Project: Moonlight Reforestation Pile Burning 2022

RESPONSE TO EVALUATION FACTORS

Name of the firm:

Experience of the Firm

What contracts has your firm performed which are similar in scope, magnitude, and complexity to this project?

Name of Project	Type of Project	Scope/magnitude	Work performed for	Completion Date

What other contracts has your firm performed in the past three years that would show your firm's capability to undertake this project?

Name of Project	Type of Project	Scope/magnitude	Work performed for	Completion Date

If yours is a new firm or has no directly relevant experience, how do you propose to acquire the expertise to perform the contract? *(e.g., subcontracting arrangements [list subcontractors and their experience], hiring experts [list key personnel and their experience])*

Subcontractor	Expertise	Experience

Key Person	Expertise	Experience

Past Performance Information

Whom may we contact concerning your performance on the projects listed above? (If reference is for a subcontractor or key person, identify which subcontractor/key person is referenced.)

Name	Address	Phone	FAX	e-mail	Project(s)

Understanding of the Work

a) How extensive was your site visit for this project? *(e.g., 'didn't visit;' 'drove by some areas;' 'walked each acre.')*

b) What did the site visit reveal about the comparative difficulty of the project—e.g., the problems that are likely to be encountered during performance?

c) How many and what types of workers will be assigned to the project?

d) What equipment will you use for this project?

e) What is your plan for safety at the job site(s)? Identify the hazards specific to the site(s) and the types of work being performed and how you plan to mitigate the risks—to your workers, FS inspectors, and the public.

f) What average production rate do you expect to achieve over the course of this project? (This rate should be reflected in your price breakdown as well.)

g) What sequence of work are you planning to ensure timely completion of the project? *(i.e., what areas or work processes will be done first? next? last?)*

h) What contracts do you currently have scheduled to which you will need to commit resources during the period for the performance of this project?

Name of Project	Type of Project	Scope/magnitude	Work performed for	Phone	Completion Date

Bid Proposal

Solicitation Date: October 27, 2022
Bid Due Date: November 15, 2022

Contractor:	**Contracting Agency:** Feather River Resouce Conservation District P.O. Box 3562 Quincy, CA 95971
Contractor/ Agent Name: **Date:**	**Contracting Officer:** Michael Hall
Contractor Signature:	**Contracting Officer Signature:**

Work Item #	Project Area	Activity	Acres	Description	Unit Quantity	Unit Price per Hour	Total
1	**Moonlight-Machine Pile**	**Pile Burning**	**965**	**Burn Boss Qualified Fire Crew Forman**			**965**
	208		21				
	209		12				
	215		64				
	216		17				
	217		94				
	229		229				
	235		377				
	236		15				
	237		37				
	239		31				
	240		7				
	251		30				
	252		31				
							0
2	**Moonlight Hand Pile**	**Pile Burning**	**28.77**	**Burn Boss Qualified Fire Crew Forman**			**28.77**
	116D		9.35				
	116G		1.17				
	122		0.83				
	143		0.61				
	144		0.32				
	33		1.38				
	42G		2.90				
	80B		7.38				
	87D		2.63				
	89		2.19				
							0
						Moonlight Total	**993.77**

ATTACHMENT E

Moonlight Fire Area Restoration Project

Mitigation Monitoring and Reporting Program (MMRP)

Summary of Standard Management Requirements and Project-specific Mitigation Measures

In order to protect project area resources and comply with federal, state, and local laws, the following standard management requirements apply to the proposed action. These Standard Management Requirement are utilized by the Mt. Hough Ranger District on all projects, as well as project specific mitigation measures, in order to reduce undesirable environmental effects, of the proposed activities and comply with the Plumas Land and Resources Management Plan, Forest Service policies, and other state, federal, and local laws.

Aesthetics

Standard management requirements for aesthetics will be monitored by Forest staff and should be applied within the immediate foreground of visual corridor (300 feet from the viewer) (FHS2382.1). These include:

- **Landings and skid trail locations:** To the extent feasible, locate landings and primary skid trails away from the immediate foreground of Sensitivity Level I and II travel corridors. Limit size of landings so that they are not visually evident from the sensitive travel routes following completion of treatment activities.
- **Stump heights:** Minimize stump heights in both mechanical and hand thinning units adjacent to sensitive travel corridors, typically resulting in stumps 6 inches or less in height within 300 feet of the travel corridor.
- **Tree marking:** During tree marking, open and enhance views of residual old growth trees near the visual corridor where possible.
- **Burn piles and underburning:** Target consumption of burn piles to 90 percent or greater. Target underburn mortality levels of crop trees to 10 percent or less.

Agricultural Resources

Vegetation management activities would be conducted consistent with the relevant standards and guidelines from the Sierra Nevada Forest Plan Amendment pages 49 through 66 (USDA Forest Service 2004b). All standards and guidelines would be followed, those that specifically relate to the vegetation resource for Moonlight proposed actions are shown in table 1. All applicable standards and guidelines would be followed as they apply to each resource area and be monitored by Forest staff.

Table 1. Proposed action and applicable standard and guide numbers

Proposed Action	Standard and Guide Numbers
Reforestation and release	3, 4, 5, 6, 11, 12, 20, 22, 23
Precommercial thinning	3, 4, 5, 6, 11, 12, 18, 20, 22, 23, 26
Mechanical thinning	5, 6, 7, 8, 11, 12, 18, 19, 20, 22, 23, 26
Aspen restoration	6, 20, 22, 23, 105
Hazardous fuels reduction	4, 5, 6, 8, 11, 12, 18, 19, 20, 22, 23
Wildlife habitat improvement	11, 20, 22, 26, 27, 29, 74, 75, 76, 78, 79, 80, 81, 82, 83

Additional, standard management requirements for silviculture and forest health include:

- **Root disease prevention measures:** Conifer stumps 14 inches and greater in stump diameter would be treated with a registered borate compound within four to 24 hours after the tree is felled, to prevent the introduction and spread of Heterobasidion root disease. Within recreation areas or other high value areas such as near structures or powerlines, apply borate compound within four hours to all pine and true fir cut stumps greater than 3 inches in diameter. Application of borax would follow all label directions, as well as all applicable federal, State and local laws.
- **Residual species preference:** Where present, retain all hardwood and riparian species. Retain the largest, most vigorous dominant and co-dominant trees to create a residual stand that would be comprised of larger fire-resilient trees. Species preference would be determined by dominant forest type. In general, prefer to retrain shade intolerant species including rust resistant sugar pine, black oak, ponderosa and Jeffery pine, and to an extent, Douglas-fir.
- **Biomass treatment for fuels:** If no viable biomass market exists, it is preferred that material be left within the stand in small machine piles (grapple piling treatment) or hand constructed piles. This mitigation measure is intended to leave smaller amounts of fuels distributed across the landscape so that follow up disposal (burning) is easier.
- **Tree Mortality:** No more than 10 to 20 percent variable amounts of mortality may occur in the residual crop trees following underburning within areas of mortality no greater than 2 acres. Minimize mortality in visual corridors.

Table 2. Project-specific mitigation measures for vegetation management activities

Number	Activity/ Action	Mitigation Measure
Veg- 1	Thinning	Eastside Pine: Thin trees to retain 30 percent of the existing basal area, generally comprised of the largest trees ((USDA Forest Service 2004b, pages 51). Dry Mixed Conifer: In mechanical thinning treatments retain 40 percent of the existing basal area, generally comprised of the largest trees. (USDA Forest Service 2004b, pages 50).
Veg- 2	Thinning	Retain all live conifers 30 inches diameter at breast height or larger; exceptions may be allowed to meet needs for operability on a specific case basis (SNFPA ROD 2004, page 50).
Veg-3	Thinning	Preferably retain shade intolerant species where present, red fir over white fir, and vigorous disease- and insect-free individuals over declining individuals. Individuals showing signs of heavy root disease infection, dwarf mistletoe, or insect attack will usually be targeted for removal.
Veg- 4	Thinning	Incorporate topography and aspect when determining leave trees. Generally, stands on ridge tops or higher in slope position would have fewer retained trees as compared to stand in lower slope position and/or drainage bottoms. In addition, stands with a more southerly aspect would have lower residual basal area as compared to stands with a more northerly aspect.
Veg- 5	Thinning	Increase horizontal and vertical heterogeneity by retaining patches of large trees among the thinning matrix, with occasional openings to allow for small gap regeneration and recruitment. Patches will have higher densities and canopy covers than surrounding areas, while openings will have lower densities and more open canopies. Patches may range from a few to several larger individuals. Openings will resemble small scale disturbances such as individual large tree mortality and disease centers where a few individuals die, and where possible will be targeted in areas where shade intolerant species are present.

Number	Activity/ Action	Mitigation measure
Veg- 6	Thinning	A heterogeneous landscape comprised of different seral stages and tree species in various ranges of density and canopy cover would be resilient to disturbance. Desired stand structure would vary according to topographic location, such as aspect, slope position, and site quality, creating high levels of horizontal and vertical diversity at the stand and landscape-scale. North facing slopes, true fir and dry mixed conifer stands would contain more shade tolerant species and higher canopy cover. Desired forest attributes include uneven-aged, multi-storied stands dominated by legacy structures composed of large, fire-adapted trees.
Veg-7	Thinning	Post treatment stand densities would generally be low, characteristic of active-fire ecosystems, especially on south-facing slopes and near ridge tops. Pine type stands would be primarily shade intolerant species with open canopy. Desired forest attributes include uneven-aged, multi-storied stands dominated by legacy structures composed of large, fire-adapted trees. Pine type stands would have open pockets of sparse canopy cover that promote the establishment and growth of fire-adapted and shade-intolerant species including ponderosa and Jeffrey pine, sugar pine, and aspen which would contribute to landscape heterogeneity and native plant species diversity. Young pine regeneration in the understory is desirable to increase structural diversity and create uneven-aged conditions. Tree densities and canopy cover would generally have been lower than in Sierran mixed conifer forests due to the lower precipitation levels and poorer site productivity, but would still have varied according to aspect.
Veg-8	Thinning	In mechanical thinning treatments maintain canopy cover consistent with the Sierra Nevada Forest Plan Amendment standards and guidelines, as presented on pages 50 and 51 of the Record of Decision (USDA Forest Service 2004b).
Veg-9	Thinning (eastside pine only)	Stand densities would generally be low, characteristic of active-fire ecosystems, especially on south-facing slopes and near ridge tops. Pine type stands would be primarily shade intolerant species with open canopy. Desired forest attributes include uneven-aged, multi-storied stands dominated by legacy structures composed of large, fire-adapted trees. Pine type stands would have open pockets of sparse canopy cover that promote the establishment and growth of fire-adapted and shade-intolerant species including ponderosa and Jeffrey pine, sugar pine, and aspen which would contribute to landscape heterogeneity and native plant species diversity. Young pine regeneration in the understory is desirable to increase structural diversity and create uneven-aged conditions. Tree densities and canopy cover would generally have been lower than in Sierran mixed conifer forests due to the lower precipitation levels and poorer site productivity, but would still have varied according to aspect.
Veg-10	Aspen Restoration	Prescriptively remove conifers through a combination of mechanized equipment and chainsaw, up to 30.0 inches dbh (29.9 inches dbh or less). Conifers will be retained in areas that have experienced high and moderate severity fire effects on a prescriptive basis.
Veg-11	Aspen Restoration	Prescriptively remove conifers around aspen stands to allow for maximum sunlight. Treat up to 150 feet within the aspen stand on the south, east and west facing aspects and up to 75 feet on the north facing aspects. No canopy cover or spacing guidelines would restrict removal of conifers. Temporary fencing may be placed to protect new shoots from browsing if needed.
Veg-12	Aspen Restoration	Fire will be applied prescriptively, as required to treat ground fuels; if conditions do not allow for prescribed fire to be conducted safely, fuels may be piled for burning.
Veg-13	Ground-based harvesting and yarding	Mechanical harvesting would be used to remove commercial sawlog and biomass trees. Tops and limbs would be yarded to the landing and removed as a product, if viable markets exist. If viable markets do not exist, biomass may be piled by machine in a landing or within the stand and burned on site.

Table 3. Project-specific mitigation measures for fire and fuels

Number	Activity/ Action	Mitigation Measure
Fuels-1	All	Maintain adequate cover of surface fuels, litter, duff, and large woody debris to maintain habitat values, reduce potential erosion and meet soil standards for woody debris and ground cover.
Fuels-2	All	Retain surface fuels (less than 12 inches diameter) at a level that would result in projected flame lengths of less than 4 feet under 90th percentile weather conditions. This generally corresponds to approximately 5 tons or less per acre in this size class of surface fuels per acre depending on the forest type.
Fuels-3	All	Retain large woody debris (greater than 12 inches diameter) in various decay classes to an approximate residual fuel loading of 10- to 15 tons per acre in this size class.
Fuels-4	All	Where needed, jackpot burn, or machine pile and burn extensive areas of deadfall, where feasible, in terms of equipment operability and reduced chance of excessive scorch-related mortality upon burning of these piles.
Fuels-5	All	Based on post treatment evaluations, underburn, jackpot burn, machine pile and burn, and/or hand thin, pile, and burn to treat natural and activity-generated fuels.

Air Quality

Comply with air quality permits issued by the Northern Sierra Air Quality Management District for all prescribed burning. A prescribed burn plan, including a mandatory smoke management plan (SMP), would be required prior to any prescribed fire. The smoke management plan is reviewed and approved by the local Air Quality Management District office.

Biological Resources

Terrestrial and Aquatic Wildlife Resources

Standard management requirements are applied for protecting wildlife and wildlife habitat, including:

- **Wildlife Limited Operating Periods:** To protect key wildlife species, unless determined to be unnecessary following pre-implementation surveys, limited operating periods (LOPs) listed in the 2004 SNFPA ROD (pages 54-62) and the Biological Evaluation/Biological Assessment would apply.
- **New wildlife findings:** Where subsequent surveys identify occupied threatened, endangered, or sensitive species habitat, establish protected activity centers, den site buffers, or other protections as described in the SNFPA EIS. Include protections for any additional sensitive species identified in the BE/BA. In the event of a verified threatened, endangered or sensitive species occurrence after project award, the appropriate limited operating periods would apply. Other mitigations may take place as agreed upon by the sale administrator and district wildlife biologist.
- **Down wood:** Within westside vegetation types, generally retain an average of 10-15 tons (over 15 inch diameter) of large down wood per acre over the treatment unit. Within eastside vegetation types, an average of 3 large down logs would generally be retained per acre. In areas considered deficient in large woody debris, wherever possible leave cull logs at the stump rather than being skidded to the landing. The sale administrator and the district wildlife biologist would agree upon the location and amount (Table 2, USDA Forest Service SNFPA 2004 ROD).
- **Snags:** Snag retention levels would be determined on an individual, project basis; however, they would consider the guidelines set forth in the standards and guides (USDA Forest Service 2004a, b). The guidelines state that projects would retain 4 of the largest snags per acre in westside mixed conifer and ponderosa pine types; 6 of the largest snags per acre in the red fir forest type; 3 of the

largest snags per acre in the eastside and eastside pine types; and 4 of the largest snags in westside hardwood ecosystems. Wherever possible, use snags larger than 15 inches dbh and 20 feet in height to meet these guidelines (Table 2, USDA Forest Service SNFPA 2004 ROD).

- **Structure trees:** Retain and protect high value wildlife habitat trees (trees with multiple tops, broken tops, rot, cavities, and other formations) that create structure for nests and dens.
- **Prescribed fireline construction (machine):** In general, prescribed fireline construction utilizing a piece of equipment would be conducted in accordance with district resource specialists. There would be no mechanical fireline construction in hand thin protected activity center units unless approved by the wildlife biologist.
- **Sierra Nevada yellow-legged frog:** All applicable programmatic conservation measures from the Programmatic Biological Opinion (USDA Forest Service 2015, pgs. 15-17), and Program-Specific Conservation Measures (USDA Forest Service 2015, pgs. 17-29) will be applied to the proposed action and incorporated into the general best management practices and project mitigation measures. Three activities described in the programmatic biological opinion apply to the proposed project: (1) vegetation management, timber harvest, fuels management, and watershed restoration; (2) maintenance of roads and trails; and (3) biological resource management. In addition to general water quality best management practices (table 75) and project-specific mitigation measures in the following section, the proposed project would meet all relevant standards and guidelines, and best management practices, associated with the general and program-specific measures of the biological opinion (USDA Forest Service 2015 pp. 15-29, appendix A, appendix B, and Table 10).

Table 4. Project-specific mitigation measures for wildlife

Number	Activity	Mitigation measure
Wild-1	All	All food-related garbage will be placed in tightly sealed containers at the end of each workday to avoid attracting predators. Containers will be emptied and garbage removed from the project site at the end of each work week. If sealed containers are not available, garbage will be removed from the project site upon completion of daily activities. Additionally, any garbage present in the right-of-way will be removed after annual treatment of the site is complete. All garbage removed from the project site will be disposed of at an appropriate off-site refuse location.

The limited operating periods in Table 5 would be applied, based on the requirements listed in the Sierra Nevada Forest Plan Amendment.

Table 5. Limited operating periods for wildlife species of concern

Species	Location	Limited Operating Period	Reference Pages
Bald Eagle	Within designated territories (1/2 mile around nest) Winter roosts	November 1 - August 31 November 1 - March 1	2 - 8*
California Spotted Owl	Within 1/4 mile of nests or within protected activity center boundary	March 1 - August 15	2 - 8* Modified by October 2006 RO Letter
Great Gray Owl	Within 1/2 mile of nesting sites	March 1 - August 31	2 - 8*
Goshawk	Within 1/4 mile of nests or within protected activity center boundary	February 15 - September 15	A - 60**
Marten	100 acre den site buffer	May 1 - July 31	A - 62**
Pacific Fisher	700 acre den site buffer	March 1 - June 30	A - 61**

Species	Location	Limited Operating Period	Reference Pages
Pallid Bat and Townsend's Big-eared Bat	W/in 1/4 mile of maternity and other roosts	May 1 – August 15	Professional Judgment
Sierra Nevada Yellow-Legged Frog	Variable depending on activity (see project-specific mitigation measures above)	November 1st to April 15th	Biological Opinion

*Herger-Feinstein Quincy Library Group Forest Recovery Act – Final Environmental Impact Statement (HFQLGFRA-FEIS) (1999), Page 2-8, Table 2.3.

**Sierra Nevada Forest Plan Amendment – Final Supplemental Environmental Impact Statement (SNFPA FSEIS) – Record of Decision (ROD) (2004), page A-54, A-58, A-60, A-61 and A-62.

Aquatic Wildlife Resources

The following mitigation measures would be applied to reduce effects to water quality, riparian habitats, and aquatic species. In particular, conservation measures from the programmatic biological opinion for the Sierra Nevada yellow-legged frog are being incorporated. Terms and conditions from other recent projects were also used to develop the following mitigation measures.

All applicable programmatic conservation measures (Programmatic Biological Opinion (USDA Forest Service 2015) pgs. 15-17, and program specific conservation measures (USDA Forest Service 2015) pgs. 17-29) will be applied to the proposed action and incorporated into the general best management practices and project mitigation measures. Three activities described in the programmatic biological opinion apply to the proposed project: (1) vegetation management, timber harvest, fuels management, and watershed restoration; (2) maintenance of roads and trails; and (3) biological resource management. These are incorporated by reference.

Mitigation measures may vary by suitable, occupied, critical habitats. Where there are not more restrictive measures of occupied and critical habitat, the measures for suitable habitat should be used.

- **Suitable habitat** on the Plumas National Forest occurs above 3,500 feet in elevation. In project practical terms, suitable habitat includes most water bodies: lakes, ponds, tarns, intermittent and perennial streams, rivers, plunge pools within intermittent creeks, seeps, springs, pools (such as a body of impounded water contained above a natural dam), and other forms of aquatic habitat. Adjacent terrestrial habitat generally extends 82 feet from the water, though larger areas are incorporated when water bodies are located within 984 feet (300 meters) of each other (such as a complex of lakes/ponds/springs). Ephemeral channels are not considered suitable habitat. The complete definition of suitable habitat for the Sierra Nevada yellow-legged frog is defined in the following Federal Register document : *Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Sierra Nevada Yellow-Legged Frog, the Northern DPS of the Mountain Yellow-Legged Frog, and the Yosemite Toad; Final Rule* (U.S. Fish and Wildlife Service 2016).
- **Occupied habitat** includes portions of the following drainages: Antelope Lake, Lone Rock Creek, Indian Creek, and Boulder Creek.
- Critical habitat includes areas designated by the U.S. Fish and Wildlife Service as (U.S. Fish and Wildlife Service 2016); these areas are located in the vicinity Antelope Lake and tributaries to the north and west. Water bodies within critical habitat will be considered occupied due to the relatively high mobility of the Sierra Nevada yellow-legged frog.

See table 6 for general mitigation measures related to protection of riparian habitats and Sierra Nevada yellow-legged frog habitats. See table 7 for activity buffers for water bodies within suitable habitat, and

within occupied or critical habitat.

Table 6. General mitigation measures to protect water quality, riparian habitats, and aquatic features

Number	Activity	Mitigation Measure
Aqu-1	All	Tightly woven fiber netting or similar material shall be not used for erosion control or other purposes within Sierra Nevada yellow-legged frog **suitable habitat** to ensure that individuals do not get trapped, injured or killed. Plastic mono-filament netting or similar material will not be used at any of these projects because individuals of these listed species may become entangled or trapped in it.
Aqu-2	All	To protect water quality and meet Sierra Nevada Forest Plan Amendment riparian management objectives, roadside ditches will be treated the same as the water body type they resemble.
Aqu-3	Chainsaw thinning	Chainsaw thinning would be restricted during the wet season, between November 1st to April 15th, or the first wetting rain (72 hours with no drying period), whichever comes first. A district biologist may amend the dates based on local site conditions.
Aqu-4	Revegetation	To protect water quality and riparian habitat for aquatic organisms, within 50 feet of perennial or seasonal streams, if treatment reduces groundcover to less than 75 percent for a contiguous area of greater than 0.25 acre, then mulching and/or revegetation may be required to minimize erosion and reestablish native vegetation. Only native plant species will be used in revegetation. All mulch and seed material will be certified weed-free.
Aqu-5	Herbicide Application	Herbicide applications will treat the minimum area necessary to meet site objectives.
Aqu-6	Herbicide application	To minimize the risk of pesticide drift onto water or non-target areas, in order to minimize impacts to water quality, special status plants and wildlife, non-target vegetation, and other biological resources (e.g. pollinators, aquatic organisms), implement the following spray application drift control measures: 1) Only ground based equipment will be used 2) All applications will cease when weather conditions exceed those on the label 4) Applications will cease when wind speed exceeds 10 mph 5) Spray nozzles will produce a relatively large droplet size (500-800 microns) 6) Low nozzle pressures will be used 7) Spray nozzles will be kept within 24 inches of target vegetation during spraying 8) A pressure gauge or pressure regulator will be required on each backpack sprayer
Aqu-7	Herbicide application	Herbicide will not be applied during the wet season (November 1 - April 15) to minimize herbicide transport in the environment.

Number	Activity	Mitigation measure
Aqu-8	Herbicide application	No herbicide will be applied if there is a more than 50 percent chance of more than 0.1 inches of precipitation predicted within the next 48 hours. 0.1 inch is based on following "measureable" precipitation prediction data provided by National Weather Service.
Aqu-9	Herbicide application	To minimize risk of surface and groundwater contamination in order to protect water quality and aquatic organisms, implement the following on soils above 3,500 feet in elevation: application of Glyphosate and Triclopyr (including equipment rinsing) will not occur on deep, coarse textured, saturated soils. For elevations above 4,000 feet, district hydrologist or soil scientist will be consulted about the proper timing of herbicide application in the spring prior to treatments.
Aqu-10	Herbicide application	To protect water quality and insure protection of beneficial uses, all wells, ponds, and springs used for domestic water supplies will be protected with a 200-foot buffer for herbicide treatment and mixing. At annual implementation review meeting, water rights will be checked with the state and potential affected parties would be contacted.
Aqu-11	Herbicide application	To protect water quality and insure protection of beneficial uses, perennial streams used for domestic water supply will be protected with a 200-foot buffer around the diversion intake. Directed spray can occur within this buffer if (a) use near a domestic water source is directed on the product label; AND (b) water quality is monitored.
Aqu-12	Herbicide Application	When not within Sierra Nevada yellow-legged frog suitable habitat, the following herbicide application buffers will apply for backpack sprayers: • Glyphosate: 25 feet for perennial streams or Special Aquatic Features with live water; 10 feet for seasonal wetlands or intermittent/ephemeral streams when dry. • Triclopyr: 100 feet for perennial streams or Special Aquatic Features with live water; 50 feet for seasonal wetlands or intermittent/ephemeral streams when dry.

Table 7. Activity buffers around water bodies[1] within suitable habitat, and within occupied or critical habitat

Activity	Suitable, Unoccupied Habitat	Occupied or Critical Habitat
All	Within the un-surveyed areas of **suitable habitat**, Sierra Nevada yellow-legged frog habitat occupancy will be assessed annually by the Forest Service within proposed treatments areas. Occupancy will be determined through surveys by the Forest Service or qualified biologists. The qualified biologist will have documented training in the biology and field identification of frogs in addition to demonstrable experience surveying for and positively identifying Sierra Nevada yellow- legged frogs. The survey will cover all suitable habitat areas and should any life stages of the species be found (i.e. the site is occupied), work activities for that area will occur during the limited operating period suggested by the Forest Service conservation measures.	Prior to initiating tree thinning, prescribed burns, herbicide applications, and other project activities that could put at risk Sierra Nevada yellow-legged frogs, surveys of each site will be conducted by a Forest Service biologist. If during the surveys, any life stages of the Sierra Nevada yellow-legged frog are found, the project activities will stop, the Forest Service will create a 750 feet buffer upstream and downstream from the frog detection point, and 75 feet (action-type dependent) wide minimum on both sides of the stream would not be treated.

Activity	Suitable, Unoccupied Habitat	Occupied or Critical Habitat
All	Instream work (e.g., road crossings, culverts) will not be performed during winter months (November 1 - April 15). During the remainder of the year (April 16th through October 31st) activities within the stream would be restricted with a limited operating period. During this time, areas 100 feet upstream and downstream of the work will be reviewed by project manager immediately prior to implementation. If no water is present the limited operating period would be lifted. If surface water is present within 200 feet of the activity, stream surveys will be conducted by a qualified biologist. If the surveys find no frogs, eggs or tadpoles, the limited operating period would be lifted for site specific projects. The window for lifting the limited operation period for site specific project work typically ranges from 1 to 4 days. After 4 days the limited operation periods will go into full effect again. In the event a Sierra Nevada yellow-legged frog is detected in the vicinity of in-stream work, the frog would be relocated to a safe place during waterhole development to prevent mortality after approval from U.S. Fish and Wildlife Service.	
All	-	Within 500 feet of known occupied sites for the Sierra Nevada yellow-legged frog, precautions will be issued to and care will be taken by workers to avoid crushing or trampling amphibians.
Limited operation period for all activities	Within 100 feet of suitable habitat, no project activities between November 1st and April 15th, or the first wetting rain (72 hours with no drying period), whichever comes first. A district biologist may amend the dates based on local site conditions.	Within 100 feet of suitable habitat, and 750 feet upstream and downstream, no project activities between November 1st and April 15th, or the first wetting rain (72 hours with no drying period), whichever comes first. A district biologist may amend the dates based on local site conditions.
Heavy Equipment including harvest equipment, road building equipment, mastication equipment, etc.	Will not be utilized within 100 feet of streams that have suitable habitat for Sierra Nevada yellow-legged frog, except for project activities on existing roads and stream crossings.	Will not be utilized within 100 feet of streams, and 750 feet upstream and downstream that are occupied by Sierra Nevada yellow-legged frog. For road and stream crossing activities within this zone, prior approval from U.S. Fish and Wildlife Service would be required.
Prescribed fire and pile burning	Piles to be burned will be built outside of the 100 foot Sierra Nevada yellow-legged frog riparian buffer to protect these animals.	No prescribed fire or pile burning will be done within 100 feet of occupied streams, and 750 feet upstream and downstream.
Thinning and burning	Within 100 feet of aquatic habitat, all conifers up to 12 inches dbh would be cut with chainsaws. Conifers between 12 inches and 30 inches dbh may be felled or girdled, depending on site conditions. Trees felled will have the boles retained on site and the limbs and tops removed and piled for later burning.	In the event a Sierra Nevada yellow- legged frog is detected in the vicinity of chainsaw thinning units, the treatment would be delayed for the season, or until the frog moved out of the treatment unit.

Activity	Suitable, Unoccupied Habitat	Occupied or Critical Habitat
Pile burning within the riparian conservation area	Piles to be burned will be built outside of the 100 foot Sierra Nevada yellow-legged frog riparian buffer to protect these animals. Pile burning will be in directional light, which means that the fire must start at one point only and let fire burn through to allow any wildlife species within the pile to escape. Piles for wildlife retention inside of the 100 foot riparian buffer will be built with wildlife pile prescriptions and will not be burned to provide for Sierra Nevada yellow-legged frog shelter habitat.	No pile burning will be done within 100 feet of occupied streams, and 750 feet upstream and downstream.
Tree and brush removal	To prevent loss or damage to suitable habitat, all tree and brush removals within the 100-foot buffer zone will be done by hand or with the use of chainsaws.	No activity within 75 feet of occupied aquatic habitat and 750 feet upstream and downstream.
Aspen management conifer removal	Trees may be removed with mechanical entry from 33 to 100 feet of the stream during the summer season (April 16 - Oct 31) when frogs are restricted to within 33 feet of streams. No mechanical entry will take place within 33 feet of live streams.	In the event a Sierra Nevada yellow-legged frog is detected in the vicinity of aspen treatment units, the upland and riparian treatment unit within 100 feet of the stream and 0.25 miles upstream and downstream of the sighting would be dropped permanently from treatment.
Herbicide application	Herbicide and other chemical treatments would not occur within 107 feet of the stream within (25 feet from upland habitat edge) suitable Sierra Nevada yellow-legged frog habitat.	Herbicide application would be restricted within 500 feet of occupied streams. Direct spray may be allowed between 107 feet and 500 feet from occupied sites where site specific treatment is analyzed and determined to have no or negligible risk. In the event a Sierra Nevada yellow-legged frog is detected in the vicinity of herbicide treatment units, the treatment would be delayed for the season, or until the frog moved out of the treatment unit.
Herbicide mixing	Herbicide mixing will not occur within 150 feet of surface waters, except at existing facilities	No mixing will occur within 500 feet of sites occupied by Sierra Nevada yellow-legged frog.
Fueling of gas-powered equipment with gas tanks larger than 5 gallons	Will not occur within 150 feet of surface waters, except at existing facilities.	No fueling of gas powered equipment will occur within 500 feet of sites occupied by Sierra Nevada yellow-legged frog.
Fueling of gas-powered equipment less than 5 gallons	Will not occur within 25 feet of surface waters, except at existing facilities.	No fueling of gas powered equipment will occur within 500 feet of sites occupied by Sierra Nevada yellow-legged frog.

1- Water bodies are lakes, ponds, tarns, streams, rivers, creeks, plunge pools within intermittent creeks, seeps, springs, pools (such as a body of impounded water contained above a natural dam), and other forms of aquatic habitat

Botanical Resources

Protect known threatened, endangered, sensitive, special interest, and watch list plant species according to Plumas National Forest current interim management prescriptions for specific species. If additional protected plant species are found during the life of the project, conduct an assessment and apply appropriate management prescriptions.

Noxious Weeds

Standard management requirements for preventing and controlling the spread of noxious weeds include:

- **Prevent spread of invasive species with equipment:** Use contract clauses to require that the activities of contractors are conducted to prevent and control the introduction, establishment, and spread of aquatic and terrestrial invasive species. For example, where determined to be appropriate, use agreement clauses to require contractors to meet Forest Service-approved vehicle and equipment cleaning requirements/standards prior to using the vehicle or equipment in the National Forest System.
- **Cleaning equipment:** Require all off-road equipment and vehicles (Forest Service and contracted) used for project implementation to be free of weeds. Clean all equipment and vehicles of all mud, dirt, and plant parts. This will be done at a vehicle washing station or steam-cleaning facility before the equipment and vehicles enter the project area.
- **Staging areas:** Do not stage equipment, materials, or crews in areas infested with invasive plant species where there is a risk of spread to areas of low infestation.
- **Known/existing infestations:** Known infestations would be designated as control areas where equipment and soil disturbing project activities would be excluded. These areas would be designated on project maps and delineated in the field with day-glow orange noxious weed flagging. The currently known noxious weeds in the project area are: barbed goatgrass (*Aegilops triuncialis*), yellow starthistle (*Centaurea solstitialis*), spotted knapweed (*Centaurea stoebe*), Canada thistle (*Cirsium arvense*), Scotch broom (*Cytisus scoparius*), common St. Johnswort (*Hypericum perforatum*), Dyer's woad (*Isatis tinctoria*), butter and eggs (*Linaria vulgaris*), and medusahead (*Taeniatherum caput-medusae*). Most weed species are limited in extent, except for Canada thistle, which has increased dramatically throughout the area after the Moonlight Fire. Known infestations would be prioritized for prevention and control measures based on species abundance (less common weeds would receive higher priority), risk of spread from activities, and other site-specific factors. If avoidance would unreasonably constrain our ability to implement the proposed restoration activities, equipment and vehicles would be cleaned prior to leaving the infested area. Additional weed control and monitoring mitigations would be developed to ensure project activities do not spread invasive plants.
- **Road construction, reconstruction, and maintenance:** All earth-moving equipment, gravel, fill, or other materials need to be weed free. Onsite sand, gravel, rock, or organic matter would be used where possible.
- **Revegetation:** If skid trails, landings, or stream crossings require soil stabilization, weed-free equipment, mulches, and seed sources would be used. On-site material would be chipped to use as mulch to the extent possible. If mulch is imported to the site use weed free rice straw (preferred) or certified weed free straw. Avoid seeding in areas where revegetation will occur naturally, unless invasive plant species are a concern. Save topsoil from disturbance and put it back to use in onsite revegetation, unless contaminated with invasive plants. All activities that require seeding or planting would need to use locally collected native seed sources or those

identified by the Botanist. A seed mix would be developed when specific site locations and conditions (dry, moist, wet, etc.) are determined.

Table 8. Project-specific mitigation measures for sensitive and native plant communities

Number	Activity	Mitigation measure
Bot-1	All	Unit-specific plant protection plans will be prepared. These will identify sensitive plant or invasive plant populations occur in treatment units and specific avoidance measures.
Bot-2	All	Where feasible and appropriate, native plant species would be planted within the riparian conservation area to increase ground cover and improve native plant diversity. These plantings would focus on areas where there is limited existing ground cover.
Bot-3	Transportation	In order to prevent adverse impacts to Pulsifer's milkvetch occurrence 007C along the non-system road U3030, the occurrence will be flagged and the area avoided during obliteration activities.
Bot-4	Transportation	In order to prevent adverse impacts to adobe parsley at the northern end of trail #12M29, the occurrence will be flagged and avoided if ground disturbing activities are required at this end of the trail segment to be decommissioned.
Bot-5	Transportation	In order to prevent adverse impacts to Susanville beardtongue sub-occurrence 001G along road 28N08, the occurrence will be flagged and avoided if ground disturbing activities outside the existing road prism are required at this location.

Cultural/Tribal Resources

This project would follow the guidelines outlined in the Region 5 Programmatic Agreement. The following protection measures will be implemented, as appropriate, for all cultural resources located within the project area. The application of the following protection measures would result in the project having "no effect" on cultural resources and the Forest would have taken into account the effect of the project on cultural resource sites in compliance with the programmatic agreement and Section 106 of the National Historic Preservation Act.

- If any unrecorded cultural resources (artifacts, features or sites) are encountered as a result of project operations, all activities in the vicinity of such finds will immediately cease pending an examination by the forest or district archaeologist, *including tribal consultation*.
- Adequate cultural resource surveys would be completed prior to the onset of project activities to ensure that any previously unrecorded cultural resources are not harmed. In areas where vegetation is too dense to perform cultural resource surveys prior to the onset of project activities, adequate surveys would be performed after fuels reduction project activities.
- All proposed activities, facilities, improvements, and disturbances would avoid heritage resource sites. "Avoidance" means that no activities associated with the project that may affect heritage resource sites would occur within a site's boundaries, including any defined buffer zones. Portions of the project may need to be modified, redesigned, or eliminated to properly avoid heritage resource sites.
- If cultural resources (including areas of concern/significance for the local Native Americans) are discovered during project implementation where none are known, the Mt. Hough Ranger District heritage resources staff would be contacted immediately and the discovery would be dealt with

as appropriate.

- All heritage resource sites within the area of potential effect would be clearly delineated prior to implementing any associated activities that have the potential to affect heritage resource sites. Buffer zones may be established to ensure added protection where the forest or district archaeologist determines that they are necessary. The use of buffer zones in conjunction with other avoidance measures are particularly applicable where setting contributes to the property's eligibility under 36 CFR 60.4, or where it may be an important attribute of some types of heritage resource sites (e.g., historic buildings or structures; historic or heritage properties important to Native Americans). The size of buffer zones needs to be determined by the forest or district archaeologist on a case-by-case basis.
- When any changes in proposed activities are necessary to avoid heritage resource sites (e.g., project modifications), these changes would be completed prior to initiating any activities.
- Monitoring during project implementation, in conjunction with other measures, may be used to enhance the effectiveness of protection measures.
- If heritage resources are inadvertently discovered during project implementation, the Mt. Hough Ranger District archaeologist would be contacted immediately. The heritage resources would be recorded, clearly delineated, and protected.
- Upon approval of the forest or district archaeologist, low intensity underburning may be allowed over selected prehistoric sites as long as fuel loads are relatively light.
- The forest or district archaeologist may approve the use of mechanical equipment to remove brush or woody material from within specifically identified areas within site boundaries under prescribed measures designed to prevent or minimize effects. Vegetative or other protective padding may be used in conjunction with the forest or district archeologist authorization of certain equipment types within site boundaries.
- Upon approval of the forest or district archaeologist, existing breaches within linear sites may be designated on the ground and reused for project activities.
- Roads and trails that currently overlie historic linear sites may continue to be used as transportation routes without notification. However, if there are activities that will change the morphology of the existing road or trail (that is overlaying a historic linear site), these activities need to be reviewed by the forest or district archaeologist.
- Roads proposed to be decommissioned that extend through archaeological sites will need to be blocked instead of sub-soiled.
- Vegetation may be removed within sites using hand tools, so long as ground disturbance is minimized and features are avoided. The removed vegetation shall not be piled within site boundaries unless the location has been specifically approved by the forest or district archaeologist.

Table 9. Project-specific mitigation measures for cultural resources

Number	Activity/Action	Mitigation measure
CR-1	Aspen Restoration	The District Archaeologist would be consulted when arborglyph sites are identified within aspen stands. Sites would be flagged and avoided following the Standard Protection Measures outlined in the Region 5 Programmatic Agreement (USDA 2013). Trees will be directionally felled away from sites.

Mitigations added in response to comment received from Native American Heritage Commission:

a) Feather River RCD will consult with culturally affiliated Native American tribes regarding the disposition of recovered cultural items that are not burial associated.
b) The following process will be followed in the event that Native American human remains are discovered inadvertently:
    i. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:
        A. The coroner of the county in which the remains are discovered must be contacted to determine that no investigation of the cause of death is required, and
        B. If the coroner determines the remains to be Native American:
            1. The coroner shall contact the Native American Heritage Commission within 24 hours.
            2. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American.
            3. The most likely descendent may make recommendations to the Feather River RCD and Plumas National Forest, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code section 5097.98, or
    ii. Where the following conditions occur, the Plumas National Forest shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.
        A. The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission.
        B. The descendant identified fails to make a recommendation; or
        C. The Plumas National Forest rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to Plumas National Forest.

Geology/Soils

Several soil and water quality protection measures are standard for timber harvest projects on National Forest System lands. Most of these measures, such as practices for stream course protection, harvest traffic patterns and skid trail layout, are described in the Timber Sale Administration Handbook for Region 5 (FSH 2409.15) and in standard clauses of timber sale contracts. Additional standard management practices for hydrology and soil resources include:

- **Temporary roads:** All temporary roads used in this project whether existing or new would be closed to traffic and adequate drainage installed after operations. Subsoiling is required (see subsoiling project design criteria, below).
- **Landings:** Landings would be utilized to remove sawlog and biomass products. Landing would be designated at the time of harvest operations. To the extent practicable, past, existing landings would be utilized so long as they are located in places where no other resource concerns exists. New landings would be constructed to accommodate material where necessary.
- **Subsoiling (Landings temp roads, main skids):** All landings, all temp roads, and main skids within 200 feet of landings would be subsoiled. If implemented, subsoiling would lift and fracture the soil in place leaving it loose and friable to a minimum depth of 18 inches. Treatment would be repeated if furrows are left deeper than 12 inches. Furrows would be oriented perpendicular to slopes greater than 10 percent. Recommendations from a 2006 review of subsoiling activities on Plumas and Tahoe National Forests would be followed (USDA Forest Service 2006). Subsoiling treatments could be suspended or eliminated if the subsurface rock size and distribution is such that effective operation is not possible, if slopes are over 25 percent, or if root damage or root disease, is a concern. The contract (sale) administrator shall consult with earth scientist and other appropriate resource specialists to eliminate or suspend subsoiling, in areas where subsoiling may not benefit the resource.
- **Prescribed fire control line construction:** Fire control lines are a concern for hydrology and soil quality risks, whether put in by hand or using mechanical means. They need to be rehabilitated for drainage using best management practice (BMP) guidance below. Where containment lines meet roads or off highway vehicle (OHV) trails they shall be disguised by scattering brush and slash for the first 100 feet. In the first 100 feet from an existing road or trail, fire containment lines shall not be constructed until implementation is scheduled. If prescribed fire containment

  lines are in riparian conservation areas (RCAs) they shall also be covered with slash to achieve 50 percent ground cover. Fireline construction should be in accordance with all equipment restrictions. Exception may be made upon consultation with an earth scientist. If old road templates are opened up they are to be physically closed with rock or earthen barriers. The objective is for them to not become non-system trails.
- **Slope restrictions:** Ground-based equipment would be restricted to slopes less than 35 percent. Exceptions may be made for short pitches of 100 feet slope distance, up to 50 percent slope. When units have inaccessibly steep inclusions of steeper ground, sawlog and biomass products may be end-lined. Excessive soil displacement (i.e., 'furrowing') caused by endlining would be mitigated or repaired by the operator. Mastication and grapple piling units may include 40 percent slope. Exceptions may be made for short pitches of 100 feet slope distance, up to 50 percent slope.

- **Wet weather and winter harvest operations:** Conduct ground based harvest operations when soil is dry; that is, in the spring when soil moisture in the upper 8 inches is not sufficient to allow a soil sample to be squeezed and hold its shape, or will crumble when the hand is tapped. In the summer and early fall after storm event(s) when soil moisture between 2-8 inches in depth is not sufficient to allow a soil sample to be squeezed and hold its shape, or will crumble when the hand is tapped. Winter harvest operations may occur only when the ground is frozen to a depth of 5 inches or over 8 inches of well packed snow.
- **Down woody material and ground cover retention:** Maintain adequate cover of surface fuels, litter, duff, and large woody debris to maintain 50 percent ground cover. Maintain, where available, 10-15 tons of large down logs per acre (greater than 15 inches diameter), emphasize decay classes 1, 2, and 3. On site activity generated material (slash or chips) shall not exceed a depth greater than 6 inches in depth.
- **Equipment Use**: Only grapple piling equipment with lift capabilities would be utilized for machine piling. Dozer piling would be avoided unless absolutely necessary, and would be allowed in landings. Avoid piling soil and duff to the extent possible.

Hazards and Hazardous Materials

Herbicide

Standard management requirements are applied when implementing herbicide application, including:

- Herbicide application would be consistent with the Forest Service Pesticide Use Policy, would be in compliance with state and federal regulations, and would follow Region 5 Best Management Practices for Water Quality and Vegetation Manipulation and the Region 5 supplement No. 2100-95-1 to 2150 on Pesticide-Use Management and Coordination. Appropriate monitoring protocols will be used to ensure herbicide was applied according to requirements according to label specifications.
- The Herbicide Transportation, Handling, and Emergency Spill Response Plan and spill kit will be on-site when herbicide treatment methods occur. This plan will include reporting procedures, project safety planning, methods of clean-up of accidental spills, and information including a spill kit contents and location as noted in Forest Service Manual (FSM) 2150, Pesticide-Use Management and Coordination and Handbook (FSH) 2109.14, and Pesticide-Use Management and Coordination Handbook.
- Apply herbicide at optimum times of year to achieve higher percent kill.
- Containers and equipment will be disposed of in accordance with regulations to prevent water contamination.
- **Sierra Nevada yellow-legged frog habitat protection:** Within 500 feet of known occupied sites for foothill yellow-legged frog or Sierra Nevada yellow-legged frog, herbicide application would be designed to avoid adverse effects to individuals and their habitats (USDA Forest Service 2004, USDA Forest Service 1998). If tadpoles or metamorphs of foothill yellow-legged frog or Sierra Nevada yellow-legged frog are present, herbicide treatment would be seasonally delayed until metamorphs disperse.
- **Western bumblebee protection:** Avoid spraying any plant while it is in bloom or during the middle of the day when pollinators are the most active (USDA and USDI 2015).
- **Protection of botanical resources:** No applications within 25 feet of sensitive or watch list plant species. This buffer may be reduced if the sensitive or watch list plants are

covered/shielded during spraying.

- **Protection of human health:** No herbicides would be applied on weekends or holidays to minimize impacts to recreation. To ensure members of the public do not enter treated areas during label reentry intervals, applicators would remain in or near treated areas until the application solution is fully dry. (This is the reentry interval for all herbicides and adjuvants proposed for use in this project.)

Hydrology/Water Quality

Project Best Management Practices (BMPs)

Protect water quality through the use of best management practices (BMPs) which are employed by the Forest Service and the State of California to prevent water quality degradation and to meet state water quality objectives relating to non-point sources of pollution. Best management practices utilized on Plumas National Forest System lands are procedures and techniques that are incorporated in project actions and have been determined by the State of California to be the most effective, practicable means of preventing or reducing the amount of pollution generated by nonpoint sources to a level compatible with water quality goals.

Best management practices applicable to Plumas National Forest projects such as the Moonlight Fire Area Restoration Project are presented in a guide for all U.S. national forests, National Best Management Practices for Water Quality Management on National Forest System (USDA 2012). Additional best management practices are presented in a regional amendment (Pacific Southwest Region - Region 5) of the USDA-Forest Service Handbook, Section 2509.22, Chapter 10 (Water Quality Management Handbook) (USDA 2011). Per the Region 5 amendment to FSH 2509.22, activities would have best management practice implementation monitoring using a "checklist" approach. Best management practices implementation checklists would document whether and when the site-specific best management practices specified in NEPA analyses were implemented. These checklists would provide a systematic means for early detection of potential water-quality problems, and would be completed early enough to allow corrective actions to be taken, if needed, prior to any significant rainfall or snowmelt throughout the duration of the project. Checklists would be completed several times during the life of most projects, including prior to ground-disturbing activities, prior to winter periods, and at the completion of the project.

The standard best management practices for protecting water quality are listed in table 10. The table lists the Region 5 best management practices that may apply to this project and also refers to the corresponding Forest Service National best management practices. In addition to the general best management practices, use project-specific mitigation measures that relate directly to these best management practices to minimize erosion and resultant sedimentation (these are outlined in the Project-specific Mitigation measures section below).

Table 10. Standard best management practices (BMPs) for protecting water quality

R5 BMP Number	Best Management Practice	Description	National Best Management Practice
1.1	Timber Sale Planning Process	Project contract includes provisions set forth in NEPA to protect water quality.	Veg-1

1.3	Determining Surface Erosion Hazard for Timber Harvest Unit Design	Based on an evaluation of erosion hazard, erosion control measures may be used to reduce the potential risk of accelerated erosion to a low or moderate level.	Veg-2
R5 BMP Number	**Best Management Practice**	**Description**	**National Best Management Practice**
1.4	Using Sale Area Maps and/or Project Maps for Designating Water Quality Protection Needs	Sale area or contract map contains treatment unit boundaries, streamcourse and wetland protection zones, roads where haul is permitted/prohibited, and areas where special operations are designated to protect water quality.	N/A
1.5	Limiting the Operating Period of Timber Sale Activities	Purchaser's Plan of Operation and Operation Schedule are approved by Forest Service per clauses C6.3 and B6.31 Operating period limitations, such as when soils are wet, are defined per clause C6.313	N/A
1.8	Streamside Management Zone Designation	As a preventive measure, roads, skid trails, landings, and other timber-harvesting facilities will be kept at a prescribed distance from designated stream courses.	Plan-3
1.9	Determining Tractor-loggable Ground	Project contract specifies areas upon with tractors can operate.	Veg-4
1.10 1.12	Tractor Skidding Design Log Landing Location	Skid trail patterns serve to avoid build-up of destructive runoff and sedimentation to stream management zones. Landings are of minimal size, are located well outside of streamside management zones, minimize the number of skid trails required, and are of stable construction.	Veg-6
1.13	Erosion Prevention and Control Measures During Timber Sale Operations	Equipment has not operated when ground conditions are such that excessive damage has resulted. Erosion control measures have been in place prior to likely precipitation events and prior to seasonal shutdown.	Veg-2
1.14	Special Erosion-prevention Measures on Disturbed Land	When required by the contract, the purchaser will give adequate treatment by spreading slash, mulch, or wood chips (or, by agreement, some other treatment) on portions of tractor roads, skid trails, landings, cable corridors or temporary road fills. This provision is to be used only for sales which contain identified special soil stabilization problems which are not expected to be adequately treated by normal methods prescribed under other contract provisions.	N/A

1.15	Regeneration of Areas Disturbed by Harvest Activities	This best management practice is only for projects where it is expected that disturbed soils in certain areas will require vegetative cover for stabilization and normal contract methods will not mitigate sufficiently. These areas are shown on the project map and treatments are described in the contract.	N/A
R5 BMP Number	**Best Management Practice**	**Description**	**National Best Management Practice**
1.16 1.17	Log Landing Erosion Control Erosion Control on Skid Trails	Erosion control work is completed on landings and skid trails to adequately drain and disperse water and minimize erosion and sedimentation. Landing treatments facilitate revegetation, stabilize cut and fill slopes, and divert road drainage away from landings.	Veg-6
1.18 1.19	Meadow Protection during Timber Harvesting Streamcourse and Aquatic Protection	Any damage to streamcourses or meadows has been repaired in a timely fashion. All project-generated debris has been removed from streamcourses.	AqEco-1
1.20 1.21	Erosion-control Structure Maintenance Acceptance of Timber Sale Erosion-control Measures Before Sale Closure	Erosion control measures throughout the project area are acceptable and have been maintained throughout the project term.	N/A
1.22	Slash Treatment in Sensitive Areas	Special slash treatment, without the use of mechanized equipment, is specified in project sensitive areas as necessary. These areas are shown on the project map and treatments are described in the contract.	Veg-8
1.25	Modification of the Timber Sale Contract	If necessary, the project contract was modified during implementation to prevent damage to soil, water or watershed values.	N/A
2.3	Road Construction and Reconstruction	Temporary and long-term erosion-control measures are necessary to reduce erosion and maintain overall slope stability. These erosion-control measures may include vegetative and structural techniques to ensure the area's long-term stability.	Road-3
2.4	Road Maintenance and Operations	To ensure water-quality protection by providing adequate and appropriate maintenance and by controlling road use and operations	Road-4
2.5	Water Source Development and Utilization	To supply water for road maintenance, dust abatement, and other management activities, while protecting and maintaining water quality	WatUses-3

2.7	Road Decommissioning	Stabilize, restore, and vegetate unneeded roads to a more natural state as necessary to protect and enhance National Forest System lands, resources, and water quality. The end result is that the decommissioned road will not represent a significant impact to water quality by reducing sedimentation from road surfaces and slopes, reducing risk of mass failures, and restoring natural surface and subsurface drainage patterns.	Road-6
R5 BMP Number	**Best Management Practice**	**Description**	**National Best Management Practice**
2.8	Stream Crossing	Minimize water, aquatic, and riparian resource disturbances and related sediment production when constructing, reconstructing, or maintaining temporary and permanent stream crossings.	Road-7
2.11	Equipment Refueling and Servicing	To prevent fuels, lubricants, cleaners, and other harmful materials from discharging into nearby surface waters or infiltrating through soils to contaminate groundwater resources.	Road-10
2.13	Erosion Control Plans (roads and other activities)	To ensure that all required and relevant mitigation measures are documented and implemented, an environmental control plan will be prepared to complement design (design addresses required mitigations specified in NEPA documents), site-specific prescriptions, and amended to include changes made in the field.	Road-3
5.2	Slope Limitations Mechanical Equipment Operation	Limit tractor operation to slopes where corrective measures such as water bars can be effectively installed to limit excessive surface disturbance and keep surface water from concentrating	Veg-2
5.4	Revegetation of Surface-disturbed Areas	Protect water quality by minimizing soil erosion through the stabilizing influence of vegetation foliage and root network.	Veg-3
5.7	Pesticide Use Planning Process	To introduce water quality and hydrologic considerations into the pesticide use planning process.	Chem-1
5.8	Pesticide Application According to Label Directions and Applicable Legal Requirements	To avoid water contamination by complying with all label instructions and restrictions for use.	Chem-2
5.10	Pesticide Spill Contingency Planning	To reduce contamination of water by accidental pesticide spills.	Chem-3
5.11	Cleaning and Disposal of Pesticide Containers and Equipment:	To prevent water contamination resulting from cleaning or disposal of pesticide containers.	Chem-5

5.12	Streamside Wet Area Protection During Pesticide Spraying	To minimize the risk of pesticide inadvertently entering waters, or unintentionally altering the riparian area, streamside management zone, or wetland.	Veg-3
5.13	Controlling Pesticide Drift During Spray Application	To minimize the risk of pesticide falling directly into water, or non-target areas.	N/A
6.2	Consideration of Water Quality in Formulating Fire Prescriptions	To provide for water quality protection while achieving the management objectives through the use of prescribed fire.	Fire-2
6.3	Protection of Water Quality from Prescribed Burning Effects	To maintain soil productivity, minimize erosion, and minimize ash, sediment, nutrients, and debris from entering water bodies.	Fire-2
R5 BMP Number	**Best Management Practice**	**Description**	**National Best Management Practice**
7.3	Protection of Wetlands	To avoid adverse water quality impacts associated with destruction, disturbance, or modification of wetlands.	Plan-3, AqEco-1, AqEco-3
7.4	Forest and Hazardous Substance Spill Prevention Control and Countermeasure (SPCC) Plan	To prevent contamination of water from accidental spills.	AqEco-2, Fac-6
7.6	Water Quality Monitoring	A water quality monitoring plan will be part of an environmental document, a management plan, or a special use permit, or it will be developed in response to other needs.	N/A
7.8	Cumulative Off-site Watershed Effects	Evaluate cumulative off-site watershed effects (CWE) including all effects on beneficial uses that occur away from the sites of actual land use activities and which are transmitted through the drainage system. Effects can be either beneficial or adverse and result from the synergistic or additive effects of multiple management activities within a watershed.	Rec-4

Riparian Conservation Area and Streamside Management Zone

Apply the standards and guidelines identified in the 2004 Sierra Nevada Forest Plan Amendment (SNFPA) Record of Decision (ROD) relating to treatment of fuels and associated project activities within all riparian conservation areas (RCAs) and streamside management zones (SMZ), unless more restrictive measures apply for the protection of Sierra Nevada yellow-legged frog.

Integral to the protection of streamside management zones and riparian conservation areas is the designation of prescribed widths for these zones, so that the location of special treatment mitigation measures associated with streamside management zones and riparian conservation areas is clear to all persons involved in carrying out a proposed project. Guidelines for widths of streamside management zones are presented in appendix M of the Plumas Forest Plan. These guidelines were superseded by the suggested

widths for riparian conservation areas presented in appendix A of the 2004 Record of Decision (ROD) for the regional amendment of forest plans within the Sierra Nevada (USDA 2004).

The riparian conservation area widths listed below would be the maximum buffer width identified for each aquatic feature type. Table 11 also displays an additional buffer (inner buffer or equipment exclusion zone) within the riparian conservation area guideline buffer.

Table 11. Mitigation measures for riparian conservation areas by stream type*

Stream type	Riparian Conservation Area widths	Minimum distance to burn pile	Equipment exclusion zone for slopes less than 35 percent	Equipment exclusion zone for slopes greater than 35 percent
*Perennial Stream	300 feet	100 feet	100 feet	No equipment entry
*Intermittent Stream	150 feet	100 feet	50 feet	No equipment entry
Ephemeral stream	150 feet	15 feet	25 feet	No equipment entry
*Special aquatic features (reservoirs, wetlands, fens, and springs)	300 feet	100 feet	100 feet	No equipment entry
Riparian features, dry meadows, seasonal wetlands	150 feet	15 feet	50 feet	No equipment entry

*Unless this is suitable habitat for Sierra Nevada yellow-legged frog, in which case, conservation measures for Sierra Nevada yellow-legged frog would apply, where more restrictive (see project-specific mitigation measures).

For example, there is a perennial stream within a treatment unit-a 300 foot buffer is applied. Within that 300 foot buffer, approximately 70 feet from the edge of the active channel, the slope is 22 percent; a 100 foot inner buffer is applied. From the edge of the active channel no equipment can enter the riparian conservation area for 100 feet. Equipment can enter the remaining 200 feet of the 300 foot total buffer. When the slope within the riparian conservation area guideline buffer is greater than 35 percent, no mechanical equipment is allowed to enter the riparian conservation area. For example, there is a perennial stream within a treatment unit- a 300 foot buffer is applied. Within that 300 foot buffer, approximately 100 feet from the edge of the active channel, the slope is 38 percent; no equipment is allowed within any portion of the 300 foot buffer that exceeds 35 percent slope.

Standard management practices for riparian conservation areas are applied within the riparian conservation area widths (as defined in table 76). In some cases, more restrictive buffers or measures or Sierra Nevada yellow-legged frog habitat may apply (see project-specific mitigation measures). These measures include the following:

- **Riparian Conservation Area Equipment Constraints:** Establish equipment exclusion zones adjacent to stream channels according to table 76. Allow equipment to travel into outer riparian conservation area zone to harvest trees and bring them to skid trails. To minimize soil displacement, no equipment would be permitted to turn around while off a skid trail in a riparian conservation area.
- **Springs, seeps, fens, and meadows:** Prohibit mechanical equipment use within 100 feet of edge of features. Hand thinning treatments within feature and within the equipment exclusion zone would be allowed. Piles would be constructed at least 25 feet from edge of feature. Tree boles would be left in fens as benefit to structure and diversity. Prescribed burning would not be allowed within 25 feet of features.
- **Landings:** There would be no construction of new landings or use of old landings within riparian conservation areas unless agreed to by earth scientist and sale administrator.
- **Temp roads/Skid Trails:** Where temporary road or skid trail construction involves cut and fill, the feature would be subsoiled, then re-contoured to match the existing topography. In riparian conservation areas, slash would be scattered to provide ground cover of 50 percent or greater and would be less than 6 inches in depth. Slash would consist of organic material (logs,

branches chips and duff). Slash would be scattered to resemble a natural appearance similar to the surrounding landscape. Rocks can be included as acceptable ground cover (included in the 50 percent cover). These areas would be sufficiently blocked at the entrances to preclude access by motorized wheeled vehicles. Where temporary roads cross stream channels, all fill would be removed from the channel and utilized for re-contouring or spread in a stable location outside the riparian conservation area. To the extent possible, existing skid trails would be utilized thus minimizing any new disturbance within the project area.

- **Stream Crossings:** Crossings of perennial streams with skid trails or temp roads are generally prohibited. If skid trails or temporary road construction need crossings in perennial or intermittent streams consultation with earth scientist and biologist is required prior to approval.
- **Prescribed Fire:** Broadcast (prescribed) burning would be allowed within riparian conservation areas, but there would be no ignitions in riparian vegetation. Fire may back through this zone.

Aspen and Cottonwood Treatments

Per the Sierra Nevada Framework, restoration treatments may occur within the riparian conservation areas. Because aspen and cottonwood treatments aim to restore riparian vegetation, several exceptions to the above riparian conservation area and streamside management zone guidance are used to conduct these treatments, including the following. In some cases, more restrictive buffers or measures or Sierra Nevada yellow-legged frog habitat may apply (see project-specific mitigation measures).

- **Mechanical equipment use in riparian conservation areas:** Equipment use within riparian conservation areas will be restricted within 15 feet on each side of the riparian conservation area feature (e.g. edge of the active channel, wet perimeter of the soil, etc.) or riparian vegetation, whichever is greater. Mechanical equipment will be allowed to work adjacent to this exclusion zone and reach in with an extendable boom.
- **Skid trail location:** skid trails will be perpendicular to the stream course within 50 feet of the stream and spacing of skids will generally be no closer than 120 feet.
- **Streambank stability:** No trees will be removed that are providing stability to the streambank.
- **Harvesting periods:** These units will be harvested in dry periods when the upper 8 inches of the soil is essentially dry. For this measure soil is defined as “dry” when no portion can be molded by hand compression and hold that shape when the hand is tapped. Additionally, these units can be treated when the ground is frozen to a depth of 5 inches or snow depth is at least 18 inches or is snow is compacted by equipment to 8 inches.

Mineral Resources

Standard management requirements will be monitored by Forest staff and are applied to avoid impacts to mining claims or activity, including:

- **Protect mining claim corner markers and discovery markers:** Mining claims markers include a corner monument on each of the four corners and one at the discovery point. Any other signs should be approved by the Forest Service and may require a Plan of Operations. Monuments are usually a wooden 4X4 post or a PVC pipe, often with rocks piled up around the base. However, a wide variety of variations can be found. This does not apply to signs

attached to trees.

- **Claim signs attached to trees (marked for removal) should be removed from the tree and turned in to the Minerals Staff:** In most cases, attaching signs to trees is not allowed. However, many mining claims signs are attached to trees. If trees planned for removal have mining claim signs attached to them, the signs should be removed and turned in the Minerals staff, so the signs may be returned to the claimant. The location of the sign should be noted when turning it in to the Minerals staff.

Recreation

Standard management requirements will be monitored by the District or Forest staff and are applied to protect recreational opportunities and ensure visitor safety, including:

- Motorized trails will be protected from damage as much as possible and shall be restored back to its original condition if damaged by operations. These trails are to be closed to the public during active operations that utilize these trails. Trails will be signed during these closures. The Forest Service will be notified 21 days prior to entering the units that the trails are included in or adjacent to. Closure will be by mutual agreement as to timing, duration and type and location of safety signs. No decking of landing piles on trails. Trails are to remain open after they have been utilized for project purposes.
- Implement measures for safety of forest visitors and provide public notifications, such as: treatment areas closures, locations of herbicide use and prescribed fire, locations of haul routes, and treatment implementation timeframes. Provide public notification as appropriate at recreation sites, trailheads, in local newspapers, and online.
- Coordinate treatment timing limitations to minimize impacts to the recreating public, concession operators, and special use permit holders. This may include a limited operating period from Memorial Day to Labor Day within recreation sites, no project activities or hauling activities on weekends or holidays and during important hunting season timeframes, or other site specific limitations determined necessary to minimize impacts to recreation activities within the project area.
- Obliterate, obscure, or physically block hand or machine fire lines, skid trails, and temporary roads that are visible from, or intersect open roads to prevent unauthorized OHV use.

Table 12. Project-specific mitigation measures for recreation

Number	Activity	Mitigation measure
Rec-1	All	No project activities will be conducted within developed campgrounds from Memorial Day to Labor Day.
Rec-2	All	Operations will abide by the motor vehicle prohibitions in the Diamond Mountain Limited Vehicle Access Area (T 27/28 N, R11/12E), specific acreage and timing is coordinated annually with the California Department of Fish and Game to provide for Roadless deer hunting opportunities.
Rec-3	Hauling	Restrict hauling to weekdays only within Antelope Lake Recreation Area, on National Forest System road 28N03 to National Forest System road 29N43 and Antelope Lake Dam. No hauling on holidays from Memorial Day thru Labor Day weekend.
Rec-4	Hauling	Sign all haul routes to alert drivers of hauling and logging activities around the Antelope Lake Recreation Area, particularly the intersection of campgrounds, the boat launch, and trailheads. A key location for a logging traffic alert sign is at the intersection of Plumas County roads 112 and 207 in Taylorsville near the rodeo grounds. Alternate routes may be required due to season events or road restrictions and/or closures.
Rec-5	Vegetation management in	For treatments within developed campgrounds, a recreation specialist will be consulted to identify trees to be maintained for screening, shading, campground aesthetics, and to identify hazard trees for removal.
Rec-6	Pile burning in campground	Ensure that mechanical piles in developed campgrounds do not contain accumulated soil and are able to burn completely. Landing piles within the Antelope Lake Recreation areas will be burned and removed promptly following treatment.
Rec-7	Vegetation management near trails	Where trail routes are within, or along the boundary of treatment units, ensure trail route is clearly marked and maintained, remove hazard trees along the trail. If treatment operations cross, or damage the trail tread, re-establish the trail to the appropriate design standards when implementation is complete.
Rec-8	Firewood	Provide public notification of firewood gathering opportunities associated with the project.
Rec-9	Herbicide Application	No herbicides will be applied on weekends or holidays to minimize impacts to recreation. To ensure members of the public do not enter treated areas during label reentry intervals, applicators will remain in or near treated areas until the application solution is fully dry. (This is the reentry interval for all herbicides and adjuvants proposed for use in this project.)
Rec-10	All Activities	Protect special use improvements within the project area including two pasture/livestock areas, one waterline, and one resource monitoring site. The special use improvements will be flagged during project implementation and identified on contract maps as improvements.

Transportation

Standard management requirements for transportation will be monitored by District or Forest staff and include:

- **Stream crossings:** Design all new stream crossings to accommodate a 100-year flood and provide fish passage as necessary.
- **Waterbars:** Stabilize and strategically place water bars on temporary roads where drainage control issues are evident or expected.
- **Dust abatement**: Abate dust from logging traffic with water selected from water drafting sites that have suitable stream flow and access. When water is scarce, use alternative

sources such as chlorite, sulfonate or other dust abatement materials.

- **Drafting sites**: New or existing water draft sites would be evaluated with the Mt. Hough Ranger District biologist prior to changes or use. Drafting sites shall be visually surveyed for amphibians and their eggs before drafting begins. Estimate maximum drawdown volumes prior to using the draft site. Maintain minimum pool levels during drafting using measurements such as staff gauges, stadia rods, tape measures, etc. Construct water-drafting sites so that oil, diesel fuel, or other spilled pollutants would not enter the stream. Back down ramps would be constructed and or maintained to ensure the streambank stability is maintained and sedimentation is minimized. Rocking, chipping, mulching, or other effective methods are highly recommended to achieve this objective. As necessary, earthen or log berm, straw waffle, certified weed free hay or rice straw bale berms, or other containment structures would be constructed at the bank full water line to protect the stream bank. Forest personnel and contractors shall use the Forest Service approved suction strainer (FSM 5161) or other foot vales with screens having openings less than 2mm in size at the end of drafting hoses. The suction strainer shall be inserted close to the substrate in the deepest water available; the suction strainer shall be placed on a shovel, over plastic sheeting, or in a canvas bucket to avoid uptake of substrate or aquatic biota. "Mucked out" debris, bedload sediment, etc. shall be transported to an appropriate disposal site (to be designated) if no apparent site is feasible.
- **Pre-existing skid trails and landings:** would be used whenever available, feasible, and in a desirable location. In order to avoid loss of land base productivity, no more than 15 percent of timber stands would be dedicated to landings and permanent skid trails (USDA Forest Service 1988). In areas where pre-existing skid trails and landings are not present, construction of such facilities would occur as agreed upon by the Forest Service and purchaser. All landings and skid trails utilized would conform to the standards and guidelines set forth in the Timber Sale Administration Handbook (FSH 2409.15) and the Forest Plan.

Monitoring

Biological Resources

Terrestrial and Aquatic Wildlife Resources

Surveys for Sierra Nevada yellow-legged frogs would be conducted by Forest staff or qualified contracted biologist both before project implementation as well as after project implementation. Comparison of areas utilized before project activities, including basking site enhancement, would be compared to post-treatment.

California spotted owl and northern goshawk protected activity centers treated with fuels reduction would be monitored by Forest staff or qualified contracted biologist for at least 2 years after project treatment to determine site occupancy.

Botanical Resources

Noxious Weeds

Monitoring during and after project implementation would be used to assess the effectiveness of the

standard management requirements at preventing the introduction and spread of invasive plant species inthe project area. The measurement indicators described in this analysis—for example, the number of existing infestations and the number of acres treated—would be used in this assessment. Post-treatment monitoring would identify the need for follow-up treatment, assess the effectiveness of the different treatment methods, and/or identify the need for alternative methods of control. Monitoring would be conducted by district personnel during and following project implementation and is expected to greatly reduce the likelihood of uncontrollable spread of invasive plant species in the Moonlight Restoration project area. Any treatment of invasive species would be conducted consistent with the Moonlight Fire Area Invasive Plant Treatment Project, which is being planned as a separate project.

Cultural/Tribal Resources

Monitoring during project implementation, in conjunction with other measures, may be used to enhance the effectiveness of protection measures.

Forest archaeologists or qualified contractors will monitor sites to provide protection as needed. Sites may be monitored by Fire crews delegated as delegated by the Forest archaeologist, depending on the site or resource type.

- Fire lines or breaks may be constructed off sites to protect at risk historic properties.
- Vegetation may be removed and fire lines or breaks may be constructed within sites using hand tools, so long as ground disturbance is minimized and features are avoided, as specified by the heritage program manager.
- Fire shelter fabric or other protective materials or equipment (e.g., sprinkler systems) may be utilized to protect at risk historic properties.
- Fire retardant foam and other wetting agents may be utilized to protect at risk historic properties and in the construction and use of fire lines.
- Surface fuels (e.g., stumps or partially buried logs) on at risk historic properties may be covered with dirt, fire shelter fabric, foam or other wetting agents, or other protective materials to prevent fire from burning into subsurface components and to reduce the duration of heating underneath or near heavy fuels.
- Trees which may impact at risk historic properties should they fall on site features and smolder can be directionally felled away from properties prior to ignition, or prevented from burning by wrapping in fire shelter fabric or treating with fire retardant or wetting agents.
- Vegetation to be burned shall not be piled within the boundaries of historic properties unless the location (e.g., a previously disturbed area) has been specifically approved by the Forest's heritage program manager.
- Mechanically treated (crushed/cut) brush or downed woody material may be removed from historic properties by hand, through the use of off-site equipment, or by rubber-tired equipment approved by the heritage program manager. Ground disturbance shall be minimized to the extent practicable during such removals.
- Woody material may be chipped within the boundaries of historic properties so long as the staging of chipping equipment on-site does not affect historic properties.
- The Forest's heritage program manager shall approve the use of tracked equipment to remove brush or woody material from within specifically identified areas of site boundaries under

prescribed measures designed to prevent or minimize effects. Vegetative or other protective padding may be used in conjunction with the heritage program manager's authorization of certain equipment types within site boundaries.

Geology/Soils

The Forest Plan sets out objectives and protocol for monitoring of plan standards and guidelines, best management practice compliance and effectiveness, and soil productivity parameters. Monitoring is to be completed by Forest staff on a per annum basis, either project by project, or a sampling of projects. Sampling should include at least five units for effectiveness monitoring to confirm that soil cover and fine organic matter is not reduced below recommended levels. Road improvement and obliteration actions would be monitored after implementation and after the first winter to ensure that treatments remain effective. Specific methods would be defined by district watershed personnel.

Hydrology/Water Quality

Water quality monitoring would be implemented by Forest staff in compliance with the Regional Water Quality Management Handbook. Best management practices implementation checklists will document whether, and when, the site-specific best management practices (BMPs) specified in NEPA analyses were implemented (BMP 16.31). The checklist will be the primary systematic means for early detection of potential water-quality problems, and will be completed early enough to allow corrective actions to be taken, if needed, prior to any significant rainfall or snowmelt throughout the duration of the project.

Recreation

Monitoring will be conducted by Forest staff or qualified contractor. Monitor treatment areas to determine if illegal off-highway vehicle (OHV) use is taking place in areas where treatments have occurred. If monitoring reveals this is happening, steps should be taken to prohibit the use (i.e. signing, barrier installation, increased law enforcement).

Monitor National Forest System trail conditions following prescribed burning to determine if there is a need for increased trail maintenance for specific areas due to fallen trees or increased erosion.

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USDA Forest Service 2011. Best Management Practices (BMP) Soil and Water Quality Management Handbook Amendment - 2509.22_10. FSH Amendment, Vallejo: USDA Forest Service, Vallejo, CA.

USDA Forest Service. 2012. National Best Management Practices for Water Quality Management on National Forest System Lands, Volume 1: National Core BMP Technical Guide. USDA Forest Service Publication FS-990a. U.S. Department of Agriculture, Forest Service, Washington D.C.

USDA Forest Service. 2014. Pacific Southwest Region Biological assessment for actions that affect the Sierra Nevada Yellow-legged frog, northern distinct population segment of the mountain yellow- legged frog, and Yosemite toad on National Forest Lands in the Sierra Nevada.

USDA and USDI 2015. Pollinator-Friendly Best Management Practices for Federal Lands. US Department of Agriculture and US Department of Interior Draft May 11, 2015 (In response toPresidential Memorandum of June 20, 2014). Available online: http://www.fs.fed.us/wildflowers/pollinators/BMPs/

USDA Forest Service Pacific Southwest Region (Region 5), California State Historic Preservation Officer, Nevada State Historic Preservation Officer, Advisory Council on Historic Preservation. 2013. Programmatic Agreement Among U.S.D.A. Forest Service, Pacific Southwest Region (Region 5), California State Historic Preservation Officer, Nevada State Historic Preservation Officer, Advisory Council on Historic Preservation Regarding the Processes for Compliance with Section 106 of the National Historic Preservation Act for Management of Historic Properties by the National Forests of the Pacific Southwest Region, February 2013 (Region 5 PA). Document on file, Plumas National Forest, Quincy, CA.

Experience Questionnaire

Instructions: See Box 10, Remarks, if extra space is needed to answer any item below. Mark X in the appropriate boxes.

1. Contractors Name, Address, & Telephone No.

_____

___

( ) -

Email: @ .

2. Type of Business: (Include letter of authorization on who can bind or sign for company) See bottom of next page

☐ Sole Proprietor (no letter needed)	☐ Partnership (Copy of Agreement w/auth.)
☐ Corporation (Agent, authority	☐ LLC
☐ Non-profit Organization	☐ Joint Venture (All Parties sign)

3. How many years experience do you have in this line of work? _____ Years

4. How many years experience as a prime contractor? _____ As a subcontractor? _____

5. Relevant Projects: Provide information requested in Factor 1.b – Past Performance on relevant projects your business has completed:

6. List below all of your firm's contractual commitments running concurrently this solicitation

Contract Number	*Award Amount*	Percent Completion	Awarded Units	Date Contract Completed	Contact Name, Address, & Telephone Number.

7a. Have you ever failed to complete any work awarded to you? ☐ Yes ☐ No

7b. Has work ever been completed by performance bond? ☐ Yes ☐ No

7c. If 'Yes' was checked to either item 7a or 7b, specify location(s) and reason(s) why: _____

7d. Did you look at the project site(s) on-the-ground? ☐ Yes ☐ No

8. Organization that will be available for this project:

a. ☐ All work performed by prime, OR ☐ Subcontracting _____% to be performed by sub.

(Include information on Subcontractors)

b. Minimum number of employees: _____ and Maximum number of employees: _____

c. Are employees regularly on your payroll? ☐ Yes ☐ No

d. Specify equipment available for this contract: _____

e. Estimate rate of progress (Such as acres/day, miles/day, or other rate):

Minimum progress rate: _____ Maximum progress rate: _____

9. List the experience of the principal individuals of your business that will be assigned to this project:

Individuals Name	Present Position	Years of Experience	Type of Work

10. Remarks:

11. Certification: I certify that all of the statements made by me are complete and correct to the best of my knowledge and that any persons named as references are authorized to furnish the Forest Service with any information needed to verify my capabilities to perform this project.

(Printed Name)	**(Signature)**	**(Title)**	**(Date)**

(a) Individuals. A contract with an individual shall be signed by that individual. A contract with an individual doing business as a firm shall be signed by that individual, and the signature shall be followed by the individual's typed, stamped, or printed name and the words ", an individual doing business as _____" [insert name of firm].

(b) Partnerships. A contract with a partnership shall be signed in the partnership name. Before signing for the Government, the contracting officer shall obtain a list of all partners and ensure that the individual(s) signing for the partnership have authority to bind the partnership.

(c) Corporations. A contract with a corporation shall be signed in the corporate name, followed by the word "by" and the signature and title of the person authorized to sign. The contracting officer shall ensure that the person signing for the corporation has authority to bind the corporation.

(d) Joint venturers. A contract with joint venturers may involve any combination of individuals, partnerships, or corporations. The contract shall be signed by each participant in the joint venture in the manner prescribed in paragraphs (a) through (c) of this section for each type of participant. When a corporation is participating, the contracting officer shall verify that the corporation is authorized to participate in the joint venture.