest known occurrence of this species is over one mile from the nearest OHV trail or facility.
Saw-toothed lewisia (*Lewisia serrata*)	FSS, CRPR 1B.1	Known only from American River drainage; wet rock cliffs & outcrops; usually with moss; 3,000-5,000 ft elev.	Within the Forest, this species is limited to steep north-facing slopes near a river.	No. Project activities and OHV recreation do not occur on or near steep rock-faces and will not affect suitable cliff habitat for saw-toothed lewisia. The nearest known occurrence of this species is over two miles from the nearest OHV trial or facility.
Broad-nerved hump moss (*Meesia uliginosa*)	FSS, CRPR 2B.2	Usually found in bogs or fens, but also very wet meadows; above 6,000 ft elev in the Forest.	Species is found in fens/peatlands.	Yes
Elongate copper moss (*Mielichhoferia elongata*)	FSS, CRPR 2B.2	Moist to wet rock cliffs/outcrops with soils of copper or heavy metals; below 3,500 ft elev.	Suitable habitat occurs on the west side of the Forest.	No. Project activities and OHV recreation do not occur on or near rock cliffs/outcrops and will not affect suitable habitat for elongate copper moss. The nearest known occurrence of this species is over five miles from the Project Area.

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Follett's monardella (*Monardella follettii*)	FSS, CRPR 1B.2	Serpentine soils; partial to full sun; conifer forest edges/openings; known only from Plumas County; 2,500-5,600 ft elev.	Suitable habitat occurs on the west side of the Forest.	No. While the Project Area does contain suitable serpentine habitat for Follett's monardella, surveys in suitable habitat within project area have not detected the species. The nearest known occurrence of this species is over one mile from the Project Area.
Layne's butterweed (*Packera layneae*)	FT, CRPR 1B.2	Ultramafic soils (gabbro & serpentine); chaparral, conifer forest or woodland edges/openings; Tuolumne and Nevada counties; 650-3,600 ft elev.	There are known occurrences in the Forest.	Yes
Goward's waterfan (*Peltigera gowardii)*	FSS, CRPR 4.2	Cold, clear, unpolluted streams; often found on rocks in cascades; 1,150-7,000 ft elev.	There are known occurrences in the Forest.	Yes
Closed-throated beardtongue (*Penstemon personatus*)	FSS, CRPR 1B.2	Partial sun; north aspects; conifer forest edges/openings; Plumas and north Nevada counties;4,500-6,500 ft elev.	Habitat for this species is found next to cascading streams in the Forest. There are known occurrences in the Forest.	No. Project activities and OHV recreation do not occur within or near cascading streams and will not affect suitable habitat for closed-throated beardtongue. The nearest known occurrence of this species is over one mile from the nearest OHV trail or facility.
Stebbins' phacelia (*Phacelia stebbinsii*)	FSS, CRPR 1B.2	Generally in rocky openings/outcrops, but also woodland or conifer forest edges/openings; known only in Rubicon and American River drainages, partial to full sun; 2,000-6,700 ft elev.	There are known occurrences in the Forest within a river drainage system.	Yes
Olive phaeocollybia (*Phaeocollybia olivacea)*	FSS	On roots of Douglas-fir and Tanoak; usually within old growth conifer or conifer-hardwood forests; Yuba County & north; no elevation restriction.	There are known occurrences in the Forest in the vicinity of a reservoir.	No. Project activities and OHV recreation will not affect suitable old growth forest root microhabitat required for olive phaeocollybia. The reservoir where this species occurs is a quarter mile from the nearest OHV trail or facility.

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Whitebark pine (*Pinus albicaulis)*	FPT, FSS	Subalpine and at timberline on rocky, well-drained soils; above 6,500 ft elev in the Forest.	Known from high-elevation habitats in the Forest.	No. Project activity and OHV recreation will not take place within suitable high elevation subalpine and timberline rocky habitat required by Whitebark pine. The nearest known occurrence of this species is about one mile from the nearest OHV trail or facility.
Sierra blue grass (*Poa sierrae*)	FSS, CRPR 1B.3	Shady moist slopes; conifer forest edges/openings; 1,000-5,500 ft elev.	There are known occurrences in the Forest.	Yes
Sticky pyrrocoma (*Pyrrocoma lucida*)	FSS, CRPR 1B.2	Vernally wet meadows & alkali flats; east of Sierra crest; known only from Plumas and Sierra counties; 4,500-6,000 ft elev in the Forest.	There are known occurrences in the Forest along roads and motorized trails.	Yes
Stalked orange peel-fungus (*Sowerbyella rhenana*)	FSS	In duff; wet mossy areas; usually within old growth conifer forests; no elevation restriction.	Suitable habitat occurs in the west side of the Forest.	No. While the Project Area does contain suitable duff, wet mossy habitat for stalked orange peel-fungus, surveys in suitable habitat within Project Area have not detected the species. The nearest known occurrence of this species is over two miles from the Project Area.
Howell's tauschia (*Tauschia howellii*)	FSS, CRPR 1B.3	Xeric ridge summits and slopes; decomposed granite gravel or sand; red fir & subalpine forest edges/openings; 5,500-8,500 ft elev.	There are known occurrences in the Forest.	No. Project activities and OHV recreation do not occur within the summit and slope habitat required by Howell's tauschia. The nearest known occurrence of this species is over one mile from the nearest OHV trail or facility.

[1]Listing Status Key:

FE	Federally Endangered
FT	Federally Threatened
FPE/T	Species proposed for federal listing as endangered or threatened
FC	Federal Candidate
FSS	USFS Sensitive Species
BLMSS	BLM Sensitive Species
SE	State Endangered
ST	State Threatened
SPE/T	Species proposed for state listing as endangered or threatened
SC	State Candidate
CSSC	California Species of Special Concern
SP	State Fully Protected
CRPR	California Rare Plant Rank 1A-4
FSMIS	USFS Management Indicator Species
BLMMIS	BLM Management Indicator Species
SLC	Species of Local Concern and any other the Applicant has determined shall be included in the HMP

[2]Potential for occurrence could be based upon presence or absence of suitable habitat, incidental observations, and/or survey results.

[3]Examples of reasons to exclude species from the HMP include:

- surveys have shown that the species' habitat does not occur in or near any OHV Recreation area
- potential habitat exists, but surveys to protocol have not detected the species
- there is no overlap in time between OHV Recreation and species occurrence (or sensitivity such as nesting)
- risk factors—there are no known risk factors for the species that are related to OHV Recreation (examples of risk factors for species include turbidity, sedimentation of spawning gravels for fish, increase in water temperature [for fish and amphibians], loss of snags [for cavity nesters], elimination/disturbance of hollow logs as denning sites [for fur bearers])
- the species has not been seen in the area in a long time (e.g., since 1952)

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SECTION III. MAP(S) OF PROJECT AREA WITH SPECIES AND/OR HABITAT ADDRESSED BY THE HMP

Applicants must include maps for all species and/or habitats addressed in the HMP (i.e., where YES is the answer to the question in the fifth column of Table 2). The map(s) should illustrate the spatial relationship between special-status species, Project activities, and OHV Recreation. If the Applicant does not include a map showing each species and/or habitat as described above, provide an explanation for the omission (e.g., lack of funds, mapping next year). Maps must include the following:

1. Identification of Project activities and OHV Recreation within the Application Project Area (e.g., Roads, trails, and areas open for OHV Recreation) and the location of special-status species and/or their habitats. If specific features (e.g., streams, specific campgrounds) are discussed in the HMP, they shall be shown on the maps. *Detailed location information that might jeopardize special-status species does not need to be included. The Applicant may use circles or other symbols to indicate relative locations.*

2. Include a north arrow and scale. Reference all maps to a vicinity map of the OHV area or otherwise clearly indicate the location of the area mapped.

3. Use the same common/scientific names on the map as are used in Table 2.

4. Attach all relevant maps to the HMP. Maps must be in an electronic format, such as JPEG or PDF files.

SECTION IV. MANAGEMENT/MONITORING PROGRAM BY SPECIES AND SENSITIVE HABITAT

Complete Tables 3, 4, and 5 to provide a description of the data, management program, monitoring program, and management review and response process for the species/habitats marked YES in Table 2. Address the information in all three tables for each species, related group of species, or habitat.

Table 3: Data (Including Baseline Data) and Management Program for Species and/or Sensitive Habitats

Complete Table 3 for each species and habitat marked YES in Table 2. Each column must be filled out for each species/habitat.

Species/Habitat – List all species/habitats marked YES in Table 2. Similar species/habitats may be grouped, but all species/habitats marked YES in Table 2 must be clearly addressed.

Known Information – Summarize relevant information known about each species and/or sensitive habitat (e.g., general location, population size, and use of the area as breeding and foraging).

Methodology – Summarize methodology used to obtain known information, including protocols and frequency/intensity of effort.

Concerns/Risks/Uncertainties – Explain how OHV Recreation may be affecting the species or habitat. Describe the concerns and risks (e.g., loss of salmon spawning habitat and riparian vegetation at stream crossings) related to OHV management and describe any uncertainties about potential effects (e.g., dust from OHV Recreation may negatively affect the spawning habitat but the impact, if any is unknown). The concerns/risks drive the management program.

Management Objective(s) – List all management objectives(s) (e.g., keep sediment out of the stream; maintain riparian vegetation at stream crossings) that have been developed to address the identified concern/risk(s) and any identified uncertainties.

Management Action(s) – List all proposed or ongoing management actions (e.g., harden stream crossings; install fence to keep OHVs on designated trails) to meet the objective(s).

Success Criteria – List the success criteria (e.g., no additional sediment in the spawning gravels; no loss of riparian vegetation at stream crossings) that will be used to gauge the effectiveness of each management action.

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Table 3. Data (Including Baseline Data) and Management Program for Species and/or Sensitive Habitats

Species/ Habitat	**Known Information**	**Methodology**(Used to obtain Known Information)	**Concerns/Risks/ Uncertainties**	**Management Objective(s)** (Related to Concerns/Risks/ Uncertainties)	**Management Action(s)** (to meet Management Objectives)	**Success Criteria** (to measure results of Management Actions)
Lahontan cutthroat trout	A road in the Forest is within close proximity to known Lahontan cutthroat trout habitat within a creek.	Annually monitor creek to confirm continued presence of Lahontan cutthroat trout.	Project activities and/or OHV recreation in Lahontan cutthroat trout habitat can degrade habitat by altering streambanks, changing hydrology, increasing sedimentation, and reducing breeding productivity of Lahontan cutthroat trout.	Prevent habitat degradation (i.e. sedimentation) and loss of individuals from OHV recreation.	Implement Best Management Practices (BMPs) to reduce sedimentatio n and erosion of banks along Lahontan cutthroat trout habitat; install barriers where needed.	There is no degradation of water quality or loss/damage to Lahontan cutthroat trout habitat from project activities and/or OHV recreation.
California red-legged frog (CRLF)	Known population of California red-legged frog occurs within 2 miles of a trail which allows singletrack motorcycles.	Protocol level surveys on nearby privately-owned land has confirmed breeding activity. Additionally in 2019, incidental observation confirmed the presence of CRLF in the Forest near the private land.	While CRLF are generally found in or near water, individual frogs may make overland excursions through upland habitats during the wet season. These movements may be one mile (and occasionally up to 2 miles) from permanent or seasonal aquatic habitats which overlaps an OHV trail. Potential for direct mortality and/or injury to individuals and egg masses.	Prevent habitat degradation (i.e. sedimentation) and loss of frogs from project activities and/or OHV recreation.	Implement the OHV wet weather open/close system based on soil moisture. Close trails during the wet weather period.	There is no degradation of water quality or loss/damage to suitable habitat and no injury or mortality to individuals or egg masses from project activities and/or OHV recreation.

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Species/ Habitat	**Known Information**	**Methodology**(Used to obtain Known Information)	**Concerns/Risks/ Uncertainties**	**Management Objective(s)** (Related to Concerns/Risks/ Uncertainties)	**Management Action(s)** (to meet Management Objectives)	**Success Criteria** (to measure results of Management Actions)
Foothill yellow-legged frog	Foothill yellow-legged frogs occur in the Forest within two river drainages within close proximity to OHV routes.	Annual surveys of suitable frog habitat. Using GIS, overlay known locations of known frog locations with OHV routes.	OHV travel through creeks/lakes can degrade frog habitat by altering streambanks, change hydrology, and increase sedimentation and kill eggs or tadpoles if present. Potential for direct mortality or injury to adult individuals.	Prevent habitat degradation (i.e. sedimentation) and loss of frogs from OHV activities.	Implement Best Management Practices (BMPs) to harden stream crossings or reduce loose soils; install barriers where needed.	There is no degradation of water quality or loss/damage to stream channel hydrology and no injury or mortality to individuals or egg masses from OHV recreation and/or project activities.
Sierra Nevada yellow-legged frog	OHV routes are within close proximity to known frog sites.	Annual surveys of suitable frog habitat. Using GIS, overlay known locations of known frog locations with OHV routes.	Project activities or OHV recreation near creeks/lakes can degrade frog habitat by altering streambanks, changing hydrology, and increasing sedimentation; or can cause mortality or injury to eggs, tadpoles, or adults if present.	Prevent habitat degradation (i.e. sedimentation) and loss of frogs from project activities and/or OHV recreation.	Implement Best Management Practices (BMPs) to harden stream crossings or reduce loose soils; install barriers where needed.	There is no degradation of water quality or loss/damage to stream channel hydrology and there is no injury or mortality to individuals or egg masses from project activities and/or OHV recreation.
Sierran treefrog	OHV routes are within close proximity to known frog sites or suitable meadow habitat.	Annual surveys of suitable frog habitat. Using GIS, overlay known locations of frogs with OHV routes.	Project activities and/or OHV recreation through creeks/lakes can degrade Sierran treefrog habitat by altering streambanks, changing hydrology, and increasing sedimentation; or can cause mortality or injury to eggs, tadpoles, or adults if present.	Prevent habitat degradation (i.e. sedimentation) and loss of frogs from project activities and/or OHV recreation.	Implement Best Management Practices (BMPs) to harden stream crossings or reduce loose soils; install barriers where needed.	There is no degradation of water quality or loss/damage to meadow or riparian habitat and no injury or mortality to individuals and egg masses from project activities and/or OHV recreation.

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Species/ Habitat	**Known Information**	**Methodology**(Used to obtain Known Information)	**Concerns/Risks/ Uncertainties**	**Management Objective(s)** (Related to Concerns/Risks/ Uncertainties)	**Management Action(s)** (to meet Management Objectives)	**Success Criteria** (to measure results of Management Actions)
Western Pond turtle	OHV routes are within close proximity of known pond turtle habitat/sites.	Annual surveys of suitable turtle habitat. Using GIS, overlay known locations of turtles with OHV routes.	Project activities and/or OHV recreation in pond turtle habitat can degrade habitat by altering streambanks, changing hydrology, and increasing sedimentation; or can cause mortality or injury to eggs or adults if present.	Prevent habitat degradation (i.e. sedimentation) and loss of turtles from project activities and/or OHV recreation.	Implement Best Management Practices (BMPs) to reduce sedimentatio n and erosion of banks along pond habitat; install barriers where needed.	There is no degradation of water quality or loss/damage to pond turtle habitat and no injury or mortality to individuals and egg masses from project activities and/or OHV recreation.
Bald eagle	Bald eagle nest sites at creeks and reservoirs within the Forest.	Annual bald eagle nesting surveys in suitable habitat. Use GIS maps of bald eagle nest sites/closures areas and overlay them with OHV routes.	Trail maintenance and OHV use on trails within ¼ mile of an active nest could cause nest failure or abandonment.	Prevent habitat alteration and/or nest failure due to project activities and/or OHV recreation.	Initiate limited operating periods (LOPs) during nesting season (Jan 1 to Aug 31) on trail segments near known nest sites.	Nesting habitat is not altered and OHV use is kept on the trails. No nest abandonment due to project activities and/or OHV recreation.
California spotted owl	The Forest maintains a number of designated Protected Activity Centers (territories) and conducts surveys in suitable habitat.	Annual spotted owl nesting surveys in suitable habitat. Known locations of California spotted owl are overlaid with OHV routes using GIS analysis. Protocol surveys and visits to known nest stands are sometimes conducted when OHV projects or new routes are planned.	Project activities and/or OHV recreation near nest stands during breeding season that could lead to nest abandonment.	Prevent habitat alteration and/or nest failure due to project activities and/or OHV recreation.	Limit construction during nesting season (Mar 1 to Aug 15) on trail segments near known nest sites. Look for opportunities to reroute trails outside of nest stands.	Nesting habitat is not altered and OHV use is kept on the trails. No nest abandonment due to project activities and/or OHV recreation.

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Species/ Habitat	**Known Information**	**Methodology**(Used to obtain Known Information)	**Concerns/Risks/ Uncertainties**	**Management Objective(s)** (Related to Concerns/Risks/ Uncertainties)	**Management Action(s)** (to meet Management Objectives)	**Success Criteria** (to measure results of Management Actions)
Greater sandhill crane	Breeding sites located in valleys and meadows within the Forest.	Annual crane nesting surveys in suitable habitat. Known locations of greater sandhill crane nesting sites are overlaid with OHV routes using GIS analysis.	Trail maintenance and OHV recreation on trails adjacent to known nesting sites/habitat could cause changes to habitat structure and/or nest failure.	Prevent habitat alteration and/or nest failure due to project activities and/or OHV recreation.	Coordinate trail maintenance activities and install barriers and/or signs to prevent off-trail riding as appropriate.	Nesting habitat is not altered and OHV use is kept on the trails. No nest abandonment due to OHV recreation and/or project activities.
Northern Goshawk	The Forest maintains a number of designated Protected Activity Centers (territories) and conducts surveys in suitable habitat.	Annual goshawk nesting surveys in suitable habitat. Known locations of northern goshawks are overlaid with OHV routes using GIS analysis. Protocol surveys and visits to known nests stands are sometimes conducted when OHV projects or new routes are planned.	Project activities and/or OHV recreation near nest stands during breeding season that could lead to nest abandonment.	Prevent habitat alteration and/or nest failure due to project activities and/or OHV recreation.	Limit project activities during nesting season (Feb 15 to Sept 15) on trail segments near known nest sites. Look for opportunities to reroute trails outside of nest stands.	Nesting habitat is not altered and OHV use is kept on the trails. No nest abandonment due to project activities and/or OHV recreation.
Willow flycatcher	Some OHV routes occur within close proximity to known willow flycatcher nest territories and habitat.	Annual willow flycatcher nesting survey in suitable habitat. Known locations of willow flycatcher sites are overlaid with OHV routes using GIS analysis.	Trail maintenance and OHV recreation on trails adjacent to known nest sites/habitat could cause changes to habitat structure and/or nest failure.	Prevent habitat alteration and/or nest failure due to project activities and/or OHV recreation.	Coordinate trail maintenance activities and install barriers and/or signs to prevent off-trail riding as appropriate.	Nesting habitat is not altered and OHV recreation is kept on the trails. No nest abandonment due to project activities and/or OHV recreation.

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Species/ Habitat	**Known Information**	**Methodology**(Used to obtain Known Information)	**Concerns/Risks/ Uncertainties**	**Management Objective(s)** (Related to Concerns/Risks/ Uncertainties)	**Management Action(s)** (to meet Management Objectives)	**Success Criteria** (to measure results of Management Actions)
Special status plants: Nissenan manzanita, upswept moonwort, scalloped moonwort, common moonwort, Mingan moonwort, Bolander's candle moss, clustered lady's slipper, starved daisy, Butte County fritillary, Sierra Valley ivesia, Plumas ivesia, Santa Lucia dwarf rush, Hutchison's lewisia, Kellogg's lewisia, broad-nerved hump moss, Layne's butterweed, Goward's waterfan, Stebbins' phacelia, Sierra blue grass, sticky pyrrocoma	Special status plant species that occur along and adjacent to OHV routes and staging areas	Annual surveys of suitable habitat for special-status plants near OHV trails and facilities. Use known location information from GIS of special status plants and overlay them with OHV routes.	Several special status plant species occur along OHV routes, and could be impacted by OHV recreation.	Prevent OHV incursions into special-status plant occurrences.	Install signs and/or barriers; if signs/barriers are not effective consider rerouting trail.	Special-status plant occurrences adjacent to OHV trails and use areas remain intact with no obvious OHV related damage.

Tables 4a and 4b: Applicable Monitoring

Complete Table 4a for all species/habitats marked YES in Table 2. Each column must be filled out for each species/habitat.

Complete Table 4b if applicable per instructions below.

Whenever the HMP relies on a study, the HMP must clearly explain how that study applies to the specific ProjectArea.

Table 4a. Summary of HMP Monitoring Program

Species/Habitat – List all species/habitats marked YES in Table 2. Species/habitats may be grouped where the same monitoring methodology addresses all such species, but all species/habitats marked YES in Table 2 must be clearly addressed. Where a monitoring methodology addresses all such species, state "All Species."

OHV Effects Detection Methodology – *"OHV Effects Detection Methodology"* is defined as qualitative monitoringto detect change caused by OHV Recreation. Describe how OHV Effects Detection Methodology will be conducted(e.g., the wildlife checklist, visiting known habitat or populations, before and after photo points).

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Management Action Effectiveness Monitoring Methodology – "*Effectiveness Monitoring*" uses the success criteria to determine if the management actions achieved the desired management objectives. Include the success criteria, management actions, and management objective from Table 3. Appropriate effectiveness monitoring may ultimately be based on larger-scale monitoring efforts. This methodology is intended to monitor the effectiveness of management actions taken. These actions can include previously installed best management practices (BMPs) or new BMPs needed to fix a problem identified during change detection monitoring. Describe how effectiveness monitoring will be conducted (i.e., describe how the Applicant will assess whether each management action is successful based on success criteria in Table 3). Include specific triggers for management change.

Triggers for Management Change – List examples of problems that would trigger a management action.

Table 4a. Summary of HMP Monitoring Program

Species/ Habitat	OHV Effects Detection Methodology	Management Action Effectiveness Monitoring Methodology	Triggers for Management Change
Lahontan cutthroat trout California red-legged frog Foothill yellow-legged frog Sierra Nevada yellow-legged frog Sierran treefrog Western pond turtle	Surveys will be conducted at creek crossings during the spring to evaluate any degradation of water quality, streamside vegetation or banks. Monitoring checklists will be used to document findings.	Forest biologists will compare known locations and suitable habitat of special-status trout, frogs, and turtles with annual creek crossing checklists to ensure occupied and potential habitat are not degraded. If habitat is impacted, a biologist will survey the site to determine if special-status species were impacted.	The presence or evidence of excessive erosion and/or habitat degradation (i.e., vegetation loss or alteration); or documented injury or mortality of special-status trout, frogs, or turtles would trigger the re-evaluation of management actions and/or BMPs.
Bald eagle	OHV Wildlife Habitat Monitoring Checklist will be used annually to document existing nest sites in proximity to OHV routes. Forest biologists will visit nest sites during nesting season to ensure closure areas are being enforced and implemented. Monitoring checklists will be used to document conditions during the time of the visits.	Forest biologists will revisit nest sites in all areas where LOPs have been implemented to determine nest success.	Failed nesting or abandoned territories due to project activities or OHV recreation would result in further evaluation and management actions.
California spotted owl Northern goshawk	Forest biologists will visit existing nest sites in close proximity to OHV routes and facilities. Monitoring checklists will be used to document off-trail use or user-created trails through territories.	Forest biologists will revisit nest sites in all areas where LOPs have been implemented to determine nest success.	Failed nesting or abandoned territories due to project activities or OHV recreation would result in further evaluation and management actions.
Greater sandhill crane Willow flycatcher	OHV Wildlife Habitat Monitoring Checklist will be used annually to determine if OHV incursions are causing habitat degradation of nest sites known to occur in proximity of OHV routes.	Forest biologists will revisit sites to evaluate whether or not habitat damage has occurred from OHV incursions.	Habitat damage from OHV incursions would result in further evaluation and management actions.

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Species/ Habitat	OHV Effects Detection Methodology	Management Action Effectiveness Monitoring Methodology	Triggers for Management Change
Special status plants Nissenan manzanita, upswept moonwort, scalloped moonwort, common moonwort, Mingan moonwort, Bolander's candle moss, clustered lady's slipper, starved daisy, Butte County fritillary, Sierra Valley ivesia, Plumas ivesia, Santa Lucia dwarf rush, Hutchison's lewisia, Kellogg's lewisia, broad-nerved hump moss, Layne's butterweed, Goward's waterfan, Stebbins' phacelia, Sierra blue grass, sticky pyrrocoma	Forest staff will monitor special-status plant sites and in permanent plots established in selected areas to determine whether there is evidence of OHV incursions into special-status plant population areas. Checklists will be used to document results. Photographs may also be used to document impacts of OHV recreation.	Forest botanists will revisit sites as needed based on monitoring checklists, photos, and other inputs to determine if known special-status plant populations are still present, and if OHV incursions are damaging special-status plant occurrences or habitat.	OHV incursions into special-status plant populations or suitable habitat would result in management actions such as installing signs and barriers, as appropriate. The absence or substantial reduction of known special-status plant populations near OHV trails or facilities would also result in management change.

Table 4b. Validation Monitoring (if applicable)

"*Validation Monitoring":* uses scientific studies that determine whether the underlying management assumptions are correct (e.g., "Have the appropriate concerns and risks been identified? Does meeting the management objectives ensure that OHV activities are not adversely affecting populations of species x?"). For most projects, this table is not applicable, but validation monitoring should be described where it is relevant to monitoring and evaluating the effects of OHV recreation on species/habitats in Table 2.

Species/Habitat – List any species/habitats marked YES in Table 2 for which validation monitoring is being/has been conducted. Species/habitats may be grouped where the same monitoring methodology addresses all such species.

Where a monitoring methodology addresses all such species, state "All Species".

Identify Any Applicable Validation Monitoring (Focused Studies) – Describe any studies being conducted to determine whether the underlying management assumptions are correct (Validation Monitoring). Monitoring must relate directly to the project area and species/habitat. Be specific as to the applicability.

Table 4b. Validation Monitoring (if applicable)

Species/Habitat	Identify Any Applicable Validation Monitoring
California red-legged frog Foothill yellow-legged frog Sierra Nevada yellow-legged frog Sierran treefrog	The Forest will use recommendations in the regional amphibian monitoring study to assist with identifying BMPs for minimizing degradation to frog/turtle habitat.

Table 5: Management Review and Response; Adaptive Management

Table 5 describes what the Applicant plans to do with monitoring data. Address each monitoring methodology listed in Table 4a and Table 4b (if applicable).

Monitoring Methodology – List each monitoring methodology that was included in Table 4a, Column 2 (OHV Effects Detection Methodology) and Column 3 (Management Action Effectiveness Monitoring Methodology); and Table 4b, Column 2 (Validation Monitoring), if applicable. Use a separate row for each monitoring methodology. Species can be combined if methods are the same for more than one species (e.g., serpentine plants, bats, etc.).

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How Monitoring Data Will Be Analyzed and Used to Inform Management – Describe how the Applicant will use the monitoring data to determine if management objectives from Table 3 (Column 5) are being met and whether any management changes are necessary. How will monitoring data be analyzed? How will monitoring data be used to correct any problems found or evaluate whether other changes to management of OHV recreation are needed?

Management Response to Identified Triggers – Describe the management responses to the identified triggers listed in Table 4a, Column 4.

Table 5. Management Review and Response; Adaptive Management

Monitoring Methodology (from Table 4a, Columns 2 and 3 and Table 4b, Column 2)	**How Monitoring Data Will Be Analyzed and Used to Inform Management**	**Management Response to Identified Triggers** (from Table 4a, Column 4)
Annual inspections of creek crossings using monitoring checklists (all aquatic species).	Stream crossing checklists will be used to determine if direct impacts such as injury or mortality, or habitat degradation such as erosion or sedimentation is occurring for aquatic special-status species.	Management Actions listed in Table 3 as needed: BMPs to reduce sedimentation and erosion of creek banks; barriers where needed; OHV wet weather open/close system based on soil moisture; close trails during the wet weather period; and BMPs to harden stream crossings or reduce loose soils.
Comparison of stream crossing checklists and known locations of aquatic special-status species; follow-up surveys by biologist as needed (all aquatic species).	Biologist will use the stream crossing checklists and site specific follow up surveys as needed to determine if suitable and/or occupied aquatic special-status species habitat is being degraded by project activities or OHV recreation, or if individuals are being impacted.	See row above.
Use of OHV Wildlife Habitat Checklists to assess incursions/habitat impacts at known nest sites (raptors, owl, crane, flycatcher).	OHV Wildlife Habitat Checklists will be used to determine if there are OHV incursions into closed nesting bird areas and/or if habitat degradation is occurring due to OHV recreation.	Management Actions listed in Table 3 as needed: Initiate LOPs during nesting season; limit project activities during nesting season near nest sites; look for opportunities to reroute trails outside of nest stands; and coordinate trail maintenance activities and install barriers and/or signs to prevent off-trail riding as appropriate.
Forest biologists will revisit nest sites to determine nest success (raptors, owl, crane, flycatcher).	Nest success or failure at nest sites near OHV trails or facilities will help indicate whether project activities and/or OHV recreation are impacting nesting special-status birds.	See row above.
Forest staff will monitor special-status plant sites and in permanent plots using checklists and/or photo-monitoring.	By using checklists and comparing photos of special-status plant populations and/or habitat areas, Forest staff can determine whether OHV activities have impacted special-status plants and/or their habitat.	Management Actions listed in Table 3 as needed: install signs and/or barriers; if signs/barriers are not effective consider rerouting trail.
Forest botanists will revisit sites as needed based on monitoring checklists, photos, and other inputs to determine if known special-status plant populations are still present, and if OHV incursions are damaging special-status plant occurrences or habitat.	Forest botanists will utilize follow-up surveys as needed based on the checklists and photo monitoring to determine if known special-status plant populations and/or their habitat are being impacted by project activities and/or OHV recreation.	See row above.
Regional amphibian monitoring study recommendations (when available)	Implement BMP recommendations resulting from study.	Implement new or modified BMPs where regional study determines they would be more effective.

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SECTION V. PREVIOUS YEAR'S MONITORING RESULTS AND MANAGEMENT ACTIONS BASED ON MONITORING RESULTS

Summarize the previous year's monitoring accomplishments and results in Table 6.

Monitoring Accomplishments – Summarize each monitoring action that was implemented under the previous year's HMP. Discussion must be directly related to each monitoring method listed in Table 5, Column 1 of the previous year's HMP.

Results – Summarize the results of each monitoring accomplishment. Applicants are encouraged to attach specific monitoring reports and/or checklists that provide more details.

Were Objectives and Success Criteria Achieved? – Describe whether management actions achieved the objectives and success criteria in the previous year's HMP. Make sure to specifically address the objectives listed in Table 3, Column 5, and the success criteria listed in Table 3, Column 7 of the previous year's HMP.

Applicants must keep the detailed monitoring results on file for reference. The results must be made available to the OHMVR Division upon request.

Table 6. Previous Year's Monitoring Results

Monitoring Accomplishments (List Methodologies listed in previous year's Table 5, Column 1)	**Results**	**Were Objectives and Success Criteria Achieved?** (from Table 3)
Annual inspections of creek crossings using monitoring checklists.	Forest staff used checklists to monitor OHV creek crossings in 2022. Minor to moderate erosion and sedimentation were observed at two of the creek crossing locations.	Mostly. Although minor erosion and sedimentation were observed at two of the creek crossing locations, erosion and sedimentation were effectively addressed with management actions listed in Table 7 below.
Comparison of stream crossing checklists and known locations and suitable habitat of aquatic special-status species; follow-up surveys by biologist as needed.	The 2022 creek crossing checklists were compared with known locations and suitable habitat for aquatic special-status species. Sierran tree frog and western pond turtle could be present at the two creek crossing locations where erosion and sedimentation were observed. Follow-up surveys by a biologist did not observe direct impacts to these species, although minor habitat degradation was observed.	Mostly. Minor degradation of aquatic special-status species habitat was effectively addressed with management actions listed in Table 7 below.
Use of OHV Wildlife Habitat Checklists to document habitat conditions at known nest sites.	Forest staff used checklists to document habitat conditions at known nest sites in 2022. OHV incursions were documented near one northern goshawk nest site where an LOP was in place.	Partially. OHV incursions were documented near one northern goshawk nest site despite the LOP. The incursions were stopped by management actions listed in Table 7 below.
Forest biologists will revisit nest sites to determine nest success.	After 2022 OHV Wildlife Habitat Checklists documenting habitat conditions were completed, Forest biologists revisited nest sites to determine nesting success. All nest sites were determined to be successful, including the one where OHV incursions were documented.	Yes. All nest sites in the project area were successful.

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Monitoring Accomplishments (List Methodologies listed in previous year's Table 5, Column 1)	**Results**	**Were Objectives and Success Criteria Achieved?** (from Table 3)
Forest staff will monitor special-status plant sites and in permanent plots using checklists and/or photo-monitoring.	Forest staff monitored known special-status plant populations and permanent plots in 2022 using checklists and photo-monitoring to compare habitat conditions with previous years. Habitat conditions were similar to previous years, and no OHV incursions into known special-status plant sites or permanent plots were observed.	Yes. Habitat conditions at special-status plants sites and permanent plots were similar to previous years, indicating that project activities and/or OHV recreation did not impact special-status plants.
Forest botanists will revisit sites as needed based on monitoring checklists, photos, and other inputs to determine if known special-status plant populations are still present, and if OHV incursions are damaging special-status plant occurrences or habitat.	Forest biologists visited ten known special-status plant populations in the project area in 2022. All ten populations were present, although two populations had fewer individuals than the last time they were checked in 2020 (two other populations had increased). There was no evidence of OHV incursions in any of the ten populations.	Yes. All special-status plant populations surveyed in the project area were present. Two populations that had fewer individual plants were within in the range of normal year to year population fluctuations and had no evidence of OHV incursions.
Regional amphibian monitoring study recommendations (when available)	Forest staff received the initial results from the regional amphibian study in December 2022 and plan to implement relevant recommendations in 2024 pending study finalization and review for Forest applicability.	Yes. Recommendations from the regional amphibian study will supplement the Forest's management actions to increase protection for special-status amphibians.

Table 7: Management Actions Based on Monitoring Results

Use Table 7 to summarize the management actions taken and/or planned based on the monitoring results of the previous year.

Management Actions – Identify all the management actions taken or planned based on the monitoring results of the previous year. Management actions must be listed for each situation in Table 6 for which the objectives and success criteria were not achieved. Management actions could be those listed in Table 3, Column 6, or other actions specific to the issue.

Species/Habitat – List the species/habitats for which each management action was taken and/or planned.

Date Completed or Planned – Identify the date the action item was accomplished or is planned to be accomplished.

Changes Needed to HMP – Describe how the Applicant is going to change its HMP, including changes to monitoring, to allow the Applicant to better meet success criteria or objectives.

Table 7. Management Actions Based on Monitoring Results

Management Actions	**Species/ Habitat**	**Date Completed or Planned**	**Changes Needed to HMP**
Hardened stream crossings and implemented BMPs on creek banks at two stream crossing locations with erosion and sedimentation.	Sierran tree frog and western pond turtle	September 2022	None; management actions listed in Table 3 were used to address the erosion and sedimentation issue.

HABITAT MANAGEMENT PROGRAM (HMP)
PART 2

Management Actions	Species/ Habitat	Date Completed or Planned	Changes Needed to HMP
Installed barriers and signs at locations near nest site where OHV incursions were observed.	Northern goshawk	May 2022	None; management actions listed in Table 3 were used to address the OHV incursion near the nest site.

Table 8: Management Actions Taken in Response to HMP-related Public Concerns

Concern Raised by Public – Describe any HMP-related concerns raised by the public.

Actions Taken to Address the Concern – Describe actions taken to address the concern.

Table 8. Management Actions Taken in Response to HMP related Public Concerns

Concern Raised by Public	Actions Taken to Address the Concern
Bald eagle nest near OHV trails still needs active management.	Forest staff are signing the area to alert public of sensitive resource and utilizing an LOP when the nest is active. Law enforcement is aware of the issue and will continue to patrol the site. The Forest is considering a trail reroute in this area to avoid the nest site.