

Dear Interested Party:

This scoping notice is intended to inform you about the proposed Three Meadows Restoration Project to be implemented on the Amador Ranger District of Eldorado National Forest to restore mountain meadow habitat. The Three Meadows Project includes three small high-elevation meadows: Upper Onion, High Onion, and Tyler. High Onion and Upper Onion are located within the Cole Creek Watershed. Tyler meadow is located in the Bear River Watershed. Currently the meadows are degraded through incised (down cut) channels resulting from over 100 years of land use and natural events. The cumulative effects of these impacts can leave the meadow landscapes vulnerable to damage during major floods and through the reduction in function of meadow hydrology and habitat values. As a result of the degraded meadow condition, wildlife habitat has been degraded, including habitat for vulnerable federally Threatened, Endangered, and Sensitive (TES) species.

Project Purpose and Need:

The Purpose and Need of the Three Meadow Restoration Project is to restore the natural morphology of the meadows to improve hydrologic functions of the meadow systems by improving water quality, timing of flows, recovery of sediment deposition, and arrest channel head cutting. Implementation of these actions would also increase and prolong the duration of late season flows for the benefit of flora and fauna and downstream users by reducing downstream flood peaks. The proposed project would halt the encroachment of upland plant species, particularly lodgepole pine, while increasing the extent and quality of wet meadow and riparian vegetation. By improving the meadow hydrology, the project would also improve and increase habitat potentially available for Sierra Nevada yellow-legged frogs, expand willow habitat for songbirds, including the willow flycatcher, and improve habitat quality for sensitive species associated with wet meadows such as broad-nerved hump-moss (*Meesia uliginosa*), moonworts (*Botrychium* spp.) and Bolander's bruchia (*Burchia bolanderi*), and increase the production of aquatic invertebrates and insects that provide food for amphibians, and songbirds.

Project Location:

The project area encompasses three relatively small, high elevation meadows in Amador County, California. The three meadows include Upper Onion, High Onion, and Tyler, which are located approximately 50 miles northeast of Jackson, California, and east of Bear River Reservoir in the Amador Ranger District of the Eldorado Nation Forest (reference Figures 1 and 2). Tyler meadow is located within the Bear River Watershed, and High Onion and Upper Onion are in the Cole Creek Watershed (T9N, R16 E, Sections 01, 03, 11), Mount Diablo Meridian.

High Onion Meadow (approx. 3 acres at 8,000 feet elevation) and Upper Onion Valley (approx. 7 acres at 7,480 feet) are located on Onion Creek which flows into Cole Creek and the North Fork Mokelumne River, approximately 1.7 miles downstream from Salt Springs Reservoir. Tyler Meadow (approx. 2 acres at 6,800 feet) drains into Upper Bear River Reservoir, which feeds into Bear River.

Description of Proposed Action:

Specific restoration actions designed to achieve these restoration objectives would likely be different at each meadow included within the Three Meadows Project Area. The specific actions identified for each meadow are based on the assessment of existing conditions and impacts.

Upper Onion Valley

The proposed restoration actions for Upper Onion Valley include installation of rock riffles and log weirs. The constructed rock riffles and log weirs would be located in existing, incised channels to raise the base level of the channel, encourage aggradation, reduce overall channel capacity, and raise the groundwater table. Rock riffles would be placed in channels greater than one foot in depth, forming a system of short rock riffle segments interspersed with longer pools. Riffles would consist of fine material borrowed from the surrounding area and coarser rock that would be from other Forest Service rock staging areas on the district. It is estimated that 20-25 constructed rock riffles would be placed within the main channel through the site. The project proposes the installation of approximately 15-20 log weirs as grade control in lower energy, less incised portions of the channel network. It is estimated that approximately 73 logs would be needed to construct the weirs and would be harvested from trees in and around the site. To control the overall base level of the restored meadow, a roughened channel will be constructed at the downstream end of meadow. The roughened channel, composed of rock material of various sizes, would look like a long sloping riffle when completed. To reduce encroachment of conifers, small conifers in the meadow footprint and meadow boundary (diameters ≤ 10 inches at base) will be hand thinned (chainsaws, chippers, hand tools). Materials may be hand piled and burned, chipped, or lopped and scattered.

The site is easily accessible by a well-developed road that runs along the entire north side of the meadow. A potential staging area already exists at the site within the seasonal primitive camping area. The road may be realigned and berms created on a short section of the user-created camping road to prevent creek capture.

Restoration of natural meadow conditions is expected to increase the distribution of native plant species such as rare moonworts (*Botrychium spp.*) and increase the extent and duration of ponded water in low areas to support native animals such as Sierra Nevada Yellow-Legged Frog (*Rana sierrae*).

High Onion Meadow

The proposed action for High Onion Meadow includes the installation of log weir grade control structures in the primary meadow channel to limit additional downcutting and protect seepage sources from cattle grazing. Approximately 20-30 log grade control weirs spaced at approximately 25-foot intervals are proposed to be installed along the unnamed creek to enhance sedimentation and limit future risk of channel incision. It is anticipated that the structures would be built with hand tools and hand labor given the relatively narrow channel widths. To discourage cattle use around sensitive areas and seepage sources, the project proposes to place large logs/log barriers that would prevent cattle access and usage of these areas. Trees/snags/logs within and adjacent to the meadow may be available for use. To reduce encroachment of conifers, small conifers in the meadow footprint and meadow boundary (diameters ≤ 10 inches at base) will be hand thinned (chainsaws, chippers, hand tools). Materials may be hand piled and burned, chipped, or lopped and scattered.

The site is accessible from a well-developed forest road, and the staging of materials and construction equipment would occur in an existing campground. Access routes would be restored prior to demobilization as needed.

Tyler Meadow

The proposed restoration actions for Tyler Meadow include limiting access by OHVs and installation of approximately 10-12 log weir grade control structures to limit additional downcutting. The log weir grades would be in the primary channels located in the forested area upstream of the meadow. To

decrease OHV use, access restrictions consisting of downed logs, berms, and large boulders would be used. Rock and fill material would not be sourced on site but is expected to be from other Forest Service rock staging areas on the district. To reduce encroachment of conifers, small conifers in the meadow footprint and meadow boundary (diameters ≤ 10 inches at base) will be hand thinned (chainsaws, chippers, hand tools). Materials may be hand piled and burned, chipped, or lopped and scattered.

Monitoring

The meadows may be monitored or qualitatively assessed to evaluate the effectiveness of restoration actions and to inform future management decisions.

Design Criteria:

Air Quality

All ground disturbing activities shall be effectively controlled of fugitive dust emissions utilizing various methods.

Range

The meadows, or portions of the meadows, may be excluded from grazing use temporarily depending on future coordination between the USFS and the current allotment permittee.

Heritage

- Heritage resources would be avoided. Known historic properties will be flagged with a buffer of at least ten meters for avoidance prior to project implementation. No ground disturbing activities will occur within the flagged area. The flagging will be removed post-project implementation.
- This does not fully eliminate the chance of discovering unrecorded sites or subsurface remains within the project boundary. If project ground disturbance should expose a cultural deposit, disturbance activities will be suspended until a qualified archaeologist can examine the area, evaluate the material, and adequate protection measures are incorporated. In the event that human remains are uncovered during project activity, project managers must stop work and contact Eldorado National Forest. If the remains are determined to be of Native American origin, both the Native American Heritage Commission and any identified descendants shall be notified (Health and Safety Code 7050.5, Public Resources Code Section 5097.94 and 5097.98).
- The only access roads to the project areas will be those shown by the plan set to reduce impacts to cultural sites.

Terrestrial Wildlife

- The USFS District Biologist will be on site during project construction and has the authority to adjust the project to protect Threatened, Endangered and Sensitive species.
- Trees and snags will be retained when possible with the exception of meadow encroaching trees, and those approved for use for livestock and OHV barriers.
- Retain all trees 30" dbh and greater unless trees pose a safety risk.

Aquatic

- Project activities will conform to conservation measures and terms and conditions requirements as stated by the US Fish and Wildlife Service (USFWS) 12/19/2014

Programmatic Biological Opinion. Further instruction by the USFWS will be obtained through the consultation process.

- If the Sierra Nevada yellow-legged frog are found within the project area during project implementation, their safety shall be assessed by qualified personnel and dealt with according to the Terms and Conditions described in the 2014 Programmatic Biological Opinion issued by the USFWS.

Hydrology

- Construction activities would occur during the time of year when the flows are at their lowest. This typically occurs between August 1 and October 30.
- Required permits would be obtained including, at the least, the 404 permit from the U.S. Army Corps of Engineers and the 401 Permit from the Central Valley Regional Water Quality Control Board.
- Watershed mitigation measures also would include the use of Best Management Practices (BMPs) to protect water quality.

Botany

Management of botanical resources, special habitats, and noxious weeds would follow the standards and guidelines in the Sierra Nevada Forest Amendment Record of Decision (SNFPA ROD 2004). Specific design criteria and protection measures for the project include:

- Any new occurrences of sensitive plants identified within the project area would be flagged and avoided to the extent practical. The Forest botanist will be consulted on appropriate avoidance and minimization measures for sensitive plants.
- A Forest Service watchlist species, *Botrychium simplex*, occurs within the project area. Under the supervision of the District Botanist all known occurrences will be flagged and either transplanted outside of the disturbance area or avoided during project implementation. Should any new threatened, endangered, sensitive (TES) or watchlist species be located during the proposed project, available steps will be taken to evaluate and mitigate effects.
- All off-road equipment would be cleaned to ensure it is free of soil, seeds, vegetative matter or other debris that could contain seeds before entering the project area.
- Infestations of invasive plants that are discovered during project implementation would be documented and locations mapped. New sites would be reported to the Forest botanist. Rock for riffle construction would be weed free.
- Onsite sand, gravel, rock, or organic matter would be used where possible.
- Any seed used for restoration or erosion control would be from a locally collected source (ENF, Seed, Mulch and Fertilizer Prescription, 2000).

Soil Resources

Standard mitigation measures will be employed to protect soil resources and have been developed under consultation with soil scientists and engineers as an integral component of meadow floodplain restoration. These mitigation measures have been monitored and refined based on previous projects of this type.

Fire and Fuels Management

While the project area is located in a meadow and outside of state identified very fire hazard severity zones, portions of the meadow are expected to be dry, with a risk for wildfire associated with the use of any internal combustion engine. A trash pump and/or water truck will be on site to assist with vegetation

transplants and dust control, as well as to reduce the risk of wildfire. In addition, equipment would be refueled and serviced at the designated staging area, which is outside of the riparian area and meadow. No fuel would be stored on site. In the event of an accidental spill, hazmat materials for quick on-site clean-up would be kept at the project sites during all construction activities, and in each piece of equipment.

How to Comment and Timeframe:

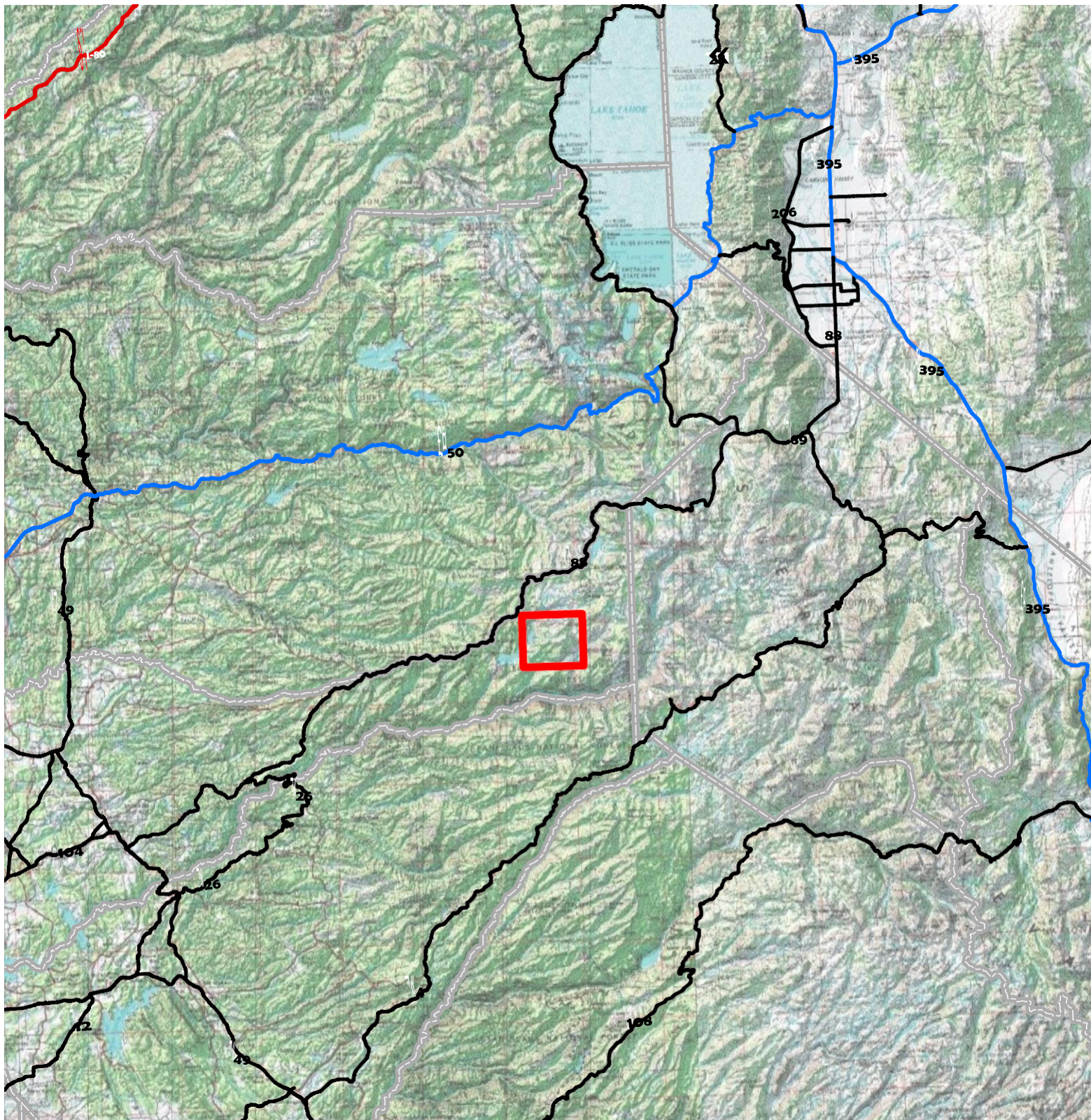
We are asking for your comments on this proposal. This scoping notice is intended to provide those interested in or affected by this project with an opportunity to share information, and make their interest and concerns known. Please provide an email address if you prefer future communication on this project electronically in place of hard copy.

If you have information the Forest Service may not be aware of, or feel you have issues (points of dispute, debate, or disagreement) regarding potential effects of the Proposed Action, please send your comments in writing to Richard Hopson, District Ranger, Eldorado National Forest, Amador Ranger District, at the letterhead address, or preferably, via email to comments-pacificsouthwest-eldorado-amador@fs.fed.us with Subject: Three Meadow Restoration Comments. Comments should be received by **XXXXXX, 2019** in order to be most helpful in the analysis.

If you have any question about this proposal, or would like more information, please contact Richard Hopson at (209) 295-5910, email: rick.hopson@usda.gov.

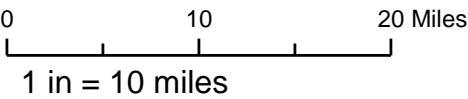
Sincerely,

Enclosures: Project Maps



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3 Meadows Project
Vicintiy Map



Legend

- 3 Meadows Project Locations
- Interstate
- Highway
- State Route
- Roads

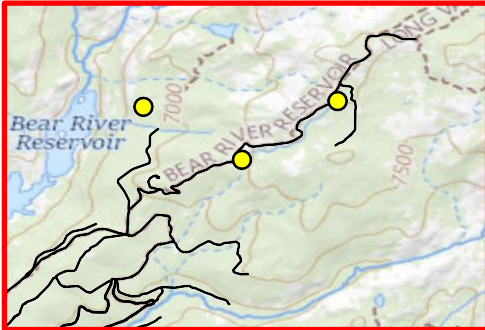


Figure 1. Vicintiy Map

Figure 2. Overview of Project Area. The Three Meadows Restoration area includes Tyler, Upper Onion, and High Onion meadows.

