TECHNICAL REPORT ○ JUNE 2025

Cabin Meadows and Rock Fence Creek Meadows Restoration Plans

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USFS Region 5 Ecology Program
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Cover photos, clockwise from top left: Discharge slope meadow, Upper Cabin Meadows; blooming California pitcher plant, Rock Fence Creek; vegetation plot, Cabin Meadows.

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1 EXECUTIVE SUMMARY

The Cabin Meadows and Rock Fence Creek Meadows Restoration Project is a collaborative, science-driven initiative designed to restore ecological function, hydrologic connectivity, and climate resilience across 4,190 acres and 19 kilometers of stream within the Klamath National Forest in Siskiyou County, California. Funded by the California Wildlife Conservation Board, the project is led by the Scott River Watershed Council (SRWC) in partnership with the Klamath National Forest, Quartz Valley Indian Reservation, USFS Pacific Southwest Research Station, USFS Region 5 Ecology Program, Stillwater Sciences, BBW & Associates, and the Northern California Resource Center.

This project integrates Indigenous Traditional Ecological Knowledge (ITEK) and process-based restoration (PBR) to address legacy impacts from road infrastructure, grazing, fire suppression, and hydrologic disconnection. It builds on prior planning efforts, including the East Fork Scott Project Environmental Assessment and the Cabin Meadows Habitat Enhancement Project, while expanding into previously excluded areas and incorporating new data and restoration priorities. Key accomplishments and planned outcomes include:

- **Meadow Restoration**: A comprehensive inventory and prioritization process identified degraded wet, seasonal, and dry meadows for treatment. Restoration strategies include the use of instream structures such as beaver dam analogues (BDAs), post-assisted log structures (PALS), and other low-tech features to aggrade incised channels, reconnect floodplains, and improve water retention. Additional treatments include conifer and shrub removal, prescribed fire, and cattle impact mitigation to restore native vegetation and hydrologic function.
- **Stream Restoration**: High-resolution geomorphic analysis and channel stratification identified priority stream reaches for restoration. Treatments will stabilize knickpoints, reduce sediment transport, and enhance floodplain connectivity using wood structures and hydrologic modifications. These actions aim to restore natural sediment and flow regimes critical to meadow and aquatic ecosystem health.
- **Forest Health and Fuels Reduction**: Approximately 1,477 acres are designated for non-commercial thinning and 2,871 acres for prescribed fire. These treatments are designed to reduce wildfire risk, protect large legacy trees, and restore open forest structure. By reducing tree density and reintroducing fire, the project supports biodiversity, improves forest resilience, and enhances water availability in adjacent meadow systems.
- **Road Improvements**: A detailed field assessment identified 16 kilometers of roads for improvement or decommissioning to reduce erosion, sediment delivery, and hydrologic disruption. Treatments include drainage upgrades, berm removal, stabilization of gullies, and stream crossing enhancements. These actions are critical to protecting downstream water quality and meadow integrity.

This project will deliver implementable, NEPA-aligned restoration plans that support watershed-scale recovery, climate adaptation, and long-term ecological resilience. This document serves as a foundational building block toward the development of more detailed, site-specific restoration designs and implementation strategies. The planning framework, data, and prescriptions developed through this effort will directly inform on-the-ground restoration, monitoring, and adaptive management in the years ahead.

2 INTRODUCTION

2.1 The Project

The Cabin Meadow and Rock Fence Creeks Watershed Planning Project (the Project), funded by California's Wildlife Conservation Board (WCB), will use science-based assessment tools to plan restoration of United States Forest Service (USFS) land in two high value mountain meadow stream and catchment systems in Siskiyou County to improve streamflow, water storage, ecological function, climate change resilience/adaptation, and public use. The Project will restore function by addressing sediment source and transport problems and reconnecting natural hydrologic, geomorphic, and biological processes. It will emphasize Indigenous Traditional Ecological Knowledge (ITEK) and process-based restoration (PBR) design approaches that use natural processes to rebuild healthy and more resilient ecosystems. The Project will produce a comprehensive, phased, and prioritized restoration plan for 4,190 acres and 19 stream kilometers (km), with implementable plans for an initial set of projects that include restoration of eight stream km with instream structures and floodplain reconnection, one bridge design, four culvert repairs, improvement or decommissioning of 16 road km, forest health treatments for 500 acres, and restoration of 100 acres of wet and montane meadows.

The Project will build on initial planning for a portion of the project area already completed by the Klamath National Forest (KNF) in the East Fork (EF) Scott River Project Environmental Assessment (EA) (KNF 2019) and the Cabin Meadows Habitat Enhancement project Categorical Exclusion (CE) (KNF 2021). Related implementation work, within the Project footprint, is funded by the North Coast Resource Partnership and California Department of Fish and Wildlife (CDFW), with additional funding in the works through KNF from the Infrastructure Act. The Scott River Watershed Council is also engaging with The Wildlands Conservancy around ways they can support or be involved in restoration; The Wildlands Conservancy holds the grazing allotment in the Project area through the WCB-funded acquisition of the property associated with the East Fork grazing allotment.

The initial phase of the Project entailed collecting background information and current data about conditions in the Project area to develop a comprehensive understanding of existing conditions; those findings were compiled into the *Cabin Meadows and Rock Fence Creek Meadows Baseline Conditions Report* (Scott River Watershed Council 2025) and informs the development of the restoration plans.

2.2 The Team

While spear-headed by the Scott River Watershed Council (SRWC), this project has at its heart the integration of the expertise of numerous local and regional collaborators.

SRWC is a place-based organization that develops and implements comprehensive restoration projects spanning those focused on salmonids, instream and riparian restoration, road remediation, fuel reduction, meadow restoration, and prescribed fire. SRWC has a history of bringing diverse stakeholders together to collaboratively seek solutions for complex natural resource issues. SRWC is coordinating all aspects of this project with its project partners.

KNF, the landowner, completed an Environmental Assessment (EF Scott Project) in 2019 that includes the Project area. They are the ultimate decision-maker and integrally involved in the Project.

Quartz Valley Indian Reservation (QVIR) is providing ITEK and Indigenous cultural appropriateness oversight, vegetation surveys, photo monitoring, and water quality technical services.

The United States Forest Service (USFS) Pacific Southwest Research Station (PSW) is a world leader in natural resources research through scientific excellence and responsiveness to the needs of current and future generations. They contributed to data collection and analysis and restoration planning.

The USFS Region 5 Ecology Program uses current ecological science to help develop, implement, and monitor ecological restoration across the region. They are contributing to the development of project specific data collection protocols, as well as data analysis and interpretation and restoration planning.

Stillwater Sciences (Stillwater) is an employee-owned science and engineering firm with specialists in engineering design, engineering geology, hillslope and fluvial geomorphology, hydrology and hydraulics, aquatic and riparian ecology, regulatory compliance, and construction support. Stillwater is providing engineering and geological professional services, focused mainly on roads and stream channels. They are participating in data collection and analysis and restoration planning.

BBW & Associates (BBWA) are consulting forestry and environmental analysis specialists, a forestry company specializing in conservation-based forestry. They are contributing to data collection and analysis, restoration planning, and permitting.

The Northern California Resource Center (NCRC) provides natural resource services to private landowners, public land management organizations and other natural resource-based companies. On this project NCRC is performing botanical, biological, archeological studies, and consultations.

2.3 The Restoration Plans

Following the completion of the Baseline Assessment, and using the knowledge gained in that process, the next step is to develop comprehensive, phased, prioritized and implementable restoration plans for the 4,190 acres of the Project area. Plans will include restoration of wet and montane meadow, instream structures and floodplain reconnection, forest health treatments, and road and stream crossing improvements and/or decommissioning.

KNF's EF Scott Project (2019) encompasses numerous units in the Cabin Meadows and Rock Fence drainages, including treatments for wet and dry meadow enhancement, hazard tree and fuels reduction, thinning, prescribed fire, hydrologic stabilization of roads, fish passage, and legacy sediment sites. KNF followed up with the Cabin Meadows Habitat Enhancement project (2021) which expanded the meadow enhancement and fuels treatment in the Cabin Meadows Creek watershed. This Project addresses both areas that were privately owned—and therefore not considered—at the time the EF Scott Project was being developed, as well as restoration needs that were not addressed by the East Fork Scott Project or the subsequent Cabin Meadows Habitat Enhancement project. Figure 2-1 shows the actions proposed by the East Fork Scott Project.

This report describes the general approach, treatments, and prioritization for restoration and will guide the creation of more specific plans in each general category of work (meadows, streams, forest health and fuels, and roads). Plans will be consistent with prior KNF planning, including

the applicable Project Design Features and Best Management Practices identified in the EF Scott Project.

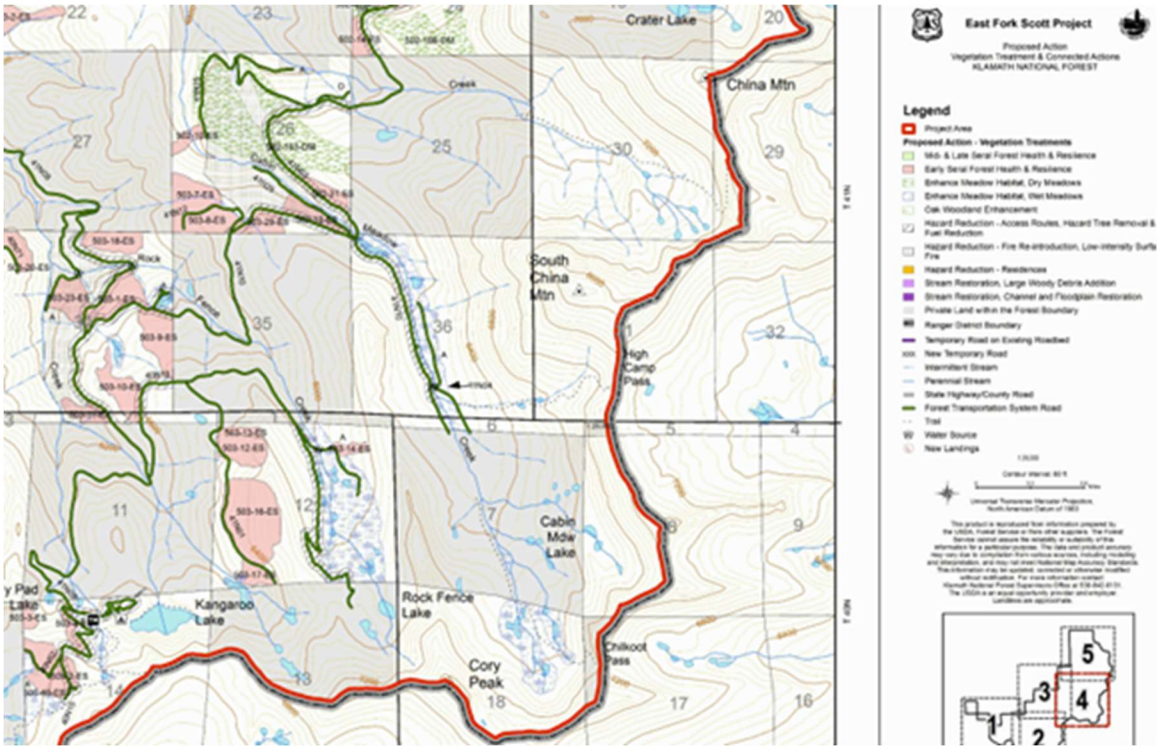


Figure 2-1. Portion of the KNF's East Fork Scott Project that includes Cabin Meadow Creek and Rock Fence Creek.

3 MEADOW RESTORATION PLANS

3.1 Existing and Potential Meadows

KNF and SRWC inventoried meadows in the two sub-basins. The inventory included some meadows mapped solely from satellite imagery, some by tracking their perimeters with a GPS, and some from satellite imagery with field verification. For some meadows, additional data was collected, including hydrogeomorphic type and types of degradation present. The meadow inventory focussed on areas that have existing meadow vegetation, although there are areas that appear to have lost meadow vegetation due to drying caused by hydrologic degradation caused by roads, channel incision or other impacts.

The Lost Meadow Model (LMM) developed by Karen Pope and Adam Cummings of the USFS Pacific Southwest Research Station indicates areas that are likely to have been riparian meadow historically, but, due to degradation, are currently not. With restoration, these areas have potential to become meadow again. These areas often have visible causes of hydrologic changes, such as channel incision or roads.

Figure 3-1 (insert map) shows inventoried meadows and potential meadows identified by the Lost Meadow Model.

3.2 Meadows Prioritization

SRWC and KNF designated meadows as high, medium, or low priority for restoration based on ecological importance, restoration feasibility, and strategic value for watershed-scale recovery. Some factors considered in this designation include size of meadow or meadow complex, recent trends in meadow conditions, causes and levels of degradation, hydrogeomorphic (HGM) type, and accessibility. Where high confidence LMM areas extended beyond the existing meadow perimeters and those areas have characteristics suggesting recent vegetation conversion due to drying, meadow boundaries were adjusted to include those areas. Figure 3-2 shows the meadow prioritization.

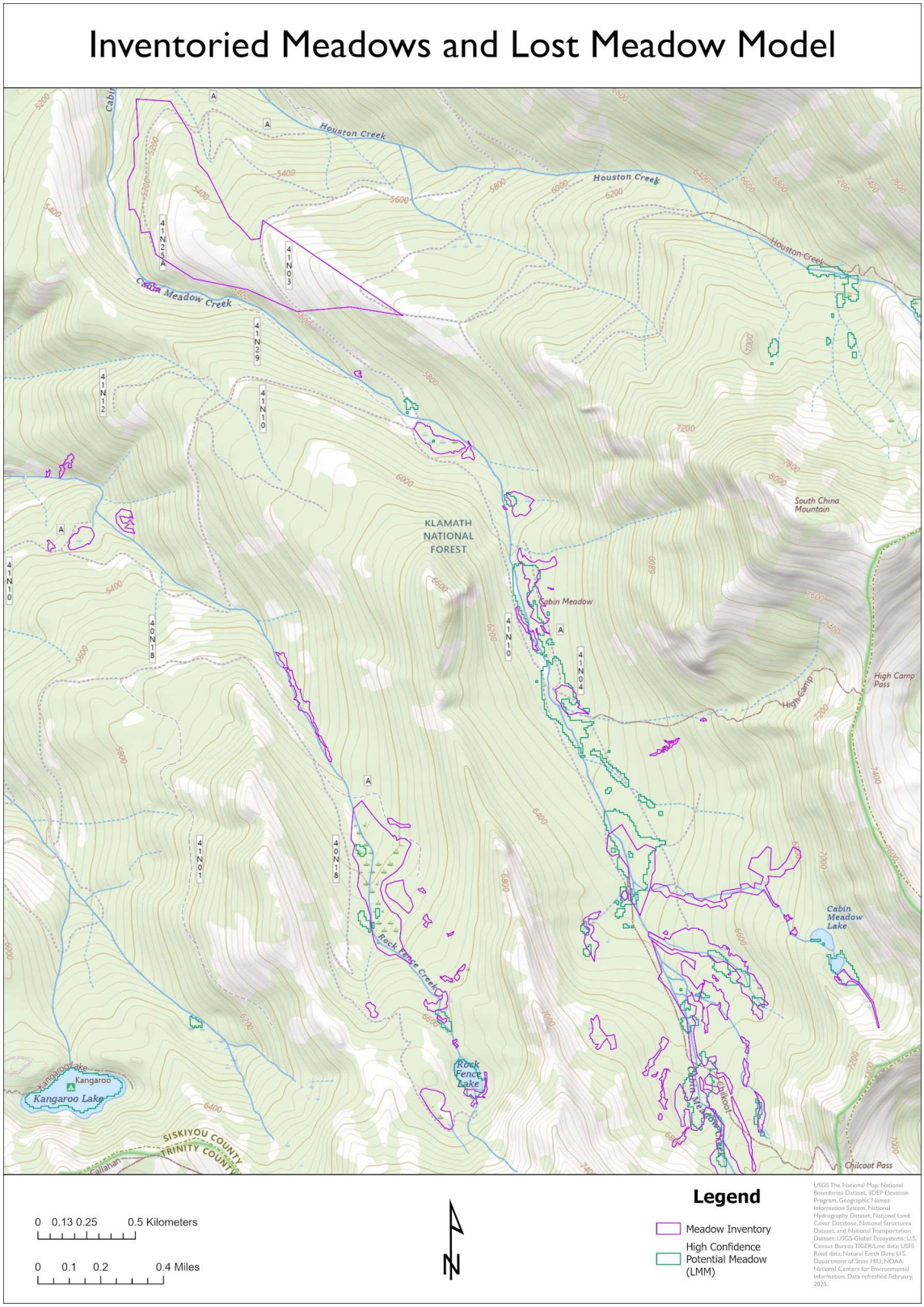


Figure 3-1. Inventoried meadows identified by KNF and SRWC and potential meadows identified by the Lost Meadow Model.

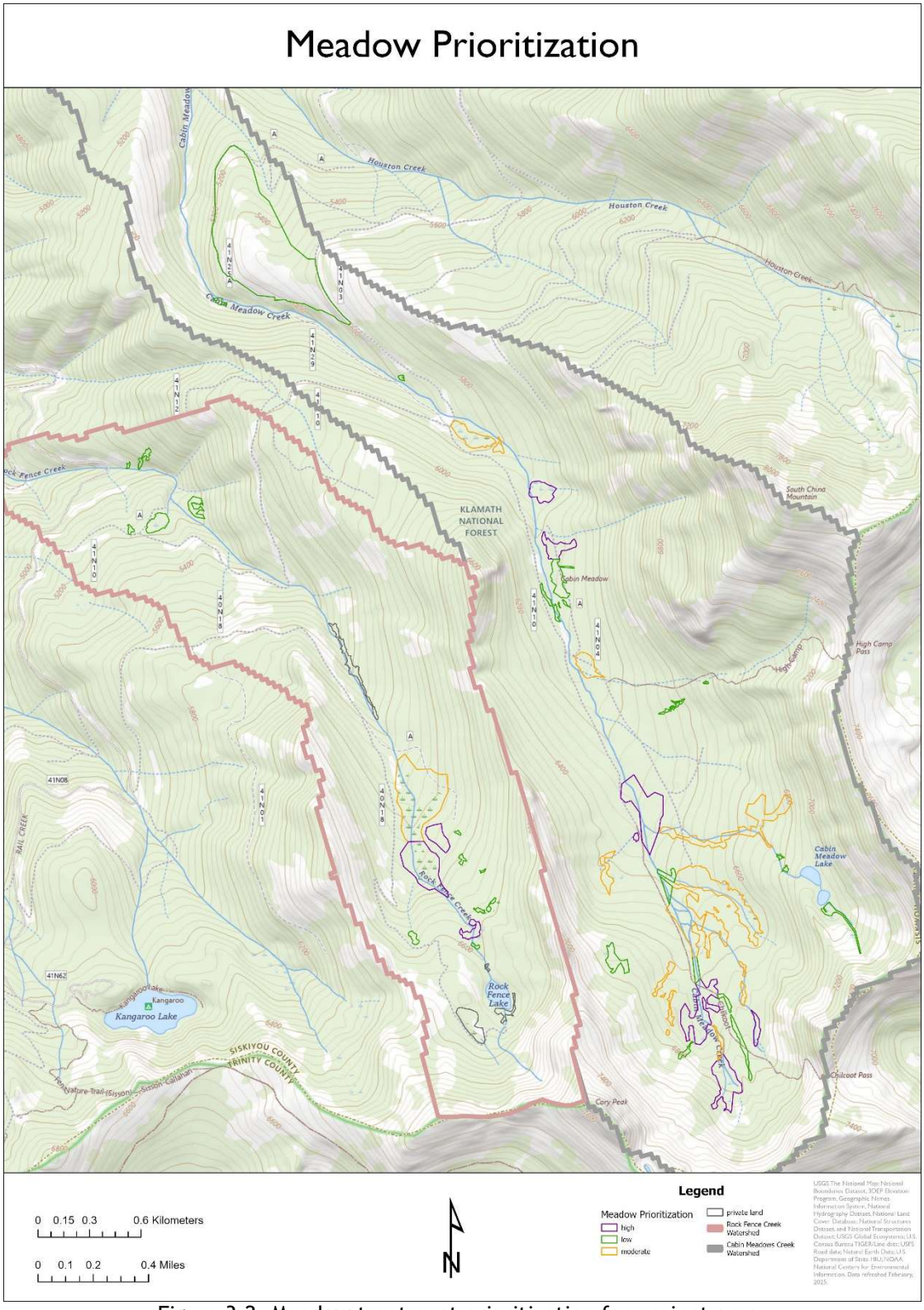


Figure 3-2. Meadow treatment prioritization for project area.

3.3 Meadow Restoration Treatments

Table 3-1 shows the types of treatments proposed for different HGM types and degradation situations.

Table 3-1. Meadow treatments.

Meadow Characteristics	Objective	Treatment	Notes
Common Meadow Degradation Issues:			
Incised channel through meadow	Aggrade channels, spread water, reconnect flood plain and relic channels.	Construct instream structures	Instream structures may include beaver dam analogues (BDAs), post assisted log structures (PALS), single-rock checkdams, and similar.
Incised channels resulting from concentrated flow from roads	Prevent further damage; repair source issue at road; aggrade channel and promote vegetation	Construct instream structures and/or stuff gullies to capture sediment while road-related source problem is still active. Promote vegetation after road improvement	
Cattle impact channels (cow paths that became channels)	Reverse and prevent cattle impacts in wet meadow and fens	Encourage cattle to take other routes, less susceptible to degradation, to get to their destination. Fall trees and leave the upward facing branches to act as barriers. If cattle paths have captured flow or created incised channels, build structures slow flow and spread water.	Limited use of felled trees with un-trimmed branches as barriers, to prevent increased fire risk.
Other cattle impacts (paths and hoof punch)	Prevent cattle impacts in wet meadow and fens	Encourage cattle to take other routes, less susceptible to degradation, to get to their destination. Fall trees and leave the upward facing branches to act as barriers.	Limited use of felled trees with un-trimmed branches as barriers, to prevent increased fire risk.
Encroaching shrubs and conifers	Decrease conifer and shrub encroachment	Conifer and shrub removal followed by prescribed fire, as appropriate and feasible.	Hydrologic restoration effected by construction of instream-structures will increase moisture in the soil and discourage continued conifer encroachment.

Meadow Characteristics	Objective	Treatment	Notes
Hydrogeomorphic (HGM) Meadow Type:			
Dry	Decrease shrub and conifer encroachment; increase water availability and storage; decrease forest density around meadows	Remove encroaching conifers and brush (may include mastication). Fell some trees along the contour of the slope to retain water. Follow by prescribed fire as appropriate and feasible.	
Riparian	Increase infiltration and connectivity with the flood plain; reconnect relic channels; reverse incision in channels; decrease conifer encroachment; decrease forest density around meadows.	Construct instream structures. Remove encroaching conifers. Thin forest surrounding meadow. Follow by prescribed fire, as appropriate and feasible.	Some meadows currently characterized as "riparian" are likely historically subsurface flow meadows that have developed channels as a result of anthropogenic effects. In this case, many small structures in the channel will dramatically slow and spread the water and promote vegetation growth. In Hydrologic Riparian Reserves, fire can back into Riparian Reserves but not be ignited. Riparian Reserves are 150 feet from each side of centerline of perennial or intermittent streams. Some "Riparian" HGM type meadows may not be in Riparian Reserves and not all meadows in Riparian Reserves are Riparian HGM meadow types.
Discharge slope	Reverse incision in channels; increase infiltration; decrease conifer encroachment	Construct BDAs. Place trees on contour to retain water. Remove encroaching conifers and thin forest surrounding meadow. Follow with prescribed fire as appropriate and feasible.	Some meadows currently characterized as "discharge slope" are likely historically subsurface flow meadows that have developed channels as a result of anthropogenic effects. In this case, many small structures in the channel will dramatically slow and spread the water and promote vegetation growth.

Meadow Characteristics	Objective	Treatment	Notes
Subsurface flow	Increase water availability and storage; decrease conifer encroachment	Conifer removal. Place trees on contour to retain water. Follow with prescribed fire as appropriate and feasible	Fire may back in from pile burns outside of the wet meadow.
Fen	Aggrade channels; repair damage	Build structures in any channels. Place trees on contour to retain water.	
Lacustrine Fringe	Decrease conifer encroachment	Conifer removal followed by prescribed fire as appropriate and feasible	This applies only to the meadow around Upper and Lower Cabin Meadows Lake

The Project will incorporate the appropriate Project Design Features and Best Management Practices from KNF's EF Scott River Project, as well as the specific treatment prescriptions developed for each meadow system (Appendices A and B contain the current versions of these documents).

4 STREAM RESTORATION PLANS

4.1 Stream Channel Stratification

4.1.1 Data Description

A number of digital elevation model (1-meter DEM) derived products were used to visualize channel and adjacent valley bottom conditions on the landscape. This includes both the conditions of the flow path (longitudinal channel bed profile) as well as the height of the adjacent valley bottom relative to the channel bed (relative elevation model [REM]). The longitudinal profiles along the stream network were used to calculate the smoothed channel gradient between adjacent DEM pixels along the flow path. Additionally, a smoothed long profile was calculated to characterize the local trend in flow path elevations and slopes. These two datasets together can identify locations with transient knickpoints (abrupt steepening of the flow path that reverts back to a gradient similar to upstream) and more persistent geomorphic and/or hydraulic controls (steepening of the flow path that does not revert back to a gradient similar to upstream) (Figure 4-1).

In addition to the flow path analysis, a relative elevation model (REM) was computed to highlight the local valley bottom conditions surrounding each channel reach. The REM shows the height above the nearby drainage network and can distinguish areas with varying degrees of entrenchment and confinement, two key geomorphic characteristics that control channel-floodplain connectivity and ecological function (i.e. hydrological process space). Entrenchment refers to an inset flow path that has incised through a relatively flat, historically accessible floodplain surface. These entrenched channels may no longer be able to access the floodplain during annual flow conditions, effectively disconnecting the active channel from its floodplain and reducing opportunities for groundwater recharge, sediment storage, and riparian vegetation establishment. Confinement describes physical constrictions to the flow path and its adjacent floodplain caused by hillslopes, bedrock outcrops, or other valley bottom landforms that limit lateral channel migration and floodplain development. The combination of these two characteristics creates distinct channel types: unentrenched channels in broad valleys maintain frequent floodplain connection, while deeply entrenched channels in confined valleys represent the most hydrologically and ecologically disconnected condition (Figure 4-2).

Combining the longitudinal profile analysis and the valley bottom REM analysis gives us the ability to identify and describe a set of channel forms that are relevant to ecological function and process-based restoration planning. We described eight channel forms that combine existing ecological conditions with geomorphic characterization, focusing particularly on features that influence channel-floodplain connectivity and sediment transport and storage processes (Table 4-1). These channel forms range from low-gradient, unentrenched meadow channels that maintain frequent floodplain access to incised channels in confined valleys that are hydrologically disconnected from their surrounding landscape. Special attention was given to transitional features such as hydraulic controls, knickpoints, and flow divergence points that often represent critical geomorphic thresholds and restoration opportunities. We then used a systematic survey of the described datasets to create a comprehensive inventory of potential channel forms across the Cabin Meadow and Rock Fence watersheds, providing a foundation for prioritizing restoration actions based on both current geomorphic conditions and ecological potential.

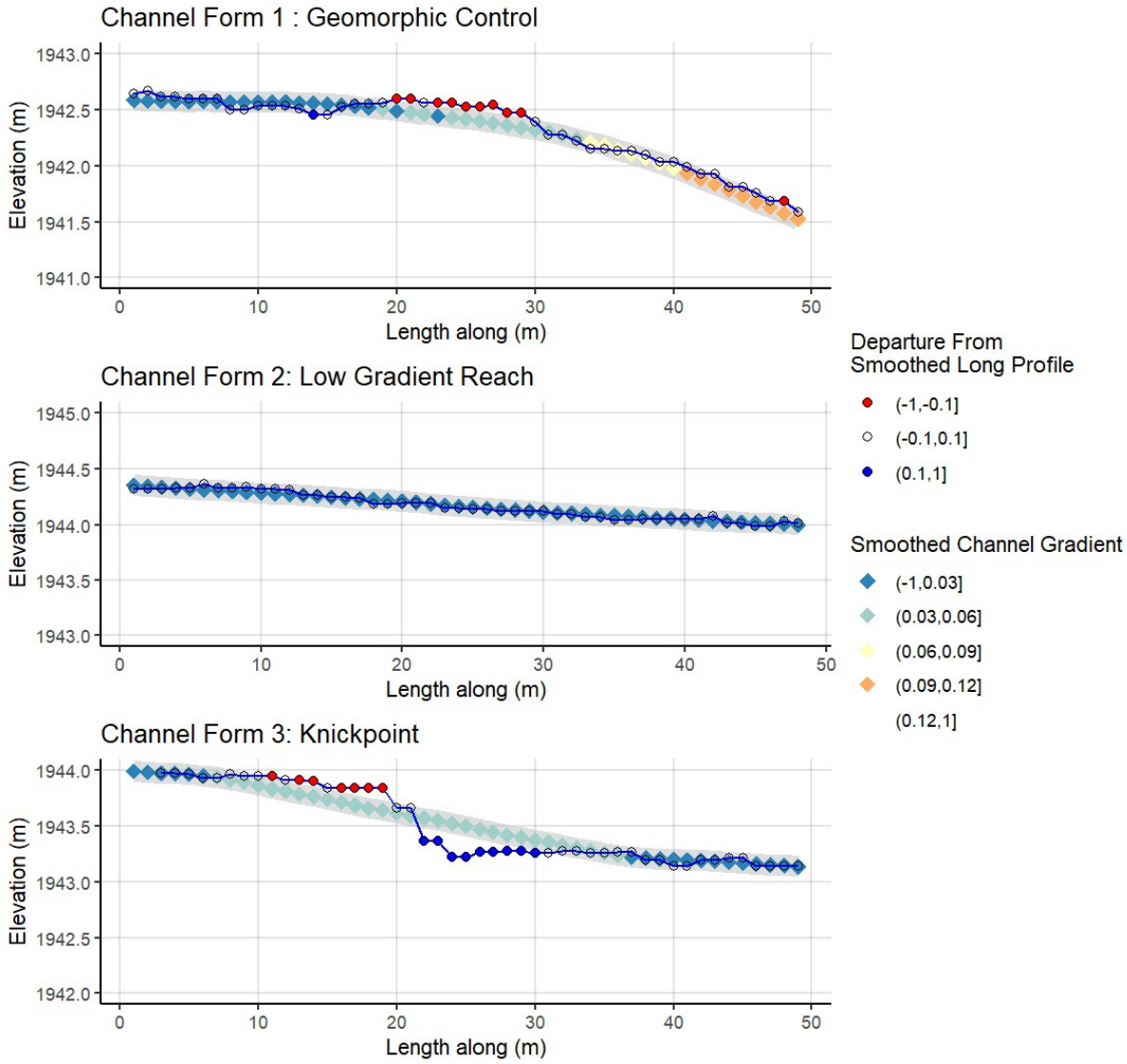


Figure 4-1. Longitudinal profile of stream channel elevation showing raw topographic data (blue line with circles) and smoothed elevation profile (gray line with diamonds) along three representative 50-meter reaches. Circles represent raw elevation measurements colored by departure from the smoothed profile: blue indicates the channel bed is lower than the smoothed trend (indicating potential scour or incision), white indicates minimal departure, and red indicates the channel bed is higher than the smoothed trend (indicating potential deposition or bedforms). Diamonds represent the smoothed elevation profile colored by local channel gradients, ranging from low gradients (blue, <0.03) to steep gradients (red, >0.12). The x-axis shows distance upstream from the downstream end of the reach. This analysis reveals spatial patterns in channel morphology, with steeper gradients (orange/red diamonds) corresponding to areas where the raw profile departs significantly from the smoothed trend, suggesting localized hydraulic controls or geomorphic features.

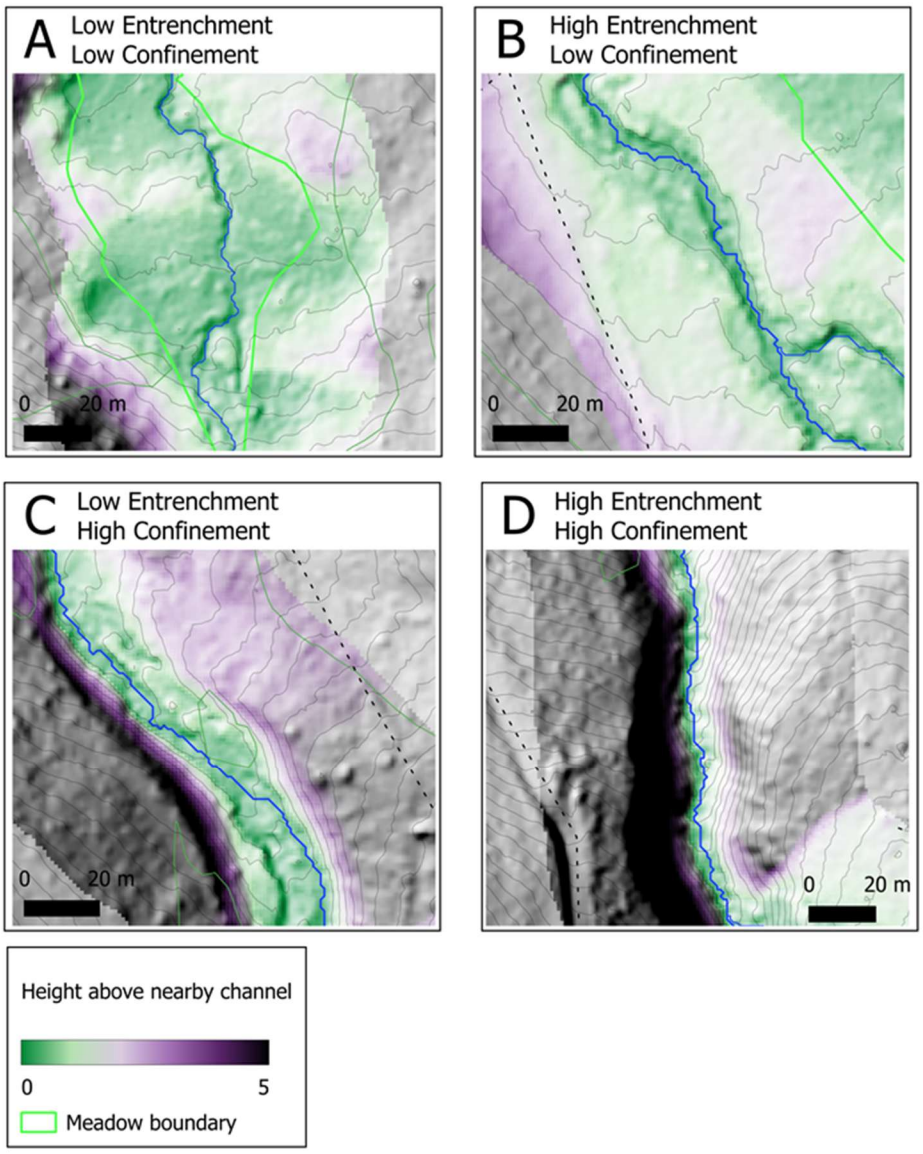


Figure 4-2. Relative elevation model (REM) showing four representative channel types based on entrenchment and confinement conditions. Each panel displays height above a nearby channel (green = 0m, purple = 5m) with channel centerline (blue), meadow boundaries (green outline), and 1 meter topographic contours (gray lines). Panel A shows a low entrenchment, low confinement channel with broad floodplain access. Panel B depicts high entrenchment with low confinement, where the channel is incised below the surrounding meadow but valley walls are not constraining. Panel C illustrates low entrenchment with high confinement, where hillslopes closely border an un-incised channel. Panel D shows high entrenchment and high confinement, with a deeply incised channel constrained by steep valley walls. The dashed black lines indicate approximate valley centerlines or major topographic breaks.

Table 4-1. Classification of channel forms and states based on geomorphic characteristics observed in the study area. Channel types are defined by combinations of channel gradient, departure from smoothed long profile, degree of entrenchment, level of confinement

		Physical Characteristics				
	Channel Form or State	**Channel Gradient**	**Departure From Smoothed Long Profile**	**Entrenchment**	**Confinement**	**Meadow Occurrence**
1	Hydraulic control affecting upstream low gradient, relatively unconfined reach	Transition from low upstream gradient to steeper downstream gradient	Positive at hydraulic control point	Low	High relative to upstream reach	Meadow upstream
2	Low gradient, non-entrenched, relatively unconfined reach	Low	Not applicable	Low	Low	Within meadow
3	Knickpoint (e.g., headcut) within low gradient, relatively unconfined reach	Local increase within low gradient reach	Positive above knickpoint, negative below knickpoint	Higher in downstream reach relative to upstream reach	Low	Within meadow
4	Point of flow divergence (e.g., switchpoint) within low gradient, relatively unconfined reach	Not applicable	Negative	Low	Low or local decrease	Not applicable
5	Entrenched channel within low gradient, relatively unconfined reach	Low	Not applicable	High	Low	Within meadow
6	Entrenched channel downstream of roads that substantially alter runoff	Low to moderate	Not applicable	High	Low	Within meadow or meadow downstream
7	Road captured flowpath	Usually low to moderate	Not applicable	Appears high uphill and low downhill	Appears high uphill and low downhill	Not applicable
8	Entrenched channel within steeper, relatively confined reach on alluvial valley floor	Moderate to high	Not applicable	High	Moderate	Not applicable
9	Other (typically steep reach draining hillslopes above alluvial valley floor)	High	Not applicable	Not applicable	Not applicable	Not applicable

4.1.2 Initial Results of Channel Form Inventory

With the channel form inventory ongoing, a total of six channel forms have been documented to date within the Cabin Meadow and Rock Fence watersheds (Figure 4-3 and Table 4-2).

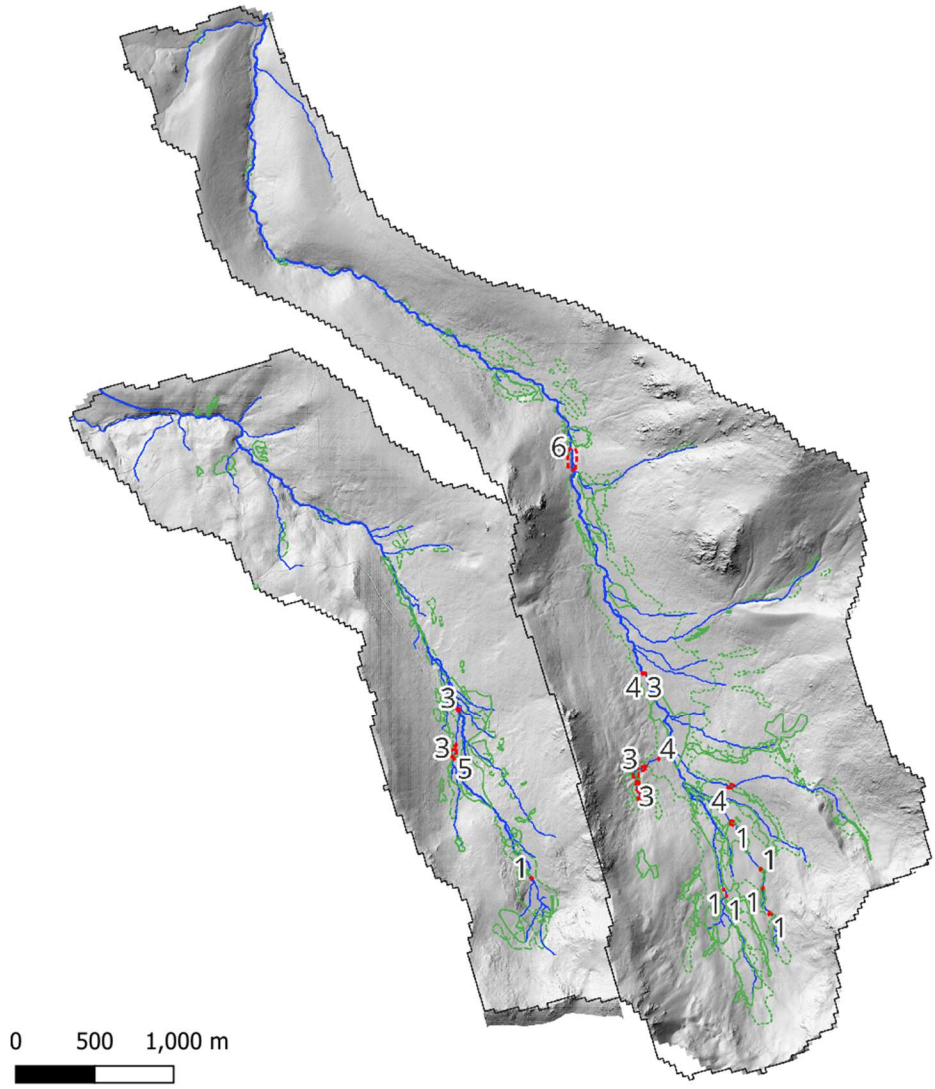


Figure 4-3. Overview map showing locations and labels of the channel forms identified to date..

Table 4-2. Distribution of stream reach stratification channel forms by meadow restoration priority levels. Counts showing how many reaches fall within areas designated as high, moderate, or low priority for meadow restoration, or areas with no designated priority (None). Meadow priorities were determined from previous restoration planning efforts and reflect ecological importance, restoration feasibility, and strategic value for watershed-scale recovery.

Channel Form Number	Channel Form Description	High	Moderate	Low	None
1	Hydraulic Control Point	3	3	1	1
2	Un-incised Meadow	0	0	1	0
3	Knickpoint or Headcut	1	2	2	1
4	Point of Flow Divergence	0	1	0	2
5	Entrenched Channel	0	1	0	0
6	Road-associated Entrenched Channel	0	0	0	1
7	Road captured flow path	0	0	0	0
8	Entrenched and Confined Channel	0	0	0	0
9	Other	0	0	0	0

4.2 Stream Restoration Priorities and Treatments

To arrest further meadow degradation, active headcuts (Form 3) occurring in wet meadows and fens will have the highest priority for treatment. Other treatments will defer to the prioritization of the meadow in which it occurs (Table 4-2). Table 4-3 describes the treatment options for each channel form.

Table 4-3.Treatment descriptions for channel forms.

	Channel Form or State	Treatment Approach
1	Hydraulic control affecting upstream low gradient, relatively unconfined reach	Install channel spanning large wood and/or boulder structures (with low permeability) to raise the elevation of the hydraulic control and create backwater conditions that increase floodplain connectivity and inundation in the upstream low gradient unconfined reach.
2	Low gradient, non-entrenched, relatively unconfined reach	Install PALS, BDAs, LWD, and boulder structure to increase frequency, depth, and duration of inundation in nearby floodplains and secondary flow paths. Position structures at riffle crest locations and other small scale hydraulic controls (e.g., bedrock, riffle crossover points and other constructional channel bedforms, local constrictions, existing instream wood accumulations, and other locations with high channel roughness). Look for streamside trees and other sources of wood that can be recruited to the channel to provide additional roughness and complexity.
3	Knickpoint (e.g., headcut) within low gradient, relatively unconfined reach	Reduce flow velocities and stream power by building structures that disperse flow from the main channel to floodplains and secondary flow paths upstream of active knickpoints (if there are places to split flow). Install structures downstream of knickpoints that will create backwater conditions and promote sediment deposition through the incising stream segment. Brush pack incised channel to increase roughness. Steep knickpoints formed in erodible materials that cannot be easily backwatered by downstream structures may require additional stabilization by structures and/or resistant materials near their base.
4	Point of flow divergence (e.g., switchpoint) within low gradient, relatively unconfined reach	Install PALS, BDAs, LWD, and boulder structure at riffle crest locations and other small scale hydraulic controls (e.g., bedrock, riffle crossover points, local constrictions, existing instream wood accumulations, and other locations with high channel roughness) located immediately downstream and/or in close proximity to switchpoints that open to secondary flow paths and floodplain areas. Roughen secondary flow paths with small trees and other woody materials to slow flow velocities, minimize potential for incision, and further spread floodplain flow. Plant floodplains and secondary flow paths by transplanting species that aren't likely to seed themselves or are not represented in the seedbank.

	Channel Form or State	Treatment Approach
5	Entrenched channel within low gradient, relatively unconfined reach	Install channel spanning and/or bank attached PALS, BDAs, LWD, and boulder structure at riffle crest locations and other small scale hydraulic controls (e.g., bedrock, riffle crossover points, local constrictions, existing instream wood accumulations, and other locations with high channel roughness) with the primary objective of trapping and storing bedload material and raising bed elevations to stabilize incision and better connect with floodplains and secondary flow paths. Look for opportunities to steer flow from bank to bank in ways that promote bank erosion that over time will lay back steep bank slopes and/or create inset floodplain surfaces (avoid accelerating bank erosion into sensitive areas). Look for upslope anthropogenic sources of concentrated flow that may be responsible for incision and disperse. Look for upstream sources of headward extension of the channel network and address with brush packing, channel spanning structure, and/or other roughness to stabilize erosion and trap and retain sediment.
6	Entrenched channel downstream of roads that substantially alter runoff	Address altered flow paths, concentrated surface runnoff, and accelerated erosion and sediment production from upslope road segments by removing stream crossing fill and associated failed cross draining infrastructure related to stream capture, outsloping, removing outboard side cast berms, improving and/or installing cross drain dips and water bars, and avoiding concentrated outboard drainage relief onto unstable open slopes. Roughen nearby open slope surfaces subject to overland flow to increase infiltration and retention. Install channel spanning PALS, BDAs, LWD, and boulder structure at riffle crest locations and other small scale hydraulic controls (e.g., bedrock, riffle crossover points, local constrictions, existing instream wood accumulations, and other locations with high channel roughness) with the primary objective of arresting incision and trapping bedload material that over time will raise bed elevations and better connect the channel to floodplains and secondary flow paths.
7	Road captured flowpath	Address altered flow paths, concentrated surface runnoff, and accelerated erosion and sediment production from upslope road segments by removing stream crossing fill and associated failed cross draining infrastructure related to stream capture, outsloping, removing outboard side cast berms, improving and/or installing cross drain dips and water bars, and avoiding concentrated outboard drainage relief onto unstable open slopes
8	Entrenched channel within steeper, relatively confined reach on alluvial valley floor	Recruit streamside conifers to the channel to increase roughness, structure, complexity, and sediment trapping. If gradient is low enough, consider installing bank attached or channel spanning PALS, BDAs, LWD, and boulder structure at riffle crest locations and other small scale hydraulic controls (e.g., bedrock, riffle crossover points, local constrictions, existing instream wood accumulations, and other locations with high channel roughness) with the primary objective of trapping and storing bedload material
9	Other (typically steep reach draining hillslopes above alluvial valley floor)	Recruit streamside conifers to the channel to increase roughness, structure, complexity, and sediment trapping.

5 FOREST HEALTH AND FUELS TREATMENT PLANS

5.1 Forest Health and Fuels Stratification

5.1.1 Objective

Our objective was to identify and prioritize upland forest restoration needs to increase the health and integrity of the Cabin Meadows and Rock Fence Creek watersheds. By reducing the densities of small conifers that have encroached into the open forest and meadow complex within these watersheds, we are able to promote conditions that support higher biodiversity and allow fire to be re-introduced beneficially. There is expected to be a long-term positive indirect effect to water quantity at the site scale as encroaching conifers are thinned from within meadow boundaries and the surrounding upland forest. This project expands on the Klamath National Forest East Fork Scott Project and Cabin Meadows Restoration Project with a special focus on forest restoration treatments within the Cabin Meadows Rock Fence Creek watersheds. Maintaining or increasing species diversity is a key component of prescriptions. Where multiple species exist, the goal is to maintain the existing diversity

5.1.2 Data Descriptions

Several datasets were compiled to help identify areas to consider for improving forest health and reducing fuels. We used the California Wildlife Habitat Relationship (CWHR) classification scheme to identify conifer forest with moderate to dense canopy closure (see Figure 5-1). These areas include yellow pine and mixed conifer forests as well as higher elevation true fir forests, all with canopy closures greater than 40%. Mapped meadows, including a 50ft meadow buffer, were then excluded from this footprint. We then took a canopy height layer produced by the California Forest Observatory (Salo Sciences) and ran a hot spot analysis to identify clusters of the largest trees (Figure 5-2). Large trees were defined as having a canopy height of greater than 25 m (82 ft), however clusters identified also include smaller sized trees (Figure 5-3). All areas within the two watersheds, except for wet meadows and non-burnable land cover types (e.g., barren, lacustrine), were identified as areas to apply prescribed fire.
The patterns in tree densities, composition, and size classes across both watersheds indicate structural and compositional shifts often associated with fire exclusion. Across most yellow pine and mixed conifer forests in northwestern California, substantial increases in tree densities as a result of fire exclusion, particularly among smaller size classes and shade-tolerant species, have been well documented (Bohlman et. al. 2021)

5.1.3 Final Stratification and Treatments

Table 5-1 provides a description of each treatment area, and the actions associated with them. There were a total of 1,477 acres of potential upland thinning and fuels reduction treatments identified within the project area. There were 281 acres of identified meadows with a 50 foott buffer around them (126 acres) that were excluded from the upland treatments. Large tree clusters covered about 196 acres within the project area. Large tree clusters are defined as trees greater than 25 meters (82 feet) tall and are generally conifers greater than 66 centimeters (26 inches) DBH. These clusters will be the highest priority for non-commercial thinning and fuels treatments. Across the entire project area there were 2,871 acres identified for prescribed burning. This acreage includes burning in dry meadow areas as well as upland areas (both forested and non-forested areas). Note that some of the areas described above and shown in Figure 5-4 may be dropped as additional NEPA coverage is developed.

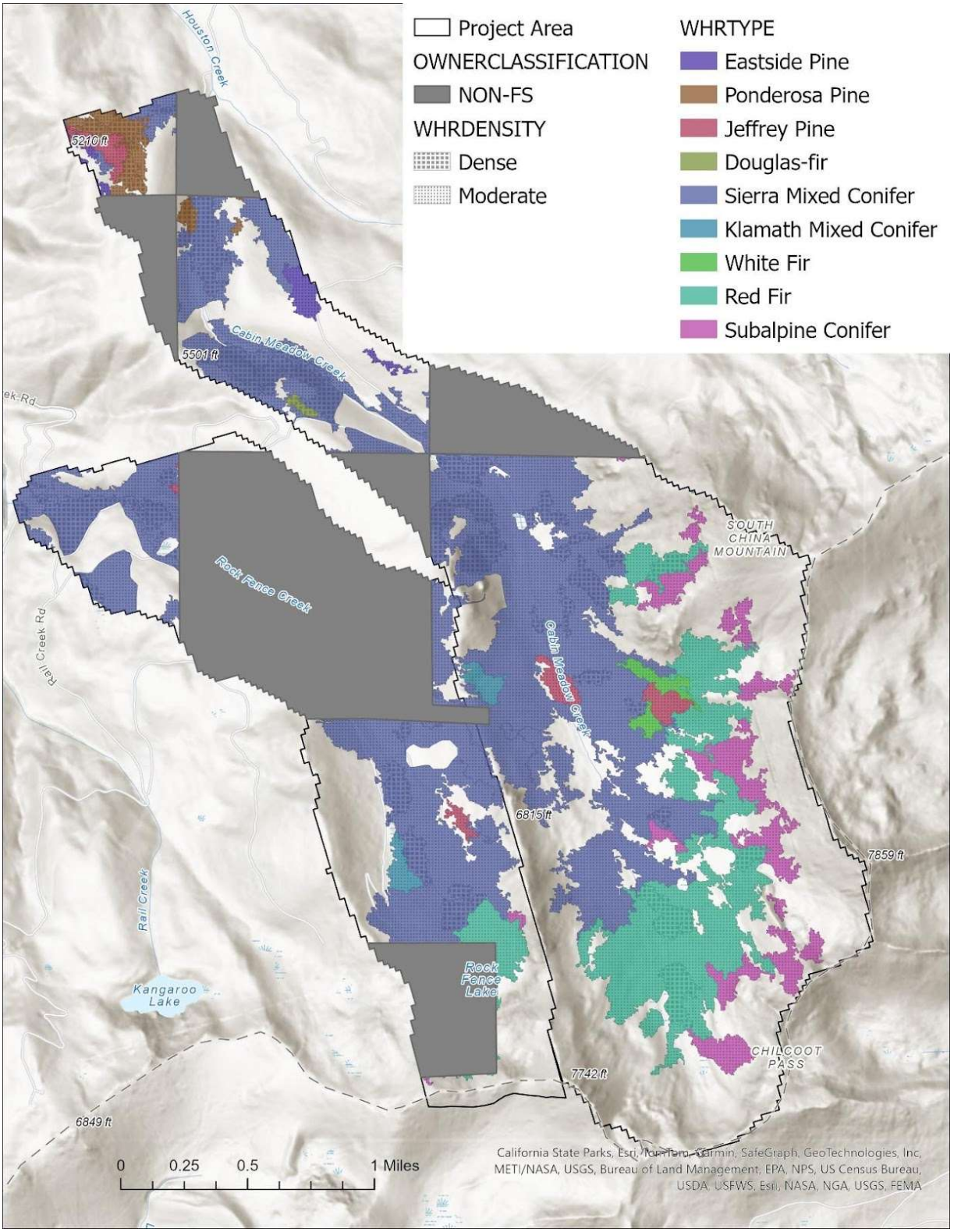


Figure 5-1. Map showing the distribution of forest types identified as having a greater than 40% canopy cover.

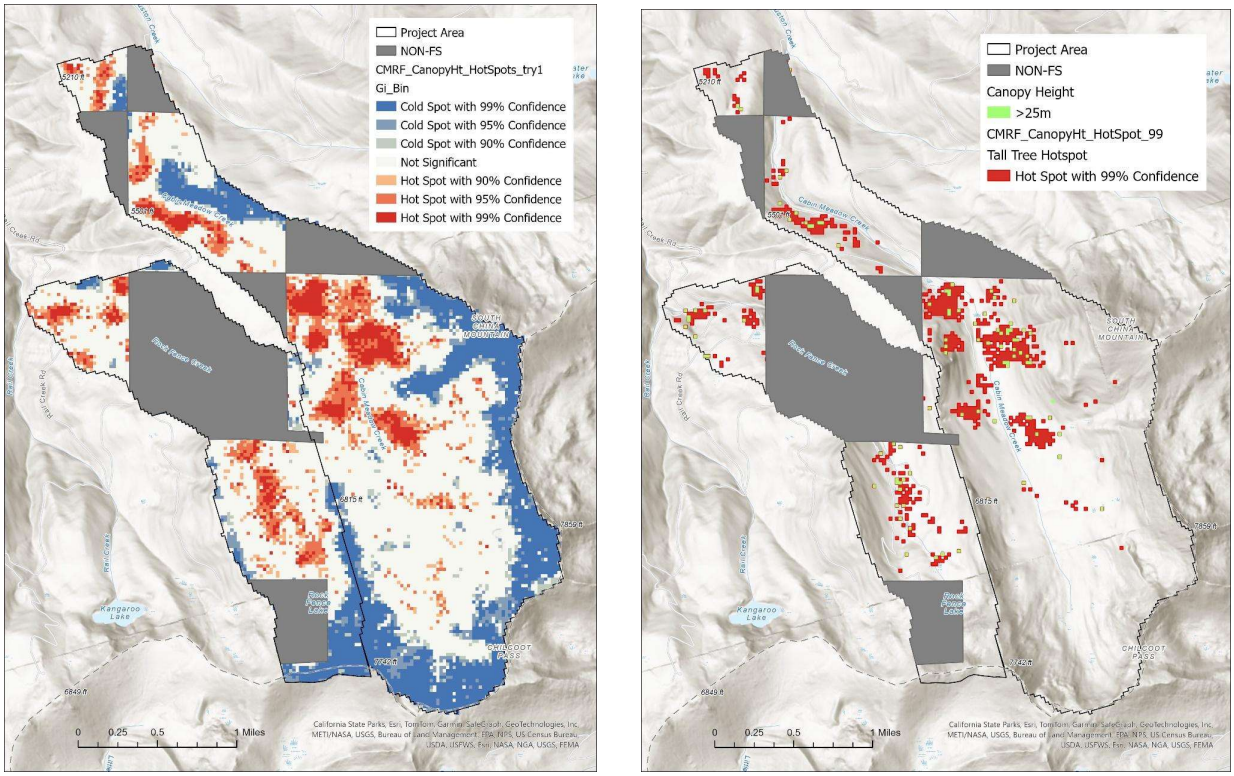


Figure 5-2. The map on the left shows outputs from the hotspot analysis using the 2020 CFO Salo Sciences data. The map on the right shows the hotspots with 99% confidence overlaid with pixels of canopy height greater than 25m (82 ft).

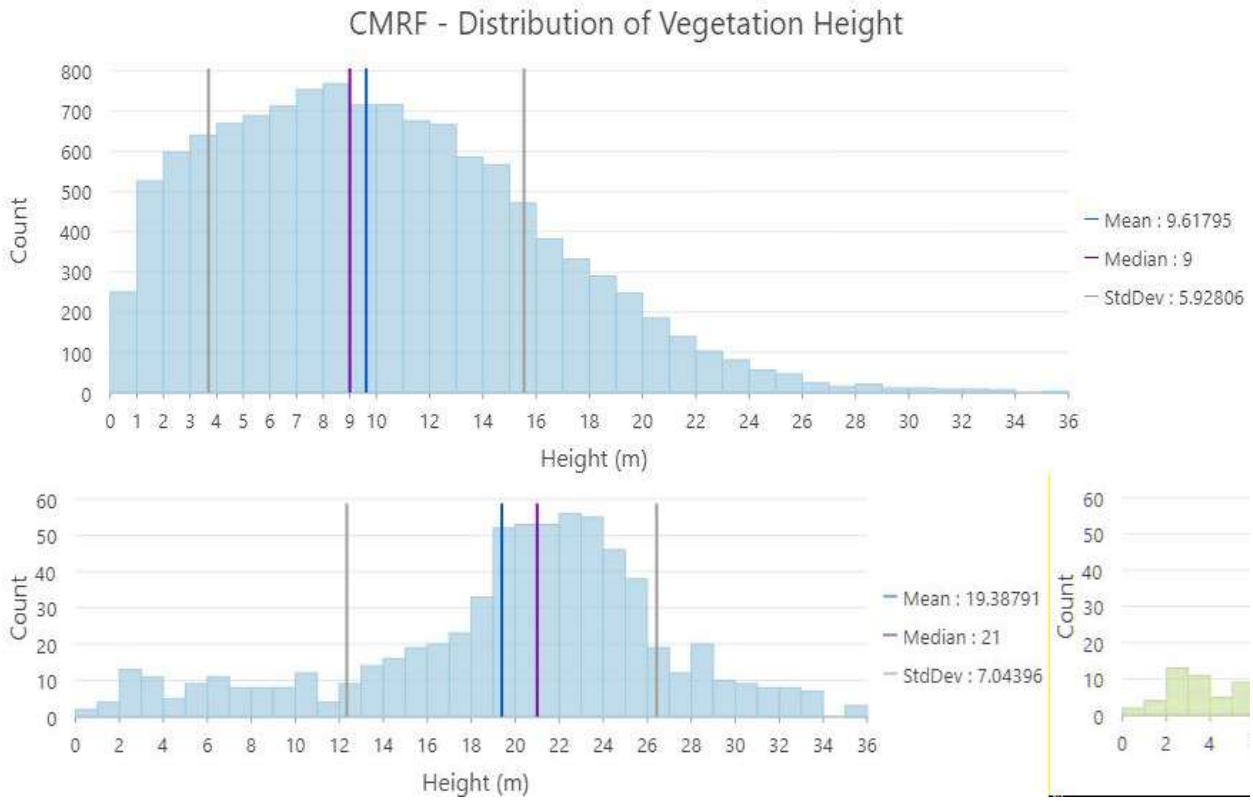


Figure 5-3. The top panel shows the distribution of overall canopy height distribution. The lower panel shows the canopy height distribution for hotspots (clusters) with 99% confidence (FS only).

5.1.3.1 Project Forest Fuels Treatment Comparison to East Fork Scott (EA) and Cabin Meadows Restoration Project (CE).

The Cabin Meadows and Rock Fence Creek Watershed Planning and Restoration Project differs from the EF Scott Project (EA) and Cabin Meadows Restoration Project (CE) in the following ways:

- The proposed project area is defined as the Cabin Meadows and Rock Fence Creek watersheds
- The proposed project includes lands that were previously privately owned until 2019
- The proposed upland treatments prioritize thinning of fuels to protect large conifers and upland forests near mapped wet meadow complexes.
- The proposed project does not include a commercial timber component.
- The proposed project includes a large landscape area (entire project footprint excluding wet meadows) of prescribed fire as follow-up treatment.

The maps in Figures 5-5 and 5-6 combine the current NEPA coverage with the proposed upland treatments.

Table 5-1. Summary of Project Acreage for Each Upland Treatment Type.

Treatment location	**Project treatment**	**Area currently covered by previous approved NEPA analysis**	**Area not yet covered by approved NEPA analysis**
Upland forest thinning areas beyond 50’ from meadow margins, (excludes wet and dry meadows)	1,477	324	1,153
Large tree focus cluster area	196	0	196
Upland area prescribed fire treatment	2,871	267	2,871
Plantations	61	61	NA

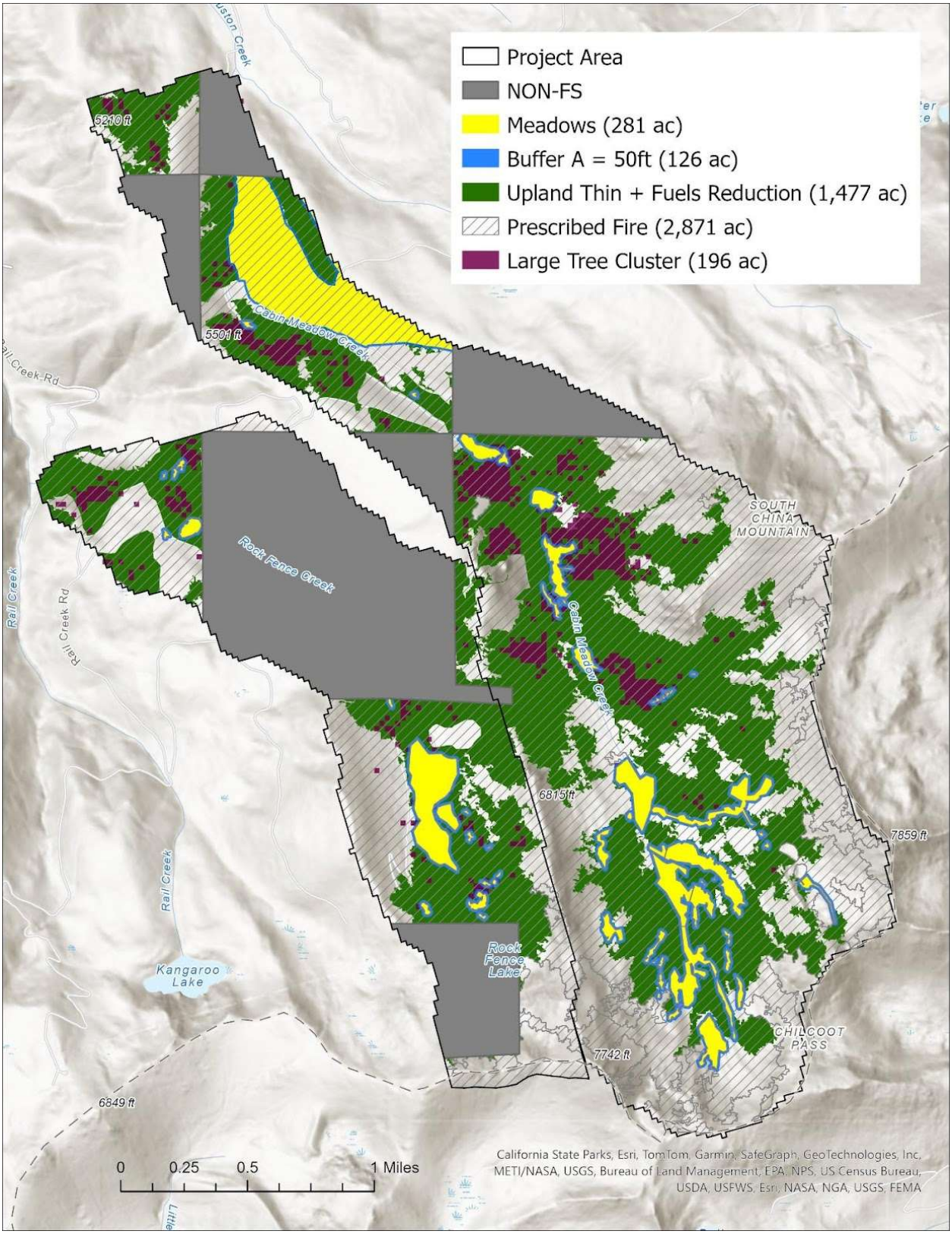


Figure 5-4. Final forest health and fuels treatment units. Note: Areas identified in Figure 4 may be dropped out as additional NEPA coverage is developed.

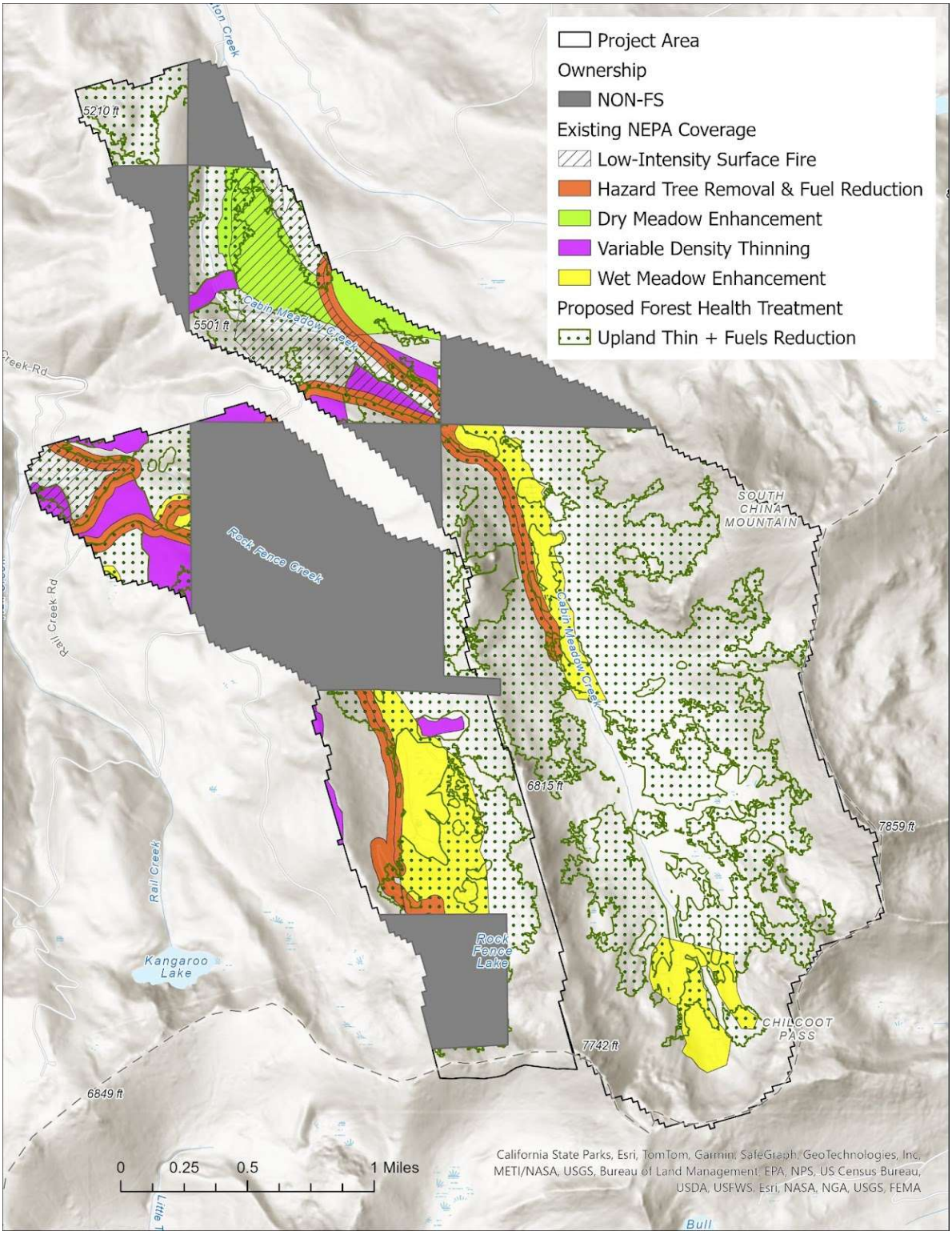


Figure 5-5. Current NEPA coverage and proposed upland treatments (thinning and fuels reduction).

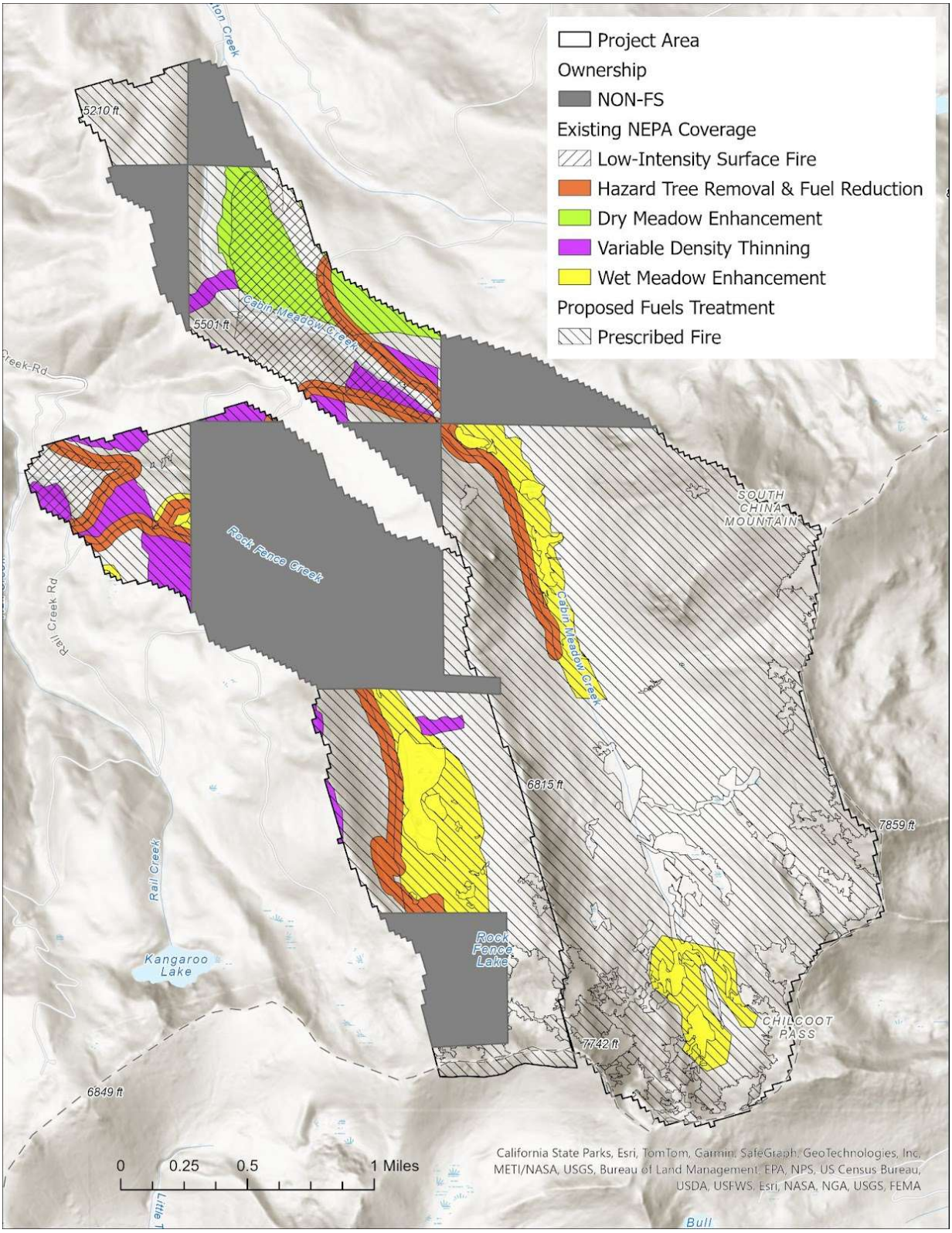


Figure 5-6. Current NEPA coverage and proposed upland treatments (prescribed fire).

5.1.3.2 Forest and Fuels Treatment Specifications

Most Treatment Specifications (Table 5-2) were derived from the East Fork Scott Project Appendix F, Table 18 and the Cabin Meadows Habitat Enhancement Project description.

Table 5-2. Upland forest and fuel treatments.

Location/unit	Treatment Type	Objective	Activities	Primary treatment	Follow-up treatment	Acres	Riparian Reserve treatment
Upland treatment areas outside the 50' meadow buffer zones. (includes areas with moderate to dense canopy closure according to CWHR).	Thinning w/o removal	Mid- and Late Seral Forest Health and Resilience, thin to enhance large tree component	Manually or mechanically thin trees < 10" beyond the 50' meadow buffer. to create an open forest of larger, older conifer and hardwood tree with wide spacing. Manually prune leave trees to 7'. Follow up with beneficial prescribed fire. - Thin to an average residual basal area of 120-150 square feet per acre - Thin to enhance large tree component; Dripline thin 20-30 feet around largest conifers or clumps of 2-3 conifers; - Thin to an average spacing of 32 feet. Thin around vigorous patches of mountain mahogany	Variable density thinning. Thin to a residual basal area of 150 square feet; Retain clumps of larger trees and thin around individual large trees. Dripline thin 20-30 feet around largest pine or clumps of 2-3 pine; Variable Density Thinning: Prune leave trees to 7' minimum.	Scatter, manual pile & burn or, underburn	1,673	Yes, maintain condition, thin from below. Perennial and wetland features, 150 foot no treatment and equipment exclusion zone buffer.
All upland treatment areas Excludes wet and dry meadows.	Pile burning & Prescribed fire	Early, mid to late seral forest health, thin to enhance large tree component	Burning using hand ignitions and/or aerial ignitions. Includes pile burning, jackpot burning, underburning/broadcast burning, and with Tribal coordination, cultural burning. It may be necessary to conduct burn preparation activities in some areas to ensure that hazardous fuels are reduced and planned burning can be safe, effective, and contained. Can burn up to edge of wet meadow as control feature but ignitions will not occur within wet meadows.	Thinning per Hand piles must be small in size, six feet or less in diameter. Burning using hand ignitions and/or aerial ignitions. Includes pile burning, jackpot burning, underburning/broadcast burning, and with Tribal coordination, cultural burning.	Pile burning and prescribed fire	2,871	
Plantations	Thinning w/o removal units	Early seral health and resilience	Mechanical or hand crews	Thin to 22' spacing	Prescribed fire	61	Thinning small trees in the plantations that currently exist in riparian reserves to encourage the growth of larger trees by reducing competition.

6 ROAD IMPROVEMENT PLANS

6.1 Road Segment Prioritization

As described in the Baseline Conditions Report, Stillwater Science completed a detailed survey of roads in the Project area during the summer of 2024. Prioritization of road-related treatments in the Project area involved reviewing field assessment data related to road segments, characteristics of site-specific point locations of road-related hydrologic and erosion or sedimentation issues, and stream crossing conditions. A number of different field attributes (such as surface condition, road drainage, erosion severity, causal mechanisms, and field-based treatment recommendations) factored into identifying treatment priority by road segment into classes ranging from 1 to 3, with a classification of 1 being the highest priority. Prioritization also considered the potential cumulative effect of all points mapped along a given road segment, ownership (e.g., private vs USFS), the road designation and treatment recommendations identified in the KNF road system and Travel Analysis conducted by the USFS for the East Fork Scott River EA, and the anticipated future use of the road segment. Lastly, the prioritization considered the proximity to mapped meadows, the meadow HGM type, degree of degradation, the potential hydrologic and/or geomorphic effects of mapped road-related issues on affected nearby meadows, and an independent prioritization of mapped meadows for a larger suite of potential restoration and conservation actions. Figures 6-1 through 6-5 map road segments and individual points, as well as the inventoried meadows to illustrate their spatial relationship with the roads.

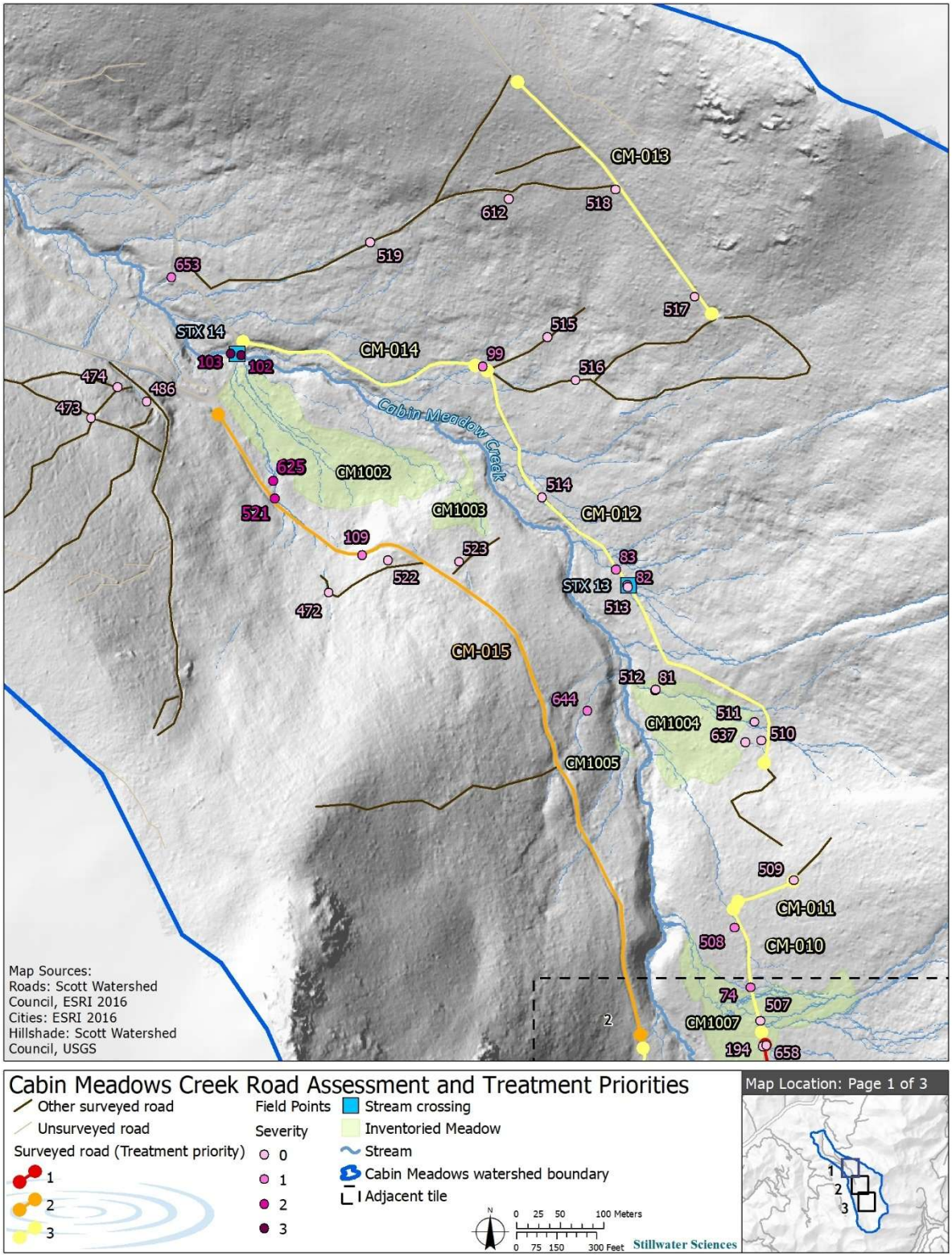


Figure 6-1. Cabin Meadows Creek road assessment points and treatment priorities; 1 of 3.

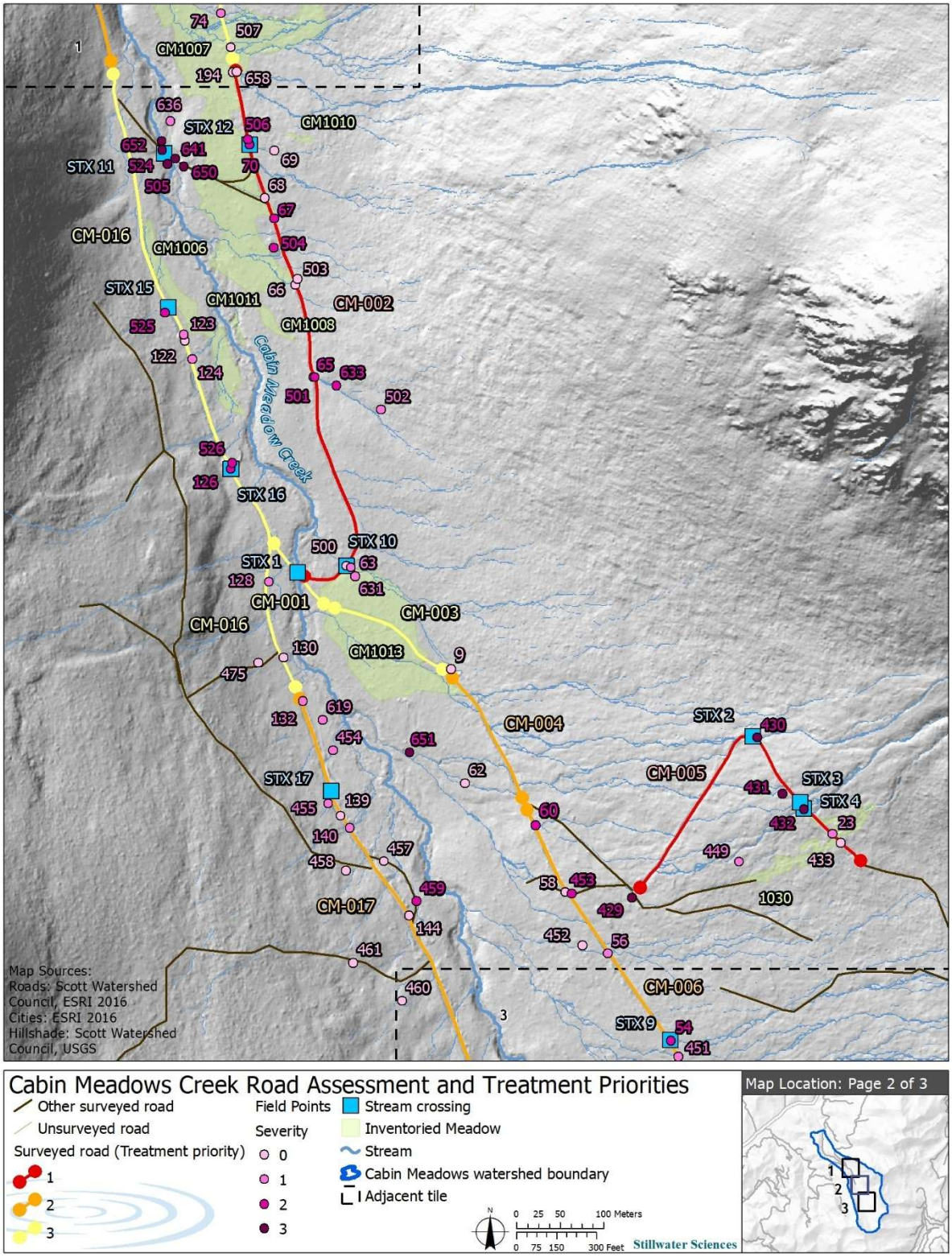


Figure 6-2. Cabin Meadows Creek road assessment points and treatment priorities; 2 of 3.

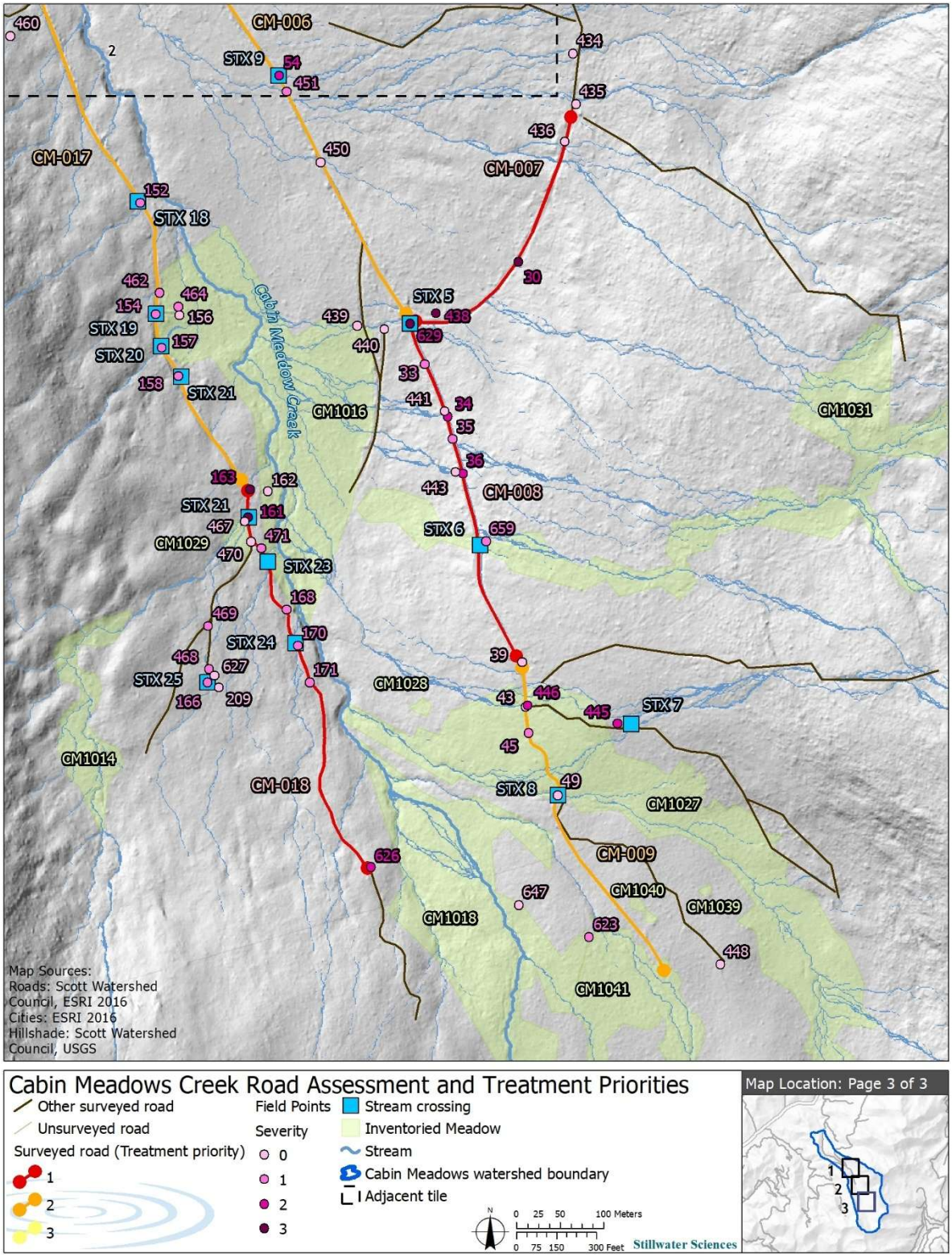


Figure 6-3. Cabin Meadows Creek road assessment points and treatment priorities; 3 of 3.

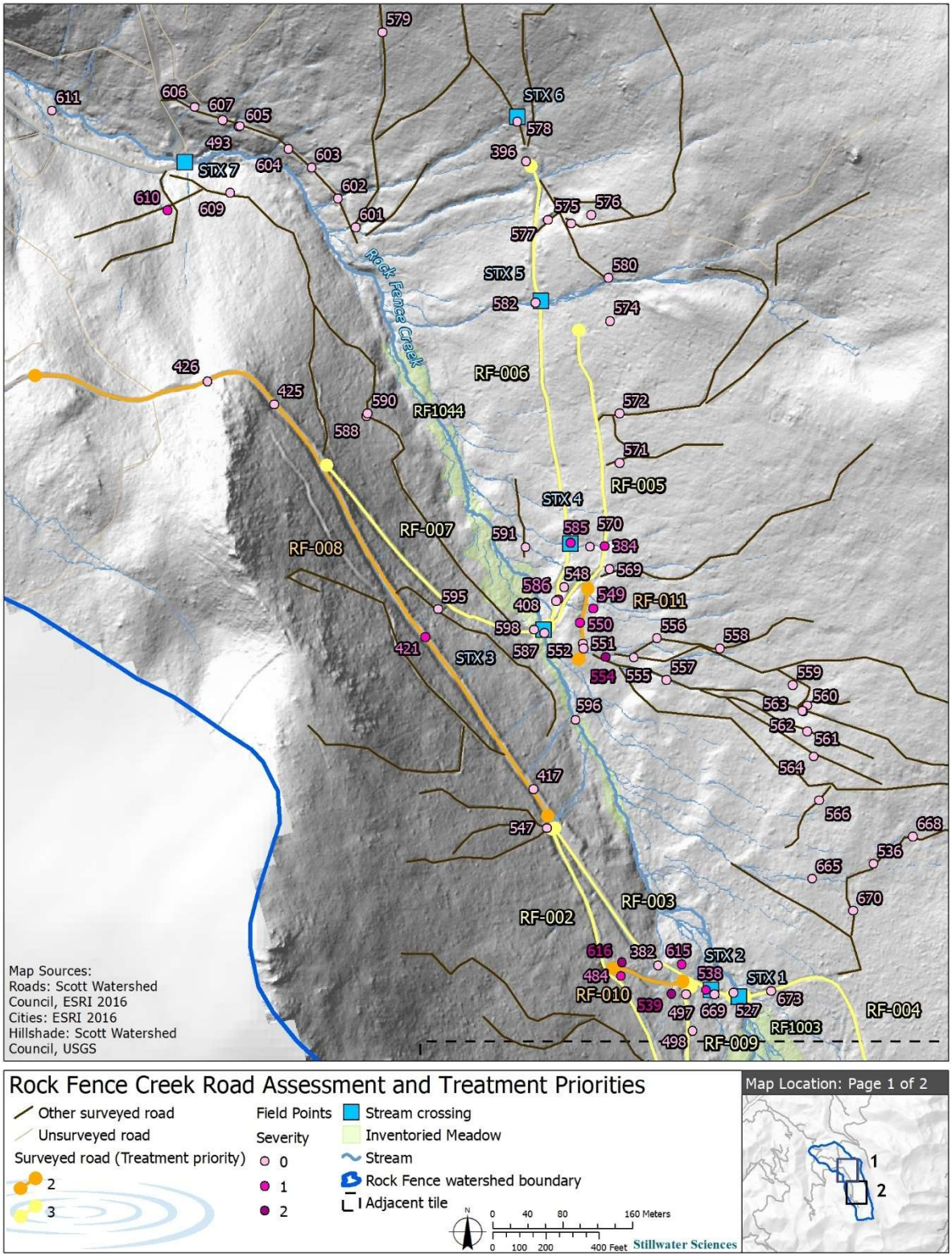


Figure 6-4. Rock Fence Creek road assessment points and treatment priorities; 1 of 2.

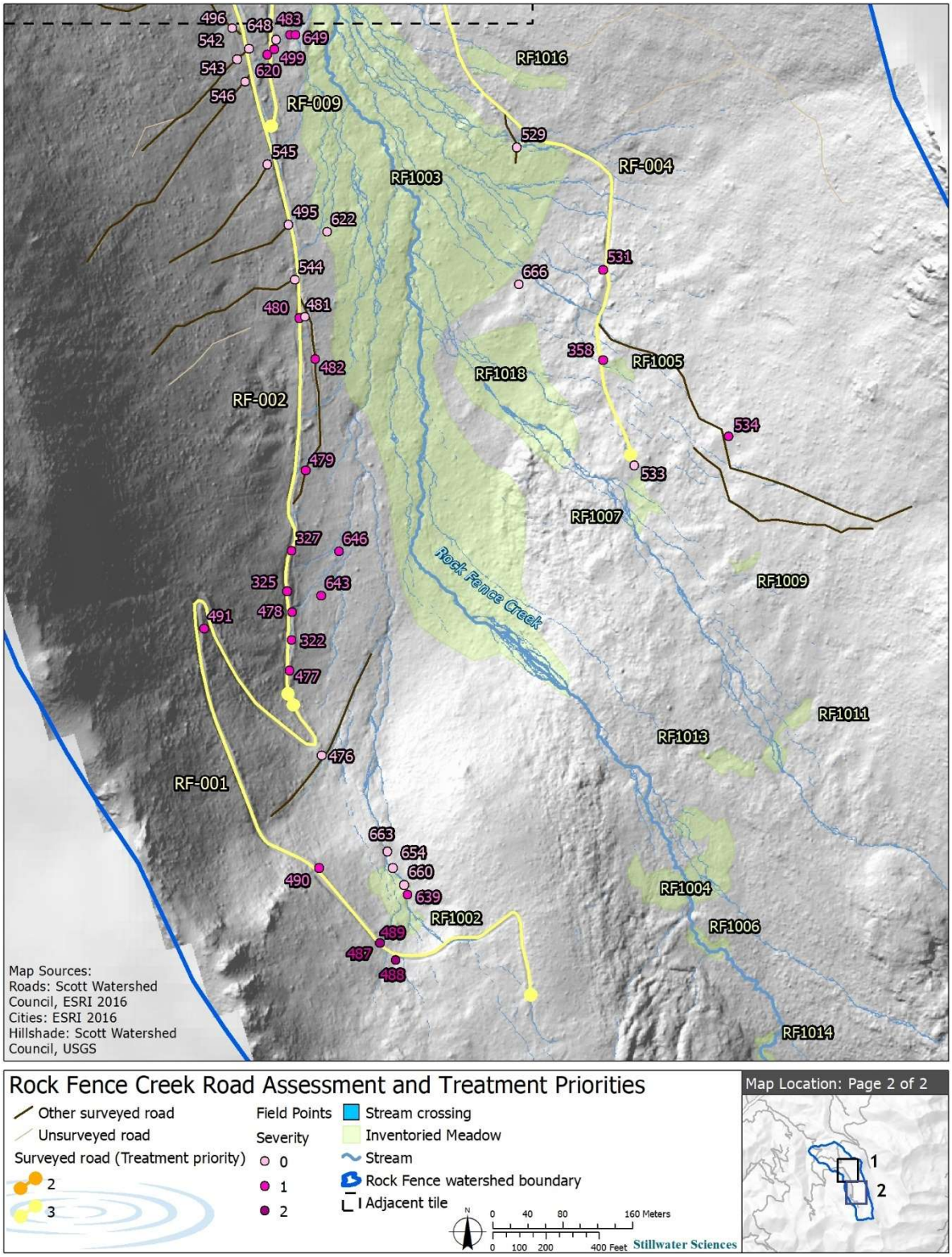


Figure 6-5. Rock Fence Creek road assessment points and treatment priorities; 1 of 2.

6.2 Road Treatments

The tables below compare the Project's recommendations for each prioritized road segment with the treatments recommended by KNF's EF Scott River Project. Table 6-1 shows Cabin Meadows Creek watershed and Table 6-2 shows the Rock Fence Creek watershed. For more detailed information about each segments field points, stream crossings, and its relationship with meadows, see Appendix C (Cabin Meadows Creek watershed) and Appendix D (Rock Fence Creek watershed).

Table 6-1. Recommended treatments for road segments in Cabin Meadows Creek watershed.

Road Segment	Treatment Priority	Recommended Treatments	
		Cabin Meadows and Rock Fence Creeks Meadows Project	**KNF EF Scott River Project**
CM-005	1	Steep road with stream capture, resulting in surface erosion, gullying, and downstream channel incision. Decommission and hydrologically stabilize concurrent with treatments to CM-007. If decommissioning isn't feasible then address stream captures by removing stream crossing fill and any associated cross drain pipes, improving and/or installing cross drain dips and water bars, outsloping, removing outboard side cast berms, avoiding concentrated outboard drainage relief onto unstable open slopes, and prohibiting public motor vehicle use.	Not identified in KNF road system or Travel Analysis. No Recommendations
CM-007	1	Deeply incised inboard ditch conveys large volume of concentrated flow to undersized culvert crossing at CM-008, resulting in downstream channel incision. Decommission and hydrologically stabilize concurrent with treatments to CM-005. If infeasible then outslope road, remove berm, fill ditch, and install adequate cross drainage relief where needed to avoid concentrating runoff.	Private/Other Road. No Recommendations
CM-008	1	Steep road segment with inboard ditch, outboard berm, and infrequent drainage relief. Decommission and hydrologically stabilize concurrent with treatments to CM-009. If infeasible then outslope, remove berm, fill ditch, and install adequate cross drainage relief where needed to avoid concentrating runoff.	Private/Other Road. No Recommendations

Road Segment	Treatment Priority	Recommended Treatments	
		Cabin Meadows and Rock Fence Creeks Meadows Project	**KNF EF Scott River Project**
CM-002	1	Very low gradient valley bottom and toeslope road. Extensive sidecast berm on outboard edge limits cross drainage relief and concentrates surface runoff. Spring sources and ephemeral streamflow captured by road. Spur road extends to former crossing of Cabin Meadows Creek, where remnants of the approach to the crossing (fill prism) constricts streamflow and blocks secondary floodplain flow paths within the right bank floodplain. Remove fill in right bank floodplain of Cabin Meadow Creek. Remove or create frequent openings in outboard berm to promote cross drainage relief. Repair existing dips and install additional cross drainage relief where needed to convey spring flow and/or streamflow. Treat concurrently with CM-010 and CM-011.	40N04A. Identified as not drivable due to blown out crossing at start point. Culvert and associated fill was subsequently removed and crossing converted to a ford. Low risk legacy sites. Recommended to downgrade to Maintenance Level 1 and leave as is.
CM-018	1	Steeper road segment. Stream captures and poor cross drainage result in rilling and gullying. Decommission road segment and associated spurs. Hydrologically stabilize road bed and stabilize/aggrade downslope gullies. Treat concurrently with CM-017	Not identified in KNF road system or Travel Analysis. No Recommendations
CM-009	2	Springs or seeps present in cutbank and road surface. Road surface could be more effectively drained, but little concentrated runoff. Spur road captures ephemeral drainages and routes flow down road surface, causing surface erosion and rilling. One stable, well-armored ford. Decommission and hydrologically stabilize entire road segment and associated spurs concurrent with treatments to CM-008.	Private/Other Road. No Recommendations
CM-006	2	Extensive outboard berm concentrates runoff, leading to road surface erosion and downstream channel incision. Road captures several ephemeral drainages. Address upslope sources of concentrated runoff, remove or create frequent openings in outboard berm to promote drainage relief, address captures with improved cross drainage, improve functionality of dips and water bars. Treat concurrently with CM-001, CM-003, and CM-004.	41N04. Classified as Level 2 - High Clearance Vehicles. Identified as not drivable due to blown out crossing at start point (culvert and associated fill was subsequently removed and crossing converted to a ford). Low risk legacy sites. Recommended to leave as is.

Road Segment	Treatment Priority	Recommended Treatments	
		Cabin Meadows and Rock Fence Creeks Meadows Project	**KNF EF Scott River Project**
CM-004	2	Low gradient road with springs and seeps present in cutbank and/or road surface, leading to persistent saturation of road surface. Water effectively directed off road surface via outboard drainage. Road surface rilled and rutted. Flow from stream capture on CM-005 routed across CM-004 at upper end of segment, resulting in downstream channel incision. Address upslope sources of concentrated runoff and stream capture. Remove outboard berm from upper portion of road segments where it concentrates road surface runoff. Repair existing dips and install additional cross drainage relief where needed. Treat concurrently with CM-001, CM-003, and CM-006.	41N04. Classified as Level 2 - High Clearance Vehicles. Identified as not drivable due to blown out crossing at start point (culvert and associated fill was subsequently removed and crossing converted to a ford). Low risk legacy sites. Recommended to leave as is.
CM-015	2	Springs and seeps present in cutbank and/or road surface. Dips too infrequent and shallow to effectively contain/ route all flow to outboard edge. Increase frequency of dips and improve existing dips. Rock surfaces between dips on steep slopes. Clean and maintain drainage relief structures. Treat concurrently with CM-016	41N10. Classified as Level 2 - High Clearance Vehicles. High concentration of low risk legacy sites. Rill and gully erosion and a few culvert issues. Recommended to leave as is.
CM-017	2	Low gradient valley bottom road. Consider decommissioning. If infeasible, outlsope and grade to address surface erosion and rilling of road surface, remove outboard berm to improve cross drainage and dispersion of flow into downslope meadow, increase frequency of dips and improve existing dips. Treat concurrently with CM-018	Private/Other Road. No Recommendations
CM-003	3	Very low gradient road. Road surface is inset within adjacent landscape (minor throughcut) in places, which concentrates flow. Road surface is rilled and rutted. Address upslope and adjacent valley bottom sources of runoff to road (e.g., adjacent ditch) and provide better drainage relief away from road surface. Consider rock surfacing to stabilize finer sediments in road surface. Treat concurrently with CM-001, CM-004, and CM-006.	41N04. Classified as Level 2 - High Clearance Vehicles. Identified as not drivable due to blown out crossing at start point (culvert and associated fill was subsequently removed and crossing converted to a ford). Low risk legacy sites. Recommended to leave as is.
CM-001	3	Very low gradient valley bottom road. Road surface is rilled and rutted. Channel constricted at upstream edge of ford and road surface runoff directed into eastern approach of ford. Boulder side cast on downstream edge of ford partially blocks flow into side channel. Address upslope and adjacent valley bottom sources of runoff to road (e.g., adjacent ditch) and provide better drainage relief away from road surface. Treat concurrently with CM-003, CM-004, and CM-006.	41N04. Classified as Level 2 - High Clearance Vehicles. Identified as not drivable due to blown out crossing at start point. Culvert and associated fill was subsequently removed and crossing converted to a ford. Low risk legacy sites. Recommended to leave as is.

Road Segment	Treatment Priority	Recommended Treatments	
		Cabin Meadows and Rock Fence Creeks Meadows Project	**KNF EF Scott River Project**
CM-010	3	Very low gradient valley bottom road. Overland flow from toeslope crosses road surface and to open slope at outboard edge. Road drainage generally adequate with little erosion. Add roughness to channels on terrace to spread water. Treat concurrently with CM-002 and CM-011.	40N04A. Identified as not drivable due to blown out crossing at start point. Culvert and associated fill was subsequently removed and crossing converted to a ford. Low risk legacy sites. Recommended to downgrade to Maintenance Level 1 and leave as is.
CM- 011	3	At bottom of hill, provide better cross drainage to outboard edge through berm. Treat concurrently with CM-002 and CM-010.	Not identified in KNF road system or Travel Analysis. No Recommendations
CM-016	3	Low gradient valley bottom road. Stable and well drained. Springs and seeps present in cutbank and/or road surface. Increase frequency of dips to convey spring water sources and improve existing dips. Remove outboard berm to improve dispersion of cross drainage into meadow. Treat concurrently with CM-015	41N10. Classified as Level 2 - High Clearance Vehicles. High concentration of low risk legacy sites. Rill and gully erosion and a few culvert issues. Recommended to leave as is.
CM-012	3	Downslope road segment (CM-014) has been decommissioned, limiting vehicle access into this segment. No recommendations	Unauthorized Route. No Recommendations.
CM-014	3	Road segment has been decommissioned. STX14 is a large culvert crossing located on 41N03. The existing culvert needs to be replaced with a bridge or multi-plate arch culvert with capacity to convey flows, bedload, and large wood.	Unauthorized Route. No Recommendations.
CM-013	3	Downslope road segment (CM-014) has been decommissioned, limiting vehicle access into this segment. No recommendations.	Private/Other Road. No Recommendations

Table 6-2. Recommended treatments for road segments in Rock Fence Creek watershed.

Road Segment	Treatment Priority	Recommended Treatments	
		Cabin Meadows and Rock Fence Creeks Meadows Project	**USFS East Fork Scott River EA**
RF-008	2	Inadequate cross drainage and Inboard ditch conveyance results in surface erosion and downslope channelization. Repair existing dips and water bars install additional cross drainage relief where needed. Clean inboard ditch to improve capacity and cross drainage. Stabilize downslope gullies.	40N18. Classified as Level 2 - High Clearance Vehicles. Drivable to intersection with A spur. Almost impassable to Rock Fence Lake. Significant wide-spread gully erosion from in-sloped road design and no proper inboard ditch. Moderate Priority Decommission.
RF-010	2	Decommission and address downslope incision	40N18A. Not identified in KNF road system or Travel Analysis. No Recommendations.
RF-011	2	No Recommendations	Not identified in KNF road system or Travel Analysis. No Recommendations
RF-001	3	Grade to address surface erosion and rilling of road surface. Reduce distance between drainage relief by installing new cross drains and dips and enhance existing dips. Replace damaged cross draining culverts. Remove outboard berm.	40N18. Classified as Level 2 - High Clearance Vehicles. Drivable to intersection with 40N18A. Almost impassable to Rock Fence Lake. Significant wide-spread gully erosion from in-sloped road design and no proper inboard ditch. Moderate Priority Decommission.

Road Segment	Treatment Priority	Recommended Treatments	
		Cabin Meadows and Rock Fence Creeks Meadows Project	**USFS East Fork Scott River EA**
RF-002	3	Grade to address surface erosion and rilling of road surface. Reduce distance between drainage relief by installing new cross drains and dips and enhance existing dips. Replace damaged cross draining culverts. Remove outboard berm.	40N18. Classified as Level 2 - High Clearance Vehicles. Drivable to intersection with A spur. Almost impassable to Rock Fence Lake. Significant wide-spread gully erosion from in-sloped road design and no proper inboard ditch. Moderate Priority Decommission.
RF-003	3	Road segment decommissioned/storm proofed with crossing fills removed, limiting access for future treatments. Treatments have generally been effective at hydrologically stabilizing the road and prohibiting erosion and flow concentration. No Recommendations.	40N18A. Classified as Level 2 - High Clearance Vehicles. Not Drivable. One mostly blown out stream crossing and chronic road surface erosion. Moderate Priority Decommission.
RF-004	3	Road segment decommissioned/storm proofed with crossing fills removed, limiting access for future treatments. Treatments have generally been effective at hydrologically stabilizing the road and prohibiting erosion and flow concentration. No Recommendations.	40N18A. Classified as Level 2 - High Clearance Vehicles. Not Drivable. One mostly blown out stream crossing and chronic road surface erosion. Moderate Priority Decommission.
RF-005	3	Road segment decommissions/storm proofed with crossing fills removed, limiting access for future treatments. Treatments have generally been effective at hydrologically stabilizing the road and prohibiting erosion and flow concentration. No Recommendations.	Not identified in KNF road system or Travel Analysis. No Recommendations
RF-006	3	Road segment decommissions/storm proofed with crossing fills removed, limiting access for future treatments. Treatments have generally been effective at hydrologically stabilizing the road and prohibiting erosion and flow concentration. No Recommendations.	Private/Other Road

Road Segment	Treatment Priority	Recommended Treatments	
		Cabin Meadows and Rock Fence Creeks Meadows Project	**USFS East Fork Scott River EA**
RF-007	3	Road segment decommissions/storm proofed with crossing fills removed, limiting access for future treatments. Treatments have generally been effective at hydrologically stabilizing the road and prohibiting erosion and flow concentration. No Recommendations.	Private/Other Road
RF-009	3	Decommission and address downslope incision	Not identified in KNF road system or Travel Analysis. No Recommendations

7 APPENDIX A: CABIN MEADOWS TREATMENT PRESCRIPTION

Version June 2025

The purpose of this document is to provide an outline for Cabin Meadow Creek meadow enhancement prescriptions, including debris disposal options. This document will be used to guide general implementation activities.

- "Lower meadow" – lower drainage meadow grouping; relatively easy access, including roads
- "Upper meadow" – headwater drainage meadow grouping; access via trail or overland

This document was reviewed prior to implementation activities by a Forest Service representative. Prescriptions may be updated throughout the implementation period as required following periodic on-the-ground review.

PRESCRIPTIONS

All Meadow Types

- Remove trees less than 14" dbh. Cut as close to the ground as possible; do not high stump.
    - In initial treatment, retain some standing trees to use for future in-channel structure (e.g., low-tech process based restoration structures (PBR)[1]) repair or construction. These trees will be cut at a future re-entry.
- While girdling is an option, it is discouraged at this time due to number of standing snags already present in the area and recent elevation of naturally dying trees. Girdling only to be utilized as directed by a Forest Service representative
- Material up to 10" dbh piled for burning. Larger material should be left in place to decay with trees and, with the exception noted below, large bole sections limbed and left laying flat. Trees may be directionally felled and limbs only partially trimmed to serve as cattle deterrents in fens and wet meadows.
- Most standing snags retained. If there is a cluster or area of elevated density, remove some, retaining snags more likely to persist.
    - As necessary, the Site Administrator or other Forest Service representative will review snags proposed for felling.

Trees with trail blazes, corner/section markers, and/or similar retained.In riparian areas along Cabin Meadows Creek and unnamed perennial/intermittent channels shown on topographic maps, conifers encroaching meadows, including stringer meadows, may be cut selectively, retaining trees that provide bank stability. Wet Meadow

Designations

Lower: Meadows A, B, C, D, F, G

Upper: Meadows J, K, N, O, P, Q, T (partial)

Prescription

Within the meadow polygon/boundary…

- Larger trees cut at the discretion of the Site Administrator.
    - Meadow-specific. See "Desired Outcome" for guidance.

[1]PBR structures may include beaver dam analogues (BDAs), post assisted log structures (PALS), single-rock checkdams, and similar. Structure types and site-specific application are discussed prior to implementation during the pre-season planning period. Installation will be by manual means.

- Upland islands thinned, where present, as per Buffer A prescription. Most upland islands are found amongst the upper wet meadows.

Seasonal Meadow

Designations

Lower: Meadows E, I

Upper: Meadows L, M, R, S, T (partial)

Prescription – Lower Meadows

Within the meadow polygon/boundary…

- Largest trees are retained as "anchor" trees. Trees larger than 14" dbh may be cut the discretion of the Site Administrator.
    - More aggressive larger tree removal in vicinity of anchor trees to reduce resource competition and potential ladder fuel growth.
- Obvious groupings, clumps, and upland islands thinned as per Buffer A prescription. Trees smaller than 14" dbh may be retained at discretion of Site Administrator.

Prescription – Upper Meadows

- Remove trees less than 14" dbh. Cut as close to the ground as possible; do not high stump.
    - In initial treatment, retain some standing trees to use for future PBR maintenance or construction. These trees will be cut at a future re-entry.
- Obvious groupings, clumps, and upland islands thinned as per Buffer B prescription.
- Some locations, such as Meadow L, have experienced long-term encroachment which has led to many larger trees. Within these locales…
    - Trees larger than 14" dbh proposed for felling are individually flagged/marked, with largest individuals retained. Ideal spacing is 50' for retained trees. Marked trees are cut following Site Administrator or other appropriate Forest Service representative review.
- Material up to 10" dbh piled for burning. Larger material – RE: long-term encroachment with larger trees – should be left in place to decay.

Buffers

Buffer A

This buffer applies to the lower meadows only. Treatment is more aggressive than the Buffer B prescription and, thus, is expected to generate more debris. Therefore, road access to move and otherwise deal with debris is required. The purpose is to "feather" treatment from the meadow and into the uplands, thereby recovering "Lost Meadow" areas where present, as well providing for a more nuanced transition area within the larger meadow environ treatment.

- Width: 50 feet from meadow edge (as mapped via GPS/GIS)
- Remove trees less than 14" dbh. Cut as close to the ground as possible; do not high stump.
    - In initial treatment, retain some standing trees to use for future PBR maintenance or construction. These trees will be utilized at a future re-entry.
    - Site Administrator will provide site-specific direction in regard to density and preferred species of small tree retention.
- Limb larger trees to 7 feet
- All standing snags retained

Buffer B
This buffer applies to both upper and lower meadows. This buffer is part of the transition from meadow to uplands; and will also assist in decreasing of fuel loading upon the general landscape.

- Width (lower meadows): 50 feet to 300 feet (i.e., 250 feet beyond Buffer A)
- Width (upper meadows): 150 feet from meadow edge (as mapped via GPS/GIS)
- Focus is to decrease density of trees less than 6" dbh. Cut as close to the ground as possible; do not high stump.
    - In initial treatment, retain some trees to use for future in-channel structures (PBR). These trees will be cut at a future re-entry.
    - Site Administrator will provide site-specific direction in regard to density and preferred species of small tree retention.

DEBRIS DISPOSAL
Fuels/Debris Disposal
The Site Administrator or other appropriate Forest Service representative will provide site-specific guidance concerning disposal of project-generated debris – not all locations may utilize the same disposal parameters. Fuels disposal options include:

- Material to be used for legacy/sediment site repair, wood loading, or PBR construction in downcutting perennial and ephemeral streams within meadows, as appropriate. See additional guidance later in this document.
- Strategically fell trees in the meadows, leaving upfacing limbs untrimmed, to redirect cattle. Do not overuse (due to concern about down fuel loading). Avoid excessive jackstrawing.
- Some trees will be felled on the contour in meadows for wetland complexity and to hold water on the upslope side. These trees will not be cut into shorter lengths.
- Larger material limbed, bucked, and cut to 18" lengths to be stacked next to the road for local use. Only applies to lower meadows near the main road.
- Windrow material near an (active) road for chipping. Butts face the road.
- Material prepared and stacked in piles for future burning.
    - Avoid locales as directed by botany and archeology.
    - Do not pile debris in wet meadows.
    - Preference for small handpiles in locations where evidence of prior burning
    - Do not construct handpiles in or on top of brush
    - Pile at least 30 feet from Cabin Meadows Creek; at least 15 feet from other perennial or intermittent channels. Ephemeral channels have no set-back distance, except to not pile directly in the channel.
    - Piles should be six feet or less in diameter (with exception for large pile sites, see below).
    - Pile in a "checker-board" pattern (i.e., do not place one pile directly next to or above another).
    - Distance between handpiles as per directed by Agency Administrator.
    - Debris may be piled in seasonal meadows.
        - Botany - With the exception of flagged botanical sites, there is no specific avoidance or handpile density requirements within seasonal meadows. However, pile focus is preferred to be stumps and clustered cut areas, cattle loafing sites, and other obviously disturbed locations.

        - Archeology - Within "Arch Area 2" (see below), focus for handpile construction are locales with evidence of previous surface disturbance – i.e., skid trails, landings, roads, and similar. Elsewhere, distance between handpiles should be increased.
    - Sites appropriate for large piles will be pre-approved. In the project area, several locations show evidence of use as landing areas with previous large pile burning; and several more may be present.
        - Site #1 – Junction 41N10 and 41N04 (west of creek crossing)
            - Area A – west of junction at remnant machine piles
            - Area B – south of junction at parking area and unburned large piles
        - Site #2 – Small landing adjacent 41N04A. Within/adjacent Meadow E mid-point near intermittent stream.
        - Site #3 – NOT CLEARED FOR USE - Large landing/debris pile adjacent 41N04A. Within/adjacent Meadow E in southern quarter.
        - Other sites may be cleared and utilized, if requested, prior to and during fuels-related activities.
- The lowest 4 feet of large trees can be left on ground in place as logs. Do not jackstraw.
- Smallest material sizes – i.e., small limbs, baby trees – can be scattered.
- Pile covers will be utilized. If not available when on-site work begins, then construct handpiles without them. If they thence become available part-way through implementation, then continue building piles with the covers.
    - Pre-season discussions with Forest Service as to whom to supply the pile covers.

LEGACY SITE REPAIR

Meadow A includes a small channel along its southwestern edge which originates as run-off from the adjacent road. This undesirable channel is downcutting the meadow edge and causing excessive erosion. Furthermore, effect to the local water table is observed as changes in vegetation to types which grow in drier soils. Because it is unknown when the channel originator – i.e., adjacent road – will be fixed, it is necessary instead to focus on decreasing the impact to the meadow.

Low-tech process based restoration structures will be constructed from local and imported material. Furthermore, small debris generated from cutting trees can be placed the channel. While the channel totals about 450 feet, it is not necessary to address the total length. The desired outcome is to slow water during spring run-off or heavy precipitation events, thereby arresting current erosion and allowing the channel to begin to infill in the future.

Additional PBR structures can be added after the initial effort and sealed with soil and sod.

INCISED CHANNELS & CONNECTIVITY

Incised channels will be addressed with woodloading or PBR structures. The desired outcome is to slow water during spring run-off or heavy precipitation events, thereby arresting erosion and allowing channel to begin to infill. Incised channels may be perennial, intermittent, or ephemeral in nature; and may be within channels displayed upon topographic maps or off-channel in meadow environs.

Historic channels, currently disconnected, will be reconnected by woodloading or PBR structures at "switchpoints" to reactivate channels and reconnect floodplain. Locally sourced sod and soil may be used to seal PBR structures.

RESOURCE CONCERNS/OTHER

- Seasonal meadows - ATV/UTV or other wheeled equipment can be used to assist in moving debris as long as ground is sufficiently dry it can support a vehicle with no obvious tire tracks.
    - Any ruts created by dragging or winching material must be repaired.
- Wet meadows – no vehicles allowed; no winching of material.

Heritage

- **Arch Area 1** – General location is northwest of Meadow C, just outside buffer area. Area has been flagged (orange/white diagonal stripe). No handpiles to be placed within flagged boundary.
- **Arch Area 2** – General location is upper two-thirds of work area; and bounded east/west by existing roads. Within this area, nothing is flagged and there is no specific avoidance for cutting or disposal activities. However, where possible, focus handpile placement on areas already clearly disturbed by previous activities, such as skid trails, abandoned roads, landings, and similar. Elsewhere, as feasible, increase distance between piles.
- **Other** – Trees with trail blazes to be retained

Botany

Weeds and sensitive plant species will be flagged prior to crew on-site date for fuels activities. Polygons provided on georeferenced map are larger than the actual population. Within flagged areas, direction allows cutting of fuel materials, but no handpile construction.

- **Weeds** – Invasive species identified in the work area include Canada thistle and Dyer's woad (aka, marlahan mustard). Both known populations are located at Meadow E.
    - Dyer's woad should be bagged for removal off-site if seeds are ripe or ripening.
    - Canada thistle location will be tarped. Supplies and direction to be provided. If thistle is encountered at other sites, flowers and seed heads to be clipped and bagged. Do not dig – due to deep roots, thistle may spread if root structure not completely removed.
    - Relay to Forest Service representative how many plants eradicated and location, especially if encountered at places outside of known populations.
    - Unless clearance is provided by the District Botanist, assume that the remnant machine pile in Meadow E at the "Large Landing" site cannot be used as a large burn pile location.
- **Sensitive Plants** - Showy Raillardella is present in the work area at Meadow C/D and buffer (west side) and Meadow I buffer (south side)
- **Seasonal Meadows** – Within seasonal meadows and outside of flagged locales, there are no specific restrictions in regard to handpile construction or density. However, preference is for handpiles to be concentrated within stumps and clustered cut areas, cattle loafing sites, and other obviously disturbed locations.

MEADOW INFORMATION

Wet Meadow

Definition

A wet meadow is a meadow which is partially or completely saturated by water much of the year. Grass, sedge, or similar is the dominant vegetation; and pitcher plants are often (but not always) observed. Trees and brush tend not to be present, else are of poor condition, due to high moisture content suppressing growth. Meadow edge where the habitat transitions to a more upland environ is often sharp. Depending on locale, "upland islands" may be found within the boundary of the meadow.

An upland island is a distinctly elevated, often rocky, "island" or promontory within the meadow boundary (as defined by a GPS/GIS polygon) which displays typical upland vegetation.

Concern

Upland tree species – primarily pine and true fir – are encroaching into the wet meadows. The reason is multifold: compaction due to livestock and/or past tree harvest practices utilizing meadows as landings; gully formation originating from nearby roads; long-term fire suppression; changes in climate and precipitation. Each meadow is unique; and adding to the complexity, the initial encroachment by trees can create localized changes in soil moisture and elements which promotes further tree invasion.

Desired Outcome

Wet meadows should display minimal tree encroachment.

Seasonal Meadow

Definition

A seasonal meadow is a meadow which is has a sufficient saturation early in the year (from snow melt-off) and soil development to suppress tree/brush growth. Abundant grasses, forbs, and wildflowers are observed in spring and early summer, but may be largely absent by late summer. Trees – often larger individuals – can be scattered in the meadow area, with the occasional grouping or clumping; and upland "islands" may be present. The meadow edge where the habitat transitions to a more upland environ may be sharp or diffuse.

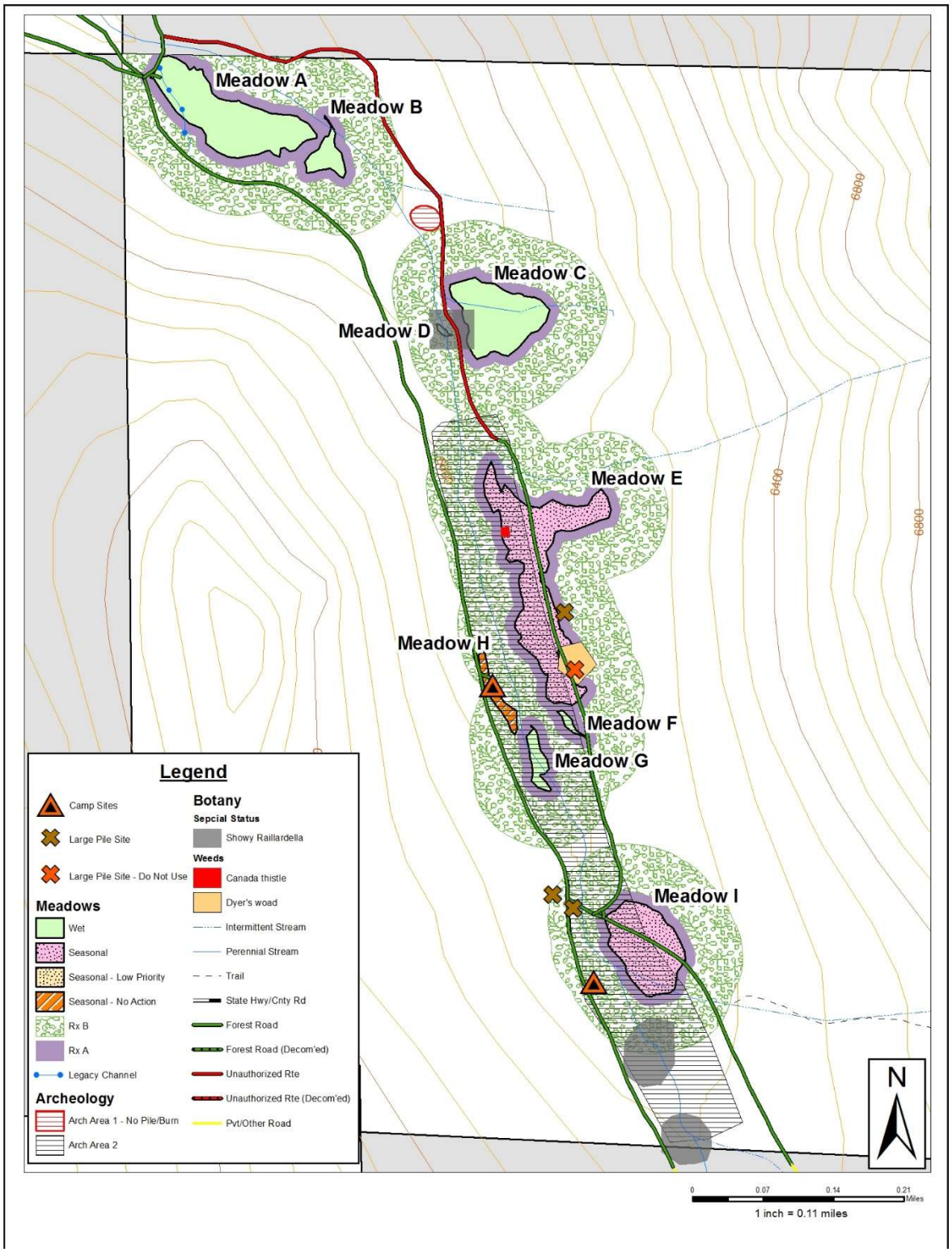
Concern

Upland tree species – primarily pine and true fir – are encroaching into the seasonal meadows. While trees are expected to be present with a seasonal meadow, the density of trees, especially clumps of younger individuals, is currently higher than desired. Tree encroachment is likely occurring to a much greater extent in seasonal meadows compared to wet meadows because the partially-dry condition of the former is more conducive to successful tree germination and growth. The reasons for tree encroachment is similar to wet meadows, although sensitivity to long-term fire suppression and climatic/precipitation shifts may be greater.

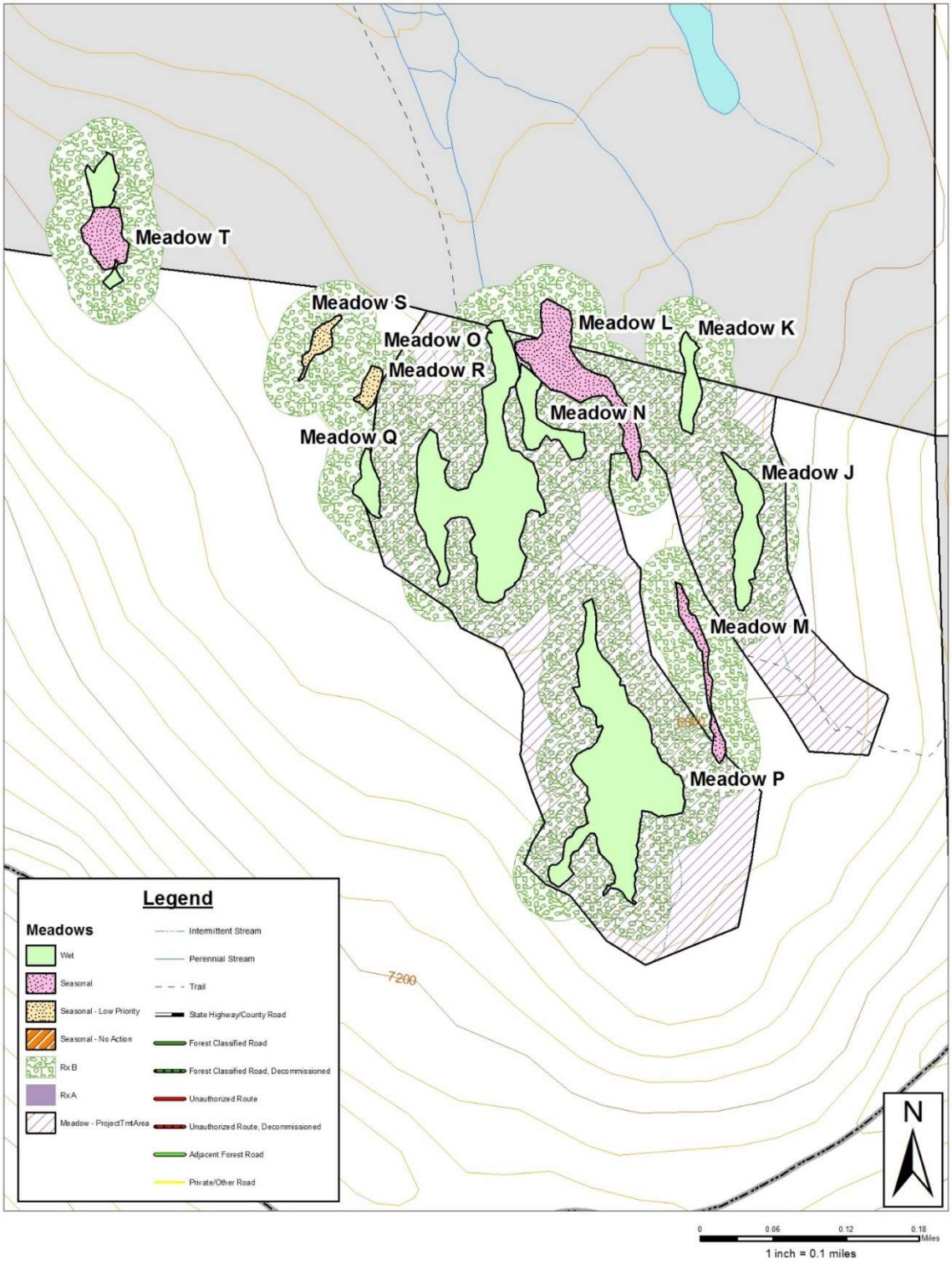
Desired Outcome

Seasonal meadows should retain the largest (oldest) trees, as well as any distinct clumps and upland islands.

Lower Cabin Meadow Creek meadows complex and buffers



Upper Cabin Meadow Creek meadow complex and buffers



Note: Meadows and buffers outside of East Fork Project footprint, as well as within Section 16 (now Klamath NF), will be evaluated in future for inclusion into work area.

8 APPENDIX B: ROCK FENCE TREATMENT PRESCRIPTION

Version June 2025

The purpose of this document is to provide an outline for Rock Fence Creek meadow enhancement prescriptions, including debris disposal options. This document was reviewed prior to implementation by a Forest Service representative and will be used to guide general implementation activities. Prescriptions may be updated throughout the implementation period as required following periodic on-the-ground review.

PRESCRIPTIONS

All Meadow Types

- Remove trees less than 14" dbh. Cut as close to the ground as possible; do not high stump.
    - In initial treatment, retain some standing trees to use for future in-channel structure (e.g., low-tech process based restoration structures (PBR)[2]) repair or construction. These trees will be cut at a future re-entry.
- While girdling is an option, it is discouraged at this time due to the number of standing snags already present in the area and recent elevation of naturally dying trees. Girdling only to be utilized as directed by a Forest Service representative
- Material up to 10" dbh piled for burning. Larger material should be left in place to decay with trees and, with the exception noted below, large bole sections limbed and left laying flat. Trees may be directionally felled and limbs only partially trimmed to serve as cattle deterrents in fens and wet meadows.
- Most standing snags retained. If there is a cluster or area of elevated density, remove some, retaining snags more likely to persist.
    - As necessary, the Site Administrator or other Forest Service representative will review snags proposed for felling
- Trees with trail blazes, corner/section markers, and/or similar retained.
- In riparian areas along Rock Fence Creek and unnamed perennial/intermittent channels shown on topographic maps, conifers encroaching meadows, including stringer meadows, may be cut selectively, retaining trees that provide bank stability.

Wet Meadow

Within the meadow polygon/boundary…

- Larger trees cut at the discretion of the Site Administrator.
    - Meadow-specific. See "Desired Outcome" for guidance.
- Upland islands within wet meadows, if present, thinned as per Buffer A prescription.

Seasonal Meadow

Within the meadow polygon/boundary…

- Largest trees are retained as "anchor" trees. Trees larger than 14" dbh may be cut at the discretion of the Site Administrator.
    - More aggressive larger tree removal in vicinity of anchor trees to reduce resource competition and potential ladder fuel growth.
- Some locations have experienced long-term encroachment which has led to many larger trees. Within these locales…

[2]PBR structures may include beaver dam analogues (BDAs), post assisted log structures (PALS), single-rock checkdams, and similar. Structure types and site-specific application are discussed prior to implementation during the pre-season planning period. Installation will be by manual means.

    - Trees larger than 14" dbh proposed for felling are individually flagged/marked, with largest individuals retained. Ideal spacing is 50' for retained trees. Marked trees are cut following Site Administrator or other appropriate Forest Service representative review.
- Obvious groupings, clumps, and upland islands thinned as per Buffer A prescription. Trees smaller than 14" dbh may be retained at discretion of Site Administrator.

Buffers

Buffer A

Treatment is more aggressive than the Buffer B prescription and, thus, is expected to generate more debris. Therefore, this buffer is applied where road access or other means (e.g., conditions met to allow ATV/UTV assistance) is feasible to move and otherwise deal with debris. The purpose is to "feather" treatment from the meadow and into the uplands, thereby recovering "Lost Meadow" areas where present, as well providing for a more nuanced transition area within the larger meadow environ treatment.

- Width: 50 feet from meadow edge (as mapped via GPS/GIS)
- Remove trees less than 14" dbh. Cut as close to the ground as possible; do not high stump.
    - In initial treatment, retain some standing trees to use for future PBR maintenance or construction. These trees will be utilized at a future re-entry.
    - Site Administrator will provide site-specific direction in regard to density and preferred species of small tree retention.
- Limb larger trees to 7 feet
- All standing snags retained

Buffer B

This buffer applies where access poses a challenge to dealing with a greater amount of debris. This buffer is part of the transition from meadow to uplands; and will also assist in decreasing of fuel loading upon the general landscape.

- Width ("easy access" meadows): 50 feet to 300 feet (i.e., 250 feet beyond Buffer A)
- Width ("difficult access" meadows): 150 feet from meadow edge (as mapped via GPS/GIS)
- Focus is to decrease density of trees less than 6" dbh. Cut as close to the ground as possible; do not high stump.
    - In initial treatment, retain some trees to use for future in-channel structures (PBR). These trees will be cut at a future re-entry.
- Site Administrator will provide site-specific direction in regard to density and preferred species of small tree retention.
    - As per the time of this document, where everything is of similar size, retain - 1. Yellow pine; 2. Cedar; 3. other species. For higher priority of removal, first is firs.

DEBRIS DISPOSAL

Fuels/Debris Disposal

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- Material to be used for legacy/sediment site repair, wood loading, or PBR construction in downcutting perennial and ephemeral streams within meadows, as appropriate. See additional guidance later in this document.
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- Larger material limbed, bucked, and cut to 18" lengths to be stacked next to roads for local use. Only applies near the main road.
- Windrow material near an (active) road for chipping. Butts face the road.
- Material prepared and stacked in piles for future burning.
    - Avoid locales as directed by botany and archeology.
    - Do not pile debris in wet meadows.
    - Preference for small handpiles in locations where evidence of prior burning
    - Do not construct handpiles in or on top of brush
    - Pile at least 30 feet from Rock Fence Creek; at least 15 feet from other perennial or intermittent channels. Ephemeral channels have no set-back distance, except to not pile directly in the channel.
    - Piles should be six feet or less in diameter (with exception for large pile sites, see below)
    - Pile in a "checker-board" pattern (i.e., do not place one pile directly next to or above another)
    - Distance between handpiles as per directed by Agency Administrator.
    - Debris may be piled in seasonal meadows.
        - Botany - With the exception of flagged botanical sites, there is no specific avoidance or handpile density requirements within seasonal meadows. However, pile focus is preferred to be stumps and clustered cut areas, cattle loafing sites, and other obviously disturbed locations.
    - Sites appropriate for large piles will be pre-approved. In the project area, several locations show evidence of use as landing areas; and several more may be present.
- The lowest 4 feet of large trees can be left on ground in place as logs. Do not jackstraw.
- Smallest material sizes – i.e., small limbs, baby trees – can be scattered.
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INCISED CHANNELS & CONNECTIVITY

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RESOURCE CONCERNS/OTHER

- Seasonal meadows - ATV/UTV or other wheeled equipment can be used to assist in moving debris as long as ground is sufficiently dry it can support a vehicle with no obvious tire tracks.
    - Any ruts created by dragging or winching material must be repaired.
- Wet meadows – no vehicles allowed; no winching of material.

Botany

Weeds and sensitive plant species will be flagged prior to current-year implementation date. Polygons provided on georeferenced map are larger than the actual population. Within flagged areas, direction allows cutting of fuel materials, but no handpile construction.

- **Weeds** – Invasive species identified in the work area include Canada thistle and Dyer's woad (aka, marlahan mustard).
    - Dyer's woad should be bagged for removal off-site if seeds are ripe or ripening.
    - If Canada thistle is encountered flowers and seed heads to be clipped and bagged. Do not dig – due to deep roots, thistle may spread if root structure not completely removed.
    - Relay to a Forest Service representative how many plants eradicated and location, especially if encountered at places outside of known populations.
- **Sensitive Plants** - Showy Raillardella and Pickering's Ivesia are present in the watershed. Raillardella is in wetter pockets and Ivesia will occur on the dryer margins of the meadows. Do not build piles on sensitive plants.
- **Seasonal Meadows** – Within seasonal meadows and outside of flagged locales, there are no specific restrictions in regard to handpile construction or density. However, preference is for handpiles to be concentrated within stumps and clustered cut areas, cattle loafing sites, and other obviously disturbed locations.

MEADOW INFORMATION

Wet Meadow

Definition

A wet meadow is a meadow which is partially or completely saturated by water much of the year. Grass, sedge, or similar is the dominant vegetation; and pitcher plants are often (but not always) observed. Trees and brush tend not to be present, else are of poor condition, due to high moisture content suppressing growth. Meadow edge where the habitat transitions to a more upland environ is often sharp. Depending on locale, "upland islands" may be found within the boundary of the meadow.

An upland island is a distinctly elevated, often rocky, "island" or promontory within the meadow boundary (as defined by a GPS/GIS polygon) which displays typical upland vegetation.

Concern

Upland tree species – primarily pine and true fir – are encroaching into the wet meadows. The reason is multifold: compaction due to livestock and/or past tree harvest practices utilizing meadows as landings; gully formation originating from nearby roads; long-term fire suppression; changes in climate and precipitation. Each meadow is unique; and adding to the complexity, the initial encroachment by trees can create localized changes in soil moisture and elements which promotes further tree invasion.

Desired Outcome

Wet meadows should display minimal tree encroachment.

Seasonal Meadow

Definition

A seasonal meadow is a meadow which is has a sufficient saturation early in the year (from snow melt-off) and soil development to suppress tree/brush growth. Abundant grasses, forbs, and wildflowers are observed in spring and early summer, but may be largely absent by late summer. Trees – often larger individuals – can be scattered in the meadow area, with the occasional grouping or clumping; and upland "islands" may be present. The meadow edge where the habitat transitions to a more upland environ may be sharp or diffuse.

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Desired Outcome

Seasonal meadows should retain the largest (oldest) trees, as well as any distinct clumps and upland islands.

9 APPENDIX C: CABIN MEADOWS ROAD TREATMENT PRIORITIES

Road Segment	Treatment Priority	Recommended Treatments				Affected Meadow		
		Cabin Meadows and Rock Fence Creeks Meadows Project	USFS East Fork Scott River EA	Field Points	Stream Crossings	Meadow ID	Meadow Characteristics	Potential Road-Related Impacts to Meadow
CM-005	1	Steep road with stream capture, resulting in surface erosion, gullying, and downstream channel incision. Decommission and hydrologically stabilize concurrent with treatments to CM-007. If decommissioning isn't feasible then address stream captures by removing stream crossing fill and any associated cross drain pipes, improving and/or installing cross drain dips and water bars, outsloping, removing outboard side cast berms, avoiding concentrated outboard drainage relief onto unstable open slopes, and prohibiting public motor vehicle use.	Not identified in KNF road system or Travel Analysis. No Recommendations	23	STX4	CM_1030	HGM1: 06. Discharge slope HGM2: 05. Depressional seasonal HGM Notes: 10% HGM Dry	Point within meadow
				429	STX3			unknown meadow impacts
				430	STX2	CM_1030?	HGM1: 06. Discharge slope HGM2: 05. Depressional seasonal HGM Notes: 10% HGM Dry	on channel very far from meadow
				431				unknown meadow impacts
				432		CM_1030?	HGM1: 06. Discharge slope HGM2: 05. Depressional seasonal HGM Notes: 10% HGM Dry	adjacent to meadow, possibly downslope?
				433		CM_1030	HGM1: 06. Discharge slope HGM2: 05. Depressional seasonal HGM Notes: 10% HGM Dry	Point within meadow
				449		CM_1030	HGM1: 06. Discharge slope HGM2: 05. Depressional seasonal HGM Notes: 10% HGM Dry	adjacent to meadow
CM-007	1	Deeply incised inboard ditch conveys large volume of concentrated flow to undersized culvert crossing at CM-008, resulting in downstream channel incision. Decommission and hydrologically stabilize concurrent with treatments to CM-005. If infeasible then outslope road, remove berm, fill ditch, and install adequate cross drainage relief where needed to avoid concentrating runoff.	Private/Other Road. No Recommendations	30		CM_1016	none in table	On road possibly draining to meadow
				435		CM_1016	none in table	On road possibly draining to meadow
				436		CM_1016	none in table	On road possibly draining to meadow
				438		CM_1016	none in table	On road and channel draining to meadow
CM-008	1	Steep road segment with inboard ditch, outboard berm, and infrequent drainage relief. Decommission and hydrologically stabilize concurrent with treatments to CM-009. If infeasible then outslope, remove berm, fill ditch, and install adequate cross drainage relief where needed to avoid concentrating runoff.	Private/Other Road. No Recommendations	33	STX5	CM_1016	none in table	on road above meadow
				34	STX6	CM_1016	none in table	on channel draining to meadow
				35		CM_1016	none in table	on channel draining to meadow
				36		CM_1016	none in table	on channel draining to meadow
				441		CM_1016	none in table	on channel draining to meadow
				443		CM_1016	none in table	on channel draining to meadow
				629		CM_1016	none in table	on channel draining to meadow

Road Segment	Treatment Priority	Recommended Treatments				Affected Meadow		
		Cabin Meadows and Rock Fence Creeks Meadows Project	USFS East Fork Scott River EA	Field Points	Stream Crossings	Meadow ID	Meadow Characteristics	Potential Road-Related Impacts to Meadow
				659		CM_1031	HGM1: 07. Dry HGM2: 06. Discharge slope HGM Notes: 5% mound peatland, 5% depressional seasonal on W end	on channel draining to meadow
CM-009	2	Springs or seeps present in cutbank and road surface. Road surface could be more effectively drained, but little concentrated runoff. Spur road captures ephemeral drainages and routes flow down road surface, causing surface erosion and rilling. One stable, well-armored ford. Decommission and hydrologically stabilize entire road segment and associated spurs concurrent with treatments to CM-008.	Private/Other Road. No Recommendations	39	STX7	CM_1027	none in table	On road possibly draining to meadow
				43	STX8	CM_1027	none in table	point in meadow; point on channel
				45		CM_1027	none in table	point in meadow
				49		CM_1027	none in table	point in meadow
				446		CM_1027	none in table	point in meadow; point on channel
				445		CM_1027	none in table	on channel draining to meadow
CM-006	2	Extensive outboard berm concentrates runoff, leading to road surface erosion and downstream channel incision. Road captures several ephemeral drainages. Address upslope sources of concentrated runoff, remove or create frequent openings in outboard berm to promote drainage relief, address captures with improved cross drainage, improve functionality of dips and water bars. Treat concurrently with CM-001, CM-003, and CM-004.	41N04. Classified as Level 2 - High Clearance Vehicles. Identified as not drivable due to blown out crossing at start point (culvert and associated fill was subsequently removed and crossing converted to a ford). Low risk legacy sites. Recommended to leave as is.	54	STX9			On channel but no nearby meadow
				56				On channel but no nearby meadow
				58				On channel but no nearby meadow
				60				On road but no nearby meadow
				450				On channel but no nearby meadow
				451				On channel but no nearby meadow
				452				On channel but no nearby meadow
				453				On channel but no nearby meadow
CM-004	2	Low gradient road with springs and seeps present in cutbank and/or road surface, leading to persistent saturation of road surface. Water effectively directed off road surface via outboard drainage. Road surface rilled and rutted. Flow from stream capture on CM-005 routed across CM-004 at upper end of segment, resulting in downstream channel incision. Address upslope sources of concentrated runoff and stream capture. Remove outboard berm from upper portion of road segments where it concentrates road surface runoff. Repair existing dips and install additional cross drainage relief where needed. Treat concurrently with CM-001, CM-003, and CM-006.	41N04. Classified as Level 2 - High Clearance Vehicles. Identified as not drivable due to blown out crossing at start point (culvert and associated fill was subsequently removed and crossing converted to a ford). Low risk legacy sites. Recommended to leave as is.	651		CM_1013	HGM1: 07. Dry	On road possibly draining to meadow

Road Segment	Treatment Priority	Recommended Treatments		Field Points	Stream Crossings	Affected Meadow		
		Cabin Meadows and Rock Fence Creeks Meadows Project	USFS East Fork Scott River EA			Meadow ID	Meadow Characteristics	Potential Road-Related Impacts to Meadow
CM-003	3	Very low gradient road. Road surface is inset within adjacent landscape (minor throughcut) in places, which concentrates flow. Road surface is rilled and rutted. Address upslope and adjacent valley bottom sources of runoff to road (e.g., adjacent ditch) and provide better drainage relief away from road surface. Consider rock surfacing to stabilize finer sediments in road surface. Treat concurrently with CM-001, CM-004, and CM-006.	41N04. Classified as Level 2 - High Clearance Vehicles. Identified as not drivable due to blown out crossing at start point (culvert and associated fill was subsequently removed and crossing converted to a ford). Low risk legacy sites. Recommended to leave as is.	9		CM_1013	HGM1: 07. Dry	On road near meadow
CM-001	3	Very low gradient valley bottom road. Road surface is rilled and rutted. Channel constricted at upstream edge of ford and road surface runoff directed into eastern approach of ford. Boulder side cast on downstream edge of ford partially blocks flow into side channel. Address upslope and adjacent valley bottom sources of runoff to road (e.g., adjacent ditch) and provide better drainage relief away from road surface. Treat concurrently with CM-003, CM-004, and CM-006.	41N04. Classified as Level 2 - High Clearance Vehicles. Identified as not drivable due to blown out crossing at start point. Culvert and associated fill was subsequently removed and crossing converted to a ford. Low risk legacy sites. Recommended to leave as is.					
CM-002	1	Very low gradient valley bottom and toeslope road. Extensive sidecast berm on outboard edge limits cross drainage relief and concentrates surface runoff. Spring sources and ephemeral streamflow captured by road. Spur road extends to former crossing of Cabin Meadows Creek, where remnants of the approach to the crossing (fill prism) constricts streamflow and blocks secondary floodplain flow paths within the right bank floodplain. Remove fill in right bank floodplain of Cabin Meadow Creek. Remove or create frequent openings in outboard berm to promote cross drainage relief. Repair existing dips and install additional cross drainage relief where needed to convey spring flow and/or streamflow. Treat concurrently with CM-010 and CM-011.	40N04A. Identified as not drivable due to blown out crossing at start point. Culvert and associated fill was subsequently removed and crossing converted to a ford. Low risk legacy sites. Recommended to downgrade to Maintenance Level 1 and leave as is.	63	STX10	CM_1013	HGM1: 07. Dry	On channel below meadow
				65	STX11	CM_1007	HGM1: 07. Dry (95%) HGM2: 13. Subsurface low gradient (5%)	on channel draining to meadow
				66	STX12	CM_1007	HGM1: 07. Dry (95%) HGM2: 13. Subsurface low gradient (5%)	on channel draining to meadow
				67		CM_1007	HGM1: 07. Dry (95%) HGM2: 13. Subsurface low gradient (5%)	adjacent to meadow
				68		CM_1007	HGM1: 07. Dry (95%) HGM2: 13. Subsurface low gradient (5%)	adjacent to meadow
				69		CM_1007	HGM1: 07. Dry (95%) HGM2: 13. Subsurface low gradient (5%)	on channel draining to meadow

Road Segment	Treatment Priority	Recommended Treatments				Affected Meadow		
		Cabin Meadows and Rock Fence Creeks Meadows Project	USFS East Fork Scott River EA	Field Points	Stream Crossings	Meadow ID	Meadow Characteristics	Potential Road-Related Impacts to Meadow
				70		CM_1007	HGM1: 07. Dry (95%) HGM2: 13. Subsurface low gradient (5%)	on channel draining to meadow; adjacent to meadow
				194		CM_1007	HGM1: 07. Dry (95%) HGM2: 13. Subsurface low gradient (5%)	point in meadow
				500		CM_1013	HGM1: 07. Dry	point immediately outside meadow polygon
				501		CM_1007	HGM1: 07. Dry (95%) HGM2: 13. Subsurface low gradient (5%)	on channel draining to meadow
				503		CM_1007	HGM1: 07. Dry (95%) HGM2: 13. Subsurface low gradient (5%)	adjacent to meadow
				504		CM_1007	HGM1: 07. Dry (95%) HGM2: 13. Subsurface low gradient (5%)	adjacent to meadow
				506		CM_1007	HGM1: 07. Dry (95%) HGM2: 13. Subsurface low gradient (5%)	on channel draining to meadow; adjacent to meadow
				631		CM_1013	HGM1: 07. Dry	Point in meadow
				633		CM_1007	HGM1: 07. Dry (95%) HGM2: 13. Subsurface low gradient (5%)	on channel draining to meadow
				658		CM_1007	HGM1: 07. Dry (95%) HGM2: 13. Subsurface low gradient (5%)	point in meadow
				502		CM_1007?	HGM1: 07. Dry (95%) HGM2: 13. Subsurface low gradient (5%)	on channel draining to meadow
CM-010	3	Very low gradient valley bottom road. Overland flow from toeslope crosses road surface and to open slope at outboard edge. Road drainage generally adequate with little erosion. Add roughness to channels on terrace to spread water. Treat concurrently with CM-002 and CM-011.	40N04A. Identified as not drivable due to blown out crossing at start point. Culvert and associated fill was subsequently removed and crossing converted to a ford. Low risk legacy sites. Recommended to downgrade to Maintenance Level 1 and leave as is.	74		CM_1007	HGM1: 07. Dry (95%) HGM2: 13. Subsurface low gradient (5%)	adjacent to meadow
				507		CM_1007	HGM1: 07. Dry (95%) HGM2: 13. Subsurface low gradient (5%)	point in meadow
				508		CM_1007?	HGM1: 07. Dry (95%) HGM2: 13. Subsurface low gradient (5%)	point on road possibly draining to meadow
CM- 011	3	At bottom of hill, provide better cross drainage to outboard edge through berm. Treat concurrently with CM-002 and CM-010.	Not identified in KNF road system or Travel Analysis. No Recommendations	509				unknown meadow impacts

Road Segment	Treatment Priority	Recommended Treatments				Affected Meadow		
		Cabin Meadows and Rock Fence Creeks Meadows Project	USFS East Fork Scott River EA	Field Points	Stream Crossings	Meadow ID	Meadow Characteristics	Potential Road-Related Impacts to Meadow
CM-015	2	Springs and seeps present in cutbank and/or road surface. Dips too infrequent and shallow to effectively contain/ route all flow to outboard edge. Increase frequency of dips and improve existing dips. Rock surfaces between dips on steep slopes. Clean and maintain drainage relief structures. Treat concurrently with CM-016	41N10. Classified as Level 2 - High Clearance Vehicles. High concentration of low risk legacy sites. Rill and gully erosion and a few culvert issues. Recommended to leave as is.	109		CM_1002?	HGM1: 06. Discharge slope	On road possibly draining to meadow
				521		CM_1002	HGM1: 06. Discharge slope	on channel draining to meadow
				522				unknown meadow impacts
				625		CM_1002	HGM1: 06. Discharge slope	on channel draining to meadow
				644				On channel but no nearby meadow
CM-016	3	Low gradient valley bottom road. Stable and well drained. Springs and seeps present in cutbank and/or road surface. Increase frequency of dips to convey spring water sources and improve existing dips. Remove outboard berm to improve dispersion of cross drainage into meadow. Treat concurrently with CM-015	41N10. Classified as Level 2 - High Clearance Vehicles. High concentration of low risk legacy sites. Rill and gully erosion and a few culvert issues. Recommended to leave as is.	122	STX11	CM_1006	HGM1: 13. Subsurface low gradient	On road near meadow (upslope?)
				123	STX15	CM_1006	HGM1: 13. Subsurface low gradient	On road near meadow (upslope?)
				124	STX16	CM_1006	HGM1: 13. Subsurface low gradient	On road near meadow (upslope?)
				126		CM_1006?	HGM1: 13. Subsurface low gradient	On road possibly draining to meadow
				128		CM_1006?	HGM1: 13. Subsurface low gradient	On road possibly draining to meadow
				130		CM_1013	HGM1: 07. Dry	upslope of channel possibly draining to meadow
				525		CM_1006	HGM1: 13. Subsurface low gradient	On road near meadow (upslope?)
				526		CM_1006?	HGM1: 13. Subsurface low gradient	On road possibly draining to meadow
				505		CM_1007?	HGM1: 07. Dry (95%) HGM2: 13. Subsurface low gradient (5%)	point on channel possibly draining to meadow
				524		CM_1007?	HGM1: 07. Dry (95%) HGM2: 13. Subsurface low gradient (5%)	point on channel possibly draining to meadow
				641		CM_1007?	HGM1: 07. Dry (95%) HGM2: 13. Subsurface low gradient (5%)	point on channel possibly draining to meadow
				650		CM_1007?	HGM1: 07. Dry (95%) HGM2: 13. Subsurface low gradient (5%)	point on channel possibly draining to meadow
				652		CM_1007?	HGM1: 07. Dry (95%) HGM2: 13. Subsurface low gradient (5%)	point on channel possibly draining to meadow
CM-017	2	Low gradient valley bottom road. Consider decommissioning. If infeasible, outlsope and grade to address surface erosion and rilling of road surface, remove outboard berm to improve cross	Private/Other Road. No Recommendations	132	STX17	CM_1013	HGM1: 07. Dry	point on channel possibly draining to meadow
				139	STX18			unknown meadow impacts
				140	STX19	CM_1013	HGM1: 07. Dry	point on channel possibly draining to meadow

Road Segment	Treatment Priority	Recommended Treatments				Affected Meadow		
		Cabin Meadows and Rock Fence Creeks Meadows Project	USFS East Fork Scott River EA	Field Points	Stream Crossings	Meadow ID	Meadow Characteristics	Potential Road-Related Impacts to Meadow
		drainage and dispersion of flow into downslope meadow, increase frequency of dips and improve existing dips. Treat concurrently with CM-018		144	STX20			unknown meadow impacts
				152	STX21			unknown meadow impacts
				154		CM_1016	none in table	point on road adjacent to meadow
				156		CM_1016	none in table	point in meadow
				157		CM_1016	none in table	point on channel draining to meadow
				158		CM_1016	none in table	point on road adjacent to meadow
				454				unknown meadow impacts
				455				unknown meadow impacts
				460				unknown meadow impacts
				462		CM_1016	none in table	point on road adjacent to meadow
				464		CM_1016	none in table	point in meadow
				619				unknown meadow impacts
				459		CM_1013	HGM1: 07. Dry	point on channel possibly draining to meadow
CM-018	1	Steeper road segment. Stream captures and poor cross drainage result in rilling and gullying. Decommission road segment and associated spurs. Hydrologically stabilize road bed and stabilize/aggrade downslope gullies. Treat concurrently with CM-017	Not identified in KNF road system or Travel Analysis. No Recommendations	161	STX22	CM_1016	none in table	point on channel draining to meadow
				162	STX23	CM_1016	none in table	point in meadow
				163	STX24	CM_1016	none in table	point on channel draining to meadow
				168	STX25	CM_1016	none in table	point on road adjacent to meadow
				170		CM_1016	none in table	point on channel draining to meadow
				171		CM_1016	none in table	point on road upslope of meadow
				467		CM_1029	none in table	point in meadow
				470		CM_1029	none in table	point in meadow
				471		CM_1029	none in table	point on road adjacent to meadow
						CM_1016	none in table	point on road adjacent to meadow
				626		CM_1018	HGM1: 12. Riparian high gradient HGM2: 05. Depressional seasonal HGM Notes: 10% HGM Discharge Slope Peatland	point on road adjacent to meadow
				166		CM_1029	none in table	point on channel draining to meadow
				468		CM_1029	none in table	point on channel draining to meadow
				469		CM_1029	none in table	point on road upslope of meadow
CM-012	3	Downslope road segment (CM-014) has been decommissioned, limiting vehicle access into this segment. No recommendations	Unauthorized Route. No Recommendations.	81	STX13	CM_1004	HGM1: 14. Subsurface mid gradient	point in meadow
				82		CM_1003?	HGM1: 06. Discharge slope HGM2: 07. Dry	point on channel draining to meadow
				83		CM_1003?	HGM1: 06. Discharge slope HGM2: 07. Dry	point on channel draining to meadow

Road Segment	Treatment Priority	Recommended Treatments				Affected Meadow		
		Cabin Meadows and Rock Fence Creeks Meadows Project	USFS East Fork Scott River EA	Field Points	Stream Crossings	Meadow ID	Meadow Characteristics	Potential Road-Related Impacts to Meadow
				99				unknown meadow impacts
				510		CM_1004	HGM1: 14. Subsurface mid gradient	point adjacent to meadow (upslope?)
				511		CM_1004	HGM1: 14. Subsurface mid gradient	point on channel draining to meadow
				512		CM_1004	HGM1: 14. Subsurface mid gradient	point in meadow
				513		CM_1003?	HGM1: 06. Discharge slope HGM2: 07. Dry	point on channel draining to meadow
				514				unknown meadow impacts
				637		CM_1004	HGM1: 14. Subsurface mid gradient	point adjacent to meadow (upslope?)
CM-014	3	Road segment has been decommissioned. STX14 is a large culvert crossing located on 41N03. The existing culvert needs to be replaced with a bridge or multi-plate arch culvert with capacity to convey flows, bedload, and large wood.	Unauthorized Route. No Recommendations.	102	STX14	CM_1002	HGM1: 06. Discharge slope	Point on channel downstream of meadow
				103		CM_1002	HGM1: 06. Discharge slope	Point on channel downstream of meadow
				653				unknown meadow impacts
CM-013	3	Downslope road segment (CM-014) has been decommissioned, limiting vehicle access into this segment. No recommendations.	Private/Other Road. No Recommendations	517				unknown meadow impacts
				518				unknown meadow impacts

10 APPENDIX D: ROCK FENCE ROAD TREATMENT PRIORITIES

Road Segment	Treatment Priority	Recommended Road Treatments		Field Points	Stream Crossings	Affected Meadow		
		Cabin Meadows and Rock Fence Creeks Meadows Project	USFS East Fork Scott River EA			Meadow ID	Meadow Classification	Potential Road-Related Impacts to Meadow
RF-001	3	Grade to address surface erosion and rilling of road surface. Reduce distance between drainage relief by installing new cross drains and dips and enhance existing dips. Replace damaged cross draining culverts. Remove outboard berm.	40N18. Classified as Level 2 - High Clearance Vehicles. Drivable to intersection with 40N18A. Almost impassable to Rock Fence Lake. Significant wide-spread gully erosion from in-sloped road design and no proper inboard ditch. Moderate Priority Decommission.	487	none	RockFenceCk_1002	HGM1: 07. Dry HGM2: 06. Discharge slope	upstream of meadow
				488		RockFenceCk_1002	HGM1: 07. Dry HGM2: 06. Discharge slope	upstream of meadow
				489		RockFenceCk_1002	HGM1: 07. Dry HGM2: 06. Discharge slope	upstream of meadow
				490				unknown meadow impacts
				491				unknown meadow impacts
				639		RockFenceCk_1002	HGM1: 07. Dry HGM2: 06. Discharge slope	within meadow
RF-002	3	Grade to address surface erosion and rilling of road surface. Reduce distance between drainage relief by installing new cross drains and dips and enhance existing dips. Replace damaged cross draining culverts. Remove outboard berm.	40N18. Classified as Level 2 - High Clearance Vehicles. Drivable to intersection with A spur. Almost impassable to Rock Fence Lake. Significant wide-spread gully erosion from in-sloped road design and no proper inboard ditch. Moderate Priority Decommission.	322		RockFenceCk_1003	HGM1: 11. Riparian mid gradient HGM2: 07. Dry	head of channel draining to meadow
				325		RockFenceCk_1003	HGM1: 11. Riparian mid gradient HGM2: 07. Dry	unknown meadow impacts
				327		RockFenceCk_1003	HGM1: 11. Riparian mid gradient HGM2: 07. Dry	unknown meadow impacts
				477		RockFenceCk_1003	HGM1: 11. Riparian mid gradient HGM2: 07. Dry	unknown meadow impacts
				478		RockFenceCk_1003	HGM1: 11. Riparian mid gradient HGM2: 07. Dry	in channel draining to meadow
				480		RockFenceCk_1003	HGM1: 11. Riparian mid gradient HGM2: 07. Dry	head of channel draining to meadow
				481		RockFenceCk_1003	HGM1: 11. Riparian mid gradient HGM2: 07. Dry	head of channel draining to meadow
				484				unknown meadow impacts

Road Segment	Treatment Priority	Recommended Road Treatments		Field Points	Stream Crossings	Affected Meadow		
		Cabin Meadows and Rock Fence Creeks Meadows Project	USFS East Fork Scott River EA			Meadow ID	Meadow Classification	Potential Road-Related Impacts to Meadow
				495		RockFenceCk_1003	HGM1: 11. Riparian mid gradient HGM2: 07. Dry	head of channel draining to meadow
				496				unknown meadow impacts
				544		RockFenceCk_1003	HGM1: 11. Riparian mid gradient HGM2: 07. Dry	head of channel draining to meadow
				622		RockFenceCk_1003	HGM1: 11. Riparian mid gradient HGM2: 07. Dry	unknown meadow impacts
				643		RockFenceCk_1003	HGM1: 11. Riparian mid gradient HGM2: 07. Dry	unknown meadow impacts
				646		RockFenceCk_1003	HGM1: 11. Riparian mid gradient HGM2: 07. Dry	unknown meadow impacts
RF-003	3	Road segment decommissioned/storm proofed with crossing fills removed, limiting access for future treatments. Treatments have generally been effective at hydrologically stabilizing the road and prohibiting erosion and flow concentration. No Recommendations.	40N18A. Classified as Level 2 - High Clearance Vehicles. Not Drivable. One mostly blown out stream crossing and chronic road surface erosion. Moderate Priority Decommission.	382	STX1	RockFenceCk_1044	none in table	on channel draining to meadow
				527	STX2	RockFenceCk_1044	none in table	on channel draining to meadow
				528		RockFenceCk_1044	none in table	on channel draining to meadow
				538		RockFenceCk_1044	none in table	on channel draining to meadow
				615		RockFenceCk_1044	none in table	upslope of meadow
RF-004	3	Road segment decommissioned/storm proofed with crossing fills removed, limiting access for future treatments. Treatments have generally been effective at hydrologically stabilizing the road and prohibiting erosion and flow concentration. No Recommendations.	40N18A. Classified as Level 2 - High Clearance Vehicles. Not Drivable. One mostly blown out stream crossing and chronic road surface erosion. Moderate Priority Decommission.	358		RockFenceCk_1005	HGM1: 01. Discharge slope peatland HGM2: 07. Dry	adjacent to meadow
						RockFenceCk_1003	HGM1: 01. Discharge slope peatland HGM2: 07. Dry	adjacent to channel draining to meadow
				531		RockFenceCk_1003	HGM1: 01. Discharge slope peatland HGM2: 07. Dry	adjacent to channel draining to meadow
				533		RockFenceCk_1007	HGM1: 11. Riparian mid gradient HGM2: 07. Dry	adjacent to meadow
				673		RockFenceCk_1044	none in table	on channel draining to meadow
RF-005	3			384	STX3			unknown meadow impacts

Road Segment	Treatment Priority	Recommended Road Treatments		Field Points	Stream Crossings	Affected Meadow		
		Cabin Meadows and Rock Fence Creeks Meadows Project	USFS East Fork Scott River EA			Meadow ID	Meadow Classification	Potential Road-Related Impacts to Meadow
		Road segment decommissions/storm proofed with crossing fills removed, limiting access for future treatments. Treatments have generally been effective at hydrologically stabilizing the road and prohibiting erosion and flow concentration. No Recommendations.	Not identified in KNF road system or Travel Analysis. No Recommendations	570				unknown meadow impacts
				587		RockFenceCk_1044	none in table	Point within meadow and on drainage within meadow - road crossing through meadow
RF-006	3	Road segment decommissions/storm proofed with crossing fills removed, limiting access for future treatments. Treatments have generally been effective at hydrologically stabilizing the road and prohibiting erosion and flow concentration. No Recommendations.	Private/Other Road	396	STX4			unknown meadow impacts
				408	STX5	RockFenceCk_1044	none in table	upslope of meadow
				548	STX6	RockFenceCk_1044	none in table	upslope of meadow
				582				unknown meadow impacts
				585				unknown meadow impacts
				586		RockFenceCk_1044	none in table	upslope of meadow
				578				unknown meadow impacts
RF-007	3	Road segment decommissions/storm proofed with crossing fills removed, limiting access for future treatments. Treatments have generally been effective at hydrologically stabilizing the road and prohibiting erosion and flow concentration. No Recommendations.	Private/Other Road	598		RockFenceCk_1044	none in table	Point within meadow - road crossing through meadow
				610				unknown meadow impacts
RF-008	2	Inadequate cross drainage and Inboard ditch conveyance results in surface erosion and downslope channelization. Repair existing dips and water bars install additional cross drainage relief where needed. Clean inboard ditch to improve capacity and cross drainage. Stabilize downslope gullies.	40N18. Classified as Level 2 - High Clearance Vehicles. Drivable to intersection with A spur. Almost impassable to Rock Fence Lake. Significant wide-spread gully erosion from in-sloped road design and no proper inboard ditch. Moderate Priority Decommission.	417		RockFenceCk_1044	none in table	upslope of channel draining to meadow
				421		RockFenceCk_1044	none in table	upslope of channel draining to meadow
				425				unknown meadow impacts
				426				unknown meadow impacts
RF-009	3	Decommission and address downslope incision	Not identified in KNF road system or Travel Analysis. No Recommendations	483		RockFenceCk_1003	HGM1: 01. Discharge slope peatland HGM2: 07. Dry	On channel draining to meadow
				497				unknown meadow impacts
				498				unknown meadow impacts
				499		RockFenceCk_1003	HGM1: 01. Discharge slope peatland HGM2: 07. Dry	On channel draining to meadow
				620		RockFenceCk_1003	HGM1: 01. Discharge slope peatland HGM2: 07. Dry	On channel draining to meadow

Road Segment	Treatment Priority	Recommended Road Treatments				Affected Meadow		
		Cabin Meadows and Rock Fence Creeks Meadows Project	USFS East Fork Scott River EA	Field Points	Stream Crossings	Meadow ID	Meadow Classification	Potential Road-Related Impacts to Meadow
				648		RockFenceCk_1003	HGM1: 01. Discharge slope peatland HGM2: 07. Dry	Upslope of channel draining to meadow
				649		RockFenceCk_1003	HGM1: 01. Discharge slope peatland HGM2: 07. Dry	On channel draining to meadow
RF-010	2	Decommission and address downslope incision	40N18A. Not identified in KNF road system or Travel Analysis. No Recommendations.	539		RockFenceCk_1044	none in table	On channel draining to meadow
				541		RockFenceCk_1044	none in table	Upslope of channel draining to meadow
RF-011	2	No Recommendations	Not identified in KNF road system or Travel Analysis. No Recommendations	549		RockFenceCk_1044	none in table	On channel draining to meadow
				550		RockFenceCk_1044	none in table	On channel draining to meadow
				551		RockFenceCk_1044	none in table	On channel draining to meadow
				552		RockFenceCk_1044	none in table	On channel draining to meadow
				554		RockFenceCk_1044	none in table	On channel draining to meadow

11 APPENDIX J: REFERENCES

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