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U.S. DEPARTMENT OF AGRICULTURE

April 2025

GIFFORD PINCHOT NATIONAL FOREST

SUSTAINABLE TRAIL SYSTEM STRATEGIC PLAN

[Front Cover]
Mount St. Helens trail, Gifford Pinchot National Forest. (TransCascadia photo)

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CONTENTS

FIGURES

THANK YOU PARTNERS

Partners training and working together. (TransCascadia photo)

This Sustainable Trail System Plan was informed by partners and written by staff from the Forest Service Field Services and Innovation Center's Enterprise Program and the Gifford Pinchot. While the responsibility of trail system management and creation of this plan rests with the Gifford Pinchot National Forest, implementation will require the collective capacity of partners and passionate citizens in Southwest Washington.

Special thanks goes to our partners who were instrumental in developing this plan:

- Access for All
- Backcountry Horsemen of Washington
- Evergreen Mountain Bike Alliance
- Northwest Motorcycle Association
- Trans-Cascadia
- Washington Trails Association
- Volunteers of Lewis Trails

These partners have been meeting monthly as a steering group since November 2021. The mission of the steering group was to help develop this forest-wide sustainable trail system strategy by: 1) identifying and prioritizing strategic focal areas; 2) developing a shared understanding of current conditions, opportunities, and challenges; 3) describing what a modern sustainable trail system on the forest would look like; 4) developing recommendations to achieve a modern and sustainable trail system, including trail maintenance and stewardship that aligns with the national trail strategy; and 5) engaging with interested parties to bring diverse perspectives to the planning process.

The core steering group was primarily composed of active trail-focused partners who volunteered to participate. Strategies and actions outlined here point to future engagement with a broader set of voices, such as Tribal members, counties, other agencies, businesses, and communities.

Mount St. Helens trail, Gifford Pinchot National Forest. (TransCascadia photo)

VISION

Well-located and well-cared for trails are a vital way for visitors and communities to reach and explore public lands and enjoy the health, wellness, and economic benefits of outdoor recreation (USFS National Strategy for a Sustainable Trail System 2017).

The Gifford Pinchot uses principles and goals outlined in the U.S. Forest Service's National Strategy for a Sustainable Trail System to achieve a shared stewardship model in providing and managing a sustainable trail system. This means shifting from a model of the Forest Service attempting to "do it all" to a model where the Forest Service, trail users, and interested parties form a community of stewards who support and benefit from trails (USFS National Strategy for a Sustainable Trail System 2017).

SUSTAINABLE TRAIL SYSTEM

A sustainable trail system is a network of physical and social resources resulting in on-the-ground routes and associated health and economic benefits to communities.

It is a resilient system consisting of an array of well-planned, well-designed, well-constructed, and well-managed trails that are supported by a mosaic of public and private interests. The system inspires stewardship and invites people of all ages and abilities—and from all backgrounds—to enjoy trails and use them to connect with their public lands while protecting and conserving natural and cultural resources (USFS National Strategy for a Sustainable Trail System 2017).

▼ Hliking trail in Gifford Pinchot National Forest.

PURPOSE OF THE STRATEGIC PLAN

This plan proposes strategies to improve how new trails are identified and existing trails are maintained. It also addresses barriers to accessing public lands, while promoting collaboration with communities, partners and interested members of the public. Additionally, it highlights opportunities to connect trail systems with communities, recognizing trails' contributions to health, local economies, and businesses. This strategic plan is not a formal decision document–it offers guidance for the next 5 to 10 years and can be updated as needed.

Any potential actions or projects stemming from this strategy must be consistent with the current forest and national volcanic monument plans. Furthermore, any potentially ground-disturbing actions would undergo the appropriate level of environmental impact analysis as required by the National Environmental Policy Act.

ABOUT THE GIFFORD PINCHOT NATIONAL FOREST

The Gifford Pinchot National Forest includes more than 1.3 million acres of forest, wildlife habitat, watersheds, and mountains (figure 1). The popularity of the Gifford Pinchot National Forest has increased steadily in recent years, driven in part by its proximity to several large urban areas and fire-related closures on neighboring public lands. In 2021, the Gifford Pinchot had more than 1,286,000 site visits, with an estimated 54 percent of surveyed visitors reporting use of the trail system (Forest Service National Visitor Use Monitoring Survey 2021).

About 1,226 miles of trails cross the forest. This does not include snow or water trails. The Gifford Pinchot has seven federally designated wilderness areas. The forest comprises three units: the Cowlitz Valley Ranger District, Mount Adams Ranger District, and Mount St. Helens National Volcanic Monument and Ranger District.

▲ Figure 1. Map of where the Gifford Pinchot National Forest is in the state of Washington, relative to other national forest units.

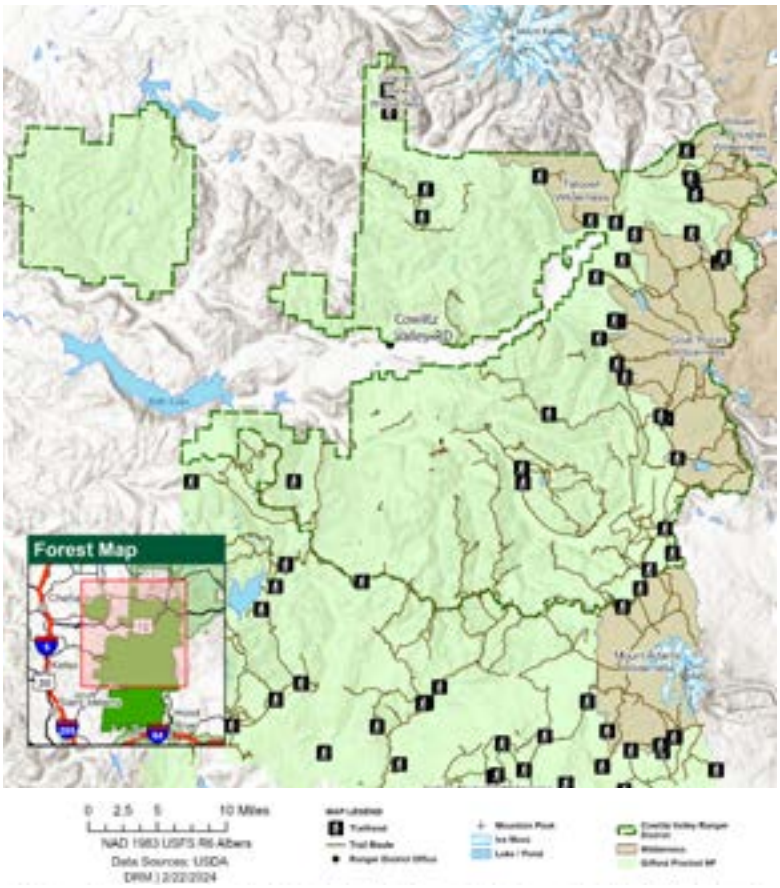


Figure 2. Map of the Cowlitz Valley Ranger District with trails and trailheads.

The Cowlitz Valley Ranger District is on the north end of the forest, just south of Mount Rainier National Park (figure 2). The district has about 491 miles of trails. About 177 miles are in the four wilderness areas (Glacier View, William O. Douglas, Tatoosh, and Goat Rocks). Cowlitz Valley has the most miles of motorized trails (single track and two-track) on the forest–close to 180 miles. The Pacific Crest Trail runs through both the Cowlitz Valley Ranger District and the Mount Adams Ranger District.

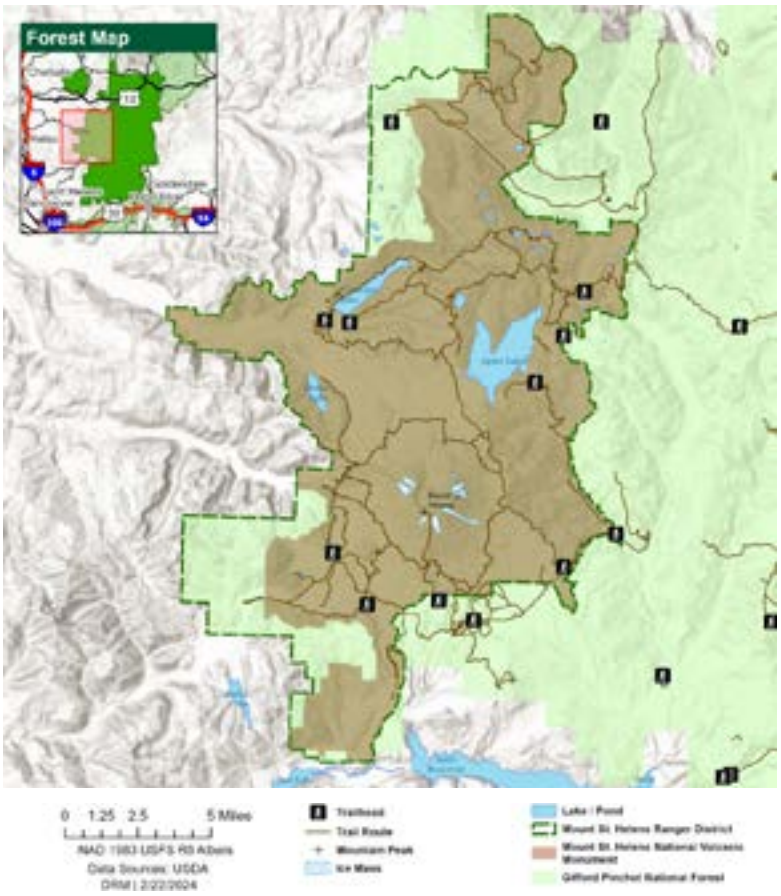


Figure 3. Map of the Mount Adams Ranger District with trails and trailheads.

The Mount Adams Ranger District is on the south end of the forest, adjacent to the Columbia River Gorge National Scenic Area, and includes Mount Adams, the second-highest peak in Washington (figure 3). The district has about 482 miles of trail. About 52 of those miles are motorized trails (single track and two-track), and about 123 miles are in the district's three designated wilderness areas (Indian Heaven, Trapper Creek, and Mount Adams).

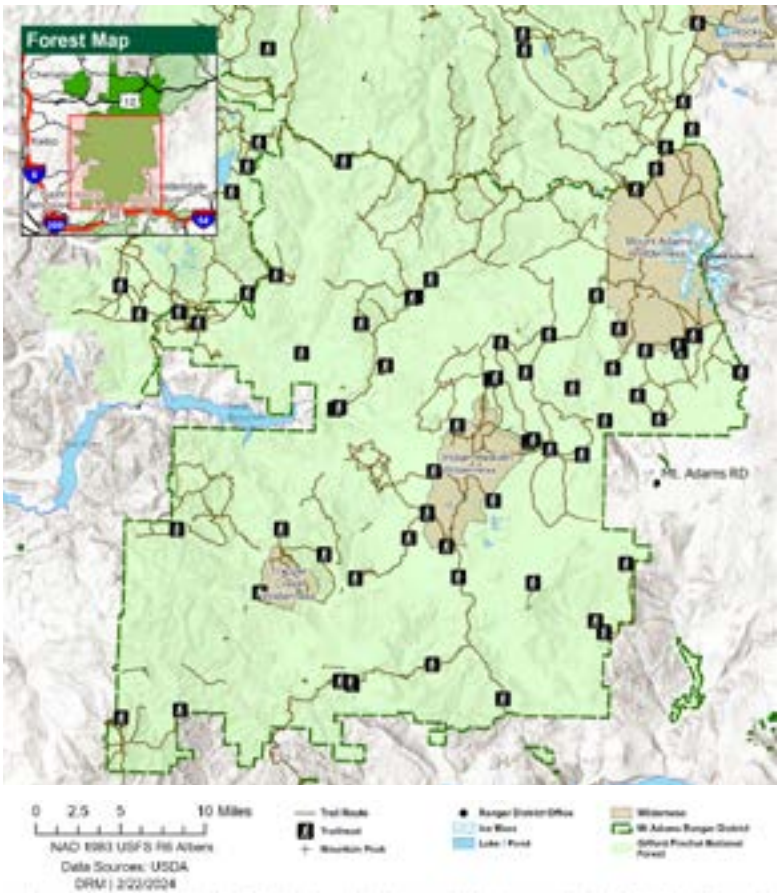


Figure 4. Map of the Mount St. Helens National Volcanic Monument and Ranger District with trails and trailheads.

The Mount St. Helens Ranger District is on the west side of the forest (figure 4). The Mount St. Helens National Volcanic Monument, a subset of the ranger district, is well-known and highly visited since its historic volcanic eruption in 1980. About 254 miles of trail are on the Mount St. Helens Ranger District. Only nonmotorized uses are allowed within the national volcanic monument, and there are no federally designated wilderness areas. There are about 10 miles of motorized trails on the ranger district (not the national volcanic monument). The rugged 43 miles of trails in the Mount Margaret backcountry area offer spectacular views of the volcano's crater, its blast zone, and the log-strewn Spirit Lake.

PUBLIC AND STAKEHOLDER INPUT

Appreciation goes out to those who provided comments during the formal input period July 19 through September 30, 2023. Commentors shared what they valued about the trails on the Gifford Pinchot, what they thought was working well with the trails' management, what concerns they had, and what opportunities they saw for improvement. Comments were submitted through an interactive mapping interface as well as email. The forest received 46 emails, 107 comments through the interactive mapping interface, and 33 replies to the comments made in the interactive mapping interface (figure 5).

Public input highlighted five main themes that were important to forest visitors concerning the trail system: collective capacity; access and connectivity; protection of cultural, natural, and quality experiences; diversity of trail experiences; and signage. These themes fit neatly into the four already identified focus areas (p. 9).

A special thanks goes to the stakeholders who committed their time to attend a workshop on November 2, 2023. The input received complemented the public input period. Themes and comments provided from both engagements were used in developing this plan's "current conditions" description and potential tactics. Submitted comments are public record and can be requested by contacting the Gifford Pinchot National Forest headquarters at 360-891-5000.

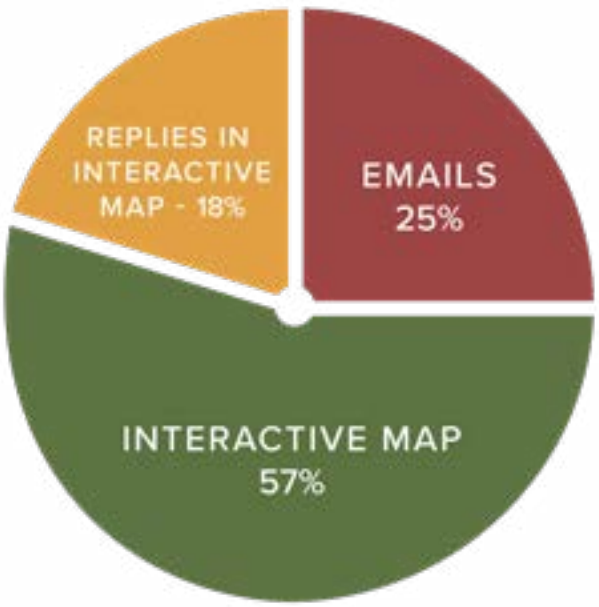


Figure 5. The public input period was from July 19 to September 30, 2023. Most comments were received via the interactive mapping tool.

Hiking trail in Gifford Pinchot National Forest.

FOCUS AREAS

This strategic plan has four focus areas, which align with needs and potential tactics put forth in the Forest Service's National Strategy for a Sustainable Trail System (2017). The four focus areas are: modernizing the trail system, sharing in trail development and maintenance ("stewardship"), identifying and developing outdoor recreation opportunities, and incorporating economic considerations in trail development and management.

Each focus area includes a goal, each goal has objectives, and each objective has strategies and potential tactics intended to help meet the larger goal.

I. MODERN TRAIL SYSTEM

A modern trail system provides world-class experiences in ways that meet current and future generations' needs, while enhancing social, ecological, and economic considerations. Pursuing these needs will require assessing and adjusting the trails network and the trails program. Trail assessments will be coordinated through a shared management approach, leveraging the resources and expertise of the trails community. While trail maintenance will remain a critical piece of the strategy, investments in new trail or use proposals, as well as efforts to modernize area networks within the system, are key. Providing for ecologically sound and socially relevant trails is a priority. Adapting to and planning for current and projected climatic conditions will be incorporated in project development.

EFFECTIVELY MANAGED TRAIL SYSTEM

Current Trail System and Sustainable Trail Assessment
The Gifford Pinchot has 390 trails totaling 1,226 miles of motorized and nonmotorized trails with varying levels of

sustainability (figure 6). About 135 miles of the Pacific Crest National Scenic Trail crosses the forest. While winter trails are a part of the Gifford Pinchot's formal land management and resource plan, they are not a part of this plan.

GIFFORD PINCHOT TRAILS	NUMBER OF MILES	PERCENT SHARE OF TRAIL SYSTEM
Wilderness	301	24%
Non-wilderness	925	76%

Figure 6. Miles of trails in wilderness and non-wilderness areas.

TRAIL DESIGNED USE	NUMBER OF MILES	PERCENT SHARE OF TRAIL SYSTEM
Hiker	180	15%
Pack and Saddle	722	59%
Bicycle	70	6%
Motorcycle	207	17%
ATV	39	3%

Figure 7. Miles of trails by designed use.

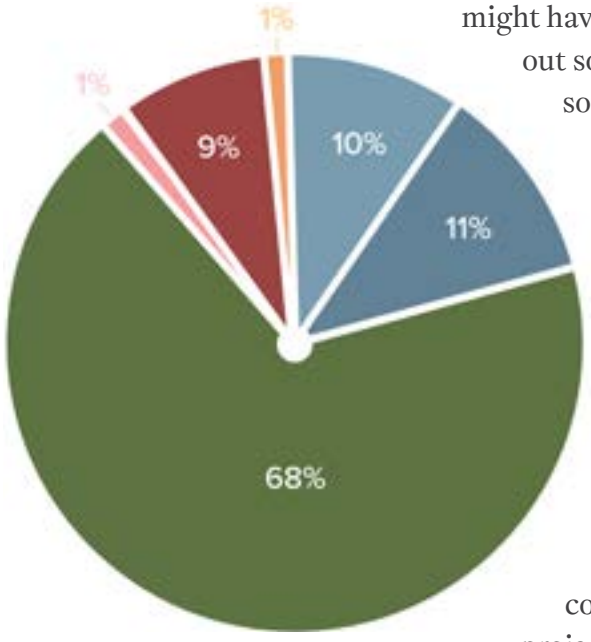
Managing this large of a trail system is difficult, and current maps often do not show accurate locations of trails due to a lack of GIS data and because re-routes over the decades have not been updated to maps.

Gifford Pinchot staff performed a cursory sustainability assessment in 2021 using a method that evaluates four elements of a sustainable trail system, then assigns a value of "high," "medium," or "low" depending on the method's criteria (figure 8). The methodology, called the Sustainable Trail Assessment Tool, is also able to combine the individual trail ratings to determine an overall sustainability rating for each individual trail. It provides a snapshot in time about the sustainability of individual trails and is intended to be a starting point for further work than a stand-alone effort.

Figure 8. Sustainability elements as defined using Sustainable Trail Assessment Tool protocols.

ELEMENTS	DEFINITION
Resource Sustainability	Rated trail sustainability according to resource protection. (Ecological)
Social Value—Significance and Expectations	Rated unique experience values associated with the trail. (Social)
Social Value—Design Elements	Rated degree to which the trail aligns with managed uses, desired use level, and visitor expectations. (Social)
Maintenance Sustainability	Rated ability to maintain the trail. (Economic)

Figure 9. Gifford Pinchot sustainable trail assessment tool survey results.



The initial Sustainable Trail Assessment Tool results (figure 9) show that more than half the trails (68 percent) have a sustainability rating of "acceptable moderate." Meanwhile, 10 percent of trails were assessed as "acceptable low" and "marginal unacceptable." Some reasons a trail might have such a low rating include a critical bridge being out so part of a trail is closed, fire-related closure, low social value, significant resource impacts due to current location, or low maintenance priority.

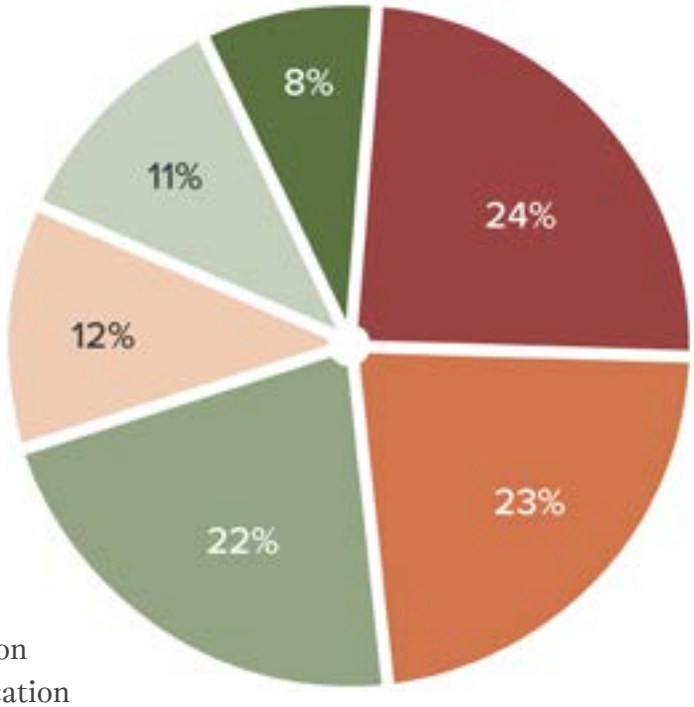
The results from the Sustainable Trail Assessment Tool provided baseline information on the sustainability of each trail in the system, which informed development of this plan. It can continue to be used as a planning tool as it's information feeds an ArcGIS map and produces a visual representation of trails and trail systems, which can be updated to reflect changes in condition. It also can be used when evaluating project proposals, such as re-routes, and for prioritizing deferred trail maintenance.

The Forest Service national trail program recently developed a rapid trail assessment tool that only uses slope and trail location data, called the Slope Ratio Tool. It is a rapid assessment GIS program that incorporates remote

sensing data. It generates coarse information that should be further validated during field surveys to refine sustainability ratings.

Figure 10 shows the trail sustainability ratings as ascertained by the Slope Ratio Tool on the Gifford Pinchot National Forest. Figure 11 explains the sustainability ratings and rationale.

In 2024, Forest Service's national trail program also launched a trail assessment and condition overview survey. It uses a mobile application that allows agency staff, partners, and volunteers to collect and report the condition of any trail found on a national forest. The application provides a standardized method for collecting and reporting trail data across the Forest Service. Reported data will help Forest Service trails staff determine maintenance needs, possible modifications to trail design and use to better meet sustainability criteria, as well as maintain a running list of updates and accomplishments.



▲ Figure 10. Gifford Pinchot National Forest trail sustainability ratings using the Slope Ratio Tool.

▼ Figure 11. Slope Ratio Tool sustainability rating description and rationale.

SUSTAINABILITY RATINGS	SUSTAINABILITY RATING DESCRIPTIONS AND RATIONALES
1	**High Sustainability.** Side-hill trail alignments with a 2-5% trail grade in >15% landform grades. Optimal trail grades with steep side-slopes that promote narrow easily drained treads.
2	**Moderate Sustainability.** As above - less optimal trail or landform grades.
3	**Low Sustainability.** As above - less optimal trail or landform grades. Trail alignments closer to the fall line that inhibit tread dainage; less steep side-slopes allow some tread widening.
4	**Unsustainable.** Flat side-hill trails in landform grades >2% that can retain water/muddiness and fall line trails with 2-5% landform grades that inhibit drainage and allow tread widening.
5	**Moderately Unsustainable.** Fall line trails with 5-15% trail and landform grades that inhibit drainage and allow tread widening, and steep trail grades in steep terrain (10-15%).
6	**Highly Unsustainable.** Fall line trails with >15% trail and landform grades that can quickly erode and widen.

FOCUS AREA: MODERN TRAIL SYSTEM	
GOAL: Effectively Managed Trail System	
OBJECTIVE: Current Trail System and Sustainable Trail Assessment	
STRATEGIES	POTENTIAL TACTICS
Assess current trail system.	Assess trail segments for components of ecological sustainability using the Forest Service's 2024 trail assessment and condition overview survey. Conduct surveys when completing annual trail condition and assessments assigned by the national headquarters. Assess unassigned segments using the 2024 survey protocols as time allows. • Record trail conditions and improvements into the Forest Service's Sustainable Trail Assessment Tool dashboard. • Forest and national headquarters track progress using the nine metrics established in the National Trails Challenge. • Assess: – Segments suitable for re-route. – Segments with trail infrastructure that is no longer useful to protect resources and where removal of those structures would increase sustainability. – Abandoned trails, particularly those with heavy use. – Specific unauthorized routes. Consider value, location, and sustainability. – Trails with potential for trail class changes that better reflect social relevance. – Trails using GIS to ensure that they are accurately displayed on map products. – Potential suitable locations for staging and camping areas for volunteer work parties.

Trail Maintenance

Trail maintenance is an important component of any trail system, as well-maintained trails are crucial for habitat protection, water quality, public access, and sustainability. The Forest Service trails maintenance database shows that during the last 10 years, the Gifford Pinchot is successfully meeting agency maintenance standards on only 10 percent

Partners and agency staff working together. (USDA Forest Service photo)

Trail crew using traditional, nonmotorized equipment to clear trails in the Goat Rocks Wilderness. (USDA Forest Service photo)

of its trails. This indicates a significant amount of deferred maintenance, despite the increased capacity provided by partners and volunteers. The fact remains that funding and staffing challenges, increased use, and unsustainably constructed trails make it increasingly difficult to stay on top of maintenance needs for all the Gifford Pinchot's trails.

Trail management objectives are established for every National Forest System trail and document the intended purpose and care of each trail based on management direction, including access objectives. They identify trail class for each trail, which helps determine maintenance schedules (figure 12). For example, trails with a higher trail class are more developed, where an associated increase in complexity or use requires more maintenance.

District rangers review and approve their respective trail management objectives when a change of condition drives the need for review. Rangers can also modify the objectives to better reflect changing conditions. As of 2023, about 70 percent of the Gifford Pinchot's 390 trails' management objectives had been approved.

FIgure 12. National Forest System trail classification definitions and recommended maintenance schedules.

TRAIL CLASS	% OF GIFFORD PINCHOT TRAIL SYSTEM	MAINTENANCE SCHEDULE PER FOREST SERVICE HANDBOOK
Class 5: Highly developed; trail is typically pavement or concrete.	Less than 1%	Maintained annually.
Class 4: Highly developed; trail is wide and relatively smooth.	3%	Maintained annually.
Class 3: Developed; trail is continuous and obvious.	82%	Maintained every 1-3 years.
Class 2: Moderately developed; trail is narrow and rough	14%	Maintained every 3-5 years.
Class 1: Minimally developed; trail is intermittent and indistinct.	Less than 1%	Maintained every 5 or more years.

Hiking trail in Gifford Pinchot National Forest (USDA Forest Service photo)

Through the creation of this plan, Forest Service personnel and partners worked together to create two spreadsheets. The first is called the Partner Trail Stewardship Schedule. It serves as a shared communication platform for partners to document trail work planned and accomplished each season. It will be a living document and is likely to evolve as sustainable trail efforts become more refined.

The second spreadsheet is the Partner Value Table Weights, where partner organizations assign each system trail a number, zero to three, based on priority for their user group. The higher the weighting factor, the more important that trail is to users. These weights can be used to facilitate prioritization of trail maintenance.

FOCUS AREA: MODERN TRAIL SYSTEM	
GOAL: Effectively Managed Trail System	
OBJECTIVE: Trail Maintenance	
STRATEGIES	POTENTIAL TACTICS
Increase and prioritize trail maintenance and trail projects.	• Invest in projects and design sustainable trail re-alignments that incorporate proper drainage without requiring armored drainage structures. • Prioritize projects supported by existing collaborative groups. • Prioritize maintenance for trails with accessibility features or accessibility possibilities, as well as trails where public transportation to the trail is established. • Create an annual forest-level trail maintenance and project plan with partners at ongoing trail user group meetings. When coordinating priorities, consider: – Forest Service Handbook 2309.18 guidance. – Partner value table weights. – Trail assessment results. – Status of required NEPA analysis, consequences of inaction, and public transportation service to the area. – Where specialized equipment may be needed to adequately maintain trails. Use of specialized equipment may require cultural resource review and NEPA analysis prior to implementation. • Work toward completing a five-year forest-wide trails maintenance plan. Outyear maintenance schedules should be developed in coordination between districts and with partner collaboration. • Outline typical cost ranges for completing trail and bridge work and corresponding NEPA analysis.

Managing Shared Use on the Landscape

Shared-use trails, also known as multi-use trails, are open to more than one recreation activity, which can lead to user conflict. Such conflicts are likely to persist as more people visit the forest and recreation activities continue to diversify and specialize.

Most trails on the Gifford Pinchot are shared, with the primary exception being the Mount St. Helens National Volcanic Monument, where trails are primarily designated for hiking only. But even on the monument, user conflicts can occur on a designated hiking trail, such as a solo hiker seeking solitude sharing the trail with a large group.

The root source of conflict is that user expectations differ from what they encounter on the trail. The current paradigm for managing activities on Forest Service trails is based upon layout and design combined with user education. Trail etiquette and other "recreate responsibly" principles are an essential part of creating a culture that promotes safety and respect among user groups. However, education alone may be insufficient when a trail's design doesn't match its recreation uses or visitor volume.

Forest Service trail management is guided by the concepts of "designed use" and "managed use." The "designed use" of a trail is the single managed use of a trail that requires the most demanding design, construction, and maintenance parameters. There is only one designed use for a trail. "Managed use" is the various modes of travel that are actively managed and appropriate on a trail, based on its design and management. A trail can have multiple managed uses (Trail Fundamentals and Trail Management Objectives 2016). Never re-examining a trail's designed or managed uses can reduce opportunities to make existing trails available to new or emerging activities that appeal to an array of forest users.

▲ Horseback riders and bicyclists sharing the trail. (TransCascadia photo)

Shared-use trails are an egalitarian strategy to accommodate different activities, offering the most mileage to an array of users, but it is most effective when traffic volume is low. Designing trails for multiple uses requires finding a middle ground between what different users want and expect. While this compromise aims to make sure everyone can use the trail, it often means decreased overall user satisfaction and can create difficulties in construction and maintenance (California State Trails Handbook 2019).

Conflicts among users can be minimized by reducing encounters by providing access to an expansive trail system. However, various constraints, such as seasonal availability, road closures due to washouts, and fire-affected area closures, can limit trail opportunities. With anticipated increases in weather severity and an expanded wildfire season, these disruptions are likely to increase in the future.

Mount St. Helens trail, Gifford Pinchot National Forest. (USDA Forest Service photo)

Because some areas on the Gifford Pinchot still have relatively low visitation, staff and their partners have an opportunity to plan for future growth by applying modern strategies to accommodate a diversity of activities on a trail system. It is important to collaborate with user groups in planning shared-use trails or enhancing existing trail systems. Their input not only aids in identifying and resolving potential issues, but also fosters a sense of ownership, collaboration, and shared stewardship (California State Trails Handbook 2019).

Trails designed to meet the needs of their intended users are more sustainable because users are more invested in their care and upkeep. A high-quality trail experience results in more people using the designated trail rather than creating unauthorized routes. Unauthorized routes often fail modern design standards for sustainability and can damage sensitive ecological and cultural resources. Even when they are adopted into a formal trail system, their poor design can add a substantial maintenance burden compared to appropriately designed trails.

The Gifford Pinchot National Forest and Washington State Department of Natural Resources recently adopted the Silver Star Vision Plan (2023), which recommends strategies to reduce user contacts by modifying the existing system to form loops with a preferred direction of travel. Another recommendation to reduce potential conflict is to redevelop parts of the trail system in a way that naturally encourages single-activity trails. This means designing some routes to be more specialized and better suited for a main activity, while still allowing shared use.

These examples offer solutions to creating and managing shared-use trail systems. A toolkit of ideas would be an excellent starting place for collaborative efforts to

proactively redevelop parts of a legacy network to fit modern needs while continuing to strengthen a foundation of responsible trail etiquette and behaviors.

FOCUS AREA: MODERN TRAIL SYSTEM	
GOAL: Effectively Managed Trail System	
OBJECTIVE: Managing Shared Use on the Landscape	
STRATEGIES	POTENTIAL TACTICS
Proactively manage shared-use areas.	• Select one of the following areas as a pilot to try collaborative strategies to proactively manage a shared-use trail system: – Green River/Vanson/Strawberry (bike/horse/hiker) – Silver Star (hiker/biker); tie into Silver Star Trail Plan – Canyon Creek/Saturday Rock (motorized mixed use on roads) • Develop a best practices toolkit for managing shared use in popular areas. • Work with trail user groups to develop and deliver educational messages regarding trail etiquette and recreating responsibly where user conflict might be likely.

ECOLOGICALLY SOUND, SOCIALLY RELEVANT TRAILS

Modern Trail Networks

Many of the existing trails in the Gifford Pinchot's trail system are "legacy trails." Legacy trails are trails that might have served other purposes prior to modern recreational activities. Possible uses could have been Indigenous routes, supply lines for fire lookouts, patrol routes for rangers, sheepherder trails, access points for hunters, or administrative purposes shifting to recreational purposes by the 1960s.

Legacy trails were often created for the sole purpose of getting to a location quickly, rather than sustaining ecological, social, or economic considerations. This

plan's overarching objective for modernizing the forest's trail networks is to meet the needs of current and future generations.

Design concepts and considerations to be applied when modernizing a trail network for improved sustainability and user experience include:

- Loop flow/directional trail: A trail or trail system that is laid out in such a way as to encourage users to travel in one direction.
- Stacked loops: Trail or trail systems designed with many loops "stacked" on each other so that users can pick from a variety of loop options of varying length and difficulty.
- Transfer trails: Multi-use trails that let users access various trail systems, and each trail systems may be designed for a specific use.
- Trail density: Design concept that constructs numerous trails or stacked loops within a limited area to maximize trail mileage and disperse users in a concentrated area or trail system.
- High-utility: Trails, normally at lower elevations, that have a relatively long season of use.
- Transit-oriented: A trail system that considers the impacts of parking and traffic. It also encourages creating networks or trailheads near major roads where public transit could serve users who do not have access to reliable transportation.
- Technology-adaptive: Trail design, management, and maintenance are adaptive to new technology that can improve communication, public information, and efficiency.
- Network connectivity: Trail networks that are connected to each other by transfer trails.
- Community connectivity: Trails that are designed to connect communities to other communities or communities to trail systems.

- Information quality: Having accurate, consistent, and up-to-date trail information available electronically and in other forms at Forest Service offices, local outdoor stores, and trailheads. This information provides the public with the means to understand trail opportunities and help them make informed decisions on where, when, and how to recreate.

FOCUS AREA: MODERN TRAIL SYSTEM	
GOAL: Ecologically Sound, Socially Relevant Trails	
OBJECTIVE: Modern Trail Networks	
STRATEGIES	POTENTIAL TACTICS
Modernize trail networks.	• Incorporate modern trail system design in the following areas to reduce the potential for user conflict and increase physical sustainability while protecting cultural and historic values: – Strawberry – Goat Mountain/Vanson – Tongue Mountain Trail – Wind River Nursery Area

Adapting to Projected Climatic Impacts

Recreation activities in southwest Washington are sensitive to changes in climate, and the effects could vary across the forest. Climate models predict that the Pacific Northwest will experience increased temperatures, more intense but concentrated rainfall, and reduced snowfall with diminished snowpack during the next 50 years. During the last century, warming has led to glaciers shrinking on Mount Adams, and this trend will continue in the future. Spring snowpack is down 30 percent on average from 1955–2016, where projections for Washington indicate the snowpack will continue to decrease by up to 70 percent by the 2080s (SCORP 2023). These changing climatic conditions could alter supply and demand for recreation opportunities, which may result in changes to the patterns of and benefits of recreation opportunities.

Mount St. Helens, Gifford Pinchot National Forest.

In particular, demand for recreational activities like hiking, mountain biking, dirt biking, and camping is expected to increase during warm-weather seasons, including the summer and especially during the shoulder seasons of spring and fall. In addition, there may be more demand for access to lower-elevation trails that are snow-free throughout the year during warm and dry periods in the winter. Because of the variable nature of these changes, it will require a more flexible approach to trail management.

Increases in wildfire may affect trail availability to users or the user experience post-fire with altered scenery, degraded landscapes, and safety. Wildfire smoke—even from hundreds of miles away—could also make recreating outdoors unhealthy and even dangerous to some segments of the population.

Opportunities for snow-based recreation could decrease with warming temperatures and decreasing snowpack, though upper-elevation areas, including those on Mount Adams and Mount St. Helens, may continue to provide opportunities for snow-based recreation in the winter and spring (Hudec et al. 2019; Miller et al. 2022).

Extreme weather events, such as more intense thunderstorms and subsequent flooding, can result in erosion damaging roads, trails, and recreation sites. Saturated soils can result in landslides and wind-thrown trees covering trails, blocking access, and endangering users.

Increased visitor use is also expected to accompany the increased population growth around the Gifford Pinchot National Forest. This will likely lead to increased pressure on recreation facilities and increased trail degradation. The Gifford Pinchot's forested trail systems, lakes, and waterways could likely become climate refuges to local and regional populations looking to temporarily escape warming temperatures and intermittent heat waves.

Constructing trailheads near urban cores or developing public transportation to developed recreation sites when possible could make these resources accessible to more individuals.

The culminated effects of all these changes will require land managers and partners to contend with longer seasons of visitation and use, increased risk to infrastructure, ecological changes, higher risks to the recreating public, and potential shifts in recreation opportunities.

FOCUS AREA: MODERN TRAIL SYSTEM	
GOAL: Ecologically Sound, Socially Relevant Trails	
OBJECTIVE: Adapting to Projected Climatic Impacts	
STRATEGIES	POTENTIAL TACTICS
Incorporate adaptation and resiliency strategies into trail system planning and management.	• Consider relevant adaptation actions from the Southwest Washington Climate Change Vulnerability Assessment Recreation Adaptation Strategies and Approaches workbook (appendix F) and the Adaptation Library when initiating projects and planning. • Support planning and management actions that reduce the risks changing climatic conditions might have on trails, buildings, campsites, and other recreation infrastructure. • Prepare for longer seasons of use for warm-weather recreation, including increased demand during shoulder seasons. • Increase resistance and resilience of road and trail infrastructure, preparing for increased risks from flooding and landslides as well as fire.

Trail System Modifications

One characteristic of a sustainable trail system is its ability to be updated to manage increasing or changing uses. This may require significant modifications to the trail system. Modifications, such as trail relocation, reconstruction, adding trails, or adding or removing uses, often requires some level of environmental analysis.

Gifford Pinchot staff are open to considering trail system modifications and have a draft process for partners and the public to submit proposals (figure 13). This process needs refinement before it is finalized.

While this process is in draft form, proposals would include how the modification would improve the trail system's sustainability and align with this plan and with agency policy and direction. Partner support and ability to leverage resources would also be preferable. Not every proposal would make it through the first two stages. No matter the outcome, the project proponent would be notified in writing of the decision. Trail system modification projects frequently require some level of environmental analysis. The process could take multiple years depending on the level of complexity and might require non-agency funding. More information can be found in the Trail System Modification Proposal Checklist, also currently in draft form (appendix D).

A formalized trail user group, composed of interested members of the trail community and a liaison with the Forest Service, could assist Gifford Pinchot staff in the proposal process by:

Figure 13. Process for a proposed trail system modification. The process is in draft form and more information will be shared once the process is finalized.

- Working with proponents to improve the quality of proposals before they are submitted.
- Connecting proponents with supportive partners and available resources.
- Reviewing submitted proposals and either providing feedback to the proponent for improvement or forwarding acceptable proposals for final Forest Service review and decision making.

FOCUS AREA: MODERN TRAIL SYSTEM	
GOAL: Ecologically Sound, Socially Relevant Trails	
OBJECTIVE: Trail System Modification	
STRATEGIES	POTENTIAL TACTICS
Establish a trail system modification proposal and screening process.	• Refine the Gifford Pinchot National Forest's trail system modification proposal process and associated checklist (appendix D). • Establish a trail user group that would assist with the trail system modification proposal process.

Address Unauthorized Routes

Unauthorized routes, sometimes referred to as "social trails" or "user-created trails," are not part of the official Forest Service trail system. They have not gone through any level of analysis or design, nor do they receive any formal maintenance from the land manager. Because of this, these sorts of routes can lead to a number of unintended consequences to the natural resources beyond just the routes themselves. Unauthorized routes can be found on every district of the Gifford Pinchot National Forest.

Unauthorized routes are often differentiated by the way in which they were created:

- Routes that are intentionally built using hand or motorized tools.

▼ Unauthorized route on the Gifford Pinchot National Forest. (USDA Forest Service photo)

- Routes that are inadvertently established by the repetitive traffic of users (foot, bike, horse, motorized) moving along a common pathway.

Unauthorized routes can cause a variety of natural resource impacts and negatively impact public land by increasing erosion, disturbing wildlife, fragmenting plant communities, and decreasing vegetation cover.

Little progress has been made to comprehensively identify or map these unauthorized routes because of a lack of funding and personnel. Future comprehensive efforts are unlikely due to those same issues. Because of this, the mapping of unauthorized routes should be reserved to specific problem routes or project areas. Social tracking sites, such as Strava or other "heat map" applications, can help identify unauthorized routes and areas of concern.

FOCUS AREA: MODERN TRAIL SYSTEM	
GOAL: Ecologically Sound, Socially Relevant Trails	
OBJECTIVE: Address Unauthorized Routes	
STRATEGIES	POTENTIAL TACTICS
Address unauthorized routes.	• Partners and agency collaborate on messaging and methods for public education. • Use "Ready, Set, Plan" checklist when evaluating unauthorized routes for decision making. Evaluate unauthorized routes holistically, rather than piecemeal. Management decisions will be based on a variety of factors around natural resource and social concerns. A suite of options may be employed for managing social trails, ranging from "no action" up to "closure and restoration." • Utilize remote sensing or social tracking applications to identify where unauthorized use is occurring. Cross check that data with specialists to determine if natural resource concerns are present.

II. STEWARDSHIP

Sharing stewardship and working effectively together is critical. Gifford Pinchot staff will continue to embrace and elevate partnerships to work in a coordinated fashion that maximizes impact and efficiencies. Staff and partners should make use of emerging technologies and new trail-building and maintenance techniques whenever possible to also achieve those ends. Public education efforts to improve people's connection and care for the land should include components recognizing ancestral Tribal homelands for a more holistic understanding of the area.

WORKING TOGETHER

Collective Capacity to Work Together *("What")*

This strategic plan is rooted in the idea of changing how the Forest Service and interested parties work together by embracing a shared stewardship model. Across the Pacific Northwest Region (Region 6), volunteers and partners contribute about 50 percent of the cumulative trail maintenance performed annually.

Partner and volunteer contributions can be particularly valuable in areas where the federal workforce experiences frequent or prolonged vacancies. Partner contributions should not be limited to trail maintenance. Gifford Pinchot staff have successfully used partners to identify and prioritize trail maintenance and future projects. Partner and volunteer reports typically fulfill annual accomplishment reporting requirements for work completed on trails. Partners have also contributed information for the possible rerouting of trails and have gathered information used in environmental effects analysis associated with the National Environmental Policy Act.

▲ Trail maintenance and supplies. (TransCasdadia photos)

Nontraditional partners, such as tourism departments and chambers of commerce, can promote the benefits of trails to a wider audience, while also supplying trail etiquette and responsible recreating education. In February 2024, Gifford Pinchot staff completed a nation-wide trail workforce survey. The purpose of the survey was to identify current trail workforce capacity, identify baseline trail workforce needed, and identify key personnel gaps.

Currently, some key positions in the trails program are vacant on the forest, including a permanent position solely dedicated to trails management and planning. Trails management is often just one component of recreation staff duties, so attention to the trails program often varies. These vacancies affect recreation and trail program management and relationships with partners. In the last few years, the forest also has had difficulty hiring seasonal trail crews, which has limited the ability to perform trail maintenance. These conditions have created an environment where reliance on partners and volunteers is required for successful trail maintenance and management.

FOCUS AREA: STEWARDSHIP	
GOAL: Working Together	
OBJECTIVE: Collective Capacity to Work Together ("What")	
STRATEGIES	POTENTIAL TACTICS
Support the trails program.	• Post existing partnerships and volunteer support of a trail network at trailhead information boards and other communication media. • Prioritize and garner support for key positions that will support and elevate the trails program forest-wide.
Expand upon existing partnerships.	• Explore Tribal, youth, and veteran programs to increase trail stewardship. • Explore and pursue opportunities to work with nontraditional partners.

▲ Partner-hosted chainsaw training at the Cispus Center in Randle, Washington. Photo Credit: Gabriel Amadeus Tiller.

Working Together ("How")

While most partners contribute forest-wide, they are still required to coordinate with district points of contact. While working with a district point of contact has its advantages, it also increases the variability in amount of communication and information sharing. One way to counter this variability is to establish standardized timelines or methods of communication.

For example, an annual meeting in late fall or early winter could serve as a time to review accomplishments and debrief on things that went well or need improving, while the subject is still fresh in people's minds. Annual meetings in the late winter or early spring could serve as preparation to coordinate and prioritize work for the upcoming season. Regularly scheduled, periodic check-ins keep partners and volunteers engaged, while also encouraging a more frequent exchange of information.

FOCUS AREA: STEWARDSHIP	
GOAL: Working Together	
OBJECTIVE: Work Together ("How")	
STRATEGIES	POTENTIAL TACTICS
Strengthen relationships and improve efficiencies with partners, volunteers, and land managers.	• Establish a trail user group to help accomplish elements of this plan. The group would be composed of a variety of interests working together to build relationships and understanding, prioritize and coordinate maintenance, collaborate between partner organizations, effectively communicate, and promote sustainable trail system development. • Maintain the Partner Trail Stewardship Schedule to help coordinate working together and improve communication.

Training

Training opportunities provided by Gifford Pinchot staff have dwindled during the last decade. Partnering organizations, skills colleges, and certification courses can help fill this gap.

The Washington Trails Association and Pacific Crest Trail Association have provided trail skills colleges, chainsaw/crosscut saw certification classes, and first aid and CPR trainings. The Back Country Horsemen of Washington also support an annual chainsaw training at the Cispus Center in Randle, Washington, as well as trail bridge building, trail reconstruction, and stock packing courses. The Northwest Motorcycle Association is expanding to provide technical training on small heavy equipment specific to trail tread repair, as well.

FOCUS AREA: STEWARDSHIP	
GOAL: Working Together	
OBJECTIVE: Training	
STRATEGIES	POTENTIAL TACTICS
Elevate trail planning, construction, and maintenance across a broad spectrum of agencies, partners, and volunteers through standardized skill development and training.	• Identify, design, and communicate essential skills training opportunities related to technology, trail sustainability, and trail maintenance. Support partner-led training as well as programs through americantrails.org and trailskills.org to augment in-person skills training.

EDUCATION AND PROMOTION OF CONSERVATION AND CULTURAL VALUES

Information Sharing and Education Programs

The Gifford Pinchot National Forest makes general trail information available to the public through its website and at campground, trailhead, and facility kiosks. Front desk staff can also inform the public of trail conditions through the forest's social media channels and when responding to phone, email, or online inquiries. Important alerts, such as temporary closures due to wildfires or logging, are also given a place on prominence on the forest's homepage, as well as posted on all the forest's social media sites.

Despite this diversification of outreach, limitations remain. It can be challenging to find or navigate to specific trail information because of the vast amount of other information shared on the website. Space considerations and templated formatting also limit the amount of information shared online (a trail's length, a brief description, and directions to its trailhead). Other websites outside of the Forest Service contain more information, but current agency policy can make linking to non-agency websites difficult.

Mount St. Helens trail, Gifford Pinchot National Forest. (TransCascadia photo)

Finding ways to provide visitors with more in-depth information—either by improving the quality and quantity of information shared on the forest's website or by more easily directing visitors to other sources—will allow visitors to better determine which trail or trails would best meet their desired experience.

Public education regarding trail etiquette is minimal and passive, mostly signs at trailheads that promote "Leave No Trace" and the trail right-of-way principles. Mount St. Helens National Volcanic Monument does provide some conservation education, both through Forest Service staff and with Mount St. Helens Institute volunteers. Conservation education tends to be more monument-specific and includes natural resource and cultural themes.

Sunrise at Trout Lake, Gifford Pinchot National Forest, Washington. (USDA Forest Service photo)

FOCUS AREA: STEWARDSHIP	
GOAL: Education and Promotion of Conservation and Cultural Values	
OBJECTIVE: Information Sharing and Education Programs	
STRATEGIES	POTENTIAL TACTICS
Improve and increase public education.	• Identify key messages related to trails. • Refer to guidance outlined in existing interpretation and education plans (appendix A). • Evaluate and improve trailhead information, agency website, and social media content. • Prioritize public education and interpretive recommendations stemming from Indigenous engagement. • Consider outreach and education regarding rationale for seasonal closures (where applicable), and how recreation impacts animal behavior, causes habitat fragmentation, and is a potential conduit for invasive species. • Provide information on where e-bikes are allowed and explain differences in managing agencies regulations. • Consider trail ambassador programs to deliver key messages at priority locations. • Incorporate Access Recreation's Guidelines for Providing Trail Information to People with Disabilities when developing information strategies (appendix A).

Cultural Values and Indigenous Communities

The Forest Service has a duty to consult and coordinate with Tribes on a government-to-government basis. Because Tribes are affected by Forest Service land and resource management policies, as well as research, development, and other programs and actions, the Forest Service must consult with them on matters that could affect their rights and interests.

In compliance with the National Historic Preservation Act and 36 CFR 800 regulations, Gifford Pinchot Heritage staff have regularly consulted with Tribes as a part of heritage resource surveys for trail projects, such as realignments, new construction, bridge replacements. In some cases, forest staff have hosted field visits to specific trail projects for Tribal staff.

Lands administered by the Gifford Pinchot National Forest have been home to Indigenous people since time immemorial. Tribes with ties to the area include the Yakama, Cowlitz, Nisqually, Muckleshoot, Squaxin Island, and Puyallup. In 1997, the forest entered into a formal memorandum of understanding with the Yakama Nation that provides a framework for the cooperative management of treaty resources, including anadromous fish habitat. A separate memorandum was developed with the Cowlitz Indian Tribe.

Trails can serve as a vital conduit used by Tribes to continue a number of cultural practices, such as berry picking, peeling cedar bark, gathering mushrooms, collecting cedar roots and beargrass, gathering medicinal and food plants, hunting, and accessing spiritual locations. Many Indigenous trails are no longer used, and in consultation with Tribes, some may be considered for reestablishment and inclusion in the official trail system.

To date, Gifford Pinchot staff have not specifically engaged with Tribes on recreation and trail projects, other than to formally invite the Yakama, Cowlitz, Nisqually, Muckleshoot, Squaxin Island, and Puyallup Tribes to consult on various recreation projects (e.g., toilet replacements/new installs, replacing trail bridges, and recreation site improvements), and to participate in the development of this forest-wide trails strategy.

▲ Moss covered trees in the Gifford Pinchot National Forest, Washington.

FOCUS AREA: STEWARDSHIP	
GOAL: Education and Promotion of Conservation and Cultural Values	
OBJECTIVE: Cultural Values and Indigenous Communities	
STRATEGIES	POTENTIAL TACTICS
Continue to engage with Indigenous communities and consider cultural values.	• Collaborate with the Forest Service Heritage Program, tribal liasons, and Indigenous communities (Yakama, Cowlitz, Nisqually, Muckleshoot, Squaxin Island, and Puyallup) to understand where acknowledging culturally significant areas and Indigenous histories of trails are needed, and where Indigenous trails may be considered for reestablishment and inclusion in the official trail system. • Discuss with Indigenous communities how they would like to be acknowledged and whether they would be interested in co-stewardship opportunities with the agency. • In education and interpretive programs, include information about Indigenous communities (past and present) and present forest activities from multiple perspectives (after consulting with Tribes). • Identify opportunities to meet National Historic Preservation Act objectives through historic trail designation, preservation, and public uses.

III. OUTDOOR OPPORTUNITIES

A trail system can often be the primary gateway for the public to experience its national forests. It can also serve as a subtle, yet powerful, vehicle for imparting lessons of conservation, stewardship, and cultural awareness that can extend to other areas of a person's life.

A sustainable trail system is mindful of these lessons and creates an environment that allows users to experience a variety of quality recreational activities in a manner that protects resources and provides continued enjoyment for generations to come. Maximizing these outcomes entails:

- Creating conditions for quality experiences that appeal to many users.
  - Designing trails that accommodate new or emerging uses and accounts for mobility or accessibility challenges.
  - Being mindful of expressed concerns from current users to proactively mitigate in future trail designs or reconstructions.
  - Designing a sign program that educates visitors of proper use and restrictions, as well as inspires principles of conservation, stewardship, and cultural awareness.
- Understanding conditions that might be inadvertently deterring use or participation.
  - Identifying and engaging new users or communities that are not represented.
  - Removing barriers to participation.

QUALITY EXPERIENCE AND ACCESS FOR ALL

Trail Use

Earlier sections of this guide have discussed the importance of considering new and nontraditional uses of trails in reconstruction or new development projects. Allowing trails to accommodate new uses allows the forest to welcome and impart its lessons on new users (figure 14).

Assistive devices are making the outdoors more accessible to individuals with disabilities than ever before. The Forest Service's Trail Accessibility Guidelines provide guidance for maximizing accessibility of trails in the National Forest System while protecting the unique characteristics of their natural setting. The Gifford Pinchot has a handful of trails designed to comply with trail accessibility guidelines; however, many of the "accessible" trails have deferred maintenance needs and generally do not meet current accessibility standards.

Trainings specific to designing accessible recreation opportunities are also becoming more commonplace, such as Access Recreation's trainings on providing information on parks and trails pertinent for people of all abilities. These trainings can make staff more aware or sensitive to barriers or accessibility considerations to be included in trail design or published descriptions:

- Slope or gradients
- Trail surface
- Available facilities at trailheads
- Construction features that might help a visitor choose a trail that meets their expectations or desired experience

▼ Adaptive mountain bike on a trail. Adaptive mountain biking applies to a broad spectrum of people with disabilities, and the mountain bike design changes to suit the needs of the rider. Photo Credit: Evergreen Mountain Bike Alliance.

E-bike rider on Forest Service trail. Because e-bikes are considered motorized vehicles, e-bikes are currently only allowed on motorized trails on the Gifford Pinchot National Forest. (USDA Forest Service photo)

Emerging technologies, such as e-bikes, are also changing the way people enjoy national forests. The Forest Service has defined e-bikes as motor vehicles in Forest Service Manuals 7700 and 2350. Class 1, 2, and 3 e-bikes are currently allowed on all Forest Service roads and trails already open to motorized vehicles (3-Tier Classification). Updated national guidance lays out a process to evaluate further requests for expanded access. The guidance also outlines the required environmental analysis and public input required before making future decisions to expand local e-bike access. Local Forest Service officials may consider new opportunities for e-bike use on nonmotorized trails and in nonmotorized areas by utilizing a designation process in accordance with the Travel Management Rule (36 CFR part 212, subpart B).

Hiking trail on the Gifford Pinchot National Forest. (USDA Forest Service photo)

Accessibility goes beyond accommodating physical disabilities. Visitor input reveals a growing demand for improved access to trails through expanded public transportation routes or linking national forest trail systems with routes that connect into local communities.

FOCUS AREA: OUTDOOR OPPORTUNITIES	
GOAL: Quality Experience and Access for All	
OBJECTIVE: Trail Use	
STRATEGIES	POTENTIAL TACTICS
Identify new trails or uses with potential to enhance social, economic, or ecological conditions.	• Assess current accessible trail opportunities to inform an accessibility action plan. Include options to create longer accessible trails and recognize universal accommodations to assure a variety of experiences. • Evaluate existing and potential networks suited for improvements to welcome adaptive mountain bike use. • Consider expanding e-bike use or motorized trail use, which would require an environmental analysis and associated public involvement. • Consider areas and alignments suited for new trail development (e.g., roads-to-trails, legacy trails) to help distribute use in southwest Washington and meet sustainability objectives. • Consider development of holistic trail network projects that improve access from communities to the forest.

Address Known User Concerns

While consulting with community members in the development of this plan, as well as feedback received during other trail projects, several concerns surfaced that are worth recording in this plan in an attempt to avoid future recurrence:

- Trailheads accessible only by high-clearance vehicles
- Frequent trail closures from failed bridges, washouts, or landslides
- Lack of parking
- Inadequate facilities at trailheads
- Inconsistent or missing signage

Many trail users expressed wanting loop opportunities, longer trail systems, and more low-elevation trail options. They also expressed concern over resource damage to trails due to poor location and where type or amount of use may

have higher impacts to soils, resulting in erosion or tread loss. User conflict, lack of opportunity for specific users (such as different types of motorized vehicles and e-bikes), and absence of annual maintenance on some trails were also mentioned.

Indigenous and historical trails being lost through abandonment, reconstruction, or relocation was a concern among commentors. They asked that preserving such trails be considered in sustainable trail planning efforts. High visitor use in wilderness surfaced as another area of concern. Specific areas garnering feedback from respondents included Snowgrass Flats in the Goat Rocks Wilderness and Thomas Lakes in the Indian Heaven Wilderness for their lack of solitude, increased human waste, and high number of dogs off leash. Recreational impacts to local mountain goat populations and other

Crew works to fix severely damaged trail from erosion. (TransCascadia photo)

wildlife dependent on higher-elevation habitats were also of concern and may require further evaluation.

FOCUS AREA: OUTDOOR OPPORTUNITIES	
GOAL: Quality Experience and Access for All	
OBJECTIVE: Address Unknown User Concerns	
STRATEGIES	POTENTIAL TACTICS
Develop sustainable trail network project descriptions.	• Collaborate to create "priority" or "emphasis area" concept maps to identify locations of proposed system modifications, recreation assets, restoration, and road improvements. Work together to move toward the balance of social, ecological, and economic sustainability spheres. • Consider interdisciplinary as well as public and stakeholder input, forest and monument plan guidance, ongoing interested community voices, and the 1980s Trails Task Force outcomes in developing comprehensive project descriptions.
Address resource and public concerns and impacts from trail use	• Integrate with wilderness managers on the forest to strategize, assess, and address perceptions of wilderness crowding that might be affecting a quality experience for trail users.

Improve Sign Program

The Gifford Pinchot trail system attracts about 700,000 visitors a year (Forest Service National Visitor Use Monitoring Survey 2021). This presents an incredible opportunity for cultural and conservation education at the very moment visitors are interacting with the resource through on-site signage.

A comprehensive sign program can thoughtfully tell and reinforce main messages through tailored information specific to a site. In addition to expected maps or way-finding information, consider including these elements to trailhead or on-trail signage:

Figure 14. Examples of trail signs. Left: A commonly used "Trail Etiquette Triangle." Right: A standard Forest Service sign commonly found in wilderness areas.

- Leave No Trace principles
- Trail etiquette (particularly on one-way or multi-use trails)
- Cultural or Tribal recognition
- Partner acknowledgment
- Volunteer recruitment

Wayfinding signage shouldn't just be for trailheads. Public feedback indicates a desire and appreciation for signage at trail intersections, as well.

Forest Service policy regarding signs and posters directs national forests to plan, design, procure, manufacture, install, and maintain all signs and posters to conform with the standards in EM-7100-15: Sign and Poster Guidelines for the Forest Service (Forest Service Manual 7100).

The Gifford Pinchot does not currently have a comprehensive trail system sign plan. However, the Forest Service Natural Resource Management database lists features unique to each trail on the forest and captures existing signs and their location on the trail.

FOCUS AREA: OUTDOOR OPPORTUNITIES	
GOAL: Quality Experience and Access for All	
OBJECTIVE: Improve Sign Program	
STRATEGIES	POTENTIAL TACTICS
Improve visitor experience or resource conditions through signing.	• Develop a forest-wide trail system-focused sign plan.

BROADENING ACCESS AND REMOVING BARRIERS TO OUTDOOR RECREATION

Engaging New Users and Communities Not Represented

Providing a thoughtfully planned trail system that offers a diverse range of opportunities is an important goal of this plan. One element of a thoughtfully planned trail system is understanding common barriers to participation, and taking steps to mitigate those barriers. National strategies and available data sources promote a broad understanding of who visitors are, how they recreate, who is not visiting, and barriers to accessing recreation opportunities. These include the National Visitor Use Monitoring (NVUM), Headwaters Economics, FS Accessibility Standards, and the 10-Year Trail Challenge. Having this research will allow the forest to validate assumptions and continue to identify and implement actions to eliminate recreation barriers for all citizens.

It is important to first understand who visitors are and how they recreate. According to the 2021 national visitor use monitoring survey, 57 percent of visits to the forest were by those who traveled more than 100 miles. In contrast, only 16 percent of visits to the forest were by those who were less than 50 miles away.

Gifford Pinchot National Forest.

Additionally, the survey found that 76 percent of all visits to the forest had a yearly household income greater than $100,000. The percentage of household incomes greater than $100,000 in the surrounding five counties (Skamania, Yakima, Lewis, Cowlitz, and Clark) was only 37.5 percent. If Clark County is removed, which contains the city of Vancouver, that percentage drops to 29.3 percent (Headwaters 2020).

This survey data indicates that a potential missing demographic from the forest is the local population. These households live near the forest but might not be visiting, potentially due to barriers the Forest Service should strive to understand and overcome.

The surrounding five counties have a disabled population of 14 percent, with 135,376 individuals claiming a disability (Headwaters 2020). A disability is defined using six categories: hearing difficulty, vision difficulty, cognitive difficulty, ambulatory difficulty, self-care difficulty, and independent living difficulty. There are 9.2 miles of designated accessible trails on the forest, which is less than 1 percent of the entire trail system.

According to 2021 national visitor use monitoring data, only 3.9 percent of visits to the forest were by those with a disability. Identifying this underserved community and providing barrier-free opportunities is an important part of future trail planning and development.

Limited English proficiency in local communities can also create barriers to safe, enjoyable recreation experiences. In the surrounding five counties, 79 percent of residents speak only English and 21 percent speak a language other than English. The most common second language is Spanish or Spanish Creole

with 15 percent of residents speaking it (Headwaters 2020). These numbers indicate that information in other languages might need to be provided to encourage residents to use the forest.

Removing or Mitigating Barriers

While the Forest Service strives to ensure that all people—regardless of race, color, national origin, or income—experience equal access, unintentional barriers might remain because of past recreation practices or forces outside of the agency's control. Some common barriers experienced by potential forest users include lack of transportation, lack of accessible facilities or trails, poor information, or lack of information in one's language.

▼ Mount St. Helens, Gifford Pinchot National Forest. (TransCascadia photo)

FOCUS AREA: OUTDOOR OPPORTUNITIES	
GOAL: Broadening Access and Removing Barriers to Outdoor Recreations	
OBJECTIVE: Engaging New Users and Communities Not Represented	
STRATEGIES	POTENTIAL TACTICS
Work collaboratively to decrease and eliminate barriers to recreation participation.	• Explore feasibility of offering public transportation from local communities to trailheads or access points on the forest, as well as who could offer this service (e.g., Clark, Lewis, Cowlitz, Skamania Counties, Washington Department of Transportation, non-governmental organizations). • Provide reliable, easily accessible online and on-site information for all trails, so that people of all abilities can determine what meets their needs and expectations best. • Encourage special events that support local communities and encourage visitation from new users, including communities not represented or emerging recreation activities. • Collaborate to improve information, trailheads, facilities, and parking areas for accessibility and linked accessible trails. • Consider where and to what degree to provide information in multiple languages. • Look outside the boundaries of the Gifford Pinchot National Forest for opportunities to increase forest access. Complement and leverage existing trail systems managed by adjacent or nearby agencies (e.g., Yacolt Burn State Forest, Mount Rainier National Park). • Partner with organizations representing existing and emerging groups of trail users, including The Backcountry Horsemen, Outdoor Afro, International Mountain Biking Association, Corazon Latino, GirlTREK, Latino Outdoors, Queer Nature, Outdoor Asian, Oregon Spinal Cord Injury Connection, or Adventure Without Limits. • Advertise natural land recreation opportunities on television or other social media platforms.

IV. ECONOMIC CONSIDERATIONS

Economic sustainability is a reciprocating principle whereby trail-based recreation and networks enhance economic vitality of nearby communities. In turn, communities explore and demonstrate commitment to care for the trail system. Health benefits of outdoor recreation are well documented and will be communicated at appropriate locations. Together, health and business benefits from recreation should be highlighted as assets to communities.

Although agency leadership will continue to be instrumental in the development of a sustainable trail system, accompanying non-agency leadership, facilitation, and financing will be essential.

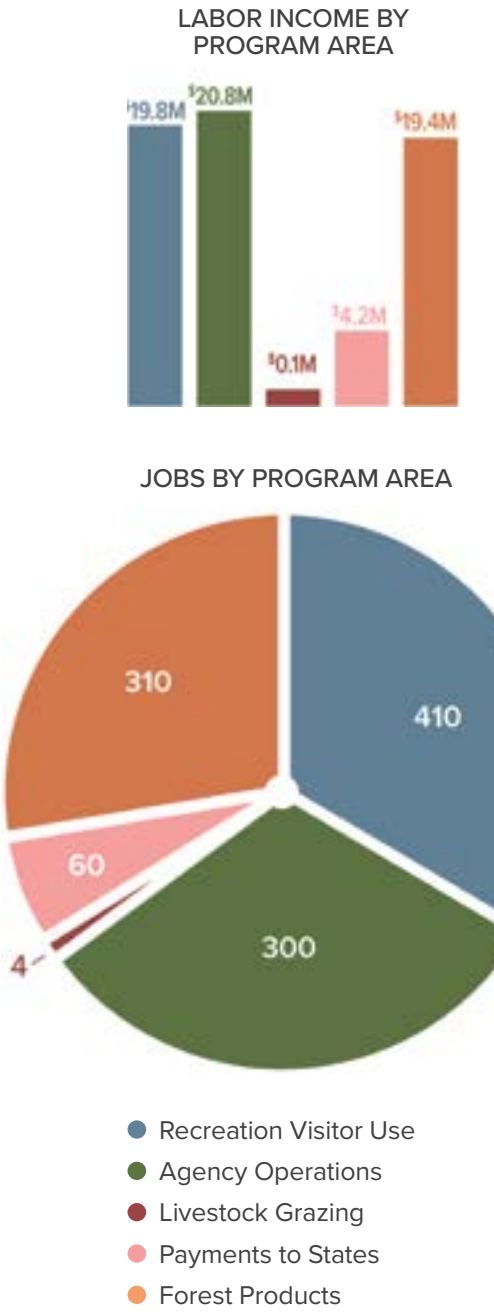
OUTDOOR RECREATION AS ASSETS TO COMMUNITY

Health and Business Benefits

Numerous individual studies have shown the positive impacts that parks and recreation can have on the physical, mental, and social health of individuals and their communities. These studies demonstrate how physical activity helps to control obesity, boost the immune system, diminish the risk of disease, and increase life expectancy. Outdoor recreation can also aid in reducing depression, relieving stress, and improving self-esteem and personal growth (The Health and Social Benefits of Recreation 2005).

Recreation is one of the largest contributors to local economies. Economic data from the U.S. Department of Commerce's Bureau of Economic Analysis showed that in 2022, outdoor recreation generated $1.1 trillion in economic output: 2.2 percent of the gross domestic product, 4.98 million jobs, and comprised 3.2 percent of U.S. employees (Outdoor Recreation Roundtable 2023). In

Figure 15. How Gifford Pinchot National Forest resource outputs contributed to the local economy in 2019. Recreation contributed the most in jobs and labor income.



Washington, spending on outdoor recreation was $26.5 billion and supported 264,000 jobs in 2019. In 2023, outdoor recreation contributed more than $20 billion to Washington's $610 billion gross domestic product, about 3.2 percent of the state's total (SCORP 2023).

National forests and grasslands provide multiple benefits to the American people and to local communities. In 2019, programs and activities on the Gifford Pinchot National Forest supported about 1,070 local jobs in various sectors, $63,899,000 in local labor income, and $95,100,000 in value added to the gross domestic product (figure 15). Recreation is a primary contributor to these benefits, with recreationists accounting for 40 percent of total jobs generated from forest activities. Labor income derived from forest recreation is estimated at $19.8 million a year, second highest of income derived from any other forest-related program.

Some of the adjacent gateway communities have interest in trail system development to bring about connectivity to the forest, foster community, attract new users, and realize the potential economic benefits and increased jobs associated with being a gateway or "trail town." However, it is possible that not all residents or communities are interested in this, so time would need to be spent engaging with local chambers of commerce, communities, and residents to inform and understand where real potential and interest exists.

Long term funding and pursuit of economic vitality will require continued discussion, buy-in, and commitment from the agency, partners, and communities as sustainable trails planning, analysis, and implementation move forward on the forest.

RECREATION JOBS	TOTAL JOBS	RECREATION LABOR INCOME	TOTAL LABOR INCOME
410	1,070	$19.8 million	$63,899,000

FOCUS AREA: ECONOMIC CONSIDERATIONS	
GOAL: Outdoor Recreation as Assets to Community	
OBJECTIVE: Health and Business Benefits	
STRATEGIES	POTENTIAL TACTICS
Collaborate with public, partners, interested communities, Tribal nations, governments, and private partners (including academia and industry).	• Considering present resources and priorities, pursue a detailed socioeconomic analysis of the trail system, the value it provides, the economic contributions it makes to the regional economy, and what it will need to continue to resiliently serve the community and visitors in an equitable manner. • As collective capacity allows, expand engagement with a variety of interested groups and communities to communicate benefits through effective channels supported by those entities and explore innovative means to achieve the actions outlined in this strategic plan. • Work with communities to identify initial and long-term trail and recreation facility funding.

SHARED LEADERSHIP AND FINANCIAL SUPPORT

Non-agency Leadership

The Gifford Pinchot is supported by two collaborative organizations: the Pinchot Partners, whose efforts focus mainly within the Cowlitz Valley Ranger District to the north, and the South Gifford Pinchot Collaborative on the Mount Adams Ranger District to the south. The primary focus of both collaborative groups is vegetation management (e.g., timber harvest, huckleberry enhancement, improved aquatic organism passage, etc.) and forest ecosystem health. Both collaboratives have recently expressed interest in being more engaged in recreation management. The South Gifford Pinchot Collaborative does have a recreation subcommittee that meets quarterly and dives more deeply into specific recreation topics. Currently, like most forests across the nation, the Gifford Pinchot does not have an official collaborative group that focuses specifically on recreation topics.

FOCUS AREA: ECONOMIC CONSIDERATIONS	
GOAL: Shared Leadership and Financial Support	
OBJECTIVE: Non-Agency Leadship	
STRATEGIES	POTENTIAL TACTICS
Explore feasibility of a collective impact initiative to increase capacity and organize collective resources	• Identify dedicated staff to facilitate collaborative work seeking participation and commitments of atypical sectors. • Pilot a "collective impact" collaborative initiative by securing non-agency support and leadership and a trail user steering group to implement priorities of this plan.

Funding and Financing

Forest Service annually appropriated funds from Congress are insufficient to support effective management and maintenance of its current trail system. Competing priorities on the forest further strain available resources. Influxes of funding (such as from the Great American Outdoors Act) can help with reducing deferred maintenance, but this funding is often a one-time influx and does not help with ongoing maintenance needs. Many partners and volunteers assist the Forest Service by performing trail maintenance, either strictly as volunteers or often through cooperative agreements on projects and programs, and by providing project match funding, communication, and education assistance. Sustainable funding should be described in ways which look outside of Forest Service annually appropriated funds.

The staffing and funding to support modernizing the Gifford Pinchot's trail system to a more sustainable model would require collaboration and funding from a number of outside resources. Collaborative partnerships could bring highly valuable capacity to work in step with the forest in strategizing the means and methods for such a conversion.

FOCUS AREA: ECONOMIC CONSIDERATIONS	
GOAL: Outdoor Recreation as Assets to Community	
OBJECTIVE: Funding and Financing	
STRATEGIES	POTENTIAL TACTICS
Identify new, ongoing, and endowed funding sources.	• Explore options and requirements for innovative financing toward support of mid-scale or “recreation-shed” trail system modernization and sustainability. • Coordinate pursuit of funding as a recurring topic for the trail user group and potential future collective impact initiative. • Continue to expand partnerships through cooperative agreements on projects and programs, as well as by providing project match funding, communication, and education assistance.

▼ Trail maintenance crew. (TransCascadia photo)

APPENDIX A: RELEVANT LAW, POLICY, GUIDANCE, AND REFERENCES

A broad foundation of laws, regulations, and polices guide recreation and trail management planning on National Forest System lands. Other documents provide strategic guidance. Below are the most relevant documents that informed this strategic plan and are regularly referenced to guide future actions.

RECREATION AND TRAILS

National Trail System Act of 1968
This Act calls for establishing trails in both urban and rural settings for people of all ages, interests, skills, and physical abilities. The Act promotes the enjoyment and appreciation of trails while encouraging greater public access. It establishes four classes of trails: national scenic trails, national historic trails, national recreation trails, and side and connecting trails.

Trail Stewardship Act of 2016
The Act's primary goal is to significantly increase the role of partners and volunteers in trail maintenance. Key points include an outfitter and guide trail stewardship credit program, 15 geographic trail maintenance priority areas established by the Secretary of Agriculture, and a volunteer strategy.

National Strategy for a Sustainable Trail System (2017)
This document establishes a set of core values that will guide the agency and its partners' efforts in making new and existing trails on National Forest System lands more sustainable ecologically, administratively, and economically. It also commits the Forest Service to act in six different areas to meet the challenges of achieving a sustainable trail system.

U.S. Forest Service Pacific Northwest Region Sustainable Trails Strategy (2020)
This strategy lays out the ideals and vision for what could be possible in developing a world-class trail network in the Pacific Northwest that is both feasible and sustainable. The strategy highlights four elements: create shared understanding, evaluate trail program and establish baseline conditions, identify sustainable trail systems and assess proposed trails, and modernize the trail program.

Ten-Year Sustainable Trails Stewardship Challenge (2020)

The Trail Challenge is a call to action to be focused on achieving two goals in the coming decade: increase the collective trail workforce capacity to care for trails and improve the sustainability of National Forest System trails. The trails workforce includes agency staff, partners, volunteers, and contractors. Sustainable trails are those that are well-designed, well-managed, and well-suited to meet the recreation needs of the public today and into the future.

Forest Service Policy

U.S. Forest Service policy, based on laws and regulations, is contained in agency manuals and handbooks. The most relevant to this project include:

- Forest Service Handbook 2309.13: Recreation Sites
- Forest Service Handbook 2309.18: Trails Management
- Forest Service Manual 2310: Sustainable Recreation Planning
- Forest Service Manual 2350: Trail, River, and Similar Recreation Opportunities
- Forest Service Manual 7700: Travel Management (attention to e-bike policy in 7710)
- Forest Service Handbook 2320: Wilderness Management

Trail Fundamentals and Trail Management Objectives: 1623-3801-MTDC (2016)

This document outlines trail management essential information, including trail fundamentals applications, trail management objectives purposes (including target maintenance frequencies), national quality standards for trails, trail class matrix, trail design parameters, condition assessment survey methods, Federal trail data standards, and trail management-relevant definitions.

Forest Service Trail Accessibility Guidelines (2013)

This document provides guidance for maximizing accessibility of trails in the National Forest System, while protecting the unique characteristics of their natural setting.

GIFFORD PINCHOT NATIONAL FOREST AND PACIFIC NORTHWEST REGION

Gifford Pinchot National Forest Land and Resource Management Plan (1990)

The forest plan guides all natural resource management activities and establishes management standards and guidelines for the Gifford Pinchot National Forest.

It describes resource management practices, levels of resource production and management, and the availability and suitability of lands for resource management. The plan outlines the following trail planning guidance for all Recreation Opportunity Spectrum levels.

1. Trail planning will determine the optimum long-term location for system trails. Planning should also minimize existing and future road crossings as well as other trail-road conflicts.
2. Trail relocation should occur only to move the trail to the optimum long-term location considering the recreation and other resource management objectives for the area.
3. A road remains a trail crossing so long as it is generally recognizable as a road to the casual trail user.
4. Protection of proposed trail locations will be addressed in the project environmental assessment on a case-by-case basis.
5. When a trail passes through a management area with more restrictive standards and guidelines, those more restrictive standards and guidelines will prevail.

Mount St. Helens Final Environmental Impact Statement Comprehensive Management Plan (1985)

The monument plan outlines measures for the preservation of the natural geologic and ecologic processes and integrity of the resources found within the Mount St. Helens National Volcanic Monument. The plan identifies the types, locations, and general intensities of development and access routes associated with the public use and enjoyment of the area. Recommended visitor volumes and monument boundary modification to adjust for increased visitation are included.

U.S. Forest Service Pacific Northwest Regional Wilderness Interpretation and Education Plan (2012)

Encompassing all 65 Pacific Northwest designated wilderness areas, the plan identifies the most significant resources, issues, and themes pertaining to their care and administration. (It is not a comprehensive catalog of every aspect of each wilderness.) The plan identifies threats and areas of concern, while also providing practical strategies, tools, and materials for managers to enlist public support in protecting wilderness resources.

Outfitter-Guide Needs Assessment and a Visitor Capacity Analysis and Outfitter-Guide Allocation, Gifford Pinchot National Forest (2014)

The objective of this analysis was to establish numerical visitor capacity estimates that could be used to support how much use will be allocated to outfitter and guides. This needs assessment showed that there is a need for commercial services for some activities in both wilderness and non-wilderness settings. The forest has been using the needs assessment to evaluate current services and future requests.

U.S. Forest Service, Gifford Pinchot Wilderness Education Plan (2016)

This Gifford Pinchot Wilderness Interpretation and Education Plan serves as the foundation of the interpretation and education program for the seven designated wilderness areas administered by the forest. It is tiered to the broader Pacific Northwest Regional Wilderness Interpretive and Education Plan and is intended to define and guide interpretive and educational programs to increase visitor and public understanding and appreciation of the resources provided from wildernesses.

Climate Change Vulnerability and Adaptation in Southwest Washington (2019)

The Southwest Washington Adaptation Partnership was developed to identify climate change issues relevant for resource management in southwest Washington, specifically on the Gifford Pinchot National Forest. This science-management partnership assessed the vulnerability of natural resources to climate change and developed adaptation options that minimize negative impacts of climate change on resources of concern and facilitate transition of diverse ecosystems to a warmer climate. The vulnerability assessment focuses on fish and aquatic habitat, vegetation, special habitats, recreation, and ecosystem services.

Gifford Pinchot National Forest Recreation Site Analysis Results and 2019-2024 Proposed Program of Work

The purpose of this recreation site analysis is to create a proposed program of work to improve the sustainability of recreation sites on the Gifford Pinchot National Forest. The analysis lays out goals of operating and maintaining sites to agency standards while reducing deferred maintenance costs. Broader goals consider how recreation sites contribute to social stability, environmental integrity, and economic vitality for the forest and surrounding communities.

Volunteer Operations Plan, Gifford Pinchot National Forest (2021)
The purpose of this operations plan is to outline safe, efficient, and consistent operational and administrative procedures for volunteer activities on the Gifford Pinchot National Forest. Nine goals are outlined within five managerial categories: program administration, training and safety, recognition, retention and recruitment, volunteer types and opportunities, and volunteer reporting.

Silver Star Vision Plan (2023)
The Silver Star Area Trail System provides an array of nonmotorized trail opportunities that are stewarded for sustainability by the land management agencies in partnership with those who use them. Trail recreation in the Silver Star Mountain area exists in harmony with the landscape's rich biological diversity and cultural resources. The plan shows support for actions to meet the vision of recreation and conservation management intended to bring confidence of investment into additional analysis for a given action.

U.S. FOREST SERVICE

National Visitor Use Monitoring Program
The National Visitor Use Monitoring Program has two concurrent goals. First, to produce estimates of the volume of recreation visitation to national forests and grasslands. Second, to produce descriptive information about that visitation, including activity participation, demographics, visit duration, measures of satisfaction, and trip spending connected to the visit.

OTHER REFERENCES

Access Recreation, Guidelines for Providing Trail Information to People with Disabilities, 2013.

This document provides guidance on information that is important to include on trail sites and websites, so people of all abilities can determine if a park or trail meets their needs and desired outdoor recreation experience.

Adaptation Strategies and Approaches (Recreation). Adapted from Forest Adaptation Resources: Climate Change Tools and Approaches for Land Managers.

California State Trails Handbook, California State Parks, 2019.

Climate Change Vulnerability and Adaptation in Southwest Washington, 2019.

Collective Impact Forum.

Forest Level Economic Contributions Dashboard, 2019 (external site).

Headwater Economics.

Economic Profile System.

Economic Analysis of Outdoor Recreation in Washington State 2020 Update.

The Health and Social Benefits of Recreation, California State Parks, 2005.

Ready, Set, Plan!? Introductory Guide to Trails Planning and Development, Oregon Trails Coalition, 2021.

Washington State Recreation and Conservation Plan, 2023.

APPENDIX B: GLOSSARY OF TERMS

Accessible: The design, construction, development, and maintenance of facilities, information and communication technology, programs, and services so that all people, including people with disabilities, can fully and independently use them.

Community Connectivity: Trails designed to connect communities to other communities, or communities to trail systems.

Deferred Maintenance: Maintenance that was not performed when it should have been or when it was scheduled and which, therefore, was put off or delayed for a future period. Deferred maintenance includes repair, replace, or decommission (Trail Fundamentals and Trail Management Objectives: 1623-3801-MTDC).

- **Repair:** Work to restore a damaged, broken, or worn-out fixed asset or component to normal operating condition.
- **Replace:** Substitute or exchange of an existing asset or component with one having essentially the same capacity and purpose.
- **Decommission:** Demolish, dismantle, remove, obliterate, or dispose of a deteriorated or otherwise unneeded asset or component, including necessary cleanup work.

Designed use: Designed use is the single managed use of a trail that requires the most demanding design, construction, and maintenance parameters and that, in conjunction with the applicable trail class, determines which design parameters will apply to a trail (Forest Service Handbook 2309.18, section 14.4).

Economic sustainability: Economically sustainable trails are those that meet minimum expectations for safety and where annual maintenance needs are met with little to no accrual of deferred maintenance. In addition, the trail is valued by the public and has community and user support either through direct financial support, in-kind labor, or support for grants or other supplemental funding.

Considerations:

- Deferred maintenance does not restrict trail access, risk public safety, or negatively impact the environment.
- Annual operations and maintenance are accomplished to avoid accrual of deferred maintenance.
- Volunteer, partner, or community contributions may contribute to ongoing operations and maintenance needs.

Environmental sustainability: An environmentally sustainable trail is located, designed, constructed, and managed in a way that eliminates or minimizes recurring maintenance and impacts to natural and cultural resources now and into the future. Considerations:

- Location and alignment of trails, e.g., consider contour curvilinear alignment, controlled grade, integrated drainage, durable tread, etc.
- Impacts to natural and cultural resources, e.g., consider endangered species, soil and geologic features, water quality, wildlife, and habitat.
- Type and amount of trail use as it relates to impacts.

High utility: Trails that are normally low-elevation and have a relatively long season of use.

Information quality: Having accurate, consistent, and up-to-date trail information available electronically at Forest Service offices, local outdoor stores, and trailheads. This information provides the public with the tools to understand trail opportunities and help them make informed decisions on where, when, and how to recreate.

Loop flow/directional trail: A trail or trail system that is laid out in such a way as to encourage users to travel in one direction.

Managed use: Managed use is a mode of travel that is actively managed and appropriate on a trail, based on its design and management (Forest Service Handbook 2309.18, section 14.3).

Network connectivity: Trail networks that are connected to each other by transfer trails.

Social sustainability: Socially sustainable trails are diverse, connected, supported, and valued by users and the greater community. A socially sustainable trail meets the management intent for a trail, aligns with community desire for the trail, minimizes user conflict, and promotes positive trail experiences. Considerations:

- Value of the trail to communities, e.g., provides desired experiences, connectivity, or access, special recognition, etc.
- High-quality trail experiences that meet the diverse needs of the community, e.g., minimizes visitor conflict, welcomes all visitors.
- Opportunity gaps consider whose values, experiences, and desires are not being served, particularly diverse communities who have historically been underrepresented.

Standard/terra trail: A trail that has a surface consisting predominantly of the ground and that is designed and managed to accommodate use on that surface (Forest Service Handbook 2353.05). Different from snow and water trails.

Stacked loops: Trail or trail systems designed with many loops "stacked" on each other so that users can pick from a variety of loop options of varying length and difficulty.

Technology-adaptive: Trail management, design, and maintenance are adaptive to new technology that can improve communication, public information, and efficiency.

Trail: A route 50 inches or less in width or a route more than 50 inches wide that is identified and managed as a trail (36 CFR 212.1).

Trail class: A trail class is the prescribed scale of development for a trail, representing its intended design and management standards. Trail classes are general categories reflecting how developed a trail is, arranged along a continuum. There are five trail classes, ranging from the least developed (class 1) to the most developed (class 5). For specifics on each trail class, refer to the trail class matrix (Forest Service Handbook 2309.18, section 14.2, exhibit 01).

Trail density: Design concept that numerous trails or stacked loops can be built in an condensed area to maximize trail mileage and disperse users in a trail system.

Transfer trails: Multi-use trails that let users access various trail systems, and each trail systems may be designed for a specific use.

Transit-oriented: A trail system that considers the impacts of parking and traffic. It also encourages creating networks or trailheads near major roads where public transit could serve users who do not have access to reliable transportation.

Unauthorized route: A road or trail that is not a forest road or trail or a temporary road or trail and that is not included in a national forest's transportation atlas (36 CFR Part 212, 251, 261, and 295).

APPENDIX C: STRATEGIES AND POTENTIAL TACTICS FOR ALL FOCUS AREAS

This strategic plan has four focus areas, which align with needs and potential tactics put forth in the Forest Service's National Strategy for a Sustainable Trail System (2017). The four focus areas are: modernizing the trail system, sharing in trail development and maintenance ("stewardship"), identifying and developing outdoor recreation opportunities, and incorporating economic considerations in trail development and management.

Each focus area includes a goal, each goal has objectives, and each objective has strategies and potential tactics intended to help meet the larger goal.

FOCUS AREA: MODERN TRAIL SYSTEM	
GOAL: Effectively Managed Trail System	
OBJECTIVE: Current Trail System and Sustainable Trail Assessment	
STRATEGIES	POTENTIAL TACTICS
Assess current trail system.	Assess trail segments for components of ecological sustainability using the Forest Service's 2024 trail assessment and condition overview survey. Conduct surveys when completing annual trail condition and assessments assigned by the national headquarters. Assess unassigned segments using the 2024 survey protocols as time allows. • Record trail conditions and improvements into the Forest Service's Sustainable Trail Assessment Tool dashboard. • Forest and national headquarters track progress using the nine metrics established in the National Trails Challenge. • Assess: – Segments suitable for re-route. – Segments with trail infrastructure that is no longer useful to protect resources and where removal of those structures would increase sustainability. – Abandoned trails, particularly those with heavy use. – Specific unauthorized routes. Consider value, location, and sustainability. – Trails with potential for trail class changes that better reflect social relevance. – Trails using GIS to ensure that they are accurately displayed on map products. – Potential suitable locations for staging and camping areas for volunteer work parties.

FOCUS AREA: MODERN TRAIL SYSTEM	
GOAL: Effectively Managed Trail System	
OBJECTIVE: Trail Maintenance	
STRATEGIES	POTENTIAL TACTICS
Increase and prioritize trail maintenance and trail projects.	• Invest in projects and design sustainable trail re-alignments that incorporate proper drainage without requiring armored drainage structures. • Prioritize projects supported by existing collaborative groups. • Prioritize maintenance for trails with accessibility features or accessibility possibilities, as well as trails where public transportation to the trail is established. • Create an annual forest-level trail maintenance and project plan with partners at ongoing trail user group meetings. When coordinating priorities, consider: – Forest Service Handbook 2309.18 guidance. – Partner value table weights. – Trail assessment results. – Status of required NEPA analysis, consequences of inaction, and public transportation service to the area. – Where specialized equipment may be needed to adequately maintain trails. Use of specialized equipment may require cultural resource review and NEPA analysis prior to implementation. • Work toward completing a five-year forest-wide trails maintenance plan. Outyear maintenance schedules should be developed in coordination between districts and with partner collaboration. • Outline typical cost ranges for completing trail and bridge work and corresponding NEPA analysis.

FOCUS AREA: MODERN TRAIL SYSTEM	
GOAL: Effectively Managed Trail System	
OBJECTIVE: Managing Shared Use on the Landscape	
STRATEGIES	POTENTIAL TACTICS
Proactively manage shared-use areas.	• Select one of the following areas as a pilot to try collaborative strategies to proactively manage a shared-use trail system: – Green River/Vanson/Strawberry (bike/horse/hiker) – Silver Star (hiker/biker); tie into Silver Star Trail Plan – Canyon Creek/Saturday Rock (motorized mixed use on roads) • Develop a best practices toolkit for managing shared use in popular areas. • Work with trail user groups to develop and deliver educational messages regarding trail etiquette and recreating responsibly where user conflict might be likely.

FOCUS AREA: MODERN TRAIL SYSTEM	
GOAL: Ecologically Sound, Socially Relevant Trails	
OBJECTIVE: Modern Trail Networks	
STRATEGIES	POTENTIAL TACTICS
Modernize trail networks.	• Incorporate modern trail system design in the following areas to reduce the potential for user conflict and increase physical sustainability while protecting cultural and historic values: – Strawberry – Goat Mountain/Vanson – Tongue Mountain Trail – Wind River Nursery Area

FOCUS AREA: MODERN TRAIL SYSTEM	
GOAL: Ecologically Sound, Socially Relevant Trails	
OBJECTIVE: Adapting to Projected Climatic Impacts	
STRATEGIES	POTENTIAL TACTICS
Incorporate adaptation and resiliency strategies into trail system planning and management.	• Consider relevant adaptation actions from the Southwest Washington Climate Change Vulnerability Assessment Recreation Adaptation Strategies and Approaches workbook (appendix F) and the Adaptation Library when initiating projects and planning. • Support planning and management actions that reduce the risks changing climatic conditions might have on trails, buildings, campsites, and other recreation infrastructure. • Prepare for longer seasons of use for warm-weather recreation, including increased demand during shoulder seasons. • Increase resistance and resilience of road and trail infrastructure, preparing for increased risks from flooding and landslides as well as fire.

FOCUS AREA: MODERN TRAIL SYSTEM	
GOAL: Ecologically Sound, Socially Relevant Trails	
OBJECTIVE: Trail System Modification	
STRATEGIES	POTENTIAL TACTICS
Establish a trail system modification proposal and screening process.	• Refine the Gifford Pinchot National Forest's trail system modification proposal process and associated checklist (appendix D). • Establish a trail user group that would assist with the trail system modification proposal process.

FOCUS AREA: MODERN TRAIL SYSTEM	
GOAL: Ecologically Sound, Socially Relevant Trails	
OBJECTIVE: Address Unauthorized Routes	
STRATEGIES	POTENTIAL TACTICS
Address unauthorized routes.	• Partners and agency collaborate on messaging and methods for public education. • Use “Ready, Set, Plan” checklist when evaluating unauthorized routes for decision making. Evaluate unauthorized routes holistically, rather than piecemeal. Management decisions will be based on a variety of factors around natural resource and social concerns. A suite of options may be employed for managing social trails, ranging from “no action” up to “closure and restoration.” • Utilize remote sensing or social tracking applications to identify where unauthorized use is occurring. Cross check that data with specialists to determine if natural resource concerns are present.

FOCUS AREA: STEWARDSHIP	
GOAL: Working Together	
OBJECTIVE: Collective Capacity to Work Together ("What")	
STRATEGIES	POTENTIAL TACTICS
Support the trails program.	• Post existing partnerships and volunteer support of a trail network at trailhead information boards and other communication media. • Prioritize and garner support for key positions that will support and elevate the trails program forest-wide.
Expand upon existing partnerships.	• Explore Tribal, youth, and veteran programs to increase trail stewardship. • Explore and pursue opportunities to work with nontraditional partners.

FOCUS AREA: STEWARDSHIP	
GOAL: Working Together	
OBJECTIVE: Work Together ("How")	
STRATEGIES	POTENTIAL TACTICS
Strengthen relationships and improve efficiencies with partners, volunteers, and land managers.	• Establish a trail user group to help accomplish elements of this plan. The group would be composed of a variety of interests working together to build relationships and understanding, prioritize and coordinate maintenance, collaborate between partner organizations, effectively communicate, and promote sustainable trail system development. • Maintain the Partner Trail Stewardship Schedule to help coordinate working together and improve communication.

FOCUS AREA: STEWARDSHIP	
GOAL: Working Together	
OBJECTIVE: Training	
STRATEGIES	POTENTIAL TACTICS
Elevate trail planning, construction, and maintenance across a broad spectrum of agencies, partners, and volunteers through standardized skill development and training.	• Identify, design, and communicate essential skills training opportunities related to technology, trail sustainability, and trail maintenance. Support partner-led training as well as programs through americantrails.org and trailskills.org to augment in-person skills training.

FOCUS AREA: STEWARDSHIP	
GOAL: Education and Promotion of Conservation and Cultural Values	
OBJECTIVE: Information Sharing and Education Programs	
STRATEGIES	POTENTIAL TACTICS
Improve and increase public education.	• Identify key messages related to trails. • Refer to guidance outlined in existing interpretation and education plans (appendix A). • Evaluate and improve trailhead information, agency website, and social media content. • Prioritize public education and interpretive recommendations stemming from Indigenous engagement. • Consider outreach and education regarding rationale for seasonal closures (where applicable), and how recreation impacts animal behavior, causes habitat fragmentation, and is a potential conduit for invasive species. • Provide information on where e-bikes are allowed and explain differences in managing agencies regulations. • Consider trail ambassador programs to deliver key messages at priority locations. • Incorporate Access Recreation's Guidelines for Providing Trail Information to People with Disabilities when developing information strategies (appendix A).

FOCUS AREA: STEWARDSHIP	
GOAL: Education and Promotion of Conservation and Cultural Values	
OBJECTIVE: Cultural Values and Indigenous Communities	
STRATEGIES	POTENTIAL TACTICS
Continue to engage with Indigenous communities and consider cultural values.	• Collaborate with the Forest Service Heritage Program, tribal liaisons and Indigenous communities (Yakama, Cowlitz, Nisqually, Muckleshoot, Squaxin Island, and Puyallup) to understand where acknowledging culturally significant areas and Indigenous histories of trails are needed, and where Indigenous trails may be considered for reestablishment and inclusion in the official trail system. • Discuss with Indigenous communities how they would like to be acknowledged and whether they would be interested in co-stewardship opportunities with the agency. • In education and interpretive programs, include information about Indigenous communities (past and present) and present forest activities from multiple perspectives (after consulting with Tribes). • Identify opportunities to meet National Historic Preservation Act objectives through historic trail designation, preservation, and public uses.

FOCUS AREA: OUTDOOR OPPORTUNITIES	
GOAL: Quality Experience and Access for All	
OBJECTIVE: Trail Use	
STRATEGIES	POTENTIAL TACTICS
Identify new trails or uses with potential to enhance social, economic, or ecological conditions.	• Assess current accessible trail opportunities to inform an accessibility action plan. Include options to create longer accessible trails and recognize universal accommodations to assure a variety of experiences. • Evaluate existing and potential networks suited for improvements to welcome adaptive mountain bike use. • Consider expanding e-bike use or motorized trail use, which would require an environmental analysis and associated public involvement. • Consider areas and alignments suited for new trail development (e.g., roads-to-trails, legacy trails) to help distribute use in southwest Washington and meet sustainability objectives. • Consider development of holistic trail network projects that improve access from communities to the forest.

FOCUS AREA: OUTDOOR OPPORTUNITIES	
GOAL: Quality Experience and Access for All	
OBJECTIVE: Address Unknown User Concerns	
STRATEGIES	POTENTIAL TACTICS
Develop sustainable trail network project descriptions.	• Collaborate to create “priority” or “emphasis area” concept maps to identify locations of proposed system modifications, recreation assets, restoration, and road improvements. Work together to move toward the balance of social, ecological, and economic sustainability spheres. • Consider interdisciplinary as well as public and stakeholder input, forest and monument plan guidance, ongoing interested community voices, and the 1980s Trails Task Force outcomes in developing comprehensive project descriptions.
Address resource and public experience concerns and impacts from trail use	• Integrate with wilderness managers on the forest to strategize, assess, and address perceptions of wilderness crowding that might be affecting a quality experience for trail users.

FOCUS AREA: OUTDOOR OPPORTUNITIES	
GOAL: Quality Experience and Access for All	
OBJECTIVE: Improve Sign Program	
STRATEGIES	POTENTIAL TACTICS
Improve visitor experience or resource conditions through signing.	• Develop a forest-wide trail system-focused sign plan.

FOCUS AREA: OUTDOOR OPPORTUNITIES	
GOAL: Broadening Access and Removing Barriers to Outdoor Recreations	
OBJECTIVE: Engaging New Users and Communities Not Represented	
STRATEGIES	POTENTIAL TACTICS
Work collaboratively to decrease and eliminate barriers to recreation participation.	• Explore feasibility of offering public transportation from local communities to trailheads or access points on the forest, as well as who could offer this service (e.g., Clark, Lewis, Cowlitz, Skamania Counties, Washington Department of Transportation, non-governmental organizations). • Provide reliable, easily accessible online and on-site information for all trails, so that people of all abilities can determine what meets their needs and expectations best. • Encourage special events that support local communities and encourage visitation from new users, including communities not represented or emerging recreation activities. • Collaborate to improve information, trailheads, facilities, and parking areas for accessibility and linked accessible trails. • Consider where and to what degree to provide information in multiple languages. • Look outside the boundaries of the Gifford Pinchot National Forest for opportunities to increase forest access.. Complement and leverage existing trail systems managed by adjacent or nearby agencies (e.g., Yacolt Burn State Forest, Mount Rainier National Park). • Partner with organizations representing existing and emerging groups of trail users, including The Backcountry Horsemen, Outdoor Afro, International Mountain Biking Association, Corazon Latino, GirlTREK, Latino Outdoors, Queer Nature, Outdoor Asian, Oregon Spinal Cord Injury Connection, or Adventure Without Limits. • Advertise natural land recreation opportunities on television or other social media platforms.

FOCUS AREA: ECONOMIC CONSIDERATIONS	
GOAL: Outdoor Recreation as Assets to Community	
OBJECTIVE: Health and Business Benefits	
STRATEGIES	POTENTIAL TACTICS
Collaborate with public, partners, interested communities, Tribal nations, governments, and private partners (including academia and industry).	• Considering present resources and priorities, pursue a detailed socioeconomic analysis of the trail system, the value it provides, the economic contributions it makes to the regional economy, and what it will need to continue to resiliently serve the community and visitors in an equitable manner. • As collective capacity allows, expand engagement with a variety of interested groups and communities to communicate benefits through effective channels supported by those entities and explore innovative means to achieve the actions outlined in this strategic plan. • Work with communities to identify initial and long-term trail and recreation facility funding.

FOCUS AREA: ECONOMIC CONSIDERATIONS	
GOAL: Shared Leadership and Financial Support	
OBJECTIVE: Non-Agency Leadship	
STRATEGIES	POTENTIAL TACTICS
Explore feasibility of a collective impact initiative to increase capacity and organize collective resources	• Identify dedicated staff to facilitate collaborative work seeking participation and commitments of atypical sectors. • Pilot a "'collective impact" collaborative initiative by securing non-agency support and leadership and a trail user steering group to implement priorities of this plan.

FOCUS AREA: ECONOMIC CONSIDERATIONS	
GOAL: Outdoor Recreation as Assets to Community	
OBJECTIVE: Funding and Financing	
STRATEGIES	POTENTIAL TACTICS
Identify new, ongoing, and endowed funding sources.	• Explore options and requirements for innovative financing toward support of mid-scale or “recreation-shed” trail system modernization and sustainability. • Coordinate pursuit of funding as a recurring topic for the trail user group and potential future collective impact initiative. • Continue to expand partnerships through cooperative agreements on projects and programs, as well as by providing project match funding, communication, and education assistance.

APPENDIX D: TRAIL SYSTEM MODIFICATION PROPOSAL CHECKLIST - DRAFT

PROPONENT CONTACT INFORMATION:

PROJECT DESCRIPTION:

WHERE IS THE PROJECT LOCATED?
Please include Forest Service ranger district, if known.

WHICH OF THE FOLLOWING ACTIONS ARE INVOLVED WITH YOUR PROPOSAL:

NEW TRAIL

- ☐ New trail construction (not associated with reroute/relocation) ____ miles
- ☐ New trail construction to serve as a connector trail ____ miles
- ☐ Construction of one or more trailheads ____ trailheads
- ☐ Bridges of other major constructed features (e.g. raised walkways) ____ features
- ☐ Miles of proposal using active or old roadbeds ____ miles

EXISTING TRAIL

- ☐ Reroute/relocation of an existing trail ____ miles
- ☐ Maintenance and/or repair of an existing trail ____ miles
- ☐ Expansion or improvements at one or more existing trailheads ____ trailheads
- ☐ Change managed use of an existing trail ____ miles

DECOMMISSIONING/OBLITERATION

- ☐ Trail (not associated with a relocation) ____ miles
- ☐ Trail associated with relocation ____ miles
- ☐ Trailheads ____ trailheads

WHO ARE THE INTENDED TRAIL USERS?

- ☐ Hiker/pedestrian
- ☐ Trail associated with relocation
- ☐ Trailheads
- ☐ Equestrian
- ☐ Mountain bicycle
- ☐ Adaptive equipment users
- ☐ Nordic skier or snowshoer
- ☐ Architectural Barrier Act accessible
- ☐ Motorized (ATV, 4x4, side by side, dirt bike)
- ☐ Multiple use (motorized, nonmotorized)

DESCRIBE THE PROPOSED TRAIL EXPERIENCE.

QUESTIONS ABOUT THE LARGER CONTEXT:

1. How does the proposed trail meet system goals?

2. How does the trail work with the landscape in the desired location?

3. Does the trail create conflicts with other land uses? How can any impact be mitigated?

4. Does the trail provide access to a destination or landscape people want to visit? Describe.

5. Does the trail provide access to an activity for which access is lacking in the region? Describe.

6. Is the trail likely to increase or decrease user conflicts? Describe.

7. Does the trail increase access for communities lacking green space or active recreation? Describe.

8. How will the trail design and planning process include stakeholders of various backgrounds?

9. What would accessibility beyond meeting minimum American Barriers Act requirements look like on the trail?

10. Do the resources, including funding, exist to conduct necessary environmental reviews, design, and trail building? Do the resources exist to maintain it? Describe.

11. Are there known sensitive areas that must be considered in building the trail (consider natural and cultural resources)? How can any impact be mitigated?

12. Are there known concerns or conflicts with other visitors or adjacent landowners? How can you work with them to offset or mitigate their concerns?

13. Is there broad support for the project from other stakeholders? What groups?

14. Are there likely to be any safety concerns associated with the proposal? Describe.

15. Describe your capacity to support project implementation and long-term maintenance and operation.

CHECKLIST OF POTENTIALLY RELEVANT INFORMATION TO COLLECT:

These items might not all exist or be relevant to your project, but use this as a guide for what information you might want or need to collect.

PROJECT AND AGENCY PLANNING

- ☐ Project proposal
- ☐ Appropriate agency and partner contact information
- ☐ Recreation map (show existing trails, trailheads, and other recreation facilities along with proposed changes)
- ☐ Local trail system plan
- ☐ Local park system, transportation system, or forest plan
- ☐ County and/or state land use plans (particularly for rural communities where detailed parks and transportation system plans don't exist)
- ☐ Any recreation or trail planning documents, directives, or goals applicable to area
- ☐ Previous NEPA documents
- ☐ Known heritage assets in area
- ☐ Known threatened or endangered species in area
- ☐ Watershed condition class
- ☐ Soils map
- ☐ Planned management activities in area
- ☐ Current issues with unmanaged recreation or illegal use
- ☐ Any visitor use, trail counts, or visitor satisfaction data

FINANCIAL

- ☐ Agency success for obtaining grant funding; projections for future
- ☐ Any existing priority system for agency requesting grants

- ☐ Agency success for obtaining grant funding; projections for future
- ☐ Agency budget/work plans as relevant to the project
- ☐ Cost estimates for project
- ☐ Deferred maintenance needs on existing trail system
- ☐ Percentage of current trails meeting standard
- ☐ Demonstrated track record of financial support from partner group

PARTNER AND COMMUNITY

- ☐ Demonstrated record of volunteer or partner programs in trail development, maintenance, or management
- ☐ Accurate and up-to-date formal partnership agreements
- ☐ Demonstration of community support
- ☐ Documentation of known opposition
- ☐ Knowledge of historical and cultural significance of area, including Indigenous communities

APPENDIX E: TRAIL FUNDING AND RESOURCES

There are numerous funding opportunities for trails management, planning, and development. The table below contains potential funding and support resources as of 2024.

FUNDING OR OPPORTUNITIES	SOURCE	TIMING	ELIGIBILITY	KEY INFO
Recreational Trails Program	USDOT-Federal Highway Administration	Annual cycle	Provides funds to states to develop and maintain recreational trails and trail-related facilities for both nonmotorized and motorized recreational trail uses.	Contact your state Recreational Trails Program coordinator.
Trails-Nonhighway and Off-Road Vehicle Activities Program	Washington State Recreation and Conservation Office	Every two years	The Nonhighway and Off-Road Vehicle Activities Program provides funding to develop and manage recreation opportunities for such activities as cross-country skiing, hiking, horseback riding, mountain bicycling, hunting, fishing, sightseeing, motorcycling, and riding all-terrain and four-wheel drive vehicles. A portion of the funding also is available for education and enforcement programs that encourage environmentally responsible use of the outdoors and for helping to minimize conflict between visitors through positive management techniques. Except for off-road vehicle facilities, activities supported by this program must be accessed via a nonhighway road, which is a public road that was not built or maintained with gasoline tax funding. Nonhighway roads are found most often in state and national forests and national parks.	NOVA program

FUNDING OR OPPORTUNITIES	SOURCE	TIMING	ELIGIBILITY	KEY INFO
National Forest Foundation and National Fish and Wildlife Foundation	Varies depending on program area	Varies; visit the National Forest Foundation and National Fish and Wildlife Foundation grant pages for current opportunities.	Funds CANNOT go directly to national forests but can be awarded to nonprofit partners or through contracts. Some National Forest Foundation projects can be recreation-focused but benefit from broader scope into different resource areas. National Fish and Wildlife Foundation projects generally need to focus on wildlife and habitat benefits.	Reach out to the regional National Forest Foundation coordinator for your area to explore current and possibly develop future opportunities. The National Forest Foundation has programs with direct ties to recreation and trail maintenance.
Rivers, Trails, and Conservation Assistance Program	Department of the Interior-National Park Service	Annual cycle; applications due March 1	Alignment with Rivers, Trails, and Conservation Assistance Program focus areas; many kinds of trail projects align with these. Projects will be more competitive if planning effort spans multiple agencies, states, counties, and stakeholders.	Does not provide monetary funding, but can provide assistance and capacity for planning and coordinating with partners.
National Forest System Trail Stewardship Partner Funding Program	National Wilderness Stewardship Alliance	Annual cycle; applications typically due mid-April	Provides funding to nonprofit organizations to conduct trail maintenance on National Forest System trails. Can include non- wilderness and motorized trails. National Wilderness Stewardship Alliance Trail Funding Program.	Each submission must be accompanied by a letter of support from the local Forest Service unit.
Legacy Trails Program	American Trails	Annual cycle with an application window early October to early December. Funds are available in February for two years.	The goal of the program is to support projects that restore, protect, and maintain watersheds on our national forests and grasslands. Ideal projects improve road and trail resiliency, preserve access, and decommission unneeded roads. The program supports partner trail projects that further the Legacy Roads and Trails criteria on National Forest System trails.	This American Trails program is funded up to $1.5M per year for 5 years through the Bipartisan Infrastructure Law, starting in 2023. Awards are up to $100,000 per project. A local Forest Service agreement or contract is not needed as the National Cost Share Agreement with American Trails already authorizes work to occur on National Forest System lands.

APPENDIX F: RECREATION ADAPTATION STRATEGIES

Adapted from Forest Adaptation Resources: Derived from Forest Adaptation Workbook Approaches for Land Managers

Created using the Northern Institute of Applied Climate Science Adaptation Workbook.

Strategy 1: Protect and sustain key infrastructure.

- Stabilize shorelines to reinforce vulnerable infrastructure.
- Maintain, improve, and construct infrastructure using materials that can withstand a range of climate stressors.
- Maintain, improve, and construct infrastructure using designs that reduce impacts from variable water levels.
- Employ technological innovations to maintain the viability of developed winter recreation areas.
- Employ protective measures to minimize damage from disturbance events.

Strategy 2: Enhance measures to prevent ecological damage from variable precipitation.

- Maintain and increase the capacity of stormwater infrastructure to accommodate variable precipitation.
- Enhance the capacity of natural systems to accommodate variable precipitation.
- Minimize impacts of existing roads and trails that are compromised by changing conditions.

Strategy 3: Manage impacts from shifting visitation and use trends.

- Reduce visitor impacts to vulnerable areas.
- Optimize timing of opportunities to align with changing conditions.
- Provide alternative means of access.

Strategy 4: Account for and communicate risks to human well-being.

- Train employees to be aware of climate-exacerbated risks to public safety.
- Prevent or minimize hazards from wildland fire.
- Prevent or minimize hazards from extreme heat events.
- Improve public awareness regarding climate change and climate-exacerbated risks.
- Communicate the reality of environmental change.

Strategy 5: Manage recreational opportunities to address impacts of expected conditions.

- Recondition recreation-related infrastructure located in vulnerable areas.
- Use appropriate vegetation to increase resilience of recreation settings to climate-exacerbated stressors.
- Alter infrastructure to better capture and use natural and human-made snow.
- Employ snow-based options that are functional in low-snow conditions.

Strategy 6: Alter recreational opportunities to accommodate expected conditions.

- Increase four-season and non-skiing recreation opportunities at winter sports areas.
- Relocate existing infrastructure and opportunities to areas with less risk of climate-exacerbated damage.
- Integrate long-term siting and climate considerations into recreation management.
- Use materials and designs that are impermanent.
- Remove or decommission vulnerable infrastructure.

Gravel road in the Gifford Pinchot National Forest.
(TransCascadia photo)