

5a. Detailed Project Description

Location and Description

The Kelty Meadow Project is located on the Bass Lake Ranger District of the Sierra National Forest (SNF) within the Willow Creek watershed, a SNF priority watershed for ecological restoration. The project encompasses an unnamed tributary to the North Fork of Willow Creek, a side channel within Kelty Meadow and Kelty Meadow Campground, a designated horse camp administered under concessionaire contract with California Land Management (CLM).

Project Goals

The project goals are to restore and mitigate riding stock and cattle impacts to aquatic and riparian habitat, improve meadow hydrologic condition at Kelty Meadow and upgrade the Kelty Meadow Campground infrastructure.

Project Scope of Work

Repeated trampling of the channel from riding stock and cattle has caused resource damage. The proposal includes channel stabilization to restore the riparian habitat, development of off-site water to reduce water quality impacts, and construction of hitching rails and installation of bear boxes to improve the facilities at the campground. A permanent buck-and-pole fence approximately 100 feet wide by 300 feet long will be constructed to restrict access to the restored section of channel from riding stock, cattle and other visitor use and allow the channel to fully recover from restoration activities. The bare banks of the channel will be planted with native riparian vegetation sod plugs and willow from on site sources and one-rock grade control structures to stabilize and protect the stream banks. A metal spring box will be placed in the channel to capture water plumbed to a 235 gallon trough.

As a component of promoting forest health under this proposal, the BCHCSFP and USFS will organize and offer two outreach events to educate the public on meadow and riparian function and Leave No Trace practices.

Project Summary and Deliverables

All project activities will occur within the Bass Lake Ranger District of the Sierra National Forest (SNF). The project will entail the stabilization and restoration of a section of the unnamed tributary (and a side channel) to the North Fork of Willow Creek located within the upper portion of the Willow Creek watershed. The project includes facilities improvements within Kelty Meadow Campground.

- Conservation of 8.7 acres of montane wet meadow at Kelty Meadow;
- Maintain desired conditions for Kelty Meadow with upward trend in ecological status;
- 350 linear feet of restored stream banks to unnamed tributary;
- Improvement of 0.6 miles of stream channel (starting at project site to confluence with North Fork of Willow Creek);

- Avoid impacts to water quality degradation from riding stock and cattle use;
- Conserve and maintain 0.6 miles of suitable habitat for Sierra Nevada mountain yellow-legged frog (*Rana sierrae*);
- Conserve and maintain 8.7 acres of suitable habitat for Great gray owl (*Strix nebulosa*);
- Increase annual water availability to riparian-aquatic dependent systems, wildlife, and livestock;
- Improve infrastructure and safety (e.g. bear awareness and riding stock handling) at 12 campsites;
- Increase public awareness through interpretive signage and outreach events focused on restoration goals and practices (e.g. *Leave No Trace (LNT)*) to minimize impacts to water quality and other resources.
- Labor for project implementation will be provided by volunteers from the BCHCSFP and the grazing permittee in coordination with the USFS.

Environmental Setting

The restoration and facilities improvement project occurs within the upper Willow Creek watershed, located in the north-western part of the SNF, south of Yosemite National Park. Current land uses include recreational activities (e.g. horseback riding, camping, OHVs, hiking and hunting), fuels and timber management, livestock grazing, and watershed restoration. The project area has suitable habitat for Forest Service sensitive species: *Rana sierrae* (also a Candidate species for listing under Endangered Species Act), and *Strix nebulosa*. Meadow restoration aims to restore and enhance ground water availability and storage capacity. Improved water storage capacity and availability in riparian systems promotes resiliency, proper hydrologic function and stability during flood events. Restoration of meadows and stream channels will allow riparian systems to withstand and adapt to changes in the hydrologic regimes as a result of climate change and may increase carbon sequestration.

5b. Workplan and Schedule Summary:

- Re-vegetation of denuded channel banks with native sod and willow at side channel and along section of unnamed tributary;
- Repair of existing rock stabilization work in side channel to unnamed tributary by the construction of rock step-pools;
- Construct pipe hitching rails at each campsite;
- Install off-site water source by providing water trough;
- Construct permanent enclosure fence to protect restoration and restrict access to channel;
- Install bear boxes at each campsite;
- Stabilize 350 feet of stream channel with sod plugs and one-rock grade control structures designed to reduce shear stress and prevent any future channel down-cutting;
- Host 2 outreach events to educate participants on low impact use and Leave No Trace practices and benefits of meadow restoration; and
- Project updates and progress will be posted in advance on the SNF and BCHCSFP websites.

5b. Kelty Meadow Campground Restoration and Facilities Improvement Project Timeline

Deliverables (What)	Responsibility (Who)	Schedule (When)
Schedule work with permittee and BCHCSFP	USFS	August, 2012
Field Trip #1 (Pre-restoration tour)	USFS/BCHCSFP/CLM/Permittee/SNC	August, 2012
Procure and deliver materials	BCHCSFP/USFS	August - September, 2012
Order and install interpretive signs	BCHCSFP/USFS	August, 2012
Construct off-site water development (e.g. place spring box, trench/plumbing and trough)	BCHCSFP/USFS	August - September, 2012
Outreach Event	BCHCSFP/CLM/USFS	Mid-September, 2012
Install hitching rails	BCHCSFP	September - October, 2012
Complete stream channel restoration (e.g. harvest and plant sod plugs, native willow and place rock structures)	Permittee/BCHCSFP/USFS	September - October, 2012
Six month progress report SNC	BCHCSFP/USFS	December, 2012
Schedule work with permittee and BCHCSFP	USFS	May, 2013
Field review of project status	CLM/USFS/BCHCSFP	May - June, 2013
Construct fence enclosure	Permittee/USFS	May - June, 2013
Install bear boxes	BCHCSFP/USFS	July, 2013
Conduct meadow condition and ecological status monitoring at plot in Kelty Meadow	USFS/Permittee/BCHCSFP	August, 2013
Outreach Event	BCHSFP/ CLM/USFS	September, 2013
Field Trip #2 (Post-restoration tour).	USFS/BCHCSFP/Permittee/SNC	October, 2013
Final Report to SNC	USFS/BCHCSFP	December, 2013

5c. California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA)

This proposal has been documented in compliance with NEPA and has been completed by the U.S. Forest Service under Categorical Exclusion (FSH 1909.15 Chapter 30, 36 CFR 220.6 (e) (7)) and Decision Memo, enclosed with this application. Since this project is eligible for Categorical Exclusion under NEPA, the disturbance footprint is less than five acres, there are no impacts to listed species, and no heavy equipment will be used to implement the project, the proposal qualifies for a CEQA exemption under 15333, Small Habitat Restoration projects.

5d. Organizational Capacity

This will be a collaborative effort between the Backcountry Horsemen of California Sierra Freepackers (BCHCSFP), permittee, and USFS. The BCHCSFP has taken on projects with both the Forest Service and BLM and has members in the Wilderness Rider program. These riders partner with various government agencies. The permittee has over 40 years managing cattle grazing and working under a permit with the Forest Service. The U.S. Forest Service has the organizational and scientific expertise to implement and monitor the project restoration activities. Project implementation will be managed by USFS, with additional journey level staff consisting of an experienced hydrologist (with Rosgen Certification), range manager, botanist, and recreational staff. The BCHCSFP, CLM, permittee and USFS are currently involved in the Willow Creek Planning Collaborative.

5e. Cooperation and Community Support

This project is a partnership between the BCHCSFP, CLM, permittee and SNF; all involved in planning this project. The permittee has a history of cooperative involvement with the SNF. The partners are involved in the Willow Creek Planning Collaborative and recognize the need to upgrade this site and restore the section of degraded channel. The permittee will assist with the channel restoration portion of the proposal and the BCHCSFP role is to provide volunteer opportunities to improve the site and educate the public. Letters of support have been provided by USDA Forest Service, CLM, Sierra Vista National Scenic Byway Association, Backcountry Horsemen of California, Mariposa Mountain Riders, Central Sierra Watershed Committee and Yosemite Sierra Visitor's Bureau.

5f. Long Term Management and Sustainability Narrative

The restoration site will be protected from livestock and human impacts by a permanent fenced enclosure. The site will be inspected at the beginning of each field season (June) by USFS to ensure effectiveness of restoration. Needed modifications and/or repair would be implemented by September of inspection year. The USFS will continue to monitor meadow condition and ecological status of Keltly Meadow on a 5 year interval as part of this proposal to measure effectiveness of management and restoration activities. CLM will maintain improvements and facilities within the foot print of the campground including the proposed hitching rails, bear boxes, and interpretive signs. BCHCSFP will maintain water development and the permittee

will maintain the enclosure fence. Outreach events will be posted on SNF and BCHCSFP websites and local newspaper in advance of events.

5g. Performance Measures

Number of people reached

Reservation information from 2003-2011 during peak periods of June-Sept: Campground averages 380 campsite reservations and an average of 1,520 people occupying the campsites each month. Interpretive signage and outreach events will educate participants on LNT practices and the purpose of the restoration effort.

Number of New, Improved or Preserved Economic Activities

Improvements to the campground such as hitching rails and bear boxes will increase desirability and safety for users and improve the economic value. Reservations sites and campground host data recorded by CLM will be used to monitor the level of use.

Linear Feet of Stream Bank Protected or Restored

350 linear feet of stream bank will be restored and stabilized using of native sod willow planting and in-stream rock grade control structures to minimize near bank shear stress. 0.6 miles or 3,168 feet of stream bank downstream of the project will be protected from excessive sedimentation and erosion.

Acres of Land Improved or Restored

Stabilize and conserve 8.7 acres of meadow at Kelty Meadow.