



PHOTO BY STEPHANIE MARGHEIM

Teanaway Community Forest West Fork Trails Plan

Report prepared by
Washington Trails Association
for the Washington State
Department of Natural Resources
and Washington Department of
Fish and Wildlife



ACKNOWLEDGEMENTS

The Teanaway Community Forest West Fork Trails Plan was developed collaboratively through a planning process that brought together recreationists, landowners, interest groups, public citizens, nonprofit organizations, Yakama Nation Fisheries, and staff from the Washington State Department of Natural Resources, Washington State Parks and Recreation Commission, and Washington Department of Fish and Wildlife. The trails plan was also developed in consultation with the Teanaway Community Forest Advisory Committee and the Teanaway Community Forest Management Plan (developed in 2015) and Recreation Plan (developed in 2018). The West Fork Teanaway Trails Plan creates a comprehensive plan for the future of authorized recreation and public access within the planning area. The following individuals made contributions to the development of this plan.

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Teanaway Community Forest Advisory Committee

The trails plan was developed in concurrence with the recreation goals set forth by the Teanaway Community Forest Advisory Committee and state agencies. Throughout the planning process, their

consultation at regular advisory committee meetings offered valuable input and guidance towards the development of the trails plan.

West Fork Teanaway Trails Coalition Members

The coalition provided valuable input and engagement throughout the planning process. The final plan and maps are recommended by the coalition based on extensive input and review from committee members and stakeholder consultations that were conducted throughout the planning process. Coalition members included:

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We respectfully acknowledge the lands this planning effort encompasses are the homelands of Indigenous tribes of the Pacific Northwest, some of whom have reserved treaty rights on these lands. Tribes continue to rely on and share in the management of these lands today. Please tread gently and treat these places with respect.

Teanaway Community Forest West Fork Trails Plan

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Introduction

The Washington State Department of Natural Resources (DNR) develops recreation planning processes that actively engage the public and recreation stakeholders in creating recreation and public use plans for landscapes like the Teanaway Community Forest. The 2018 Teanaway Community Forest recreation plan established high-level management strategies over the next 10–15 years. The West Fork Trails Plan creates a vision and path to designating the West Fork trails system. The 10 year plan provides recommendations for a phased approach to bring trails up to DNR trail standards by providing a variety of trail maintenance and construction. The West Fork Trails Plan provides guidance for authorized recreation and use on Teanaway Community Forest lands in the West Fork planning area following all State Environmental Policy Act (SEPA), public transparency, and DNR Trails Policy (see Appendix A) processes. It offers recreation opportunities for all authorized users, provides goals and objectives for these opportunities, and provides strategies for managing the land and recreation use effectively to achieve the objectives of the planning process and the Teanaway Community Forest Advisory Committee.

Washington Trails Association, in partnership with the Washington State Department of Natural Resources, led the development of the Trails Plan.

Washington Trails Association (WTA) is the nation's largest state-based hiking and trail maintenance organization. Powered by hikers for more than 50 years, WTA works to ensure Washington's trails stand the test of time by connecting people to the outdoors—from everyday adventures to backcountry explorations.

1.1 The Teanaway Community Forest

The Teanaway Community Forest is a 50,241 acre landscape that lies at the headwaters of the Yakima Basin watershed. It was purchased by the state in 2013 and established as Washington's first state-owned community forest. Containing 400 miles of streams and prime habitat for fish and wildlife, the land offers unique recreation opportunities.

The Teanaway Community Forest is collaboratively managed by DNR and the Washington Department of Fish and Wildlife (WDFW) with input from a community-based advisory committee.

In 2015, DNR and WDFW developed the *Teanaway Community Forest Management Plan*. The management plan sets forth a strategy for the DNR and WDFW to adhere to the Washington state Legislature's 2013 Yakima River Basin Resource Management law (2SSB 5367).

The management plan's principles are:

- To protect and enhance the water supply and protect the watershed
- To maintain working lands for forestry and grazing while protecting key watershed functions and aquatic habitat
- To maintain and where possible expand recreational opportunities consistent with watershed protection, for activities such as hiking, fishing, hunting, horseback riding, camping, birding, and snowmobiling
- To conserve and restore vital habitat for fish, including steelhead, spring Chinook, and bull trout, and wildlife, including deer, elk, large predators and spotted owls, and
- To support a strong community partnership in which the Yakama Nation, residents, business owners, local governments, conservation groups, and others provide advice about ongoing land management

1.2 The Teanaway Community Forest Advisory Committee

The law establishing the Teanaway Community Forest directs DNR, in consultation with WDFW, to establish a Teanaway Community Forest Advisory Committee. The committee must have representation from the Washington Department of Ecology, the local community, land conservation organizations, the Yakama Nation, the Kittitas County Commission, and local agricultural interests. The Teanaway Community Forest Advisory Committee consists of 20 members that share perspectives as Teanaway neighbors and community residents, conservationists, and lovers of all kinds of recreation.

1.3 The Teanaway Community Forest (TCF) Management Plan

1.3.1 Recreation Goals in the TCF Management Plan

The recreation goal within the law that established the TCF states: “To maintain and where possible expand recreational opportunities consistent with watershed protection, for activities such as hiking, fishing, hunting, horseback riding, camping, birding, and snowmobiling.” That goal acts as the guiding principle for instituting recreation and trails plans, such as the West Fork Trails Plan.

The 2015 management plan highlights challenges to implementing recreation within the Teanaway Community Forest. Challenges that are mentioned include the presence of numerous unapproved, user-made trails and the impacts of user-made trails that cut through vital wildlife habitat and/or run alongside or through streams.

In partnership with the agencies, The Teanaway Community Forest Advisory Committee, in partnership with DNR and WDFW, established recommendations for future planning and strategies for recreation. Strategies developed were:

- Develop a recreation plan for the forest
- Evaluate motorcycle use within the recreation planning process
- Provide a sustainable network of safe, enjoyable recreational trails
- Provide recreation opportunities and facilities that are consistent with watershed protection
- Maintain existing partnerships and establish new collaborations between public agencies, user groups, and citizen volunteers
- Establish a consistent enforcement and education presence

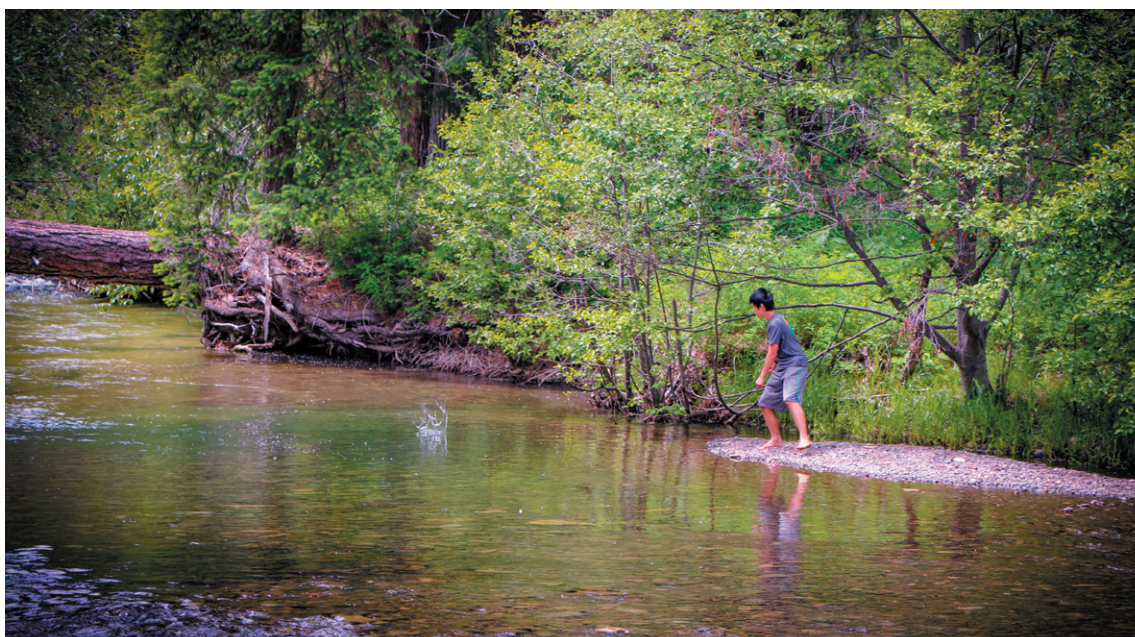


PHOTO BY TARYN GRAHAM



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1.3.2. Teanaway Community Forest Recreation Plan

The Teanaway Community Forest Recreation Plan is a subset of the Teanaway Community Forest Management plan that specifically addresses plans for managing recreation within the community forest, included on pages 36-47 of the management plan. It provides objectives, strategies and tools, and performance measures related to recreation within the community forest.

The West Fork Teanaway trail planning process adhered to the five goals of the Teanaway Community Forest stated above, as well as the Primary Management Objectives (PMOs) for summer and winter recreation within the Recreation Plan:



Summer

During the spring, summer and fall, recreation in the Community Forest will be managed primarily to provide opportunities for non-motorized recreation, including but not limited to hiking, mountain biking, horseback riding and camping, as well as fishing, hunting and nature activities. Secondary uses include scenic driving on designated forest roads and motorcycle riding on multi-use trails that connect to the Okanogan-Wenatchee National Forest.



Winter

During the winter, recreation in the Community Forest will be managed primarily to provide groomed motorized and non-motorized trails with opportunities for dispersed snowmobiling, crosscountry skiing, snowshoeing and winter play.

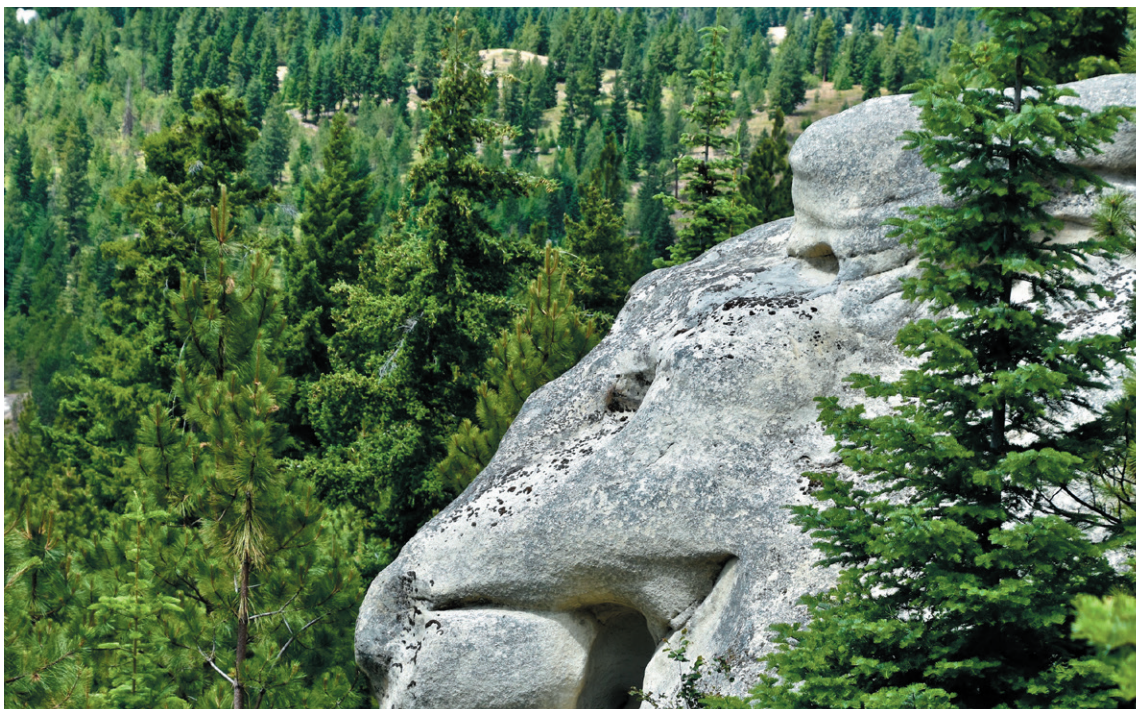


PHOTO BY RACHEL EMMANS

In addition to the PMOs, the TCF Recreation Plan and the guidance provided for a Summer Recreation High Density Trail Area:

- Evaluate and reroute existing trails in the southwest part of the TCF to provide sustainable non-motorized trails for a variety of skill levels.
- Provide loops and connections between trailheads, camping areas, rivers, rock formations and viewpoints, while respecting private property and reducing redundancy in the trail system.

Other considerations in the Recreation Plan for trails in the West Fork Teanaway River / High Density Trail Area include:

- **Community Connections:** To non-motorized trails for hiking, mountain biking, and horseback riding from the Community Forest across Cle Elum Ridge to the communities of Cle Elum, Roslyn and Ronald, and to the National Forest, in partnership with adjacent land managers and local communities.
- **West Teanaway Trailhead:** Provide a new trailhead for hiking, biking and horseback riding in the southwest part of the TCF.
- Focus on improving existing trails, camping areas, trailheads and roads before developing additional recreation opportunities.
- Develop a system of loops and trails connecting unique geologic features, vistas and rivers to camping areas and trailheads.

Finally, while the focus of the trail planning effort was on the summer non-motorized recreation trail system, the planning process looked at winter trail recreation and recognized that the West Fork Teanaway River area is a predominantly non-motorized winter recreation area:

- In coordination with local snowmobile access, this plan would provide an area for snowshoeing, skiing and non-motorized winter play. The area would be accessed from the West Teanaway Sno-Park. (Note: The West Teanaway Sno-Park is conceptual at this time and would be located at the end of the West Fork Teanaway River Road near the yellow gate).

2. The West Fork Trails Planning Process & Coalition

The development of the West Fork Trails Plan required a complex set of analysis, discussion, collaboration and planning. These items together spurred the need of a coalition, with expertise in trail planning, development and maintenance, to assist in the development of the trails plan and report back to the Teanaway Community Forest Advisory Committee (TCFAC).

The West Fork Teanaway Trails Coalition was an informal group of stakeholders who had trail planning experience and/or represented a recreation user group such as hiking, horseback riding and mountain biking, and/or was a local community member.

The coalition met nine times from the start of the planning process in June 2020 until the preparation of this report in 2022. The coalition provided assistance with the following:

- Defining the West Fork Trails Plan guiding principles and goals for the process
 - Compiling and developing an existing Trails Assessment
 - Building the Trails Plan
 - Assessing and refining summer and winter trails maps
 - Developing criteria to prioritize the trails plan projects
 - Suggesting phases for implementation
-

2.1 Project Overview

This project overview section provides details on the overarching items that the West Fork Teanaway Trails Coalition worked on to finalize the trails planning process. It includes the guiding principles of the coalition, the timeline for the work, and a review of recreation activities within the West Fork of the Teanaway, as well as wildlife and habitat, surrounding recreation, and private property parcels within the planning area.

2.1.1 Guiding Principles

To set forth a baseline expectation for how the trail system would be developed and managed, a set of guiding principles were developed. Working collaboratively with DNR and WDFW, the West Fork Teanaway Trails Coalition strove to meet the following principles when designing, developing and managing the West Fork trails system.

Access

1. Provides a safe, multi-use trail system that is enjoyable and satisfying to various user groups, experience levels and abilities.
2. Is easy to navigate with appropriate trail signage and maps to reduce confusion and instances of users getting lost.
3. Access to and from the trail system remains year-round and connects to the local communities of Cle Elum and Roslyn, as well as the adjacent Okanogan-Wenatchee National Forest and Teanaway Community Forest campgrounds.



PHOTO BY ANNA ROTH

Maintained Trails

1. Trails provide high quality experiences for trail users, including:
 - a. Designed to meet the needs of all types of trail users, from beginners to experts.
 - b. An abundance of loop options of varying lengths.
 - c. Opportunities to experience the uniqueness of the West Fork Teanaway, including geological formations, viewpoints and rivers.
2. Unless there is an agreement or easement between the managing agencies and private property owner(s), trails avoid private property and existing trails are rerouted out of private property, and adequate buffers exist between trails and inholdings to avoid conflicts.
3. Trails are designed to avoid and/or reduce impacts to riparian areas along rivers and creeks.
4. Innovative trail design and user management techniques are used, such as one-way loop trails, where possible, to reduce user conflicts.
5. Trails that do not meet sustainability requirements, per DNR's Trails Policy, are rerouted and old routes are decommissioned.
6. Trail system minimizes the use of open roads to reduce conflict with vehicles and provide a better user experience.

Trailheads, Parking & Facilities

1. Trailheads accommodate the multiple uses of the forest, including horse trailer parking and loading areas, bathroom facilities and informational kiosks; and meet federal Americans with Disabilities Act standards.
2. Trailheads provide adequate, clearly delineated parking.

Ongoing Funding & Management

1. A long-term maintenance plan is developed and funded. (To be developed outside of this planning process).
2. Management is responsive and there is a reasonable level of enforcement of rules.
3. Consistent and proactive law enforcement and education presence are available to ensure forest users understand and follow recreation rules and other forest requirements. (Directly from the rec plan).

Welcoming & Respectful Trail Community

1. Trail etiquette (ex. yielding to horses) and Leave No Trace tips are promoted through signage on trails and at informational kiosks.
2. Bootleg or user-built trails are prohibited.
3. An “Adopt-a-Trail” system will be established.

Adherence to the TCF Management & Recreation Plans Objectives

1. The trail system will adhere to the Teanaway Community Forest legislated goal for recreation: “To maintain and where possible expand recreational opportunities consistent with watershed protection, for activities such as hiking, fishing, hunting, horseback riding, camping, birding and snowmobiling.”
2. Adhere to the management plan objective of: **to provide a sustainable network of safe, enjoyable recreational trails** and:
 - a. Designate and build non-motorized trails for hikers, mountain bikers, horseback riders and others that:
 - i. Emphasize scenic destinations and high-quality experiences.
 - ii. Accommodate multiple skill levels, are designed as loop trails when appropriate, and connect to Forest Service trails and the regional trail system.
 - iii. Provide separate trails for specialized uses as appropriate to enhance users’ experiences and safety. Provide winter trails for snowmobiles, cross-country skiing, and snowshoeing that:
 1. When practical, provide loop routes and connections to regional snowmobile trails.
 2. Are designed, maintained and, if necessary, relocated to protect water and fish and wildlife.
 3. Include groomed and ungroomed snowmobile trails and ski trails.
 4. Include marked, un-groomed trails for cross-country skiing and snowshoeing, with access points that connect to regional snowshoe and cross-country ski trails.
 - b. All trail systems will be managed to protect water, fish and wildlife habitat, working lands, and other valued resources. DNR and WDFW, with volunteer help when appropriate, shall work to:
 - i. Restore damaged areas, such as unauthorized trails, and use educational signs or enforcement measures as appropriate.
 - ii. Upgrade, mitigate for, relocate, or decommission trails and trail segments that are identified in the recreation plan as unsafe or that harm water quality, are difficult to maintain, have highly erodible soils or steep slopes, or cut through sensitive wildlife habitat.
 - iii. Inform forest visitors about what they can do to protect the Community Forest environment.
 - c. DNR and WDFW will work closely with the United States Forest Service, neighboring landowners, local communities, and other neighbors to evaluate and resolve issues such as access, trail use, and enforcement across parcels owned by different organizations.

3. Adhere to the management plan objective of: **Provide recreation opportunities and facilities that are consistent with watershed protection** and:
 - a. Develop new and renovate existing trailheads, including interpretive signs and parking facilities, to ensure recreational access and minimize environmental damage.
 - b. Designate day-use areas and trails with parking facilities and interpretive signs for activities such as walk-in fishing, hunting, horseback riding, and river access.
 - c. Allow for walk-in/pack-in backcountry camping away from heavily used areas.
 - d. Provide opportunities to access the forks of the Teanaway River, and design these river access sites to avoid damage to fish and wildlife habitat.
 - e. Provide recreation access for people with disabilities as required by federal and state laws and consistent with DNR policies and practices for all recreation areas.
4. Adhere to the performance measures outlined in the management plan:
 - a. Number and length of trail sections improved.
 - b. Number and length of trail sections that are abandoned or improved to enhance compatibility with watershed protection.
 - c. Number and length of new trails added.
5. Adhere to the objectives provided in the TCF recreation plan and summer/winter concept maps for trails in the West Fork / High Density Trail Area including:
 - a. Summer: Evaluate and reroute existing trails in the southwest part of the TCF to provide sustainable non-motorized trails for a variety of skill levels.
 - b. Summer: Provide loops and connections between trailheads, camping areas, rivers, rock formations and viewpoints, while respecting private property and reducing redundancy of trails.
 - c. Winter: In coordination with local snowmobile access, provide an area for snowshoeing, skiing and non-motorized winter play access from the West Teanaway Sno-Park.



PHOTO BY KATIE KALLIO

2.2 Project Timeline

A note on the COVID-19 Pandemic

From 2020-2022, the COVID-19 pandemic caused disruptions and impacts to the work conducted by the coalition. Limited organizational staffing and capacity, financial uncertainty, pivots to virtual workplaces, and limits to volunteer and in-person visits to the Teanaway Community Forest were all factors that greatly affected the planning process.

The work to progress the trails plan required three phases:

- **Phase I:** Trails Assessment and Coalition Building
- **Phase II:** Trail System Planning
- **Phase III:** Trail Construction/Implementation

Phase	Work	Timeframe
Phase I	Trail Assessment and Coalition Building	Summer 2020 - Winter 2021
Phase II	Trail System Planning	Spring 2021-Summer 2022
Phase III	Trail Plan Implementation	Begin: Fall 2022 (Tentative). Implementation ongoing

2.3 Recreation in the West Fork

The West Fork Teanaway has a wide variety of existing recreational uses. People use the area for camping, hiking, sightseeing, mountain biking, hunting, horseback riding, fishing, wildlife viewing, plant gathering, cross-country skiing and snowmobiling. These activities occur year round. Limited motorized use is allowed on open, mainline roads and on designated, groomed snowmobile trails in the winter.

Active roads, inactive roads and user-created single and double track trails crisscross the area. These routes are utilized by hikers, trail runners, mountain bikers and equestrians. Some of these routes provide scenic tours through the area with wide vistas while others are designed to reach specific destinations of interest, including geologic formations. Other areas are best suited to provide a physical challenge to the user. This might be due to the steepness of a trail or technical aspects of its layout, such as traversing sandstone slabs. A few of these routes provide access to areas outside of the West Fork Teanaway including south and west over Cle Elum Ridge towards Cle Elum, Roslyn and Ronald and north above the Middle Fork road towards National Forest lands.

Camping is allowed at two designated campgrounds in the West Fork area including Teanaway Camp and Indian Camp. These are both vehicle accessible campgrounds.

The other activities that happen in the forest such as hunting, fishing, wildlife viewing and plant gathering are not specifically dependent on a trail system. However many of these users utilize trails to gain access to their favorite spots.



2.4 Wildlife and Habitat

The West Fork Teanaway, and specifically the Cle Elum Ridge, is a well-used migration corridor for wildlife movement. Wildlife use the area to connect to larger areas, including National Forest lands to the north and west including connection to the Cle Elum River watershed and points farther west. This drainage also allows wildlife movement as they travel to more arid areas in the winter, such as the Swauk Prairie and Ellensburg Valley.

Various sensitive wildlife species occur in this landscape including Mule Deer, Elk, Gray Wolf, and Northern Spotted Owl. The landscape is also widely used by species such as Black Bear and Cougar. As these species need a range of habitats for their requirements and often exist over large ranges, they will have movement corridors in the landscape. These movement corridors are vital to ensure that while some human use can overlap, recreation use does not rise to

the levels that precludes these areas as functional wildlife corridors.

Wildlife species are tolerant to human recreation use to various degrees, with some species being very intolerant and needing large untouched areas while other species can coexist with a fair degree of human cohabitation. Two strategies to ensure that this cohabitation can occur is to relocate trails away from the most sensitive wildlife areas or have timing restrictions of use when there are timing conflicts, such as calving areas. The other strategy is to lessen the trail network density in areas of high wildlife use such as known wildlife migration areas. In this trail planning document, WDFW worked with the West Fork Trails Plan team to ensure known conflicts could be avoided and will continue to study the wildlife movement in this area. As potential conflicts arise from new data, work with land managers to lessen and avoid those conflicts while still ensuring a positive recreation experience for user groups.



PHOTO BY EVA TYLER

2.5 Surrounding Recreation

Some of the routes within the West Fork Teanaway trail system are designed to provide access to areas outside of the community forest. The main external recreation areas lie to the south and west over Cle Elum Ridge and to the north on National Forest lands.

To the south and west of the community forest lie the towns of Cle Elum, Roslyn and Ronald. Cle Elum Ridge separates the two areas. Above the three towns is an extensive trail system that is part of Towns to Teanaway and the Roslyn Urban Forest. The trails are popular with hikers, mountain bikers and equestrians. Many of the trails have already been constructed and are extensively used while others are still in the planning stages. A goal is to have all of these areas combined into a seamless recreation opportunity with users passing back and forth across the ridge. In winter, in addition to non-motorized recreational uses, a groomed snowmobile route travels along the spine of Cle Elum Ridge and drops down to the towns of Cle Elum and Roslyn.

To the north of the West Fork trail system, and north of the Middle Fork Teanaway road, lands are managed by the United States Forest Service and Washington DNR. These areas are open to both motorized and non-motorized uses. Three popular trails, West Fork Teanaway, Yellow Hill and Middle Fork Teanaway, start on DNR lands and extend onto National Forest land. The Forest Service manages these trails. These trails are popular with motorcycle riders, equestrians, mountain bikers and hikers. During the winter months there are groomed snowmobile trails on the lands managed by Washington DNR and a winter staging area at 29 Pines Campground.

2.6 Private Property in the Planning Area

One area that generated a lot of conversation during the recreation planning process for the Teanaway Community Forest's Management Plan was around recreation on or near private property. There are several adjoining landowners along the exterior borders of the forest and inholdings. The Teanaway Community Forest Advisory Committee heard from many of these landowners and wanted to be respectful of their property rights. The committee advised DNR and WDFW to work towards avoiding private lands as trail plans are developed unless a long term trail agreement can be established with the private land owner. Those agreements would need to be voluntary with permission granted by the private land owner.

Much like forest roads, a trail is an encumbrance on the land. DNR is not able to use forest management roads over private lands without an easement or permit. Similarly, trails that connect state land across private lands cannot be used by the public without an easement passing private property rights to the public. Many land owners have expressed concerns over the amount of public use on their land, so efforts were made during the West Fork trails planning process to route new trails around the inholdings and to buffer these lands as much as possible so the owners will not be disturbed by the public.

The agencies value the relationships with the many neighbors to the community forest. Many are part of the advisory committee and others are actively engaged in other ways. Overwhelmingly, DNR heard from many of the neighbors in the West Fork they would prefer trails be routed off their lands. DNR asked the West Fork Trails Coalition to design a system to accomplish that goal.

3. Trails Assessment

The Trails Assessment was conducted in three main parts: a preliminary overview, trail survey and analysis. These components work in tandem to comprise the trails assessment.

3.1 Preliminary Trails Overview

To begin an assessment of the planning area, members of the West Fork Trails Coalition's trail assessment team took the following steps, with support from the coalition in developing and gathering the necessary information to do so:

- Gather information
- Define the boundaries of the trail planning area
- Define corridor connections for areas outside of the planning area

These first steps yielded the following results in an initial assessment:

Assessment Strategy	Methodology	Results
Gather information	Collection of background information through coalition members, and data and open-source resources	<ul style="list-style-type: none"> • Utilization of the DNR Green Mountain Trails Plan for design of the Trails Assessment. • DNR's GPS/data survey of non-designated trails • Trailforks and Strava heat maps provided physical location and user data • Input from recreationists local to the area
Define boundaries of the trail planning area	Teanaway Community Forest Recreation Plan; DNR mapping resources	Boundaries that are reflected in this plan: <ul style="list-style-type: none"> • South of Middle Fork Teanaway Road, west of Upper Orso Road. • Cle Elum Ridge is the boundary to the south and west.
Assess the planning area for potential recreation connections around its boundary	Identify other ongoing or future planning processes in surrounding public lands	Existing planning processes: <ul style="list-style-type: none"> • Towns to Teanaway Recreation use outside of the planning area: <ul style="list-style-type: none"> • Moderate use area north of Middle Fork Teanaway Road and west of North Fork Teanaway Road and low use area north of Teanaway Road and east of North Fork Teanaway Road.
Define existing recreation opportunities in the planning area	Identify recreation corridors that are considered as integral to the system and that should be preserved in any proposed trail system	<ul style="list-style-type: none"> • West Fork Teanaway (provides access north) • Yellow Hill (provides access north) • Middle Fork Teanaway (provides access north) • Teanaway Butte • Dickey Creek • Cheese Rock • Aspen Grove

3.2 Trail Survey

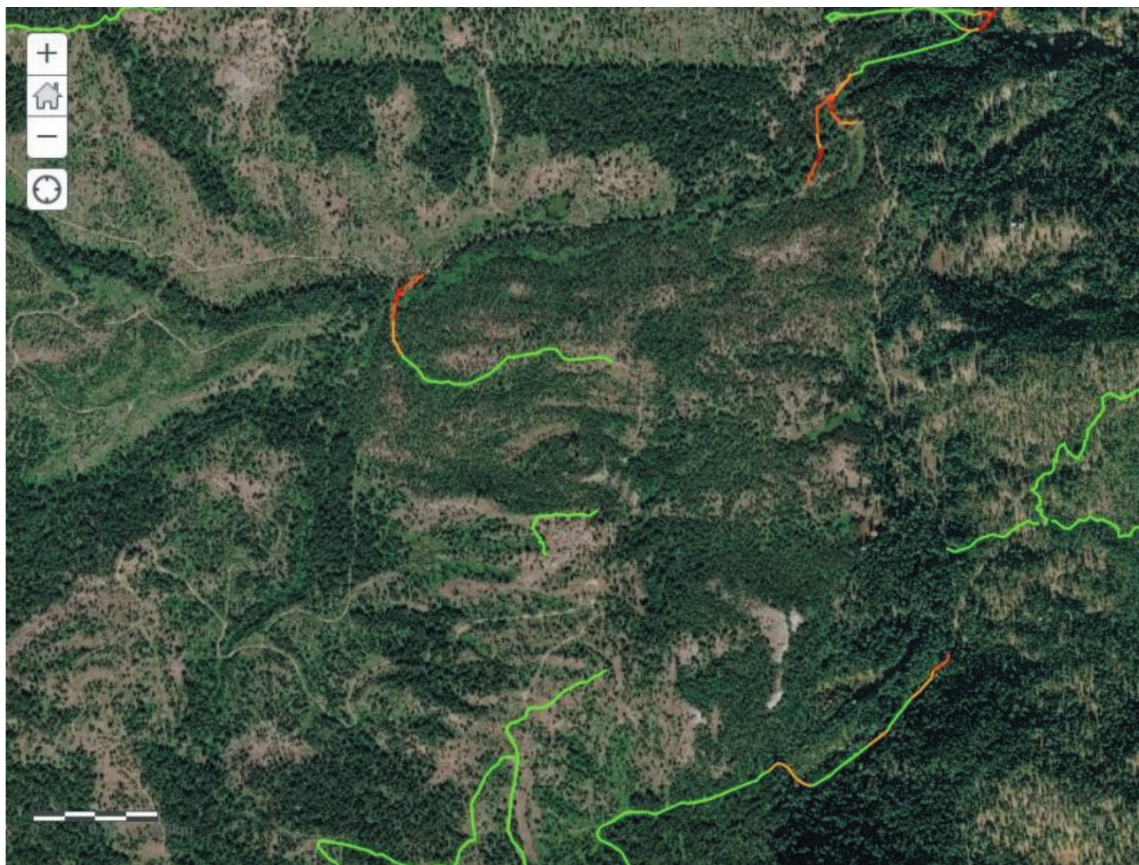
To conduct a trail survey, following the guidance of similar DNR-led planning efforts, the steps below were conducted:

- Identify trails on the landscape
- Define trail classification
- Define trail categorization
- Conduct in-person visitation and determine suitability of the existing non-designated routes

Identifying Trails on the Landscape

To identify trails on the landscape, previously completed DNR GPS and data survey of non-designated trails served as the backbone of the basic data survey. The results provided the GPS location of trail segments along with a host of physical characteristics recorded for those trail segments. There were gaps in that survey that needed to be addressed. (Map 3.2.1).

MAP 3.2.1 - DNR GPS / Data Survey, Example of Data Gaps

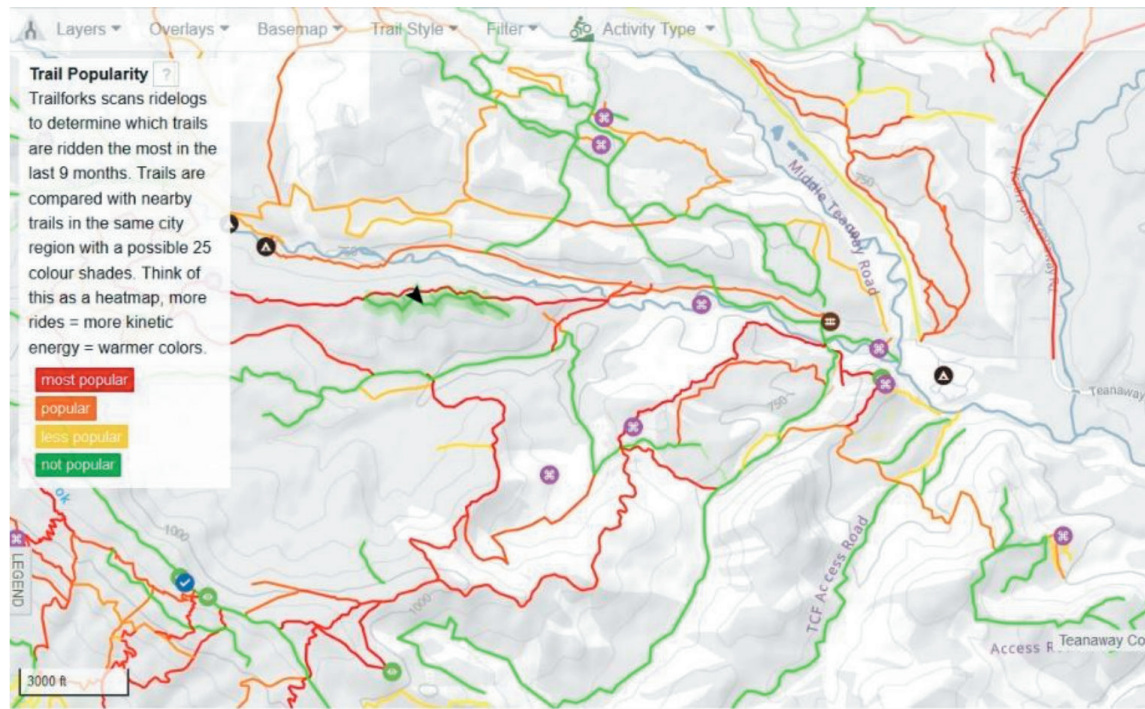


The individual segments were short in length and limited analysis as part of a coherent trail. There were close to 3,000 segments in the original survey.

Grouping shorter segments into larger trails segments aided in analysis of the physical characteristics. The survey did not include many sections of active and inactive roads that are used as trails. This contributed to a fragmentation of the data set and made it more difficult to map the complete trail system. The DNR survey did not include trails on private property. These gaps were completed with other existing data sets from sources such as Trailforks, which is a crowd-sourced public database that provides details on recreation use on public lands. Strava heat maps, a similar database to Trailforks that is mostly used for cycling and running, was also utilized. DNR roads data was utilized to identify roads that provide connections in the trails system.

Trailforks was used to identify non-designated trails on the landscape and fill in the gaps in the DNR survey. (Map 3.2.2)

MAP 3.2.2 - Trailforks Map Example

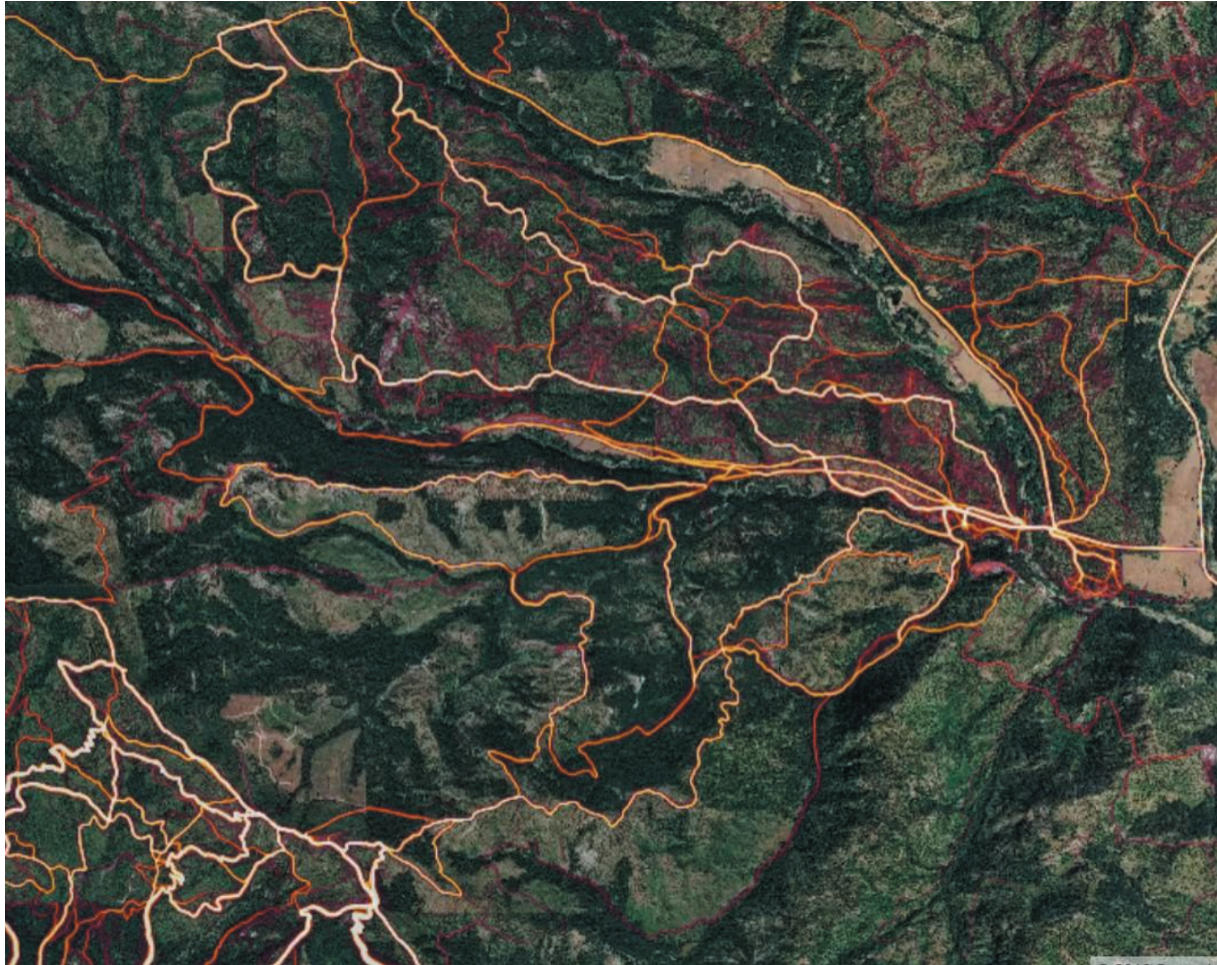


Trailforks also had physical and subjective attribute data that were extracted from the data set:

Attribute	Description
Length	
Elevation change	Vertical ascent and vertical descent
Grade	Average/maximum/minimum
Difficulty	Easy, intermediate, difficult, double track/access
Trail type	Single track, double track
Trail usage	Hike, bike, horse, multiuse etc
Direction	One way, bi-directional
Local popularity	0 to 100

A third source for identifying potential non-designated trails was the use of Strava heat maps (Map 3.2.3).

MAP 3.2.3 - Strava Heat Map Example



Heat maps track use on the landscape by an individual with Strava's phone app in use and can be used to identify gaps in other mapping sources. Interviews with multiple users of the existing non-designated trail system were conducted to try to ensure that as little as possible had been missed. Two hundred individual segments were identified for possible inclusion in the designated trail system. With the completion of identification of the non-designated trails the next step was to gather the basic data required for each trail segment.

Trail Classification

Trails were classified in four categories that tracked to the coalition's guiding principles.

The first attribute identified was the type of trail. This was done using the mapping sources outlined above, interviews with trail users and on-the-ground surveys conducted by Washington Trails Association staff. Each trail segment is classified as one of four options:

1. Active road – road beds that are currently in use by the public or DNR staff and are considered drivable.
2. Inactive road – road bed still exists, but conditions make it difficult to be driven by a vehicle.
3. Double track – trail bed that is wide (>48") and formerly used as a road. Functionally, this category is very similar to single track but double track in the TCF is often overgrown with vegetation.
4. Single track – Trail bed that is narrow and designed mainly for users to utilize in single file. (<48")

PHOTO BY KATIE KALLIO



Trail Categorization

Further categorization of these trails required assessment of the level of the use. Assessing each trail's level of use helped determine whether or not certain recreation opportunities should be preserved in the final trails plan. Understanding the level of use was critical because the longer a route has been in place and used by the public, the harder it can be to change recreational behavior.

Data for estimated level of use was collected in much the same way as trail type. Several of the existing map sources were used to give some rough estimates of the level of usage on the identified non-system trails. The original DNR survey had a level of use attribute for each of its segments and these were averaged together when combining the smaller segments into a larger coherent trail segment. Strava heat maps gave a visual indication of the amount of use in comparison with other trails in the area. This data was not extractable so it was determined based on visual characteristics of the programs mapping (See Map 3.2.3 on page 19). Trailforks also had a popularity rating for each trail in comparison with other trails in the area (See Map 3.2.3 on page 19). The rating was determined by the number of check-ins over the past year for the trail. Again, interviews with local trail users were employed to determine level of use. The final step for determining the level of use attribute was through on-the-ground surveys conducted by Washington Trails Association staff.

The levels-of-use categories and their parameters were determined as defined below:

Classification	Description
Low	Trail shows occasional to no human use. Trail tread has grass growing in it and brush encroaching. Minor erosion problems encountered. Lots of obstacles to travel. More animal tracks than human based tracks (foot, bike, horse). Does not show up on crowd sourced datasets like Strava and Trailforks.
Moderate	Trail shows regular human use and negative impacts appear to be low. Tread is well defined and brush does not encroach on the trail. Few obstacles to travel, such as downed trees. Tread shows some signs of erosion due to level of human use. Human based tracks dominate on the tread. Users indicate that it is a trail they sometimes use. Shows up on crowd source data sets but with lower level of activity when compared with other trails in the system.
High	Trail shows regular human use with higher levels of negative impacts. Tread is well defined and there are no brush encroachment or obstacles. Amount of use causes negative impacts to trail, such as high levels of erosion. Large numbers of human based tracks, including motorized vehicles. Local users and crowd source data both indicate popularity of the trails and that they receive regular use.

In-Person Visitation and Suitability Assessment

The in-person visitation and assessment of suitability portions of the trail survey occurred simultaneously. Visiting the West Fork trail system in person and assessing trail sustainability and maintenance needs offered a deeper level of information on ways to assess things like directional travel, shared use options, and difficulty ratings that are required for a balanced final trails plan.

This was determined based on the surveyor's knowledge of trail design, building and maintenance and will in that sense be subjective. With several people involved in the survey, it was advantageous to have them meet and run through some example trails together so there was consistency in the results. There were some basic physical parameters that help determine sustainability/suitability including trail grade, maximum sustainable grade, trail slope ratio (rule of half), landform slope, widening or braiding, incision of trail surface (erosion), ability to shed water (outslope, grade reversals), muddiness, and surface type (erodibility).

The classifications used for suitability and sustainability assessments were as follows:

Assessed Level	Description
1	Trails need just basic maintenance to reclassify as a designated trail.
2	Minor renovation effort is required to make sustainable and classify as a designated trail.
3	Minor re-routing or major renovation is required to designate this as an official trail.
4	Two types of trail: A) Existing trail is recommended for removal; a new trail design suits the landscape better. B) New trail where one had not previously existed.

Additional Information Identified During the Survey Process

The basic survey outlined above created decision making criteria for the comprehensive trail plan. Even with the basic survey data, it was necessary to refer to data in the more detailed data sets to add additional context. An example would be using the DNR trail survey to find segments that have both a condition rating of "eroding" and a sediment delivery attribute of "direct to stream." This type of analysis sheds more light on a trails, sustainability and suitability.

Further observations that occurred during the in person field survey included the following observable trail characteristics:

1. Primary and secondary users
2. Single vs. shared use options
3. Difficulty ratings
4. Enjoyment of the route
5. Significant points of interest or avoidance
6. Instances of significant negative impact on the trail (landslides, washouts)
7. Suitability for trail to remain on roadbed

It should also be noted that for any trail to become designated it must meet the recreational trail development and evaluation criteria outlined in the DNR Recreational Trails Policy. A second outcome of the basic survey was to start developing Trail Management Objectives (TMOs) for each of the defined trails.



PHOTO BY KINDRA RAMOS

3.3 Analysis

Process for analyzing the trail survey

To add to the trail survey, further datasets were acquired to support the development of the trails assessment.

Utilizing further data within the GIS analysis supports the identification of areas that pose specific negative impacts from the trail. Datasets that offered support for further analysis included data from the Teanaway Forest Management Plan that indicated recreational suitability.

Of the 300 segments analyzed in the survey, 140 were chosen to be part of the trail system. Positive attributes would help to weight toward including a segment while negative aspects would push toward exclusion.

For each segment analyzed there were trade-offs made based on competing attributes. A segment that helped to create an interesting

loop might also include crossing one of the major streams in the TCF. A segment on private property on ideal terrain could mean moving that segment to less favorable terrain in order to have it exist solely on public property. There were three categories of results from this balance of competing forces. A segment was included based on its positive attributes, a segment was excluded based on its negative attributes, or a segment was included despite negative attributes if a design, construction and engineering solution could be utilized to push a segment into the acceptable range.

Analysis of the collected supplemental data included the following issues:

- Areas of hydrologic concern
- Habitat and migration routes
- Private property



PHOTO BY KATIE KALLIO

Areas of Hydrologic Concern

The most important of these datasets are related to areas of hydrologic concern that included buffered stream channels/flood plains, wetlands, wet grasslands and hydric soils, which were utilized in the development of the Teanaway Community Forest Management Plan.

To analyze, these layers were intersected with the identified trails from the survey. The result showed areas of hydrologic concern on the trail system. These sections of trail were either eliminated from consideration or flagged for requiring extra levels of design and construction if they were included in the trail system. Steep slopes were also considered as part of the analysis with the result again being trails either eliminated from consideration or flagged for requiring extra levels of design and construction if they were included. Where there are steep slopes in areas of erodible soil near areas of hydrologic concern, it can lead to erosion and sediment delivery into streams, which can become a water quality issue.

A geomorphic analysis of the West Fork Teanaway was completed in the fall of 2021. This geomorphic analysis was used to ensure that the West Fork Teanaway trail plan and future floodplain restoration are developed so that each supports the other and are not in conflict.

Habitat and Migration Routes

Data from WDFW was acquired that looked at migration routes for several species, including Mule Deer and Elk, along with Elk Spring calving areas. This data was also overlaid with the trail data to determine which trails could

pose a significant impact on animal migration and rearing. Cle Elum Ridge is a known wildlife migration corridor for various species including Mule Deer, Elk, Cougar and Black Bear. This area has some use by the Teanaway Gray Wolf Pack and historically had several occupied Northern Spotted Owl territories.

The wildlife occurrence and wildlife connectivity data were analyzed to ensure that trails are placed with regards to wildlife movement. Further refinement of trail routes and timing of use may be necessary as more is learned of wildlife migration routes in the area.

Private Property

It was also important in this analysis phase to determine which trails were located on private property. Intersection of a parcel layer from the county and the trail system showed these trails. All trails on private property were flagged for rerouting to move them onto public lands. The basic trail assessment data along with the data generated through GIS analysis was combined to help decide which of the trail segments under consideration should be selected for inclusion in the trail plan for the TCF.

After the completion of the on-the-ground survey by Washington Trails Association staff, the collected data was mapped to give a sense of how each attribute impacted the trail segments under review, with a goal of developing a trail system that met the list of requirements established by the TCF management plan. Using the maps as a reference, a proposed trail system was established for the TCF.

4. The West Fork Trails Plan

4.1 Summer Nonmotorized Trails System

The summer nonmotorized trail system uses existing user built trails, active and inactive roads and proposed new trail segments. As mentioned in Section 1.3.2 of this plan, the Teanaway Community Forest Recreation Plan outlined summer recreation as:

During the spring, summer and fall, recreation in the Community Forest will be managed primarily to provide opportunities for non-motorized recreation, including but not limited to hiking, mountain biking, horseback riding and camping, as well as fishing, hunting and nature activities. Secondary uses include scenic driving on designated forest roads and motorcycle riding on multi-use trails that connect to the Okanogan-Wenatchee National Forest.



PHOTO BY CAROL MECHAM

The summer nonmotorized trail system follows the guidance provided for a Summer Recreation High Density Trail Area in the Teanaway Community Forest Recreation Plan:

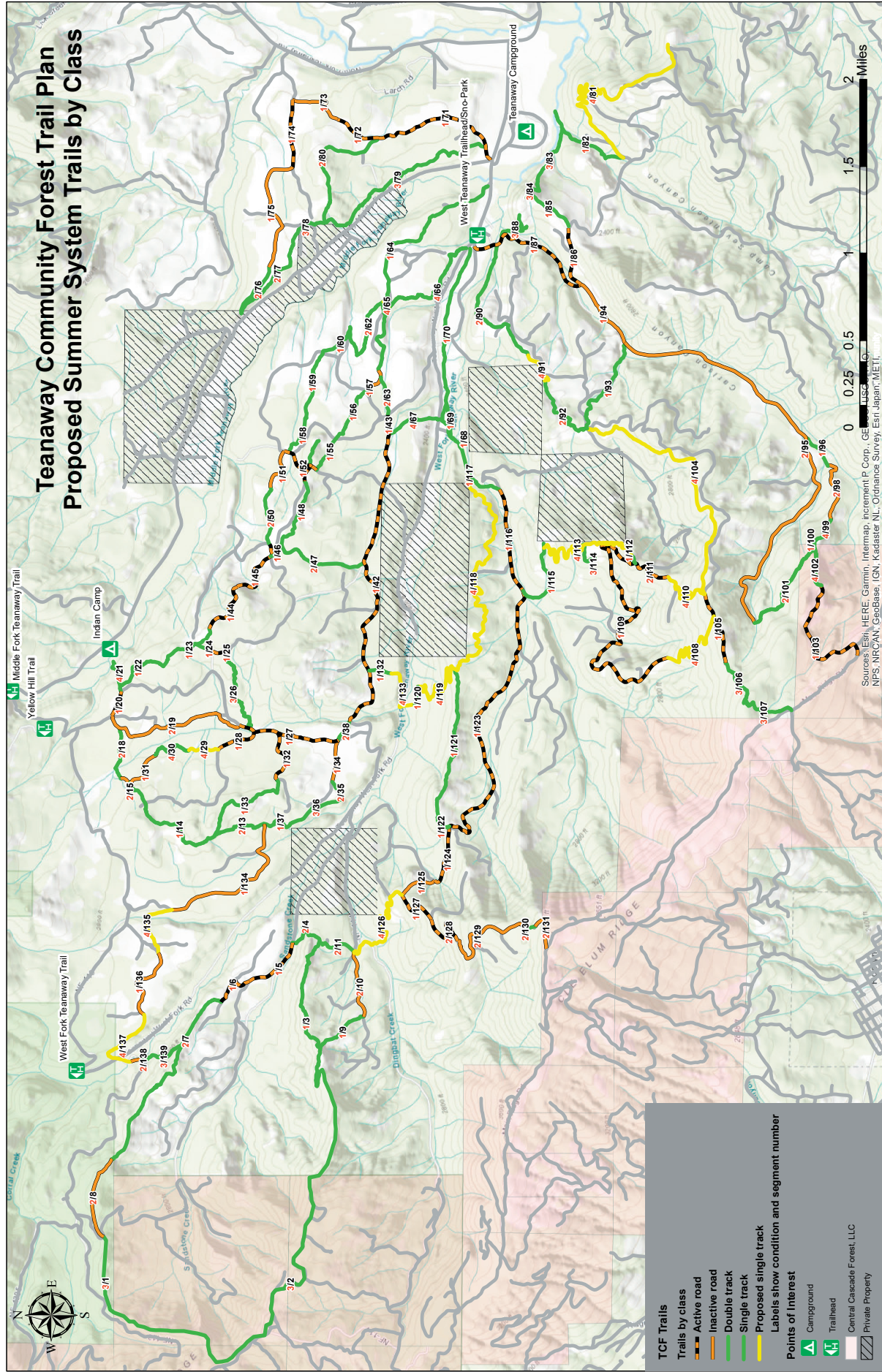
- Evaluate and reroute existing trails in the southwest part of the TCF to provide sustainable non-motorized trails for a variety of skill levels.
- Provide loops and connections between trailheads, camping areas, rivers, rock formations and viewpoints, while respecting private property and reducing redundancy.

The summer nonmotorized trail system retains 56 miles of a user built trail system, including active roads, inactive roads, double track and single track. The single and double track will be brought up to current DNR trail standards. There are also 25 miles of the user built trail system, including inactive roads, double track and single track, that will be considered for decommissioning in the future due to placement in sensitive habitat areas, private property issues or duplication of trails in the area. Eleven miles of trail will be built to reroute and/or avoid sensitive habitat, private property and/or to provide better trail experiences. (For example: To finish a loop trail or to visit a viewpoint/rock formation). Trail segments that need to be rerouted will be decommissioned or abandoned at the same time as the new trail segment is built to avoid adding new miles of trail in sensitive habitat areas. Trail segments that need decommissioning that are next to sensitive natural resource features, such as streams, may be only closed and not fully decommissioned. Those trails with current or potential natural resource issues will have those issues addressed during the decommissioning.

The summer nonmotorized trails system is predominantly a multi-use trail system, which allows hikers, bicycles and equestrians on trails together. As the trails plan is implemented and DNR and WDFW adaptively manage the trail system, the agencies may work with the West Fork Teanaway Trails Coalition to consider specialized trails (ex. single use). That option would be used in rare situations where it's necessary for user safety and experience, as long as it does not negatively impact natural resources.

Below are two maps of the Summer Nonmotorized Trail System map. Map 4.1.1 shows active (orange and black line) and inactive (orange line) roads used as part of the trail system, as well as single and double track trail (green line). Proposed single track trails that are currently not in existence are highlighted in yellow. Map 4.1.2 shows the same summer nonmotorized trail system as Map 4.1.1 and also includes trails that will not be a part of the summer trail system. These trails are identified by crosshatch marks.

MAP 4.1.1 - Summer Nonmotorized Trails System



MAP 4.1.2 - Summer Nonmotorized Trails System with Non-System Trails

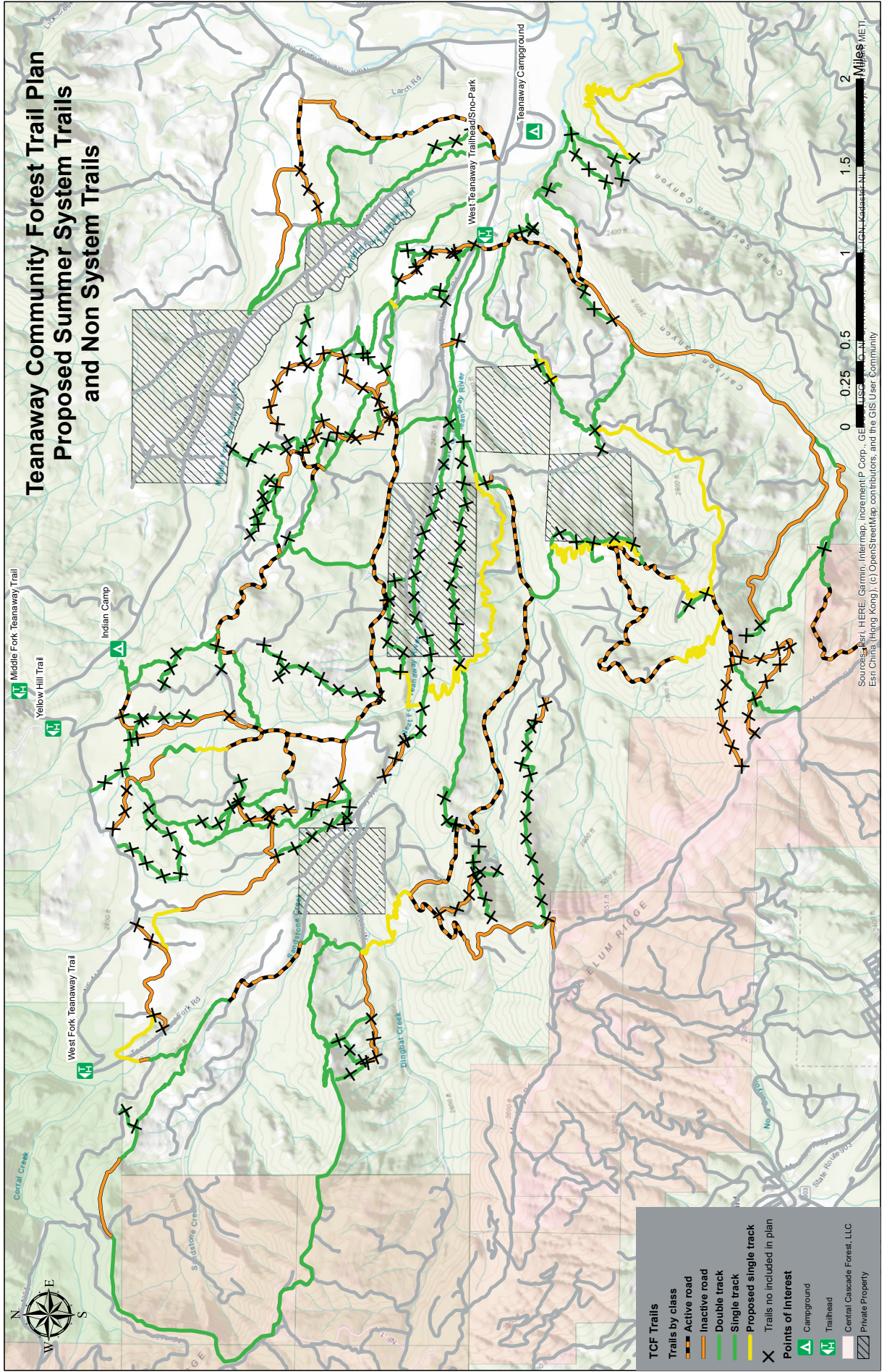




PHOTO BY EVA TYLER

4.2 Winter Nonmotorized & Motorized Trails System

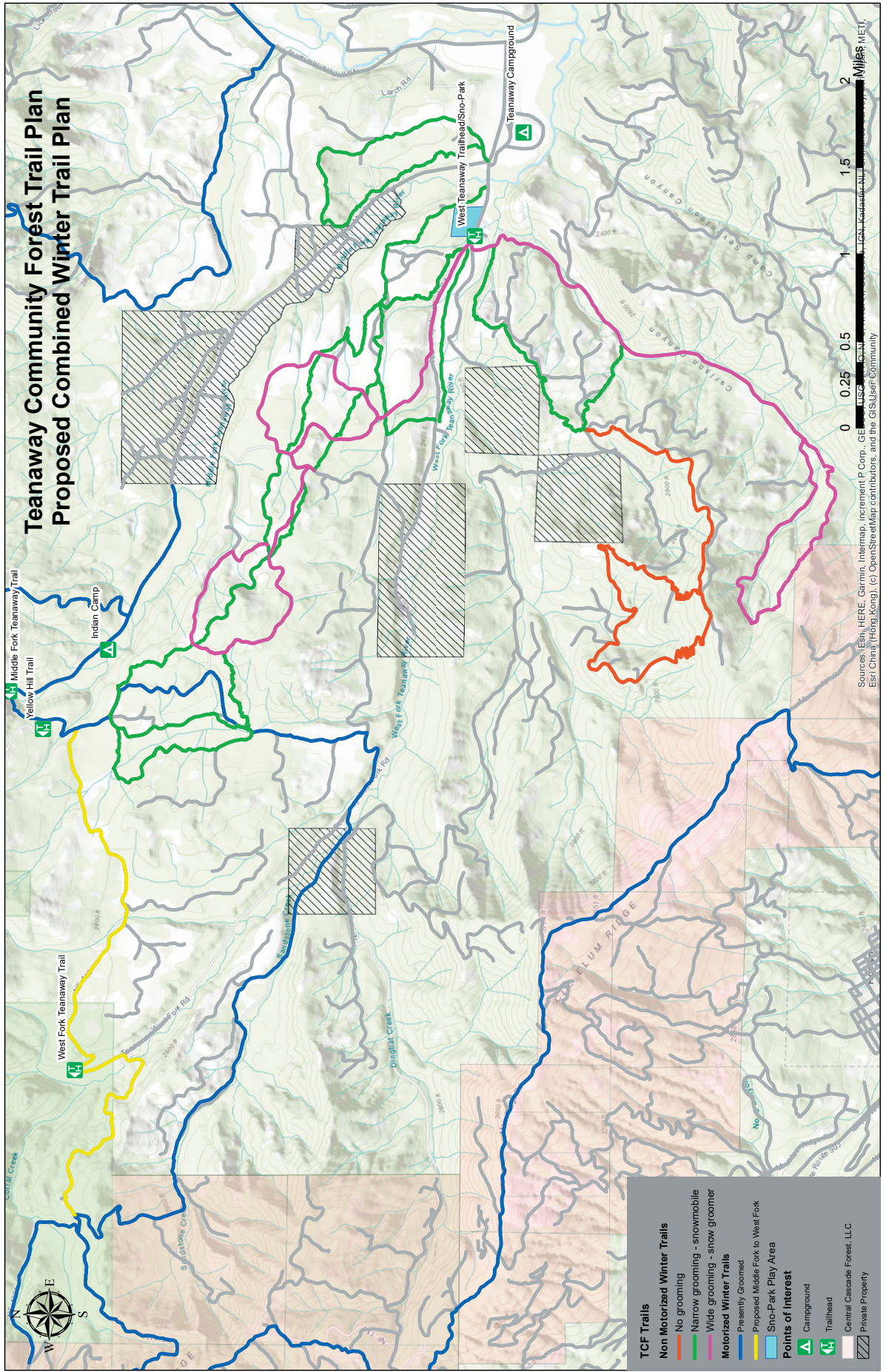
While the focus of the West Fork Teanaway Trails Plan is on summer trail use, winter uses were also taken into consideration. Briefings were held with winter motorized and nonmotorized recreation users, including the Washington State Snowmobile Association and the Central Cascades Winter Recreation Council. The Teanaway Community Forest Management & Recreation Plans winter trails objectives state:

Provide winter trails for snowmobiles, cross-country skiing and snowshoeing that:

- When practical, provide loop routes and connections to regional snowmobile trails.
- Are designed, maintained, and, if necessary, relocated to protect water and fish and wildlife.
- Include groomed and un-groomed snowmobile trails and ski trails.
- Include marked, un-groomed trails for cross-country skiing and snowshoeing, with access points that connect to regional snowshoe and cross-country ski trails.

Below is a winter trails map outlining the nonmotorized and motorized winter trail system. The system is composed of existing groomed motorized winter trails (blue line), a proposed motorized trail connection between the West Fork and Middle Fork Teanaway to avoid private property (yellow line) and a new nonmotorized winter trail that uses existing roads and portions of the summer trail system. Nonmotorized trail options will include ungroomed trail (brown line), narrow groomed trail utilizing snowmobile grooming (green line) and wide groomed trail utilizing a snow groomer (pink line).

MAP 4.2 - Winter Nonmotorized & Motorized Trails System



4.3 Recreational Facilities

Even before the Teanaway Community Forest was purchased by the state of Washington, people have found the Teanaway's pine and fir forests, winding river channels and often pleasant, sunny weather as an appealing place for recreation, relaxation and respite.

In addition to the summer and winter trails system, the West Fork Teanaway area contains the majority of the Teanaway Community Forest's current recreation infrastructure. Recreational facilities in the West Fork include:

- Two camping areas: Teanaway Camp and Indian Camp
- The centralized West Teanaway trailhead (proposed) with parking and bathroom facilities
- Three United States Forest Service managed trails: West Fork Teanaway River, Middle Fork Teanaway and Yellow Hill
- West Fork Teanaway River access points for fishing and paddling
- Connections to Cle Elum Ridge and the Towns to Teanaway trail system

4.4 Education and Engagement

The Teanaway Community Forest Management Plan included several objectives to guide recreation planning, one of which was to, "Provide a consistent and proactive law enforcement and education presence to ensure forest users understand and follow recreation rules and other forest requirements." DNR and WDFW have coordinated to provide consistent and proactive law enforcement patrols throughout the year in the Teanaway Community Forest, with a focus on the busy recreation season of April through October. The officers focus on engaging and educating forest users, while following up with enforcement action if necessary.

Recreation staff have posted informational, regulatory and educational signage across the forest. DNR worked with the Goal Five Community Engagement Subcommittee to adapt DNR's sign standards to work for the TCF. They also worked together on designing interpretive signage to better engage users and share the history of the space they're enjoying. DNR will use their sign standards and designs developed for the TCF when planning for trail signage in the West Fork system.

The partnerships that have been developed through this trail planning process will continue to be instrumental in developing the system. The agencies will engage with user groups or representatives as much as possible for support in building and maintaining the trails in the West Fork Teanaway.

4.5 Sustainable Funding

DNR will lean heavily on volunteer labor to build and maintain this trail system. There is currently no sustainable funding going to the agencies for the West Fork Teanaway trail system, so relying on volunteers and applying for grants will be necessary for the success of the trail system. The agencies and advisory committee will continue to seek funding for the construction and maintenance of the trail system.

5. Implementation

5.1 Purposes of a Phased Implementation

The West Fork Teanaway Trails Coalition and the Teanaway Advisory Committee have proposed a phased approach for implementing the trail plan. Phasing the implementation offers the best opportunity for the West Fork Teanaway Trails Plan to meet the guiding principles and goals set by the West Fork Teanaway trails coalition and recreation goals in the Teanaway Community Forest management and recreation plans. This phased approach balances the needs of habitat and wildlife management, community engagement, education and enforcement (See Section 2 for details). The five phases of the implementation plan build upon each other with a focus on prioritizing key trail corridors.

To help ensure that the trails plan meets the objectives of the trails coalition and the Teanaway Community Forest management and recreation plans, an assessment of how the proposed trail plan meets these objectives was required. The assessment identifies which proposed trail segments in the plan meet most of the guiding principles and goals, and thus should be implemented earlier in the process.



PHOTO BY STEPHANIE MARGHEIM

5.2 Evaluation

To determine what work should be done when, the coalition analyzed the trail system in both a quantitative and qualitative approach, and combined the two sets of analysis to produce a final phased implementation plan.

5.2.1 Trail Segments

Map 5.2.1 below shows the 139 trail segments, with numerical identifiers, assessed within the trails plan. Each segment does not represent the entirety of a trail, as many of the trails in the plan require different levels of trail work dependent on the area of the trail that is being worked on. As a result, the trails plan was separated into *trail segments*.

MAP 5.2.1 - Trail Segments

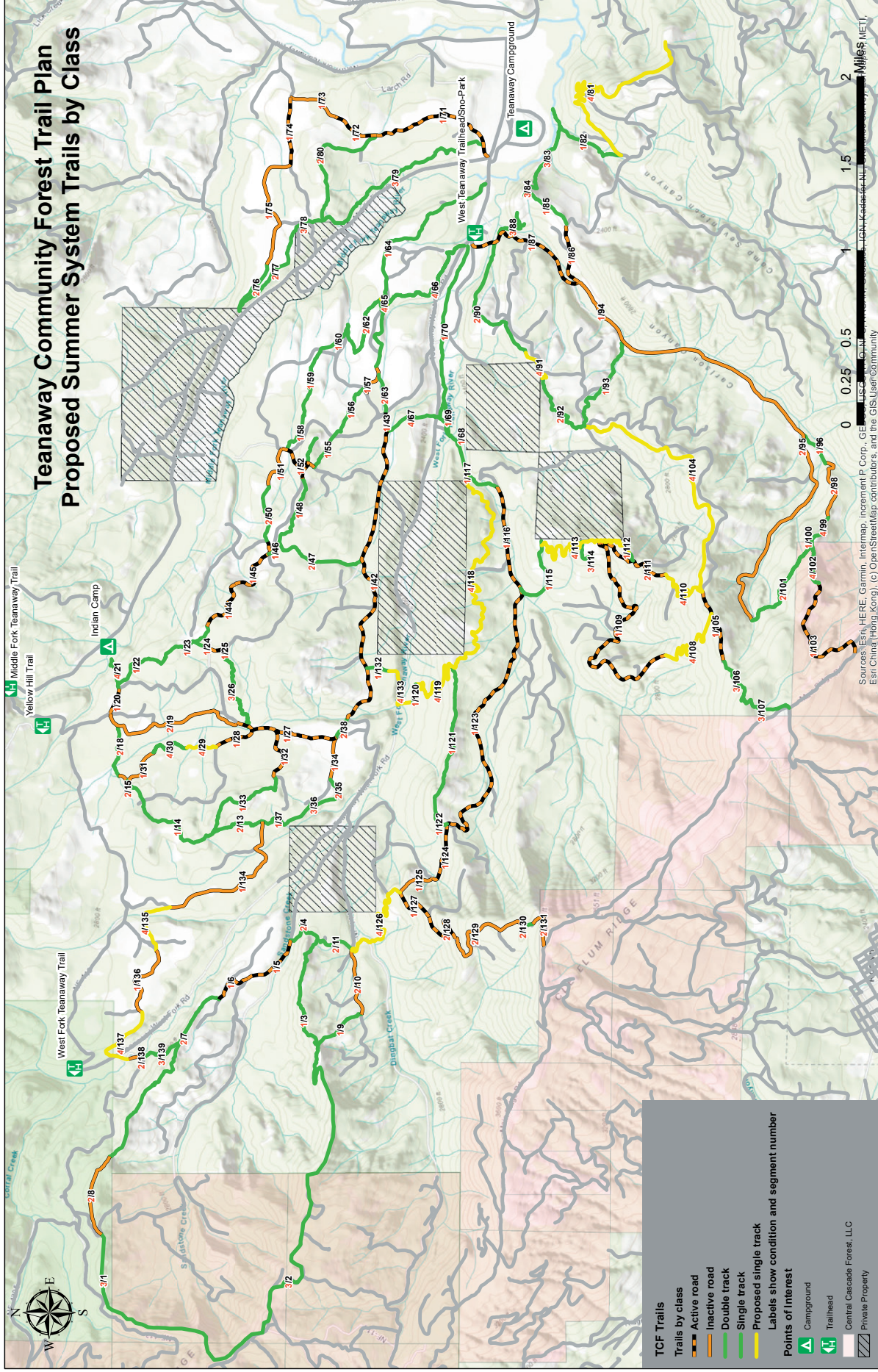




PHOTO BY STEPHANIE MARGHEIM

5.2.2 Criteria Evaluation

Each trail segment was then analyzed against nine selected criteria that directly correlate to the primary goals of the trails planning process. The criteria were separated into three categories that applied to the main themes of the Teanaway Community Forest Management Plan's goals. The criteria and their categories are found in the table below. Table 5.2.2 below demonstrates the complete evaluation of each trail segment and its criteria.

TABLE 5.2.2 - Criteria Evaluation

Category	Type	Criteria Question
User experience	Loop opportunity	What level of loop opportunities would this segment create?
Wildlife and habitat impact	Level of riparian area impact	To what level does this segment impact riparian areas?
User experience	Connects to broader regional trail system	Does this segment assist in creating connections between the planning area and recreation opportunities nearby?
Wildlife and habitat impact	Level of wildlife impact	To what level does this segment impact wildlife habitat?
Level of work	Cultural resources assessment complete	Has a cultural resources assessment been completed for the trail/project segment?
Level of work	Private property reroute	Does this segment assist in removing trails from private property?
User experience	Offers a unique experience	Does this segment help provide access to a significant unique experience?
Level of work	Condition	What level of work will be required to complete this segment?

5.2.3 Quantitative Criteria

The coalition then determined a measurement strategy for each of the criteria questions, which is indicated in the table below.

To measure quantitatively, each criteria received a numerical application. For criteria where measurement is on a scale, a 1-4 rating was applied. These criteria are known as the scaled criteria for the rest of this report. For those that are simply a “Yes/No” measurement, criteria was given a 0 or 1 rating. Those criteria are termed as “binary” for the rest of this report. Table 5.2.3.1 and Table 5.2.3.2 below further demonstrates the Scaled Criteria and Binary Criteria application and indicates what each score means.

TABLE 5.2.3.1 - Scaled Criteria

Category	Type	Criteria Question	1	2	3	4
User experience	Loop opportunity	What level of loop opportunities would this segment create?	Highest priority loop meets the needs of all three major user types.	Segments that include longer routes and mountain biking routes.	Trails that are part of a loop system, but don't meet the needs of a high priority, longer, or biking loop.	Segments that do not connect to any loop system
Wildlife and habitat impact	Level of riparian area impact	To what level does this segment impact riparian areas?	Doesn't touch any pre-identified riparian buffer zones.	Segments that intersect hydrological layers of the trails assessment and the pre-identified buffer zones.	Segments that lie within the floodplain of a major stream.	N/A
Wildlife and habitat impact	Level of wildlife impact	To what level does this segment impact wildlife habitat?	Segments that do not have a direct impact on a major stream; any segments that cross the West Fork, Middle Fork, Dingbat Creek or Sandstone Creek; segments that do not have wildlife migration routes.	Segments that have direct impact on a major stream; any segment that crosses West Fork, Middle Fork, Dingbat Creek, or Sandstone Creek.	Wildlife migration routes that are mapped per DFW resources. Migration corridors and spring elk calving.	N/A
Level of work	Condition	What level of work will be required to complete this segment?	Basic maintenance required only	Substantial renovations required only	Minor re-routing	A new trail is needed, or has been recommended for decommissioning

TABLE 5.2.3.2 - Binary Criteria

Category	Type	Criteria Question	If Yes	If No
User experience	Connects to broader regional trail system	Does this segment assist in creating connections between the planning area and recreation opportunities that exist outside of it?	If yes, this trail provides a connection to the regional trail system	If no, this trail does not provide a connection to the regional trail system
Level of work	Cultural resources assessment complete	Has a cultural resources assessment been completed for the trail/project segment?	DNR has conducted as a resource assessment as of 9/2021	No resource assessment has been conducted through DNR as of 9/2021.
Level of work	Private property reroute	Does this segment assist in removing trails from private property?	If yes, this segment moves recreation opportunities off of private property.	If no, this segment does not move recreation opportunities from private property.
User experience	Offers a unique experience	Does this segment help provide access to a significant unique experience?	If yes, reaches a defined landmark as per Trails Assessment, existing resources and coalition input.	If no, this trail does not reach a defined landmark as per Trails Assessment, existing resources, and coalition input.

5.2.4 Full Analysis

Each of the criteria listed in Tables 5.2.3.1 and 5.2.3.2 were applied to individual trail segments. Table 5.2.4 shows the results of each trail segment mapped to criteria. The table also includes supplementary categories that support *qualitative* analysis, like the segment type and segment length.

TABLE 5.2.4 - Trail Segments & Criteria

WF Teanaway Community Forest - Trails Planning Process											
Segment Data						Criteria Evaluation					
Seg. #	Level of Use	Condition (Shovel Ready)	Segment Type	Segment Length	Private Property Reroute	Loop Opportunity	Offers "Uniqueness of WF Teanaway" experience	Riparian Area Impact	Connects to broader regional trail system	Wildlife impacts	Cultural Resources Assessment Complete
1	high	3	single track	2,171	No		2 Yes		1 Yes		1 No
2	high	3	single track	15,714	No		2 Yes		1 Yes		1 No
3	medium	1	single track	5,726	No		2 Yes		1 No		1 No
4	high	2	single track	1,626	No		2 Yes		1 No		1 No
5	medium	1	active road	1,907	No		2 No		3 No		2 No
6	high	1	active road	1,386	No		2 No		1 No		1 No
7	high	2	single track	6,610	No		2 No		1 No		1 No
8	high	2	inactive road	2,677	No		2 No		1 No		1 No
9	medium	1	single track	1,702	No		2 Yes		1 No		1 No
10	medium	2	inactive road	2,114	No		2 No		2 No		1 No
11	light	2	double track	1,209	No		2 Yes		2 No		1 No
13	medium	2	single track	1,705	No		2 No		1 No		1 No
14	medium	1	single track	3,262	No		2 No		1 No		1 No
15	medium	2	single track	899	No		2 No		1 No		1 No
16	medium	1	inactive road	269	No		3 No		1 No		1 No
17	light	2	single track	361	No		3 No		2 No		1 No
18	medium	2	single track	1,386	No		1 No		2 No		1 No
19	medium	2	inactive road	4,779	No		1 Yes		2 No		1 No
20	medium	1	active road	793	No		1 No		1 No		1 No
21	high	4	single track	1,247	No		1 No		3 Yes		2 No
22	medium	1	single track	1,856	No		2 No		1 No		1 No
23	medium	1	single track	2,091	No		2 No		1 No		1 No
24	light	1	single track	582	No		3 No		1 No		1 No
25	medium	1	active road	425	No		3 No		1 No		1 No
26	light	3	single track	3,434	No		3 No		2 No		1 No
27	medium	1	active road	3,156	No		3 No		2 No		1 No
28	light	1	active road	1,316	No		1 No		1 No		1 No
29	N/A	4	proposed Single	959	No		1 Yes		2 No		1 No
30	light	4	single track	1,425	No		1 Yes		1 No		1 No
31	light	1	inactive road	1,487	No		1 No		1 No		1 No
32	medium	1	active road	1,694	No		3 No		1 No		1 No
33	medium	1	single track	3,314	No		3 No		1 No		1 No
34	medium	1	inactive road	1,298	No		2 No		1 No		1 No
35	medium	2	single track	647	No		2 No		1 No		1 No
36	light	3	single track	1,759	No		2 No		2 No		1 No
37	medium	1	single track	1,167	No		2 No		2 No		1 No
38	light	2	single track	725	No		2 No		1 No		1 No
42	high	1	active road	9,707	No		2 No		2 No		1 No
43	high	1	active road	586	No		3 No		1 No		1 No
44	medium	1	active road	1,871	No		2 No		2 No		1 No
45	medium	1	active road	1,918	No		2 No		2 No		1 No
46	medium	1	single track	502	No		2 No		1 No		1 No
47	medium	2	single track	3,233	No		3 No		2 No		1 No
48	medium	1	single track	2,120	No		2 Yes		1 No		1 No
49	high	1	active road	302	No		2 No		1 No		1 No
50	light	2	single track	1,994	No		2 No		1 No		1 No
51	medium	1	inactive road	1,368	No		2 Yes		1 No		1 No

TABLE 5.2.4 - Trail Segments & Criteria (Continued)

WF Teanaway Community Forest - Trails Planning Process											
Segment Data						Criteria Evaluation					
Seg. #	Level of Use	Condition (Shovel Ready)	Segment Type	Segment Length	Private Property Reroute	Loop Opportunity	Offers "Uniqueness of WF Teanaway" experience	Riparian Area Impact	Connects to broader regional trail system	Wildlife impacts	Cultural Resources Assessment Complete
52	medium	1	active road	1,135	No		1 Yes		1 No		1 No
53	medium	1	single track	956	No		1 No		1 No		1 No
54	high	1	active road	716	No		1 No		1 No		1 No
55	medium	1	single track	1,449	No		1 Yes		1 No		1 No
56	medium	1	single track	1,612	No		1 No		1 No		1 No
57	medium	1	inactive road	988	No		1 No		1 No		1 No
58	medium	1	single track	1,472	No		1 Yes		2 No		1 No
59	medium	1	single track	2,112	No		1 No		1 No		1 No
60	medium	1	single track	1,269	No		1 No		2 No		1 No
61	medium	2	single track	926	No		1 No		1 No		1 No
62	light	2	single track	2,077	No		1 No		1 No		1 No
63	medium	2	single track	1,204	No		3 No		2 No		1 No
64	medium	1	single track	8,181	No		1 No		1 No		1 No
65		4		247	No		1 No		1 No		1 No
66	light	4	single track	3,938	No		1 No		1 No		1 No
67	light	4	single track	1,690	No		2 No		2 No		1 No
68	medium	1	single track	829	No		2 No		3 No		2 No
69	high	1	single track	1,024	No		2 No		3 No		2 No
70	high	1	single track	5,548	No		2 No		2 No		1 No
71	medium	1	active road	4,339	No		3 No		1 No		2 No
72	medium	1	active road	1,470	No		3 No		2 No		2 No
73		0	inactive road	1,775	No		3 No		1 No		2 No
74		0	active road	2,059	No		3 No		1 No		2 No
75		0	inactive road	3,951	No		3 No		2 No		2 No
76		0	single track	1,726	Yes		3 No		1 No		2 No
77		0	single track	3,391	Yes		3 No		1 No		2 No
78		0	single track	552	Yes		3 No		1 No		2 No
79	medium	3	single track	6,849	Yes		3 No		2 No		2 No
80		2	single track	4,361	No		3 No		1 No		2 No
81	N/A	4	Proposed Single	9,231	No		4 yes		1 No		1 No
82	medium	1	single track	2,900	No		4 no		3 No		2 No
83	light	3	single track	2,260	No		4 yes		3 No		2 No
84	light	3	single track	379	No		4 yes		1 No		1 No
85	high	1	double track	1,837	No		1 yes		1 No		1 No
86	medium	1	active road	1,887	No		1 yes		2 No		1 No
87	high	1	active road	4,239	No		1 No		2 No		1 No
88	high	3	single track	1,252	No		1 yes		2 No		1 Yes
89	high	3	single track	524	No		1 No		1 No		1 No
90	medium	2	single track	4,745	Yes		2 No		2 No		1 No
91	N/A	4	Proposed Single	1,229	Yes		2 No		1 No		1 No
92	medium	2	single track	2,698	Yes		2 yes		1 No		1 No
93	medium	1	single track	3,466	No		2 yes		2 No		1 No
94	high	1	inactive road	2,278	No		2 No		2 No		1 No
95	light	2	inactive road	13,876	No		3 No		2 No		1 No
96	light	1	single track	540	No		3 No		2 No		1 No
97	light	4	single track	572	No		3 No		2 No		1 No
98	light	2	inactive road	2,153	No		3 No		2 No		1 No
99	light	4	single track	693	No		3 No		1 No		1 No
100	medium	1	single track	445	No		3 No		1 No		1 No
101	light	2	single track	3,347	No		3 No		2 No		1 No
102	medium	4	single track	1,450	No		4 No		1 Yes		1 No
103	medium	1	active road	4,214	No		4 No		1 Yes		1 No
104	N/A	4	proposed Single	8,768	No		2 Yes		1 No		1 Yes
105	high	1	active road	2,260	No		4 No		2 Yes		3 Yes

TABLE 5.2.4 - Trail Segments & Criteria (Continued)

WF Teanaway Community Forest - Trails Planning Process											
Segment Data						Criteria Evaluation					
Seg. #	Level of Use	Condition (Shovel Ready)	Segment Type	Segment Length	Private Property Reroute	Loop Opportunity	Offers "Uniqueness of WF Teanaway" experience	Riparian Area Impact	Connects to broader regional trail system	Wildlife impacts	Cultural Resources Assessment Complete
106	high	3	single track	1,630	No	4	No	1	Yes		3 Yes
107	medium	3	single track	1,967	No	4	No	1	Yes		3 Yes
108	N/A	4	Proposed Single	4,507	No	3	No	1	No		1 No
109	light	1	active road	9,683	No	3	yes	2	No		1 No
110	N/A	4	Proposed Single	3,010	No	2	No	1	No		1 No
111	high	2	active road	1,322	No	2	No	1	No		1 No
112	high	1	single track	608	Yes	2	No	1	No		1 No
113	N/A	4	Proposed Single	5,808	Yes	2	yes	1	No		1 No
114	high	3	single track	880	No	4	yes	1	No		1 No
115	high	1	single track	2,514	Yes	2	No	2	No		1 No
116	medium	1	active road	3,232	No	3	No	2	No		1 No
117	high	1	single track	2,339	No	2	No	3	No		2 No
118	N/A	4	Proposed Single	9,278	Yes	2	yes	2	No		1 No
119	N/A	4	Proposed Single	4,088	Yes	3	No	1	No		1 No
120		1	single track	2,127	Yes	3	No	3	No		2 No
121	high	1	single track	4,922	Yes	2	yes	1	No		1 No
122	high	1	double track	462	No	2	yes	1	No		1 No
123	medium	1	active road	9,400	No	2	No	2	No		1 No
124	high	1	active road	1,813	No	3	No	2	No		1 No
125	light	1	inactive road	1,179	No	3	No	2	No		1 No
126	N/A	4	proposed Single	4,467	Yes	3	No	3	No		2 No
127	light	1	active road	1,549	No	4	No	1	Yes		3 No
128	light	2	active road	1,920	No	4	No	1	Yes		3 No
129	light	2	inactive road	3,508	No	4	No	1	Yes		3 No
130	light	2	single track	305	No	4	No	1	Yes		3 No
131	light	2	inactive road	1,324	No	4	No	1	Yes		3 No
132	light	1	single track	708	Yes	3	No	1	No		1 No
133	N/A	4	proposed Single	1748	Yes	3	No	3	No		2 No
134	light	1	inactive road	4993	No	3	No	1	No		1 No
135	N/A	4	proposed Single	2034	No	3	No	2	No		1 No
136	light	1	inactive road	2520	No	3	No	1	No		1 No
137	N/A	4	proposed Single	2528	No	3	No	3	No		2 No
138	high	2	inactive road	347	No	3	No	3	No		2 No
139	medium	3	single track	1509	No	3	No	1	No		1 No

5.2.5 Criteria Weighting

One of the key determinations made in the evaluation process was how to measure each of the criteria against each other. This was an important step in determining the order in which projects should be implemented, as each project impacts recreation opportunities differently within the Teanaway Community Forest. Given the three categories of criteria, each of the criteria within a given category was matched with a *high*, *medium* or *low* valuation. Valuations were identified based on input by the coalition during the planning process.

Once given a high/medium/low rating, the criteria and its weighting category was translated into a numerical value. That was conducted through an algorithm designed to value both scaled and binary criteria at the same level, as well as taking into account the weighting of each of these criteria.

With regards to weighting, the "level of work" criteria indicates that segments requiring a low level of work (or 1, in numerical scores) means that a project is more feasible to complete. Thus, for the purposes of this analysis, **lower scores are considered to be higher priority.**

Criteria Weight	Multiplier
High	x1
Medium	x2
Low	x3

Using data from Table 5.2.4, an algorithm was created from binary and scaled criteria. The algorithm required adding up binary and scaled criteria scores.

Binary Total = (criteria 1 score * weighted multiplier) + (criteria 2 score * weighted multiplier) + (criteria 3 score * weighted multiplier) + (criteria 4 score * weighted multiplier)

Scaled Total = (criteria 1 score * weighted multiplier) + (criteria 2 score * weighted multiplier) + (criteria 3 score * weighted multiplier) + (criteria 4 score * weighted multiplier)

Segment Score = Binary Total + Scaled Total

5.2.5 - Final Quantitative Results

When tallied, each trail segment received a final segment score. The final results for each trail segment can be found below.

TABLE 5.2.5 - Final Quantitative Results

Seg. #	Scaled Weighted	Binary Weighted	Sum
121	10.00	16	26.00
92	11.00	16	27.00
113	13.00	16	29.00
88	11.00	20	31.00
118	15.00	16	31.00
1	12.00	20	32.00
2	12.00	20	32.00
104	13.00	20	33.00
112	10.00	24	34.00
52	7.00	28	35.00
55	7.00	28	35.00
85	7.00	28	35.00
115	12.00	24	36.00
58	9.00	28	37.00
76	13.00	24	37.00
77	13.00	24	37.00
78	13.00	24	37.00
86	9.00	28	37.00
90	13.00	24	37.00
91	13.00	24	37.00
132	13.00	24	37.00
3	10.00	28	38.00
9	10.00	28	38.00
19	10.00	28	38.00
30	10.00	28	38.00
48	10.00	28	38.00
51	10.00	28	38.00
122	10.00	28	38.00
4	11.00	28	39.00
29	12.00	28	40.00
93	12.00	28	40.00
105	20.00	20	40.00
106	20.00	20	40.00
107	20.00	20	40.00
119	16.00	24	40.00
11	13.00	28	41.00
79	18.00	24	42.00
120	18.00	24	42.00
20	7.00	36	43.00
21	15.00	28	43.00
28	7.00	36	43.00
31	7.00	36	43.00
53	7.00	36	43.00
54	7.00	36	43.00
56	7.00	36	43.00
57	7.00	36	43.00
59	7.00	36	43.00
64	7.00	36	43.00
109	15.00	28	43.00
61	8.00	36	44.00
62	8.00	36	44.00
103	16.00	28	44.00
60	9.00	36	45.00
87	9.00	36	45.00

Seg. #	Scaled Weighted	Binary Weighted	Sum
89	9.00	36	45.00
126	21.00	24	45.00
133	21.00	24	45.00
6	10.00	36	46.00
14	10.00	36	46.00
18	10.00	36	46.00
22	10.00	36	46.00
23	10.00	36	46.00
34	10.00	36	46.00
46	10.00	36	46.00
49	10.00	36	46.00
65	10.00	36	46.00
66	10.00	36	46.00
84	18.00	28	46.00
114	18.00	28	46.00
127	18.00	28	46.00
7	11.00	36	47.00
8	11.00	36	47.00
13	11.00	36	47.00
15	11.00	36	47.00
35	11.00	36	47.00
38	11.00	36	47.00
50	11.00	36	47.00
81	19.00	28	47.00
102	19.00	28	47.00
111	11.00	36	47.00
128	19.00	28	47.00
129	19.00	28	47.00
130	19.00	28	47.00
131	19.00	28	47.00
37	12.00	36	48.00
42	12.00	36	48.00
44	12.00	36	48.00
45	12.00	36	48.00
70	12.00	36	48.00
94	12.00	36	48.00
123	12.00	36	48.00
10	13.00	36	49.00
16	13.00	36	49.00
24	13.00	36	49.00
25	13.00	36	49.00
32	13.00	36	49.00
33	13.00	36	49.00
43	13.00	36	49.00
73	13.00	36	49.00
74	13.00	36	49.00
100	13.00	36	49.00
110	13.00	36	49.00
134	13.00	36	49.00
136	13.00	36	49.00
36	14.00	36	50.00
71	14.00	36	50.00
5	15.00	36	51.00
27	15.00	36	51.00



PHOTO BY STEPHANIE MARGHEIM

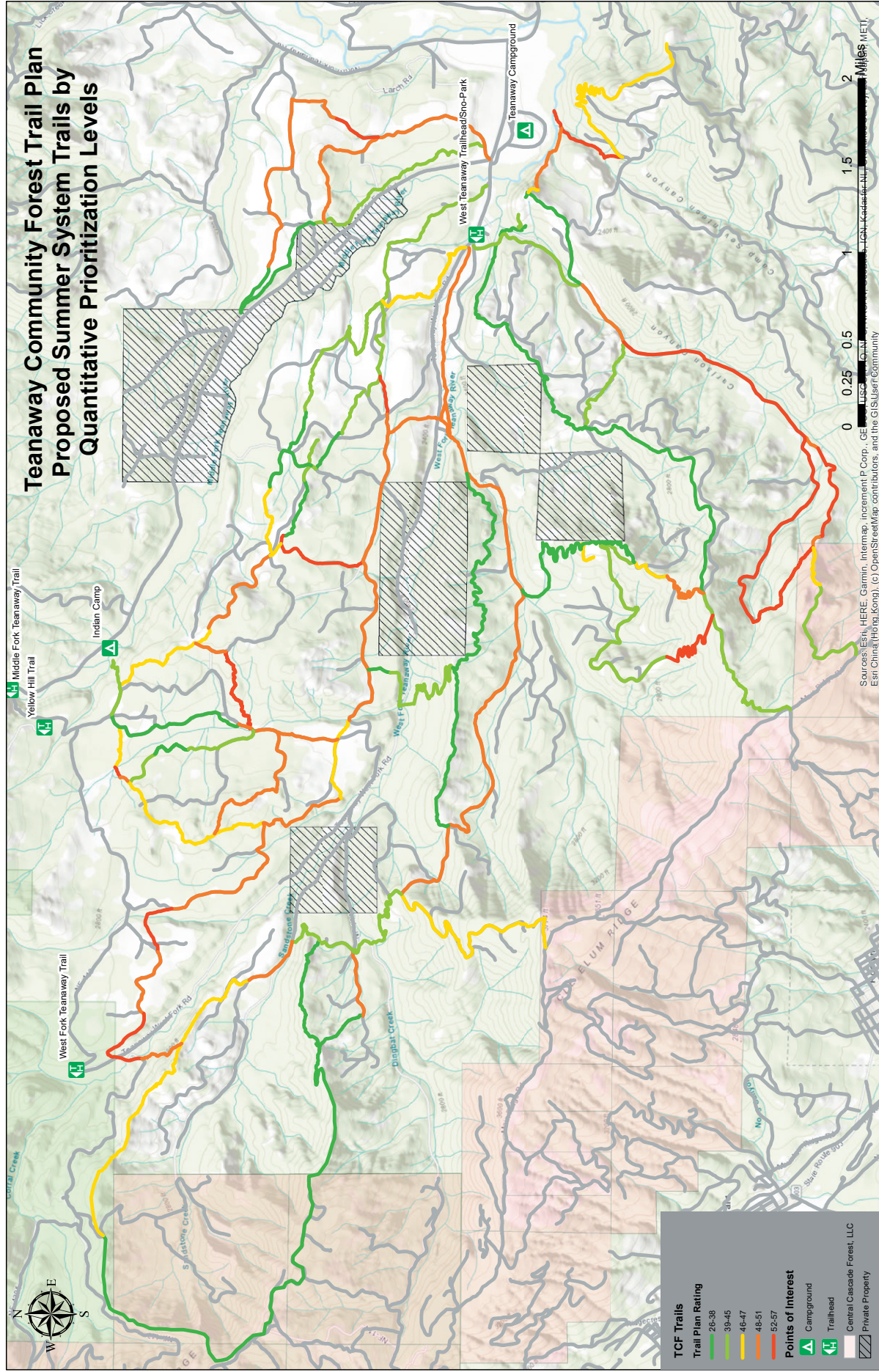
TABLE 5.2.5 - Final Quantitative Results (Continued)

Seg. #	Scaled Weighted	Binary Weighted	Sum
67	15.00	36	51.00
68	15.00	36	51.00
69	15.00	36	51.00
75	15.00	36	51.00
80	15.00	36	51.00
83	23.00	28	51.00
96	15.00	36	51.00
116	15.00	36	51.00
117	15.00	36	51.00
124	15.00	36	51.00
125	15.00	36	51.00
139	15.00	36	51.00
17	16.00	36	52.00

47	16.00	36	52.00
63	16.00	36	52.00
72	16.00	36	52.00
95	16.00	36	52.00
98	16.00	36	52.00
99	16.00	36	52.00
101	16.00	36	52.00
108	16.00	36	52.00
26	17.00	36	53.00
97	18.00	36	54.00
135	18.00	36	54.00
138	19.00	36	55.00
82	21.00	36	57.00
137	21.00	36	57.00

These results can also be mapped to the trail system to offer some guidance in proposing phases for this implementation. To turn this information into proposed phases, the data was divided into five “quantiles,” which distribute the segments into five factions based on their segment score. This data, combined with a qualitative analysis, forms the basis for the trails plan’s five phases.

MAP 5.2.5 - Quantitative Data Mapped into Five Prioritization Levels



5.2.6 - Qualitative Evaluation

Also included as part of the analysis is a qualitative approach to phased implementation. This consideration allowed for phases to be built that do not just meet the most goals of the planning process, but also offer feasible construction and maintenance schedules, as well as provide recreation opportunities for the public in a timely manner.

Consulting trail organizations and coalition members was necessary to develop a qualitatively-based phased implementation list. Input was gathered from organizations that would be responsible for trail construction, as well as from the Washington State Department of Natural Resources and Washington Department of Fish and Wildlife.

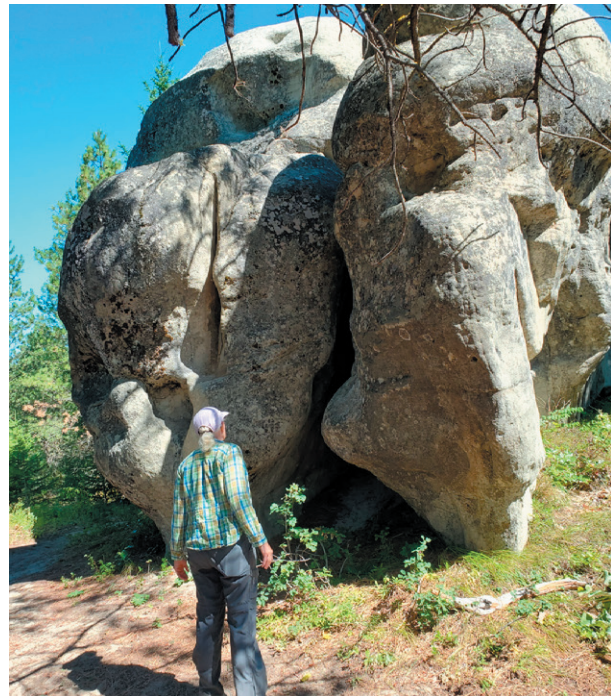


PHOTO BY EVA TYLER

5.5 Phases of Work

Section 5.5 outlines the proposed phases of implementation for the trails plan. Each phase has been designed to balance the criteria used in the quantitative evaluation as well as expertise drawn on in the qualitative forms of evaluation of the trails plan. The Phases Map details each of the five phases in a different color to differentiate between them.

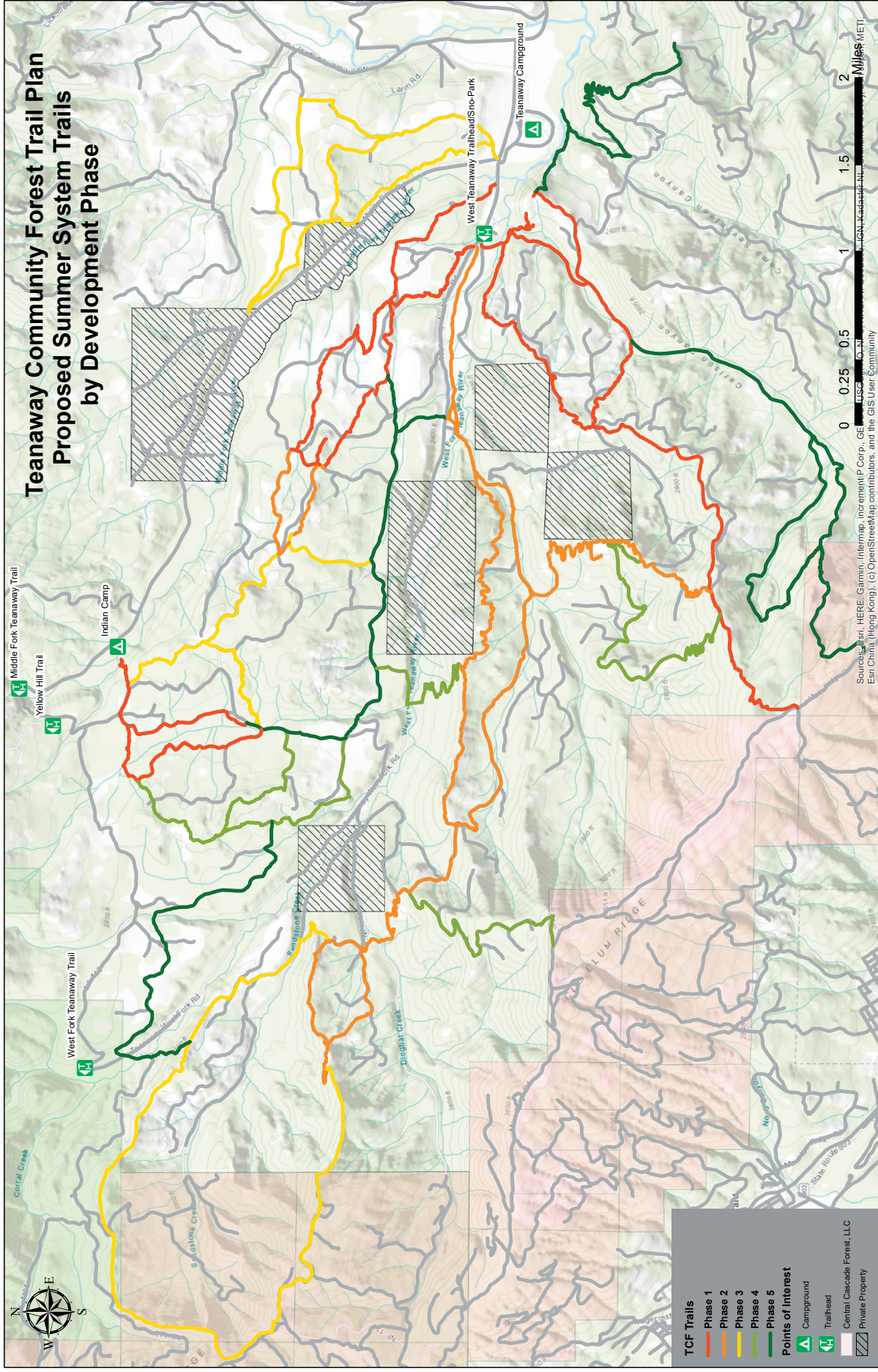
Section Phase 1:

Phase 1 prioritizes loop trails throughout the Teanaway Community Forest with an emphasis on the Cheese Rock, Frog Pond, Split Rock and Aspen Grove loops. These loop trails provide the most immediate impact for trail users by focusing on important loop systems and landmarks as defined by our trails coalition. Phase 1 also prioritizes a trail connection with the Towns to Teanaway trail system, which will allow trail users to access the community forest loop systems via the Big Sandy Ridge connector trail. This phase also includes minor reroutes around private property boundaries on the Split Rock loop.

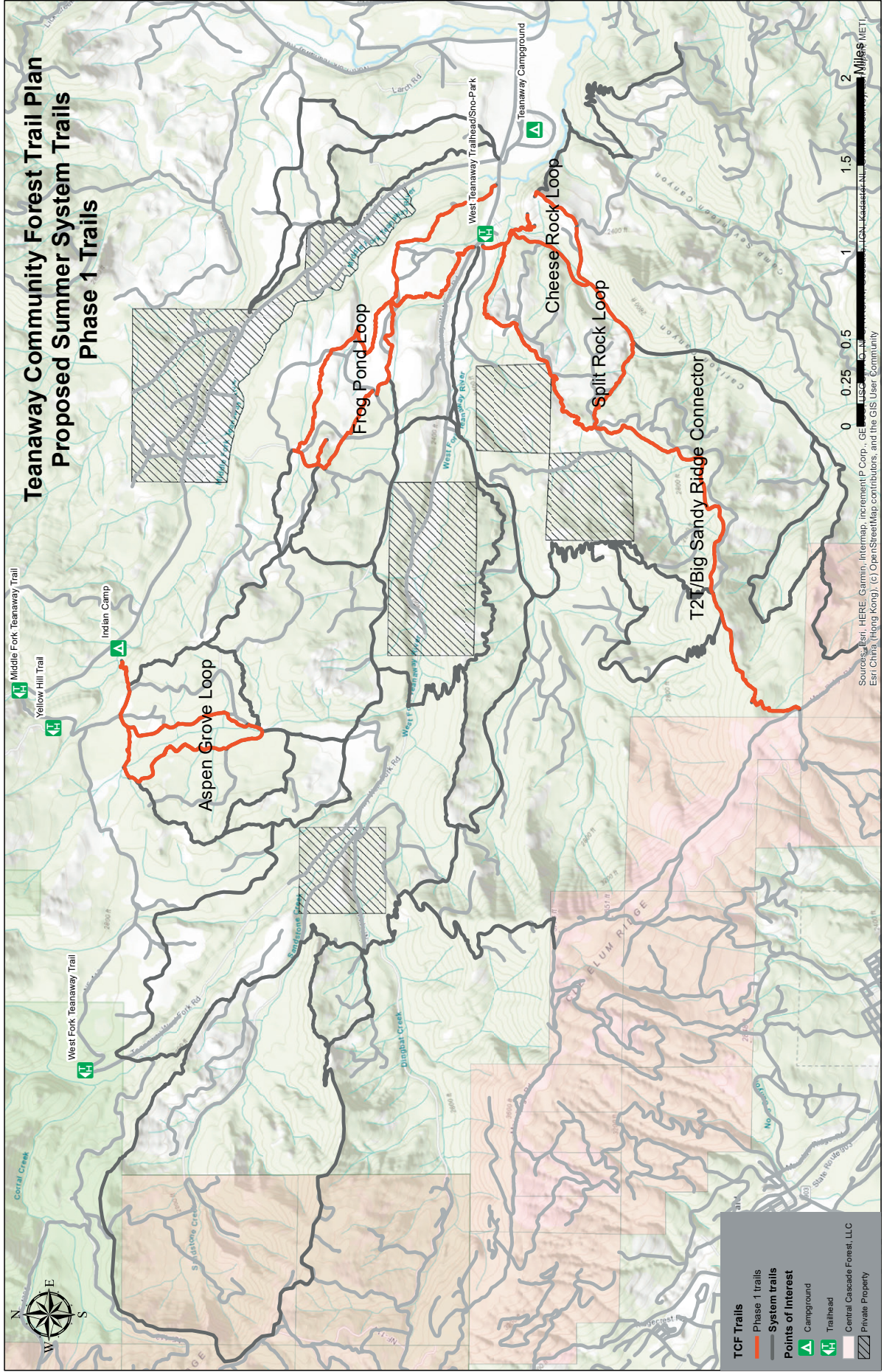
Phase 2:

Phase 2 continues to expand upon the loop systems throughout the TCF by beginning to improve the trails adjoining the Frog Pond and Aspen Grove loops, with a high priority to reroute trails off of existing private property boundaries throughout the forest. The largest reroute in phase 2 is the current River to Ridge and the Dingbat Creek trails. Phase 2 focuses on lengthening the loop systems by connecting the West Teanaway trailhead to the Dingbat Creek area through the current River to Ridge and Rabbit Gulch trails. Connecting these trails will allow access into the farthest reaches of the TCF near Coyote Rocks. Aligning with the trails coalition's priorities, Phase 2 conducts three substantial reroutes of existing trails off of private property.

MAP 5.5.1 - Quantitative and Qualitative Data Mapped into Five Implementation Phases



MAP 5.5.2 - Phase 1 Map



MAP 5.5.3 - Phase 2 Map

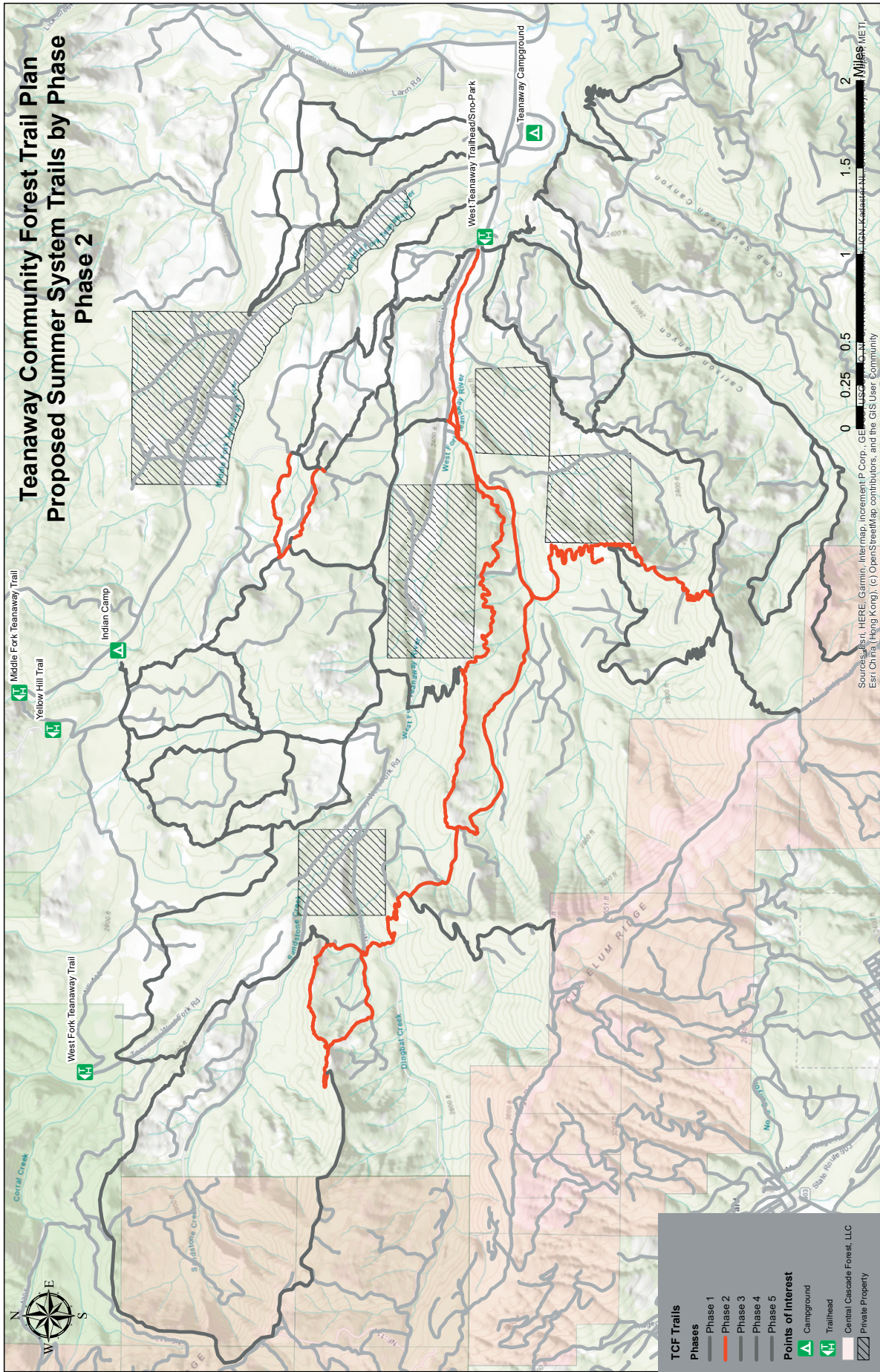




PHOTO BY CAROL MECHAM

Phase 3:

Phase 3 completes the largest loop in the TCF system, which ties together the Coyote Rocks loop to the Dingbat Creek and the West Fork Teanaway trails. This phase also prioritizes the final connections between the Frog Pond and Aspen Grove loop systems. These connections will allow users to connect multiple loop trails from either the West Teanaway trailhead or Indian Camp. Along with these loop connections, Phase 3 includes the reworking of trails and defining of a loop system of trails just to the north of Teanaway Camp. This loop is meant to provide a short, easily accessible and enjoyable hiking, biking and equestrian experience for people staying at Teanaway Camp.

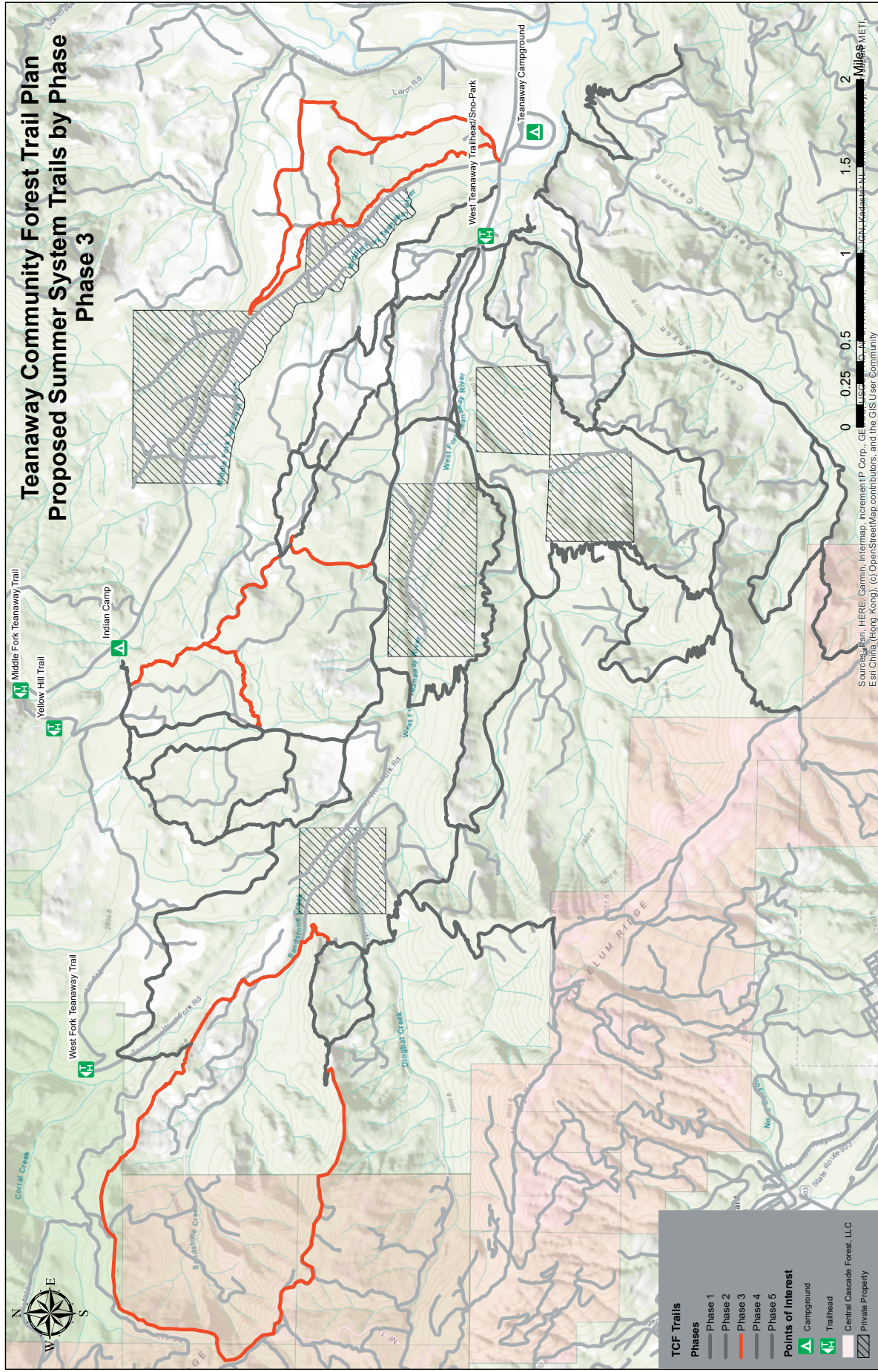
Phase 4:

Phase 4 connects the northern and southern portions of the TCF with the Towns to Teanaway trail system and with the Yellow Hill Trail and Indian Camp Campground. These trails provide access north and south by way of the Mushroom Rock trails, a more Western connection to the Towns to Teanaway trails along Cle Elum Ridge. Trail improvements to the west of the Aspen Grove loop system will also occur. The connections to the west of the Aspen Grove will also connect to our Phase 5 priorities, which focus on the final east-west connections within the TCF.

Phase 5:

Phase 5 emphasizes our final north-south connection with Cle Elum Ridge and Towns to Teanaway by way of Carlson Canyon. Phase 5 also includes the final pieces of our east-west connection between the West Fork Teanaway trail and the West Teanaway trailhead. While Phase 5 continues to solidify the north-south and east-west connections, it also finalizes new trail construction to reroute the existing Bible Rock trail off of the road and to provide a more enjoyable hiking experience to one of the most popular landmarks in the area.

MAP 5.5.4 - Phase 3 Map



MAP 5.5.6 - Phase 5 Map

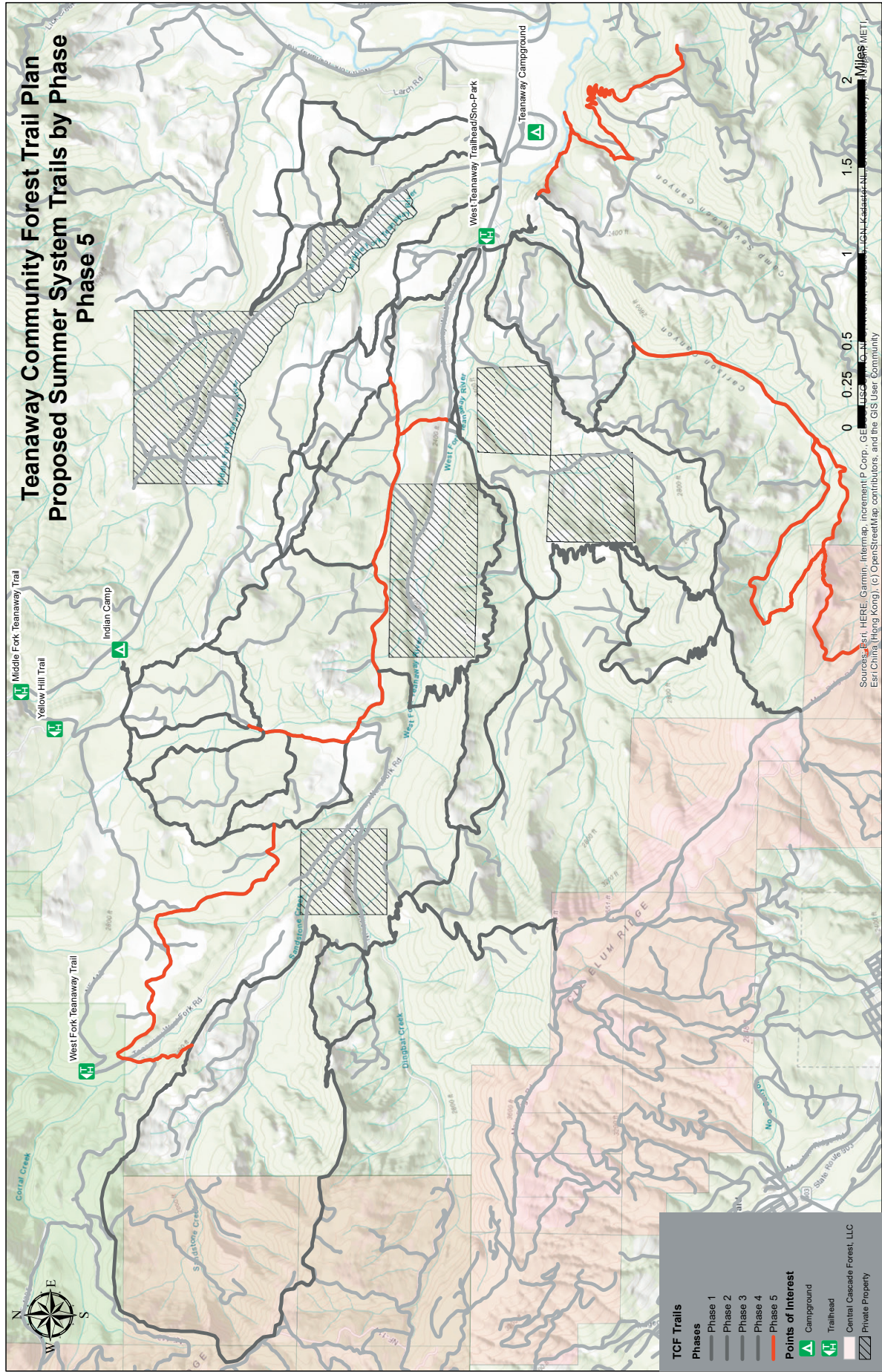




PHOTO BY RACHEL WENDLING

5.6 Trail Management and Stewardship

Section 5.6 outlines the proposed management objectives for the West Fork Teanaway Trails Plan and equitable division of labor for the West Fork Teanaway Trails Coalition and other interested parties to steward the development of trails.

5.6.1 Trail Management Objectives

Trail Management Objectives (TMOs) are essential building blocks for trail management. They explain the management intention for the trail, and provide basic reference information for future trail planning, management and maintenance.

Effectively managing a trail and determining what is necessary to meet standards first requires answering some basic questions:

- What is the purpose of the trail (Where does it go)?
- What is the intended level of development for the trail (Trail class)?
- What is the intended type or types of uses for the trail (Managed use)?

DNR will manage the West Fork Teanaway trail system to meet the TMOs identified for each trail based on the from the West Fork Teanaway Trails Plan. Such direction includes travel management decisions, trail-specific decisions, and other related directions which will be based on management priorities and available resources.

TMOs are not static documents. They reflect the management intent and special considerations that are important for effective management of trails. DNR can update TMOs if the management intent for the trail, special considerations or other factors change. Changes can be created through adaptive management strategy and based on patterns of public use and safety concerns. TMO's can be reviewed with the Teanaway Community Forest Advisory Committee, along with the West Fork Teanaway Trails Coalition and revisited if public use changes over time.

5.6.2 Trail Stewardship

The West Fork Teanaway Trails Coalition and other agency partners are made up of multiple nonmotorized interests. These partners will need a clear pathway to take on developing sections of trail, and/or trails in their entirety.

Before the development of the West Fork Teanaway trail system, members of the trails coalition, along with DNR, will discuss with potential partners where development opportunities exist. Through on-going meetings at regular intervals, DNR and the trails coalition, can determine which trails are appropriate for each partner.

After initial trail/trail segments are agreed upon, each partner wishing to develop a trail/trail segment must enter into a cooperative agreement with DNR to create a clear and concise direction. The agreement will insure agency partners and/or trail development partners have an agreed upon strategy. Cooperative agreements will contain language describing the work to be performed, tools/materials used, timelines and maps. Maps will show locations of trail features such as switch backs, turnpikes and retaining walls, etc.

Upon successful completion of a cooperative agreement, the project partner can apply for an “adopt-a-trail” agreement. The adopt-a-trail agreement will be an on-going maintenance agreement between DNR and partner groups and will outline maintenance needs with proposed volunteer hours over a biennium.

DNR will provide “adopt-a-trail” signage which will contain the partner groups emblem/logo and indicate their dedication to the trail and partnership with DNR. The signage can be placed on nearby kiosks or adjacent to the trail depending on sign plan and aesthetics.

5.7 Trail Naming Conventions

DNR follows internal policy regarding naming conventions, which states that names must be reviewed. Trail names must be historic, natural (plants, animals, geology), or regionally significant. Trail names will not be considered that are based on names of people (unless historic and appropriate) or otherwise deemed inappropriate by the West Fork Trails Coalition, Teanaway Community Forest Advisory Committee or DNR.

DNR is aware that many of the existing segments of trail have names used by varying user groups. This trails plan aims to consolidate names in order to create an agreed upon system that will be logical and functional for new users, existing users and emergency services.

In order to keep trail naming fair and equitable, the trails will be named by volunteers who spend at least one day volunteering on the trail. Before the trail work is completed, a survey will be sent out to those volunteers to solicit trail names. The top three names will be submitted to the partner organization that is managing the cooperative agreement for that trail or trails. That name will be reviewed by the West Fork Teanaway Trails Coalition, Teanaway Community Forest Advisory Committee, and then approved by DNR management.

6. Closing



PHOTO BY STEPHANIE MARGHEIM

The Teanaway Community Forest West Fork Trails Plan was developed collaboratively through a planning process that brought together recreationists, landowners, interest groups, public citizens, nonprofit organizations, Yakama Nation Fisheries and staff from the Washington State Department of Natural Resources, Washington State Parks and Recreation Commission, and Washington Department of Fish and Wildlife.

While the West Fork Trails Plan creates a comprehensive plan for the future of authorized recreation and public access within the planning area, this plan should be viewed as a dynamic plan – one that will ebb and flow with available funding, staffing and workforce. Adaptive management will be necessary to see this plan through the five implementation phases.

Community participation and stewardship of the West Fork trail system is critical to the success of this plan. A trails plan is only as good as the people who commit their time and effort to see it through to completion – it will take all of us to put this plan into reality. Building and maintaining trails is an ongoing process and one where volunteers are often the heart and soul of the process. Magical “trail gnomes” who work on trails when no one is around sadly do not exist (yet). Therefore we must roll up our sleeves and get to work.

See you out on a West Fork trail!

Organizations that you can volunteer to build and maintain trails with:

- [Back Country Horsemen of Washington](#)
- [Evergreen Mountain Bike Alliance](#)
- [Mountains to Sound Greenway Trust](#)
- [Washington Trails Association](#)

7. Appendices

Appendix A: DNR Recreational Trails Policy

POLICY MANUAL

Department of Natural Resources

Date: November 24, 2015

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PO11-004 RECREATIONAL TRAILS POLICY

DISCUSSION

The Washington State Department of Natural Resources (DNR) manages 5.6 million acres of state-owned forest, range, aquatic, agricultural, conservation, and commercial lands for the people of Washington. Approximately 3 million acres are trust lands that generate more than \$200 million each year in non-tax revenue through income-producing activities such as timber harvest, commercial properties, and agricultural and communications site leases. The revenue provides support for trust beneficiaries such as public schools, state institutions, and county services.

Recreation on DNR-managed lands primarily happens in the 2.2 million acres of forested trust lands, with additional opportunities within DNR-managed natural areas and community forest trust lands. There are more than 1,100 miles of designated recreational trails on DNR-managed lands that provide opportunities including hiking, off-road vehicle riding, biking, horseback riding and pack stock use, and winter uses such as snowmobiling, cross-country skiing, and snowshoeing. Not every recreation type is allowed on every recreational trail, and some recreational trails provide specialized experiences for specific recreation types.

Millions of people visit DNR-managed lands every year in search of enjoyable recreational experiences. Recreational trails are an integral part of connecting people to the land and provide many health, social, and economic benefits to the communities of Washington. Managing and developing recreational trails on DNR-managed lands must be consistent with the mission, goals, plans, policies, rules, and regulations of the department as well as surrounding communities, counties, and the state.

Recreational Trails on Forested Trust Lands: The Multiple Use concept (RCW 79.10) directs and allows DNR to provide recreational trail opportunities on trust lands when compatible with the basic activities necessary to fulfill the financial obligations of trust management.

Recreational Trails in Natural Areas: The DNR Natural Areas Program protects outstanding examples of the state's extraordinary diversity. The program manages two types of conservation lands, natural resources conservation areas (NRCAs) and natural area preserves (NAPs). The program manages more than 92 sites statewide, for a total of more than 152,000 acres. The majority of recreational trails in natural areas are in NRCAs where they provide opportunities for "low-impact public use" (RCW 79.71.030). Recreational

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PO11-004 RECREATIONAL TRAILS POLICY

trail development and management in natural areas must be consistent with conservation and protection responsibilities and site-based management plans.

Recreational Trails in Community Forests: Community forest trust lands are a discrete category of natural resource lands in a nonfiduciary community forest land trust (RCW 79.155). Recreational trail development and management on community forest trust lands must be consistent with the community working forest management plan and any other plan developed for that forest.

DNR strives to enforce applicable rules and regulations while providing enjoyable, safe, and sustainable recreation opportunities. Education, security, and enforcement on DNR-managed trails is a combined effort from DNR's Natural Resource Police, commissioned Recreation Wardens, recreation program staff, and partner agencies, with additional support from volunteers, recreation groups, and local communities.

DNR is fortunate to have a large constituency who is willing to volunteer time and resources to common goals on state lands including recreational trail maintenance and development projects. Volunteers play a vital role in preserving and expanding recreational trails, and DNR works to consider and incorporate ideas from volunteers, and other members of the public and local communities in recreational trail projects.

Recreation Program Vision

Provide diverse and high quality recreational opportunities on DNR landscapes that foster community engagement, promote a strong sense of environmental stewardship, and enrich the quality of life in Washington.

Goals for Managing Statewide Recreation

- Promote the safety of the public, DNR employees, and volunteers
- Support enjoyable recreation that is compatible with land management responsibilities
- Work in collaboration with volunteers and interested stakeholders to provide engaging recreational opportunities
- Manage healthy natural landscapes and working forests that can sustain recreation for current and future generations

Definitions

Primary Management Objective (PMO) - the principal recreation type(s) for which an area or facility is designed and managed. A Primary Management Objective does not necessarily mean that other recreation types are excluded.

PO11-004 RECREATIONAL TRAILS POLICY

Allowed/Secondary Use(s) - recreation types allowed in an area/facility or on a recreational trail, but are not necessarily designed or managed for that recreation type.

Trail Management Objective (TMO) - a description of the planned purpose and management for a specific recreational trail or trail system based on management direction and access objectives.

Recreation Suitability Assessment – a process that involves scientists, planners, GIS analysts, and land managers who identify and map biological, geological/soils, and management criteria within a defined area. The purpose of the assessment is to identify locations within the mapped area that have low or moderate suitability for specific recreational types. Recreation suitability assessments tend to be broad scale, for an area or landscape.

Site-Specific Suitability Evaluation – is used when evaluating an area for new recreational trail development or assessing existing trails. This site-specific inspection looks at many factors including, but not limited to, drainage, slope degree and stability, the presence of critical areas, vegetation type and location, soil types, presence of viewpoints, potential for accessibility, consideration of endangered species, and compatibility with management responsibilities.

Trail Standards and Best Practices - are used and developed to guide trail location, design, construction, maintenance, inventory, condition assessment, and the assembly of trail construction packages.

Policy - sets forth the basic operating philosophy of the department. A policy is intended to provide general and broad direction upon which decisions can be based. It clarifies what otherwise might be confusing situations by providing direction, setting standards, explaining authorities, setting priorities, limiting options, and the like, for department personnel.

Trail – a physically established route, other than a road, that is suitable for travel by motorized or non-motorized means.

Designated trail – a recreational trail, on DNR-managed lands, that is recognized and managed by the department as part of a formal recreational trail system.

Nondesignated trail – a trail on DNR-managed lands that is not recognized by the department as part of a formal recreational trail system

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Adaptive management – for recreational trail management and development provides for ongoing modifications of practices in order to respond to new information, changes in site-specific circumstances or the regulatory environment, innovative technological developments, or evolving recreation patterns.

Recreational Trails Policy Objective

To guide the statewide management and development of recreational trails on DNR-managed lands.

This policy establishes a consistent set of practices for managing and developing recreational trails on DNR-managed lands that are compatible with land management responsibilities. These practices also provide flexibility to accommodate different natural settings, land-management objectives, resources, local values, and public and volunteer input.

Recreational Trails Policy Goals

- Offer recreational trail opportunities that cause the least impact to the land in accordance with the Primary Management Objective for the area, and provide protection for water quality, and natural, environmental, and cultural resources.
- Expand designated recreational trail experiences that DNR and its volunteers can support across the state.
- Maintain the lowest trail construction and maintenance costs reasonable, based on site-specific information, Primary Management Objectives, and Trail Management Objectives.

POLICY**Recreational Trails and Recreation Planning**

DNR will use recreation planning in the development of new recreational trails.

Recreation planning may range in scope from in-depth, multi-year processes for large landscapes to smaller scale, site-specific efforts.

Recreation planning is a process DNR uses to evaluate recreational use and public access in a defined area. Recreation planning considers, but is not limited to:

- Previous planning efforts on the landscape
- Land management obligations
- Environmental responsibilities

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- Adjacent landowners and land uses
- Local values
- Input from interested recreationists and the public
- Safe and sustainable recreational opportunities

Topics may include, but is not limited to:

- Recreational trail suitability assessments
- Identifying areas for new recreational trails/trail systems
- Developing recreational Primary Management Objectives and secondary/allowed uses
- Identifying nondesignated trails for future evaluation and potential adoption or decommissioning
- Incorporating new recreational trail types into an area

Establishing Primary Management Objectives

DNR will use Primary Management Objectives to indicate the principle recreation type(s) for which a designated recreation area is managed.

Primary Management Objectives may be used in conjunction with allowed/secondary uses to identify all allowable recreation types for which a designated recreation area is managed, as well as identify any prohibited recreation types.

Establishing Trail Management Objectives

DNR will establish Trail Management Objectives for new recreational trails that define the planned purpose and recreational trail experience.

Trail Management Objectives must be consistent with any Primary Management Objectives and/or allowed/secondary uses developed for the area.

Trail Management Objectives reflect the management intent and any special considerations that are important for the development and management of the recreational trail. The following are examples of the types of trail experience considerations that may be addressed by Trail Management Objectives:

- Trail hierarchy and designations; including primary and secondary recreation types
- Shared use vs. Single use
- Two-way vs. One-way trails
- Trail design parameters

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- Level of expected use
- Level of challenge provided/difficulty rating
- Prohibited recreation types
- Less common recreation types

Recreational Trail Standards and Best Practices

DNR should use trail standards developed by the United States Forest Service as primary guidelines for trail design, construction, and maintenance.

The department may adopt trail construction guidelines, standards, best practices, and documents from other agencies and organizations, when appropriate, as additional primary guidelines.

DNR will develop its own trail standards or best practices when primary guidelines are deemed insufficient or inapplicable.

Recreational Trail Development and Evaluation Criteria

DNR will apply Recreational Trail Development and Evaluation Criteria when assessing an area for new recreational trails or when evaluating existing trails.

DNR will maintain a list of Recreational Trail Development and Evaluation Criteria and update the list as needed.

Recreational Trail Development and Evaluation Criteria are in the Appendix of this policy.

Nondesignated Trails

DNR does not allow trail construction without prior approval.

DNR may remove, reroute, or block access to nondesignated trails at any time, without notification.

DNR may evaluate nondesignated trails as staff and financial resources are available.

WAC 332-52-405 states that it is a misdemeanor to construct, modify, repair, or maintain a trail on DNR-managed lands without written authorization from the department. DNR may enforce prevention of illegal trail building through Law Enforcement, staff assistance, cameras and other technology, maps, signage, volunteers, and public support.

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Nondesignated trails that are compliant and consistent with the department recreational trail standards and best practices and meet the applicable Recreational Trail Development and Evaluation Criteria may be incorporated into the recreational trail system. Trails that are determined to be inconsistent with department recreational trail standards and best practices or do not meet applicable Recreational Trail Development and Evaluation Criteria may be decommissioned, abandoned, and restored to a close approximation of the natural condition prior to the disturbance.

Community Engagement and Public Outreach

DNR will work collaboratively with local communities, interested recreation groups, organized DNR advisory and focus groups, stakeholders, and as appropriate, adjacent landowners, about the development and management of designated recreational trails the evaluation of existing trails.

DNR recognizes the importance of notifying and communicating with the public, volunteers, and recreationists regarding management actions that affect recreational trails, such as seasonal trail closures, organized trail-based events, and forest management actions.

Advance notification can include, but is not limited to, web page updates, signage, email notices, direct communication, advisory and focus group meetings, and e-newsletters.

Working with Recreation Volunteers

DNR will coordinate with volunteer groups and individuals on recreational trail development and maintenance projects.

DNR's volunteer program will maintain a manual that provides guidance for the successful implementation and management of volunteer recreational trail projects.

DNR will enter into a hold-harmless agreement with all volunteers coordinating with the department under this policy or entering into other agreements that limit the department's liability.

When appropriate and within the resources of the department, DNR may enter into cooperative agreements with recreational groups to support recreational trail maintenance and development goals consistent with this policy.

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Obtaining Local Government Permits

DNR staff will work in partnership with representatives of local governments to find efficiencies in gaining local government permits for the development and maintenance of recreational facilities and trails. If barriers to permitting efficiencies require legislative action to overcome, the department will provide options for solutions to the appropriate legislative committee.

Statewide Sign Standards and Guidelines

Recreational trail signage will comply with DNR's Statewide Sign Standards and Guidelines manual.

Standards and guidelines are intended to provide clear, concise delivery of understandable and consistent messages across landscapes. In addition, signs on DNR-managed lands should foster safety of visitors, provide direction and guidance for the use of recreation lands and facilities, inform and educate the public, and provide a positive DNR recreation image and identity for the agency.

DNR may modify and/or make updates to the Statewide Sign Standards and Guidelines when necessary to meet new signage needs and uphold the intent of the standards and guidelines. Modifications and updates will be coordinated between the Division Recreation Program and the regional recreation management and staff.

Organized Trail-Based Events

DNR may allow organized trail-based events on recreational trails and trail systems.

Organized trail-based events must be compatible with any PMOs, TMOs, or allowed uses for the area, environmental and fire protections, forest management activities, WAC 332-52-205 requirements, and applicable program guidance or procedures.

Forest Management Activities and Recreational Trails

DNR recreation and natural area staff will work with DNR land managers to look for opportunities to minimize potential impacts on designated recreational trails resulting from forest management activities.

Forest management activities may include, but are not limited to, timber harvest or thinning, road construction, road abandonment, chemical applications, and stand management. Efforts may include using language in contracts and/or easements to provide access and mitigate impacts, providing temporary signage regarding forest management

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activities (e.g., active logging, chemical applications, detours, trail closure, etc.), and restoring or re-routing portions of designated recreational trails.

Recreational Trail Conflict Resolution

DNR will work with the public and volunteers to address conflicts on recreational trail management and development issues.

Local recreational trail or natural area managers will be the initial point of contact with the public and volunteers.

If the local recreational trail or natural area manager is unable to resolve the conflict, it will be elevated to area supervisors. Decision making authority is delegated to the Region Manager for the area. Unresolved issues may elevate to the Commissioner of Public Lands.

Additional Guidance

Recreational trail management and development under this policy will be consistent with RCWs, WACs, other relevant local, state, and federal laws, regulations, and ordinances, DNR policies, procedures, plans, trail standards, best practices, guidelines, or any that DNR may develop.

IMPLEMENTATION

Region Managers have decision-making authority, subject to the Commissioner's Delegation Order, and are responsible for implementation of this policy within their region. Responsibilities of Region Managers or their designees include:

- Management of recreational trails
- Development of new recreational trails
- Evaluation conclusions about existing trails, and adoption or removal of trails; in consultation with their staff and with Conservation, Recreation, and Transactions Division staff, relative to natural areas and state lands
- Approving recreational trail standards and best practices, in cooperation with the Assistant Division Manager for Recreation and the Assistant Division Manager for Natural Areas
- Securing all required permits
- Approval and administration of organized trail-based events
- Resolving conflict around recreational trail management and development decisions

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- Coordinating among land managers, recreation staff, and natural areas staff regarding impacts to recreational trails from forest management activities
- Ensuring trail management and development decisions are communicated effectively and transparently to affected parties

The Assistant Division Manager for Recreation has decision-making authority and responsibility for implementation of this policy that pertains to responsibilities within the Division role. Responsibilities of the Assistant Division Manager for Recreation or designee include:

- Approval of modifications or updates to the Statewide Sign Standards and Guidelines
- Developing and/or approving recreational trail standards and best practices, in cooperation with the Assistant Division Manager for Natural Areas and the Region Managers
- Ensuring trail standards and best practices are being followed consistently statewide
- Overseeing the development of policies, procedures, and program guidance

The Assistant Division Manager for Natural Areas has decision-making authority and responsibility for implementation of this policy that pertains to responsibilities within the Division role. The responsibility of the Natural Heritage Conservation Section Manager or designee includes:

- Approving recreational trail standards and best practices, in cooperation with the Statewide Recreation Program Manager and Region Managers

DNR's adaptive management approach to recreational trail development and management will involve the Region Managers, the Assistant Division Manager for Recreation, and the Assistant Division Manager for Natural Areas, or their designees.

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Policy Director**SEE ALSO**

PO06-003 Volunteer Program

PO10-002 Public Use on DNR-Managed Trust Lands

PO11-002 Recreation Enforcement

PO11-003 OPDMD Use-Department Managed Recreation Facilities and trails

PO13-002 Natural Area Preserves Public Access

Chapter 4.24.200-210 RCW (Recreational Immunity)

Chapter 43.30 RCW (Department of Natural Resources)

Chapter 79.02 RCW (Public Land Management)

Chapter 79.10 RCW (Land Management Authorities and Policies)

Chapter 79.70 RCW (Natural Area Preserves)

Chapter 79.71 RCW (Natural Resources Conservation Areas)

Chapter 79.155 RCW (Community Forest Trusts)

Chapter 197-11 WAC (SEPA Rules)

Chapter 332-52 WAC (Public Access and Recreation)

DNR's Statewide Sign Standards and Guidelines Manual

Trust Lands Final Habitat Conservation Plan, Washington State Department of Natural Resources, September 1997

Policy for Sustainable Forests, Washington State Department of Natural Resources, December 2006

APPENDIX

RECREATIONAL TRAIL DEVELOPMENT AND EVALUATION CRITERIA

The following factors will be considered, as applicable, when evaluating an area for a new recreational trail or trail system, and when evaluating existing designated or nondesignated trails (listed in no particular order):

- Identification as a priority action in a recreation planning process
- Consistency with any statewide strategic or management plan
- Cost and benefit to the trust
- The results of a site-specific suitability evaluation for specific recreation types
- Carrying capacity of the land based on land type, recreational uses, quantity and intensity of recreational use, and anticipated future pressures.
- The trail's potential impact on the environment, natural resources, and water quality, including the risk of invasive species spread
- Consistency with the Primary Management Objective for the area
- Adjacent landowner use and land management practices
- The reasonable availability of financial, staff, and volunteer resources for planning, development, and sustainable, long-term management and stewardship.
- The physical condition of the area in a landscape context
- Cost effectiveness (balance of development and long-term maintenance needs and costs)
- Availability of appropriately sourced materials
- Compatibility with nearby recreation types, patterns, and intensities of recreational visits
- Compatibility with land management responsibilities and protections
- Potential for safety hazards
- Proximity to developed facilities, recreational trails, and trail systems
- Legal access
- Need for permits and additional infrastructure/development
- Consistency with the Habitat Conservation Plan objectives, components, and strategies including consideration for threatened and/or endangered species habitat
- Sensitivity to cultural, archeological, and/or historical resources
- Historical use of area
- Location
- Community needs being met
- Recreational group, public, and volunteer input
- Potential liability from off-site access points
- Potential for encouraging future illegal trail building
- Potential for enabling or increasing theft, vandalism, garbage dumping, and other illegal activities
- Suitability of existing trails as constructed
- Capacity for rerouting, realigning, or readjusting trail sections or features to meet the standards when the rest of the trail meets standards
- Other management considerations, as needed

Appendix B: Trails Assessment

TABLE 1 –DNR Trail Survey attributes

Segment length	
Year built	
Erosion rating	H,M,L (from soil survey)
Slope class	<5, 5-10, >10
Configuration	(I)nslope, (O)utslope
Surface	Asphalt, Gravel, Native, Pit Run with modifier (r)ruts and (s)grass
Average tread width	
Traffic use	Level of use, based in part on user type
Cover density	Average percent of the cutslope area that is covered with vegetation, rock, leaf litter, or other non-erodible material
Average height of cutslope	Average height of cutslope (slope length)
Delivery of sediment to stream	0-none, 1-direct to stream, 2-100 feet, 3-200 feet, 4 direct via gully
Condition	r-rock/veg, s-stable, e-eroding

TABLE 2 –Trailforks attributes

Length	
Elevation change	Vertical ascent and vertical descent
Grade	Avg/max/min
Difficulty	Easy, Intermediate, Difficult, Double track/access
Trail type	Single track, double track
Trail usage	Hike, bike, horse, multiuse etc
Direction	One way, Bi-directional
Local popularity	0 to 100