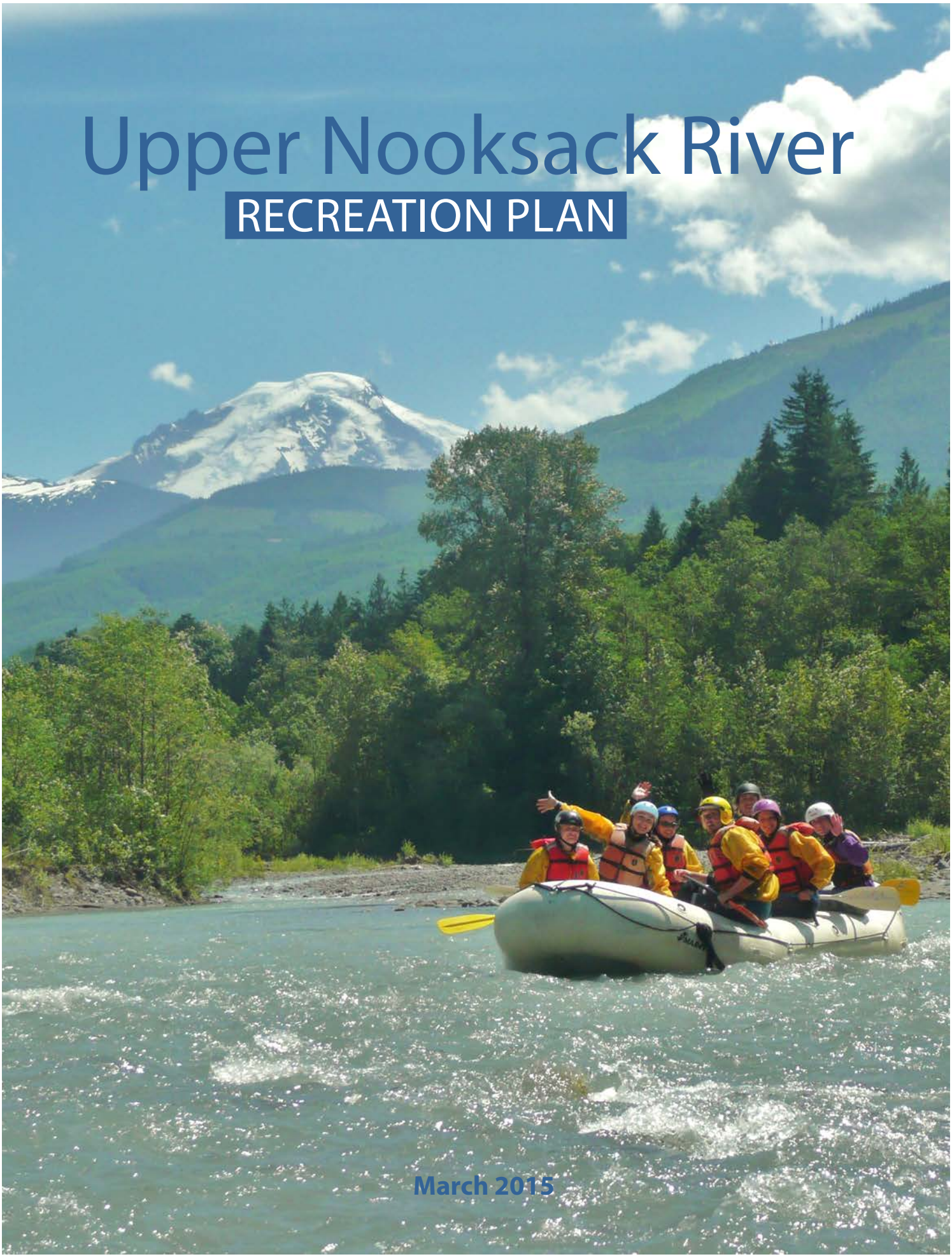
Upper Nooksack River

RECREATION PLAN



March 2015

Photo Credit Rich Bowers

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Upper Nooksack River Recreation Plan

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Plan design and layout by:

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Appendices (see www.americanrivers.org/newsroom/resources/nooksack-recreation-plan/)

Acronyms

ADHD	Attention Deficit Hyperactivity Disorder
CCC	Civilian Conservation Corps
DOE	Washington State Department of Ecology
DNR	Washington State Department of Natural Resources
ESA	Endangered Species Act
IMBA	International Mountain Bike Association
LWD	Large Woody Debris
MOU	Memorandum of Understanding
NEPA	National Environmental Policy Act
NSEA	Nooksack Salmon Enhancement Association
NPS	National Park Service
PNTA	Pacific Northwest Trail Association
SARA	Canada's Species at Risk Act
SR 542	State Route 542 or the Mount Baker Highway
USFS	United States Forest Service
WSDOT	Washington State Department of Transportation
WCPR	Whatcom County Parks and Recreation Department
WDFW	Washington Department of Fish and Wildlife
WRIA	Water Resource Inventory Area
WLT	Whatcom Land Trust

Executive Summary

Purpose and Scope

Flowing from the North Cascades Mountains through the forests and farmlands of Whatcom and Skagit Counties, the Nooksack River system is a unique watershed that provides important habitat for native fish and wildlife species. It is also a regional outdoor recreation haven, providing local residents and area visitors with fishing opportunities, scenic trails, idyllic riverside campsites, world-class whitewater boating, rich assortment of wildlife viewing opportunities, and incredible winter sports including snowshoeing, snowboarding, and all forms of skiing: cross country, back-country, and alpine.

The purpose of the Upper Nooksack River Recreation Plan (Plan) is to provide guidance and recommendations for managing non-motorized recreation use in the river corridors of the upper Nooksack River system. Although this is not a formal resource management plan, the Plan does recognize the important role that natural and cultural resources play in the recreation experience and the potential impacts that recreation can have on those resources. Recommendations in the Plan are strictly voluntary and are not legally binding in any way to the land owners, managers, and recreationists, rather they are meant to provide informed input as to how riverside lands could be managed to meet both recreation and conservation goals. The Plan is a useful tool in articulating a shared vision and recommended actions to help facilitate securing necessary funding and setting the stage for the implementation of recommended actions.

The geographic scope of the Plan covers the river corridors and lands within one-quarter of a mile on either side of the river within the following river segments:

- North Fork Nooksack – headwaters to Maple Falls
- Middle Fork Nooksack – headwaters to confluence with the North Fork
- South Fork Nooksack – headwaters to Saxon Bridge

Recreation in the upper Nooksack basin provides a multitude of benefits to our health and well-being. It also provides a way to intimately connect with nature in a remote yet accessible environment. Recreation not only provides diversion and refreshment from the often exhausting pace of our complex lives but also enriches our mental and physical health. Access to recreation areas in natural settings has been shown to significantly reduce stress and increase physical activity. Rivers and river recreation are a key part of the tourism and travel industry, both locally and throughout the Pacific Northwest.

Recreational activities, especially unregulated recreation, have the potential to negatively impact aquatic and riparian habitat if left unmanaged. Recreation planning and management can help address these issues and ensure recreation is occurring in appropriate locations away from sensitive resources and have facilities that can properly manage the human impacts.

Planning Process

The Plan was developed through a collaborative planning process led by American Rivers. An Advisory Committee, made up of recreation and conservation organizations, public and non-profit land

management entities, tribes, as well as local and regional businesses, was formed to guide the process. Technical assistance was provided by the National Park Service through a grant from the Rivers, Trails, and Conservation Assistance Program.

A shared vision was developed for recreation management in the upper Nooksack River basin. To better understand existing conditions, an inventory and assessment of sites used by recreationists was conducted with assistance from Western Washington University's Huxley College of the Environment faculty and students.

Engaging the public throughout the planning process allowed the Advisory Committee to identify issues and develop recommendations that are meaningful, useful, and likely to have a greater chance of success. Overall, the Advisory Committee worked to create a plan that accurately describes the community's needs and elicits its support. Efforts to engage the public in the planning process included focus group workshops, an online recreational use survey, field tours, and an open house.

Goals and Recommendations

The following five overall goals emerged as a result of the planning process:

Goal 1: Enhance Coordination of Recreation Management with Protection and Recovery of Natural and Cultural Resources

When land and natural resource managers work cooperatively with recreation user groups, everyone benefits from a shared vision of protection and use of resources. The upper Nooksack River basin is highly valued by the community as a unique, intact river ecosystem. It is imperative that recreation activities are conducted consistent with protecting and restoring the area's natural and cultural resources. Recreation management can help protect and assist with restoration of natural and cultural resources by directing users to appropriate sites that can accommodate use and are away from sensitive resources.

Goal 2: Provide Quality Public Information and Education Opportunities

Information and education can enrich the experiences of visitors and foster a sense of stewardship. Recreation user education and stewardship ethics have been shown to greatly reduce resource impacts. Implementing stewardship messages such as Leave No Trace Principles can help protect the natural environment. Visitor education programs recognize that most impacts are not from malevolent acts and instead result from inattentiveness to the outcomes of one's actions or lack of knowledge of appropriate low-impact behaviors. Interpretive and environmental education can be part of the solution for educating recreationists and the next generations of visitors to come.

Goal 3: Maintain and Protect Current Recreation Diversity and Access

Protecting and maintaining current access to trailheads and river access sites is necessary for the continued enjoyment of the stunning scenery, fascinating wildlife, and diverse recreation opportunities the Nooksack River watershed provides. Yet maintaining the access roads to existing sites is becoming more difficult here in the Pacific Northwest. Shifting hydrologic regimes have increased the rates of flooding, landslides, and road wash-outs. Limited budgets force land managers to prioritize which roads

to maintain and which to close. Adequately maintaining these roads to a level that prevents sediment from entering waterways is critical to fishery resources as well.

Goal 4: Coordinate, Design, and Formalize Safe River Access

Safe access to water has been identified as a top need by the residents of Whatcom and Skagit Counties. The upper Nooksack River basin provides three distinct, dynamic river systems, and recreationists are drawn to these waters for whitewater boating, fishing, wildlife watching, picnicking, camping, and relaxing and connecting with nature. Better management and designation of access sites can direct users to appropriate sites and away from sensitive resources. This can help protect resources and improve the safety and experience of recreation users.

Goal 5: Plan and Create Sustainable Trail Opportunities and Trail Connectivity

Trails provide opportunities for walking, enjoying views, jogging, hiking, snowshoeing, cross-country skiing, bicycling, horseback riding, access for anglers and more. Trails also provide alternatives to roads and vehicle travel, thereby providing added values of safety while decreasing traffic congestion and pollution. Trails provide exercise for recreationists while at the same time provide a more intimate appreciation of nature. Trails should link recreation resources and communities, thus allowing people to easily access and experience the upper Nooksack Basin.

Implementation and Next Steps

There are over eighty recommendations that have been identified to help meet conservation and recreation goals. These actions are intended to improve visitor experience, minimize conflict, protect natural resources, and enhance awareness of the river and its recreation resources. Implementation of the plan's recommendations is contingent on voluntary actions, planning, and funding availability. It is envisioned that recreationists, non-profits, conservation groups, and agency and resource managers will all be working together to help implement the plan and seek out funding sources.

Introduction

The Upper Nooksack River Basin

The Nooksack River basin, located in Whatcom and Skagit counties of northwest Washington, is a unique watershed with many outstanding natural, cultural, and recreational values. The three forks of the Nooksack, the North, Middle and South, flow west from the high snowfields and glaciers of Mt. Baker, Mt. Shuksan, and the Twin Sisters Mountains in the North Cascades, through steep gorges and forests, and eventually through farmlands and several small communities before reaching the Salish Sea. The upper Nooksack watershed provides important habitat for native fish and wildlife species and is a regional outdoor recreation haven.

Photo Credit Thomas O'Keefe

The Nooksack River provides important habitat for fish and wildlife as well as world-class recreation opportunities.

The Nooksack River is one of the few remaining river systems in Washington that supports populations of all five species of Pacific salmon, as well as steelhead, bull trout, and cutthroat trout. Bald eagles, black bears, cougars, and elk are among the native wildlife inhabitants. The Nooksack basin supports incredible recreation opportunities, including whitewater boating, horseback riding, hiking, snowshoeing, skiing, biking, camping, wildlife viewing, and fishing. The health of the Nooksack watershed is intrinsically linked to the health and quality of life of the area's local communities, as well as supports a growing outdoor recreation industry that provides jobs and stimulates the area's economy. Maintaining and restoring habitat and allowing the river's fluvial processes to take place are critical for not only the fish and wildlife species that call the Nooksack home but also for recreation opportunities such as fishing and boating to continue into the future. The Upper Nooksack River Recreation Plan (Plan) takes these linkages into consideration and sets forth management recommendations aimed at promoting both conservation and recreation goals.

Purpose and Scope

The purpose of the Plan is to provide guidance and recommendations for managing non-motorized recreation use in and along the river corridors of the upper Nooksack River system. The Plan works in tandem with other study goals that protect and restore habitat to recover native salmon and trout populations: specifically Chinook salmon, steelhead, and bull trout which are all federally protected under the Endangered Species Act (ESA). The Plan recognizes and supports the benefits of recreation, along with the protection and restoration to the upper river basin.

The Plan does not supersede the authority of existing land and water management authorities or plans, but it does represent a community vision that can inform future planning and project implementation. The Plan's recommendations are meant to provide input as to how riverside lands could be managed to meet both recreation and conservation goals. Recommendations in this plan are strictly voluntary and are non-binding to the land owners, managers, and recreationists and their implementation is contingent on voluntary actions, future rulemaking, planning, and funding availability through pertinent land management agencies, non-profit organizations, and public-private partnership entities.

The Plan highlights the diverse non-motorized recreation opportunities available to the public with a priority for protecting the natural resource values associated with the river and adjacent uplands. Although this is not a formal resource management plan, this plan does recognize the important role that natural resources play in the recreation experience and the potential impacts that recreation can have on those resources.

The geographic scope of the Plan covers the North, Middle, and South forks of the Nooksack River, as well as tributary streams that possess some of the most popular recreation uses and present important access and management challenges. While the Plan describes recreation use in and along the three forks in their entirety, management recommendations are directed toward the upper reaches. Recommendations focus on the river corridors and lands within a one-quarter of a mile on either side of the river within the following segments (see figure 1, page 15):

- North Fork Nooksack from headwaters to Maple Falls
- Middle Fork Nooksack from headwaters to the confluence with the North Fork
- South Fork Nooksack from headwaters to Saxon Bridge

Photo Credit Wendy McDermott

North Fork

Photo Credit Wendy McDermott

Middle Fork

Photo Credit Wendy McDermott

South Fork

The Plan does not supersede the authority of existing land and water management authorities or plans.

The Plan can assist land and resource managers and the public in five ways:

1. The Plan records recreation use and opportunities (including uses that are currently allowed, restricted, or prohibited) within specific river sections and adjacent lands and details relevant management and safety information (e.g., beginner whitewater boating areas versus expert whitewater boating areas).

2. The Plan identifies important natural and cultural resources, and explains issues or concerns that should be a part of recreational decision-making and management.
3. The Plan develops a shared vision and guiding principles for sustainable recreation management.
4. The Plan identifies recreation issues that need to be resolved to meet recreation and conservation goals.
5. The Plan presents recommendations that may be implemented in the near term or incorporated into future planning efforts. If controversial issues were encountered and a clear consensus direction did not emerge, both sides of the issue were described for consideration in the future. The final decision rests with the managers of that area.

Photo Credit Rich Bowers

The Nooksack Basin provides a variety of outstanding recreational experiences with incredible opportunities for scenic vistas and wildlife watching.

Vision Statement and Guiding Principles

The Nooksack River watershed is valued for its outstanding natural and cultural resources and recreation opportunities. As recreation use and the demand on resources continue to grow, the Upper Nooksack River Recreation Plan Advisory Committee (Advisory Committee) seeks to protect the waters and riparian habitats of the river while ensuring that high quality recreational experiences continue to be available now and for future generations. In accordance with this vision, the following guiding principles were developed by the Advisory Committee:

- The natural and cultural resources in and along the North, Middle, and South Fork Nooksack River contribute significantly to the recreation experience. It is critically important to manage use of the river in a way that protects these resources.
- Indigenous peoples, such as the Nooksack Tribe and the Lummi Nation have lived in the Nooksack River basin for thousands of years. This area is a significant cultural, subsistence, recreational, and commercial resource for them.
- Recreational user education fosters stewardship and appreciation of the watershed and reduces recreation impacts. Education programs targeted toward youth are an especially critical

component in turning recreation users into stewards and ensuring sustainable recreation in the watershed for generations to come.

- People visit the Nooksack River watershed for different reasons and expectations vary from person to person. It is therefore important to provide a diverse range of recreation opportunities and experiences.
- Recreation users need information on what opportunities exist and which sites are appropriate for recreation use. Recreation planning can help direct the growing recreational use to the best suited sites to reduce conflicts, protect natural and cultural resources, and respect private property.
- When considering recreation issues in the Nooksack River watershed, it is important to assess how management actions might affect recreation opportunities. Less restrictive management actions should be considered before proceeding to more restrictive actions. For example, education measures should be used before limiting recreation use. Information and education are critical components of recreation management. Communities and businesses in Whatcom and Skagit Counties rely on recreation for tourism and economic growth. It is important to reach out to and partner with local businesses and communities.
- The recreating public and those entities that are directly reliant on or in other ways affected by recreation need to be meaningfully engaged in the planning process.
- The Nooksack River watershed includes a mix of private and public lands with varying organizational priorities as well as agency authorities and jurisdictions. Land restrictions and protections in one area affect other areas of the watershed as recreation users seek opportunities to participate in their outdoor activities. The cooperative spirit of resource management among partners in the watershed should continue to be promoted.

Recreation Planning in the Nooksack

Although recreation plans have been developed for areas within Nooksack basin, it has been over 40 years since the last comprehensive plan was developed. In 1973, Jones and Jones Architects and Landscape Architects, Ltd. prepared a report for Whatcom County called "The Nooksack Plan: a documented approach to the inventory and evaluation of a river system to discover and provide the highest quality of river experience with detailed recommendations for the implementation of a total recreation plan within a framework for ecosystem management with criteria proposed to serve and protect these resources for all time". The Jones and Jones plan contains valuable information about the physical characteristics of the river and on recreation, natural resource, and cultural values in the basin; however, much of the information is outdated due to changes in recreation patterns and values and the changing physical landscape.

Cover of the 1973 Jones and Jones Nooksack River basin recreation plan.

Since the Jones and Jones plan, studies involving recreation use in

the Nooksack basin have been conducted to varying degrees. State agencies, local governments, and other entities have either developed plans for managing recreation on their respective properties, that promoted specific forms of recreation, or that focused on conservation issues in the Nooksack River basin. For example, the Whatcom Council of Governments developed a Mount Baker Foothills Chain of Trails Plan that overlaps with all three forks of the upper Nooksack River; the Whatcom County Comprehensive Parks, Recreation, and Open Spaces Plan takes into account county-owned properties within the Nooksack basin; and the United States Forest Service (USFS) in their 1990 Land and Resource Management Plan for the Mt. Baker-Snoqualmie National Forest studied the three forks of the Nooksack, as well as Wells and Bell creeks, for existing "outstandingly remarkable values" such as recreation and determined that the entire reaches of the three forks and the two tributaries were either eligible and/or suitable for federal Wild and Scenic River designation.

The Plan not only encompasses many forms of recreation but also incorporates land and water conservation priorities and goals into a comprehensive plan for the upper Nooksack River system. The Plan provides the most current recreation data and information and will help inform future planning efforts and plan updates. These include but are not limited to the Whatcom County Comprehensive Parks, Recreation, and Open Spaces Plan that gets updated every six years; the Nooksack Watershed Resource Inventory Area (WRIA 1) Salmonid Recovery Plan updates; the Comprehensive River Management Plan that would be developed if Congress acts on the USFS recommendation for Wild and Scenic River designation; and other planning efforts for federal and state trust lands managed by the USFS and Washington State Department of Natural Resources (DNR), respectively.

Land Ownership and Management Jurisdiction

Most of the land in the upper Nooksack River watershed is publicly owned and managed by the USFS, including the Mt. Baker Wilderness Area which encompasses sections of the upper reaches and tributaries, as well as lands adjacent to the study area. A small section lies within the North Cascades National Park, which is managed by the National Park Service (NPS) and included in the Stephan Mather Wilderness. Washington State and local governments own land downstream from the federal land areas, and private owners include but are not limited to Seattle City Light, Whatcom Land Trust (WLT), Sierra Pacific, Bloedel Timber, Weyerhaeuser, and individual landowners. The DNR manages the state-owned aquatic lands, which include the beds and banks of these navigable river reaches. The Nooksack Tribe and Lummi Nation have the rights and responsibilities of fisheries co-management, along with the Washington Department of Fish and Wildlife (WDFW).

Photo Credit National Park Service

The Maple Falls reach pictured above was recently purchased by Whatcom Land Trust for floodplain restoration.

Recreation Study Area and Stream Reaches

For discussion and planning purposes, the forks of the Nooksack River have been subdivided into lengths of similar river stretches called reaches. These reaches are separated by distinct natural features and topography, and hydrography GIS data from Whatcom County. Dividing the river into reaches allows us to describe the different recreational opportunities and experiences offered in the different areas. This, in turn, can help land and resource managers make informed decisions regarding the most appropriate places for specific recreation activities to occur. Each of the river reaches within the study area is listed below, and Appendix A contains a description of the river reaches, setting, desired conditions, recreation use, and values.

The North Fork was divided into three reaches: the Upper North Fork Nooksack, the Middle North Fork Nooksack, and the Lower North Fork Nooksack; not to be confused with the Middle Fork Nooksack River. The South Fork was divided into two reaches: the upper and the lower.

Recreation Study Focus Area

The study area is the river corridor, including a one-quarter of a mile on either side of the river, and includes the following reaches:

1. Upper North Fork Nooksack (source to confluence with Wells Creek)
   Tributaries: Ruth Creek, Swamp Creek, and Wells Creek (see figure 2, page 16)
2. Middle North Fork Nooksack (confluence with Wells Creek to confluence with Maple Creek) (see figure 2, page 16)
   Tributaries: Glacier Creek and Canyon Creek
3. Middle Fork Nooksack (source to confluence with North Fork)
   Tributary: Clearwater Creek (see figure 3, page 17)
4. Upper South Fork Nooksack (source downstream to Saxon Bridge) (see figure 4, page 18)

Adjacent Reaches Outside of the Focus Area

1. Lower North Fork Nooksack and Upper Mainstem Nooksack (Lower North Fork confluence with Maple Creek to confluence with Nooksack River and South Fork)
2. Upper Mainstem Nooksack (Upper Mainstem Nooksack from confluence with North and South Forks downstream to Nugent's Corner)
3. Lower South Fork Nooksack (Saxon Bridge to confluence with the North Fork Nooksack River and Nooksack River)

Figure 1: Study Area

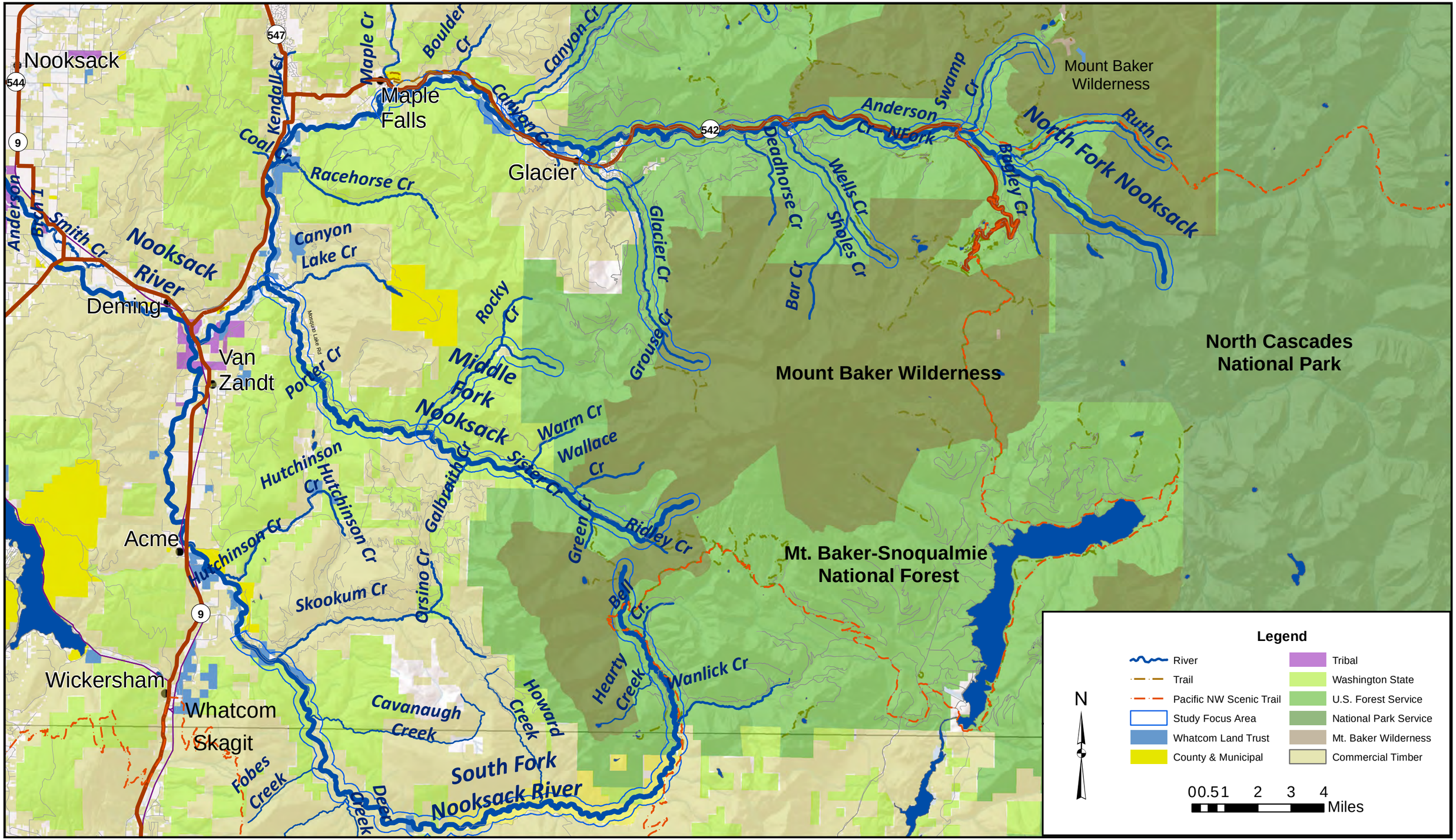


Figure 2: North Fork Nooksack River Corridor Recreation Sites

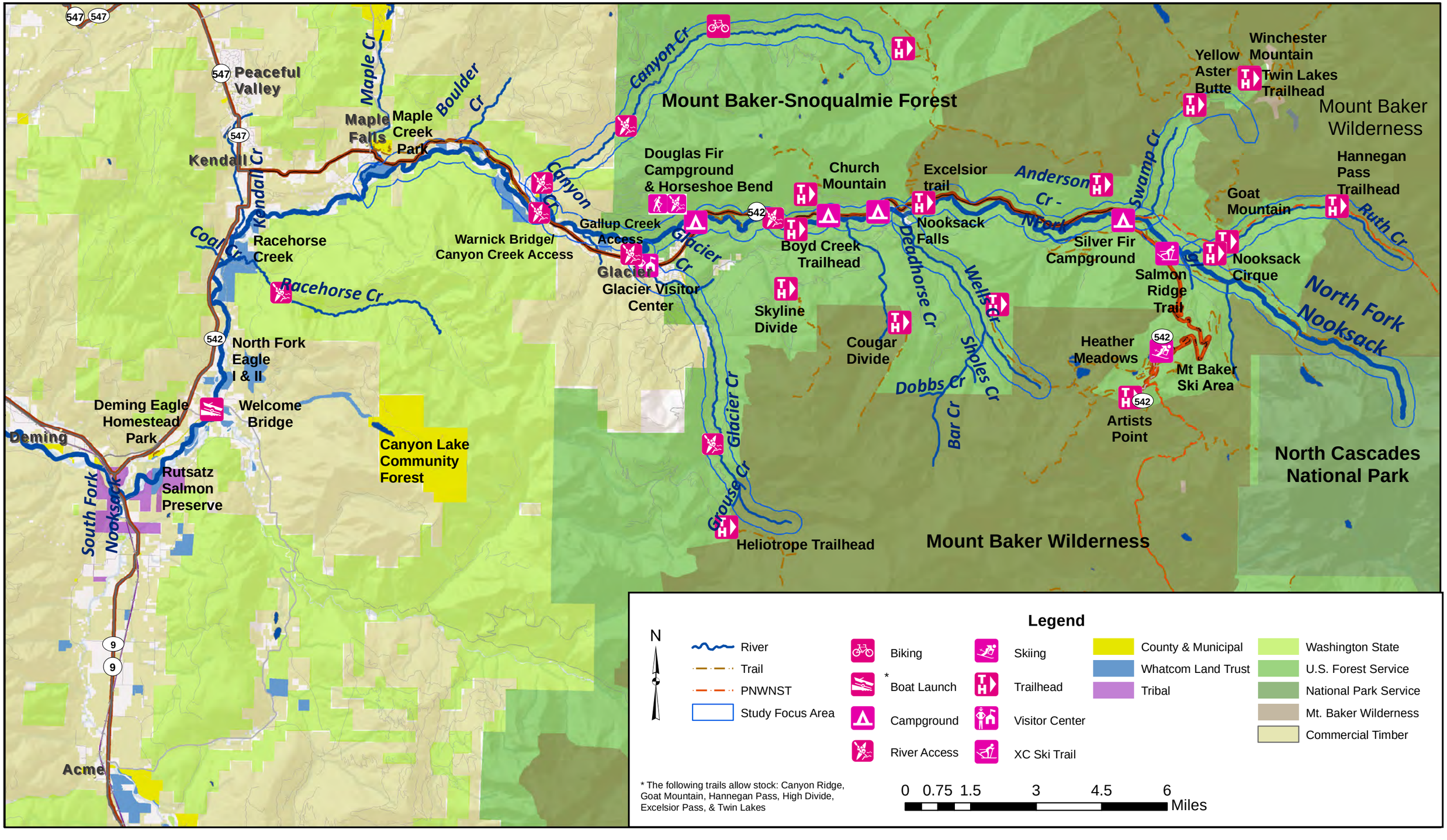


Figure 3: Middle Fork Nooksack River Corridor Recreation Sites

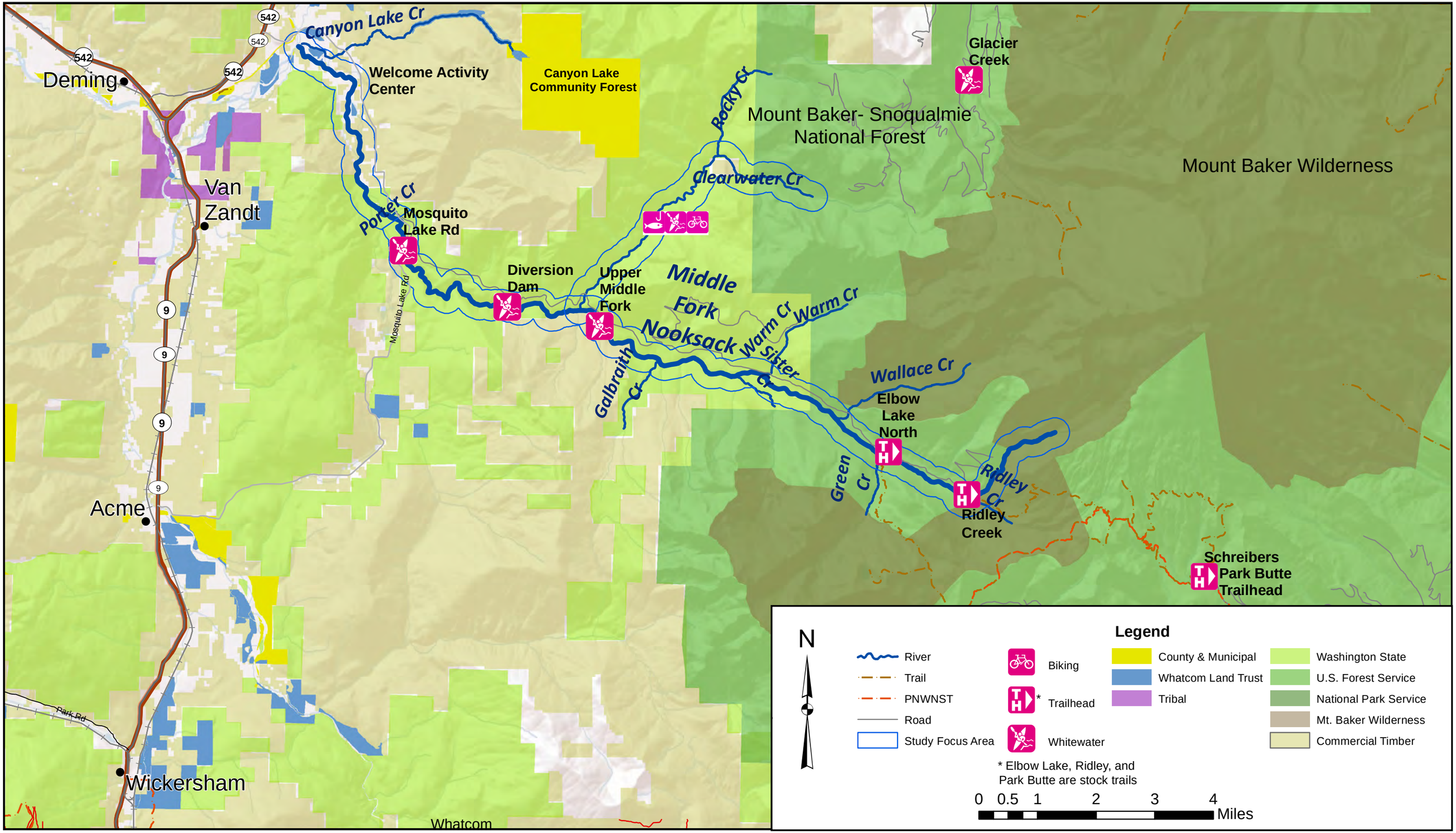
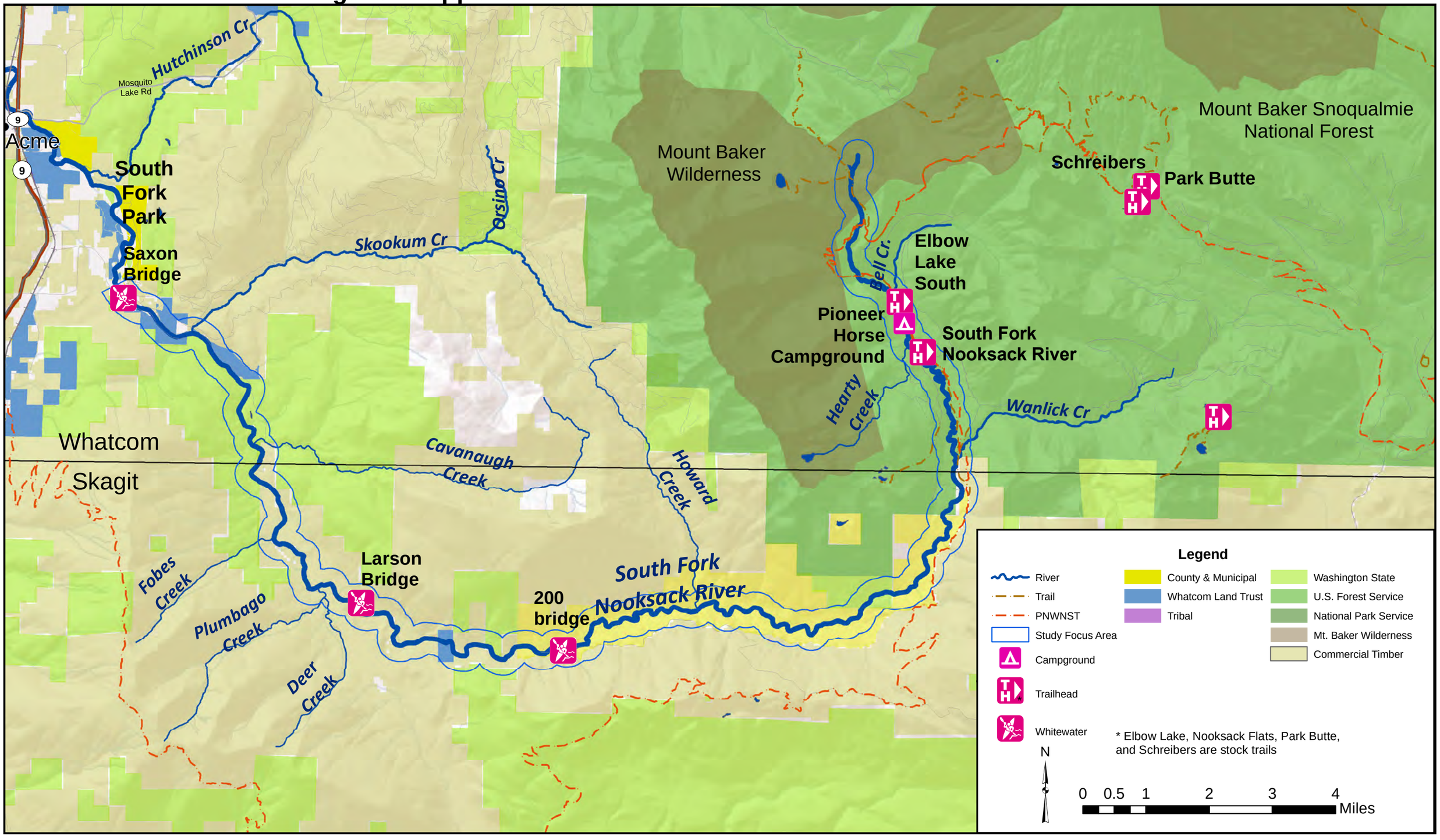


Figure 4: Upper South Fork Nooksack River Corridor Recreation Sites

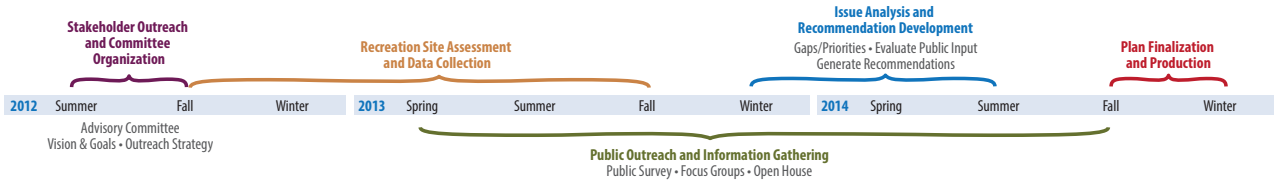


Planning Process Overview

The Plan was developed through a collaborative planning process led by American Rivers and the Advisory Committee. Technical assistance was provided by the NPS through a grant from the Rivers, Trails, and Conservation Assistance Program.

The key components of the planning process included:

- Stakeholder Outreach and Committee Organization (Summer 2012 - Fall 2012)
- Recreation Site Assessment and Data Collection (Fall 2012 - Fall 2013)
- Public Outreach and Information Gathering (Spring 2013 - Fall 2014)
- Issue Analysis and Recommendation Development (Winter 2013/14 - Summer 2014)
- Plan Finalization and Production (Fall 2014 – Winter 2014/2015)



Upper Nooksack River Recreation Plan Advisory Committee

The first critical step in this planning effort was forming a committee that would help to develop a shared vision for recreation use in the upper Nooksack River basin, guide the planning process, and make recommendations for sustainable recreation management. The engagement of the recreation community, in addition to natural resource managers and other stakeholders, was also extremely important to maintaining a balanced and open forum for discussion and decision-making. The resulting Advisory Committee is made up of representatives from American Rivers, American Whitewater, the Whatcom Chapter of Back Country Horseman of Washington, the Hydropower Reform Coalition, the Mount Baker Club, the NPS, the Nooksack Tribe, the Nooksack Salmon Enhancement Association (NSEA), the Pacific Northwest Trail Association (PNTA), the United States Forest Service – Mt. Baker Ranger District (USFS),

Photo Credit National Park Service

The Advisory Committee met throughout the two year process including a few field visits to ground truth key issues and opportunities on site.

Whatcom County Parks and Recreation Department (WCPR), Whatcom Events (Ski to Sea Race), the Whatcom Land Trust (WLT), and Wild and Scenic River Tours. This dynamic committee met quarterly between August of 2012 and October of 2014 to steer the planning process and develop the Plan. Other governmental entities consulted with as part of the planning process include the Lummi Nation and the Washington Department of Natural Resources.

Photo Credit Thomas O'Keefe

Advisory Committee members went on several site visits to discuss issues and potential solutions.

Recreation Site Assessment and Data Collection

An inventory and assessment of sites used by recreationists along the three forks of the Nooksack River and its main tributaries was conducted between the spring and fall of 2013. The North Fork Nooksack River recreation site inventory was completed by students from Western Washington University's Huxley College of the Environment. Under the guidance and supervision of Professor Leo Bodensteiner, these students collected data on sites along the North Fork during the 2013 spring quarter as part of the Sustaining Resource Use in the Nooksack River Watershed seminar course. The students identified exact locations with GPS units, determined the recreation site type, listed the available amenities, the different recreation opportunities available, and any visible environmental impacts. They also drafted recommendations for improving the sites. A student intern from Western Washington University and Advisory Committee members continued the site inventory work along the Middle and South forks of the Nooksack River throughout the summer and fall of 2013. Additional sites were inventoried in the spring and summer of 2014 by Advisory Committee members. The inventory and site assessment is located in Appendix B.

Photo Credit Western Washington

College students inventoried the sites along the North Fork documenting recreation uses and any environmental impacts.

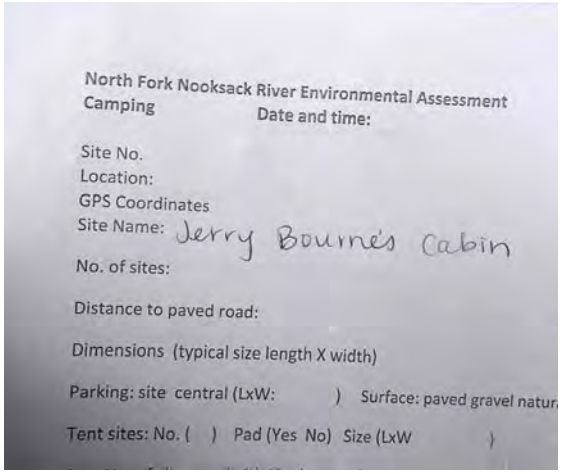


Photo Credit Western Washington

Pictured above is an example field sheet that was used during the inventory process.

Photo Credits Wendy McDermott

The focus group workshops used a participatory mapping exercise that provided the participants and advisory group members a chance to have an in- depth conversation about the recreation use and opportunities.

Public Engagement

Engaging the public throughout the planning process allowed the Advisory Committee to identify issues and develop recommendations that are meaningful, useful, and likely to have a greater chance of success. Public involvement in the decision-making process also encourages the public to contribute ideas and ensure that the Plan's recommendations will effectively help protect and restore riverine habitat while delivering community-oriented recreation opportunities to residents and visitors alike. Overall, the Advisory Committee worked to create a plan that accurately describes the community's needs and elicits its support.

Photo Credit Bud Hardwick

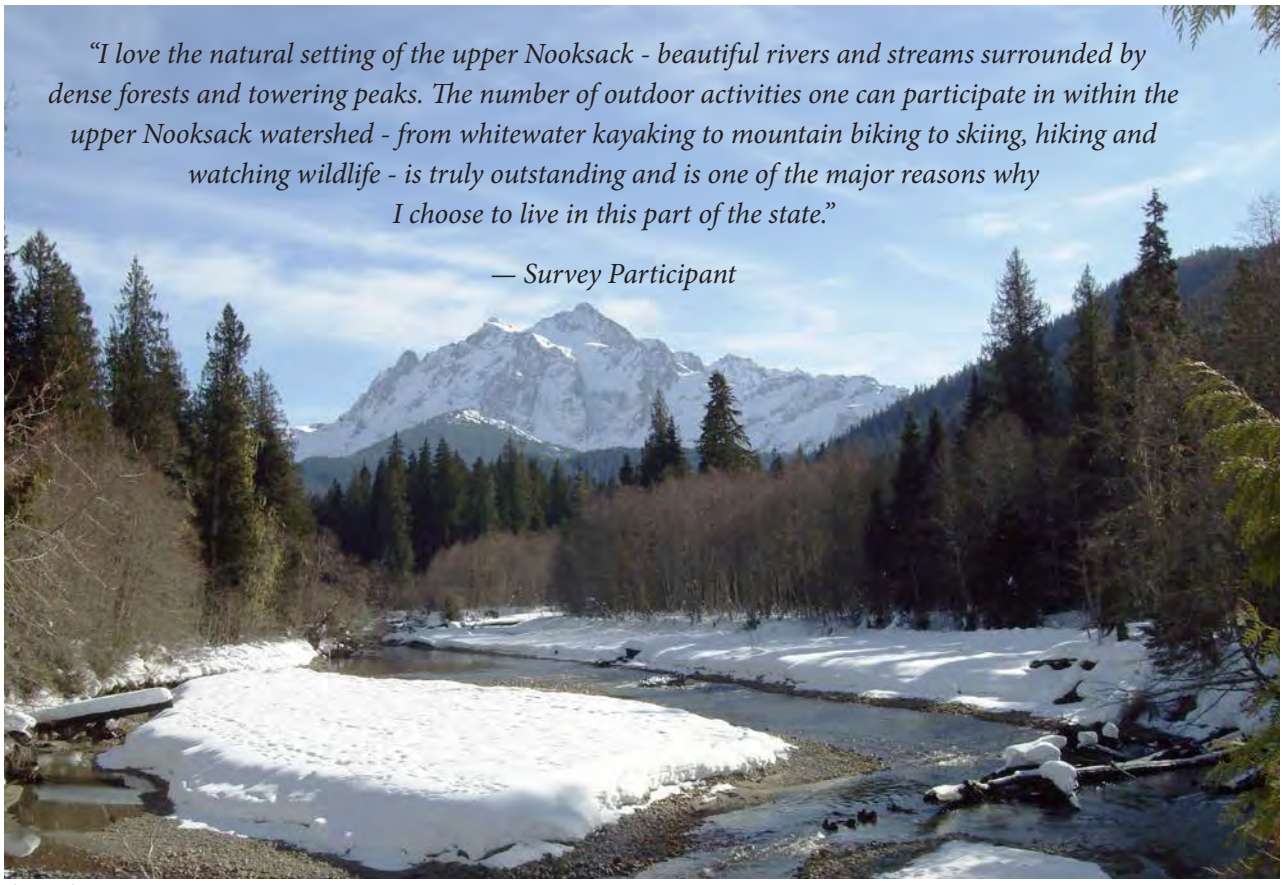
Upper Horseshoe Bend Whitewater Access Site shown above was one of the sites visited in the September 2014 Field Tour by Advisory Committee and Focus Group members. Improving trail access here was identified in the planning process and was implemented by the USFS as an early action item.

Initial efforts to engage the public in the planning process included a focus group workshop held in April of 2013, an online recreational use survey accessible from August – December of 2013, and an open house held in November of 2013. Each of these opportunities allowed members of the public to identify the unique features of the upper Nooksack River basin, recreation activities they enjoy participating in, issues or problems experienced while recreating, desired conditions, and ecological and cultural values. At the focus group workshop, members of the recreation community from both Whatcom and Skagit counties were invited to share their experiences with recreation management and vision for the future of recreation in the Nooksack River basin. Approximately 30 individuals representing a wide variety of recreational interests participated in the workshop.

The online survey was developed to gather input from a broader spectrum of individuals who live, work, and/or play in the area. Data were collected on the types of recreation that people participate in, where they recreate, what they value, what issues (if any) they experience, and their vision for the future of recreation in the upper Nooksack River basin. Over the course of five months, 552 people responded to the survey. The full results of the survey can be found in Appendix C.

A public open house showcasing the vision for the Plan was held in November of 2013. Approximately 35 people attended the event, which provided participants with an opportunity to learn about the recreation planning process and converse with the Advisory Committee. This event, like the focus group workshop before it, allowed the public to provide input through a participatory mapping exercise; they shared favorite recreation destinations, cultural and ecological values, any issues experienced, and their vision for the future.

A second focus group and field tour was held in September 2014. Over 20 people attended the focus group and shared their input on the draft recommendations including their thoughts on priorities, recommended changes and additions, and what they could do to help implement actions important to them. The field tour was held the day after the focus group, which showcased five sites along the North Fork Nooksack and provided an opportunity for participants to talk more in depth about the issues and next steps. Notes from both of the April 2013 and September 2014 focus group workshops can be found in Appendix G.



Phote Credit Bonnie Rice
Mt. Shuksan seen from the North Fork.

Natural, Cultural, and Recreation Resource Values

Natural Values

The three forks of the Nooksack River – the North Fork, Middle Fork, and South Fork – and numerous tributary streams comprise the upper Nooksack River watershed. River flows in the Nooksack system rely heavily on snowmelt from the large quantities of snow that accumulate during the winter season. The forks of the Nooksack River flow through diverse landscapes, from snowfields and glaciers in high-elevation alpine environments to first, second, and third growth forests dominated by evergreen firs and cedars. Farther downstream, the lower South Fork and mainstem Nooksack River flow through low-elevation floodplain areas, reservation lands of the Nooksack Indian Tribe and Lummi Nation, and the small cities of Whatcom County. The headwater areas possess some of the most breathtaking vistas in the North Cascades, including an active snowcapped volcano, jagged mountain peaks, cascading waterfalls, and dense forest canyons.

Fisheries

The Nooksack River watershed is home to a wide variety of native fish species, including ten different salmonids, as well as the Nooksack dace, and the Salish sucker. Salmon and steelhead are highly valued for their recreational and commercial value, as they are excellent fighting fish and also highly prized for their flavor and healthful benefits. When allowed to function naturally, riverine ecosystems are self-sustaining and natural processes create and maintain high quality habitat for fish. Many human activities have, however, altered the landscape of the Nooksack River and reduced the quality of the ecosystem and accessibility for many of these fish species. The Nooksack Watershed Water Resource Inventory Area (WRIA 1) Salmonid Recovery Plan identifies goals and actions to achieve Chinook and bull trout recovery.

All five species of Pacific salmon, in addition to steelhead, bull trout, and cutthroat trout, are known to spawn and rear in these waters. Resident native Dolly Varden trout also occupy habitats in Canyon Creek above waterfalls. Currently three salmonid species, Chinook salmon, steelhead, and bull trout, are listed as "threatened" under the federal ESA. Two genetically distinct populations of spring Chinook salmon are found in the Nooksack River system, one in the North and Middle forks and one in the South Fork, and both need to become viable for Puget Sound Chinook to achieve ESA de-listing. There

The five species of Pacific salmon that exist in the Nooksack River system

Photo Credit NSEA

Chinook salmon

Chum salmon

Coho salmon

Pink salmon

Sockeye salmon

Other salmonids

Photo Credit WDFW

Steelhead

Bull Trout

are also two different populations of ESA-listed wild steelhead in the river: the Nooksack winter-run steelhead and South Fork Nooksack summer-run steelhead. Unfortunately, current abundances of the populations of all listed species are too low to support meaningful fisheries although two hatcheries help to provide fishing opportunities. The lack of population productivity has led to lower wild abundances, which has substantially reduced recreational opportunities for fishing in the basin, and in order to restore these opportunities, habitat conditions must be greatly improved. The Nooksack dace and Salish sucker, found in the lower watershed downstream of the Plan's study area, are not ESA-listed species, but are listed as "endangered" under Canada's Species at Risk Act (SARA).

Across the watershed, tribal, state, and federal governments, businesses, and local conservation and recreation organizations, are invested in and committed to protecting and recovering sustainable populations of these fish. The tribal fisheries programs regulate fishing and work to protect and recover the treaty resources of the Tribes by assessing, preserving, and restoring fish habitat. Stream restoration projects involving protection of critical spawning and rearing areas, the removal of fish passage barriers, the placement of engineered log jams, and the planting of native vegetation in the riparian corridor have been and will continue to be undertaken in the effort to restore habitat, improve water quality, and address factors limiting population productivity and abundance.

In 1970, the Lummi Nation constructed the Skookum Creek Fish Hatchery, located in the study area near the mouth of Skookum Creek near Acme, WA. Approximately 1.5 million Coho are released annually into the South Fork Nooksack River. The hatchery also operates a South Fork Nooksack spring Chinook population rebuilding program. Kendall Hatchery is operated by WDFW, and is located along the lower North Fork Nooksack River. It was first built in 1899, and currently operates a North/Middle Fork spring Chinook population rebuilding program, a winter-run steelhead program, and a chum program.

Wildlife

The wildlife of the Nooksack River basin is beautiful and diverse. A rich diversity of birds, including pipits, rosy finches, ptarmigans, swifts, kingfishers, and horned larks, as well as a variety of ducks and other waterfowl utilize both the river itself and the surrounding uplands. Both trumpeter and tundra swans can also be seen along the river in the winter months. Additionally, the river supports large aggregations of wintering bald eagles that primarily target the wild chum salmon. Marbled murrelets and northern spotted owls also

Photo Credit WDFW database
Grizzly Bear

Photo Credit Bud Hardwick
South Fork Elk Herd

Photo Credit Rich Bowers
Bald Eagles

occupy this watershed, and are both listed as "threatened" under the ESA. Oregon spotted frogs were recently rediscovered in Whatcom County, including an area in the lower South Fork Nooksack. These were recently listed as federally "threatened. "

Mammals including mink, wolverines, black bears, river otters, cougars, and elk of the North Cascades Elk Herd are found in the various drainages of the Nooksack watershed as well. The Mt. Baker mountain goat population, which may be the largest mountain goat population in Washington State, also resides here. The upper Nooksack River sub-basins are included in the North Cascades Grizzly Bear Recovery Zone which is intended to provide suitable habitat for these animals so their threatened populations can recover. Wolves may recolonize these Nooksack habitats too, as they have been expanding their range in Washington in recent years. A list of wildlife species is located in Appendix D.

Scenic

A visit to the Nooksack River provides an abundance of scenic opportunities. The views along the South Fork Nooksack River and Highway 9 are exceedingly picturesque; both the river and the road roll lazily through a picturesque rural landscape that is favored by bicyclists, auto touring and motorcyclists. Heading east, the Mt. Baker Scenic Byway, a designated National Forest Scenic Byway, follows the twists and turns of the North Fork Nooksack River as it winds its way into the Mt. Baker-Snoqualmie National Forest. The drive provides beautiful views of the river itself surrounded by a back-drop of snowy mountain peaks and lush, evergreen forests until the highway ends with stunning views at Heather Meadows and the Mt. Baker Ski Area.

Photo Credit Rose Braverman
Nooksack Falls

Vistas of Mt. Baker, Mt. Shuksan, and the Twin Sisters Mountains are exceedingly striking and the rugged scenery beckons more than 100,000 visitors every year to come and enjoy the natural splendor. Located in the subalpine reaches of the Scenic Byway and backed by the towering rock summit of Mt. Shuksan and glacier-crowned Mt. Baker, both Picture Lake and Artist Point are world-renowned attractions. Many consider Mt. Shuksan to be one of the most photographed mountains in the world. Nooksack Falls, the North Fork Nooksack's 88 foot rushing waterfall, is one of the most popular waterfalls in the North Cascades.

Photo Credit Wendy McDermott

Mount Baker, also known as Koma Kulshan, is an active, glaciated volcano. It is the third highest peak in Washington State, has the second-most thermally active crater in the Cascade Range and is one of the snowiest places in the world.

Geologic

The Nooksack River basin has a rich and complex geologic history. The North Cascades' Mt. Baker and Twin Sisters form a spectacular scenic alpine topography that dominates the region's landscape. The Twin Sisters Mountains, headwaters of the South Fork Nooksack River, form one of the largest outcroppings of dunite in the world. Dunite is an olivine-rich, mantle-derived rock which is rarely seen at the surface of the Earth. Mt. Baker, a snow-covered active volcano, supports nearly 20 square miles of active glaciers that feed the North and Middle Forks of the Nooksack. Volcanic eruptions from this mountain generated the lava flows that created unique ridges of volcanic rock. Mt. Baker also has a unique crater ice cave system.

Downstream of the headwaters, originating in alpine and sub-alpine areas, plant specimens from the Eocene epoch are preserved in the fossil-rich sandstone lining the banks of the North Fork Nooksack. As the river flows out of the mountains west toward Bellingham Bay and Puget Sound, numerous fault expressions can also be seen in addition to many distinctive rocky outcroppings. Glaciations have and continue to play an important role in the river's development as well. The U-shaped valleys and glacial moraines that influenced the Nooksack River basin are evidence of glacial scour carved by the continental ice sheet nearly 13,000 years ago. An example of this is the small gorge that was cut through phyllite and contains a unique kame moraine along the South Fork in the section that crosses the Whatcom and Skagit County borders. This glacial history has led to a sediment rich channel system, creating a diverse channel pattern throughout the Nooksack River system and especially in the lower North and Middle forks, which include many sloughs and side-channels.

Photo Credit Thomas O'Keefe

The Nooksack River provides habitat for fish and wildlife, as well as agriculture and drinking water for the more than 100,000 residents of Bellingham, Lynden, and Ferndale, WA.

Water Resources

The Nooksack River is approximately 75 miles long and drains 745 square miles of Whatcom County, 81 square miles of Skagit County, and portions of Canada. All three forks of the river originate in the Mt. Baker Wilderness and flow generally west, converging to become the mainstem Nooksack River near Deming, Washington. From here the river meanders through the fertile farmlands of rural Whatcom County and the small cities of Everson, Lynden, and Ferndale before transitioning to a relatively intact estuary on the Lummi Reservation and then emptying into Bellingham Bay and the Salish Sea.

Washington State has delineated the state's major watersheds into 62 Water Resource Inventory Areas, known as WRIAs. The Nooksack River basin is WRIA 1 (see figure 12, page 80). This river system is fed by snow melt from Mt. Baker, Mt. Shuksan, and the Twin Sisters Mountains of the North Cascade Range. Average annual precipitation ranges from 30 to 50 inches in the lowlands to 70 to 140 inches at higher elevations. The slopes of Mt. Baker receive greater than 150 inches of total precipitation each year, much of that falling as snow during the winter months. Seventy-five percent of the precipitation falls between September and May.

The median water discharge for the North Fork Nooksack River at Glacier is 796 cubic feet per second, 526 cubic feet per second for the Middle Fork near Deming, and 950 cubic feet per second for the South Fork at Saxon. The median water discharge for the mainstem Nooksack River at Ferndale is 3,864 cubic feet per second. Most peak flows occur during the late fall and early winter months. The instream flows

of the river system provide habitat for fish and wildlife, as well as agriculture and drinking water for the more than 100,000 residents of Bellingham, Lynden, and Ferndale, WA. The most senior water rights in the Nooksack basin are those of the Nooksack Tribe and Lummi Nation, as exercising their treaty rights has established rights that other water users are junior to.

Photo Credit Wendy McDermott

Agriculture is a big part of the economy and way of life in the Nooksack River Valley.

The communities of Lynden and Ferndale draw their municipal water directly from the mainstem Nooksack River, while Bellingham is primarily supplied by water from Lake Whatcom. Lake Whatcom's natural water reserves are augmented with water from the Middle Fork Nooksack River. A diversion dam on the Middle Fork Nooksack diverts water first to Mirror Lake and then into Lake Whatcom for domestic use. Additionally, the Nooksack River provides the water supply for farmland irrigation and other agricultural needs, as well as for industrial users. For hydroelectric power purposes, Puget Sound Hydro LLC operates a 1500 kilowatt hydroelectric plant at Nooksack Falls on the North Fork.

Although the Nooksack River is a relatively healthy system, all three forks and the mainstem Nooksack River are listed as impaired water bodies on the Washington State Department of Ecology's (DOE's) Water Quality Assessment and 303(d) list, which is required by all states under the federal Clean Water Act. The river has failed to meet state standards for pH, fecal coliform bacteria levels, fine sediment, temperature, dissolved oxygen levels, and instream flows. A list of standards that each river fails to meet is found in Appendix E. The river's inability to meet state water quality standards implies a hardship for the fish and wildlife that utilize these waters, as well as for the human populations who rely on fisheries for their culture and income.

Cultural Values

The Nooksack River basin has been home to the Lummi Nation and Nooksack Indian Tribe for thousands of years. Historically, the Lummi Nation utilized the lower part of the mainstem river, and the Nooksack Tribe occupied areas up-river, though they also accessed marine waters. Throughout the watershed, there are traditional cultural places and sites that are sacred to the Native American peoples indigenous to this area. It is illegal and punishable by the Archeological Resources Protection Act and other applicable laws to remove, steal, or damage any cultural resources. A cultural and spiritual site called Nuxwt'iqw'em (always-murky water), located along the upper Middle Fork, is listed on the National Register of Historic Places. Other places in the study area of cultural significance to the Nooksack Tribe are Spálhxen (prairie), a historical village on Johnson Island opposite the mouth of Anderson Creek, Nuxw7íyem (always-clear water), a historical village located at the mouth of the South Fork Nooksack River, Xwkw'ól7oxwey (always-dog salmon-place), a historical village at the mouth of Kendall Creek, and Núxwaymaltxw (slaughter-house), and a camp at the mouth of Skookum Creek on the South Fork. Traditional hunting and gathering sites, as well as usual and accustomed fishing places are also cultural resources important to the Tribes.

Additionally, historic trails, railroad and logging remains, and structural remains from homesteads, mines and mining cabins, and other buildings can be found along the banks of all three forks of the Nooksack River and are counted amongst the historical resources deserving of protection and preservation. Several of these sites are listed in the National Register of Historic Places, including the Middle Fork Nooksack River Bridge, the Nooksack Falls Hydroelectric Plant (the second oldest hydropower plant in Washington), the Winchester Mountain Lookout, Wild Goose Pass Tree, and the USFS Glacier Public Service Center that was built in the late 1930s by the Civilian Conservation Corps (CCC).

Photo Credit National Park Service

The Nooksack Falls Hydroelectric Plant was built on the North Fork Nooksack at Nooksack Falls in 1906 and was placed on the National Register of Historic Places in 1988.

Traditional Use

The Nooksack Tribe and Lummi Nation depend upon fishing, hunting, and gathering for cultural events and subsistence purposes. The Nooksack Tribe and Lummi Nation were two of many indigenous groups that were part of the 1855 Point Elliott Treaty in which title to the land of much of western Washington was exchanged for recognition of continued fishing, hunting and gathering rights, and a guarantee of certain government services.

Fishing

The 1974 U.S. v. Washington ruling (Boldt Decision) confirmed that tribes have a legal right to catch 50 percent of the harvestable surplus of salmon and steelhead. More recent court rulings have expanded this to include groundfish (such as halibut), and shellfish (such as crab and shrimp). The Boldt ruling also designated tribes as natural resources co-managers with Washington State. Salmon are especially important to the Nooksack Tribe and Lummi Nation. They are used in ceremonial practices, as subsistence, and as sources of income for many tribal anglers.

Hunting

The Nooksack Tribe and Lummi Nation hunt in the Nooksack River basin for both ceremonial events and for subsistence. Deer and elk meat are especially important for cultural events, such as potlatches, funerals, and naming ceremonies. The Tribes work with the Washington State Department of Fish and Wildlife to discuss management and enforcement needs and are active with wildlife management such as population surveys and habitat enhancement projects. The Tribes worked with WDFW to relocate Mount St Helens elk into the Nooksack herd as elk forage diminished due to species succession after the Mount St. Helens eruption. Both tribes issue annual hunting regulations and regulate their hunters.

Gathering

Tribal members also have unique rights to harvest plants for sustenance, medicinal and other traditional uses. They harvest cedar bark for weaving baskets, hats, clothing, and other crafts.

Recreation Use

Outdoor recreation is a popular pastime for many Americans, especially those living in the Pacific Northwest. Nestled snuggly between the North Cascades Mountains and the Salish Sea, the Nooksack River basin boasts a bevy of recreation attractions for all ages, interests, and experience levels. Many of the most popular recreation activities that visitors to the area engage in are among the fastest-growing recreation activities across the country, including bird watching, snowshoeing, hiking, backpacking, and primitive area camping. The river is also located halfway between the two largest Northwest cities: Seattle, WA and Vancouver, British Columbia. As a result of the close proximity to these population centers and the appealing natural splendor, the area is an increasingly popular destination for outdoor recreation enthusiasts. Vacation homes are common as well, especially along the Mt. Baker Highway and the North Fork Nooksack River.

Whitewater Boating: General Public and Commercial Outfitters

The Nooksack is one of the only rivers in Washington that offers year-round whitewater recreation for rafters, canoers, and kayakers. The glacier-melt from Mt. Baker and Mt. Shuksan feeds the Nooksack River through the summer season, attracting boaters to the area when other rivers are too low for larger boats. The river supports all levels of paddling, from splashy Class II wave trains perfect for beginners to technical, steep and narrow Class V rapids that offer opportunities and challenges for experts. The class rating system is based on the International Scale of River Difficulty.

The majority of whitewater boating occurs on the North Fork of the Nooksack. Expert boaters can push themselves on an adventurous Class V exploratory run from the Mt. Baker Wilderness Area at road mile 45 downstream to just above Nooksack Falls. Directly below the falls, a short stretch of Class IV exists, but private land associated with the hydropower project and the difficult and dangerous terrain precludes access to this stretch. Below the powerhouse, the river becomes Class II until the Upper Horseshoe Bend Whitewater Boater Access site near road mile post 37. This marks the start of another advanced Class IV+ run with challenging and continuous whitewater from this access point down to Douglas Fir Campground and is known as the Horseshoe Bend Run. The run from Douglas Fir Campground to the confluence with Gallup Creek, known as the Canyon Run, is a spectacular run through a forested canyon with Class III rapids. This reach is perfect for experienced boaters and is also the most popular run for commercial operators who guide trips down the river from late spring until the river is shut down for salmon spawning season in the middle of August.

Photo Credit Wild and Scenic River Tours
Rafting along the Canyon Run

There is also a voluntary closure for recreational boaters in this section when flows drop below 1000 cfs, typically in the middle of August to protect spawning salmon. This run is featured in the annual Nooksack Slalom Race organized by the League of Northwest Whitewater Races at Douglas Fir Campground every October as well. The run below Gallup Creek to Maple Falls is a fun, scenic Class II+ run. There are many combinations that can be done depending on the time, interest, and skill level of recreation enthusiasts.

Photo Credit Todd Elsworth

The Nooksack River Slalom is an annual whitewater race organized by the League of Northwest Whitewater Racers every October.

Other expert runs in the basin include the Middle Fork Gorge and Clearwater Creek, a Middle Fork Nooksack River tributary stream. These waters are extremely technical and attract adventurous whitewater kayakers from across the globe. There are also expert runs on North Fork Nooksack River tributary streams including Racehorse Creek and Canyon Creek, as well as a run on Skookum Creek, a South Fork Nooksack River tributary stream. The upper South Fork Nooksack River provides a 12 mile scenic wilderness trip, but access is currently limited and travel times are lengthy, making runs on this stretch of river much less frequent than they have been in the past.

American Whitewater conducted a survey of whitewater boaters on the popularity and quality of rivers in the North Cascades. The Horseshoe Bend and Canyon runs on the North Fork were both listed in the top 25 runs. The Middle Fork, Clearwater Creek, and the Horseshoe Bend runs were all rated as outstanding for their recreational and aesthetic values.

Hunting and Fishing

Both hunting and fishing are allowed throughout the upper Nooksack River basin. These activities are regulated by the WDFW and restrictions apply. Black-tailed deer and black bears are popular targets in the fall, as well as cougar, although they are more elusive. Elk are also highly sought after, but permits are very limited, due to population size. WDFW has a lottery for limited permits to hunt mountain goats during the fall. Grouse can also be hunted in these areas. Waterfowl hunting is popular in high-use areas. Fishing for trout and salmon is common in the North, Middle, and South Fork Nooksack rivers, as well as in the mainstem. Clearwater Creek is also popular with anglers. Nooksack Falls on the North Fork is a natural barrier to migrating anadromous fish (like salmon and steelhead), but resident rainbow and cutthroat trout can be fished for many miles above this barrier. It is important to note that fishing is allowed only where and when there are harvestable surpluses. Many populations do not have harvestable surpluses and are closed to fishing or the retention of fish.

Photo Credit Scott Willison

Fishing for salmon and trout are popular in the Nooksack River System.

Current rules and regulations for hunting and fishing seasons can be found in the annual WDFW's Big Game Hunting Seasons and Rules pamphlet, WDFW's Migratory Waterfowl and Upland Game Regulation pamphlet, and Sport Fishing Regulation pamphlet, respectively. Fishing and hunting licenses are required, as well as parking passes in some locations.

Photo Credit Rich Bowers

The Skyline Divide trail (#678) is a moderately challenging, nine mile roundtrip hike with amazing wildflower displays and view of Mt. Baker.

Hiking, Climbing, and Backpacking

Hiking, climbing, and backpacking in the Mt. Baker-Snoqualmie National Forest and Mt. Baker Wilderness Area are among the most widespread recreation activities in the Nooksack River watershed. Sweeping panoramic views of the North Cascades Mountains, beautiful wildflower meadows, and majestic evergreen trees lure thousands of recreationists to the area each year. Hundreds of miles of trails meander through deep quiet forests or charge up the challenging ascents of boulder-studded mountains; opportunities abound for every skill level. The Horseshoe Bend Trail along the North Fork Nooksack is a great option for those looking to enjoy a peaceful stroll along the river and catch a glimpse of migrating salmon. For those interested in longer stays in the backcountry, backpacking trails beginning on national forest lands also provide access to the North Cascades National Park and Mt. Baker National Recreation Area. The rugged approaches, exceptional alpine terrain, and unrivaled scenery make this area a premiere training ground for climbers as well. Elbow Lake and Park Butte Lookout are favored trails in the Middle Fork basin, the Hannegan Trail and Heliotrope Ridge are popular in the North Fork basin, and the South Fork's Twin Sisters Mountains offer some of the best scrambling in Washington State.

Camping

Beautiful camping areas along the riverside can be found at several locations along the North Fork Nooksack River, and, according to the USFS, approximately 7,000 visitors take advantage of these sites every year. The Douglas Fir, Silver Fir and Excelsior Group campgrounds are designated and maintained by the USFS and seasonally operated by USFS concessionaries and offer restroom facilities, garbage dumpsters, tent pads, and fire pits. The USFS Excelsior Group

Photo Credit Inventory Photo

Excelsior Group Campground

Campground was recently redeveloped and use of this site has since increased. Dispersed camping areas at Bridge Camp, along Canyon Creek, and on the Razorhone Road are more primitive. Along the South Fork Nooksack River, Pioneer Horse Camp is available for dispersed camping for those on horseback. Other dispersed camping sites can be found on the side of forest roads along all three forks of the river.

Mountain Biking

The Canyon Ridge Trail is currently the only trail in the Mt. Baker Ranger District that allows mountain bikes. User-built trails along the North and Middle forks of the Nooksack provide evidence of the interest in making more mountain biking opportunities available to recreationists in the area. The user-built trails along Clearwater Creek in the Middle Fork on DNR lands are popular with mountain bikers. Community groups are currently working to develop agreements with private landowners in the area to build designated mountain biking trails near the town of Glacier.

Picnicking, Wildlife Viewing, and Scenic Driving

Driving the major corridors through the Nooksack River basin offers rewarding views of dense forest stands, stunning mountain vistas, glacial-melt rapids, and glimpses of elk and bald eagles. Bird watching and photography engages many visitors at highway pull-outs and encourages nature appreciation. Picnic shelters and tables are also available in several locations along the North Fork Nooksack River. Wintering bald eagles can be seen at many places along the forks, but the highest densities coincide with high-use chum spawning areas which include the middle and lower North Fork.

Horseback Riding

Photo Credit Rich Ruhl

Horseback riding is popular in the Nooksack basin and backcountry horsemen actively engage in trail stewardship and maintenance projects.

Many miles of exciting trails are available for horses and pack animals in the Nooksack River watershed. The gorgeous views of snow-capped peaks, rocky ridges, lush sub-alpine meadows, and rushing streams that can be had from the saddle make trails like Excelsior Pass, Hannegan Pass, Twin Lakes, Skyline Divide, and Goat Mountain in the North Fork basin, Elbow Lake and Ridley Creek in the Middle Fork basin, and the River Trail and Ten Mile Loop in the South Fork basin near Skookum Creek exceedingly popular with backcountry horsemen throughout the state. The new South Fork Park near Acme will expand access for equestrian trail riders in the South Fork Nooksack River basin.

Camping is available at designated sites like the Pioneer Horse Camp and at the Park Butte Trailhead.

In addition to regular recreational use, many backcountry horsemen are actively engaged in trail

Photo Credit Bud Hardwick

The upper Nooksack basin offers incredible winter sports including snowshoeing, snowboarding, and all forms of skiing: cross country, back-country, and downhill.

stewardship and maintenance projects. A great deal of volunteer hours are spent organizing pack trips with horses and mules to assist trail crews by getting food, camping gear, and trail maintenance equipment into areas where four-wheeled vehicles cannot go.

Winter Recreation

Winter recreation and the deep snow at Mt. Baker Ski Area are world renowned (annual average of 647 inches). Thousands of people flock to the area every year to enjoy the excitement of downhill or backcountry skiing, and snowboarding. Recreationists are also drawn to the area for the quiet solitude of snowshoeing along the North Fork Nooksack River or to view mountain vistas from Artist Point. Cross-country skiing is popular at Salmon Ridge and also in the Mt. Baker National Recreation Area. Snowmobilers delight in the Canyon Ridge Trail and the Glacier Creek Sno-Park in the North Fork corridor and at several locations along the Middle Fork Nooksack River as well. According to the USFS, approximately 200,000 skiers and snowboarders and 15,000 snowmobilers enjoy the area annually.

Multisport Races and Events

The annual Ski to Sea Race is a multisport relay race that takes place in the Nooksack River corridor. The race begins at the Mt. Baker Ski Area and follows the river all the way down to Bellingham Bay. The relay consists of eight legs, including an 18.5 mile canoe leg on the lower Nooksack River. First established by the Mount Baker Club as the Mt. Baker Marathon in 1911, the epic event was reestablished as Ski to Sea in 1973. The Ski to Sea Race is a Whatcom County tradition that attracts participants and spectators

from across the Pacific Northwest and even some participants from around the world. The event continues to grow and now includes a Junior Ski to Sea parade and race, a Community Block Party, and a Finish Line Beer Garden complete with food vendors and family-friendly activities. More than 400 teams participated in the 2014 race, cheered on by thousands of people who gather at the various relay locations and, of course, the finish line. The Legendary Banked Slalom is a snowboarding contest held annually since 1985 at Mt. Baker Ski Area. The Slalom is regarded as the predecessor to the boarder cross event and has gained international recognition.

Foraging and Wildcrafting

Foraging for wild berries and mushrooms is popular during the summer and fall seasons throughout the Nooksack basin. Wild blueberries, huckleberries, salmonberries, and thimbleberries are commonly sought out and used to make jams and jellies; rose hips and stinging nettle are gathered for tea and other culinary uses. The temperate weather and rain-soaked soils of the Pacific Northwest create perfect conditions for mushrooms to thrive, especially chanterelles, morels, king boletes, and oyster mushrooms.

Wild and Scenic River Values

The Wild and Scenic Rivers Act, passed by the U.S. Congress in 1968, created the National Wild and Scenic Rivers System in order to preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations. In order to be eligible for a Wild and Scenic River designation, a river reach must possess at least one "outstandingly remarkable value" and be free-flowing. Outstandingly remarkable values are river values that are unique, rare, or exemplary at a regional or national scale. In 1990, the Nooksack River's outstanding fisheries, wildlife, recreation, scenic, historical and cultural values were recognized by the USFS in their Land Management Plan. The agency determined that segments of the Middle, North and South forks of the Nooksack, as well as Bell and Wells Creeks, to be eligible for inclusion in the National Wild and Scenic Rivers System. The list of these values can be found in Appendix E of the 1990 Mt. Baker Snoqualmie National Forest Plan.

Photo Credit Rich Bowers

Photo Credit Scott Willison

The USFS has identified several "outstandingly remarkable values" for Wild and Scenic River protection including recreation, scenery, fisheries and wildlife.

The upper Nooksack watershed has become an important conservation priority in the region because of its recreational and ecological importance and national significance. A committee of local citizens, recreationist and conservation organizations has developed a proposal to designate just over

100 miles of the upper Nooksack River system, including portions of the three forks and eight tributary streams, as Wild and Scenic Rivers. Wild and Scenic River designation would ensure that these values are protected and enhanced into the future, would prohibit the construction of new dams or other projects that would degrade the river's free flowing condition, and would help protect the river's water quality.

Economic Values

Rivers and river recreation are a key part of the tourism and travel industry, both locally and throughout the Pacific Northwest. Outdoor recreation opportunities are important to quality of life, and Washingtonians on average spend 56 days a year recreating outdoors. Of the 446 million participation days per year spent outdoors, 101,701 days, or 23%, are spent recreating on public waters. Outdoor recreation sales and services contribute $21.6 billion annually to Washington's economy and the recreation industry provides nearly 200,000 jobs in the state. Recreation is important to the economic growth of Whatcom County, and the industry provides $22.5 billion annually to Washington's economy and tourism and recreation businesses provide an estimated 18.2% of the jobs in Whatcom County and 17.8% in Skagit County. Nationwide, the outdoor industry is larger than the pharmaceutical industry and, for example, Americans spend more on biking gear and trips ($81 billion) than they do on airplane tickets and fees ($51 billion).

Photo Credit Thomas O'Keefe

The recreation industry is a growing part of Whatcom County's economy.

In the North Fork Nooksack River basin alone, approximately 40,000 recreationists visit the USFS Glacier Public Service Center annually. Artist Point, one of the most popular destinations for those heading east on the Mt. Baker Scenic Byway, is a gorgeous subalpine area that features stunning 360˚ views of Mt. Baker and Mt. Shuksan, as well as access to a variety of hiking and backpacking trails. The Mt. Baker Scenic Byway is also one of very few roads that provide vehicular access to a North Cascades peak at more than 5,000 feet above sea level. It is a destination spot in both the summer and winter. The North Fork Nooksack area offers a unique opportunity to drive up to 5,000 feet and play in the snow in July.

Based on the survey results collected during this planning process, visitors spend on average between $51 -$75 per person per trip on expenses including guided trips, lodging, gas, food, and equipment rental and/or purchase. Multiplying this mean value by the number of visitors to USFS Glacier Public Service Center, results in approximately two to three million dollars annually being invested into the

Photo Credit Western Washington

Glacier Visitor Center

economy by recreationists to the North Fork Nooksack. While the USFS Glacier Public Service Center is one of the most visited centers in the entire Mt. Baker-Snoqualmie National Forest, this is likely a low estimate because the Glacier Public Service Center by no means captures all the visits to the upper Nooksack basin and research has shown people tend to under represent expenditures they make when they are on vacation. Additionally, many of the recreation uses in the area like equestrians, boaters, bikers, and winter recreationists, spend an extensive amount on equipment. In the case of equestrians, for example, the care of their animals is a year-round endeavor and it is estimated that horseback riders contribute nearly $40 billion in direct economic impact to the U.S. economy. These numbers also do not take into account winter recreation tourism dollars spent by visitors to the Mt. Baker Ski Area, which is just adjacent to the Plan's study area.

In addition to funding from recreation, Washington State DNR public lands in the area generate funds through timber sales. In 2013, DNR generated $215 million from timber sales in the state. These funds go to support our public schools. The lands are governed by habitat conservation plans to ensure the timber production is managed in an ecologically sustainable way.

The majority of the lands in the Plan's focus area are publically owned (federal, state or local) or owned by the WLT, which provide many benefits including recreation and tourism as well as open space and conservation. In addition to recreation and timber, the watershed provides economic value in the form of potable water, irrigation water, carbon sequestration, climate regulation, flood risk reduction, water filtration, salmon habitat, other wildlife habitat, soil erosion reduction, and others. Although it is challenging to quantify and assign a value to these intrinsic ecosystem services, some data does exist. A 2015 report by Earth Economics analyzed the value of four ecosystem services provided by recreational lands in Washington State: outdoor recreation, water quality, habitat, and aesthetic beauty. The total was calculated to be between $134-$248 billion annually for just these four services. Clearly the number would be even greater if all of the aforementioned services that come with open space and an intact watershed were evaluated. This quantification is beyond the scope of the Plan, but it is important to note the value that these lands provide to people, fish, wildlife, and the ecosystem as a whole.

Photo Credit Rich Bowers

Recreation in the Nooksack basin provides opportunities to connect with nature and recharge.

Photo Credit Wendy McDermott

The Nooksack Basin open space landscape is made up of working forests, farmlands, and public lands for recreation.

Health and Wellness

Outdoor recreation provides numerous benefits to our health and well-being. Recreation not only provides diversion and refreshment from the often exhausting pace of our complex lives, it also enriches our physical and mental health.

Twenty-six percent of Whatcom County residents are obese, and people with low incomes in the county had significantly higher obesity rates, lower physical activity, and greater cardiovascular disease. This makes providing access to close-to-home, low-cost recreation opportunities all the more important.

Easy access to parks, trails, and open spaces is strongly correlated with lower rates of obesity, diabetes, and other diseases. The Center for Disease Control and Prevention recommends 30 minutes of exercise a day, which is enough to burn the excess energy that typically causes people to gain weight. Walking, hiking, biking, kayaking, horse-back riding, snowshoeing and skiing are all sufficient forms of exercise. Mountain biking and cross country skiing are especially high calorie-burners. One recent study found that exercise can prevent chronic diseases as effectively as medication. Exercising outdoors has added benefits. Research shows that people engaging in outdoor exercise have lower blood pressure, better moods, and higher confidence than people engaging in indoor exercise or exercise in an urban setting. Another study found that diabetic patients who took walks in the forest had consistently lower blood glucose levels; the forest environment triggers changes in hormonal secretion and autonomic nervous functions that have beneficial effects on insulin sensitivity and blood glucose levels.

The nationwide rise in childhood obesity is particularly urgent. One study found that there is a connection between obesity in children and deficiency of Vitamin D, which comes from not spending enough time outside. Getting children excited about outdoor recreation could help curb this trend. At all ages and abilities, outdoor recreation fosters a sense of place, cultivates environmental stewardship, and enables us to become involved in and feel part of a community.

People have long recognized the benefits to mental health of spending time in nature, but researchers are only beginning to give these beliefs scientific backing. At least one in ten people in Whatcom County experience poor mental health. About 28% of high school students and nearly 19% of Western Washington University students report depression symptoms. Studies show that spending time in green outdoor spaces and participating in outdoor activities can reduce stress, promote relaxation, and combat depression. A review of most exercise trials held inside and outside showed that participating outside showed increased mental well-being, feelings of revitalization, and energy, and decreased anger, tension, confusion, and depression. Spending time outdoors has also been shown to boost focus, memory, and concentration. Children with attention deficit hyperactivity disorder (ADHD), for example, experience milder symptoms when they play outside in a natural setting, and adults with dementia and Alzheimer's are known to have decreased symptoms following time in nature. Even just five minutes outside has been shown to reduce stress and depression and improve self-esteem, creativity, and life satisfaction. Those feelings were heightened for those in a wilderness area or near water.

Photo Credit Bud Hardwick

Outdoor recreation provides an opportunity for exercise, mental and spiritual rejuvenation, and enjoyment.

Putting a dollar value on the actual health benefits of outdoor recreation is impossible. Doctors are beginning to write outdoor time prescriptions for their patients, which are fillable for free. Studies have found that moderately active retirees had significantly lower health care costs than sedentary retirees. Another study found that for every $1 spent on trails, there was almost $3 savings in direct medical costs. Health care costs in Washington are expected to climb 22% by 2030. By protecting and enhancing Washington's favorite recreation areas, such as the Nooksack River Watershed, we can work to alleviate these costs.

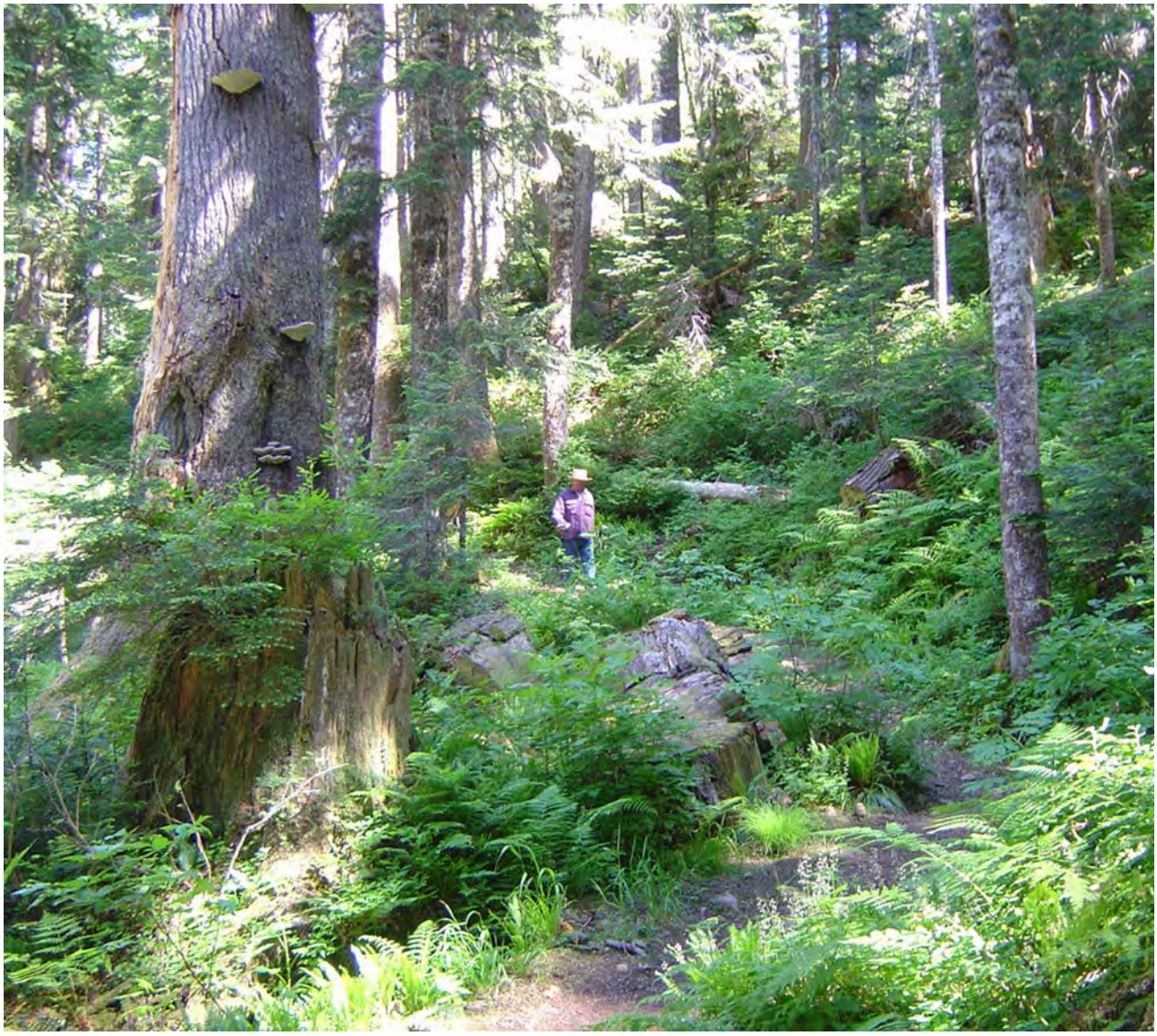


Photo Credit Jon Knechtel

Pacific Northwest National Scenic Trail

"The upper Nooksack provides in many aspects a way for me to balance my mind and life. It is one of the largest sources of enjoyment I find in my life. I intend to raise my family with this natural resource as a cornerstone."

– Survey Participant

Issues

If left unmanaged, recreational activities, especially unregulated recreation, have the potential to negatively impact fish and wildlife species, water quality, riparian vegetation, and aquatic and riparian habitat. It is important that recreational activities be conducted consistent with protection and recovery of aquatic resources, and achieving habitat recovery consistent with the WRIA 1 Salmonid Recovery Plan. Any new sites should follow low-impact design guidelines.

Acknowledging issues and management opportunities is critical to ensuring a healthy Nooksack River watershed now and for future generations. Several issues were identified as areas of concern in our focus area based on input from the Advisory Committee, as well as the recreating public. These issues are:

- Native Vegetation Loss
- Road Closures and Recreation Site Accessibility
- Litter and Human Waste
- Lack of Safe, Designated River Access Points
- User-Built Trails and Trail Availability
- Public Safety and Law Enforcement Presence
- Protection of Salmon Spawning and Rearing Habitat

Photo Credit Wendy McDermott

Advisory Committee members conducted site visits during the planning process to discuss issues and opportunities.

Native Vegetation Loss

Vegetation along the river is extremely important to aquatic and terrestrial species. In high-use areas, like popular trailheads and boat launches, riparian vegetation is often trampled or cut by recreation users. Riparian vegetation provides habitat for wildlife, helps stabilize stream banks and reduce erosion, provides instream wood which is critical to forming and maintaining productive salmon habitat, overhead cover for fish, and provides shade for fish. Loss of native vegetation can lead to soil erosion and compaction, sediment delivery, elevated

Photo Credit Western Washington

Riparian vegetation and natural wood recruitment is a critical part of a healthy Nooksack River ecosystem.

water temperatures, reduced Large Woody Debris (LWD) recruitment potential, and the spread of noxious weeds including knotweed.

Photo Credit Inventory File Photo

Dispersed camping can result in riparian vegetation loss via trampling and firewood cutting as shown above.

Management Direction: Existing native vegetation needs to be maintained along these reaches, and spread of noxious weeds needs to be prevented. The condition of native vegetation should be monitored and maintained with attention to the prevention and removal of noxious weeds. These efforts should be coordinated with land managers and the local Noxious Weed Control Board. River access sites need to be selected carefully, and trails should be designed to mostly avoid the riparian corridor so that LWD recruitment potential is not reduced, and sensitive areas including wetlands are avoided. Existing instream wood needs to be left in place, and not cut or removed by recreational activities, such as boating. Wood on river bars must not be collected, removed or burned.

Road Closures and Recreation Site Accessibility

Heavy rains, especially rain on snow events in the fall and winter seasons, often result in landslides that damage roads and aquatic resources in the upper Nooksack River basin. Inadequately maintained forest roads located in steep and unstable areas can accelerate the frequency and magnitude of landslides. Road maintenance to prevent sediment delivery to water bodies is expensive, and there is a backlog of roads that have not recently been maintained. Roads need to be brought up to current maintenance standards or closed until proper maintenance can be provided. Road closures reduce public access to recreation opportunities, limit the variety of recreation opportunities, and put additional strain on recreation sites that remain accessible. The USFS is currently engaged in a Sustainable Roads Initiative that will identify a road system for the forest that will fit expected future funding. That road system will be much smaller than the current system.

Photo Credit USFS

Roads like Glacier Creek Road are often damaged from landslides causing aquatic resource damage and reduction of public access to trailheads.

Management Direction: Roads providing access to multiple and the most heavily-used recreation sites should be maintained frequently and adequately to protect and recover aquatic resources and maintain safe public access. Budget constraints may limit the number of roads that can be used recreationally, but important access roads should be repaired as quickly as possible and considered carefully during travel management planning processes. Roads deemed to be of little or no importance to general recreation or forest management should be properly abandoned to prevent them from becoming sources of future slope failures and debris flows.

Litter and Human Waste

Photo Credit Western Washington

Litter and human waste is a problem in some areas, especially dispersed recreation sites.

The presence of litter and human and domestic animal waste is unfortunately common at dispersed camping and other undesignated recreation sites. This litter may offer evidence that an increasing number of recreationists are using the area and/or that more frequent use is occurring. In the absence of amenities such as toilets and trashcans, trash and human waste are often left behind, which pollutes the environment and diminishes the next visitor's experience.

Management Direction: The abundance of litter and human waste should be monitored and evaluated on a site-by-site basis. When and where appropriate and feasible, sanitation amenities should be provided by public land managers. Increasing awareness through educational and interpretive signage can also be useful tools to foster stewardship and encourage Leave No Trace and low-impact recreation practices. Community river clean-ups are also a great way to raise awareness of litter problems and get recreationists involved in being a part of the solution.

Lack of Safe, Designated River Access Points

Photo Credit Western Washington

Visitors are drawn to the water for a number of activities and there is a need to provide safe river access to accommodate this use.

Access to water continually tops the list of recreational needs in Whatcom County and across the state. The *Whatcom County Comprehensive Parks, Recreation and Open Space Plan, Skagit County Comprehensive Parks and Recreation Plan,* and the *Washington State Comprehensive Outdoor Recreation Plan* all identify public access to water as a high priority. Lack of river access, especially along the North Fork Nooksack River, was identified as an issue by the recreating public, as well as by the Advisory Committee.

Undesignated, user-defined access sites can be found throughout the upper Nooksack River basin. Access at these sites is not only unregulated (and in some cases involves trespassing), it also often negatively impacts native vegetation along the riverbank and causes erosion. In addition, recreation sites that are not formally designated lack amenities like sanitation facilities and parking lots. At some popular sites, users are forced to park along the busy highway and narrow roadways, which can be dangerous for both the recreationists and those driving on the roads. The lack of signage and online information providing directions toward and information about recreation sites is also a problem, especially for visitors from outside the local area as they are often unable to locate river access points.

Management Direction: The creation of user-defined sites should be discouraged to protect valuable natural and cultural resources found in the river corridors. Appropriate sites for river access should

be developed to accommodate current and future use in ways that promote low-impact use. Sites should be designed to avoid sensitive areas and prevent vehicle traffic on river bars to discourage firewood cutting and avoid impacts to riparian and aquatic resources. Defined parking areas should be established at these sites, sanitation services provided, and appropriate interpretive signage installed to educate users on safety procedures and environmental stewardship.

User-Built Trails and Trail Availability

User-built trails or social trails are unofficial, unsanctioned trails built and used by recreationists without the permission of the landowner or managing agency. Some user-built trails are located in inappropriate locations such as wetlands, fall lines, steep grades, and in other sensitive habitat areas. In the upper Nooksack River basin, user-built mountain biking trails can be found crisscrossing the landscape. Other areas have a history of user-built all-terrain vehicle trails, although the focus of this plan is on non-motorized use. Access to many of these trails has been closed due to resource management concerns. The results of the data collection for the Plan indicated a strong interest in mountain biking trails being more available for recreation and that this type of experience is currently not being adequately provided.

Photo Credit Western Washington

User-built trails may be too steep like the one pictured above or located in wet areas. It is recommended that low-impact sustainable trails be developed in appropriate locations.

Social trails also exist at dispersed recreation sites along the North Fork Nooksack River, and along other forks. Like river access, the need for trails for fishing, hiking, mountain biking, and equestrian use continues to be recognized as a top need, both in Whatcom and Skagit Counties and throughout Washington. Trail connectivity is important for creating quality recreation experiences and active transportation opportunities. Loop-trails are popular among hikers, bikers, cross-country skiers, snowshoers, and equestrians alike.

Management Direction: The creation of user-built trails is discouraged. Constructed and maintained sustainable trails in appropriate locations away from riparian zones and wetlands should be created as an alternative to user-built trails to address current and future demand. In cases where there are several social trails, one main trail should be designated and the other user-defined trails should be obliterated. This would serve to direct visitors to the appropriate trail while also reducing resource impacts. Education on sustainable trail development and promotion of responsible recreation behavior and stewardship is also recommended.

Public Safety and Law Enforcement Presence

Unlawful and unsafe behavior in the Nooksack River basin threatens the public's ability to recreate in a safe and enjoyable manner. It can also adversely affect the condition of natural resources and recreational facilities. In general, the upper Nooksack River basin has limited incidents of unsafe and unlawful behavior. Based on the data collection during the planning process, conflicts between users occur infrequently and most recreational users feel safe while enjoying the area. The lower South Fork

Nooksack River, which falls outside but is adjacent to the study area, does, however, have a history of alcohol abuse, conflicts with private landowners, and unsafe and disruptive behaviors exhibited by some recreationists who float down the river in an inner tube or other floating device known as tubers. The Whatcom County Sherriff's Office responded to this issue during the summer of 2013 by increasing law enforcement presence.

Photo Credit Bud Hardwick

Pictured above, is an extreme example of a visitor misusing public land and creating a shelter along the Middle Fork.

Management Direction: It is important that the Nooksack River basin offer a recreational environment that is conducive to the safety and enjoyment of families and children, while at the same time protects terrestrial and aquatic resources and recreational facilities. Strategies should be implemented to deter unlawful and undesirable behaviors through greater education and progressive enforcement actions to seek compliance with all regulations. Law enforcement agencies, non-profit groups, and land managers should continue to work cooperatively to provide responses to emergency incidents. Proactive public education and outreach programs on safety and user responsibility can influence recreation behavior and is an important part of the management direction to address user responsible recreation use of the river corridors.

Protection of Salmon Spawning and Rearing Habitat

Salmon recovery and protection is very important in the upper Nooksack Basin both from ecological and social perspectives. The survey results showed that 87% of participants supported salmon recovery and restoration. Recreationists enjoy salmon viewing and fishing, however, some recreation activities may impact salmon spawning and rearing habitat. Activities that involve gravel movement and siltation such as suction dredging for gold and other similar activities can have negative impacts on salmon and the fragile riverine ecosystem.

Photo Credit Rich Bowers

Recreation management can help protect salmon habitat through education and directing use away from sensitive habitat areas.

It is important that all recreationists follow existing regulations and guidance including the Leave No Trace principles when recreating in the Nooksack River basin. Recreationists should take care to protect spawning salmon and salmon redds by maintaining adequate control over dogs near salmon, by avoiding stirring up or silting in spawning areas which could smother fish eggs, avoiding driving on gravel bars, not using streams as travel routes during spawning periods, leaving woody material in the steam and gravel bars, not creating temporary dams to make pools to soak in, and avoiding trampling spawning beds when wading or fishing.

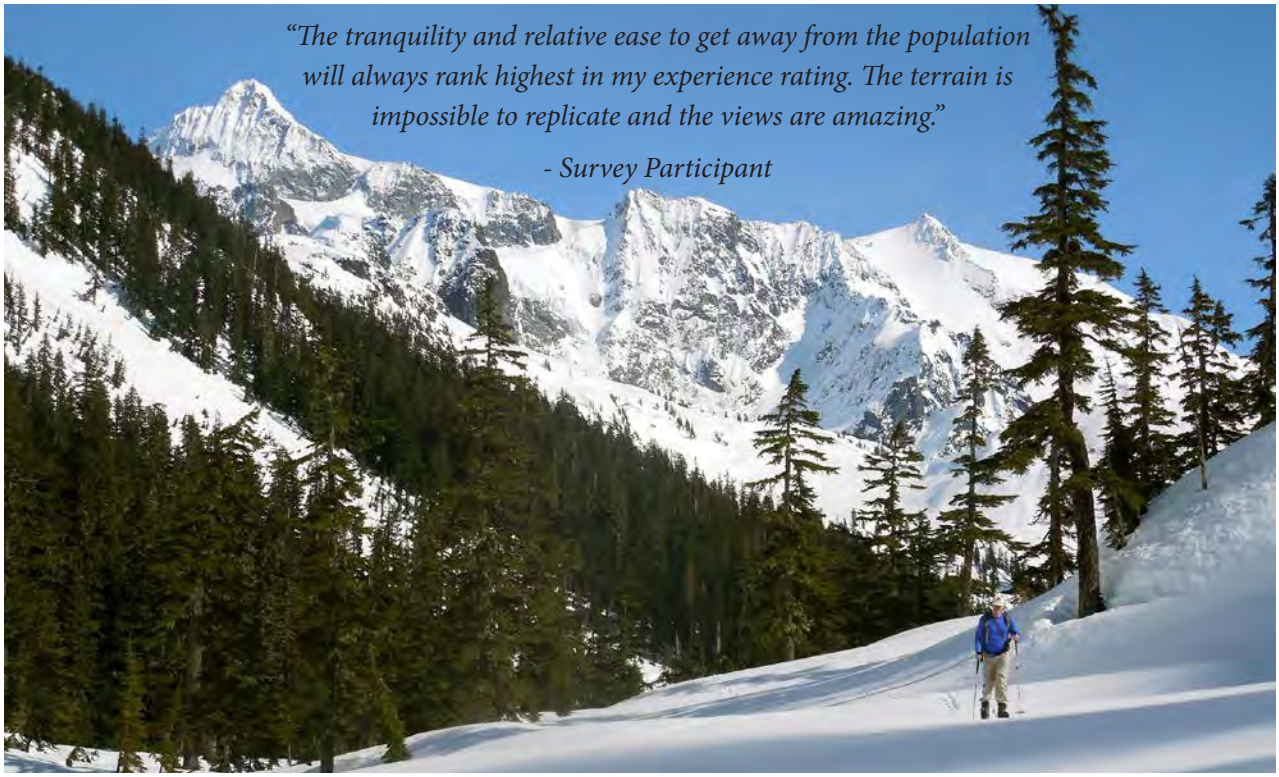
Management Direction: Protecting and enhancing salmon recovery is an important conservation and recreation goal. It is imperative that recreationists be educated about salmon habitat and their potential impacts to it. Education programs and signage should include Leave No Trace Principles regarding ways to reduce impacts to salmon. Responsible recreational use will reduce the need for enforcement. Enforcement of existing rules and regulations such as WDFW's fishing and mineral prospecting regulations is also recommended. It is also important to continue to evaluate existing regulations and use-guidelines to insure that critical natural resources are adequately protected.

Photo Credit National Park Service

Posting Leave No Trace principles and ways that recreationists can avoid harming salmon are some of the strategies that are recommended to minimize impacts to salmon.

Photo Credit Inventory File

The sign shown on the left informs visitors to not create rock dams to allow the salmon to migrate through.



"The tranquility and relative ease to get away from the population will always rank highest in my experience rating. The terrain is impossible to replicate and the views are amazing."

- Survey Participant

Photo credit Todd Elsworth

Recommendations

Recommendations to maintain or even enhance recreational opportunities while protecting and restoring riverine and riparian habitats were developed for the Nooksack River reaches within the study focus area based on input from the Advisory Committee, the recreating public, and information collected through the recreation site assessment and inventory.

The following overall goals emerged:

- Goal 1: Enhance Coordination of Recreation Management with Protection and Recovery of Natural and Cultural Resources
- Goal 2: Provide Quality Public Information and Education Opportunities
- Goal 3: Maintain and Protect Current Recreation Diversity and Access
- Goal 4: Coordinate, Design, and Formalize Safe River Access
- Goal 5: Plan and Create Sustainable Trail Opportunities and Trail Connectivity

For each of the above goals, general recommendations are provided along with specific recommendations for each of the study area river reaches. Figure 5 (page 51) illustrates the locations of the recommendations and which goal the actions serve.

Goal 1: Enhance Coordination of Recreation Management with Protection and Recovery of Natural and Cultural Resources

It is essential that the area's natural and cultural resources are protected now and in the future. It is also imperative that land use decisions and recreation activities be consistent with salmon and trout recovery planning. Supporting recovery activities will help ensure the high quality recreation experiences remain in place. Survey participants indicated strong support for restoration and conservation measures, with 87% of participants showing support for salmon recovery and restoration work, 85% indicating support for protecting the river from new dam development, and 79% supporting keeping the area natural.

Photo Credit Darcy Nonemacher

Survey participants indicated strong support for restoration and conservation measures including salmon recovery and protecting the river from new dam development.

Recreation management can help protect and assist with restoration of natural and cultural resources. Recreational uses need to be consistent with restoring aquatic habitats, including protecting instream wood and stream-adjacent riparian areas. Some of the Plan's site assessments revealed the presence of social trails, user-made sites, litter, human

Photo Credit Wendy McDermott

Engineered log jams

waste, and evidence of vehicles driving in streams and river bars and along banks of the river. User-made sites and social trails can cause resource damage such as wood cutting and streambank erosion. Designating appropriate access sites helps to ensure that users are directed to places that are safe and can accommodate the use, which helps protect natural and cultural resources. Strategically placed signage and installing physical barriers to prevent vehicles from driving into the river will help protect river resources. Providing appropriate sanitation facilities at sites can help reduce litter, garbage, and human and pet waste.

Survey participants also indicated a desire for more enforcement and patrols by law enforcement officers and rangers. Sometimes enforcement is needed in addition to education to ensure resource protection and safe enjoyment by all recreationists.

General Recommendations:

- Support on-going and increased restoration work for salmon habitat, and land management decisions that enable habitat processes to recover. This is vital to continued and increased recreational opportunities for anglers because population productivities and abundances adequate to support fisheries require harvestable surpluses. This includes catch and release fishing as there is incidental mortality associated even with catch and release.
- Protect the river from new dam development.
- Continue existing and expand opportunities for partnerships and collaboration on recreation management amongst local, state, and federal agencies, the tribes, recreation and conservation organizations, and the general public.
- Expand opportunities for volunteers and citizen scientists' monitoring and engagement to support data collection for fish, wildlife, and species of interest (i.e., eagles and harlequin ducks) while also fostering stewardship amongst recreationists and visitors in the area.
- Remove or formalize social trails, place vehicle barriers, facilities, and signage based on the needs of those sites. Recommendations on a site-by-site basis can be found in the inventory results, in Appendix B.
- Monitor recreation use and issues.
- Planning efforts by USFS and NPS have identified the eligibility and/or suitability of the upper

reaches of the basin for federal Wild and Scenic River designation. Support efforts to manage the river to ensure that the outstandingly remarkable values are protected and enhanced.

Specific Recommendations (see figure 6, page 52):

Upper North Fork

Photo Credit Wendy McDermott

Razorhone road provides dispersed camping opportunities. In some places, recreationists are driving into the river causing environmental impacts.

- Razorhone Road provides opportunities for dispersed camping, fishing access, and snowshoeing and cross-country skiing. Unfortunately, there are many places along the road that vehicles are being driven right onto the river bank and into the river. Improve riparian habitat on the North Fork Nooksack River in the Razorhone area by physically restricting vehicular access to the bed and bank of the river. Signage should also be developed to educate users about Leave No Trace stewardship and to direct them to the nearest restroom and waste disposal facilities.
- The upper North Fork wetlands provide important low-elevation spring feeding habitat for black bears. Ensure this area is protected as very important habitat.

Middle North Fork

Photo Credit National Park Service

This Maple Falls Reach Site was purchased by the Whatcom Land Trust for floodplain restoration. The plan recommends supporting and expanding restoration work in the watershed.

- Support the following ongoing restoration and conservation efforts in this reach:
    - The WLT has acquired several key properties along this stretch to preserve the floodplain, riparian vegetation, and natural river processes.
    - Whitewater Boating Seasonal Closure: An emergency closure for all whitewater boaters was established in the summer of 2000 from August 15 to October 15 to reduce disturbance of spawning salmon. In 2006, this closure was changed to a flow-based closure that is voluntary for recreational boaters and mandatory for commercial boating. Educate the boating public about the rationale for the voluntary closure, habitat improvements needed for salmon recovery, and how to avoid impacting spawning salmon and their redds. Share information with the river guides about the on-going salmon restoration work and what is impeding salmon recovery, and encourage them to convey this to their clients.

Middle Fork

- The removal of the City of Bellingham's diversion dam is a high priority for habitat restoration in the watershed. This is identified in both the Federal Puget Sound Salmon Recovery Plan and the WRIA 1 Salmonid Recovery Plan as the most important action that can be taken to restore North/Middle Fork spring Chinook. Removing this dam is also identified as important for bull trout recovery. While a steelhead recovery plan is not yet finalized, removal will likely be identified as important for that species as well. Ongoing efforts to remove the dam and maintain access to the site for recreational purposes should be supported.

Photo Credit Wendy McDermott

Removal of the City of Bellingham's dam on the Middle Fork Nooksack is projected to increase early Chinook abundance by 31% and restore access to 17 miles of habitat.

Upper South Fork

- The WLT has acquired several key properties along this stretch to preserve the floodplain, riparian vegetation, and natural river processes.
- Restoring sustainable wild salmon runs is important in the South Fork. Warm water temperatures are of great concern, especially in the lower reaches. Support habitat restoration projects that address limiting factors in the short term, and land management that will restore habitat processes and protect water quality in the longer term, so salmon, steelhead and bull trout are protected and restored in this reach.
- Suction dredging occurs upstream of Skookum Creek. Concerns exist about the impacts of suction dredging on juvenile salmon and steelhead and on their habitat. Mineral prospecting activities should be conducted consistent with salmon recovery. Encourage the WDFW and DNR to enforce existing regulations and to make changes to ensure protection of salmonids and their habitats.
- The USFS 1260 bridge across the Upper South Fork is damaged and has been closed to vehicles by the USFS. The bridge piers are crumbling due to the stresses of massive slope instability and earth flow on the west side of the slope above the river and unnecessary environmental damage could occur should the bridge collapse. Remove the USFS 1260 bridge to prevent it from falling into the river. Additionally, the road network beyond the bridge is not accessible by vehicle; therefore, it should

Photo Credit Thomas O'Keefe

The 1260 bridge has been damaged; the Plan recommends removing this bridge before it falls into the river.

Figure 5: Goals and Recommendations

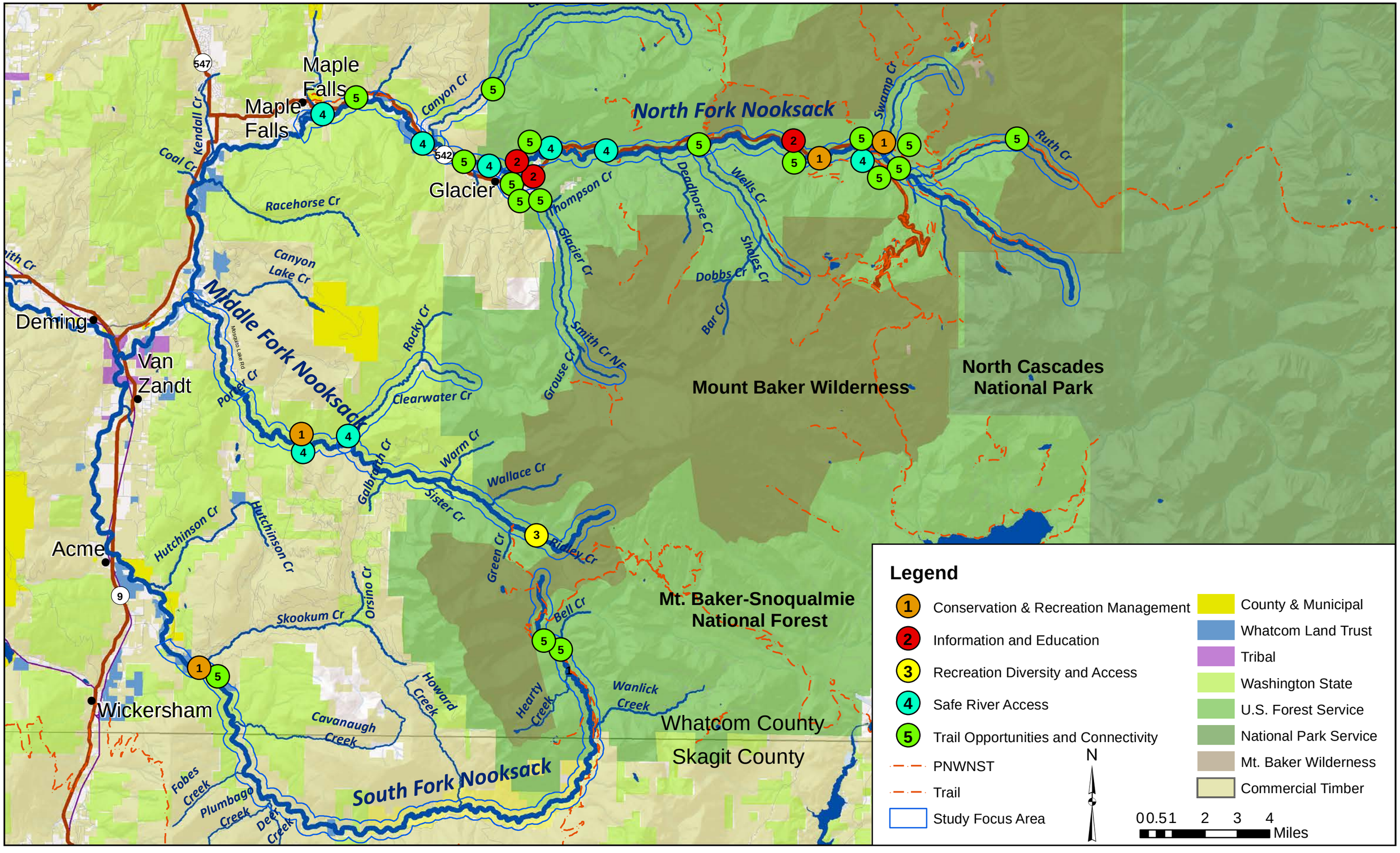
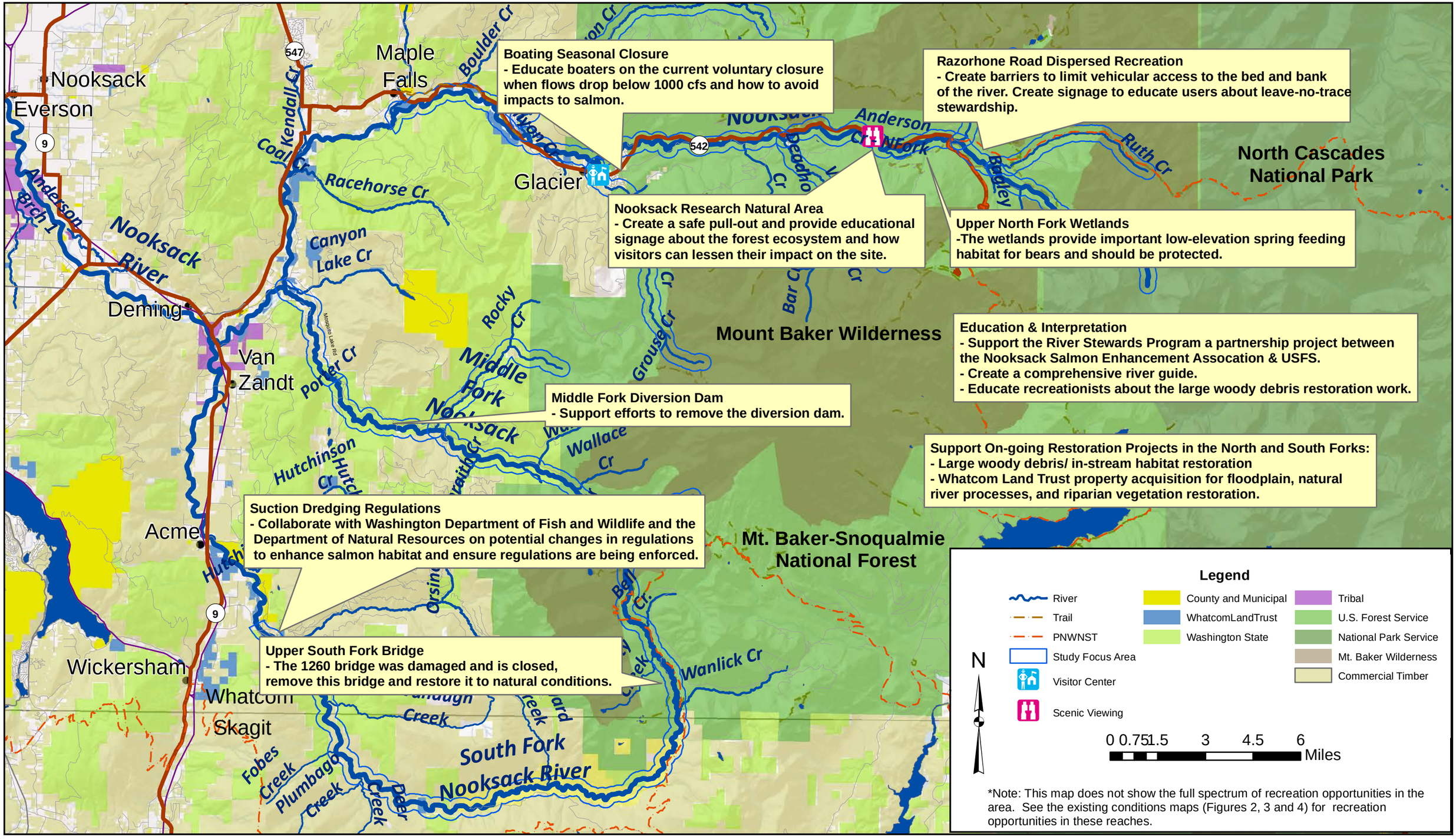


Figure 6: Management, Conservation, & Education Recommendations



*Note: This map does not show the full spectrum of recreation opportunities in the area. See the existing conditions maps (Figures 2, 3 and 4) for recreation opportunities in these reaches.

be decommissioned as a part of the bridge removal project but may include provisions for continued trail use. While this recommendation calls for the removal of a non-vehicular river crossing access point (USFS 1260 bridge), there are recommendations under Goal 5 that include enhancements to the Pacific Northwest National Scenic Trail along the South Fork which offsets potential recreational losses that decommissioning the road network beyond bridge 1260 may cause.

- Acquire habitat lands for elk foraging along the Upper South Fork.

Goal 2: Provide Quality Public Information and Education Opportunities

While the forks of the Nooksack River are known and loved by those who visit the area, more readily available information would create greater awareness of the watershed and opportunities afforded by it. This could enrich the experiences of visitors and foster a sense of stewardship. Information and education should focus on the watershed, restoration needs, recreational opportunities and uses, and recommend guidelines to reduce effects on natural and cultural resources. It could also identify volunteer opportunities.

Photo Credit Nooksack Salmon Enhancement Association

The Nooksack Salmon Enhancement Association's River Stewards program provides education and interpretation programing along the North Fork Nooksack River. One of the goals of the Plan is to support and expand interpretation programs and signage.

Recreation user education and stewardship ethics have been shown to greatly reduce resource impacts. Implementing stewardship messages such as Leave No Trace Principles can help protect the natural environment. See the Recreation User Responsibility section of the Plan [page 74] for more information. Visitor education programs recognize that most impacts are not from malevolent acts, but result from inattentiveness to the outcomes of one's actions or lack of knowledge of appropriate low-impact behaviors. User education and connection to a place can help change behaviors implementing the information ("I know") + connection ("I care") + ability (" I can make a difference") = action ("I will"). Interpretive and environmental education can be part of the solution for educating recreationists and the next generations of visitors to come. This can in turn help assure local quality of life is maintained. For many locals, recreation contributes greatly to our quality of life.

Photo Credit Nooksack Salmon Enhancement Association

NSEA's River Stewards provide summer education for visitors at Douglas Fir Campground, the Horseshoe Bend Trail and the Glacier Public Service Center.

General Recommendations:

- Enhance information on recreation areas and appropriate recreational behavior such as Leave No Trace principles through signage, brochures, and websites. The information should include how rugged the terrain is and should emphasize the importance of being prepared for trips in the backcountry and taking responsibility for your actions.

- Place signs at campgrounds to encourage visitors to stay out of the river to protect salmon during spawning season.
- Create, support, and expand interpretive and stewardship programs about natural resources.
- Identify several scenic vistas that could be developed as minor interpretive sites along the major highways. Focus on views of the major peaks, Baker, Shuksan, Sisters, and some nice river views. This would help the public to gain a grander appreciation of the Forest.

Specific Recommendations:

- Continue the River Stewards program, a partnership between the NSEA and the USFS.
- Create a comprehensive river guide with mile-by-mile river descriptions, natural history, rapids, put-in and take-out locations, fishing information, and Leave No Trace principles. Also ensure messages about responsible recreation user behavior and what is needed to boat consistent with aquatic resource recovery (including leaving LWD undisturbed, avoiding salmon redds, etc.). Ensure that this is updated as the river changes over time.

Photo Credit Wendy McDermott

Signage alerting boaters and other river users about engineered log jams in the river is critical for safety reasons and provides an education opportunity about salmon restoration techniques and goals.

- To enhance salmon habitat, restoration projects with LWD structures have been constructed in the North, Middle and South Fork Nooksack rivers and in lower Canyon Creek. There is an opportunity to enhance boating safety and restoration awareness by early and increased communications between project proponents, permitting agencies, and river recreationists. This should include early communications about project placement, placing safety information at public sites, and informing boaters where these structures are located and why they are there. The American Whitewater website would be a natural host of some of this type of information and an organization for restoration proponents to reach out to during the early scoping and planning stages of these projects.
- Nooksack Research Natural Area: This area has a unique stand of old-growth forest. Create a safe pull-out and provide educational signage about this forest ecosystem and how visitors can lessen their impact on the site.

Goal 3: Maintain and Protect Current Recreation Diversity and Access

This goal focuses on maintaining and protecting current access. Roads and trail access deteriorates over time and active management of current sites is important for the continuation of the experiences currently available. While this goal addresses maintaining access including roads, trails and access sites, it primarily focuses on roads since roads are an essential way to travel to trailheads and river access points. Survey results show that protecting recreation access is the highest desired management action, with 93% of participants identifying protecting recreation access as important or very important.

Maintaining access roads to existing sites has become more difficult here in the Pacific Northwest.

Photo Credit Wendy McDermott

The Hannegan Pass Road, USFS Road 32, often requires major repairs after landslide and flooding events. This road accesses the very popular trailhead which is often full of cars during summer months.

Shifting hydrologic regimes have increased the rates of flooding, landslides, and road washouts. Many access roads were built as temporary roadways for timber logging access using older techniques, are located on unstable slopes or in channel migration areas, and may have inadequate fish passage at culverts. Many roads are also not up to current road maintenance standards, and pose risks to fisheries resources, for example, by increasing the frequency and magnitude of landslides. Some legacy roads are also becoming impassable due to lack of maintenance and reduction in use for timber which was the initial justification for construction and maintenance. Limited budgets of local, state, and federal governments force land managers to prioritize which roads to maintain and which to close. Protecting and maintaining current access, however, is necessary for the continued enjoyment of the stunning scenery, fascinating wildlife, and diverse recreation opportunities the Nooksack River watershed provides. Adequately maintaining these to a level that prevents sediment delivery (especially mass wasting) to the river and tributary streams is very important to salmon, steelhead, and bull trout recovery and to continued opportunities for all anglers.

The USFS categorizes its road network by Maintenance Level. Arterials are the primary access roads to most major recreational destinations. These roads are designated to be maintained to at least a Maintenance Level 3: Open to Passenger Cars. Roads maintained to this standard receive periodic grading and brushing, routine repairs are completed, and drainage structures and ditches are serviceable. As budgets dwindle, prioritizations of services are biased to more highly used roads and more popular destinations. Preventative road maintenance can reduce major problems developing during storm events. Major repairs following significant damage events are difficult to fund because of budget deficiencies. The recent repairs to Canyon Creek Road, Glacier Creek Road, Hannegan Road, and the road to Skyline Divide suggest that funding constraints may drive road closure and maintenance decisions.

General Recommendations:

- Retain roads that provide critical access to outdoor recreation and ensure they are adequately maintained to prevent damage to aquatic resources and provide safe enjoyment by the recreating public.
- Maintain designated trails and river access sites.
- Collaborate with the USFS and other land management agencies during their travel and road management planning processes to ensure recreation values and access issues in the Nooksack River basin are addressed.
- Encourage more partnerships with volunteer and user groups for road and trail maintenance such as groups like Citizens for Forest Roads and Washington Trails Association. Streamline the process to become a volunteer so that it is easier and more user-friendly.

- Though requiring substantial one-time resources, roads that are no longer used or desired should be properly abandoned to prevent them from becoming a future source of expensive and damaging slope failures and debris flows with ongoing impacts on water quality.

Specific Recommendations:

Middle Fork

- Trail bridges over the Middle Fork Nooksack River on the Ridley Creek and Elbow Lake Trail were washed out during high flood events. The Middle Fork is very dynamic. On May 31, 2013, a debris flow that began just below the Deming Glacier traveled 4 miles down the upper river, and USGS has estimated that 100,000 cubic yards of material were delivered. The Ridley Creek Trail was affected by this large debris flow. The Upper Middle Fork and Elbow Lake trails are important to equestrians and hikers. The Elbow Lake North Trailhead is of particular importance to equestrians, especially since the Ridley Creek Trail is not maintained to support stock. A feasibility plan for a bridge to enable safe passage by horses and hikers along the Middle Fork at Elbow Lake North and Ridley Creek Trails should be developed. Potential partners include the Whatcom Chapter of Backcountry Horsemen of Washington and the USFS. Figure 10 shows the location of this recommendation.

Photo Credit Bud Hardwick

Bridges over the Middle Fork Nooksack accessing the Ridley Creek and Elbow Lake trails are continually washed out during high flows. Developing a feasibility plan to provide more reliable bridge access to these trails is recommended.

Goal 4: Coordinate, Design, and Formalize Safe River Access

Access to water has been identified as a top need by the residents of Whatcom and Skagit Counties specifically and Washington generally. The upper Nooksack River basin provides three distinct, dynamic river systems, and recreationists are drawn to these waters for whitewater boating, fishing, wildlife watching, picnicking, camping, and relaxing and connecting with nature. Lands in the basin are owned and managed by a number of different public and private entities. By planning and coordinating recreation access among public and willing private landowners, seamless recreation experiences can be provided.

Photo Credit Wild and Scenic River Tours

The Canyon Run on the North Fork Nooksack provides stunning views of Mt. Baker.

Photo Credit David Moryc
North Fork Nooksack River

A critical need exists to develop mechanisms to designate safe river access points. Access can be provided in a number of ways; depending on the activity and need, it could include vehicle or walk-in access. In some cases, better management of existing sites is needed to help direct recreation use to appropriate sites. Designating appropriate access sites with defined parking, signage, and sanitation facilities can direct users to that site and help protect natural and cultural resources.

The concern for access should not be interpreted as an initiative to infringe upon rights of private landowners. On the contrary, this need should be pursued in collaboration with willing private property owners and with sensitivity to private property interests and rights. In situations that involve a willing landowner, public agencies and/or non-profit organizations should evaluate on a case-by-case basis the feasibility of gaining new access.

General Recommendations:

- Collaborate with public, non-profit, business owners, timber companies, and willing private partners to provide more walk-in river access sites for anglers, wildlife watchers, and boaters, especially those sites currently gated off.
- Collaborate with the WLT to manage walk-in public access for angling, wildlife viewing, hiking, and boating on appropriate river parcels.
- Sign and create pull-outs at appropriate sites available for public access.
- Address sanitation issues at existing river access sites by providing restrooms at high-use sites.
- Provide more opportunities for camping.
- It is recommended that low impact facility design standards be developed to address shoreline setbacks, appropriate restroom facilities, parking lot design, storm water management considerations, and boat launch design. Guiding principles are:
    - Look regionally when selecting a site to improve
    - Preserve the riparian corridor connectivity
    - Protect sensitive wildlife and plants
    - Restore eroding river banks adjacent to river access sites and use native vegetation when restoring or developing a site

- Minimize the amount of impervious surface
- Select sustainable materials
- Use erosion and sediment control measures such as silt fences, filter strips, and temporary vegetation cover during construction
- Develop low-maintenance facilities to reduce ongoing costs for land managers.

Specific Recommendations:

Upper North Fork (see figure 7, page 61)

- Extend the season of operation for the Excelsior and Silver Fir campgrounds to include the shoulder seasons. Currently the campgrounds are only open during the peak summer season. Recreation users continue to camp during the shoulder seasons either at dispersed sites or by walking into the closed campgrounds. Sanitation facilities however are not provided for these experiences and a lack of sanitation facilities causes impacts to natural resources. By opening at least one campground in the area for the shoulder seasons, impacts due to sanitation issues will be reduced.

Photo Credit Western Washington

The plan recommends extending the campground open season into the Spring and Fall seasons.

Middle North Fork (see figure 7, page 61)

- Extend the open season of the Douglas Fir Campground to include the shoulder season.
- Whitewater Boating Take-Outs: The USFS manages a put-in at the Horseshoe Bend Trailhead located at the bridge on the Mt. Baker Scenic Byway adjacent to Douglas Fir Campground; however, a formal take-out downstream does not exist. A strong need exists for a publicly accessible take-out site between Glacier and Maple Falls. Three distinct runs exist on the Middle North Fork: the Horseshoe Bend Run (Upper Horseshoe Bend Whitewater Access to Horseshoe Bend Trailhead), the Canyon Run (Horseshoe Bend Trailhead to the mouth of Canyon Creek at the Warnick Bridge), and the scenic float (Canyon Creek to Maple Creek). Depending on skill level, interest, and time available, these runs can be combined or run separately. A need exists to have a few take-out options to allow boaters to experience these three distinct reaches in different ways. Put-ins are currently available at the Upper

Photo Credit Thomas O'Keefe

Excelsior Group Campground

Photo Credit Thomas O'Keefe

Horseshoe Bend on USFS lands provides a public put-in for boaters but a public take-out to accommodate rafting groups downstream does not exist. The Plan recommends creating a new take-out site near Maple Falls.

Horseshoe Bend Whitewater Boater Access site and at Horseshoe Bend Trailhead; however, official public take-outs below Horseshoe Bend do not exist. Some boaters, particularly local kayakers, take out in Glacier at the mouth of Gallup Creek, but it is not well known or signed very well. It is not ideal for rafts as the trail is too long (1/4 mile) and not wide enough for rafts to be carried to their vehicles at the trailhead. Some people also take out near the mouth of Canyon Creek at an informal site adjacent to the Warnick Bridge. Others use the mouth of Boulder Creek as a take-out. Boulder Creek is an important stream for salmon spawning and rearing and creating a take-out at another location could help alleviate use of this site. Guidebooks describe a take-out at milepost 27, but this is private land and parking is extremely limited. Below are opportunities to improve whitewater boating access sites:

- Improve the put-in at Upper Horseshoe Bend Whitewater Boater Access by grading, surfacing and extending the existing trail to a more appropriate launch area. This project was identified as part of this planning process and the USFS has since completed the project, making it an early implementation success.
- Formalize the Gallup Creek take-out by providing signage on SR 542 and in the town of Glacier directing traffic to the site and defining parking sites at the trailhead.
- In the short-term, formalize the river access area on WCPR lands at Warnick Bridge by defining parking and developing signage. In the long-term, Washington Department of Transportation has long-range (15 to 20 year) plans to re-route the highway between road miles 28.8 and 30.1 which would include bridge replacement. Bank erosion upstream at Warnick Bluff and deposition at the adjacent Canyon Creek alluvial fan would be addressed with this project. When the bridge replacement and highway re-route takes place, it is recommended that public river access also be provided as an additional project benefit.
- Create a water access (boating take-out/put-in site) near WLT's Maple Creek Reach property at the upper end of this reach. One potential site is a DNR property just upstream of Maple Creek at Highway 542 (mile 26.4).
- Discourage use of Boulder Creek as a take-out to protect salmon habitat and to discourage public use of this private property.

Photo Credit Thomas O'Keefe

Photo Credit Lindsay Taylor

Adjacent to WLT's Maple Reach property is a DNR parcel that could serve as a new, public take-out for boaters on the North Fork Nooksack.

Middle Fork (see figure 8, page 62)

- Whitewater Boating: Formalize access sites for whitewater boating along Clearwater Creek. Along the Middle Fork, whitewater boaters currently access the river at the Upper Middle Fork Bridge, Diversion Dam, and Mosquito Lake Road Bridge. Maintaining access at the site of the current Middle Fork Diversion Dam is critical. Removal of this dam is the top habitat restoration priority for WRIA 1 and the City of Bellingham is currently seeking funding for removal. Dam removal restoration efforts should include continued access for whitewater boaters.

Photo Credit Wendy McDermott

The Middle Fork Canyon is a popular advanced boating experience. The Plan recommends formalizing access for this reach.

Upper South Fork (see figure 8, page 62)

- Whitewater Boating: Historically, boaters have used the 200 Road and Larsen Bridges to access the navigable Upper South Fork Nooksack for a wilderness paddling experience but access has become more limited in recent history. There is a mix of public and private land in the Upper South Fork and gates on private property now block access to these bridges. This reach is important for salmon and there have been a number of tribal and other salmon recovery efforts in this reach. Additionally, there has been a history of salmon and elk poaching in this fairly remote area. The Advisory Committee was unable to reach consensus during this planning process about specific recommendations for increased access: boaters have an interest in restored access to this reach while those engaged in salmon recovery have concerns with potential conflicts between the goals of restoration projects and boater safety as well as concerns over poaching of elk and salmon. As opportunities arise in the future, initiate discussion with willing partners about the potential for improved access to this reach that is also consistent with conservation and salmon recovery goals.

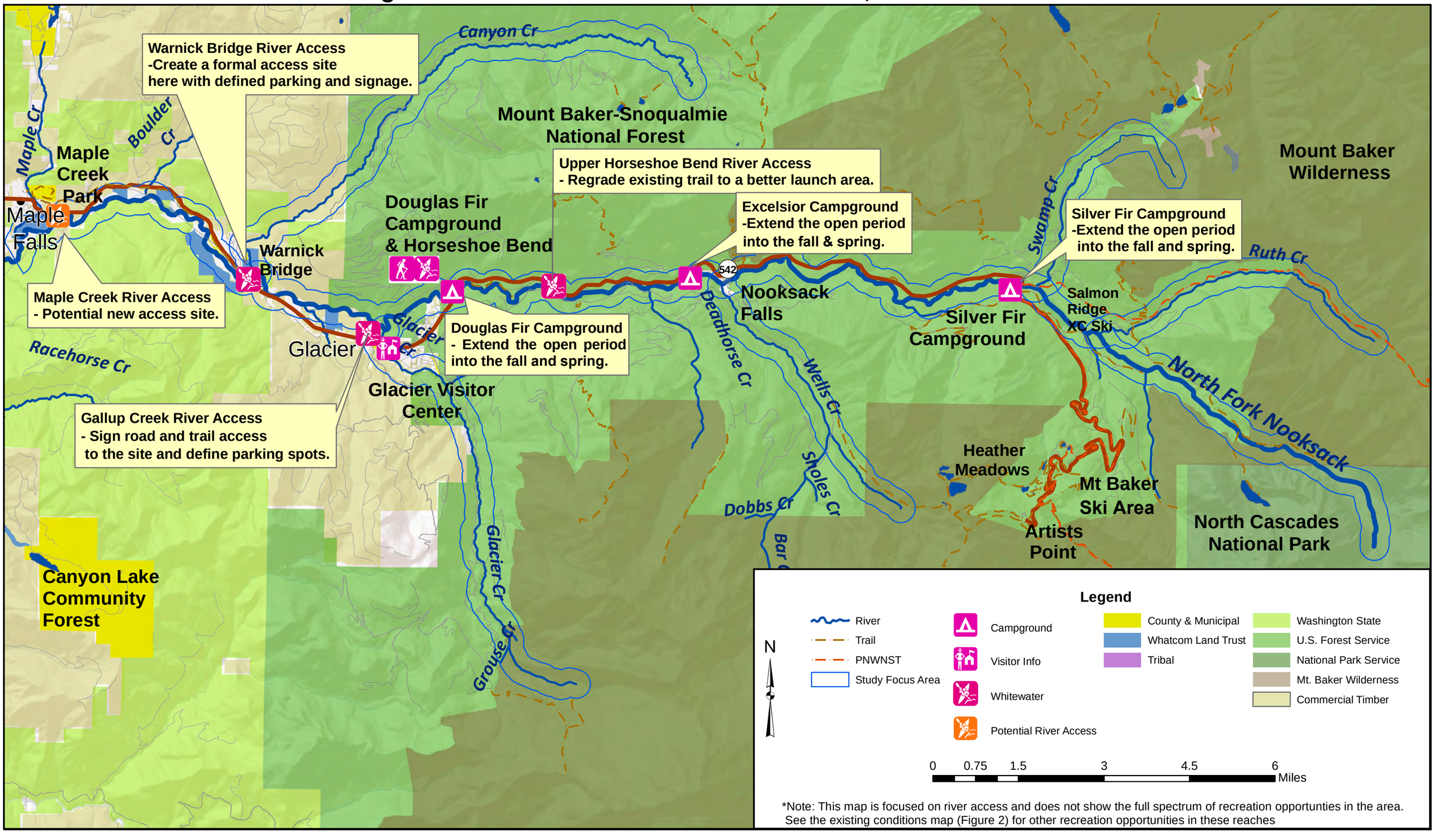
Photo Credit Bud Hardwick

Hiking is a very popular activity in the upper Nooksack basin. The Plan endorses creating new trail opportunities for a variety of recreational users.

Goal 5: Plan and Create Sustainable Trail Opportunities and Trail Connectivity

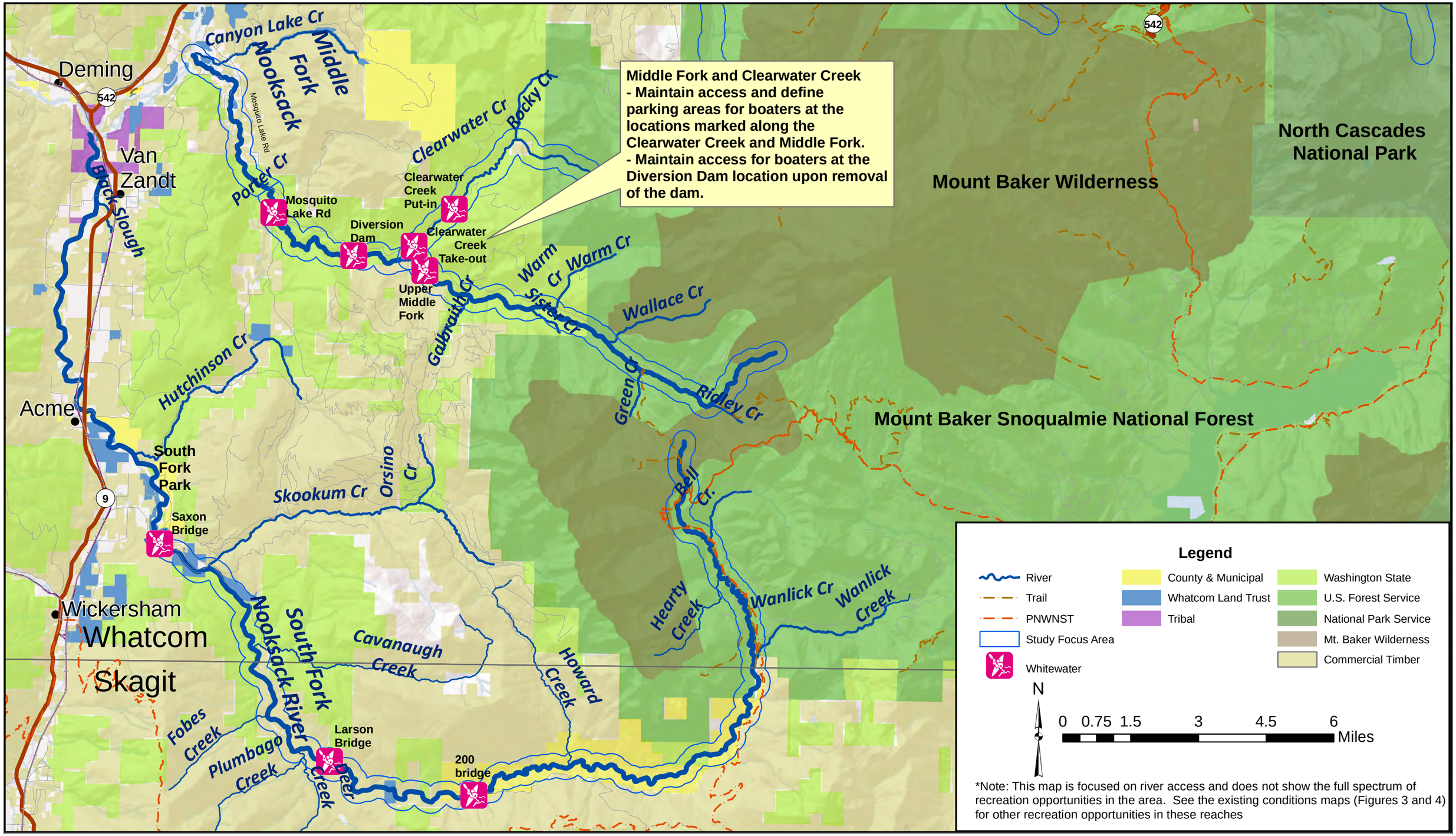
Trails offer a recreational experience of their own, providing opportunities for walking, enjoying views, fishing, jogging, hiking,

Figure 7: River Access Recommendations, North Fork



*Note: This map is focused on river access and does not show the full spectrum of recreation opportunities in the area. See the existing conditions map (Figure 2) for other recreation opportunities in these reaches

Figure 8: River Access Recommendations, Middle and Upper South Forks



bicycling, horseback riding, and more. Trails should link recreation resources and communities allowing people to move and experience the upper Nooksack Basin.

Trails also provide alternatives to road and vehicle travel, thereby providing added values of safety while decreasing traffic congestion and pollution. Trails provide exercise for recreationists while at the same time provide a more intimate appreciation of nature.

General Recommendations

Photo Credit Jason Provins

The mountain biking community has demonstrated a strong desire for new trails in the vicinity of the study area.

- Coordinate, plan, and create new opportunities for sustainable trail development and enhancement of existing facilities. In the upper Nooksack River basin user-built mountain biking trails exist, but many of the trails have been closed due to resource concerns. The results of our survey demonstrate that the mountain biking community has a strong interest in making this type of experience available and that it is not adequately provided. As an alternative to user-built trails, agencies are encouraged to work with user groups to develop, locate, and implement sustainable trails and facilities that address the demand. All new trails should be built to sustainable standards using the USFS Trail design standards. The International Mountain Bike Association (IMBA) guidelines on sustainable trail building and maintenance is also a good reference. Key elements of a sustainable trail include:
    - Supports current and future use with minimal impact to the area's natural systems.
    - Negligible soil loss or movement while allowing vegetation to flourish.
    - Pruning or removal of some vegetation only as necessary.
    - Accommodates existing use and appropriate future use.
    - Requires minimal rerouting and maintenance.
    - Built with land manager's permission.

  Other user groups also desire new trail opportunities including groomed cross-country ski trails, access to back country skiing and snowboarding, snowshoe trails, separated bike trails along major roads, easy walking trails along rivers connecting communities, longer backcountry hiking trails to optimize opportunities for solitude, and longer loop trails for overnight equestrian use. Many of these trail opportunities would be outside the river corridors in the upland areas, but may start or end or have sections within the river corridor. Promote the creation of trails that allow safe alternative recreation bypass of the Mount Baker Highway (SR 542) for the enjoyment and safety of both recreationists and motorists.

- Locate new trails away from riparian area and wetlands to the greatest extent possible to avoid impacts to riparian and aquatic resources, such as loss of shade and LWD recruitment potential. Recognize, however, that contact access to the water is desired by recreational users and identify appropriate sites along a trail to meet this need.

- Enhance existing trail systems and address sanitation concerns by providing restrooms at popular trailheads.

Photo Credit Rich Bowers

Nooksack Falls, the 88-foot waterfall along the North Fork, is one of the most popular waterfalls in the North Cascades.

Specific Recommendations:

Upper North Fork (see figure 9)

- Hiking Trails:
    - Work with the private landowner of the Nooksack Falls site to enhance the Nooksack Falls overlook area with restroom facilities and an ADA-accessible trail and viewing platform. Visitors to Nooksack Falls should respect that they are on private property. Visitation is a privilege. Current restroom facilities exist at the Glacier Public Service Center.
    - Promote the establishment and connection to off-highway recreation corridors for the safety of both recreationists and motorists. Support development and enhancement of both the Bay to Baker Trail (also known as the Nooksack River Trail) and the Pacific Northwest National Scenic Trail (PNNST). A major goal of the USFS's trail program is to get the PNNST off the roads in the upper Nooksack. Support efforts to develop a portion of the PNNST, utilizing some old road beds as well as some new construction, from Artist Point down through the Mt. Baker Ski Area. Consolidate the Nooksack Cirque Trailhead with the Goat Mountain Trailhead. Develop the half-mile Razor Crest Trail that connects the White Salmon Road and Razorhone Road at the Washington State Department of Transportation (WSDOT) parking lot.
    - Investigate trail connectivity and off-highway dispersal of recreationists upstream and downstream of Anderson Creek Road.
    - Nooksack Research Natural Area: Throughout the planning process, the public has expressed interest in trails and access to the Nooksack Research Natural Area. This area is unique and contains old growth trees a short distance from SR 542. While this is not an official recreation site, the public have been recreating here and there is an unofficial system of user-built trails that lead to the old growth forest. During the planning process, the public shared stories of taking their young children and older parents here and expressed interest in more defined access. Research Natural Areas like the one in the Nooksack are managed for research not recreation. Trails are allowed only if they are needed for research purposes or if they are shown to conform to the purposes of the Research Natural Area and are compatible with its objectives. The USFS and some

conservation organizations have expressed concerns about the continued use of the Research Natural Area and impacts that the user-built trails may be having on the old growth forest root system. While the public is interested in trails to this area, consensus could not be reached on developing trails here given the restrictions of the Research Natural Areas and potential impacts to the old growth forest. As described above in Goal 2, the plan does recommend providing educational signage about this forest ecosystem and how visitors can lessen their impact on the site as well as monitoring the impacts of current and future recreation use of the area.

Photo Credit Wendy McDermott

Hannegan Pass Trail is one of the few trails in the North Fork Nooksack River Basin that provides access to the North Cascades National Park. Ensuring that opportunities for equestrians and a horse trailer turn around are improved and maintained into the future is an important element of the Plan.

- Equestrian Trails:
    - Improve horse access at the trailheads to allow a trailer turn around at Hannegan Pass. A good example of trailhead access for horses is the Excelsior Trail. Equestrians have a need for a similar access at Skyline Trail. This area is outside the river corridor, but adjacent to the area. The Hannegan Pass Trailhead is being eroded by Ruth Creek. Ensure this access remains in place as it is the only equestrian access from Western Whatcom County into the North Cascades National Park. It is possible that the trailhead will need to be moved to Goat Mountain due to the erosion. If this is necessary, ensure that a trail connection remains to the Hannegan Pass Trail.
- Mountain Biking:
    - Support efforts to develop a mountain biking trail from the Mt. Baker Lodge to the WSDOT near the Shuksan Picnic Area. Most of this trail is outside the river corridor but it does connect into the WSDOT access site that is within the river corridor. This trail would be a minimum of five miles in length and would also likely be a segment of the PNNST.
- Cross-Country Skiing and Snowshoeing:
    - Support development of the Salmon Ridge Trail System.
    - Create new snowshoe and groomed cross-country trails. Create a new Sno-Park parking lot near Galena Creek, utilizing the old Forest Service road there.
    - Create a new ski trail connecting the Razorhone Road trail and the White Salmon Road trail.
    - Provide a self-pay station at the Sno-Parks.

Photo Credit Gail Garman

The Plan recommends expanding winter sport trails including connecting the two cross-country ski and snowshoe areas in the Upper North Fork.

Middle North Fork (see figure 9, page 69)

Photo Credit Rich Bowers

The Plan proposes extending the Horseshoe Bend Trail along the North Fork River.

- Extend the popular Horseshoe Bend Trail farther upstream along the river, but primarily outside the riparian corridor with occasional side trails leading to the river.
- Support development of Whatcom County's Bay to Baker Trail. From Boulder Creek to Maple Creek, the County's Bay to Baker Trail exists. Explore the opportunity to extend this trail between Boulder Creek and Glacier, and coordinate with WSDOT plans and actions for realignment. Keep the trail separated from the road where feasible. Support development of a trailhead and parking lot at Maple Creek Park.

Photo Credits Bud Hardwick

The Bay to Baker Trail connects Maple Falls to Glacier and is envisioned to continue onto Mt. Baker. The Plan endorses supporting development of this trail as an non-motorized travel alternative to the highway corridor.

- Support continued development of the Glacier Community Trail and keep the trail separated from the road where feasible.
- Explore the feasibility of connecting the Douglas Fir Campground to the community of Glacier. The local community and businesses are interested in connecting the campground with the town of Glacier. A challenge of this is the mix of public and private ownership on the south side of the river across from the campground. The Mt. Baker Foothills Chamber of Commerce and local businesses are potential partners on this effort.
- Mountain Biking: Mountain bikers desire the creation of sustainable trails. It is recommended that the USFS and mountain bike user groups work together to help manage and contain user-built trails as well as explore opportunity for sustainable trail development. It is recommended that the existing Canyon Ridge Trail be improved to make it more sustainable. The western portion is in the greatest need for improvement. Below are some potential locations for additional mountain bike use:
    - Thompson Creek Road to Dead Horse Road using existing roads and trails where possible
    - Coal Creek Road near Glacier
    - Snowline and Glacier Creek
    - Canyon Ridge area
- Explore the potential and community interest in designating a disc golf course near Glacier. Currently, a user-created course exists in the town of Glacier. While not a traditional trail, disc golf

courses provide opportunities to connect with nature while enjoying a game for people of all ages. Formalizing this disc golf course would ensure its continued availability for enjoyment with consideration for natural resource protection and player safety.

- Explore the creation of a Water Trail/Blue Trail on the North Fork Nooksack River, the fork most popular and accessible for whitewater boating and floating. Water Trails/Blue Trails are recreational routes on waterways with a network of access points, signage, and maps to provide an educational and recreational experience. They are typically supported by broad-based community partnerships and can be adopted by a local community that is dedicated to improving family-friendly recreation and conserving land and water resources. These types of trails generate positive economic impacts from increased tourism, as well as increased protection for outdoor recreation and water resources.

Middle Fork and South Fork (see figure 10, page 70)

- Equestrian and Hiking:
    - Improve the trail system along WLT Edfro Creek property along the South Fork upstream of Skookum Creek. This opportunity provides a nice flat trail along the river providing scenic views along the way.

Photo Credit Bud Hardwick

One of the trail recommendations in the South Fork is improving the trail system on Whatcom Land Trust's Edfro Creek property.

    - Improve the Pacific Northwest National Scenic Trail in this reach by rerouting the section that follows the South Fork Nooksack Trail #602, away from the river. The South Fork Nooksack Trail #602, dating back to the 1950s, followed the South Fork very closely. The trail washed out frequently due to its proximity to the river. Slides would occur frequently because of the volume of blue clay. The new route would move the trail away from the river and to more stable land. The USFS has completed its National Environmental Policy Act (NEPA) review of this trail re-route and volunteers have started to complete this work.

Photo Credit Wendy McDermott

The Plan supports improving the Pacific Northwest National Scenic Trail including re-routing the South Fork Nooksack Trail to a more sustainable location further away from the river.

    - Explore the feasibility of developing a sustainable equestrian loop trail referred to as the Circle Trail along the river corridors and upland areas primarily avoiding riparian areas from the South Fork Park extending up the South Fork drainage to the Middle Fork and then back down the ridge to South Fork Park. Some of this trail loop would follow the river corridors and some of it would be located in upland areas. It is recommended that existing trails and roadways be utilized whenever possible. This loop trail along the South Fork will require the ability for both hikers and horses to ford the river in at least a couple of places, likely locations are upstream from Saxon and in the Wanlick area.

Issues and Opportunities in Reaches Outside the Scope of the Plan

The Lower North Fork, the Upper Mainstem, and Lower South Fork Nooksack River reaches were included in the recreational site inventory and assessment part of this plan, but developing specific recommendations for these reaches is beyond the scope of this plan. The following are issues and opportunities that were discovered during the planning process and need further investigation and assessment.

Lower North Fork and Upper Main-stem Nooksack

Issues and Opportunities

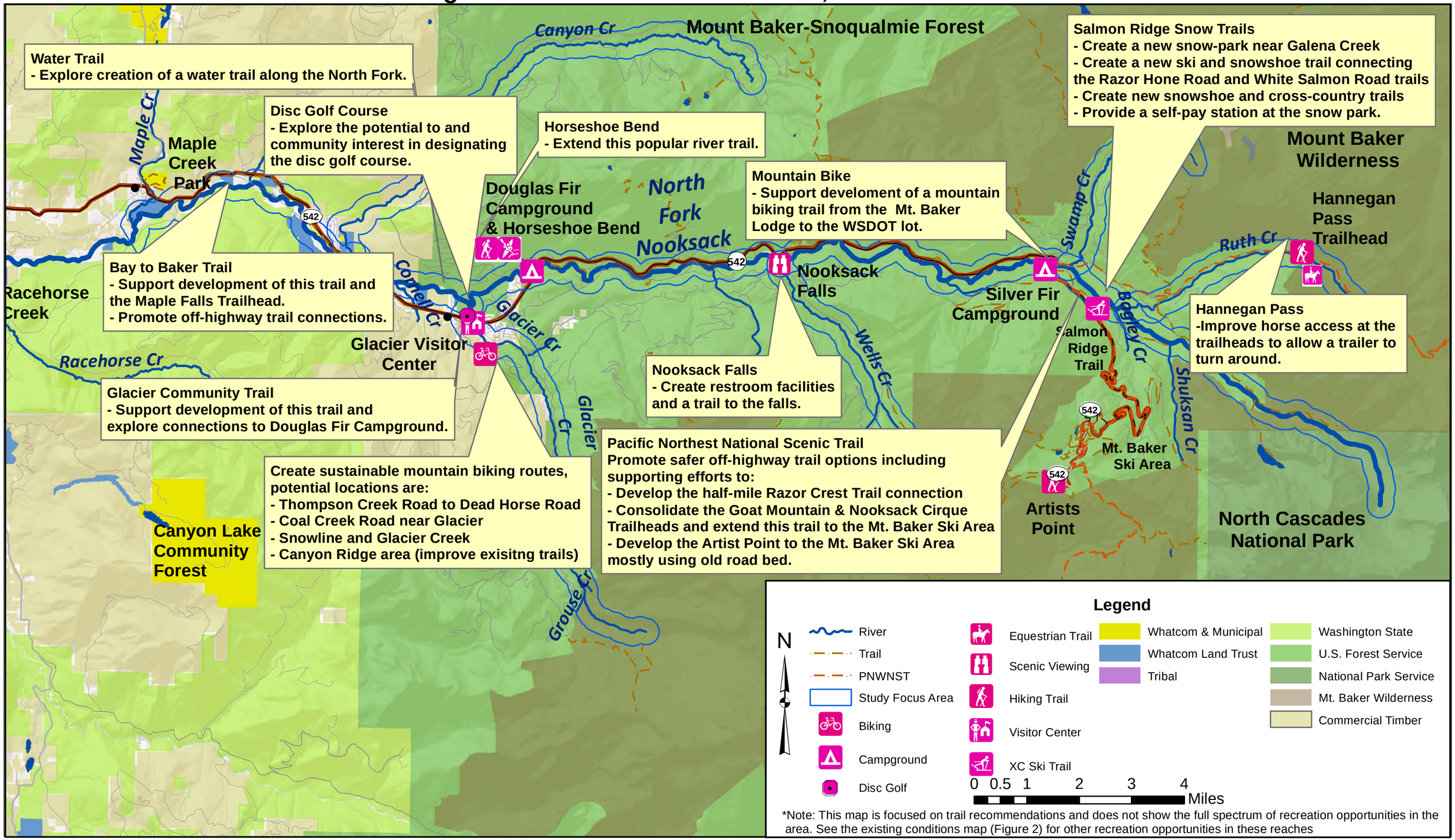
- A gate blocks vehicular access between Racehorse Creek and Canyon Lake Creek which limits recreation use of this area. Additionally, the access road to the Canyon Lake Community Forest has been washed out since January of 2009. Whatcom County Public Works is working on fixing this access issue.

Photo Credit Thomas O'Keefe

Whatcom County's Welcome Bridge access site is a popular recreational boating and fishing location.

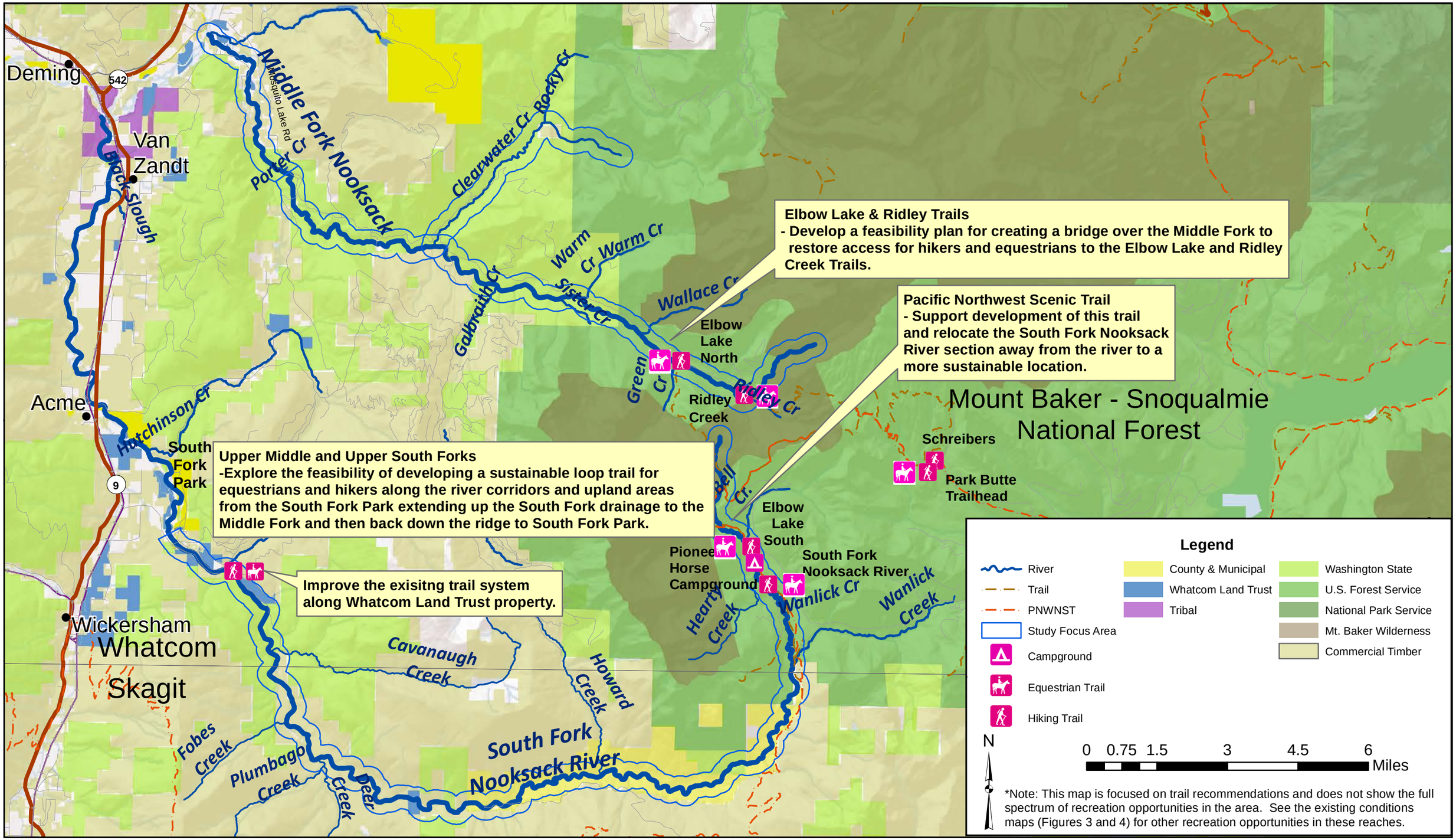
- The Welcome Bridge Access is a Whatcom County Parks and Recreation-managed site that is used as a boat launch. The County recently improved this site by grading the access road, securing the riverbank, and installing designated signage. There is an area between the parking lot and the river that has been replanted as mitigation for repairs to the bridge, and needs to be protected. This is a popular recreational boating and fishing location, and while the improvements have enhanced the opportunities afforded by this site, further improvements could be made. During periods of high use it is challenging to turn around with a trailer, and there are no defined parking spaces. Creating a turn around and defining parking spaces would help enhance the site and reduce crowding issues during the summer and fall months. Any improvements should minimize impacts to riparian vegetation.
- The mountain biking community developed a very popular series of downhill mountain biking trails in the upland areas on the slopes of Slide Mountain. These user-built trails were closed by DNR due to environmental resource concerns. The survey results showed a strong desire for high quality, sustainable mountain bike trails in the region. New trails should be built in a sustainable way while minimizing impacts to natural resources.
- Other Recreation Use:
    - The public desires more opportunities for salmon and eagle viewing.
    - This stretch is popular for steelhead and salmon fishing and more walk-in river access sites for fishing could be created. A need exists to improve habitat for the benefit of population productivity.

Figure 9: Trail Recommendations, North Fork Nooksack



*Note: This map is focused on trail recommendations and does not show the full spectrum of recreation opportunities in the area. See the existing conditions map (Figure 2) for other recreation opportunities in these reaches

Figure 10: Trail Recommendations, Upper Middle and South Forks



- The WLT has several riverfront properties that are open for non-motorized recreation.

- Management:
  - Litter, such as from target shooting, covers some of the gravel bars located along the upper Nooksack River forks. The gravel bars on the Lower North Fork near Slide Mountain are the areas of greatest concern. More responsible shooting, greater management presence, and stewardship of this area are needed.

- Restoration/Conservation:
  - Preserving and restoring salmon habitat is very important in this reach. The WLT has acquired several key properties in this reach with salmon recovery funding in an effort to preserve floodplain connectivity, riparian vegetation, restore natural river processes, and conservation projects like these, and instream restoration projects should continue to be supported. In addition, invasive plants compete with native vegetation and severely degrade native habitat. Their identification, monitoring and control is critical to habitat restoration and protection.

Lower South Fork

Issues and Opportunities

- The warm, shallow waters of the Lower South Fork Nooksack River are a very popular destination for inner-tubing and swimming, especially on hot summer weekends. However, despite high and consistent usage, there are no facilities for recreational use located along this reach. There are concerns with disturbing holding and migrating salmon, steelhead and bull trout. There have been issues with the lack of sanitation facilities and parking, conflicts with landowners, and alcohol abuse and disruptive behavior by some recreationists. Whatcom County has an ordinance banning limb-propelled devices including inner-tubes upstream of Acme. In response to concerns over this use, in 2013 Whatcom County Sherriff's Office invested additional resources for enforcement. This area is outside the focus area of the recreation Plan, and Whatcom County is working on addressing this issue.

Photo Credit Lindsay Taylor

Inner-tubing is not allowed upstream of the Acme bridge on the South Fork Nooksack.

- Continue to support NSEA's annual river clean-up of trash in the fall, in a manner that minimizes or avoids further disturbance of holding and spawning salmon.

- The new South Fork Park will serve as a key recreational access area for walk-in river access and trails. This park is being planned and developed by Whatcom County Parks and has a great deal of potential for expanding recreational opportunities in the South Fork Nooksack River basin.

- Equestrians desire a horse-packing loop trail that would begin and end at the South Fork Park (see full description in the Middle Fork recommendations).

- Management:
    - Currently, an overnight homeless camp is located under the Highway 9 Bridge near the confluence with the North Fork Nooksack River during the summer months. Fishery managers have concerns about wood removal from river bars and driving across the South Fork down-river from here. Signing these areas as day-use only and increasing law enforcement presence could help address this issue.
- Restoration/Conservation:
    - Salmon recovery is important in this reach. A number of restoration projects have been undertaken to help enhance salmon recovery. Both the WLT and Whatcom County Parks & Recreation have acquired properties along this reach for conservation and recreation purposes.
    - Low, warm summer flows are a concern in this reach for native, wild salmon especially the threatened South Fork spring Chinook population, threatened summer run steelhead and threatened bull trout.

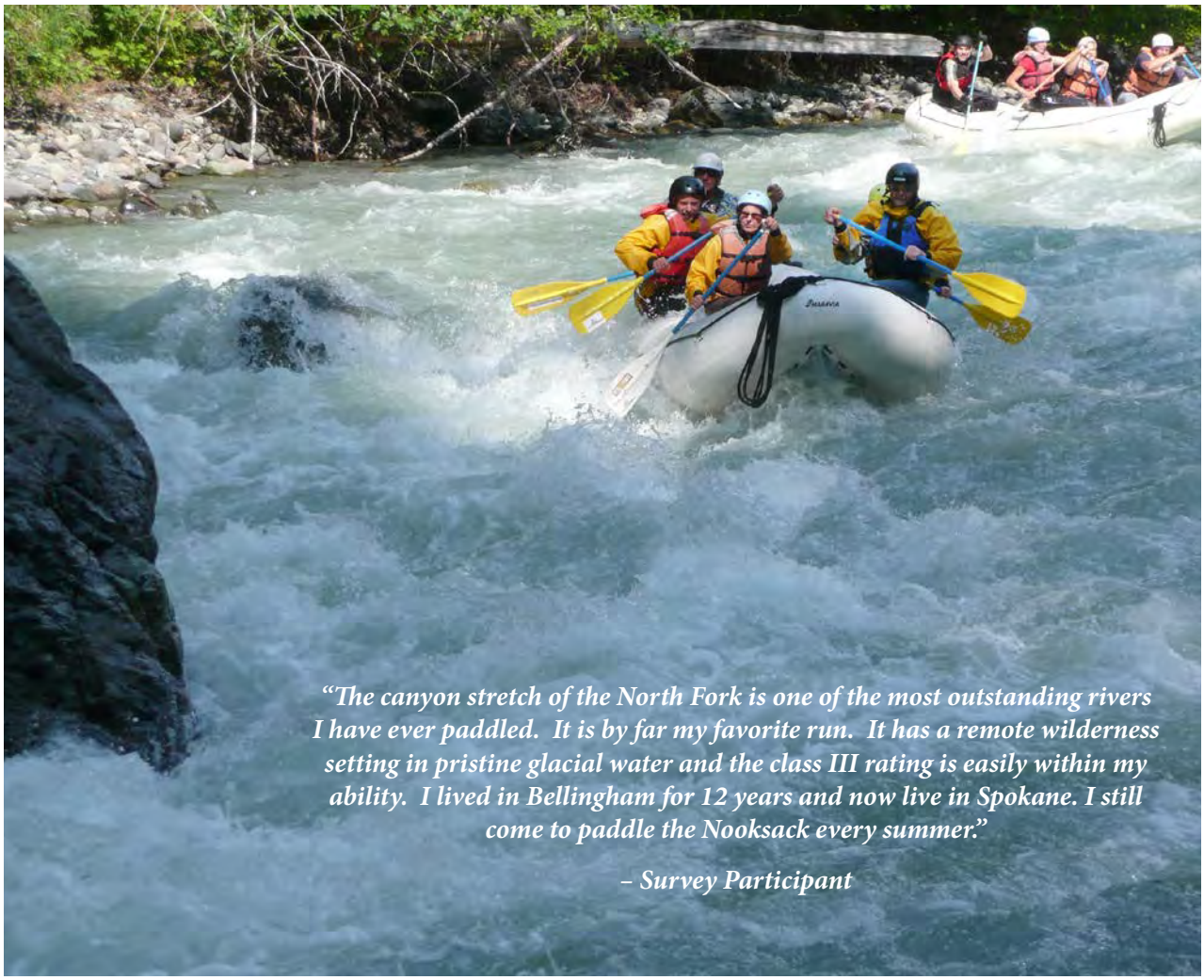


Photo Credit Bonnie Rice

Coordination, Roles, Responsibilities and Implementation

Coordination and Collaboration

Advisory Committee's Role

It is envisioned that the Advisory Committee will continue to meet to develop and move implementation of the Plan's recommendations forward, develop a shared annual work plan, and address any continuing issues or opportunities that arise. The role of committee members is described below:

Photo Credit National Park Service

It is recommended that the Advisory Committee continue to meet annually to review progress and coordinate next steps for plan implementation.

- Participates in Advisory Committee meetings representing the views and expertise of their organization and interest from the larger community.
- Provides support, expertise, direction, and work on annual work plans, products, and other necessary elements of implementing the plan.
- Seeks and organizes technical assistance and financial grant applications.
- Organizes and coordinates volunteer opportunities.
- Monitors effectiveness of the Plan's actions.

Coordinator's Role

Coordination is an important role and vital to the success of implementing the plan. It is envisioned that American Rivers or another key partner would take the lead role as the recreation plan coordinating body. The primary coordinator responsibilities are described below.

- Serves as a point of contact for recreation plan activities.
- Engages the partners keeping them apprised of activities, grants, and other opportunities for partnership projects.
- Organizes, convenes, and conducts recreation plan committee meetings.
- Facilitates development of an annual work plan and year-end progress report.
- Provides an organizational link to government agencies, non-profit organizations, and the public.

Recreation User Responsibility

The seven Leave No Trace Principles are nationally recognized, outdoor skills and ethic awareness program and they should be followed.

The Seven Leave No Trace Principles:

1. Plan Ahead and Be Prepared.
2. Travel and Camp on Durable Surfaces.
3. Dispose of Waste Properly.
4. Leave What You Find.
5. Minimize Campfire Impacts.
6. Respect Wildlife.
7. Be Considerate of Others.

1. Plan Ahead and Be Prepared.

Recreation users are responsible for their own actions and bear personal responsibility for their own safety. Being responsible will help ensure future access is provided and enjoyed by everyone. While the upper Nooksack River basin is a great place to relax and enjoy nature, there are inherent risks with outdoor activities. Recreationists can use common sense, caution, good planning and proper equipment to greatly reduce risks.

Recreationists should:

- Understand the area before setting out on an unfamiliar section. Follow boating and fishing regulations, and safety guidelines so as not to endanger other river users or yourself.
- Plan your trip carefully and seek out the latest information paying close attention to the ever changing weather, snow, and river conditions.
- Be prepared with the right equipment. River users should always use a personal flotation device. Always carry some form of personal identification and notation of medical conditions and allergies. Always carry water and a first-aid kit, and an extra paddle if boating.
- In cool weather, dress accordingly and bring at least a complete change of warm clothing in a waterproof bag. In warmer weather take along insect repellent and sun block.
- Don't go out alone and let someone know what your plans are and when you expect to be finished.
- Consider your skill level. There are many trails, skiing areas, boating reaches that require advanced personal skills to complete. Know the level of difficulty of the area you are going to and know your own skill and current physical fitness level before attempting outdoor activities.

2. Travel and Camp on Durable Surfaces.

Recreation users should always use existing access sites, trails, and camping areas to minimize impacts and erosion. Avoid areas that are wet or muddy. Also avoid walking over wetland and riparian vegetation.

3. Dispose of Waste Properly.

Recreation users can be part of the solution in keeping the area clean and beautiful. Always collect your trash before you depart from a stop, even biodegradable items such as apple cores and orange peels. Trash bags should always be part of your gear. Make it a habit to pick up an extra bit of litter on each trip. Individual actions will lead to cleaner river corridors. Human and pet waste should also be disposed of properly. Use facilities where provided. While in the backcountry, use bags for toilet paper, pet waste and human waste whenever possible. When bags are not available, follow acceptable practices for selecting cathole locations.

4. Leave What You Find.

It is important to leave the environment the way you found it. Don't alter the environment by collecting wood, digging trenches for tents, or constructing lean-tos. Avoid damaging live trees and plants. Leave natural things like plants, rocks, and cultural artifacts. While it may not seem like a big deal to take or change something, if everyone did, impacts to the environment would start occurring. Take pictures for memories, but leave the environment the way it is. Wood is especially important in the rivers and streams of the upper Nooksack watershed. Wood that falls down should be left as it provides important habitat.

5. Minimize Campfire Impacts.

When camping, minimize impacts by using sites that have previously been used. Use existing fire rings for fires. If you are in the backcountry or places where fire rings are not present, consider just using a stove. Bring your own wood and do not collect wood for fires. Wood is important for habitat and needed in the river. When fires are used, ensure safe practices are adhered to.

6. Respect Wildlife.

Respect wildlife by observing them from afar and never feeding or touching them. Respecting fish is also very important in the upper Nooksack River basin. Ensure you follow fishing and hunting regulations. Spawning salmon are a really important resource and avoid disturbing salmon when they are spawning or walking in gravel that may contain redds.

7. Be Considerate of Others.

River and Trail Etiquette should be followed at all times. Respecting others interests and rights can ensure everyone enjoys their visits. Recreation users should:

- Know the boundaries of public and private lands. Respect public as well as private property.
- Know the allowable uses and activities on the land and rivers they are using.

- Be courteous and respectful of other users. Respect their space, privacy and solitude while on the river, in camp, on hikes and at boat ramps.
- Yield to others. Follow the trail etiquette triangle. Downhill travelers should yield to those heading uphill.
- If biking, control your bicycle and speed. Obey all regulations and ride within your limits. Control your bicycle and speed. Obey all regulations and ride within your limits.

Monitoring Recreation Use and Resources

It is envisioned that the Advisory Committee will monitor recreation use and conflict to head off problems with management solutions. The committee will identify best metrics to use to determine when river user conflicts merit management/regulation change. It is recommended that a recreation site inventory and visitor survey be conducted in ten years to evaluate how things have changed. Monitoring of effectiveness of implemented actions is also envisioned to help guide adaptive management and priorities for future actions.

Volunteer Labor

Many recreation areas are maintained and celebrated through the work of dedicated volunteers and organizations. Existing organizations, such as American Whitewater, Backcountry Horsemen, Mount Baker Club, and Washington Trails Association, are examples of partner organizations for volunteer service. Volunteer efforts can support the implementation of the Plan's recommendations and foster a sense of stewardship and ownership by recreation users. Example projects include adopting a site for maintenance, providing labor for special project events, planting trees and restoring riparian areas, conducting volunteer river patrols, developing interpretive stories, and organizing river cleanup campaigns and/or community river celebrations.

There are some existing opportunities for volunteers to be engaged in tree planting work parties and cleanups organized by the NSEA and Mount Baker Club. It is recommended that opportunities like this be shared widely with recreation users and be expanded in the future.

To use volunteer assistance most effectively, a volunteer program should be established.

Components of a successful volunteer program include (1) volunteer coordinator, (2) task identification, (3) training and recruitment, and (4) rewards and recognition.

Photo Credit Jon Knechtel

Youth crews work on relocating the South Fork Nooksack Trail away from the river to a more sustainable location. Volunteers, user groups, and youth crews are powerful resources and partners in building trails and access sites.

It is recommended that Memorandums of Understandings (MOUs) be developed and signed between volunteer organizations and the land managers. MOUs are not legally binding but clearly spell out the roles and responsibilities of all parties.

Implementation

The implementation of the Plan's recommendations is intended to be developed over time as funding and opportunities arise. Grants will be needed to help support the recommendations and a list of potential funding sources can be found in Appendix F. Environmental review, documentation, and necessary permits will also be needed to implement many of the recommendations. It is envisioned that recreationists, non-profits, conservation groups, and agency and resource managers will all work together to help implement the Plan's recommendations. Volunteers and universities can offer a wealth of support and resources to the group. Many students and professors are seeking real-world examples to learn from and can offer support in designing access sites, signs, trail guides, restoring sites, planting native vegetation, and monitoring changes over time.

Photo Credit Wendy McDermott

It is envisioned that recreationists, non-profits, conservation groups, and agency and resource managers will all work together to help implement the Plan's recommendations. The Advisory Committee identified eleven early action recommendations that are described on the following pages.

The following are eleven early action recommendations that were identified by the Advisory Committee as being ripe for implementation and/or having a great deal of support for completing ahead of other recommendations in the Plan. Each of these early action items could feasibly be initiated and even completed in the next one to five years. These actions are intended to improve visitor experience, minimize conflict, protect natural resources, and enhance awareness of the river and its recreation resources. Cost estimates are not provided as each recommendation will need to go through its own planning and design process which would include developing a budget. These early actions are not listed in any particular order for implementation and they can be implemented simultaneously. Figure 11 (page 79) shows the location of all the early implementation actions.

1. Facility and Management Improvements along Mt. Baker Highway

Project Description: This project involves three different site and management improvements along the Mt. Baker Scenic Byway to enhance recreation facilities. The project involves the following components:

- Razorhone and Anderson Creek Roads provide opportunities for dispersed camping, fishing access, and snowshoeing and cross-country skiing. Unfortunately, there are many places along the road where vehicles are being driven right onto the river bank but should not be.

- Vehicle access to the river banks and bed will be physically restricted to protect riparian areas. Camp sites will also be clearly delineated. Signage will be installed to educate users about Leave No Trace principles and to direct them to the closest restroom and waste disposal facilities.
- Gates will be installed on Razorhone Road spurs and on Anderson Creek Road. These gates are closed in winter for winter recreation. Nooksack Nordic Club grooms and tracks cross country ski trails in the winter. The existing gates on Anderson and Razorhone were installed so that the gate can be raised and lowered as snow accumulates and recedes. The gate on Anderson was improperly installed and will be repaired. Two new gates will be installed to discourage motorized vehicle use as their drivers try to drive beyond the ends of the two spurs. This activity tears up the road bed which is unsurfaced beyond road ends and risks damaging the trail bridge across Razorhone Creek.

Photo Credit Bud Hardwick

Razorhone Dispersed Camping

Photo Credit National Park Service

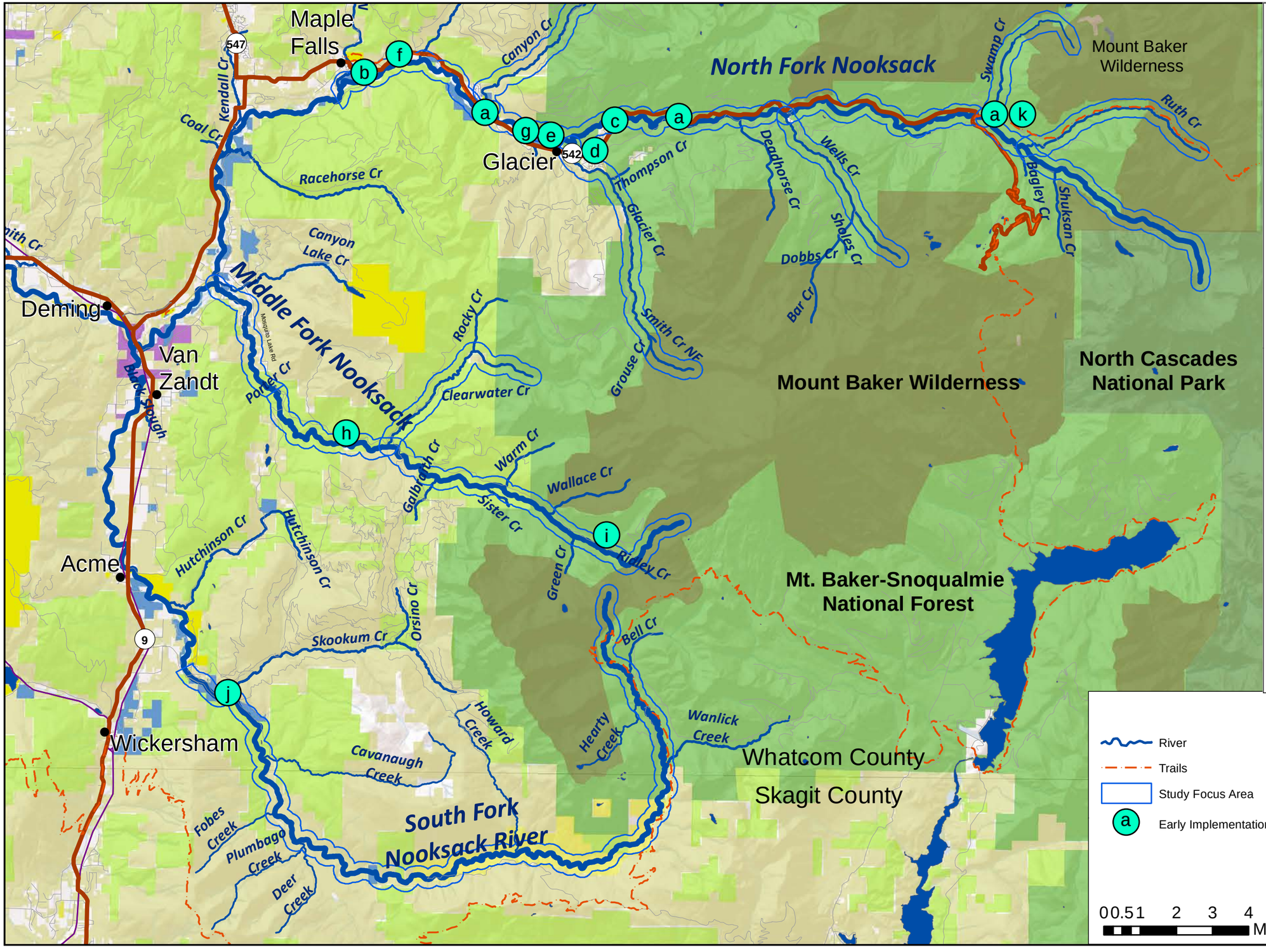
The plan recommends formalizing the Warnick Bridge Access Site by grading the parking area and posting a sign with the rules and regulations of the site.

- Formalize access at the Canyon Creek/ Warnick Bridge site on WCPR by grading the parking area and creating a sign with the rules and regulations of the site.
- The Upper Horseshoe Bend Whitewater Boater Access used to be accessed by a degraded trail that ended in a steep drop-off. Improving the usability of the site by widening and grading the trail to ADA accessibility standards and re-rerouting the trail to a more appropriate boat launch site on the river was identified during this planning process The USFS has since completed the project, making it an early implementation success. The site is available for boaters and casual use visitors wanting to view the river. Safety signing still needs to be developed and installed on the boardwalk extension. An icon symbol sign will be installed by the highway.

Photo Credit Inventory File Photo

Temporary signage at the improved Upper Horseshoe Bend Whitewater boat launch directing boaters to take out at Gallop Creek.

Figure 11: Early Implementation Actions



Early Implementation Actions:

a) Improve recreation access and management at three public sites along the upper North Fork River and Mt. Baker Highway

b) Create a river access site near Maple Falls

c) Extend the length of time the Douglas Fir Campground is open

d) Expand interpretation and education programming and signage

e) Formalize the existing Gallup Creek Take-out by defining parking and installing signage

f) Support the development of the Maple Creek Park Trailhead

g) Develop a water trail and river guide for the North Fork Nooksack River

h) Remove the Middle Fork Dam and design access for boaters at the newly restored site

i) Develop a feasibility plan for bridging the Middle Fork for hikers and equestrians to restore access to the Elbow Lake and Ridley Creek Trails

j) Strengthen suction dredging regulations and enforcement

k) Promote safer off-highway trail alternatives in the upper North Fork reach.

Legend

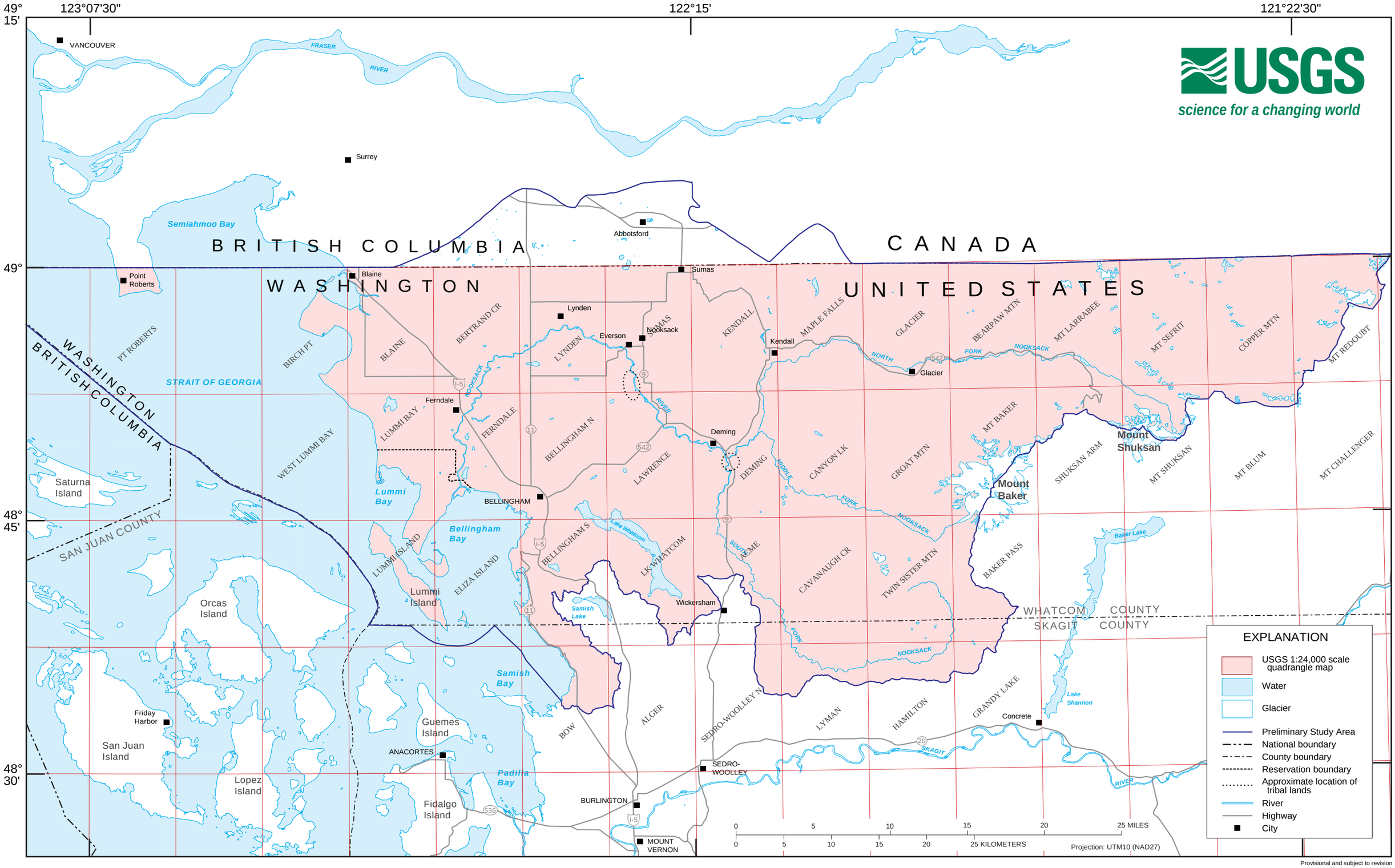
- River
- Trails
- Study Focus Area
- a — Early Implementation Action

- County and Municipal
- Whatcom Land Trust
- National Park Service
- Washington State
- Tribal
- U.S. Forest Service
- Mt. Baker Wilderness
- Commercial Timber

0 0.5 1 2 3 4 Miles

N

Locations and Names of 1:24,000-Scale USGS Topographic Maps



USGS
science for a changing world

Provisional and subject to revision
Last modified, January 31, 2000

Project Benefits: This project would improve natural resource conditions of the riparian area and promote stewardship of the Razorhone and Anderson Creek Roads dispersed recreation area. The project would also benefit recreation day-use visitors and residents by providing upgraded and better designed facilities to enjoy four-season use of the North Fork Nooksack River valley.

Partners: The USFS, Federal Highways Administration and WCPR

Estimated Planning, Design, and Construction Duration: 1 year

Next Steps:

The USFS secured funding through the Federal Highway Administration's Scenic Byway program for the sites on the National Forest, Razorhone Road and Upper Horseshoe. This program funds improvements and enhancements to facilities along scenic byways designed to enhance the driving public's day use experience. WCPR has also secured resources for the Warnick Bridge site. The Upper Horseshoe Bend Whitewater Boater Access was identified as part of this plan as an early action. Planning and design was initiated in spring 2014 and construction was completed in fall 2014. Planning and design is underway for the Razorhone Road and Warnick Bridge projects. Construction is scheduled for 2015. Estimated costs are $30,000 to $50,000.

2. Maple Falls Reach River Access Site

Project Description: Create a river access site (boating take-out/put-in site) adjacent to WLT's Maple Creek Reach property on the North Fork Nooksack. One potential is a DNR property in this area. This site provides a nice eddy for putting in and taking out boats making it an ideal spot for a river access site. The project would involve obtaining use of the property, creating a raft, kayak, and canoe launch, delineating parking sites, and installing sanitation facilities. Signage on SR 542 is also recommended to direct people to the site and educational signage at the site itself to share user-responsibility and stewardship messages.

Photo Credit National Park Service

One potential site for new river access near Maple Falls is the DNR site pictured above. Both its location and the eddy here make it ideal. This site could provide the much needed official public take-out for the North Fork's Canyon Run, which was rated as one of the top 25 boating runs in the North Cascades.

Project Benefits: This project would provide an official take-out site for the North Fork's Canyon Run. In a survey conducted by American Whitewater, the Canyon Run was rated as one of the top 25 runs in the North Cascades. This run is also featured in the annual Nooksack Slalom Race organized by the League of Northwest Whitewater Races

at Douglas Fir Campground every October. The Canyon Run has an official put-in at the USFS managed Horseshoe Bend site and take-outs for this stretch are downriver from USFS lands, where no official public take-outs exist. The project would provide a safe, well-designed river access site for boaters and other day-use visitors. This site would help address the need for an access sites along the North Fork and discourage boaters from using private property or sensitive areas.

Partners: Potential partners include DNR, WCPR, WLT, American Rivers, American Whitewater, and WSDOT.

Estimated Planning, Design, and Construction Duration: 2-3 years

Next Steps:

The recommended site is currently owned by DNR with a trust fund category of "common school indemnity," which is used to support the public schools in Washington State. Three primary options have been identified for enabling this site to be used as a formal river access site. These options are:

1. DNR takes an active role in managing the site for river access
2. DNR retains ownership but grants a long-term agreement to Whatcom County to manage the property for public access
3. DNR trades or transfers the land to an appropriate entity for management and long-term stewardship.

Once the land agreement is in place, it is recommended that the site be improved through delineating parking spots, creating safe and signed entrance and exit locations, creating raft and kayak access to the river, installing sanitation facilities, and developing signage. Potential grants to help fund this could include the Watchable Wildlife and Recreation Program, Aquatic Lands Enhancement Account, and the Land and Water Conservation Fund.

3. Extend the Campground Season into the shoulder seasons at Douglas Fir Campground

Project Description:

Photo Credit Western Washington
Douglas Fir Campground

The upper Nooksack basin offers a number of developed and dispersed campgrounds including the Douglas Fir, Excelsior Campground, Silver Fir Campground, and Pioneer Campground. These developed campgrounds are open during the peak season from mid-May until the end of September. The weather during these shoulder seasons is often mild and recreationists are seeking opportunities to camp. While users can walk-in to use the campgrounds during the shoulder seasons, the restroom and garbage facilities are closed. Recreationists can camp in the dispersed sites along the North Fork, but restroom facilities are lacking in those sites as well. It is recommended that the Douglas Fir Campground, one of the most popular campgrounds a

management long the North Fork, be open during the shoulder seasons. Keeping the campground open longer into the fall season would be easier as the campground is already open and ready for public use. Opening the campgrounds earlier in the spring would require more work to ensure the campground is cleared of hazards and ready for public use. Given the likely reduced use during the shoulder seasons, it may be feasible to just open one loop of the campground. Keeping the campground open longer in the shoulder season, would help improve the visitor experience and address sanitation issues.

Project Benefits: Opening the campground through the shoulder seasons has both recreation benefits in terms of extending the recreation season and camping opportunities as well as conservation benefits as it helps address sanitation issues and improve water quality.

Partners: The USFS owns and manages the Douglas Fir Campground, and a concessionaire handles reservations and day-to-day management of the campground. In addition other potential partners could be volunteers and recreation user groups to help with maintenance and oversight of the campgrounds.

Estimated Planning, Design, and Construction Duration: 1 year

Next Steps: The first step would be for the USFS to explore options on managing the extended open period. It is likely that the concessioner contract would need to be modified to accommodate this.

4. Education and Interpretation

Project Description: This project would involve expanding interpretation and education opportunities. The Nooksack Tribe, Lummi Nation, NSEA, WLT, and other partners have restored sections of the North, Middle, and South forks and acquired property to allow natural processes to take place. This creates an incredible opportunity to educate the public about the ecological and cultural importance of salmon recovery and natural river processes. Potential areas for interpretive signage include the WLT lands along the North and South Forks, Canyon Creek, and the Warnick Bridge area. A variety of ways to provide education and interpretation exist, such as on websites, brochures, signage, and podcasts.

Photo Credit Wendy McDermott
Boyd Creek Interpretive Sign

It is also recommended that education signage and programming be expanded. Education is an effective way to inform visitors of appropriate behavior and foster stewardship. The River Stewards program, a partnership between the USFS and NSEA, has been a successful way to educate visitors on salmon and how to responsibly recreate while respecting the ecosystem. It is recommended that this partnership be expanded to reach even more recreationists. It is also recommended that additional signage be created to promote Leave No Trace principles.

Additionally, educational and interpretative messages should be developed specifically for children. Local school districts and teachers should be encouraged to take class field trips to interpretive trails and resources should be developed and provided to teachers to educate their students.

Project Benefits: The benefits of this project is having a more educated and engaged recreating public which will help foster a connection and sense of stewardship and promote environmentally friendly behaviors. Often impacts are not from users intentionally wanting to do harm, but as a result of lack of knowledge about the unintended outcomes of one's actions or other better low-impact behaviors. Education and a connection to a place can help change behavior creating more prepared and responsible low-impact users.

Photo Credit Nooksack Salmon Enhancement Association

The Nooksack Salmon Enhancement Association River Stewards program provides education to river rafters about salmon protection. The plan recommends supporting and expanding this program.

Partners: Potential partners include NSEA, USFS, WCPR, Skagit County, Seattle City Light, WLT, Lummi Nation, Nooksack Tribe, American Rivers, and American Whitewater.

Estimated Planning, Design, and Construction Duration: 1-3 years.

Next Steps: It is recommended that an interpretive committee be formed to identify priority sites and themes for interpretation and education.

5. Gallup Creek Take-out

Project Description: Gallup Creek Take-out is located along the North Fork Nooksack River in the town of Glacier. This site was originally established by NSEA, USFS, and American Whitewater to provide an egress point upstream of the point where spawning salmon are most heavily concentrated. This site is used by locals, but there are no signs to or at the trailhead, and visitors to the area report the trail to the river is difficult to find. This project would involve developing signs to direct people to the site and trail to the river as well as defining parking sites near the USFS administrative housing building. It is a low-cost way to provide river access. It is also a great place for local residents, families, dog-walkers, anglers, and other visitors to enjoy a short trail hike and picnic spot by the river.

Photo Credit Wendy McDermott

It is recommended that the Gallup Creek Kayak Access site in the town of Glacier be formalized with signage and parking delineation. This site is known by locals, but is difficult to find for out-of-town visitors. This site provides a take-out point upstream of where spawning salmon are more heavily concentrated, such as at Boulder Creek.

Photo Credit Western Washington

Project Benefits: The benefit of this project is it is a low-cost way to improve visitor experience and sustainable recreation use of the river. It would also help deter visitors from using inappropriate sites and protect the important spawning habitat downstream of this site.

Partners: Potential partners include USFS, American Whitewater, American Rivers, NSEA, Whatcom County, and WSDOT

Estimated Planning, Design, and Construction Duration: 6 months – 1 year

Next Steps: The next steps would be to seek approval from the USFS and search for grants, donations, or other funding to purchase signs and delineate parking spots for this access site. Both road and river-side signs are needed.

6. Maple Creek Park Trailhead – Whatcom County

Project Description:

Support the local community and WCPR planning efforts to develop a community park and trailhead in Maple Falls. This trailhead at the former Maple Falls School would serve the Maple Falls to Glacier section of the Bay to Baker Trail. The trailhead would include parking, restrooms, educational and interpretive signage, and a path to the Bay to Baker Trail.

Project Benefits: This project would provide a trailhead for the regional Bay to Baker Trail that connects Glacier and Maple Falls. This project would enhance the experience of trail users including hikers, bikers, and horse trail riding.

Partners: WCPR and the Maple Falls community and the Mt. Baker Foothills Chamber of Commerce.

Photo Credit National Park Service

The site shown here is the location of the Maple Creek Trailhead which will provide access to the Bay to Baker Trail.

Estimated Planning, Design and Construction Duration: 2-4 years

Next Steps: WCPR is in the process of acquiring the land and this transaction is expected to be completed in 2015. The Maple Falls community has led the effort to identify funding resources for the project and intends to apply for a grant in 2016. If successful the funds would be distributed in 2017. Planning and permitting would follow and actual construction would begin no earlier than 2018.

7. Water Trail/Blue Trail and River Guide

Project Description: Explore the creation of a Water Trail/Blue Trail on the North Fork Nooksack River, the fork most popular and accessible for whitewater boating and floating. Water Trails/Blue Trails are recreational routes on waterways with a network of access points, signage, and maps to provide an educational and recreational experience. They are typically supported by broad-based community partnerships and can be adopted by a local community that is dedicated to improving family-friendly recreation and conserving land and water resources. Work with the local communities, conservation groups, aquatic and land managers, and recreation interests to determine the interest in creating a water trail and the geographic extent of the trail.

In addition, create a comprehensive river guide with mile by mile river descriptions, natural history, historic sites, rapids, put-in and take-out locations, and Leave No Trace principles. Also include messages about responsible recreation user behavior and what is needed to boat consistent with aquatic resource recovery (including leaving LWD undisturbed, avoiding salmon redds, etc.) Ensure that this is updated as the river changes over time.

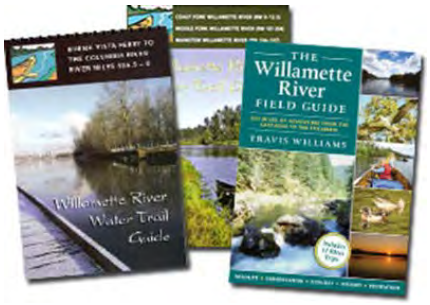


Photo Credit Willamette River Water Trail
Example of River Guide from the Willamette River Water Trail

Project Benefits: Creating a water trail along the North Fork could generate positive economic benefits as well as increased protection for outdoor recreation and water resources. The river guide would also help provide more information to recreation users about ways to responsibly use the river in a low-impact, safe way.

Partners: Potential partners could include the USFS, WLT, NSEA, American Rivers, American Whitewater, Washington Water Trails, Whatcom County, local chambers of commerce and tourism associations, and local business and community leaders.

Estimated Planning, Design, and Construction Duration: 2 -4 years

Next Steps: The next step for a water trail would involve engaging the communities along the potential water trail to gauge their interest in developing a trail. If there is interest from the community, a water trail group would be formed to develop an action plan for implementation. A river guide could be developed as part of the water trail effort or as a separate project. The river guide could also include both natural history and boating history in the area. Also, a mobile app and an online river guide in conjunction with a printed guide should be considered. It is recommended that the guide be developed after access sites along the Horseshoe Bend to Maple Falls reach are formalized.

8. Middle Fork Dam Removal and Boater Access Design

Project Description: This project involves removing the Middle Fork Diversion Dam and restoring anadromous fish passage (steelhead, bull trout, and Spring Chinook) to more than 16 miles of the Upper Middle Fork and its tributaries. Removal is supported by the dam owner, the City of Bellingham. The project would also involve maintaining recreation access near the diversion dam location for advanced boating opportunities.

Photo Credit Rich Bowers
Middle Fork Dam

Project Benefits: Dam removal and anadromous fish restoration is a high priority project for salmon recovery. It has been listed as a top action in the

WRIA 1 Salmonid Recovery Plan and on-going efforts are being made to implement it. According to fish models run in 2003, it is estimated to increase the North/Middle Fork Chinook population abundance by approximately 30%. The project would also include maintaining recreation access to the Middle Fork Canyon run. In a survey conducted by American Whitewater for rivers in the North Cascades, the Middle Fork run was rated as outstanding for its aesthetic and recreation values.

Partners: City of Bellingham, Lummi Nation, Nooksack Tribe, WDFW, USFS, Whatcom County, American Rivers, Conservation Northwest, Hydropower Reform Coalition, and American Whitewater

Estimated Planning, Design, and Construction Duration: 3-5 years

Next Steps: In early 2014, Bellingham prepared a salmon recovery large capital project proposal to implement the preferred preliminary design to build a different water intake structure, and remove the dam (as it would no longer be needed). They withdrew that proposal to first undertake a comprehensive water and water systems review. This planning is expected to be finalized in late 2014, with dam removal workgroups discussions to begin in early 2015. The City of Bellingham has developed preliminary cost estimates, but most funding is not secured.

9. Bridge for Equestrians and Hikers over the Middle Fork Nooksack

Project Description: Develop a feasibility plan for bridging of the Middle Fork Nooksack for access to the Elbow Lake North and Ridley Creek Trails for safe passage of horses and hikers as appropriate. This would allow loop trail opportunities which are the preferred experience by many trail users and restore access to popular historic trails.

Photo Credit Bud Hardwick

Temporary foot bridges over the Middle Fork Nooksack provide limited access to Elbow Lake and Ridley Creek trails. Exploring the feasibility of a bridge crossing for safe passage of horses and hikers is an early implementation item in the Plan.

Project Benefits: Trail access in the Middle Fork Basin is important for equestrians and hikers. Historically, bridges over the Middle Fork enabled visitors to easily access the Middle Fork Trails and Mt. Baker Wilderness area. With the bridge washed out, visitors must travel to the Baker Lake area and access the trails via the South Fork Nooksack. Providing access across the river is also essential for the feasibility of the equestrian and hiker loop trail along the South and Middle Fork Nooksack known as the Circle Trail (see Goal 5 recommendations for further information).

Photo Credit Wendy McDermott

Signage at Elbow Lake Trailhead

Partners: Backcountry Horsemen of Washington, Mount Baker Club, Washington Trails Association and the USFS

Estimated Planning, Design, and Construction Duration: 3-5 years

Next Steps: The first next step is to obtain funding to study the feasibility of bridging options and determine costs involved. Once a bridge design is selected, environmental review and permitting, design, and finally construction could occur. Ensure the environmental review fully considers any impacts to Grizzly Bear Habitat Management.

10. Strengthen Suction Dredging Regulations and Enforcement

Project Description: Collaborate with WDFW and the DNR on potential changes in regulations and to ensure existing regulations are being enforced. It is recommended that an individual hydraulics permits be required for areas for the Nooksack River system to ensure that fishery resources are protected. In addition, ensure that the regulations are enforced and that suction dredging does not occur outside of permit windows.

Project Benefits: The primary benefit of this project is to ensure protection and recovery of salmon in the Nooksack River System.

Partners: WDFW, Nooksack Tribe, Lummi Nation, and DNR

Estimated Planning, Design, and Construction Duration: N/A

Next Steps: The Nooksack Tribe and Lummi Nation have provided comments on the regulations and are actively working with the WDFW on changing the Gold and Fish regulations. The next steps involve continuing to collaborate with WDFW on revising the existing regulations to require that individual permits be issued as well as ensuring the existing regulations are enforced. In addition, collaborate with DNR who has the responsibility to issue use authorizations.

11. Promote Safe Off-Highway Trail Alternatives

Project Description: Explore options to create trail alternatives to current highway use including the Pacific Northwest National Scenic Trail (PNNST) and to extend the Bay to Baker Trail. The Bay to Baker Trail is also known as the Nooksack River Trail in the section between Glacier Public Service Center and the Mount Baker Ski Area. A major goal of the USFS's trail program in the upper Nooksack is to re-route the PNNST from the road to trails. One option is to develop the Razor Crest Trail, a half-mile trail located on a softly rounded ridge in mature forest with no water crossings that connects the White Salmon Road and Razorhone Road System. Another potential trail option in this area is to consolidate the Nooksack Cirque Trailhead with the Goat Mountain Trailhead and extend the trail to the White Salmon Ski Lodge. Another need is to develop an off-highway establishment of a trail from Artist Point to the White Salmon Ski Lodge using existing road beds and trails. Ultimately, these trail connections would eliminate nearly all of the forced upper highway use by trail users and would enable trail users to avoid nine miles of on-highway travel from Artist Point to the Razorhone Road at the WSDOT parking lot. While some new trail development would be needed, these routes largely follow existing road beds and trails. These trail connections could be used by the Pacific Northwest National Scenic Trail and Nooksack River Trail users. Other potential users may include snowshoers, skiers, hikers, backpackers, equestrians, and mountain bikers.

Photo Credit Bud Hardwick

Razor Crest Trail

Project Benefits: This trail would promote safe travel by enabling trail users to avoid nine miles of narrow twisting mountain highway, much of which has little or no shoulder area. This project could also enhance the safety and nature-oriented experience of the PNNST use. It is anticipated that a wide variety of trail users could benefit from these trail connections.

Partners: Mount Baker Club, PNTA, the Nooksack Nordic Ski Club, USFS, Backcountry Horsemen of Washington, and Whatcom County Mountain Biking Club

Estimated Planning, Design, and Construction Duration: 1-2 years

Next Steps: The Razor Crest trail connection is already being used by snowshoers and the next step in the process is to elevate the priority of USFS review phase followed by design and implementation of trail construction. The Nooksack Cirque re-route option is being analyzed by the USFS. Next steps would include design and construction.

Photo Credit Thomas O'Keefe
Headwaters North Fork

"I'm constantly amazed that, living in a fairly densely populated area, we can, within an hour, hike in relative solitude with both microcosmic and macrocosmic views that are some of the most beautiful in the world. We are lucky to have had the foresight to take care of these areas."

- Survey Participant

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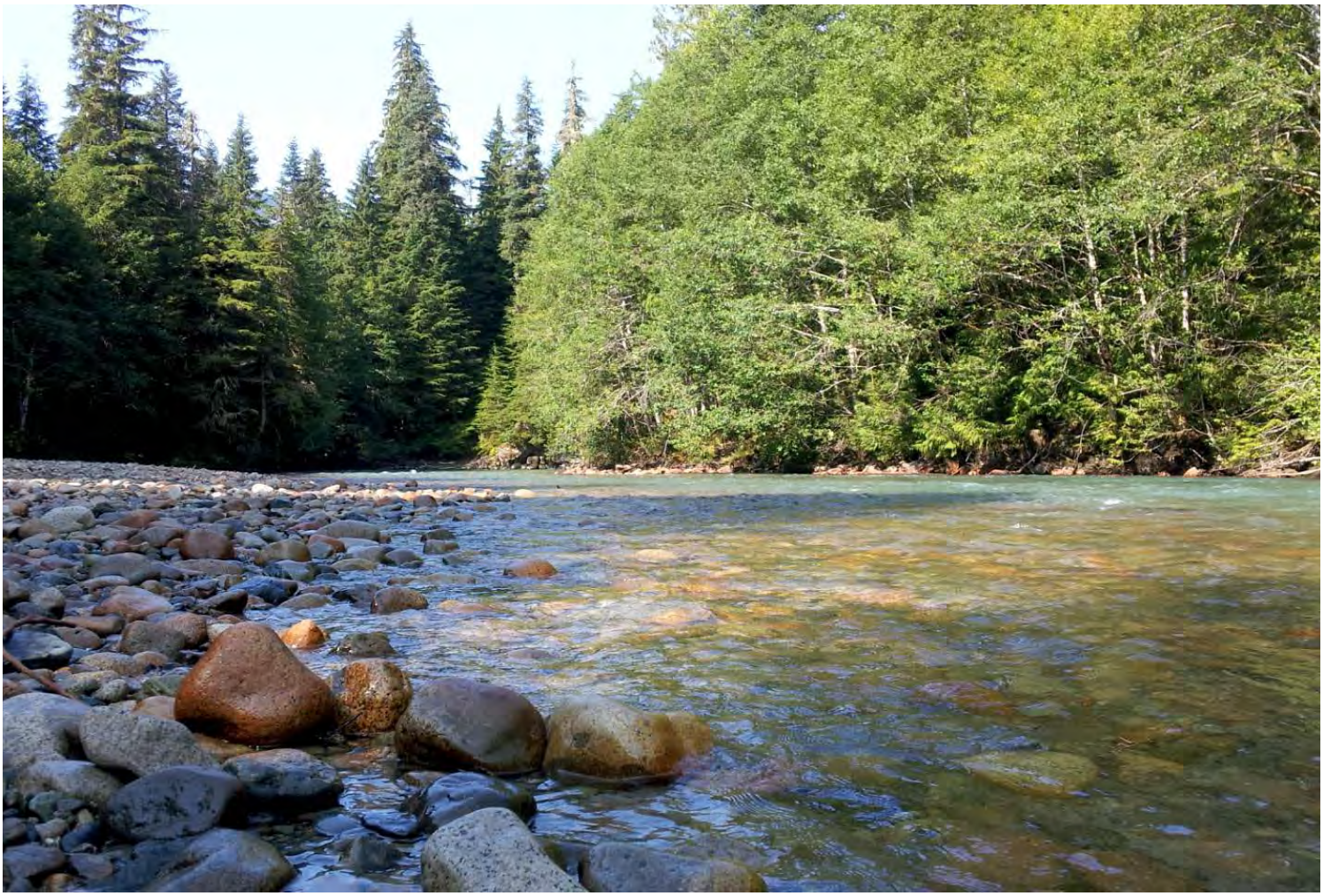


Photo Credit Wendy McDermott
North Fork Nooksack River

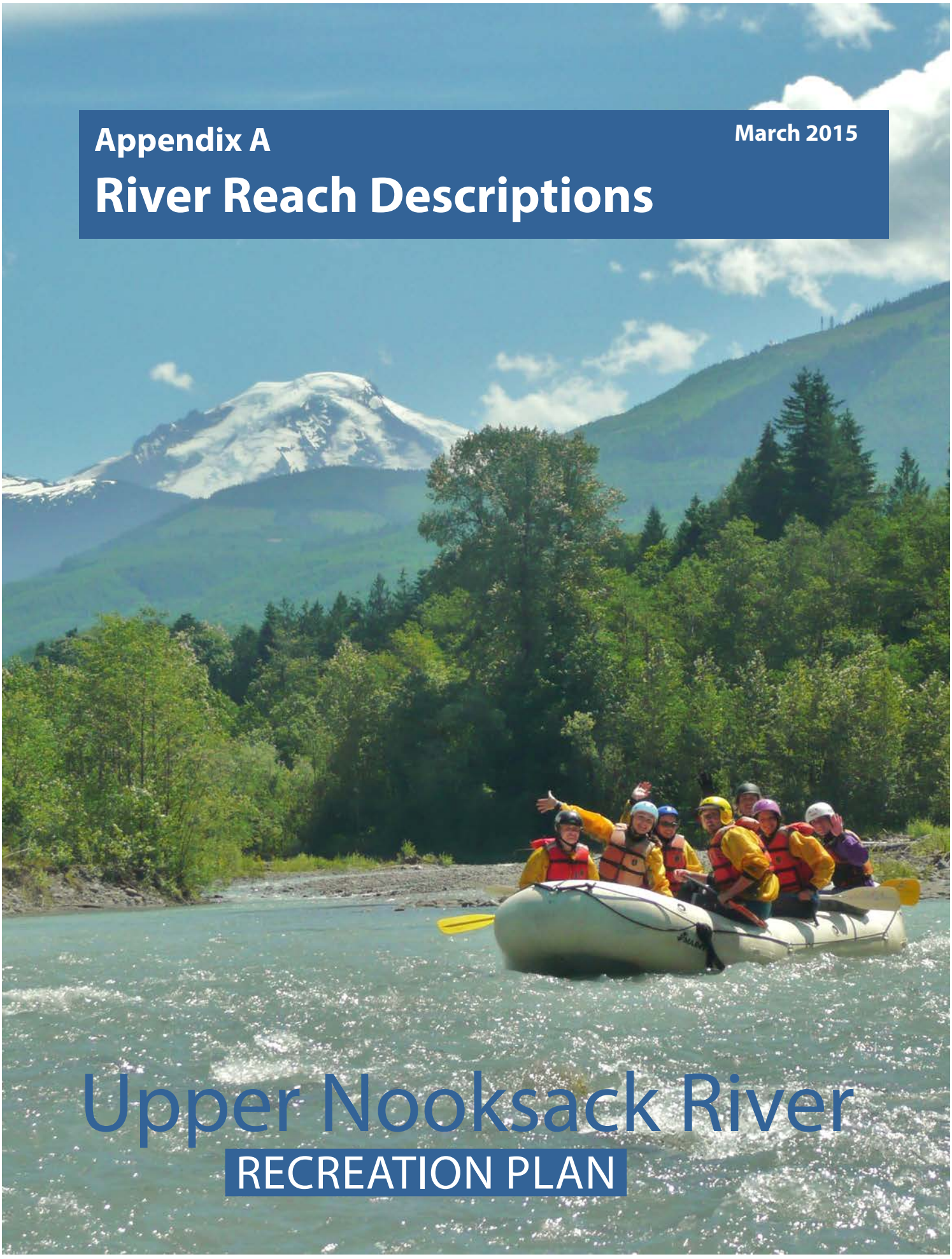
"The Nooksack River is unique within the Puget Sound…With protected headwaters and largely unconfined major tributaries and mainstem, the absence of dams, a relatively undeveloped floodplain, a functional estuary, and significant public ownership of forest lands in combination with a diverse set of habitat types, full suite of native fish species, and relatively progressive county management of water resources and ongoing restoration projects, the Nooksack deserves consideration as a significant conservation opportunity."

- from The Nature Conservancy's
"Assessment of Freshwater Systems in Washington State"

Appendix A

March 2015

River Reach Descriptions



Upper Nooksack River

RECREATION PLAN

Appendix A

River Reach Descriptions

For discussion and planning purposes, the forks of the Nooksack River have been subdivided into lengths of river stretches called reaches. The North Fork was divided into three reaches: the Upper North Fork Nooksack, the Middle North Fork Nooksack, and the Lower North Fork Nooksack; not to be confused with the Middle Fork Nooksack River. The South Fork was divided into two reaches: the upper and the lower. These reaches are separated by distinct natural features and topography, and each of the river reaches within the study area is described below. Dividing the river into reaches allows us to describe the different recreational opportunities and experiences offered in the different areas. This, in turn, can help land and resource managers make informed decisions regarding the most appropriate places for specific recreation activities to occur.

Reach descriptions include the general setting of the area, landmarks, and river character. Desired conditions, or the conditions the public expects to encounter when recreating in or along the river, focus on river resource conditions and recreation opportunities. These desired conditions were established based on input from the Advisory Committee and the recreating public. Identifying desired conditions is an essential component of sustainably managing recreation in the upper Nooksack River basin and provides a vision for management decisions to work toward in the future. Reach descriptions and desired conditions are also provided for the river reaches located out of, but immediately adjacent to the study area.

Study Area Reaches

Upper North Fork Nooksack River

Headwaters to confluence with Wells Creek
Tributaries: Ruth Creek, Swamp Creek, and Wells Creek
(see figure 2)

Setting

The North Fork Nooksack River headwaters begin at the base of snowy Mt. Shuksan in the Mt. Baker-Snoqualmie National Forest. The braided, wood strewn stream meanders for 15 miles through a valley heavily forested with mostly second growth evergreen trees before dropping into a steep narrow canyon and spilling over Nooksack Falls (88 ft.). The Mt. Baker Scenic Byway runs parallel to the river in much of this reach, and forest roads provide additional access to the tributary streams. Visitors enjoy the abundant scenic vistas, hiking trails, and wildlife viewing opportunities that allow them to commune with nature. Striking views of the northern-most Cascade Range peaks (Mt. Baker and Mt. Shuksan), majestic tall trees, and a glacier-green river winding through the valley draw thousands of people to the area each year. Hiking, backpacking, and trail riding are popular during the short summer season when the roads and trails are not covered with snow. In the winter, the area is a popular destination for snowshoeing and cross-country skiing. Upland mountainous areas are popular destinations for downhill and backcountry skiing and snowboarding. Because the Mt. Baker Highway is a dead-end road and the

mountain weather is often stormy and unpredictable, it tends to attract more experienced users looking for a challenge in their outdoor experience. The extremely swift whitewater in this reach provides a thrilling experience exclusively for advanced kayakers and receives limited use. Fishing (often fly-fishing) for trout also occurs at dispersed locations alongside the roadways. Driving and sightseeing along the Mt. Baker Scenic Byway is enjoyed by residents and visitors alike, with Artist Point and Nooksack Falls being the most common destinations.

Desired Conditions for Recreation Experiences

The Upper North Fork reach provides recreational users with unique opportunities to experience and connect with a relatively wild and intact natural ecosystem; an escape from the daily routine of life in an urban center. There are abundant multisensory opportunities to enjoy nature and wildlife through hiking, bicycling, skiing, snowshoeing, fishing, and exploring. This reach is attractive to visitors from surrounding local communities, as well as visitors from across the Unites States and Canada. There are opportunities to nurture a deep personal connection with nature while encountering few other people in the backcountry or along the river. Socialization outside one's group is not very important, although the presence of others is expected and tolerated during the short summer season and on winter recreation trails. Forest Service rangers patrol the hiking trails and recreation areas during the summer months and shoulder seasons, with minimal presence the rest of the year. Facilities are limited to well-maintained recreation facilities that are rustic and blend in with the setting. Dispersed camping is allowed. Sites are monitored for resource impacts and may be defined and formalized along with sanitation facilities being put in if needed to protect resources and the recreation experiences.

Recreation Opportunities

- Whitewater Boating – Class V, exploratory kayaking with limited use in the Misto Canyon (downstream from Silver Fir Campground to above Nooksack Falls) section.
- Fishing – North Fork near Razorhone Road and pull-outs on Hwy 542 (see WDFW regulations for details on the timing, location, and type of fishing allowed).
- Hiking – Trails along the North Fork and in the Ruth Creek and Swamp Creek drainages have a short summer season and include the popular Nooksack Cirque Trail, Hannegan Pass Trail, Excelsior Trail, Twin Lakes trail system, and the Pacific Northwest Scenic Trail.
- Equestrian Trails – Hannegan Pass, Excelsior, Twin Lakes, and Goat Mountain are popular for trail riding.
- Nooksack Falls – Tourist destination with scenic viewpoint.
- Nooksack Research Natural Area/Druid Forest – A unique stand of old growth evergreen trees along Hwy 542 at mile post 44.
- Sight-seeing and wildlife viewing along Hwy 542.
- Winter Recreation – Snowshoeing and cross-country skiing along Razorhone Road, Hannegan Pass Road, Twin Lakes Road, Anderson Creek Road, and White Salmon Road.

- Camping – designated sites are available in the summer season at the USFS Silver Fir Campground, while dispersed campsites can be found along Razorhone Road and at Twin Lakes in both the summer and early fall.

Values

- Ecological values include important habitat for the threatened marbled murrelet, spotted owls, as well as black bears and cutthroat and rainbow trout; the Nooksack Cirque (a remote glacial headwater); and the Nooksack Research Natural Area (a unique stand of huge, old growth Western red-cedar and Douglas-fir trees)
- Aesthetic values include Nooksack Falls, the Nooksack Cirque, Yellow Aster Butte, Mazama Falls (on Wells Creek), and myriad scenic views of Mt. Baker and Mt. Shuksan.
- Historic values are the Twin Lakes Mining Area including the famous Lone Jack Mine and traditional Nooksack Indian Tribe gathering, fishing and hunting sites.

Middle North Fork Nooksack River

North Fork Nooksack confluence with Wells Creek to Maple Falls
Tributaries: Glacier Creek and Canyon Creek

(see figure 2)

Setting

The Middle North Fork reach begins below Nooksack Falls and extends 16 miles to the small town of Maple Falls. This reach is characterized by a steep gradient, whitewater rapids, and deep canyon walls. Glacier-fed waters flow through heavily forested lands in the Mt. Baker-Snoqualmie National Forest, state lands, private timber lands, and two small mountain communities. Many salmonid species, including the threatened spring Chinook salmon, steelhead trout and bull trout, occupy these habitats and are a focus for habitat restoration and community education efforts. A series of engineered log jams have been placed in this reach and also in lower Canyon Creek in recent years to enhance habitat for salmon. As in the Upper North Fork Reach, the Mt. Baker Scenic Byway parallels much of the river while forest roads provide additional access to the tributaries. The Middle North Fork provides many opportunities for visitors to learn about and directly experience nature and enjoy the scenic views from the road, river, and/or trail. This reach also offers terrific whitewater boating opportunities for both private and commercial boaters in the summer months. Some crowding can occur at the single designated put-in site located just below Horseshoe Bend, but once on the river the feeling of wilderness prevails. The area also provides access to backcountry hiking, trail-riding, camping, mountain biking, and rock climbing. Hiking along the North Fork Nooksack at Horseshoe Bend is extremely popular and provides opportunities to view steelhead and salmon spawning during the spring and fall. Additionally, this reach offers opportunities for more social activities in and around the small mountain town of Glacier, including camping at developed and regularly maintained campgrounds, strolling or biking along the Glacier Community Trail, a disc golf course, the Power House Hill rock climbing wall, and the Coal Pad

Skate Park. Fishing and dispersed camping occurs at pull-outs along the roadways. Driving and sight-seeing along the scenic Mt. Baker Highway is also prevalent in this reach.

Desired Conditions for Recreation Experiences

As in the Upper North Fork, the Middle North Fork offers opportunities for visitors to connect with nature and experience an intact forest and riverine ecosystem. Opportunities to see, hear, and smell nature are prevalent. This reach is attractive to visitors from surrounding local communities, as well as visitors from across the United States and Canada. Chances to socialize outside of one's group with other visitors can readily be found near Glacier, while more remote, solitary experiences are available just off the main roadway. Visitors to this reach that are seeking rock climbing, river boating, and back-country trail adventures are generally more experienced and comfortable with a sense of solitude. Recreationists looking for more accessible and/or group experiences like guided commercial boating trips, camping in maintained campgrounds, short front-country hikes, and sight-seeing along Mt. Baker Scenic Byway also have ample options in this area. This reach is rich in historic and cultural resources as well. Forest Service Rangers patrol the hiking trails and recreation areas during the summer months and shoulder seasons, with minimal presence outside the USFS Glacier Public Service Center the rest of the year. USFS Glacier Public Service Center is one of the most visited centers in the entire Mt. Baker-Snoqualmie National Forest. Community education with a focus on environmental stewardship and low impact recreation has a strong presence in the area due to the efforts of the Nooksack Salmon Enhancement Association (NSEA), a local nonprofit organization that works to restore sustainable habitat for salmon in the Nooksack River system. Facilities in this reach are generally limited to rustic, well-maintained campgrounds and picnic areas, with the exception of the small mountain towns of Glacier and Maple Falls, which are home to a few restaurants, small grocery stores, and several bed and breakfast lodgings.

Recreation Use

- Whitewater Boating
    - Horseshoe Bend Run – The steep and fast Class IV+ whitewater of Horseshoe Bend is usually only run by experienced kayakers. It starts at the upper Horseshoe Bend Whitewater Boater Access site and ends at Horseshoe Bend.
    - Canyon Run – This unique and scenic Class III reach is popular for both commercial and private day trips as it offers spectacular whitewater fun in a scenic canyon. An annual slalom race is held here as well. The run starts at Horseshoe Bend, but no official take out is available. Unofficial take-outs include the mouth of Gallup Creek and mouth of Canyon Creek/Warnick Bridge.
    - Class II+ Scenic Float – Boaters can continue on down the river for a calmer scenic float that ends at Maple Falls. It begins at the mouth of Gallup Creek and ends at the Maple Creek Reach. This reach is rich in fossils. Many boaters put in for the Canyon Run and continue downstream. There are not official put-in or take-outs for this section. Unofficial put-ins and take-outs include Gallup Creek, the mouth of Canyon Creek/Warnick Bridge,

the mouth of Boulder Creek, and Mt. Baker Highway Milepost 27 in Maple Falls.

  - Canyon Creek – This Class V+ continuous whitewater run is for experienced kayakers only. Put-ins for this run can be found approximately six to seven miles up Canyon Creek Road and the take-out is located behind the Glacier Springs housing development off of the Mt. Baker Highway.
  - Glacier Creek – Boating also occurs on Glacier Creek.

- Fishing – Fishing occurs along this reach at several dispersed pull-outs along Mt. Baker Scenic Byway as well as Canyon Creek.
- Hiking – Popular trails ranging in difficulty from easy to strenuous include the Horseshoe Bend Trail along the North Fork, the Bay to Baker Trail, the Glacier Community Trail, Skyline, Heliotrope, Cougar Divide, Canyon Creek on Whatcom Land Trust lands, Maple Falls Park, and the ADA-accessible Boyd Creek Interpretive Trail.
- Mountain Climbing – Heliotrope Ridge Trailhead is the most popular access trail for those attempting to summit Mt. Baker.
- Equestrian Trails – The Canyon Creek trails and Heliotrope Ridge Trail are popular horse packing trails.
- Mountain Biking – There is heavy recreation use on unofficial trails on Sierra Pacific-owned private timber lands adjacent to the study area. There are also informal trails along Glacier Creek, Canyon Creek, Dead Horse Creek, and Thompson Creek.
- Fish and Wildlife Viewing – There is a short, ADA-accessible interpretive trail designed to enable visitors to view spawning salmon at Boyd Creek, as well as interpretive signage and a viewing rail at the Glacier Creek Road Bridge over Thompson Creek. Additionally, fish can often be seen at the mouth of Canyon Creek on WLT lands and along the Horseshoe Bend Trail.
- Sightseeing – Stunning views are offered all along Mt. Baker Scenic Byway.
- Camping – The Douglas Fir Campground and Excelsior Group Campground are USFS-maintained developed camping facilities. Several dispersed camping areas also exist along Mt. Baker Scenic Byway, Deadhorse Road, and Canyon Creek.
- Information Facilities – Glacier Public Service Center Visitor Center in Glacier and Mt. Baker Foothills Chamber of Commerce in Maple Falls.
- Other Activities – Recreational gold panning takes place along the banks of the river in this reach. Target shooting also occurs at informal recreation sites on USFS land near Glacier and along Canyon Creek. An increasingly popular rock climbing area is Power House Hill near the Excelsior Campground. Within the town of Glacier several unique recreation opportunities exist, including the Coal Pad Skate Park and an informal disc golf course.

Values

- Ecological values include important habitat for the threatened marbled murrelet, spotted owls, spring Chinook salmon, bull trout and steelhead trout, as well as six other salmonid species. Elk are also known to frequent this area. Cougar Divide is also particularly abundant with diverse native flora and fauna. Cougar Divide is also particularly abundant with diverse native flora and fauna and is included in the Ronald J. Taylor Research Natural Area. Wintering eagles are present and feed on chum salmon.
- Aesthetic values include Cougar Divide, the Boyd Creek waterfall, the mouth of Cornell Creek, the Maple Creek Park waterfall, Warnick Bluffs viewpoint, Glacier Creek, the Palisades Gorge Slot Canyon along Glacier Creek, and myriad scenic views of Mt. Baker and Mt. Shuksan can be found along the river.
- Cultural and historic values include the USFS Glacier Public Service Center (built by the Civilian Conservation Corps in the 1930s), the Wells Creek/Excelsior Mine, the Nooksack Falls Power House, and the old logging railroad grade along the North Fork where there is potential for the extension of the existing Bay to Baker Trail . All of these sites are rich in the area's early mining and logging history and opportunities are available to a wide variety of interpretation.
- Economic values include the eco-tourism dollars that provide the towns of Glacier and Maple Falls with the lifeblood of their economy. Local businesses including restaurants, lodges, ski shops, and a commercial whitewater rafting company depend on the scenic natural environment and recreational opportunities provided by Mt. Baker, Mt. Shuksan, and the North Fork Nooksack River to be successful. Anglers, and the dollars spent by them, require harvestable surpluses of fish, which depend on good habitat and habitat forming processes.

Middle Fork Nooksack River

Headwaters to Confluence with the North Fork
Tributaries: Clearwater Creek and Canyon Lake Creek
(see Figure 3)

Setting

The Middle Fork Nooksack is about 20 miles long and flows from the base of the Deming Glacier on Mt. Baker. It flows through a picturesque steep, wooded landscape including a short canyon section just below the City of Bellingham's diversion dam. The lower five miles of this fork flow across a broad alluvial floodplain while farms and rural residences speckle the landscape. Most of the forested uplands are managed by the DNR, USFS, and private timber companies (see Figure 3). Upstream of the diversion dam there are bull trout, rainbow trout, and some cutthroat. Below the diversion dam are all the anadromous species, except chum are only found in the lower reach up to the first falls in the canyon. The Middle Fork is accessed via the Mosquito Lake Road to the USFS 38 Road, which is a less-traveled rugged old logging road subject to frequent landslides. Due to the bridge design and dynamic

nature of the river, trail bridge wash-outs can be fairly frequent and trails in the upper watershed can generally only be accessed via the Baker Lake Recreation Area in Skagit County. For example in late spring 2013 a debris flow that traveled four miles came down the Upper Middle Fork, originating just below the Deming Glacier. Visitors to this reach are generally experienced users seeking solitude and/or a challenging outdoor adventure. Extreme whitewater kayaking in the Middle Fork Canyon and Clearwater Creek, fishing, mountain biking, hiking, and horseback riding are among the most common recreational activities. Canyon Lake is a destination fishing and hiking area. As the approach to this watershed is more difficult and time-consuming, and because there is limited signage in the area, the Middle Fork Nooksack River receives less visitation and those who lack maps and are less experienced may have trouble orienting.

Desired Conditions for Recreational Experiences

The Middle Fork Nooksack offers plentiful opportunities to connect with the great outdoors in a remote and rugged natural environment and to immerse oneself in the backcountry. This reach is also rich in cultural resources. Visitors to this area are generally more experienced and self-reliant in nature and are comfortable with the sense of remoteness and solitude. There is very limited management presence in this reach. Facilities in this region are also very limited as most recreation sites are simply dispersed road-side pull-outs and primitive trails.

Recreation Use

- Boating – The Middle Fork Canyon and Clearwater Creek offer exciting Class V whitewater runs for advanced kayakers only.
- Fishing – Warm Creek, Clearwater Creek, and the dispersed pull-out along the Middle Fork Nooksack itself offer myriad trout fishing (often flyfishing) opportunities. Clearwater Creek is popular with trout anglers. Canyon Lake is popular for fishing.
- Hiking and Equestrian Trails - The Elbow Lake to Bell Creek Loop Trail is a great trail for hiking and horseback riding and offers spectacular scenery and wildlife viewing opportunities. Ridley Creek trail has recently received maintenance but the lack of a permanent or seasonal bridge has limited access. Similarly, Elbow Lake also currently lacks any formal bridge crossing. These trails can be accessed from the Baker Lake road systems but currently do not provide bridged Middle Fork connections. Canyon Lake Old Growth Community Forest is also popular for hiking though access has been severely limited in recent years due to road washouts.
- Mountain Biking – Mountain biking occurs on user-built trails in the upland areas throughout the watershed with some trails beginning and ending in the river corridor along the Clearwater Creek and Middle Fork.

Values

- Ecological values include eight anadromous salmonid species in waters currently accessible to anadromous fish, including the threatened spring Chinook, steelhead, and bull trout that use the Middle Fork. Threatened marbled murrelets, as well as Harlequin ducks, utilize the riparian

and upland areas of old growth forest for nesting. Black-tailed deer, Roosevelt elk, and mountain goats are also known to range the river corridor in the winter months.

- Aesthetic values include Elbow Lake and the Middle Fork Canyon. Accessing the Upper Middle Fork from the Ridley Creek trailhead and walking up-river, one begins to have views of the flank of Mt. Baker.
- Cultural and historic values include Nuxwt'iqw'em an important culture site as well as the Ridley Creek Trail (historically known as the Deming Trail), one of the original Mt. Baker Marathon climbing routes to the Mt. Baker summit.

Upper South Fork Nooksack River

Headwaters to Saxon Bridge

(see figure 4)

Setting

The Upper South Fork reach begins on the eastern slopes of the Twin Sisters and Loomis Mountains, flows west and south through both Skagit and Whatcom counties, and ends at the Saxon Bridge approximately 1.5 miles below Skookum Creek confluence. While the headwater reaches of the Upper South Fork flow through steep, heavily forested terrain, the lower portion of this reach is characterized by a broad, gently sloping river valley. Most of the watershed is managed by the USFS, DNR, and private timber companies. Seattle City Light owns the riparian corridor from the USFS ownership down to about river mile 25, and manages it as a wildlife area for elk under their Federal Energy Regulatory Commission (FERC) license from their hydropower dams on the Skagit River. Sierra Pacific, DNR, and other smaller private timber holdings exist between the Seattle City Light ownership and the Whatcom Land Trust owned lands. The WLT ownership in the riparian corridor is further down-river, and is dedicated for habitat conservation and restoration purposes. The Upper South Fork and its tributaries including Cavanaugh, Skookum, Hutchinson, and Jones creeks, are a very important conservation area with a focus on habitat restoration for the threatened native spring Chinook salmon which have very low abundances. Engineered logjams have been constructed in this reach for habitat restoration purposes. The South Fork Nooksack native summer-run steelhead population is also a threatened species, spawning in the upper portion of the reach, as do bull trout. The Nooksack elk herd heavily uses the Upper South Fork, and a seasonal closure of the Upper South Fork road exists at Wanlick Creek bridge from November to July to protect elk breeding habitat. Public access to the Upper South Fork, like the Middle Fork Nooksack, is limited and involves lengthy travel times. Most of the upper watershed can only be accessed via Skagit County's Lyman Pass via private timber roads managed for non-motorized vehicle public use, or by the Baker Lake Recreation Area. County and logging roads do provide entrance to the lower reaches via Whatcom County, but are gated just upstream of Skookum Creek. These gates do not allow the general public to access these areas with motor vehicles, which limits use of this reach. Horseback-riding, whitewater boating, hiking, mountain-biking, and fishing (below the confluence with Skookum Creek) are all recreation activities occurring in the area. Gold panning by hand and with small power dredges also occurs in this reach

Desired Conditions for Recreation Experiences

The Upper South Fork offers many exceptional opportunities to connect with nature. This reach primarily attracts local residents often living in Skagit County. Sometimes they have family ties to this area spanning generations. Visitors are generally self-reliant and comfortable with a sense of remoteness. Management presence is limited. This reach is very important for salmon restoration and conservation. There is very little development, except for a small number of private inholdings up-river of Skookum Creek, adjacent timber managed lands, and the Skookum Creek Hatchery. Down-river of the Skookum Creek confluence are a few sparse local residences and farms in the reach.

Recreation Use

- Boating – Although at one time the fun Class II rapids of the upper South Fork Nooksack River were a popular training area for whitewater canoeists and kayakers, usage today is extremely low due to limited recreation access. Skookum Creek also offers exciting rapids to advanced whitewater boaters, but short length and season, difficult river conditions, and private access limit use of this run.
- Fishing – Fishing is closed on the South Fork above Skookum Creek, but is allowed below Skookum Creek as well as near the mouth of Skookum Creek on WLT lands. Catch and release fly-fishing is also open on Wanlick Creek, and up-river from this on the South Fork. Cavenaugh Creek is also open 0.4 mile upstream from the South Fork confluence and up. Anglers should check current WDFW guidelines as open areas for fishing change over time.
- Hiking – The upper watershed offers several hiking trails, most of which can only be accessed via Skagit County. Well-liked trails include those to Elbow Lake, the Nooksack Flats, and the informal trails along Wanlick Creek. The Pacific Northwest National Scenic Trail goes through this reach as well, although the exact route is still being decided through an on-going Trail Management Plan. Walking and hiking are also popular along the South Fork upriver from Skookum Creek Hatchery in Whatcom County on the 1000 Puddles Trail through WLT lands.
- Equestrian Trails – Via Skagit County, the Elbow Lake Trail and Pacific Northwest National Scenic Trail are popular routes in this reach. Pioneer Horse Camp on USFS near Bell Creek is also popular. Other areas that are often enjoyed by horseback riders include the DNR Les Hilde Trail and nearby Cowboy Camp. From Whatcom County, the DNR upland areas adjacent to the study area between Cavanaugh Creek and Skookum Creek, and the informal 1000 puddle trail on WLT property have been popular in past years.
- Mountain Biking – Mountain biking occurs on the private timber logging roads near Skookum Creek and on user-built trails on DNR and USFS lands.
- Motorized Activities – Off-road vehicles, both ATVs and motorcycles, have been observed driving along and sometimes in the river in this reach, especially near Cavanaugh Creek and out onto Cavanaugh Island. Suction dredging for gold and other recreational types of gold prospecting activities have been observed in the South Fork Nooksack River.

Values

- Ecology values include spawning and rearing habitat for Chinook, coho, sockeye, chum, and pink salmon, as well as winter-run and summer-run steelhead, bull trout, resident rainbow trout, cutthroat trout, and Dolly Varden. The waters of the Upper South Fork are a very important fishery resource, supporting the small native summer-run steelhead population and the native South Fork spring Chinook salmon, a population which is on the brink of extinction. Many restoration projects are active in this reach, in addition to habitat conservation efforts. In addition to fish, several species of wildlife utilize the riparian habitats of this watershed, including deer, elk, and Harlequin ducks.
- Aesthetic values include the waterfalls near confluence of Wanlick Creek and the South Fork Nooksack and on the South Fork on Seattle City Light lands.
- Cultural and historic values include an original Mt. Baker Marathon route to the summit of Mt. Baker and the Pacific Northwest Scenic Trail, which follows an old trade route through the Cascades Mountain Range.

Reaches Adjacent to the Study Area

Lower North Fork Nooksack River and Upper Mainstem

Lower North Fork, Maple Falls to confluence with the South Fork Upper Mainstem, Confluence with the North and South Forks to Nugent's Corner
Tributaries: Racehorse Creek

(see figure 2)

Setting

The Lower North Fork Nooksack River and Upper Mainstem reach begins just downstream of Maple Falls and ends approximately 20 miles farther downstream at Nugent's Corner. There, the North and South Forks merge to become the mainstem Nooksack River. West of Maple Falls the North Fork Nooksack River valley widens and the braided river shifts channels frequently and flows by the rural community of Kendall. The mainstem begins at the confluence of the North Fork and South Fork, and Deming lies just downstream along the mainstem. Private landholdings account for a significant portion of the streamside properties, but much of the uplands remain forested and are managed by either the state, county, or Whatcom Land Trust. The gradient of the river in this reach is slow, and channel islands forested with alder and cottonwood trees are abundant. The Mt. Baker Highway parallels the river on the north side while county, private, and state roads provide access to the tributaries. This reach offers a good deal of river access and provides great fishing and eagle watching opportunities as the lower North Fork is highly productive for wild chum. Engineered logjams are being constructed in this reach for habitat restoration purposes. The section from Welcome Bridge to Nugent's Corner is a popular scenic float enjoyed by rafters, drift boaters, and some powerboaters. Mountain biking is popular on logging roads in the adjacent upland areas. Racehorse Creek offers advanced exploratory kayaking opportunities. Most of the river access along this reach is via unsigned social trails on state and WLT lands.

Desired Conditions for Recreation Experiences

The Lower North Fork offers opportunities for local residents and visitors to enjoy the outdoors in a relatively natural environment. Visitors to this reach are generally seeking close-to-home opportunities to recreate in locations that are easy to get to and often have been known to their family for generations. There are abundant opportunities to view and photograph wildlife, especially bald eagles, elk, and salmon. There are occasions for solitude, but most users recreate in groups in this area and the presence of other visitors is expected during peak seasons. Management presence is moderate with a focus on fishing regulation enforcement.

Recreation Use

- Boating – Scenic floats from the Welcome Bridge to Nugent's Corner are popular and offer terrific opportunities for wildlife viewing and fishing. Racehorse Creek is an advanced run for expert whitewater boaters.
- Fishing – The reach from Maple Creek to the confluence with the Middle Fork below Mosquito Lake Road's Welcome Bridge is very popular for fishing, as is the reach from the confluence of the Middle Fork to the mainstem Nooksack River, and from here down to Nugent's Corner. Fishing is prevalent at informal access sites. The river can be accessed from the gravel bar near Kendall Creek, though Kendall Creek is only open upstream of the hatchery grounds. One of the most popular access points is at the Welcome Bridge parking area and also from the south side of the river from North Fork Road. Access is also available off of locations along Mt. Baker Scenic Byway, the WLT lands near Racehorse Creek, and the boat launch at Nugent's Corner.
- Hiking – The Deming Eagle Homestead Park has nature trails for walking and hiking.
- Mountain Biking – Widely used biking areas include logging roads on DNR lands in upland areas adjacent to the study area.
- Fish and Wildlife Viewing – This whole reach is very popular for watching and photographing bald eagles and spawning salmon. It has very high wintering eagle use due to the strong chum run. Specific viewing sites include the Kendall Creek gravel bar and areas up-river, Welcome Bridge Mosquito Lake Road, WLT lands near Racehorse Creek, Deming Eagle Homestead Park, Rutsatz Road and Nugent's Corner.
- Other Activities – Target shooting occurs at informal recreation sites and along adjacent DNR lands, including off the DNR North Fork Road at a large gravel pit. Fossil hunting in the Racehorse Creek area is also popular.

Values

- Ecological values include spawning and rearing habitat for Chinook, chum, coho, pink, and sockeye salmon, as well as steelhead, and highly used habitat for bald eagles. The Bear Creek Slough is an important wetland complex, as is the Maple Creek wetland. There is also a unique lahar deposit near the confluence of the Middle and North forks and a fantastic example of old growth forest along upper Canyon Lake.

- Aesthetic values include the large boulders of the Big Rock Canyon and the Racehorse Creek Waterfall.
- Cultural and historic values include the Kendall Creek Fish Hatchery which began in 1899, the confluences of the respective river forks, and fossil beds on DNR lands near Racehorse Creek and the lower North Fork Nooksack River. Historic and traditional Nooksack Indian Tribe fisheries, villages, and salmon processing sites are located throughout this reach.

Lower South Fork Nooksack

Saxon Bridge to confluence with North Fork Nooksack

Setting

Beginning just downstream of the Saxon Bridge, the Lower South Fork Nooksack River moves through the idyllic farm communities of Acme and Van Zandt and parallels SR 9 for some of its length. The river is generally single thread and low gradient. Due to the loss of large wood, deep pools with cover are infrequent. Mature riparian vegetation is lacking, and areas adjacent to agricultural lands often lack trees or shade. The waters warm during the summer months to levels detrimental to salmon and trout. Habitat restoration efforts focusing on providing thermal refuge for holding spring Chinook salmon have included the installation of several engineered log jams in this reach of the river. Views of the Twin Sisters Mountains abound, as do opportunities to access the river for fishing and swimming.

Recreation Use

- Fishing – Fishing is very popular throughout this whole reach.
- Tubing – Tubing is an extremely popular summer activity, especially downstream of the Acme Bridge as limb-powered floatation devices are banned by Whatcom County ordinance in the upper section of this reach above the SR 9 crossing in Acme. On hot summer weekends more than 1,000 people have been observed floating the river in inner-tubes. This is a concern for disturbance of migrating and holding spring chinook, summer-run steelhead and bull trout, as there are few deep pools with cover to provide hiding refuge.
- Swimming – Swimmers are drawn to the warm, seasonally calm waters of the South Fork Nooksack River to swim and play during the warm summer days.
- Hiking, Mountain Biking, and Equestrian Trails: Whatcom County's South Fork Park is in the process of being developed along the river in this reach. A network of hiking, equestrian, and mountain biking trails will be constructed in this new park.

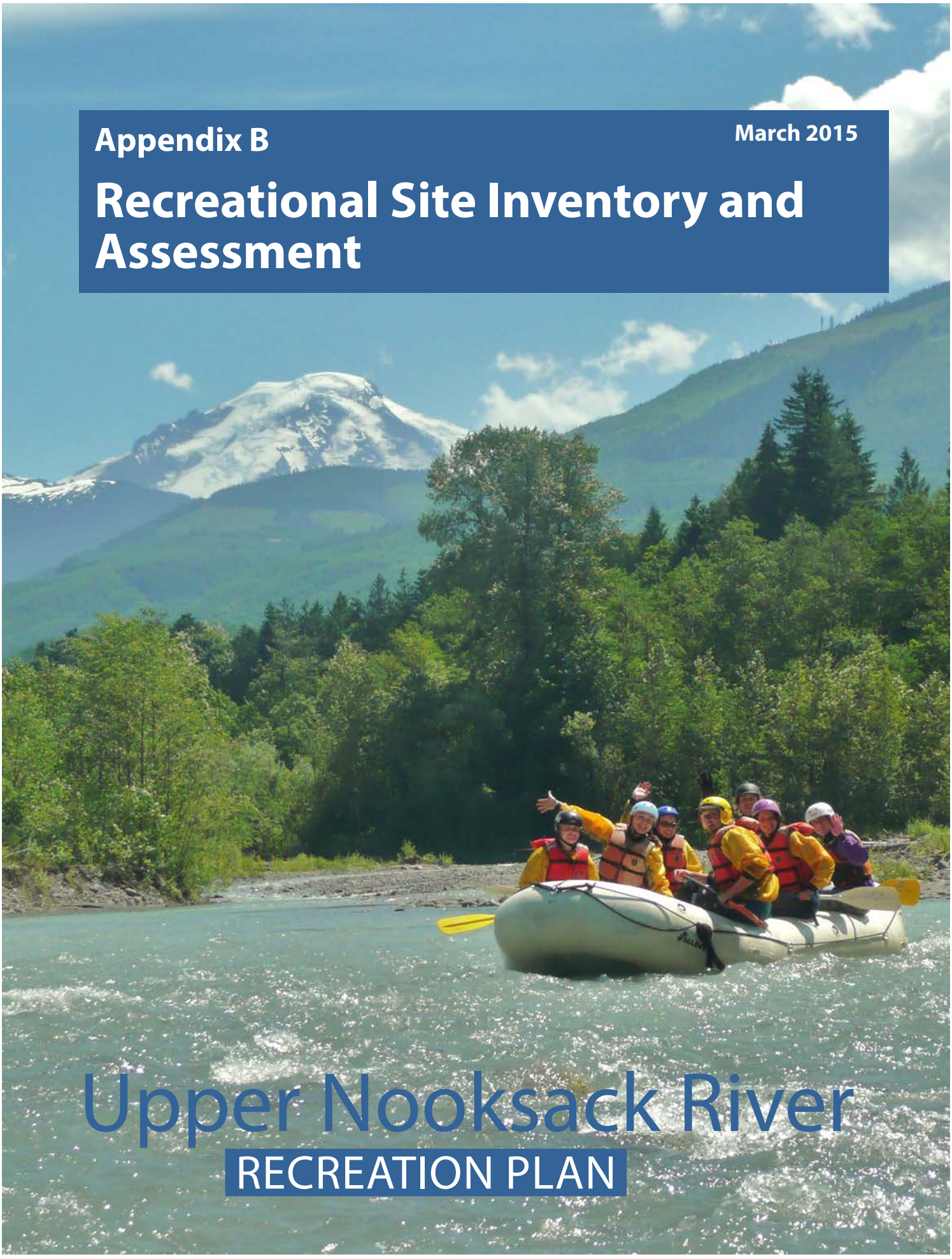
Values

- Ecological values include spawning and rearing habitat for Chinook, chum, coho, pink, and sockeye salmon, as well as winter-run steelhead and cutthroat, and important critical habitat for bald eagles and elk.
- Cultural and historic values include the Nesset Farm and the other historic homesteads that make up the new South Fork Park, as well as several ancestral Nooksack Tribe village sites along the river.

Appendix B

March 2015

Recreational Site Inventory and Assessment



Upper Nooksack River

RECREATION PLAN

Appendix B

Recreational Site Inventory and Assessment

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Appendix B

Recreational Site Inventory and Assessment

North Fork Nooksack River

USFS Road 32 Campsite 1	Site #1

Site Description/Environment

One dispersed-type campsite located adjacent to the North Fork Nooksack River on the river side of USFS Road 32. Surroundings are mixed deciduous and coniferous forest.

Attractions/Features

- Forested natural setting within close proximity to North Fork Nooksack River
- Well-established social trails provide easy river access
- Free camping

Location

- River mile: 71.7 - river right
- Distance to river: adjacent
- Coordinates: 48°54.294' N, 121°40.954' W
- Land Manager/Owner: US Forest Service

Access

- Distance from SR 542: 0.6 miles
- Road Type/Surface: Gravel
- Parking Available: Yes, 5 vehicles
- Parking Pass Required: None

Recreational Opportunities

- Camping
- Boat launch

Amenities

- Rock fire ring
- Social trail network to river

Environmental Impacts/Challenges

- Excessive number of social trails
- Downed trees limit access

Potential Improvement

- Develop a single trail suitable for hikers and boaters
- Seasonal site maintenance

Jerry Bourne's Cabin — Site #2

Site Description/Environment

One dispersed-type campsite located on the landward side of USFS Road 32 adjacent to the North Fork Nooksack River. Surroundings are mixed deciduous and coniferous forest. A small wetland is adjacent to the site.

Attractions/Features

- Forested natural setting within close proximity to North Fork Nooksack River
- Established rock climbing adjacent to campsite
- Network of social trails in the forest
- Free camping

Location

- River mile: 71.5 - river right
- Distance to river: adjacent
- Coordinates: 48°54.385' N, 121°41.502' W
- Land Manager/Owner: US Forest Service

Access

- Distance from SR 542: 0.4 miles
- Road Type/Surface: Dirt/Gravel
- Parking Available: Yes, 2 vehicles
- Parking Pass Required: None

Recreational Opportunities

- Camping
- Rock climbing
- Hiking

Amenities

- Trash bin
- Rock fire ring

Environmental Impacts/Challenges

- Network of social trails
- Minor amount of trash

Potential Improvement

- Develop a single trail around the wetland for hiking and cross-country skiing/ snowshoeing
- Install signage encouraging users to dispose of trash at nearby Shuksan Picnic Area

Ski Trails at Salmon Ridge — Site #3

Site Description/Environment

Sno-Park trailhead accessed from SR 542 adjacent to the North Fork Nooksack River. The Salmon Ridge Sno-Park includes a well-maintained, 8-ft wide and winter time groomed trail system (by the Nooksack Nordic Ski Club) within a mixed deciduous and coniferous forest.

Attractions/Features

- Cross-country skiing and snowshoeing trails
- Forested natural setting
- Large gravel parking lot
- Instructional and directional signage
- Well maintained

Location

- SR 542 milepost: 46 – River Right
- Distance to River: 300 yards
- Coordinates: 48°54.177' N, 121°41.581'W
- Land Manager/Owner: US Forest Service

Access

- Distance from SR 542: directly adjacent
- Road Type/Surface: Dirt/Gravel
- Parking Available: Yes, 40 vehicles
- Parking Pass Required: Yes, Sno-Park permit

Recreational Opportunities

- Cross-country skiing
- Snowshoeing
- Hiking

Amenities

- Groomed track ski trails

Environmental Impacts/Challenges

- None identified

Potential Improvement

- None identified

Shuksan Picnic Area	Site #4

Site Description/Environment

Maintained picnic area with five picnicking sites surroundings by a mixed deciduous and coniferous forest adjacent to North Fork Nooksack River.

Attractions/Features

- Picnic tables, grills, restrooms and trash cans
- Scenic views of the river
- Natural forested setting

Location

- SR 542 milepost: 45 – River Right
- Distance to river: adjacent
- Coordinates: 48°54.344' N; 121°41.592' W
- Land Manager/Owner: US Forest Service

Access

- Distance from SR 542: adjacent
- Road Type/Surface: Gravel
- Parking Available: Yes, 5 vehicles
- Parking Pass Required: Yes, Northwest Forest Pass

Recreational Opportunities

- Picnicking
- Fishing

Amenities

- Picnic tables with grill
- Trash and recycling bins
- Vaulted toilets
- WDFW fishing regulation signage

Environmental Impacts/Challenges

- Erosion on riverbank from river access

- Potential Improvement
- Improve separation of parking area from river bank with placement of boulders
- Designate and improve pedestrian access to river
- Planned improvements include trail re-grading and new picnic tables, grills, bear-proof trash bins, and interpretive signage

Silver Fir Campground — Site #5

Site Description/Environment

Designated campground, open during the summer season. Sites are surrounded by mixed forest of deciduous and coniferous trees along the North Fork Nooksack River.

Attractions/Features

- 20 large campsites (25'x25'); sites can be reserved (recommended due to high use)
- A low gradient, deep eddy suitable for swimming located immediately downstream

Location

- SR542 Mile Post 46 – River right
- Distance to River: Adjacent campsites
- Coordinates: 48°54.279' N, 121°41.910' W
- Land Manager/Owner: US Forest Service

Access

- Distance from SR 542: 0.2 miles
- Road Type/Surface: Native surface spur road
- Parking Available: Yes, 1 vehicle per site
- Parking Pass Required: No
- Fee Area: $16/night or $5 day use

Recreational Opportunities

- Camping
- Hiking
- Fishing
- Swimming

Amenities

- Tent pads
- Grills
- Picnic shelter
- Firewood for sale
- Restrooms, vault toilets & hand sanitizer

Environmental Impacts/Challenges

- None identified

Potential Improvement

- None identified

Pullout/Trailhead - SR 542 Mile 45.8 | Site #6

Site Description/Environment

Parking pullout area adjacent to SR 542 provides access to the High Divide Trail across the road

Attractions/Features

- Parking area suitable for many vehicles.

Location

- SR 542 milepost: 45.8 – river left
- Distance to river: adjacent
- Coordinates: 48°54.448' N; 121°42.497' W
- Land Manager/Owner: US Forest Service

Access

- Distance from SR 542: adjacent
- Road Type/Surface: Gravel
- Parking Available: Yes, 12-16 vehicles
- Parking Pass Required: None

Recreational Opportunities

- Hiking

Amenities

- None

Environmental Impacts/Challenges

- Steep eroded banks
- Trash present

Potential Improvement

- Initiate seasonal maintenance of parking area
- Install trash receptacles

Pullout - SR 543 Mile 45.0 | Site #7

Site Description/Environment

Parking pullout area is adjacent to SR 542 and the North Fork Nooksack River. The site has an engineered log jam placed for bank armoring and habitat enhancement. Surroundings are mixed deciduous and coniferous forest and riparian shoreline.

Attractions/Features

- Social trails accessing the river
- Fishing

Location

- SR542 milepost 45.0 - river right
- Distance to river: adjacent
- Coordinates: 48° 54.258' N; 121°43.452' W
- Land Manager/Owner: US Forest Service

Access

- Distance from SR 542: adjacent
- Road surface Type: Gravel
- Parking Available: Yes, 6-8 vehicles
- Parking Pass Required: None

Recreational Opportunities

- Fishing access

Amenities

- None

Environmental Impacts/Challenges

- Erosion
- Minor amount of trash
- Japanese knotweed present

Potential Improvement

- Install "leave no trace" signage
- Japanese knotweed eradication

Pullout "The Cedars" - SR 542 Mile 44.5 | Site #8

Site Description/Environment

Unmaintained parking and camping area with several well-developed social trails to access the North Fork Nooksack River. Surroundings are mixed deciduous and coniferous forest and riparian habitat.

Attractions/Features

- North Fork Nooksack River easily accessible
- Natural forested setting

Location

- SR542 milepost 44.5 - river right
- Distance to river: adjacent
- Coordinates: 48° 54.152' N; 121°44.057' W
- Land Manager/Owner: US Forest Service

Access

- Distance from SR 542: 50 meters
- Road Surface Type: Gravel
- Parking Available: Yes, 2-6 vehicles
- Parking Pass Required: None

Recreational Opportunities

- Boating
- Hiking
- Camping
- Fishing

Amenities

- None identified

Environmental Impacts/Challenges

- Numerous trails to river cause excess erosion

Potential Improvement

- Develop a single trail to river to reduce erosion
- Maintain access road

Nooksack Research Natural Area — Site #9

Site Description/Environment

Large 1,400-acre stand of old-growth forest located adjacent to SR 542, designated as a Federal Research Natural Area.

Attractions/Features

- Old-growth forest with 0.5-mile trail to view large, first growth trees

Location

- SR 542 milepost: 43.8 - river right
- Distance to river: 1/8 mile
- Coordinates: 48° 54.392' N; 121°44.738' W
- Land Manager/Owner: US Forest Service

Access

- Distance from SR 542: adjacent
- Surface Type: dirt/gravel
- Parking Available: Yes, 6-7 vehicles
- Parking Pass Required: No

Recreational Opportunities

- Hiking
- Research

Amenities

- Two benches
- Trash bin near parking area

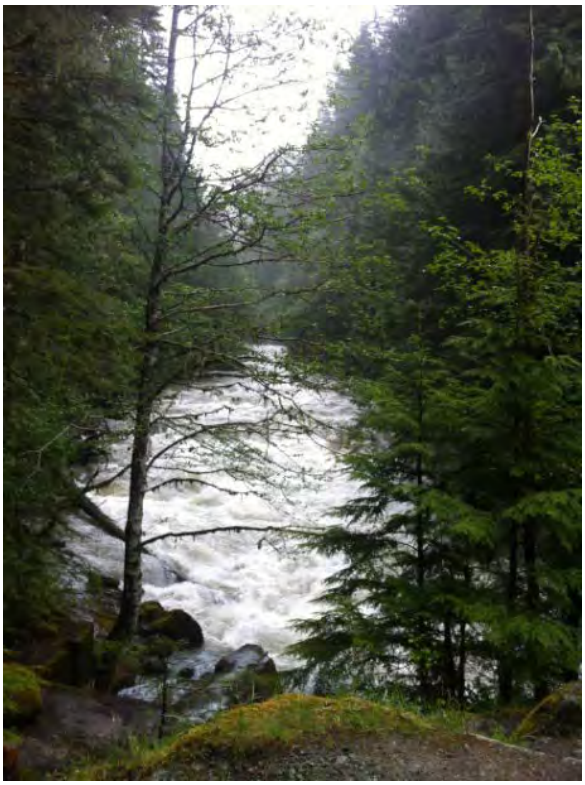
Environmental Impacts/Challenges

- Minor amount of trash

Potential Improvement

- Install interpretive signage

Nooksack Falls — Site #10



Site Description/Environment

An 88-ft waterfall on the North Fork Nooksack River with parking, scenic day use, and short social trails for viewing falls. Falls are situated amongst mature coniferous forest.

Attractions/Features

- Scenic views
- Access to USFS Rd 33 (Wells Creek)
- Featured in the hunting scene in the 1978 film *The Deer Hunter*

Location

- River mile: 65 - river right
- Distance to river: adjacent
- Coordinates: 48°54.365' N; 121°48.543' W
- Land Manager/Owner: Puget Sound Hydro, LLC

Access

- Distance from SR 542: 0.6 miles
- Road Type/Surface: Gravel
- Parking Available: Yes, 10-15 vehicles
- Parking Pass Required: None

Recreational Opportunities

- Scenic waterfall viewing
- Hiking

Amenities

- Social trails
- Interpretive signage

Environmental Impacts/Challenges

- None identified

Potential Improvement

- Seasonal road maintenance
- Provide restrooms

Pullout - SR 542 Mile 42.0	**Site #11**

Site Description/Environment

Pullout parking area adjacent to SR 542

Attractions/Features

Scenic views of the North Fork Nooksack River

Location

- River mile: 65.2 - river right
- Distance to river: 30 yards adjacent
- Coordinates: N/A
- Land Manager/Owner: US Forest Service

Access

- Distance from SR 542: adjacent
- Road Type/Surface: gravel
- Parking Available: Yes, 3-5 vehicles
- Parking Pass Required: No

Recreational Opportunities

- Fishing access
- Limited Boating Access

Amenities

- None

Environmental Impacts/Challenges

- None identified

Potential Improvement

- Maintain trail
- Include signage designated river access

Excelsior Power Plant Campsite | Site #12

Site Description/Environment

Dispersed campsite along the access road to Excelsior Group Campground near the North Fork Nooksack River.

Attractions/Features

- Campsite is 0.5 miles from SR 542 and near the North Fork Nooksack River
- Nearby facilities at Excelsior Group Campground
- Free camping

Location

- River mile: 63.8 - river right
- Distance to river: adjacent
- Coordinates: 48°54.383' N; 121°49.067' W
- Land Manager/Owner: US Forest Service

Access

- Distance from SR 542: 0.5 miles
- Road Type/Surface: Dirt/Gravel
- Parking Available: Yes, 1 vehicle
- Parking Pass Required: None

Recreational Opportunities

- Camping
- Fishing

Amenities

- Rock fire ring

Environmental Impacts/Challenges

- Garbage and sanitation issues

Potential Improvement

- Post camping and parking regulations on site
- Install sanitary facilities

Excelsior Group Camp — Site # 13

Site Description/Environment

Group-only campground located near the North Fork Nooksack River surrounded by mature coniferous forest.

Attractions/Features

- Large sites suitable for large groups
- Picnic shelter

Location

- River mile: 63.6 - river right
- Distance from river: adjacent
- Coordinates: 48°54.447' N, 121°49.294' W
- Manager/Owner: US Forest Service

Access

- Distance from SR 542: 0.7 miles
- Road Type/Surface: Dirt/Gravel
- Parking Available: Yes, parking throughout site
- Parking Pass Required: None

Recreational Opportunities

- Camping: Site A accommodates 50 people and has 6 tables with fire pits; Site B accommodates 75 and has 15 tables with fire pits
- Fishing

Amenities

- Large sheltered picnic area
- Restrooms, vault toilets
- Cooking grills
- Bear-proof waste receptacles
- Tent pads
- Informational and interpretive signage

Environmental Impacts/Challenges

- Network of social trails resulting in soil compaction, trampling of vegetation, and erosion

Potential Improvement

- Post informational signage about sensitive nature of riparian ecosystem
- Concentrate trail to use to selected trails

Bridge Camp	Site #14

Site Description/Environment

Dispersed-type camping area that is located adjacent to the North Fork Nooksack River. Campgrounds are lightly maintained and mostly socially designated. Surroundings are mixed deciduous and coniferous forest.

Attractions/Features

- Campsites are adjacent to the North Fork Nooksack River
- Free camping

Location

- River mile 62.6 - river left
- Distance to river: adjacent
- Coordinates: 48°54.000' N; 121°51.360' W
- Land Manager/Owner: US Forest Service

Access

- Distance from SR 542: 4.5 miles
- Road Type/Surface: gravel
- Parking Available: Yes
- Parking Pass Required: None

Recreational Opportunities

- Camping
- Fishing

Amenities

- Rock fire rings
- Pit toilet

Environmental Impacts/Challenges

- Trash present
- Moderate erosion due to numerous social trails

Potential Improvement

- Define parking areas so vehicle access is limited to roads
- Install "leave no trace" signage

Boyd Creek Trail and Trailhead — Site #15

Site Description/Environment

Well-maintained interpretive trail along Boyd Creek, a small tributary of the North Fork Nooksack River. The trail was built for education about salmon life cycles and spawning habitat. Minimal erosion has occurred because the trail becomes a raised, boarded walkway with railing. This has reduced access to the creek and surrounding areas, protecting the ecosystem.

Attractions/Features

- Short trail with wooden walkway and interpretive signage
- ADA accessible (5-foot wide trail with low slope becomes boarded walkway)
- View of 20 foot waterfall
- Surroundings are a mixed deciduous and coniferous forest

Location

- River mile: 0.3 (Boyd Creek) - river left
- Distance to river: 0.3 miles
- Coordinates: 48°54.000' N; 121°51.360' W
- Land Manager/Owner: US Forest Service

Access

- Distance from SR 542: 3.5 miles
- Road Type/Surface: gravel
- Parking Available: Yes, 8 vehicles
- Parking Pass Required: No

Recreational Opportunities

- Hiking
- Environmental education

Amenities

- Pit toilet
- Designated parking area
- Wooden walkway

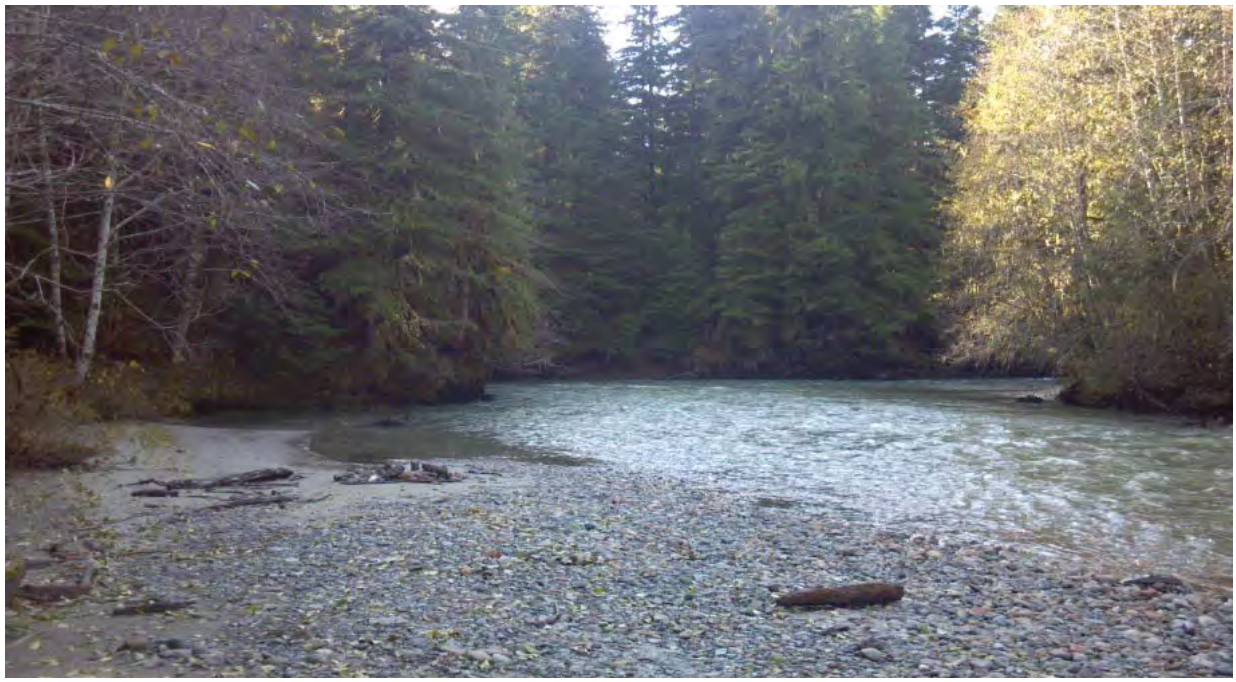
Environmental Impacts/Challenges

- None identified

Potential Improvement

- Repairing potholes in parking lot to enhance ADA accessibility.

Boyd Creek Campsite — Site #16



Site Description/Environment

Dispersed-type campsite on a cobble bar between the confluence of Boyd Creek and the North Fork Nooksack River.

Attractions/Features

- Campsite is private and on the river
- Free camping

Location

- River mile: river left
- Distance to river: 0.1 miles
- Coordinates: 48°54.000 N; 121°52.120' W
- Land Manager/Owner: US Forest Service

Access

- Distance from SR 542: 3.3 miles
- Road Type/Surface: gravel
- Parking Available: Yes, 3 vehicles
- Parking Pass Required: None

Recreational Opportunities

- Camping
- Fishing
- Potential boat launch

Amenities

- None identified

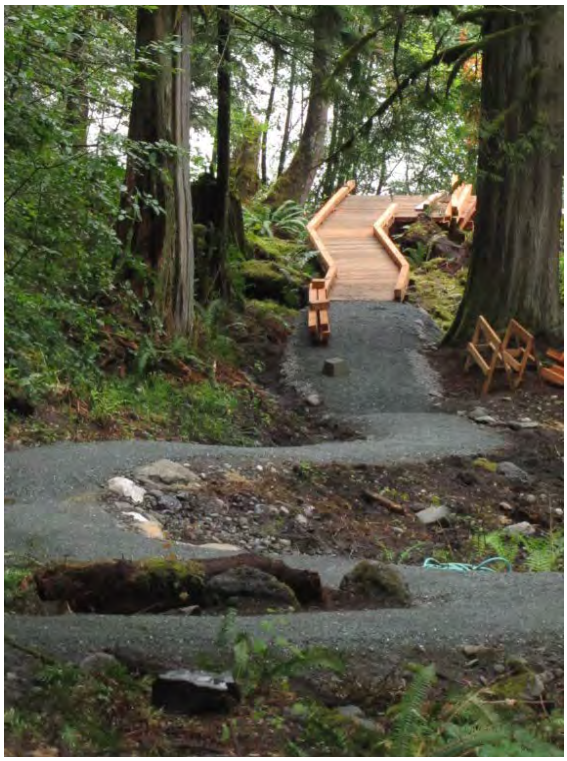
Environmental Impacts/Challenges

- Erosion present leading to river
- Trash present

Potential Improvement

- Install "leave no trace" signage
- Install salmon educational signage

Upper Horseshoe Pullout — Site #17



Site Description/Environment

Parking pullout along SR 542 with designated trail access to the North Fork Nooksack River. This is a popular boat launch for kayakers running the class IV+ upper Horseshoe Bend section of river

Attractions/Features

- Easy access to North Fork Nooksack River

Location

- SR 542 milepost 37.5 - river right
- Distance to river: 100 feet
- Coordinates: 48°54.252' N, 121°52.445' W
- Land Manager/Owner: US Forest Service

Access

- Distance from SR 542: adjacent
- Road Type/Surface: gravel pullout and trail
- Parking Available: Yes, 15 vehicles
- Parking Pass Required: No

Recreational Opportunities

- Fishing
- Kayaking
- Gold panning
- Picnicking
- Sunbathing

Amenities

- Newly installed bridge to access cobble bar

Environmental Impacts/Challenges

- Invasive species present
- Foot traffic along access trail has induced erosion caused by runoff

Potential Improvement

- Integrate water bars and side ditches to reduce erosion

Douglas Fir Campground — Site #18

Site Description/Environment

Maintained campground adjacent to North Fork Nooksack River. The river reach is steep and high gradient. Surroundings are mixed coniferous and deciduous forest. $18-$20/night for single unit, $9/night for extra vehicle, $5 day use fee.

Attractions/Features

- Campground adjacent to SR 542 in a forested natural setting
- Many of the sites are near the North Fork Nooksack River bank
- Walking distance to Horseshoe Bend trailhead
- Picnic shelter available for larger gatherings

Location

- River mile: 59.2 - river right
- Distance to river: adjacent
- Coordinates: 48°54.133' N; 121°55.083' W
- Land Manager/Owner: US Forest Service

Access

- Distance from SR 542: < 0.1 mi
- Road Type/Surface: Paved
- Parking Available: Yes
- Parking Pass Required: Camping fee required

Recreational Opportunities

- Camping (reservations recommended)
- Hiking
- Picnicking
- Fishing

Amenities

- Restrooms, vault toilets
- Waste receptacles
- Potable water
- Fire pits and grills
- Picnic tables
- Tent pads

Environmental Impacts/Challenges

- Several social trails to the river cause moderate bank erosion

Potential Improvement

- Establish and maintain defined trails to the riverside

Horseshoe Bend Trailhead/Boat Launch	Site #19

Site Description/Environment

A 1.5-mile maintained trail with views of the North Fork Nooksack River.
The trailhead just beneath the bridge has a designated whitewater boat launch. Surroundings are mature coniferous forest with scattered deciduous trees.

Attractions/Features

Salmon viewing in natural, forested setting
Established rafting and kayaking launch

Location

- River mile: 59.4 - river right
- Distance from river: adjacent
- Coordinates: 48°54.080' N; 121°54.370' W
- Land Manager/Owner: US Forest Service

Access

- Distance from SR 542: Adjacent
- Road Type/Surface: Gravel
- Parking Available: Yes, 15 vehicles
- Parking Pass Required: None

Recreational Opportunities

- Hiking
- Whitewater boating
- Fishing

Amenities

- Maps and informational signage
- Stairs for boaters to access the river

USFS Road 37 Shooting Site — Site #20

Site Description/Environment

Clearing along USFS 37 that provides sufficient space for recreational shooting activities.
The site consists of a large, open gravel lot with a berm in place that serves as a backstop for target practice.

Attractions/Features

- Several social fire rings
- Social trails used by miners and hunters

Location

- Along USFS Road 37 via Glacier Creek Road - river left
- Distance to river: 1/8 mile
- Land Manager/Owner: US Forest Service
- Coordinates: 48°53'48.4"N, 121°53'44.1"W

Access

- Distance from SR 542: 1.5 miles
- Road Type/Surface: gravel
- Parking Available: Yes, 10+ vehicles
- Parking Pass Required: No

Recreational Opportunities

- Recreational shooting

Amenities

- None

Environmental Impacts/Challenges

- Substantial amount of litter present (e.g. trash, shotgun shells, clay pigeons)

Potential Improvement

- Signage to remind users to dispose of waste properly ("pack it in, pack it out")

Glacier Public Service Center — Site #21

Site Description/Environment

US Forest Service building for public information and permitting for recreation along SR 542.

Attractions/Features

- Large parking lot and public restrooms
- Recreation permitting and trip planning
- Historic CCC-era building

Location

- SR 542 milepost: 33.6 – river left
- Distance from river: ¼ mile
- Coordinates: 48°53.132′ N; 121°56.132′ W
- Land Manager/Owner: US Forest Service

Access

- Distance from SR 542: Adjacent
- Road Type/Surface: Paved
- Parking Available: Yes, 13+ vehicles
- Parking Pass Required: None

Recreational Opportunities

- Maps and instructions to access recreational opportunities

Amenities

- Restrooms with flush toilet and sink
- Waste receptacles
- Picnic tables
- Electricity
- Interpretive signage

Environmental Impacts/Challenges

- Large amounts of impervious surface

Potential Improvement

- Replace current landscaping with native plants
- Increase use of pervious surfaces

Gallop Creek Trail — Site #22

Site Description/Environment

US Forest Service owned trail leading from downtown Glacier along Gallop Creek to large gravel opening and easy access to Nooksack River at the Gallop Creek/Nooksack River confluence. Popular kayak launch point/take-out for class II-III North Fork Nooksack River run.

Attractions/Features

- Easy kayak launch point/take-out
- Access to North Fork Nooksack River and Gallop Creek

Location

- SR 542 milepost: 33 - river left
- Distance from river: ¼ mile (trailhead)
- Coordinates: 48°53'25.1"N 121°56'38.1"W
- Land Manager/Owner: US Forest Service

Access

- Distance from SR 542: 200 yds.
- Road Type/Surface: Dirt
- Parking Available: Yes, 3-4 vehicles
- Parking Pass Required: None

Recreational Opportunities

- Hiking
- Kayaking/Canoeing
- Fishing
- Day use/picnic

Amenities

- Boater signage

Environmental Impacts/Challenges

- None Identified

Potential Improvement

- Install boater registration
- Install "leave no trace" signage

Bay to Baker Trail — Site #23

Site Description/Environment

Maintained multi-use 7.5-mile destination trail adjacent to the North Fork Nooksack River from Glacier to Maple Falls. The trail is planned to connect to the Pacific Coast Trail in Bellingham.

Attractions/Features

- Well-maintained trail 7 ft wide for hiking and biking.
- Low gradient railroad grade
- Ample trailhead parking
- Surroundings are mixed coniferous and deciduous forest.

Location

- Along SR542 - river right
- Distance to river: variable
- Coordinates: 48°53.117' N; 121°55.598' W
- Land Manager/Owner**:** Whatcom County Parks and Recreation Dept.

Access

- Distance from SR 542: 500 feet
- Road Type/Surface: Gravel trail, paved parking
- Parking Available: Yes, 12 vehicles
- Parking Pass Required: No

Recreational Opportunities

- Hiking
- Biking

Amenities

- Interpretive, directional, and instructional signs
- Restrooms located in downtown Glacier

Environmental Impacts/Challenges

- None identified

Potential Improvement

- Complete the trail to Bellingham Bay

Glacier Community Trail	Site #24

Site Description/Environment

Destination hiking trail located behind the Glacier Public Service Center.

Attractions/Features

- Surroundings are mixed coniferous and deciduous forest.

Location

- River Mile 57 - river left
- Distance from river: adjacent
- Coordinates: 48°53.300' N; 121°52.516' W
- Land Manager/Owner: US Forest Service

Access

- Distance from SR 542: 500 feet
- Road Type/Surface: Paved
- Parking Available: Yes, 15 vehicles
- Parking Pass Required: No

Recreational Opportunities

- Hiking

Amenities

- Parking near trail

Environmental Impacts/Challenges

- None identified

Potential Improvement

- None identified

Frisbee Golf Course — Site #25

Site Description/Environment

Forest Service land currently used as unapproved Frisbee golf course in an area cleared for recreation. Surroundings are mixed coniferous and deciduous forest.

Attractions/Features

- 36 holes with hoop-style baskets

Location

- River mile: 59 - river left
- Distance from river: ¼ mile
- Coordinates: 48°53'18.2"N 121°56'13.1"W
- Land Manager/Owner: US Forest Service

Access

- Distance from SR 542: 100 ft
- Road Type/Surface: Dirt and gravel
- Parking Available: 3+ vehicles
- Parking Pass Required: None

Recreational Opportunities

- Frisbee golf

Amenities

- None

Environmental Impacts/Challenges

- Scattered trash throughout course

Potential Improvement

- Obtain approval to designate the site for this use
- Work with local community to improve and maintain trail
- Signage indicating tee box locations

Welcome Bridge Boat Launch	Site #26

Site Description/Environment

Boating access site to North Fork Nooksack River and designated day use area accessed via Mosquito Lake Road.

Attractions/Features

- Directly adjacent to the North Fork Nooksack River

Location

- River mile: 41 – river left
- Distance from river: adjacent
- Coordinates: 48°50’16.6”N, 122°09’15.7”W
- Land Manager/Owner: Whatcom County Parks and Recreation Department

Access

- Distance from SR 542: ~1 mile
- Road Type/Surface: Dirt
- Parking Available: Yes, 4 vehicles
- Parking Pass Required: No

Recreational Opportunities

- Boating
- Fishing

Amenities

- Instructional signs
- Parking area

Environmental Impacts/Challenges

- Erosion
- Scattered trash

Potential Improvement

- Enlarge parking area
- Install small paved ramp to mitigate erosion
- Install “leave no trace” signage

Hannegan Pass Trailhead/Trail — Site #27

http://www.sarasavesanimals.org - ObsidiansnocapicsIMG_5098.JPG

Site Description/Environment

Trail ascending through trees and avalanche-paths near Ruth Creek before climbing to a high point of 6,186 ft. to Hannegan Peak. From Hannegan Pass Road #32 follow road for 5.3 miles to trailhead.

Attractions/Features

- Dispersed campsites at trailhead

Alpine environment hiking

Location

- 6.7 miles from SR542 on USFS Road #32
- Distance from river: Adjacent to Ruth Creek
- Coordinates: 48°54'36.6"N 121°35'31.8"W
- Land Manager/Owner: US Forest Service

Access

- Distance from SR 542: 6 miles
- Road Type/Surface: Gravel
- Parking Available: Yes – 30+ vehicles
- Parking Pass Required: Yes – valid recreation pass

Recreational Opportunities

- Hiking/Backpacking
- Snowshoeing
- Livestock travel Aug. 1-Oct. 31

Amenities

- Vault toilet at trailhead
- Four dispersed campsites with fire rings & picnic tables
- Day use shelter

Environmental Impacts/Challenges

- None identified

Potential Improvement

- None identified

Goat Mountain Trailhead/Trail — Site #28

Site Description/Environment

Trail located near Ruth Creek through thick forest to expanding views of Mt. Sefrit and Mt. Shuksan. Follow USFS Road #32 for 2.1 miles to trailhead

Attractions/Features

- Alpine environment hiking

Location

- 2.4 miles from SR542 on USFS Road #32
- Distance from river: ¼ mile from Ruth Creek
- Coordinates: 48°53'39.9"N 121°39'08.3"W
- Land Manager/Owner: US Forest Service

Access

- Distance from SR 542: 2.1 miles
- Road Type/Surface: Gravel
- Parking Available: Yes – 20+ vehicles
- Parking Pass Required: Yes – valid recreation pass

Recreational Opportunities

- Hiking/Backpacking
- Snowshoeing
- Livestock travel Aug. 1 – Oct. 31

Amenities

- Vault toilet at trailhead

Environmental Impacts/Challenges

- None Identified

Potential Improvement

- None Identified

Nooksack Cirque Trailhead/Trail #750 | Site #29

http://1.bp.blogspot.com/_mKMVfBGMdjo/Spg0xEBmxSI/AAAAAAAADpQ/muG78trbJv4/s400/DSCN2442.JPG

Site Description/Environment

A 4.5 mile long primitive trail requires fording Ruth Creek and leads to the headwaters of the North Fork Nooksack River & a steep walled cirque at the base of Mt. Shuksan. Follow USFS Road #32 just over one mile to Nooksack Cirque Road #34 junction and follow road for one mile to parking area.

Attractions/Features

- Ruth Creek & Nooksack River access throughout hike

Location

- 2 miles from SR542 on USFS Road #34
- Distance from river: Adjacent to Ruth Creek
- Coordinates: 48°53'38.0"N 121°39'09.2"W
- Land Manager/Owner: US Forest Service

Access

- Distance from SR 542: 2 miles
- Road Type/Surface: Gravel
- Parking Available: Yes – 6 vehicles
- Parking Pass Required: Yes – valid Northwest Forest Pass

Recreational Opportunities

- Hiking/Backpacking
- Snowshoeing

Amenities

- None Identified

Environmental Impacts/Challenges

- Trail travel requires Ruth Creek crossing/ salmon disturbance

Potential Improvement

- Install vault toilet at trailhead
- Put in bridge for Ruth Creek crossing
- Maintain trail/enforce brush removal

Twin Lakes Trailhead/Trail	Site #30

http://d7bmbwiglir4w.cloudfront.net/sites/default/files/photos/routes/TwinLakesTrailhead.jpg

Site Description/Environment

Hiking trail near Swamp Creek travels to east and west Twin Lakes and Winchester Mountain summit. Travel 6.5 miles on Twin Lakes Road #3065 to trailhead. Last 2 miles of road are narrow with few pullouts and is not maintained for passenger vehicles.

Attractions/Features

- Swamp creek access

Location

- 6.5 miles from SR542 on USFS Road #3065
- Distance from river: Near Swamp Creek headwaters
- Coordinates: 48°57'07.7"N 121°38'08.1"W
- Land Manager/Owner: US Forest Service

Access

- Distance from SR 542: 6.5 miles
- Road Type/Surface: Gravel
- Parking Available: Yes -
- Parking Pass Required: Yes – valid recreation pass required

Recreational Opportunities

- Hiking/Backpacking
- Snowshoeing

Amenities

- Vault toilet at trailhead

Environmental Impacts/Challenges

- Mining truck traffic traveling on road

Potential Improvement

- Improved road maintenance

Tomyhoi/Yellow Aster Butte Trailhead/Trail	Site #31

Site Description/Environment

Trail travels through avalanche paths and forest to camping areas and alpine lakes at Yellow Aster Butte. Travel 4.5 miles on Twin Lakes Road #3065 to trailheads and parking area for Yellow Aster Butte & Tomyhoi Lake.

Attractions/Features

- Swamp Creek access

Location

- 4.5 miles from SR542 on USFS Road #3065
- Distance from river: ¼ mile adjacent to Swamp Creek
- Coordinates: 48°56'36.0"N 121°39'45.6"W
- Land Manager/Owner: US Forest Service

Access

- Distance from SR 542: 4.5 miles
- Road Type/Surface: Gravel
- Parking Available: Yes – 20 vehicles
- Parking Pass Required: Yes – valid Recreation Pass

Recreational Opportunities

- Hiking /Backpacking
- Snowshoeing

Amenities

- Vault toilet at trailhead

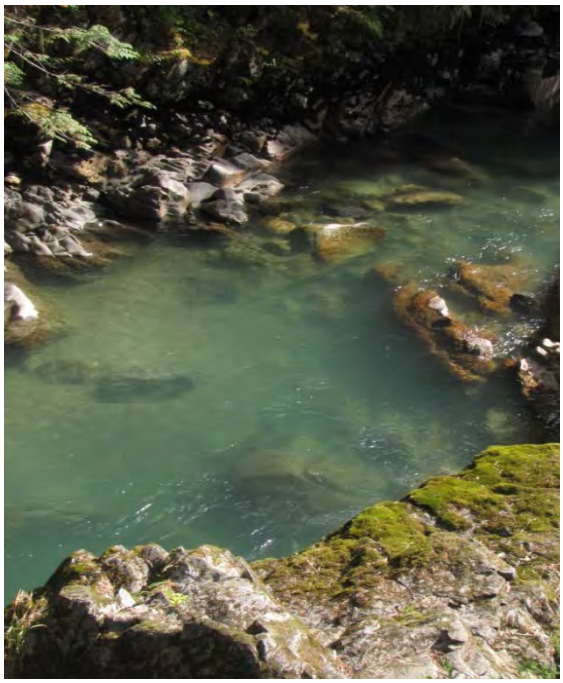
Environmental Impacts/Challenges

- None Identified

Potential Improvement

- None Identified

Misto Canyon Take-Out — Site #32



Site Description/Environment

Follow Wells Creek Road #33 to scout the take-out eddy above bridge before Nooksack Falls. This is a kayak take-out for the class V Misto Canyon whitewater section of the North Fork Nooksack River. Use parking area for Nooksack Falls.

Attractions/Features

- Scenic views
- Access to USFS Rd 33 (Wells Creek)
- Suitable kayak take-out before Nooksack Falls

Location

- River mile: 65 – river right
- Distance from river: adjacent
- Coordinates: 48°54.365' N; 121°48.543' W
- Land Manager/Owner: US Forest Service

Access

- Distance from SR 542: 0.6 miles
- Road Type/Surface: Gravel
- Parking Available: Yes, 10-15 vehicles
- Parking Pass Required: None

Recreational Opportunities

- Kayaking
- Scenic waterfalls viewing
- Hiking

Amenities

- Social trails
- Interpretive signage

Environmental Impacts/Challenges

- None Identified

Potential Improvement

- Seasonal road maintenance
- Provide restrooms
- Install kayaker signage locating take-out

Excelsior Trailhead/Trail — Site #33

Site Description/Environment

Trail switch backing up a forested slope and heavy brush to Excelsior Pass with views of Mt. Baker and the Nooksack Valley. Located 7.5 miles east from the Glacier Public Service Center on the left side of SR542.

Attractions/Features

- Located across highway 542 from North Fork Nooksack River

Location

- River right
- Distance from river: 1/8 mile
- Coordinates: 48°54'34.9"N 121°48'06.0"W
- Land Manager/Owner: US Forest Service

Access

- Distance from SR 542: adjacent
- Road Type/Surface: paved
- Parking Available: Yes – 6+ vehicles
- Parking Pass Required: Yes – valid recreation pass required

Recreational Opportunities

- Hiking/Backpacking
- Livestock accessible
- Snowshoeing

Amenities

- Vault toilet located at trailhead

Environmental Impacts/Challenges

- None identified

Potential Improvement

- None identified

Deadhorse Creek Dispersed Campsites | Site #34

Site Description/Environment

Located 4 miles up Deadhorse Road #37 on the left, this camp offers 4 separate sites set adjacent to the Nooksack River. A couple of the sites have their own small beaches. Located near several hiking trails.

Attractions/Features

- Camping located directly on North Fork Nooksack River, offers easy access

Location

- River mile: 63.4 – River left
- Distance from river: adjacent
- Coordinates: 48°54'10.8"N 121°49'41.0"W
- Land Manager/Owner: US Forest Service

Access

- Distance from SR 542: 4 miles
- Road Type/Surface: Gravel
- Parking Available: Yes, 1-2 vehicles/site
- Parking Pass Required: None

Recreational Opportunities

- Camping
- Nooksack River viewing
- Fishing
- Boating

Amenities

- Vault toilet

Environmental Impacts/Challenges

- Some garbage present
- Human waste present

Potential Improvement

- Post "leave no trace" signage

Coal Pad Skate Park — Site #35

Site Description/Environment

A concrete coal pad converted to a DIY skate park. The park has not received funding to finish the project and the park remains closed until further notice. The park is administered by the Glacier Skate Park Association

Attractions/Features

- Located near North Fork Nooksack River and downtown Glacier

Location

- ½ mile off SR 542 up Coal Creek Road – River left
- Distance from river: ½ mile
- Coordinates: 48°53'10.9"N 121°56'34.7"W
- Land Manager/Owner: Joe King – Private Landowner

Access

- Distance from SR 542: ¼ mile
- Road Type/Surface: Gravel
- Parking Available: Yes – 4+ vehicles
- Parking Pass Required: None

Recreational Opportunities

- Skating
- Hiking
- Biking

Amenities

- None identified

Environmental Impacts/Challenges

- Poor drainage
- Garbage present

Potential Improvement

- Install additional drainage
- Install sanitation facilities
- Raise funds to finish project

Warnick Bridge — Site #36

Site Description/Environment

A through truss bridge over the North Fork Nooksack River offers a safe viewing on one side of the guardrail of the river and a through biking/walking path.

Attractions/Features

- Access to North Fork Nooksack River

Location

- River mile: 54.1
- Distance from river: Directly above
- Coordinates: 48°54'17"N, 121°59'31"W
- Land Manager/Owner: US Forest Service

Access

- Distance from SR 542: 0 miles
- Road Type/Surface: Paved Highway
- Parking Available: None Designated
- Parking Pass Required: None

Recreational Opportunities

- River viewing/photo taking

Amenities

- None Identified

Environmental Impacts/Challenges

- Some trash along bridge

Potential Improvement

- None Identified

Maple Creek Reach	Site #37

Site Description/Environment

An area along the Nooksack River where Maple Creek and its associated wetlands has created a distinctive ecosystem that meanders across a historic floodplain before meeting the river. Currently being restored to its natural state.

Attractions/Features

- Public access to Maple Creek and the Nooksack River.

Location

- River right
- Distance from river: Adjacent to Maple Creek
- Coordinates: 48°55'15.6"N 122°04'17.0"W
- Land Manager/Owner: Whatcom Land Trust

Access

- Distance from SR 542: adjacent
- Road Type/Surface: Gravel/Grass
- Parking Available: Yes, 3-4 vehicles
- Parking Pass Required: None

Recreational Opportunities

- Hiking/Walking
- Nature/Wildlife viewing

Amenities

- None Identified

Environmental Impacts/Challenges

- Trees and shrubs have been removed exposing area to the elements
- Exposed ditches represent un-natural habitat

Potential Improvement

- Plant native shrubs, remove exposed ditches, return overall habitat back to natural state

Racehorse Creek — Site #38

Site Description/Environment

Whatcom Land Trust owned piece of land that is marked by three consecutive stone wall gates and a trail leading down to the creek.

Attractions/Features

- Within sight of the North Fork Nooksack River and Racehorse Creek confluence

Location

- 2 miles off Mosquito Lake Road on North Fork Road – River left
- Distance from river: ¼ mile, adjacent to Ruth Creek
- Coordinates: 48°53'18.9"N 122°08'48.3"W
- Land Manager/Owner: Whatcom Land Trust

Access

- Distance from SR 542: ~5 miles
- Road Type/Surface: Gravel/Dirt
- Parking Available: Yes, 3- vehicles
- Parking Pass Required: None

Recreational Opportunities

- Fishing
- Boating access
- River viewing/lounging

Amenities

- None Identified

Environmental Impacts/Challenges

- None Identified

Potential Improvement

- Include "leave no trace" signage
- Clearly mark access at trailhead

North Fork Eagle Preserve	Site #39

Site Description/Environment

Whatcom Land Trust owned property on Nooksack River where salmon spawning attracts large numbers of bald eagles that feed on the fish carcasses and roost in the riparian forest on the property. Includes newly planted native species for improved habitat.

Attractions/Features

- North Fork Nooksack River access and wildlife viewing

Location

- River Left
- Distance from river: Adjacent
- Coordinates: 48°51'00.3"N 122°08'48.5"W
- Land Manager/Owner: Whatcom Land Trust

Access

- Distance from SR 542: ~2.5 miles
- Road Type/Surface: dirt trail
- Parking Available: Yes, 5- vehicles
- Parking Pass Required: None

Recreational Opportunities

- Fishing
- Wildlife viewing
- River viewing/lounging

Amenities

- None Identified

Environmental Impacts/Challenges

- None Identified

Potential Improvement

- None Identified

Highway 9 Bridge — Site #40

Site Description/Environment

A truss bridge crossing the North Fork Nooksack River near the confluence to the South Fork River. Provides important highway connection and access to the river below the bridge. Main access includes poorly maintained road conditions with several large, water filled pot holes.

Attractions/Features

- North Fork Nooksack River and South Fork Nooksack River confluence viewing and access

Location

- River Left
- Distance from river: Adjacent
- Coordinates: 48°48'32.6"N 122°12'02.1"W
- Land Manager/Owner: US Forest Service

Access

- Distance from SR 542: ½ mile
- Road Type/Surface: Gravel/Dirt
- Parking Available: Yes, 100+ vehicles
- Parking Pass Required: None

Recreational Opportunities

- Camping
- Fishing
- Boating access

Amenities

- Pre-existing fire rings

Environmental Impacts/Challenges

- Large amounts of garbage present
- Invasive plant species present
- Poor riparian zone along the river

Potential Improvement

- Remove Japanese Knotweed and other invasive species
- Plant native plant species
- Post "leave no trace" signage
- Install waste receptacles
- Maintain road access
- Install designated fire rings

Rutsatz Salmon Preserve	Site #41

Site Description/Environment

Just beyond a flat, open plain is a short descent into the floodplain of the North Fork Nooksack River made up of a cobbled bed, brushy areas and soggy channel banks. Whatcom Land Trust owned and a great place to view eagles and salmon spawning.

Attractions/Features

- North Fork Nooksack River access and wildlife viewing.

Location

- Adjacent to Nooksack River – River left
- Distance from river: ¼ mile
- Coordinates: 48°48'41.7"N 122°11'00.9W
- Land Manager/Owner: Whatcom Land Trust

Access

- Distance from SR 542: 3 miles
- Road Type/Surface: Gravel/Dirt
- Parking Available: Yes, 3+ vehicles
- Parking Pass Required: None

Recreational Opportunities

- Wildlife viewing
- Fishing
- Work Party Involvement

Amenities

- None identified

Environmental Impacts/Challenges

- Garbage present at parking area/gated entrance

Potential Improvement

- Post "leave no trace" signage

Canyon Creek Campsites — Site #42

Site Description/Environment

A series of 4-5 dispersed campsites (most equipped with fire pits) just before the USFS Road #31 and USFS Road #3140 junction and bridge crossing Canyon Creek. Campsites sit among native plant species and some creekside.

Attractions/Features

- Ample access to Canyon Creek

Location

- ~7.5 miles from SR 542 on USFS Road #31
- Distance from river: Adjacent to Canyon Creek and Kidney Creek
- Coordinates: 48°56'55.5"N 121°55'55.5"W
- Land Manager/Owner: US Forest Service

Access

- Distance from SR 542: ~7 miles
- Road Type/Surface: Paved/Gravel
- Parking Available: Yes, 3+ Vehicles/ campsite
- Parking Pass Required: None

Recreational Opportunities

- Camping
- Hiking
- Creek Boating
- Fishing

Amenities

- None identified

Environmental Impacts/Challenges

- Garbage present in existing firepits
- Manmade log "dam" crossing Kidney Creek

Potential Improvement

- Install pit toilet
- Remove manmade log "dams"
- Install salmon educational signage

Canyon Creek Boat Launch — Site #43

Site Description/Environment

Easily accessible creek boat launch below bridge crossing Canyon Creek on USFS Road #31. This section offers continuous and "experienced boaters only" class V-VI whitewater with numerous portages and scouting.

Attractions/Features

- Ample access to Canyon Creek

Location

- ~ 7.5 miles from SR542 on USFS Road #31
- Distance from river: Adjacent to Canyon Creek
- Coordinates: 48°57'02.3"N 121°55'51.0"W
- Land Manager/Owner: US Forest Service

Access

- Distance from SR 542: ~7.5 miles
- Road Type/Surface: Paved
- Parking Available: Yes, 3-4 vehicles at junction
- Parking Pass Required: None

Recreational Opportunities

- Creek Boating
- Fishing

Amenities

- None Identified

Canyon Creek Boat Take-Out	Site #44

Site Description/Environment

A possible Canyon Creek boater take-out just below the mouth of Canyon Creek and past the Warnick Bridge on North Fork Nooksack River. Optional take-outs also available on Canyon Creek before the confluence. Parking available across highway 542 in small pullout or at the top of the road in front of locked gate.

Attractions/Features

- Ample access to North Fork Nooksack River
- Current salmon habitat rehabilitation project in effect

Location

- River mile: 51.5 – River Right
- Distance from river: Adjacent
- Coordinates: 48°54'14.9"N 121°59'33.8"W
- Land Manager/Owner: US Forest Service

Access

- Distance from SR 542: Adjacent
- Road Type/Surface: Gravel
- Parking Available: Yes, 3+ vehicles
- Parking Pass Required: None

Recreational Opportunities

- Rafting/Kayaking
- Fishing

Amenities

- None Identified

Environmental Impacts/Challenges

- None Identified

Potential Improvement

- Install boater signage
- Install "leave no trace" signage
- Install pit toilet

Thompson Creek Road Mountain Biking — Site #45

Site Description/Environment

Pullout and informal mountain biking trailhead located on Thompson Creek Road among native plant species forest. Main trail ends on Deadhorse Creek Road.

Attractions/Features

- Nearby access to Thompson Creek

Location

- ~3 miles from SR542 on Thompson Creek Road
- Distance from river: ¼ mile from Thompson Creek
- Coordinates: 48°53'34.3"N 121°52'51.6"W
- Land Manager/Owner: US Forest Service

Access

- Distance from SR 542: ~3 miles
- Road Type/Surface: Dirt/Gravel
- Parking Available: Yes, 2 vehicles
- Parking Pass Required: None

Recreational Opportunities

- Mountain Biking
- Hiking
- Mushroom Picking

Amenities

- None Identified

Environmental Impacts/Challenges

- None Identified

Potential Improvement

- More frequent organized trail maintenance

Thompson Creek Dispersed Camping — Site #46

Site Description/Environment

Dispersed camping situated among native plant species forest along Thompson Creek and very popular salmon spawning grounds.

Attractions/Features

- Access to Thompson Creek

Location

- Approximately 2.5 miles from SR542 on Thompson Creek Road
- Distance from river: Adjacent to Thompson Creek
- Coordinates: 48°53'36.4"N 121°52'59.3"W
- Land Manager/Owner: US Forest Service

Access

- Distance from SR 542: ~2.5 miles
- Road Type/Surface: Dirt/Gravel
- Parking Available: Yes, 2 vehicles
- Parking Pass Required: None

Recreational Opportunities

- Fishing
- Hiking
- Camping
- Mushroom Picking

Amenities

- Some existing firepits

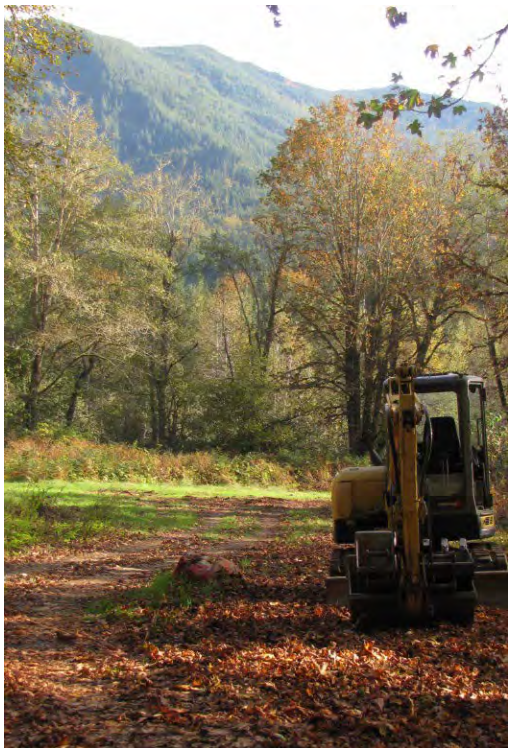
Environmental Impacts/Challenges

- Some garbage present
- Situated closely to popular salmon spawning grounds

Potential Improvement

- Install "leave no trace" signage
- Install salmon education signage

Department of Natural Resources Triangle Property — Site #47



Site Description/Environment

Triangle piece of property situated adjacent to the North Fork Nooksack River off of SR542. This property is adjacent to Whatcom Land Trust's Maple Creek Reach property and has the potential for a future boat launch/take out location for North Fork Nooksack River boating.

Attractions/Features

- Access to North Fork Nooksack River

Location

- River Right
- Distance from river: adjacent
- Coordinates: 48°55'11.8"N 122°03'56.7"W
- Land Manager/Owner: Washington State Department of Natural Resources

Access

- Distance from SR 542: adjacent
- Road Type/Surface: Dirt/Gravel
- Parking Available: Yes, 6+ vehicles
- Parking Pass Required: None

Recreational Opportunities

- Walking/Hiking
- Boating
- River viewing

Amenities

- None Identified

Environmental Impacts/Challenges

- Current construction/habitat degradation

Potential Improvement

- Install "leave no trace" signage
- Install boater launch/take-out

Nugents Corner River Access — Site #48

Site Description/Environment

A Public Works property which provides walk-in access to the North Fork Nooksack River located off SR542 at Nugent's Bridge. Area includes a picnic table, parking area and residence leased for wildlife rehabilitation purposes.

Attractions/Features

- Access to North Fork Nooksack River and town of Deming

Location

- River Right
- Distance from river: Adjacent
- Coordinates: 48°50'26.6"N 122°17'34.7"W
- Land Manager/Owner: Whatcom County Parks and Recreation

Access

- Distance from SR 542: adjacent
- Road Type/Surface: Gravel
- Parking Available: Yes, 5+ vehicles
- Parking Pass Required: None

Recreational Opportunities

- Fishing
- Sunbathing
- Wildlife Viewing
- Walking along gravel bars

Amenities

- Picnic Table
- Parking Area
- Salmon educational signage

Environmental Impacts/Challenges

- Some garbage present
- Tribal fish nets blocking fish passage in river

Potential Improvement

- Install "leave no trace" signage

Deming Homestead Eagle Park — Site #49

Site Description/Environment

Park area made up of fields and forests at the edge of North Fork Nooksack River floodplain. The greatest attraction to the park is the congregation of bald eagles feeding on spawned salmon from December through March. Conservancy property located along the shoreline of the North Fork Nooksack River accessed from Truck Road. The site has 2,500 linear feet of shoreline.

Attractions/Features

- Access to North Fork Nooksack River

Location

- River Right
- Distance from river: Adjacent
- Coordinates: 48°49'25.1"N 122°10'56.5"W
- Land Manager/Owner: Whatcom County Parks & Recreation

Access

- Distance from SR 542: 0.7 miles
- Road Type/Surface: Gravel parking
- Parking Available: Yes, 10+ vehicles
- Parking Pass Required: None

Recreational Opportunities

- Hiking
- Wildlife viewing and river access
- Fishing

Amenities

- Trailhead
- Picnic Tables
- Covered Bench
- Walking path

Environmental Impacts/Challenges

- Some garbage present

Potential Improvement

- Install "leave no trace" signage
- Install salmon educational signage

Bottiger's Pond	Site #50

Site Description/Environment

A Whatcom Land Trust owned pond situated among Nooksack cattails and stands of alder. The pond is located within a mature wetland that hosts several species, including beaver and a variety of amphibians.

Attractions/Features

- Access to Bottiger's Pond, Cornell Creek and North Fork Nooksack River

Location

- River Left
- Distance from river: ~1/4 mile
- Coordinates: 48°53'40.1"N 121°57'31.1"W
- Land Manager/Owner: Whatcom Land Trust

Access

- Distance from SR 542: Adjacent
- Road Type/Surface: Gravel/Dirt
- Parking Available: Limited, 1 vehicle
- Parking Pass Required: None

Recreational Opportunities

- Canoeing
- Beaver/Amphibian viewing
- Hiking
- Day-use

Amenities

Environmental Impacts/Challenges

- None Identified

Potential Improvement

- Extend parking pullout

Maple Creek Park	**Site #51**

Site Description/Environment

A 73-acre park that leads from the town of Maple falls to the Glacier trail through forested areas, pasture land and a series of small waterfalls.

Attractions/Features

- Access to Maple Creek
- Well established trail through park

Location

- River Right
- Distance from river: Adjacent to Maple Creek
- Coordinates: 48°55'34.5"N 122°04'36.8"W
- Land Manager/Owner: Whatcom County Parks and Recreation

Access

- Distance from SR 542: Adjacent
- Road Type/Surface:
- Parking Available:
- Parking Pass Required:

Recreational Opportunities

- Hiking
- Biking
- Scenic waterfall/creek viewing

Amenities

- Bridge crossing Maple Creek

Environmental Impacts/Challenges

- None Identified

Potential Improvement

- Install "leave no trace" and salmon educational signage

Middle Fork Nooksack River

Middle Fork Mosquito Lake Road Bridge	Site #52

Site Description/Environment

Parking area and potential boat launch point/take out below bridge. Includes ample space for parking and easy access to the river. Surrounded by both invasive and native plant species/shrubs and includes manmade boulder shoreline.

Attractions/Features

- Access to Middle Fork Nooksack River

Location

- River Left
- Distance from river: Located above river
- Coordinates: 48°47'08"N, 122°06'46"W
- Land Manager/Owner: Whatcom County Public Works

Access

- Distance from SR 542: ~5.5 miles
- Road Type/Surface: Dirt/Gravel
- Parking Available: Yes, 5+ vehicles
- Parking Pass Required: None

Recreational Opportunities

- Fishing
- Boating
- Day use/camping

Amenities

- None Identified

Environmental Impacts/Challenges

- Large amounts of trash present
- Human waste present

Potential Improvement

- Post "leave no trace" signage
- Provide trash receptacles

Middle Fork Diversion Dam & Boat Launch — Site #53

Site Description/Environment

Partial Middle Fork Nooksack River blockage due to diversion dam installed by the city of Bellingham to divert water into Lake Whatcom, Bellingham's drinking water supply. Located in a steep, narrow gorge surrounded by forested slopes and a cobble streambed. Requires ~.75 mile walk down to dam from top of gated road and parking area. Potential boat launch below dam for class V whitewater run to Mosquito Lake Road bridge.

Attractions/Features

- Access to Middle Fork Nooksack River
- Dam viewing

Location

- Boater launch – river left
- Distance from river: Located on river
- Coordinates: 48°46'17.4"N 122°04'24.1"W
- Land Manager/Owner: City of Bellingham

Access

- Distance from SR 542:
- Road Type/Surface: Dirt/Gravel
- Parking Available: Yes, 3+ vehicles at gate
- Parking Pass Required: None

Recreational Opportunities

- Whitewater boating
- Dam viewing
- Hiking

Amenities

- None Identified

Environmental Impacts/Challenges

- Barrier to fish passage and navigation

Potential Improvement

- Remove diversion dam
- Install salmon educational signage

Elbow Lake Trailhead	Site #54

Site Description/Environment

Trail what winds through forest and mountain lakes and eventually terminates at the Middle Fork Nooksack River. Trailhead is accessed via Highway 9 to Mosquito Lake Road and 11 miles on USFS Road #38. Currently the lake can only be accessed from Baker Lake due to bridge washout on Middle Fork Nooksack River side.

Attractions/Features

- Access to Middle Fork Nooksack River and Green Creek

Location

- Distance from river: Adjacent to Green Creek - River right of Green Creek
- Coordinates: 48°44'12.3"N, 121°55'51.9"W
- Land Manager/Owner: US Forest Service

Access

- Distance from Highway 9: ~20 miles
- Road Type/Surface: Dirt/Grass
- Parking Available: Yes
- Parking Pass Required: None

Recreational Opportunities

- Fishing
- Hiking

Amenities

- None Identified

Environmental Impacts/Challenges

- None Identified

Potential Improvement

- Install pit toilet
- Re-install bridge access to Middle Fork side

South Fork Nooksack River

Wanlick Creek	Site #55

Site Description/Environment

Located within a gently sloped valley, the creek is host to a mix of native fishes and is known as an excellent aquatic environment to sport fisherman. Trailhead accessed via Pioneer camp.

Attractions/Features

- Access to Wanlick Creek and South Fork Nooksack River.

Location

- River Left
- Distance from river: Adjacent
- Coordinates: 48°38'44.4"N 121°52'33.5"W
- Land Manager/Owner: US Forest Service

Access

- Distance from Highway 9: ~20 miles
- Road Type/Surface: Dirt/Gravel
- Parking Available: N/A
- Parking Pass Required: N/A

Recreational Opportunities

- Fishing
- Hiking

Amenities

- None Identified

Environmental Impacts/Challenges

- None Identified

Potential Improvement

- None Identified

Larson's Bridge/Boat Launch — Site #56

Site Description/Environment

A bridge that allows access to the South Fork Nooksack River and possible boat launch. Boating run includes class 2+ rapids among gravel bar river and two black rock gorges through a scenic, undeveloped forest valley. Access to this run is currently closed due to the fact that it runs through private timber land and is gated to prevent vandalism.

Attractions/Features

- Access to South Fork Nooksack River

Location

- River mile: 25
- Distance from river: Bridge located above river
- Coordinates: 48°36'36.9"N 122°04'53.7"W
- Land Manager/Owner: Private timber

Access

- Distance from Highway 20: ~9.9 miles
- Road Type/Surface: Dirt/Gravel
- Parking Available: Yes, 5+ vehicles
- Parking Pass Required: None

Recreational Opportunities

- Boating
- River viewing

Amenities

- None Identified

Environmental Impacts/Challenges

- None Identified

Potential Improvement

- None Identified

200 Bridge (up-river of Larson's Bridge) | Site #57

Site Description/Environment

A bridge that allows access to the South Fork Nooksack River and possible boat launch. Boating run includes class 2+ rapids among gravel bar river and two black rock gorges through a scenic, undeveloped forest valley. Access to this run is currently closed due to the fact that it runs through private timber land and is gated to prevent vandalism.

Attractions/Features

- Access to South Fork Nooksack River

Location

- River mile: 20
- Distance from river: Bridge located above river
- Coordinates: 48°35'54.2"N 122°00'43.1"W
- Land Manager/Owner: Private timber

Access

- Distance from Highway 20: ~13 miles
- Road Type/Surface: Gravel
- Parking Available: Yes, 5 vehicles
- Parking Pass Required: None

Recreational Opportunities

- Boating
- River viewing

Amenities

- None Identified

Environmental Impacts/Challenges

- None Identified

Potential Improvement

- None Identified

Saxon Bridge	Site #58

Site Description/Environment

Potential boater take-out point for floating the class 2+ sections of whitewater on the South Fork Nooksack River. Accessed via Highway 9 and 1.5 miles out Saxon Road. Conveniently access river at the beach after crossing Saxon bridge.

Attractions/Features

- Access to South Fork Nooksack River

Location

- River mile: ~37 – river right
- Distance from river: Directly above
- Coordinates: 48°40'40.3"N 122°09'57.1"W
- Land Manager/Owner: US Forest Service

Access

- Distance from Highway 9: ~2.5 miles to launch point
- Road Type/Surface: Gravel
- Parking Available: Yes, 10+ vehicles
- Parking Pass Required: None

Recreational Opportunities

- Boating
- Fishing

Amenities

- None Identified

Environmental Impacts/Challenges

- None Identified

Potential Improvement

- None Identified

Mouth of Skookum Creek — Site #59

Site Description/Environment

The mouth of Skookum Creek is situated just above the Skookum Creek Hatchery on the South Fork Nooksack River. The creek is host to native salmon and is currently a large part of the South Fork Nooksack Chinook salmon recovery program. The creek also offers class IV whitewater boating from the upper gorge to the mouth of the creek (for experienced boaters only)

Attractions/Features

- Whitewater Kayaking
- Hiking
- River/Creek access

Location

- River mile: 14 – River Right
- Distance from river: Adjacent to Skookum Creek
- Coordinates: 48°40'16.4"N 122°08'30.4"W
- Land Manager/Owner: Whatcom Land Trust

Access

- Distance from Highway 9: ~3.5 miles
- Road Type/Surface: Dirt/Gravel
- Parking Available: N/A
- Parking Pass Required: None

Recreational Opportunities

- Fishing
- Hiking
- Equestrian Recreation

Amenities

- None Identified

Environmental Impacts/Challenges

- Gold panning affects salmon spawning

Potential Improvement

- Install salmon education signage
- Install "leave no trace" signage

Pioneer Camp	Site #60

Site Description/Environment

A one acre clearing at the end of USFS Road #12 that serves as parking and camping for Elbow Lake Trailhead (Northbound) and South Fork Nooksack Trail (Southbound). Includes a grassy opening surrounded by forest.

Attractions/Features

- Trailhead for Elbow Lake Trail & South Fork Nooksack Trail
- PNTA designated segment
- Open for camping

Location

- River Left
- Distance from river: ~1/4 mile
- Coordinates: 48°40'47.8"N 121°53'50.4"W
- Land Manager/Owner: US Forest Service

Access

- Distance from Highway 9: ~20 miles
- Road Type/Surface: Dirt/Grass
- Parking Available: Yes, 20+ vehicles
- Parking Pass Required: None

Recreational Opportunities

- Day Hike
- Horseback travel
- Camping

Amenities

- Informal Fire Ring

Environmental Impacts/Challenges

- Remote site for Forest Service management and maintenance

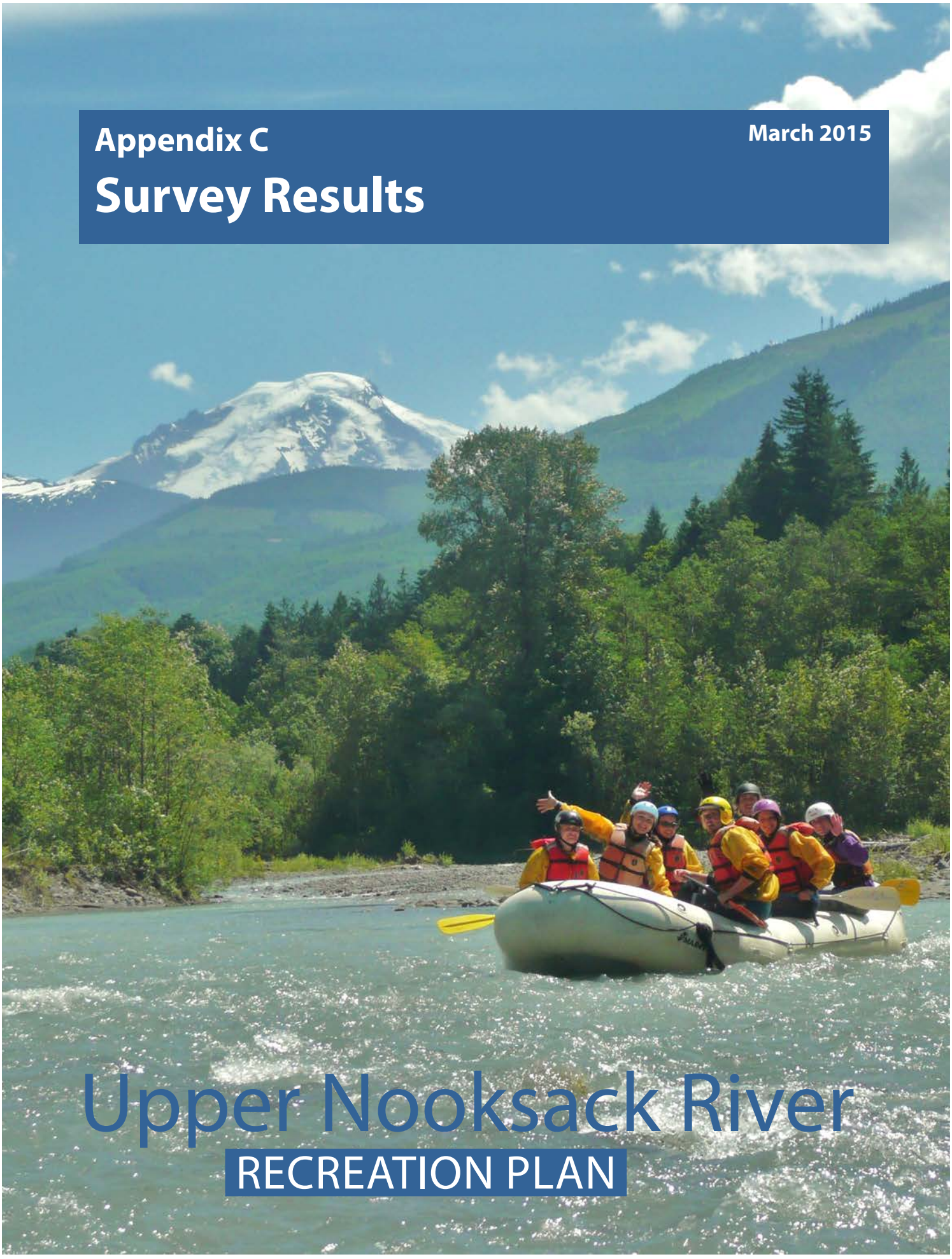
Potential Improvement

- Update listed trail mileage info.
- Add map to kiosk information
- Add trail register

Appendix C

Survey Results

March 2015



Upper Nooksack River

RECREATION PLAN

Appendix C

Survey Results

Table of Contents

Survey Overview

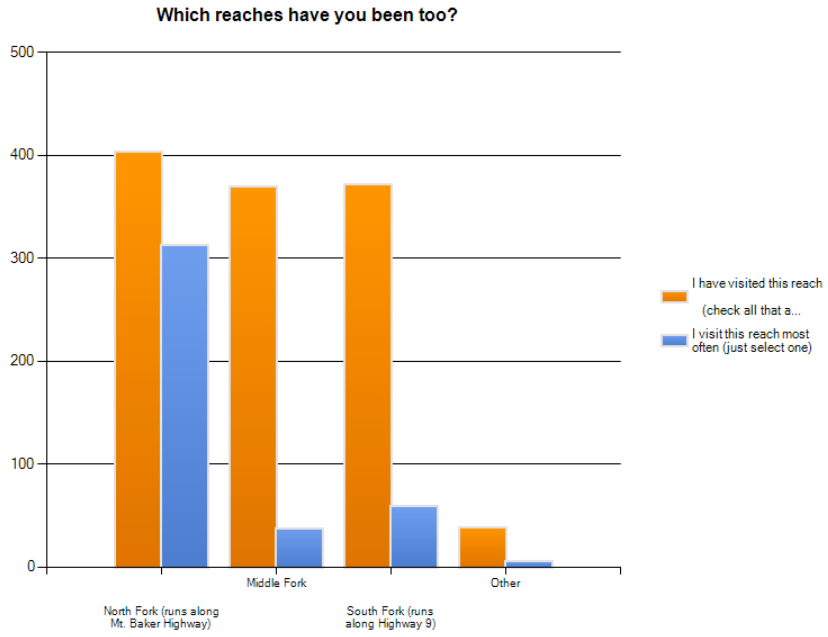
The North, Middle, and South forks of the Nooksack Basin offer a wide variety of high quality recreation opportunities within easy reach of Bellingham, Whatcom County, and British Columbia. Local residents and visitors alike are attracted to the diverse recreation opportunities in the remote, yet accessible, pristine wilderness setting. Outdoor enthusiasts enjoy scenic hiking and horse-packing trails, challenging mountain biking and mountaineering trails, idyllic riverside campsites and picnic areas, fantastic fishing, world-class whitewater boating, and incredible cross country and alpine skiing opportunities.

This survey was conducted as part of a larger planning effort led by American Rivers in partnership with the United States Forest Service, American Whitewater, and Whatcom County Parks and Recreation. Technical assistance is being provided by the National Park Service's Rivers, Trails, and Conservation Assistance Program. An Advisory Committee has been formed to help guide development of the planning process. The purpose of the upper Nooksack River recreation planning effort is to provide guidance and clear recommendations for managing recreation use in the upper watersheds while at the same time protecting and restoring streamside and riverine habitat for fish and wildlife. As population, recreation use, and the demand on natural resources continue to grow, the Advisory Committee seeks to develop a management strategy that will provide high quality recreational experiences while protecting our treasured natural and cultural resources.

This survey was released to gather input from the public on where they go and what activities they do when they visit the upper Nooksack River basin; what they value about the Nooksack; issues and problems they have encountered; and what their vision is for the future. These results are helping to inform the recommendations outlined in the Upper Nooksack River Recreation Plan.

The survey was internet based and ran from August to December 2013. It was promoted on American River's website, American Whitewater's website, and the online Fish Whatcom Forum, as well as in the Nooksack Salmon Enhancement Association's (NSEA's) e-newsletter, through several social media releases, and at an Open House held in November. A number of other recreation and environmental organizations also spread the word about the survey to their membership networks. The survey did not use random sampling, and so does not represent a random sampling of the general population. There were 552 people who responded to the survey. Though not a random sample of visitors, the results illustrate the types of recreation activities people engage in, what values are important and unique to the Nooksack River basin, issues recreationists encounter, and a range of recommendations desired in the future.

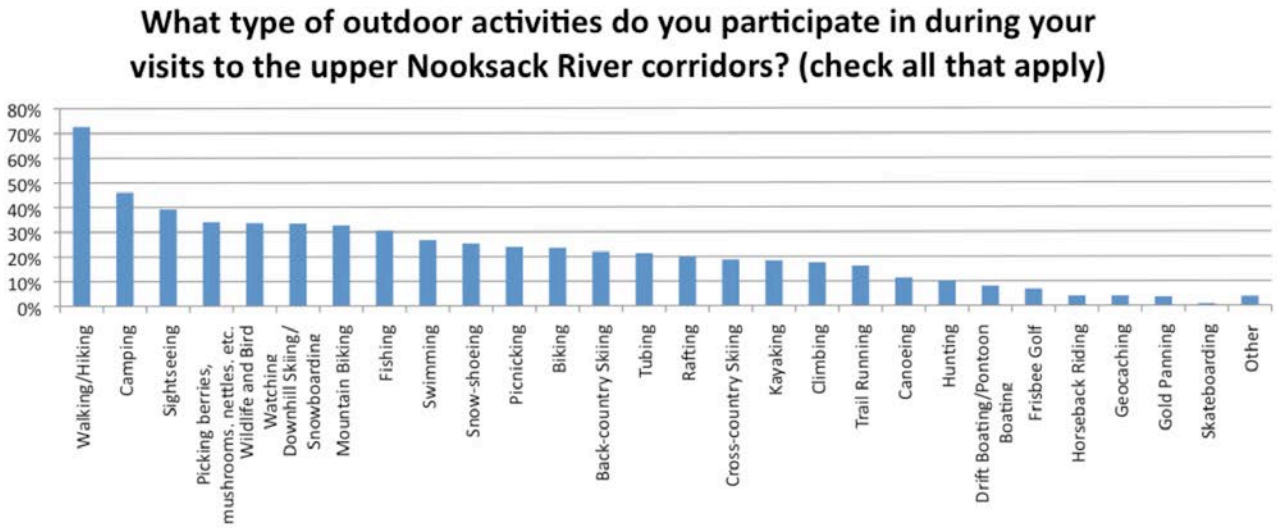
Part I: Where People Go and What Activities They Engage In



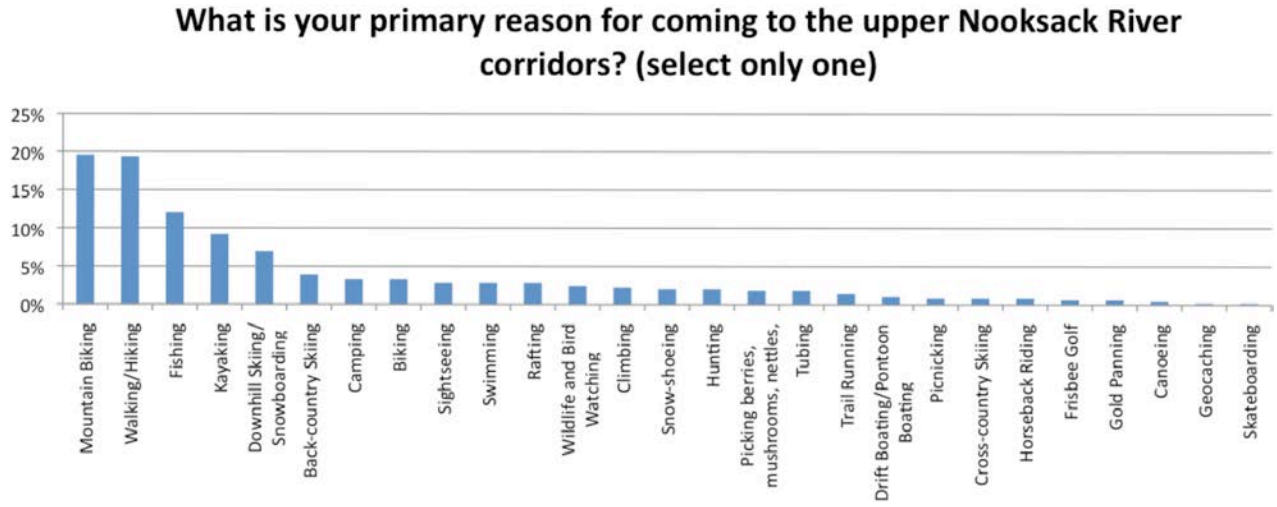
Visitation by Reach (505/529 responded)

Participants were asked to identify which of the three forks they had been to and which of the three forks they visited most often. The majority of participants had been to all three forks as indicated in the orange bars above, with the North Fork receiving the most frequent use. These results are consistent with use patterns in the three forks.

Recreation Activities (490/529 responded)



Respondents were asked what activities they participated in during visits to the upper Nooksack River basin. People participated in a wide range of activities; Walking/Hiking being the most common activity with 73% of respondents enjoying this type of recreation. The next most common activities were Camping (46%) and Sightseeing (39%). Picking berries and mushrooms, Wildlife and Bird Watching, Downhill Skiing/Snowboarding, Mountain Biking, and Fishing all received 30% to 34%. Swimming, Snowshoeing, Picnicking, Biking, Back-country Skiing, Tubing, and Rafting all received between 20 to 27%. Cross-county Skiing, Kayaking, Climbing, and Trail Running received 16% to 19% of the response. Canoeing, Hunting, Drift Boating/Pontoon Boating, and Frisbee Golf had 7 to 11% participation. Horseback Riding, Geocaching, Gold Panning, and Skateboarding had less than 5% participation by survey respondents. Participants also noted that they lived or worked in the area, in addition to listing other activities they enjoyed in the upper Nooksack River basin, including relaxation, meditation, photography, snowmobiling, and 4X4 ORVing.



Participants were also asked to identify the recreational activity that primarily draws them to the Nooksack River basin. While many participants engaged in many different activities during their visits the primary reason they came to the Nooksack were:

- Hiking and Mountain Biking (19% each)
- Fishing and Whitewater Boating (both kayaking and rafting) (12% each)
- Downhill Skiing/Snowboarding (7%)
- Back-country Skiing (4%)

Other activities received 1 to 3% of respondents indicating that this activity was the primary reason they came to the Nooksack River basin, including Camping, Biking, Sightseeing, Swimming, Wildlife and Bird Watching, Snow-shoeing, Hunting, Picking berries, Tubing, Trail Running, Drift Boating, Picnicking, Cross-country Skiing, Horseback Riding, Frisbee Golf, and Gold Panning.

Favorite Places and Why? (368/529 respondents)

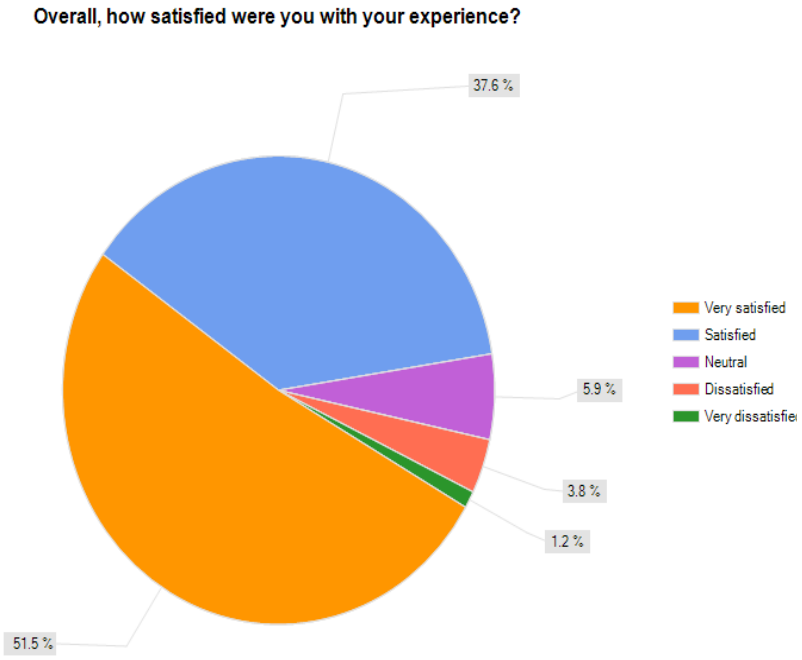
In an open-ended format, people were asked what their favorite place in the Nooksack River basin is and why they love it so much. There were 368 responses and over 90 different places identified as being an individual's favorite location. Many respondents listed multiple locations and some respondents said there were too amazing many places to list a favorite spot.

The ten most common responses were:

- North Fork/Slide Mountain – mountain biking (currently closed)
- North Fork (Horseshoe Bend to Maple Falls) – whitewater boating
- Artist Point – scenic, easy access, hiking, backcountry skiing
- North Fork Nooksack River
- North Fork – hiking
- Mt. Baker – climbing, skiing
- North Fork (confluence with the mainstem to Maple Falls) – fishing
- Heather Meadows – scenery, hiking, backcountry skiing
- Twin Lakes
- Glacier Mountain Biking Trails
- Skyline Divide Trail

Part II: Quality of Experiences: Satisfaction, What People Value and Why They Come

Satisfaction (425/529 responded)

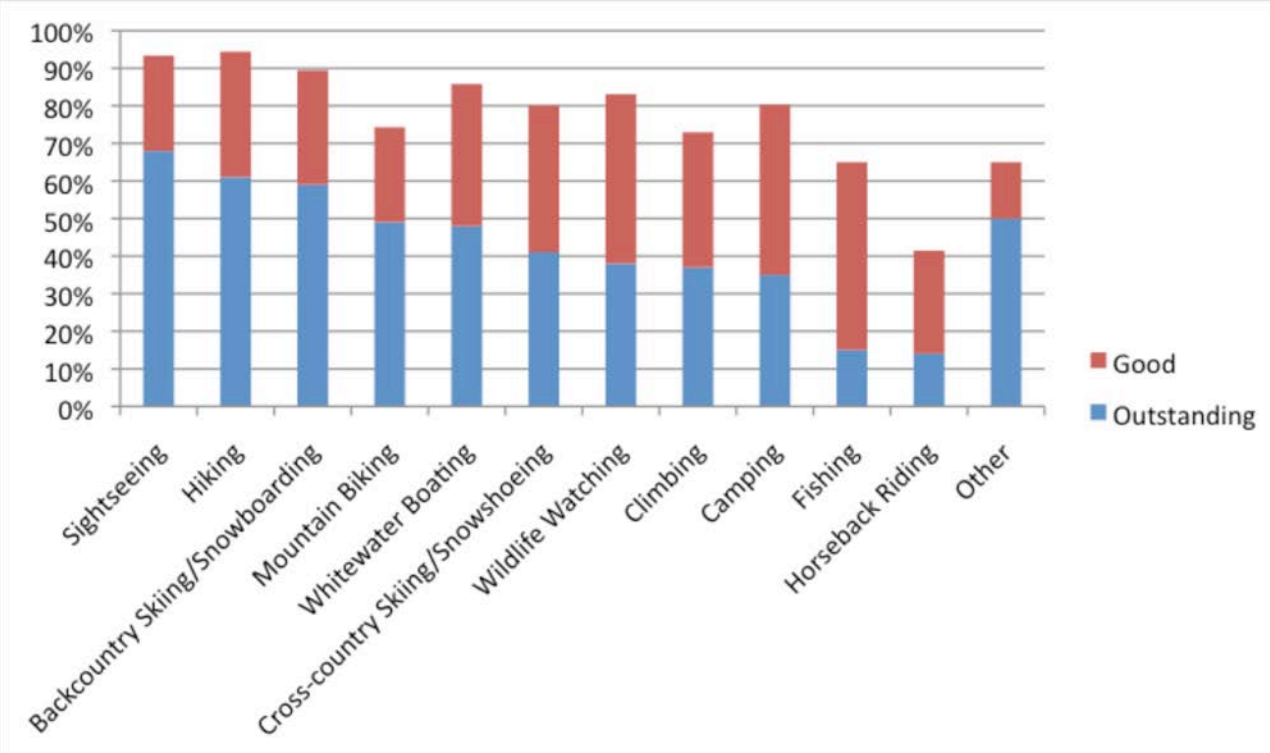


Participants were asked to rate how satisfied they were with their experiences in the upper Nooksack Basin. As the chart shows, people are generally satisfied with their experiences. Over 89% stated they were satisfied or very satisfied with their experience. Only 5% of respondents indicated that they were dissatisfied or very dissatisfied.

Quality Ratings (469/529 responded)

Please rate your experiences with the following types of activities based on the recreational and aesthetic qualities of the experience.

Activity	Outstanding	Good	Neutral	Fair	Poor
Sightseeing	68%	25%	5%	1%	1%
Hiking	61%	33%	3%	2%	0%
Backcountry Skiing/Snowboarding	59%	30%	8%	1%	2%
Mountain Biking	49%	25%	11%	5%	10%
Whitewater Boating	48%	38%	8%	4%	2%
Cross-country Skiing/Snowshoeing	41%	39%	13%	2%	4%
Wildlife Watching	38%	45%	13%	3%	1%
Climbing	37%	36%	18%	2%	7%
Camping	35%	45%	15%	3%	1%
Fishing	15%	50%	16%	12%	7%
Horseback Riding	14%	27%	39%	8%	12%
Other	50%	15%	5%	0%	30%



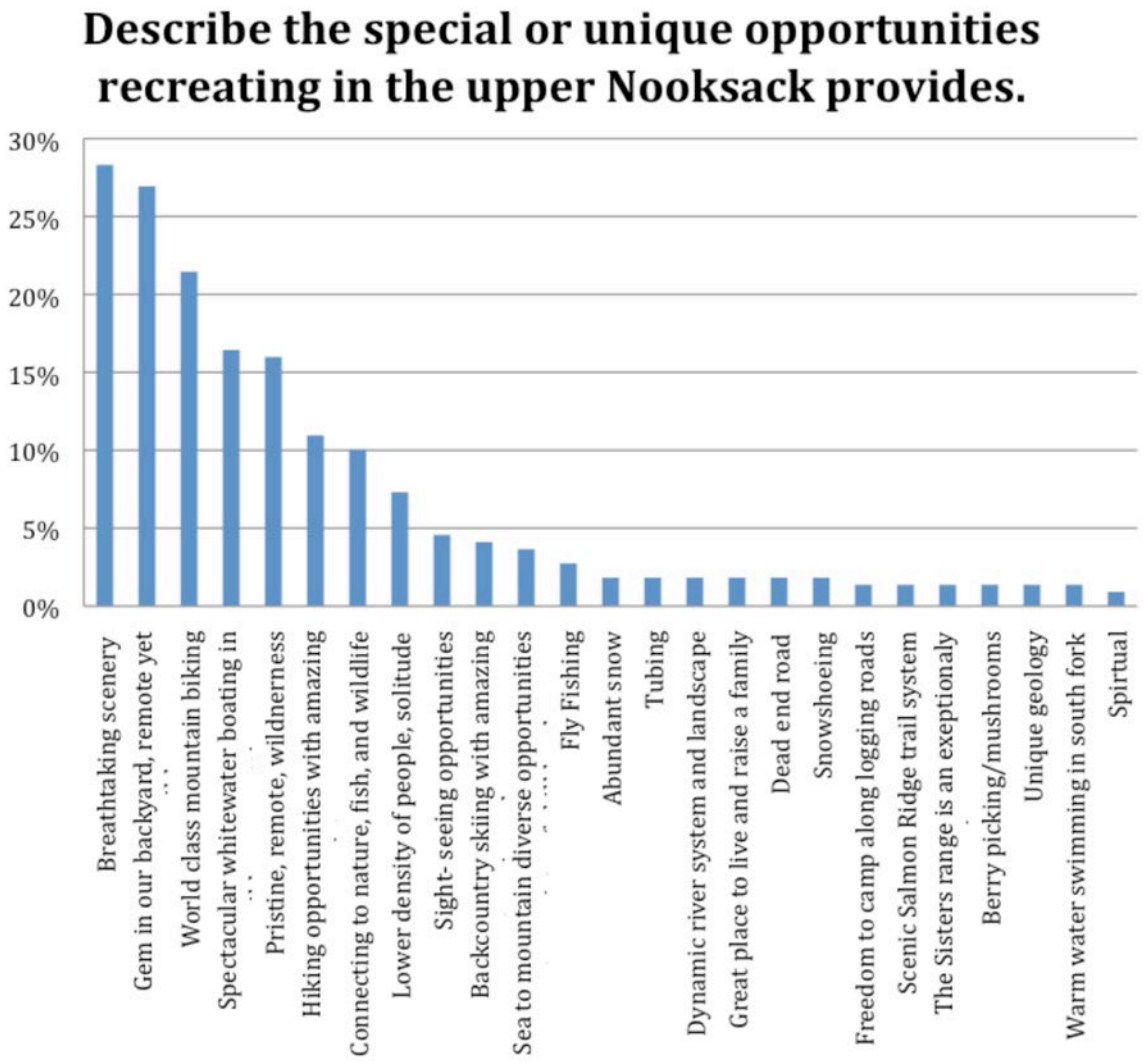
Participants were asked to rate the quality of their experiences. Many of the activities received high ratings in the outstanding and good categories. Few responses were in the fair or poor categories.

The top rated activities were:

- Sightseeing: 68% rated it as outstanding; 93% rated it as good or outstanding
- Hiking: 61% rated it as outstanding; 94% rated it as good or outstanding
- Backcountry Skiing/Snowboarding: 59% respondents rated it as outstanding; 89% as good or outstanding
- Mountain Biking was rated by 49% as outstanding; by 74% as good or outstanding
- Whitewater boating was rated by 48% as outstanding; by 96% as good or outstanding

Cross-country Skiing/Snowshoeing, Wildlife Watching, Climbing, and Camping received a good or outstanding rating by 73 to 83% of people. Fishing and Horseback Riding received the lowest outstanding ratings with 15% and 14% respectively. Fishing still had 65% of people rating it as good or outstanding and horseback riding had 41% of participants' rate this activity as good or outstanding. People also wrote in responses in the other option including excellent hang gliding and paragliding, motorcycle riding, backpacking, photography, road biking, scenery, snowmobiling, snowshoeing, tubing, and gold panning.

Special and Unique Values of the Nooksack (219/529 responded)



In an open-ended question format, participants were then asked to describe the special or unique opportunities recreating in the upper Nooksack provides. Participants expressed many heart-felt sentiments about why they value the Nooksack Basin. The chart above shows a tally of some of the more common responses. Please note the percentages are based on the number of respondents to this question and 219 people responded to this open-ended question.

The most common reasons include:

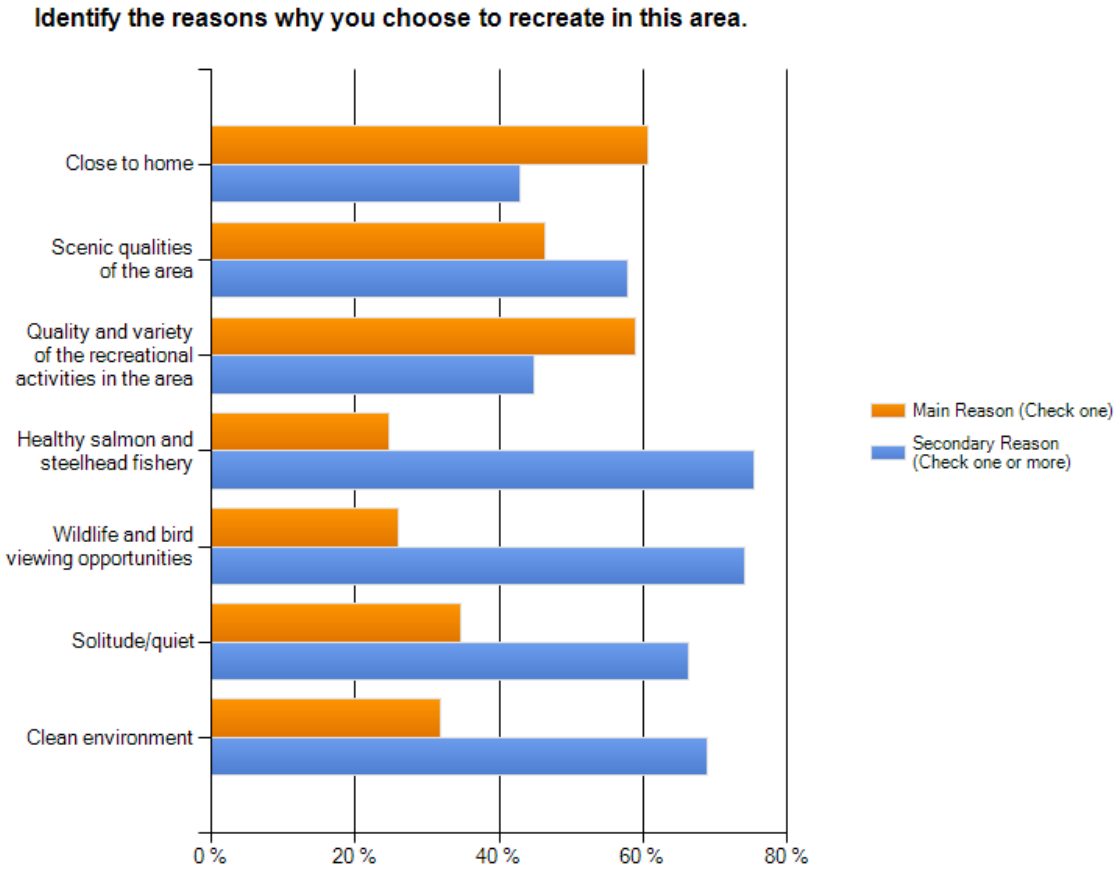
- Breathtaking scenery (28%)
- Gem in our backyard that is remote yet accessible (27%)
- World-class mountain biking (21%)
- Spectacular whitewater boating (16%)
- Pristine, remote, wilderness (16%)
- Hiking opportunities with amazing vistas (11%)

- Connecting to nature, fish, and wildlife (10%)
- Solitude and lower density of people (7%)
- Sightseeing opportunities (5%)
- Backcountry skiing with amazing terrain and access (4%)

Individual responses spoke of the connection people felt with the Nooksack Basin and the quality of the recreational experiences and natural beauty. Below is a sampling of the quotes from individual responses passionate about what the Nooksack Basin means to them.

- "I love the natural setting of the upper Nooksack - beautiful rivers and streams surrounded by dense forests and towering peaks. The number of outdoor activities one can participate in within the upper Nooksack watershed - from whitewater kayaking to mountain biking to skiing, hiking and watching wildlife - is truly outstanding, and is one of the major reasons why I choose to live in this part of the state."
- "The Nooksack basin, particularly the North and South Fork, have an incredible ability to make you feel like you are deep in the wilderness, despite being a mile or even just a hundred feet from the road. The density of the forests and the sounds of the river just give a feeling of isolation that is very unique to this area."
- "I love the fact that I can be in an area that totally feels wild in less than 2 hours from Bellingham."
- "The upper Nooksack provides in many aspects a way for me to balance my mind and life. It is one of the largest sources of enjoyment I find in my life. I intend to raise my family with this natural resource as a cornerstone."
- "The tranquility and relative ease to get away from the population will always rank highest in my experience rating. The terrain is impossible to replicate and the views are amazing."
- "Mountain biking in the North Fork region is absolutely second to none to other trails I've ridden around the world. The terrain, fall lines and foliage make for phenomenal conditions. The amount of tourism dollars that could come from legal trails in this region is monumental."
- The Salmon Ridge trail system is the only groomed cross-country ski area in NW WA. It is the most scenic WA State Snow-Park where folks can ski or snowshoe. The scenic views from White Salmon Road of the mountains and the new Bagley Creek Bridge over a canyon with a cascading waterfall are unmatched in other Snow-Parks in the state.
- "I'm constantly amazed that, living in a fairly densely populated area, we can, within an hour, hike in relative solitude with both microcosmic and macrocosmic views that are some of the most beautiful in the world. We are lucky to have had the foresight to take care of these areas."
- "The hiking opportunities are tremendous and the vistas amazing."

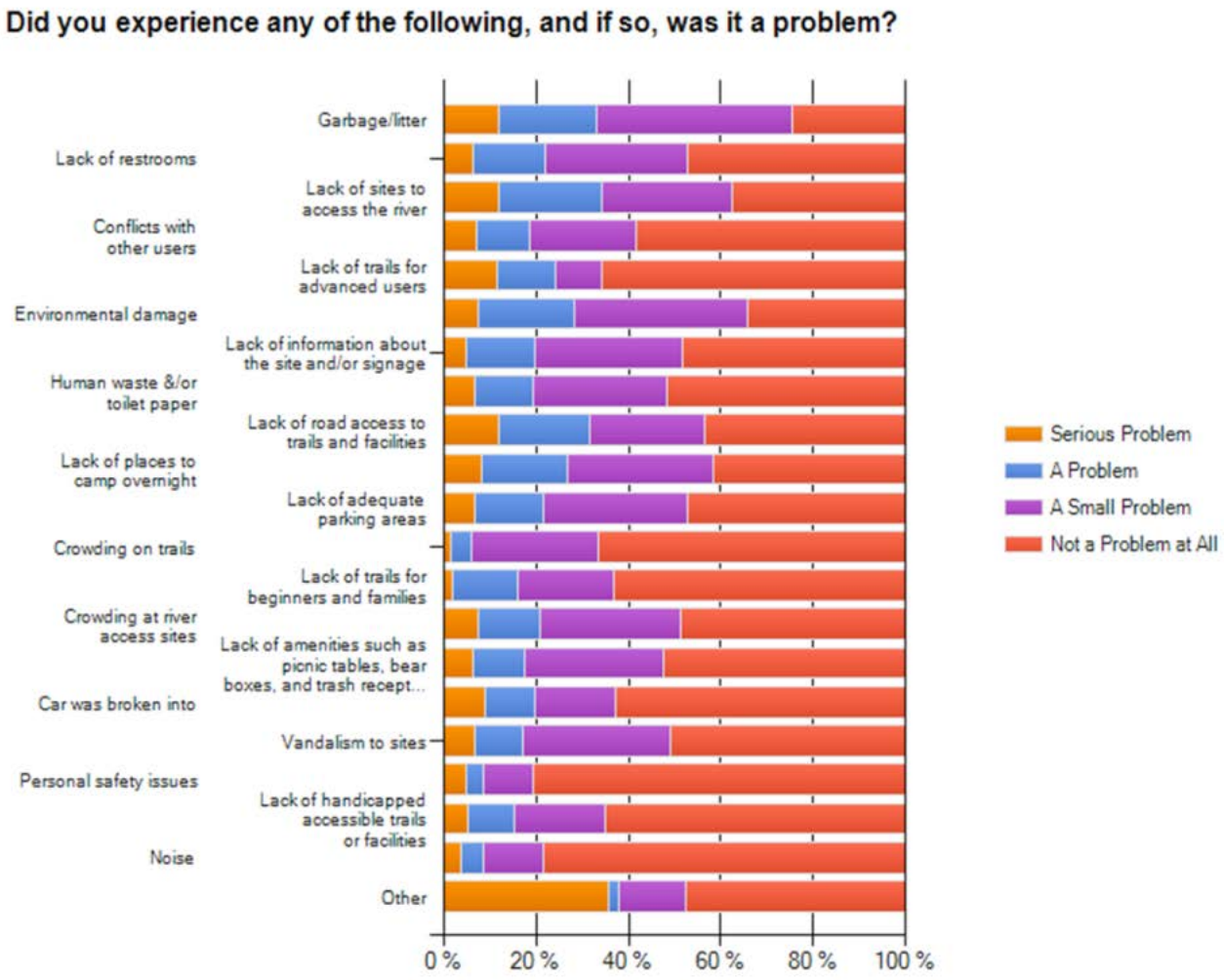
Why They Come (439/529 responded)



Participants were asked to identify their primary and secondary reasons for recreating in the area. As can be seen in the chart above, the primary reasons were that the river is close to home (60%), the quality and variety of the recreational activities in the area (59%), and the scenic qualities of the area (46%). Secondary reasons included the healthy salmon and steelhead fishery (75%), wildlife viewing opportunities (74%), clean environment (69%), and solitude/quiet (66%). Participants also wrote in their own responses, the most common being that they come to the Nooksack River because they live there/ family connections or because of a specifically listed recreation activity.

Part III: Concerns, Conflicts, and Crowding

Problems and Concerns (414/529 responded)



Participants were asked if they experienced a range of potential issues and to rate if any were a problem for them. As displayed in the chart on the previous page, only a small percentage of respondents rated any problems as serious. More issues were rated as a problem or a small problem. The table below highlights the top concerns.

Issue	Serious problem	Problem or serious problem cumulative results	A small problem, a problem, or a serious problem cumulative results
Garbage/litter	12%	33%	76%
Lack of access sites to the river	12%	34%	63%

Lack of road access to trails and facilities	12%	32%	56%
Lack of advanced trails	12%	24%	34%
Car was broken into	9%	20%	37%
Environmental damage	8%	28%	66%
Lack of places to camp	8%	27%	58%

Individuals also wrote in other responses including:

- Closure of mountain biking trails on Slide Mountain and lack of advanced trails
- Improper use of firearms
- Noise
- Tubing (poor behavior by users, alcohol, trespassing, crowding, tickets from Sheriffs)
- Lack of take-outs for boaters
- Loss of trails and lack of trail maintenance
- Lack of road access
- Illegal netting of fish and lack of fish
- Human waste issues at dispersed campsites
- Logging
- Dogs off leash
- Lack of trails to the river
- Lack of access for drift boats on the North and South forks
- Threat of dams
- Lack of ORV trails

Conflicts (91/529 responded)

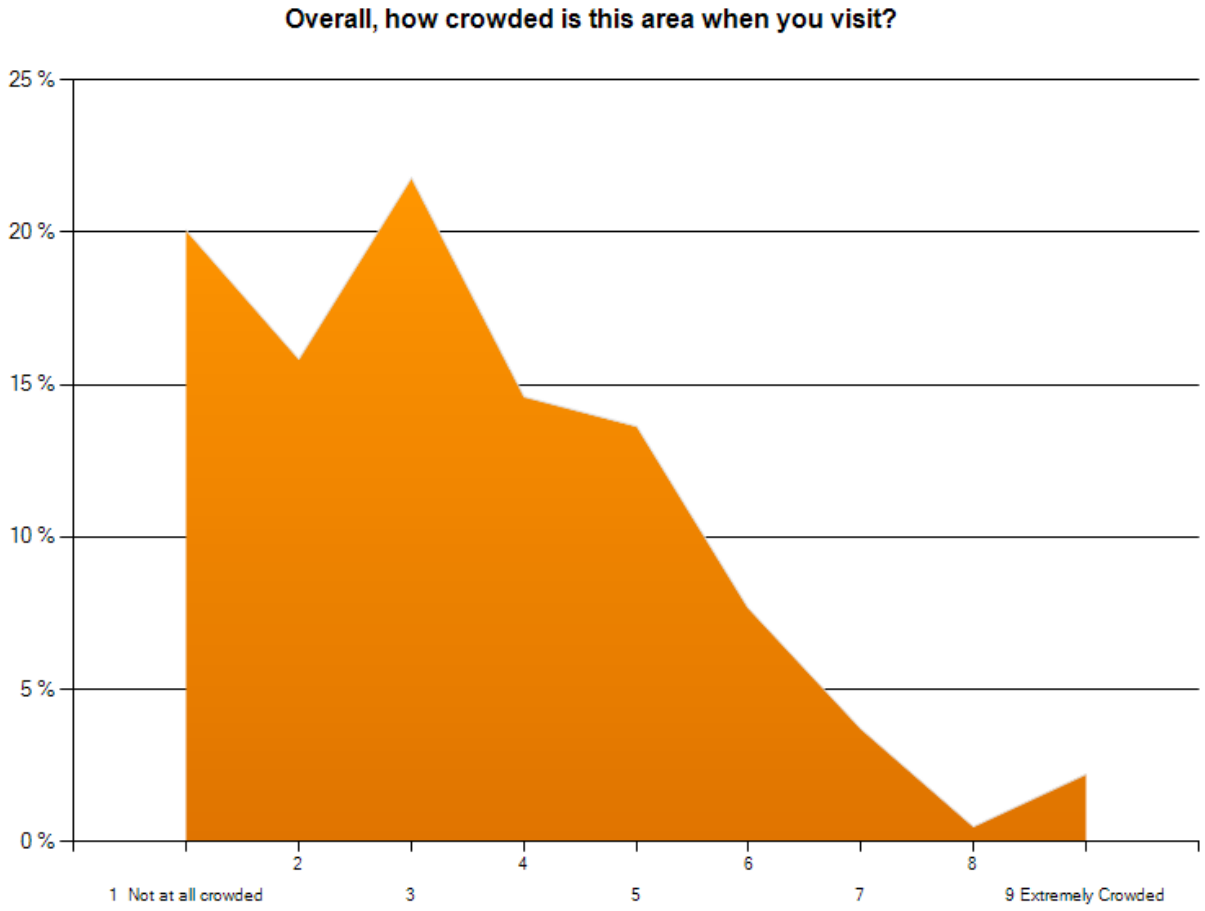
Participants were also asked a follow-up open-ended question; to describe any conflicts they had experienced. Only 91 people provided input to this question. The most common types of conflicts or issues that were identified are listed below:

- Target shooters/hunters
- Trash
- Car break-ins and theft
- Tubers (trespassing, drunkenness, trash)

- Snowmobilers in wilderness
- ORV use
- Road closures
- Inadequate parking for boater take-outs below Douglas Fir Campground
- Conflicts with mountain bikers and hikers/horsemen
- Snowshoe etiquette (staying off groomed trails)

The most common complaint was regarding the use of fire arms for target shooting and the trash left by these users. Respondents often cited the lower North Fork area as a place commonly used for this activity.

Crowding (404/529 responded)



Participants were asked to identify how crowded they felt on a 9 point scale ranging from "Not at all crowded" (1) to "Extremely Crowded" (9). This assessment of crowding includes descriptive information (number of people experienced by the participant) and evaluative information (how the participant feels about the number of people they encountered). This method is based on research and it is intended to measure perceived crowding (Heberlein & Vaske, 1977). Two of the nine scale points on the crowding scale label the situation as uncrowded while the remaining seven points label it as crowded to some degree. This scale is often analyzed collapsing the data into two categories; "Not Crowded" (scale

points 1 and 2, positive evaluation) and a combined response of those who labeled their experiences as "Slightly, Moderately or Extremely Crowded" (scale points 3-9, negative evaluation). Based on research, the following table illustrates the five "rule-of-thumb" categories of crowding (Shelby, et al., 1989) (Whittaker, et al., 2010).

Carrying capacity judgments based on levels of perceived crowding

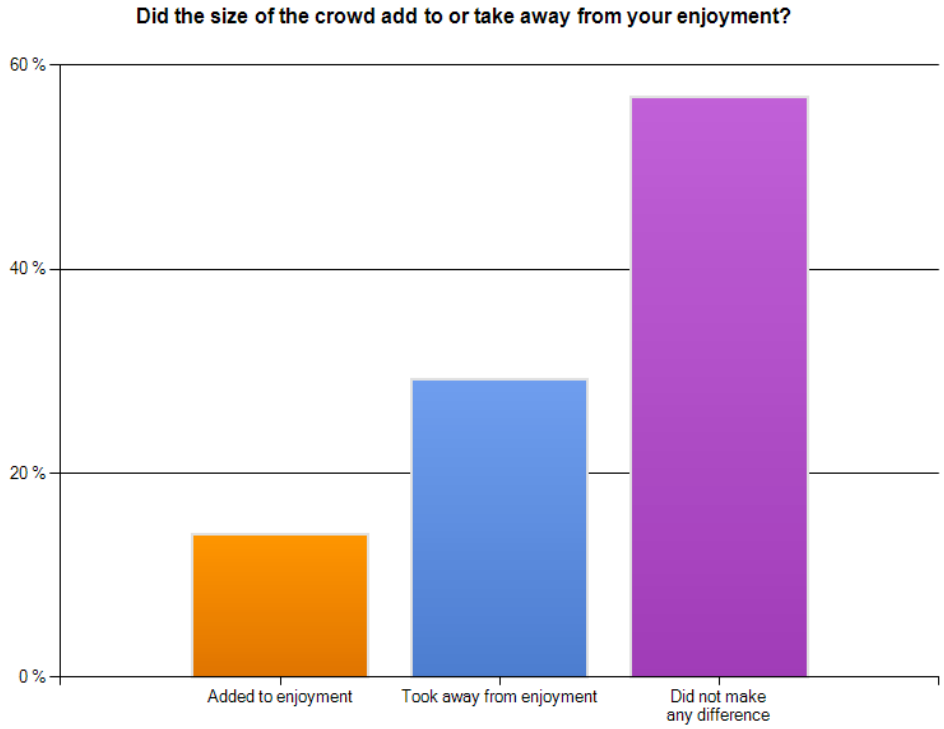
% Feeling Slightly to Extremely Crowded	Crowded Capacity Judgment	Comments
0- 35%	Very Low Crowding	Crowding usually limited by management or situational factors (remote location, difficult access, or permit programs).
35% - 50%	Low Normal	Problems are unlikely to exist; may offer important low density opportunities.
50% - 65%	High Normal	Studies or focused management attention may be needed if increased use is expected, allowing management to anticipate problems.
65% - 80%	Over Capacity	Studies & management probably necessary to preserve experiences; increased use is likely to change types of opportunities available.
80% - 100%	Greatly Over Capacity	Impacts and crowding-related problems are likely; manage for high-density recreation or reduce use to provide higher quality.

Source: Shelby, Vaske, & Heberlein (1989)

Survey participants were asked to rate their perceived crowding levels based on their experiences in the upper Nooksack River basin. Sixty-four percent of respondents indicated they felt some level of crowding (Slightly to Extremely Crowded), and this fits in the High Normal category. The mean crowding rating was 3.4, which represents a slightly crowded category.

It is important to note that the area is quite large and different areas represent different density levels. In addition, participants also visit during different levels of density. For example, some visitors come during peak summer weekends and others visit during the weekdays. This assessment of crowding is a very general one. More detailed reach and/or site specific data is needed to determine areas needing more attention. Other open-ended questions indicated that there are some areas that may need to be consider for further study, including trails in the upper reach of the North Fork Nooksack River, fishing activity in the lower North and South forks, lower South Fork tubing activity, lack of camping facilities, and some crowding at river access sites along the North Fork.

Evaluation of Crowding (394/529 responders)

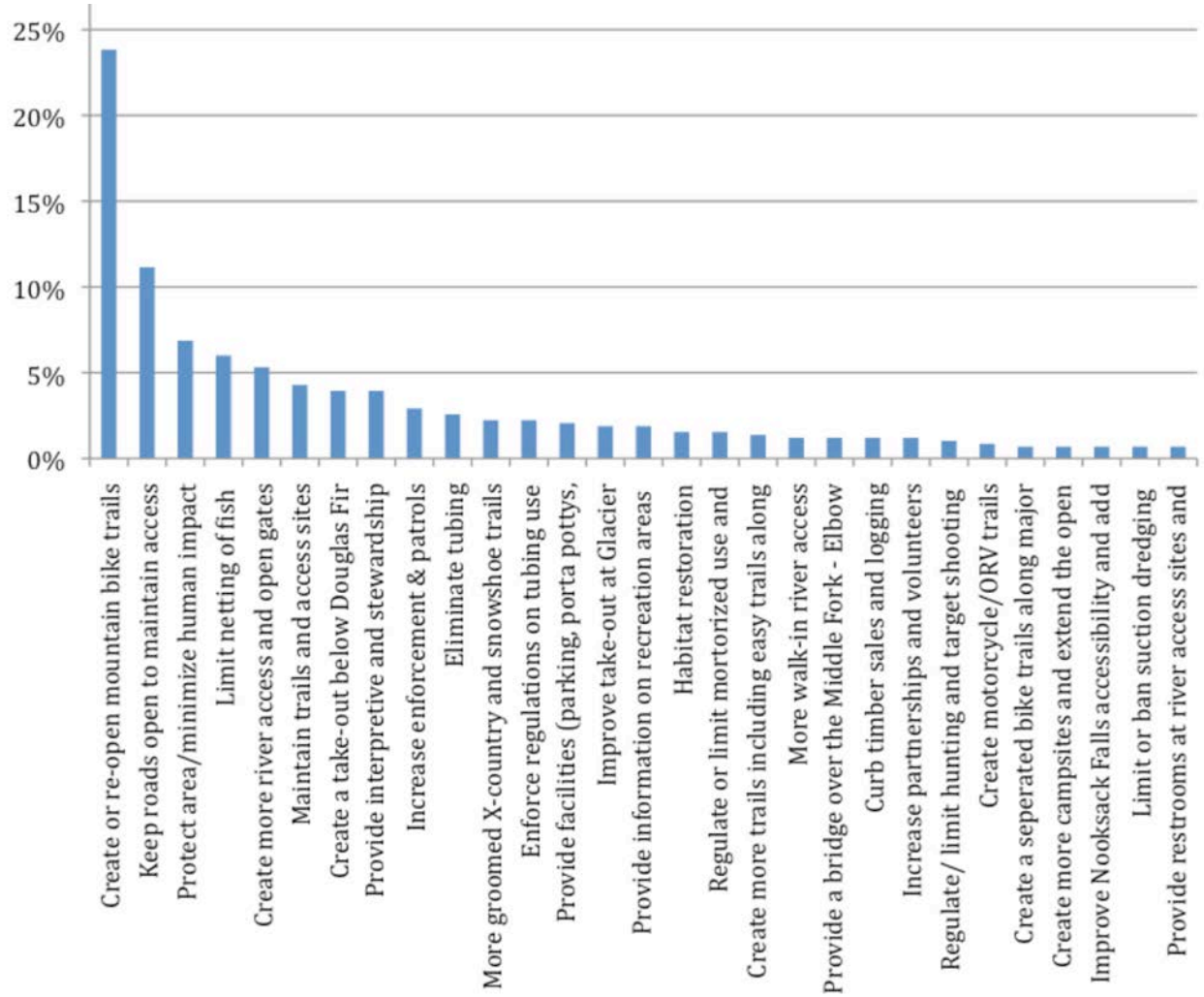


Participants were asked to evaluate how the size of the crowd affected their enjoyment of the area. As shown in the chart, the majority of participants (57%) felt that the size of the crowd did not affect their experience. While 29% indicated that the crowd levels took away from their enjoyment, 14% stated it added to their enjoyment. When these results are analyzed with participant responses to how crowded they felt, respondents who did not feel crowded were more likely to respond that their enjoyment increased while those feeling moderately to extremely crowded were more likely to respond that the crowd levels took away from their enjoyment.

Part IV: Vision for the Future

Recommendations for Improvements (Two questions 293/529 responders and 197/529 responders)

Do you have any suggested changes that you think would benefit recreation experiences and/or environmental resource protection in the Nooksack River corridor?

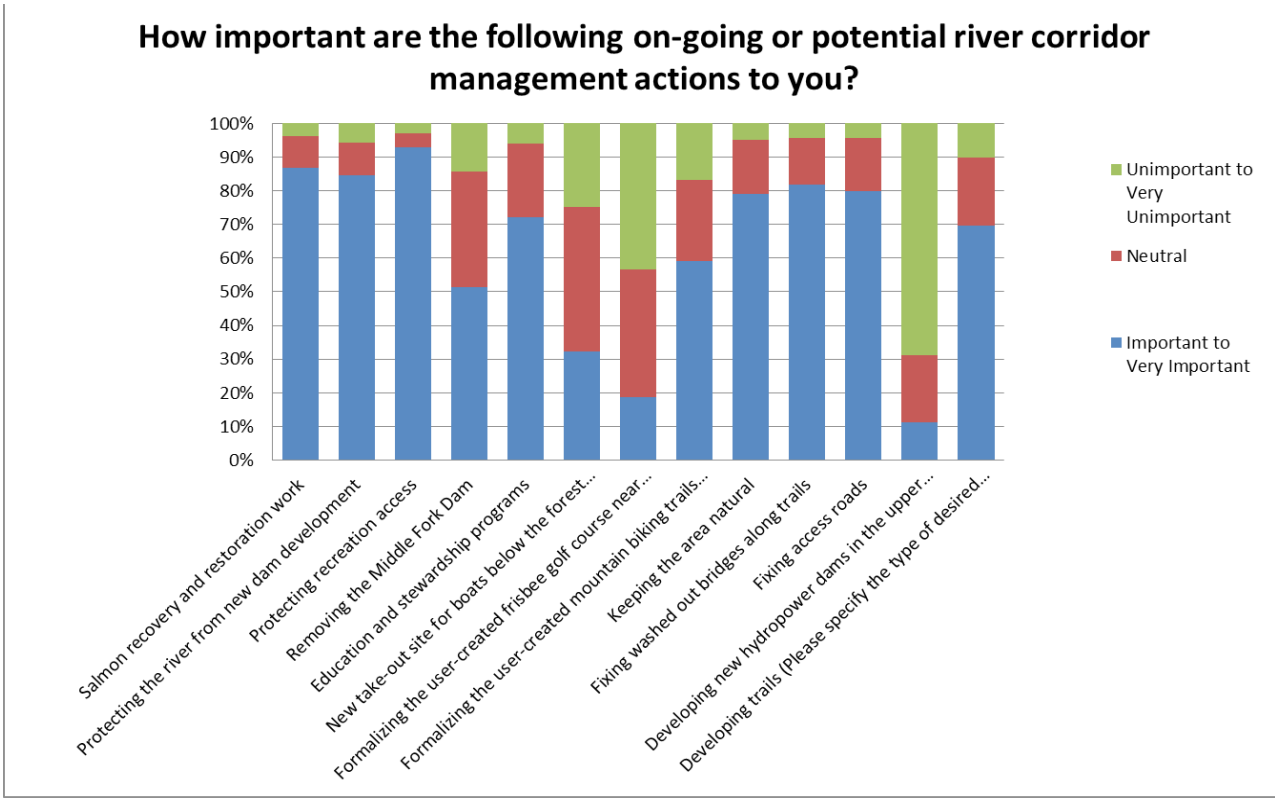


Through two open ended questions, participants were given the opportunity to provide suggestions to improve recreation and/or conservation. The results of the two questions are combined and illustrated in the chart above. The most common responses were:

- Create or re-open mountain bike trails
- Keep roads open to maintain access to river access sites and trails.
  *Many participants specifically mentioned re-opening roads that were closed while the survey was open (Canyon Creek Road, Glacier Creek Road, and Twin Sisters).
- Protect the area and minimize human impact

- Limit netting of fish (illegal and legal netting) to protect the fishery
- Create more river access and open closed gates
- Maintain existing trails and river access sites
- Create a take-out below Douglas Fir Campground for whitewater boaters
- Provide interpretive and stewardship programs
- Increase enforcement and patrols
- Eliminate tubing
- Create more groomed cross-country and snowshoe trails

Potential Management Actions (419/552 responders)

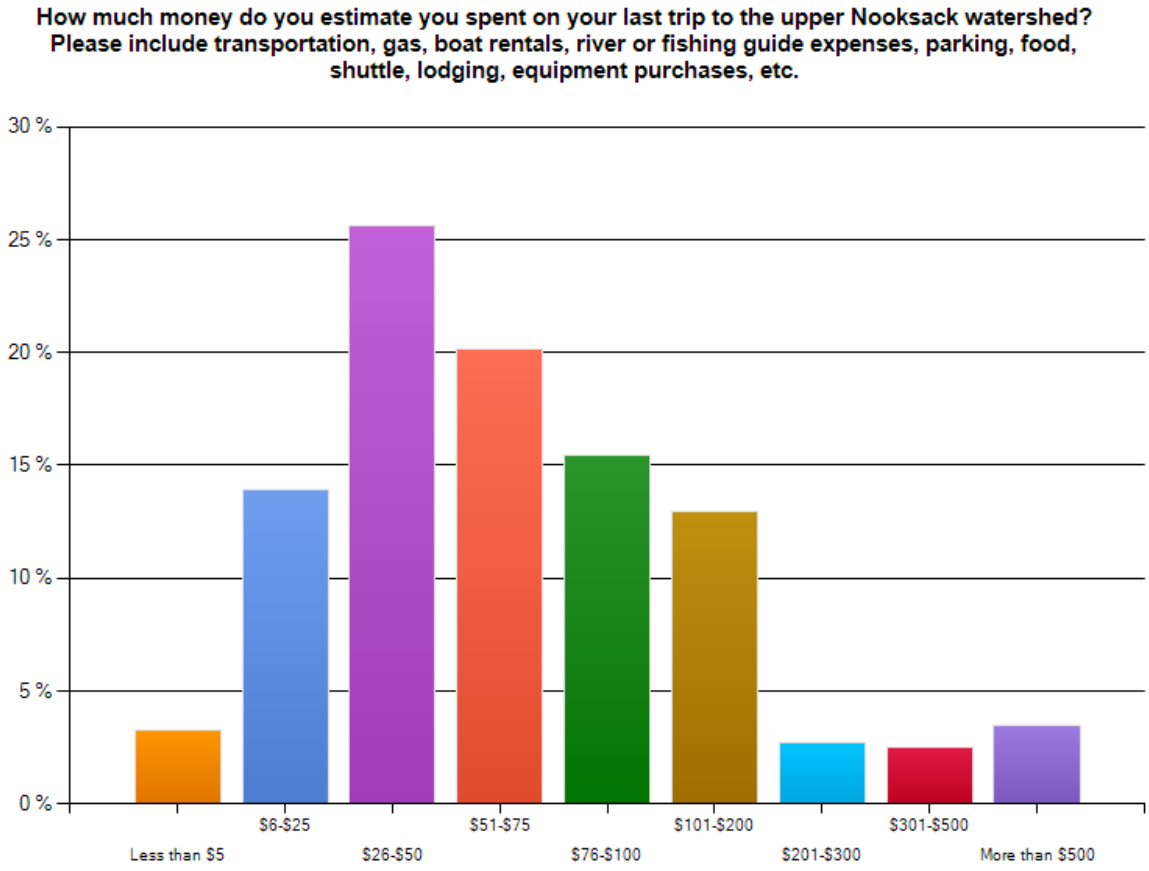


Participants were asked how important various potential management actions were to them. The most common actions that were identified as either important or very important were:

- Protecting recreation access (93%)
- Salmon recovery and restoration work (87%)
- Protecting the river from new dam development (85%)
- Fixing washed out bridges (82%)
- Fixing access roads (80%)
- Keeping the area natural (79%)

Part V: Economics and Communities

Money Spent During Visits (402/529 responders)

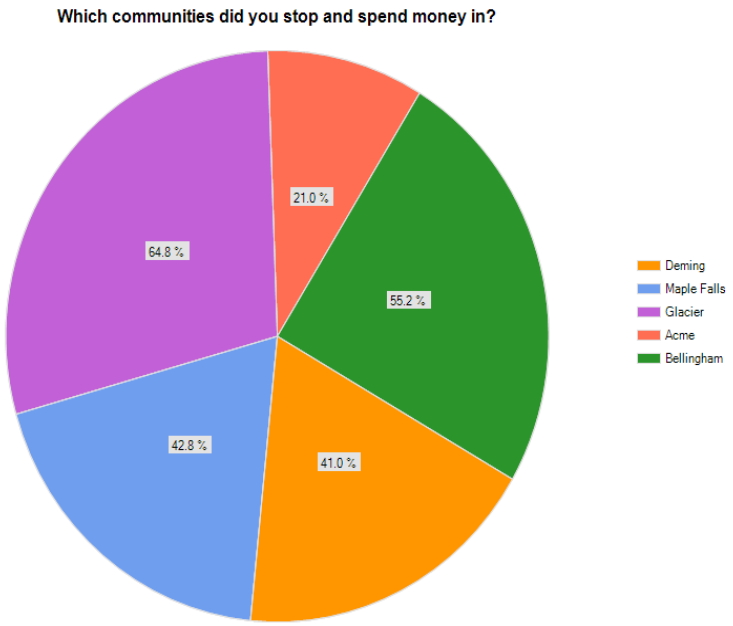


Participants were asked to estimate how much money they spent on their last visit to the upper Nooksack River basin. The mean response was $51-$75, and the most common responses were:

- $26 - $50 (26%)
- $51 - $75 (20%)
- $76 - $100 (15%)

The amounts reported could be lower than the actual amount as research has shown people tend to under represent expenditures they make when they are on vacation.

Communities Spent Money In (395/529 responders)



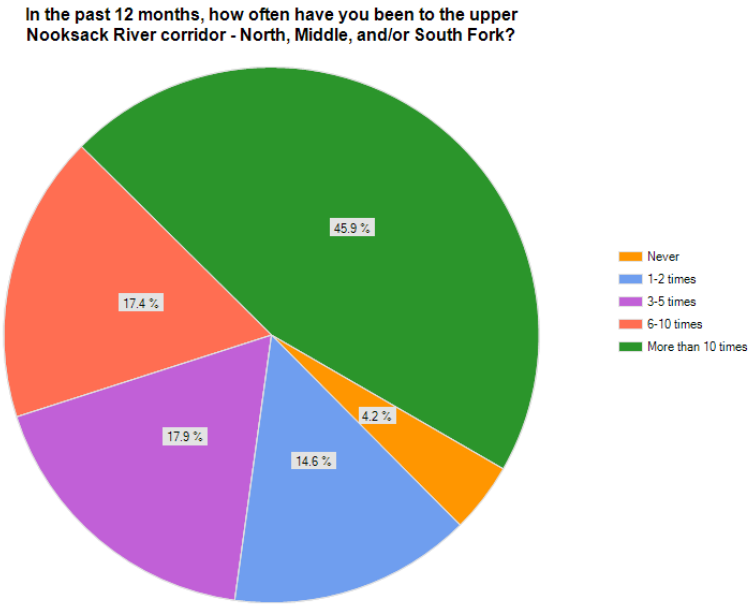
Participants were asked to identify the communities that they stopped and spent money in. As can be seen in the chart, participants reported stopping and spending money in five communities. The most common were:

- Glacier (65%)
- Bellingham (55%)
- Maple Falls (43%)
- Deming (41%)

This information, combined with the amount of money participants reported spending, shows the important economic benefit recreationists contribute to the local economy.

Part VI: About the Participants: Demographics and Trip History

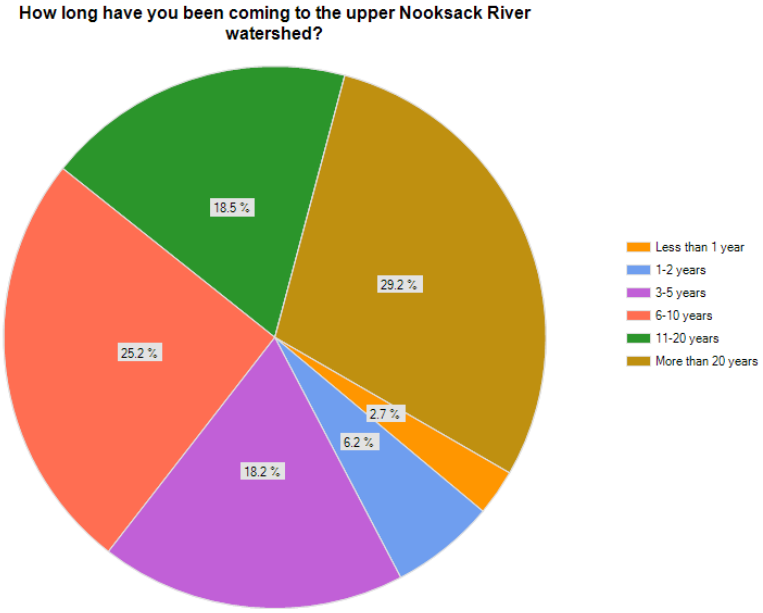
Number of Trips This Year (403/529 responders)



Participants were asked to identify how many times they had visited the Nooksack River over the past 12 months. As can be seen in the chart to the left, most survey respondents visit the Nooksack often. The most common responses were:

- More than 10 visits (46%)
- 3-5 visits (18%)
- 6-10 visits (17%).

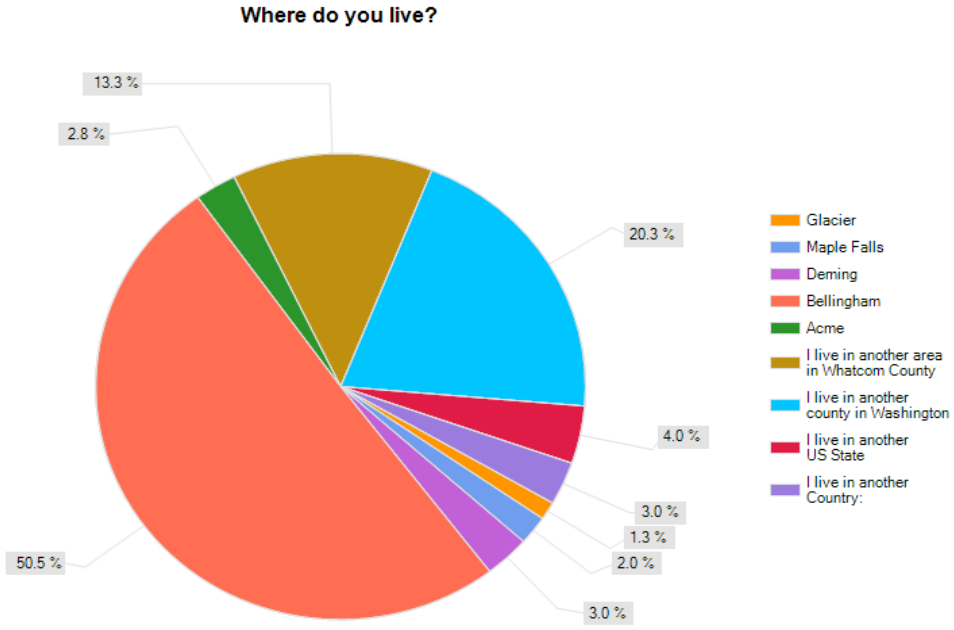
Number of Years Visiting (401/529 responders)



Participants were also asked to indicate how many years they have been coming to the upper Nooksack River. The most common responses were:

- More than 20 years (29%)
- 6-10 years (25%)

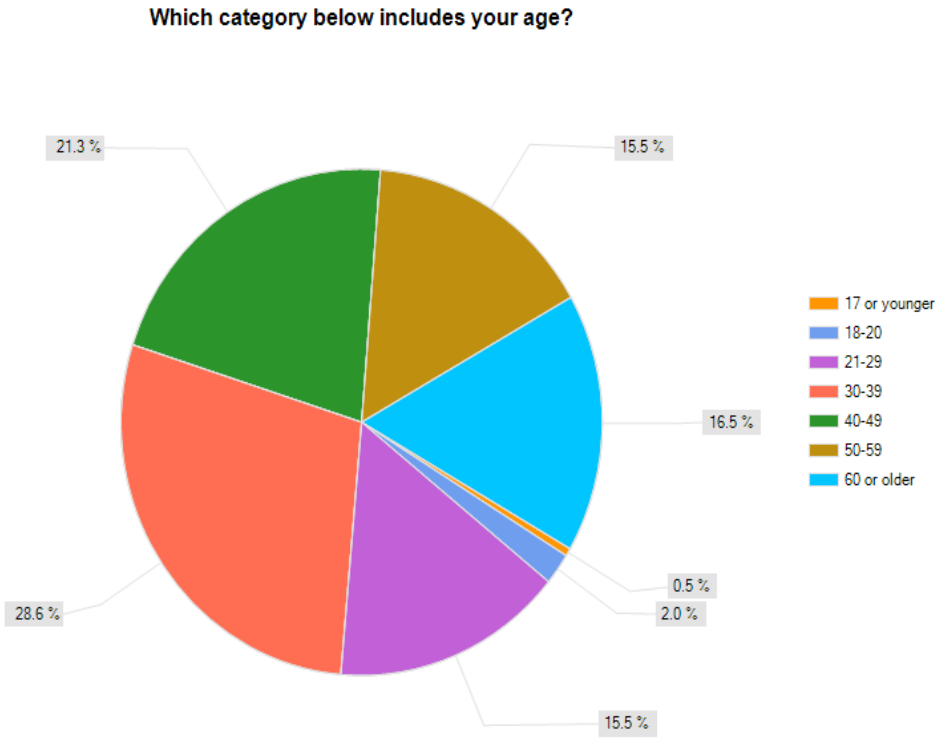
Where They Are From (400/529 responders)



Participants were asked where they live. The most common responses were:

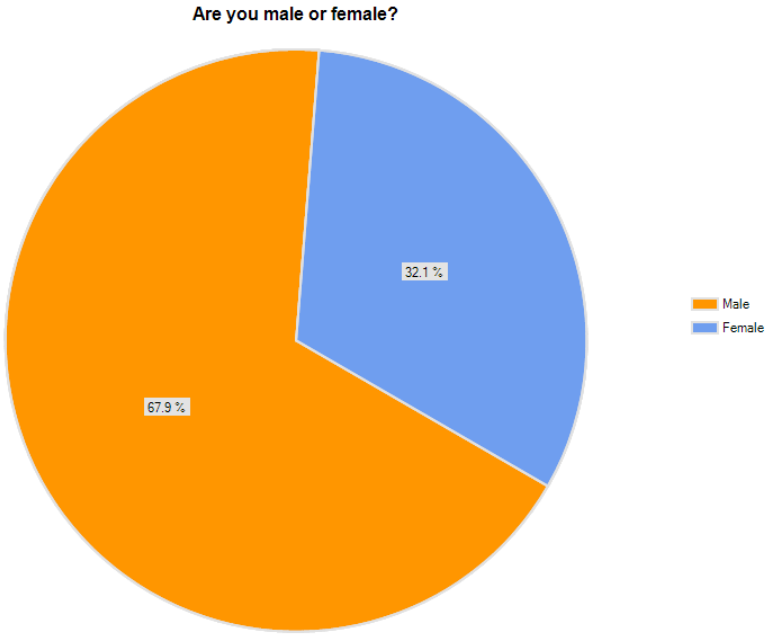
- Bellingham (50%)
- Another County* in Washington (20%). (*The most common counties identified were King (49%), Skagit (23%), and Snohomish (11%).)
- Whatcom County (13%)

Age (399/529 responders)



Participants were also asked to identify their age. The results are displayed in the chart above.

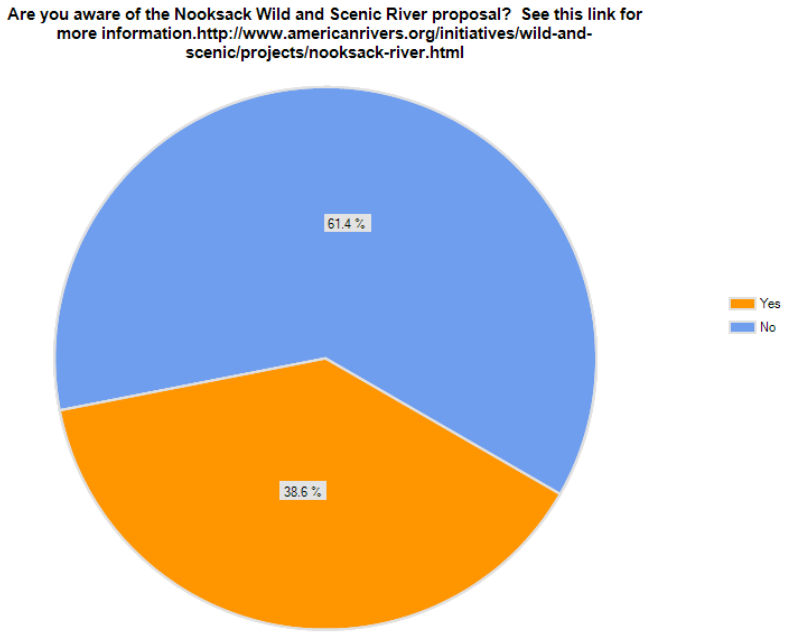
Gender (396/529 responders)



Participants were asked to identify their gender, and as can be seen in the chart, responders were 68% male and 32% female.

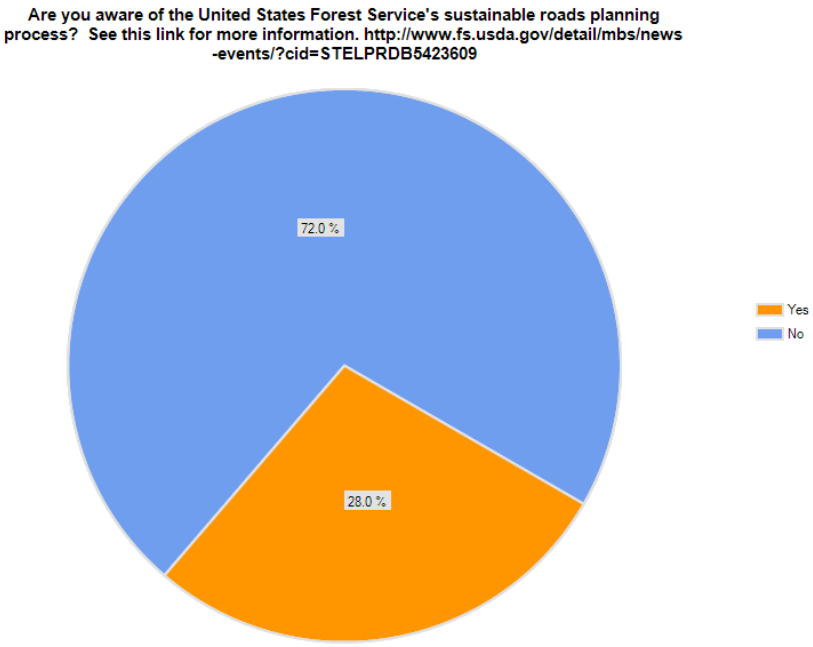
Part VII: Awareness of Other Initiatives

Awareness of Wild and Scenic Proposal (399/529 respondents)



Participants were asked if they were aware of the proposal to designate the upper reaches of the Nooksack River forks as a part of the National Wild and Scenic River System. As can be seen in the chart, 39% of respondents were aware of the proposal and 61% were not.

Awareness of the USFS Sustainable Roads Planning Process (397/529 responders)

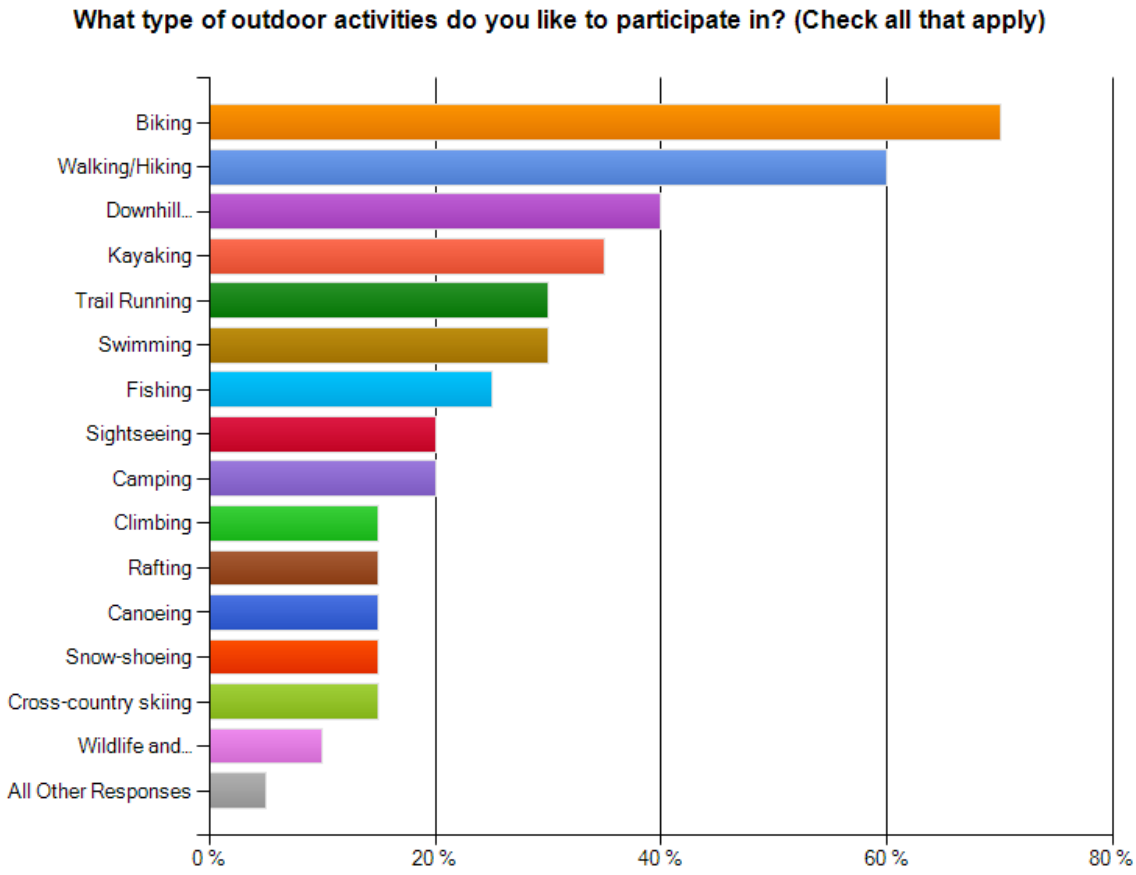


Participants were asked if they knew about the USFS Sustainable Roads Planning Process, which was ongoing during the time the survey was open. As can be seen in the chart, 28% knew about the initiative and 72% did not.

Part VIII: Non Users

Participants were asked if they had ever been to upper Nooksack River basin. Most of the survey focused on recreation users who have visited the area. However, people who had never been to the area or non-users were also asked some questions. There were two questions that only non-users were asked and the results are displayed in this section.

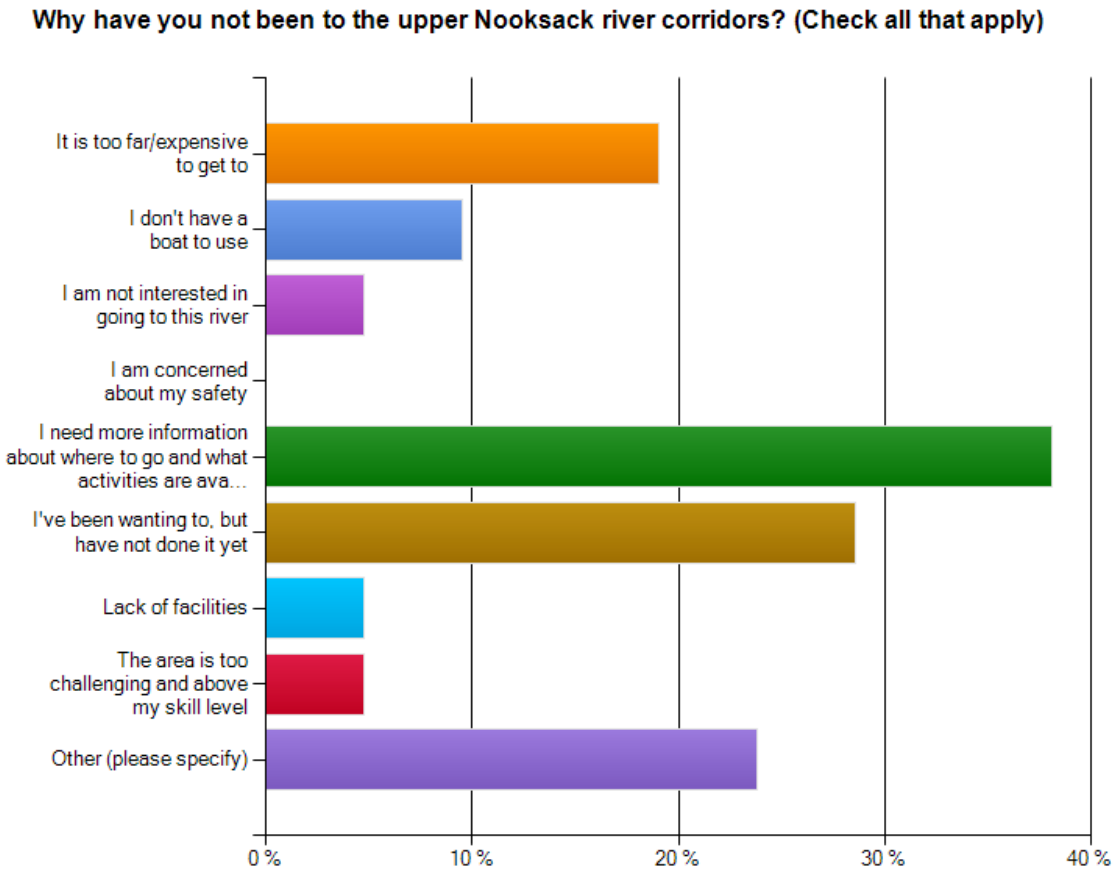
Recreation Activities (20/24)



Non-users were asked what type of recreation activities they participate in. The most common responses were:

- Biking
- Hiking
- Downhill Skiing
- Kayaking
- Trail Running

Why They Have Not Visited (21/24 responders)



Non-users were also asked why they had not visited the upper Nooksack River basin. As can be seen in the chart above, the most common responses were:

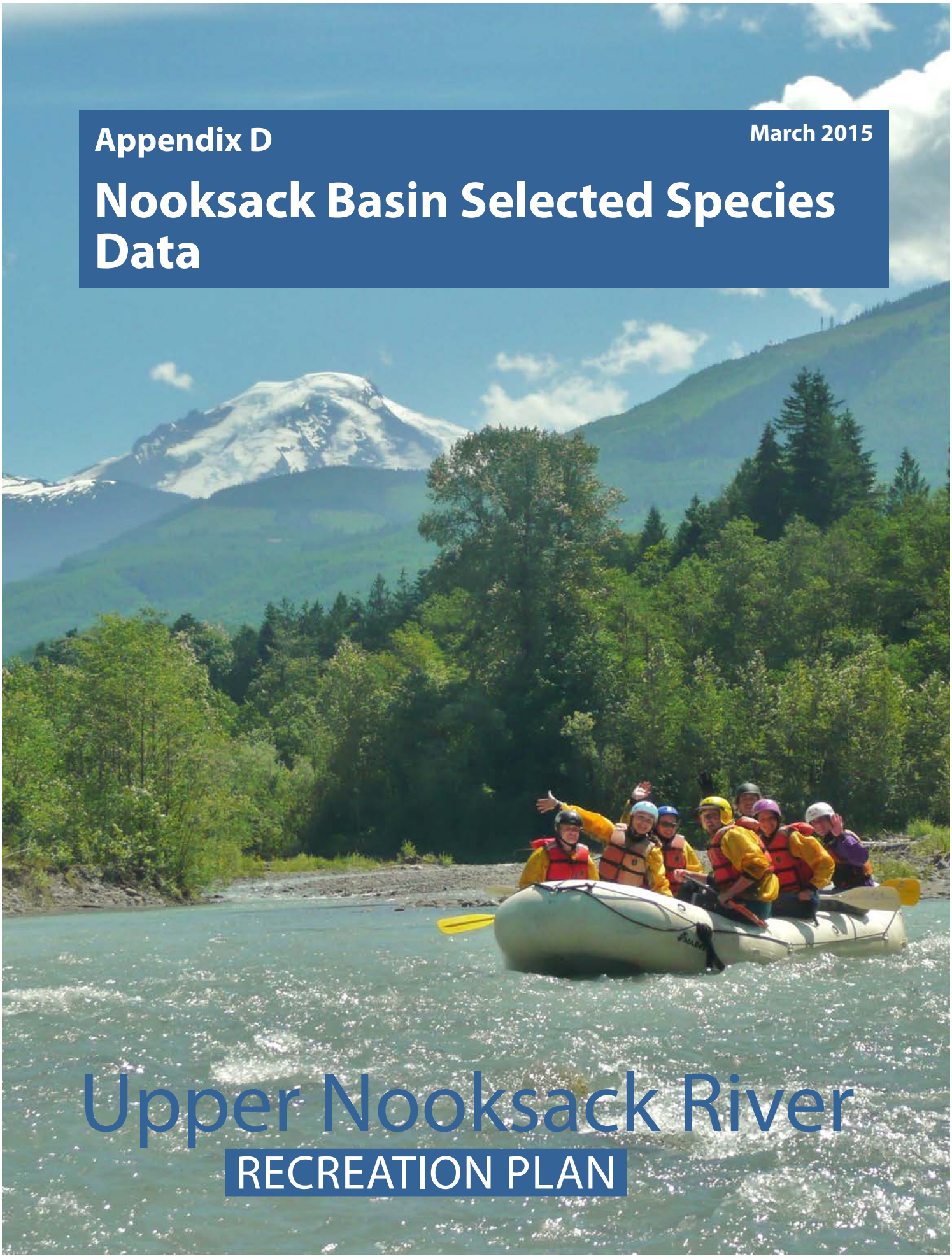
- Need more information
- I've been wanting to but haven't done it yet
- It's too far/expensive to get to

Participants also wrote in their own answers stating they were new to the area, didn't have the time, and that the mountain bike trails were closed after they found out about them.

Appendix D

March 2015

Nooksack Basin Selected Species Data



Upper Nooksack River

RECREATION PLAN

Appendix D

Nooksack Basin Selected Species Data

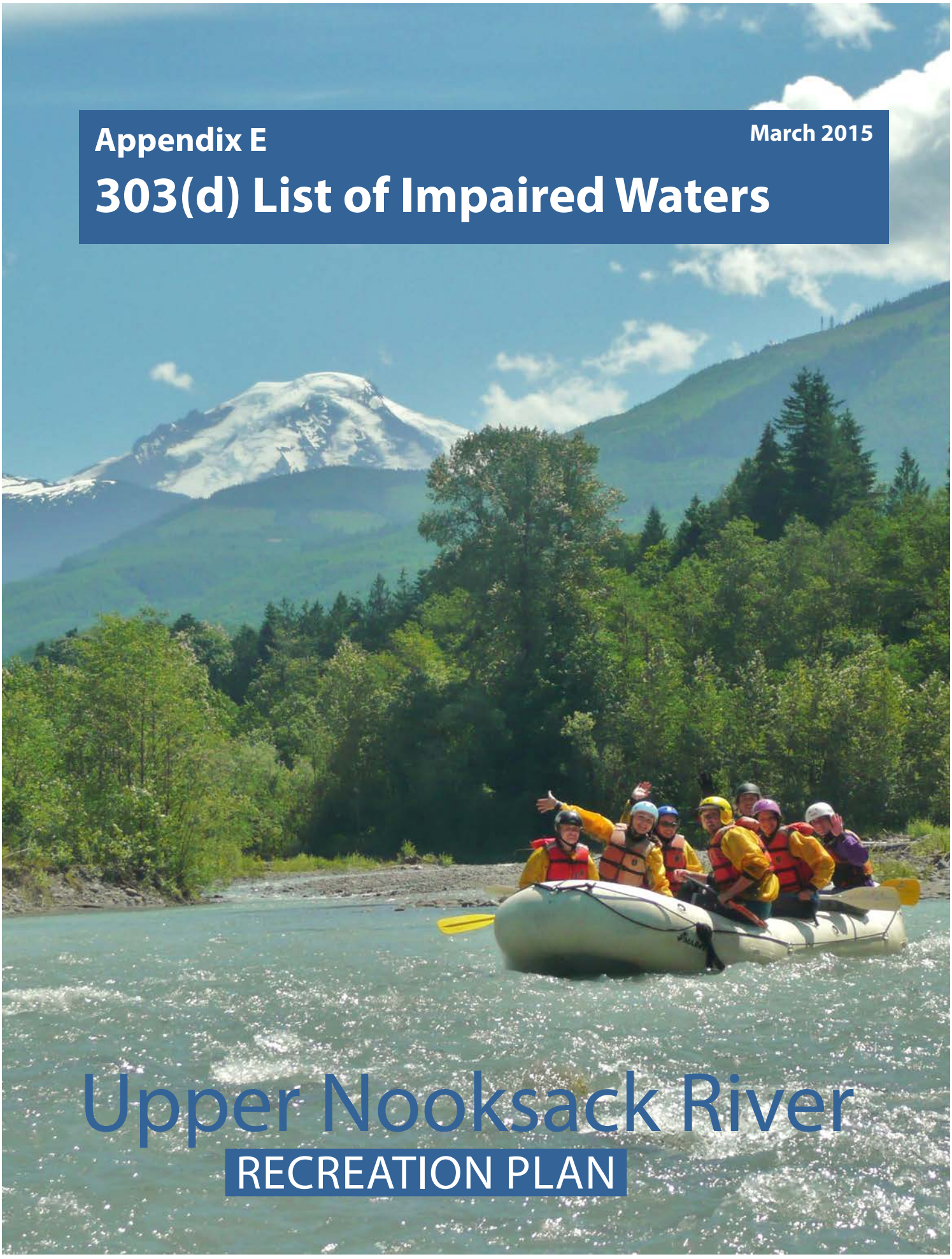
Selected Species of the Nooksack Basin

Name		Taxonomy	
Common Name	**Scientific Name**	**Species Group (Broad)**	**Species Group (Fine)**
American Bullfrog	*Lithobates catesbeianus*	Amphibians	Frogs and Toads
Cascades Frog	*Rana cascadae*	Amphibians	Frogs and Toads
Coastal Tailed Frog	*Ascaphus truei*	Amphibians	Frogs and Toads
Ensatina	*Ensatina eschscholtzii*	Amphibians	Salamanders
Green Frog	*Lithobates clamitans*	Amphibians	Frogs and Toads
Long-toed Salamander	*Ambystoma macrodactylum*	Amphibians	Salamanders
Northern Pacific Chorus Frog	*Pseudacris regilla*	Amphibians	Frogs and Toads
Northern Red-legged Frog	*Rana aurora*	Amphibians	Frogs and Toads
Northwestern Salamander	*Ambystoma gracile*	Amphibians	Salamanders
Oregon Spotted Frog	*Rana pretiosa*	Amphibians	Frogs and Toads
Pacific Giant Salamander	*Dicamptodon tenebrosus*	Amphibians	Salamanders
Rough-skinned Newt	*Taricha granulosa*	Amphibians	Salamanders
Western Redback Salamander	*Plethodon vehiculum*	Amphibians	Salamanders
Western Toad	*Anaxyrus boreas*	Amphibians	Frogs and Toads
American Three-toed Woodpecker	*Picoides dorsalis*	Birds	Other Birds
American White Pelican	*Pelecanus erythrorhynchos*	Birds	Other Birds
Bald Eagle	*Haliaeetus leucocephalus*	Birds	Other Birds
Barred Owl	*Strix varia*	Birds	Other Birds
Black Oystercatcher	*Haematopus bachmani*	Birds	Shorebirds
Black Swift	*Cypseloides niger*	Birds	Other Birds
Boreal Chickadee	*Poecile hudsonicus*	Birds	Perching Birds
Caspian Tern	*Hydroprogne caspia*	Birds	Other Birds

Name		Taxonomy	
Common Name	**Scientific Name**	**Species Group (Broad)**	**Species Group (Fine)**
Common Loon	*Gavia immer*	Birds	Other Birds
Golden Eagle	*Aquila chrysaetos*	Birds	Other Birds
Great Blue Heron	*Ardea herodias*	Birds	Wading Birds
Great Egret	*Ardea alba*	Birds	Wading Birds
Great Horned Owl	*Bubo virginianus*	Birds	Other Birds
Marbled Murrelet	*Brachyramphus marmoratus*	Birds	Other Birds
Northern Goshawk	*Accipiter gentilis*	Birds	Other Birds
Osprey	*Pandion haliaetus*	Birds	Other Birds
Peregrine Falcon	*Falco peregrinus*	Birds	Raptors
Purple Martin	*Progne subis*	Birds	Perching Birds
Spotted Owl	*Strix occidentalis*	Birds	Other Birds
Vaux's Swift	*Chaetura vauxi*	Birds	Other Birds
Western Bluebird	*Sialia mexicana*	Birds	Perching Birds
White-tailed Ptarmigan	*Lagopus leucura*	Birds	Other Birds
Bull Trout	*Salvelinus confluentus*	Fishes	Bony Fishes
Chinook Salmon	*Oncorhynchus tshawytscha*	Fishes	Bony Fishes
Chum Salmon	*Oncorhynchus keta*	Fishes	Bony Fishes
Coastrange Sculpin	*Cottus aleuticus*	Fishes	Bony Fishes
Coho Salmon	*Oncorhynchus kisutch*	Fishes	Bony Fishes
Cutthroat Trout	*Oncorhynchus clarkii*	Fishes	Bony Fishes
Dolly Varden	*Salvelinus malma*	Fishes	Bony Fishes
Green Sturgeon	*Acipenser medirostris*	Fishes	Bony Fishes
Largescale Sucker	*Catostomus macrocheilus*	Fishes	Bony Fishes
Longnose Dace	*Rhinichthys cataractae*	Fishes	Bony Fishes
Longnose Sucker	*Catostomus catostomus*	Fishes	Bony Fishes
Mountain Whitefish	*Prosopium williamsoni*	Fishes	Bony Fishes
Nooksack Dace	*Rhinichthys sp. 4*	Fishes	Bony Fishes
Pacific Lamprey	*Entosphenus tridentatus*	Fishes	Lampreys
Peamouth	*Mylocheilus caurinus*	Fishes	Bony Fishes

Name		Taxonomy	
Common Name	**Scientific Name**	**Species Group (Broad)**	**Species Group (Fine)**
Pink Salmon	*Oncorhynchus gorbuscha*	Fishes	Bony Fishes
Prickly Sculpin	*Cottus asper*	Fishes	Bony Fishes
Rainbow Trout or Steelhead	*Oncorhynchus mykiss*	Fishes	Bony Fishes
Redside Shiner	*Richardsonius balteatus*	Fishes	Bony Fishes
Sockeye Salmon	*Oncorhynchus nerka*	Fishes	Bony Fishes
Threespine Stickleback	*Gasterosteus aculeatus*	Fishes	Bony Fishes
Western Brook Lamprey	*Lampetra richardsoni*	Fishes	Lampreys
White Sturgeon	*Acipenser transmontanus*	Fishes	Bony Fishes
Brown Bear	*Ursus arctos*	Mammals	Carnivores
Californian Myotis	*Myotis californicus*	Mammals	Bats
Fisher	*Pekania pennanti*	Mammals	Carnivores
Gray Wolf	*Canis lupus*	Mammals	Carnivores
Harbor Seal	*Phoca vitulina*	Mammals	Carnivores
Little Brown Myotis	*Myotis lucifugus*	Mammals	Bats
Marsh Shrew	*Sorex bendirii*	Mammals	Other Mammals
Northern Bog Lemming	*Synaptomys borealis*	Mammals	Rodents
Townsend's Big-eared Bat	*Corynorhinus townsendii*	Mammals	Bats
Western Small-footed Myotis	*Myotis ciliolabrum*	Mammals	Bats
Wolverine	*Gulo gulo*	Mammals	Carnivores
Yuma Myotis	*Myotis yumanensis*	Mammals	Bats
Common Gartersnake	*Thamnophis sirtalis*	Reptiles	Snakes
Northern Alligator Lizard	*Elgaria coerulea*	Reptiles	Lizards
Northern Rubber Boa	*Charina bottae*	Reptiles	Snakes
Northwestern Gartersnake	*Thamnophis ordinoides*	Reptiles	Snakes
Terrestrial Gartersnake	*Thamnophis elegans*	Reptiles	Snakes
Western Fence Lizard	*Sceloporus occidentalis*	Reptiles	Lizards

Data as of July 2013
Report created June 3, 2014
Location: US Watershed 17110004
Conservation Status search criteria not specified



Appendix E

March 2015

303(d) List of Impaired Waters

Upper Nooksack River

RECREATION PLAN

Appendix E
303(d) List of Impaired Waters

Table 1. Description of 303(d) categories listed impaired water classification.

Category/ Explanation
1 – Meets tested standards for clean water
2 – Waters of concern
3 – Insufficient data - not included in Appendix C
4 – Polluted waters that do not require a TMDL:
4a – Has a TMDL in place
4b – Has a pollution control program in place
4c – Is impaired by a non-pollutant
5 – Polluted waters that require a TMDL

Table 2. List of 303(d) impaired water sites within the Nooksack River basin.

Waterbody	Parameter	Category	Range
NOOKSACK RIVER	Temperature	2	39N-2E-32
NOOKSACK RIVER	Temperature	5	39N-4E-28
NOOKSACK RIVER	Bacteria	4A	38N-2E-8
NOOKSACK RIVER	Chromium	2	39N-2E-32
NOOKSACK RIVER	Ammonia-N	1	38N-2E-41
NOOKSACK RIVER	Ammonia-N	1	39N-4E-28
NOOKSACK RIVER	Ammonia-N	1	39N-2E-32
NOOKSACK RIVER	Dissolved Oxygen	2	40N-2E-35
NOOKSACK RIVER	Dissolved Oxygen	5	38N-2E-41
NOOKSACK RIVER	Dissolved Oxygen	5	39N-2E-29
NOOKSACK RIVER	Dissolved Oxygen	5	40N-3E-20
NOOKSACK RIVER	Dissolved Oxygen	5	40N-4E-31
NOOKSACK RIVER	Dissolved Oxygen	5	38N-2E-5
NOOKSACK RIVER	pH	1	38N-2E-41
NOOKSACK RIVER	pH	2	39N-2E-29
NOOKSACK RIVER	pH	1	39N-2E-3

NOOKSACK RIVER	pH	1	40N-3E-20
NOOKSACK RIVER	pH	2	40N-4E-31
NOOKSACK RIVER	pH	5	39N-4E-28
NOOKSACK RIVER	pH	1	38N-2E-5
NOOKSACK RIVER	pH	1	39N-2E-32
NOOKSACK RIVER	Temperature	2	40N-2E-35
NOOKSACK RIVER	Bacteria	4A	38N-2E-41
NOOKSACK RIVER	Bacteria	1	38N-2E-5
NOOKSACK RIVER	Bacteria	4A	39N-2E-32
NOOKSACK RIVER	Bacteria	4A	39N-2E-29
NOOKSACK RIVER	Bacteria	2	39N-2E-3
NOOKSACK RIVER	Bacteria	4A	40N-2E-35
NOOKSACK RIVER	Bacteria	2	40N-3E-20
NOOKSACK RIVER	Bacteria	1	40N-4E-31
NOOKSACK RIVER	Bacteria	1	39N-4E-28
NOOKSACK RIVER	Mercury	2	39N-2E-32
NOOKSACK RIVER	Ammonia-N	1	38N-2E-5
NOOKSACK RIVER	Turbidity	2	39N-2E-32
NOOKSACK RIVER	4,4'-DDE	2	38N-2E-5
NOOKSACK RIVER	Alpha-BHC	2	38N-2E-5
NOOKSACK RIVER	Chlorpyrifos	2	38N-2E-5
NOOKSACK RIVER	Dieldrin	2	38N-2E-5
NOOKSACK RIVER	Gamma-bhc (Lindane)	2	38N-2E-5
NOOKSACK RIVER	Parathion	2	38N-2E-5
NOOKSACK RIVER	Temperature	5	39N-2E-31
NOOKSACK RIVER	Temperature	5	38N-2E-5
NOOKSACK RIVER	Bacteria	1	38N-5E-6
NOOKSACK RIVER	pH	2	40N-3E-27
NOOKSACK RIVER	Mercury	2	38N-2E-5
NOOKSACK RIVER	Dissolved Oxygen	2	39N-2E-20
NOOKSACK RIVER	pH	1	38N-5E-5
NOOKSACK RIVER, N.F.	Fine Sediment	5	39N-7E-3
NOOKSACK RIVER, N.F.	pH	1	39N-5E-27
NOOKSACK RIVER, N.F.	Bacteria	1	39N-5E-27
NOOKSACK RIVER, M.F.	Temperature	1	38N-5E-11
NOOKSACK RIVER, M.F.	Temperature	1	38N-5E-13

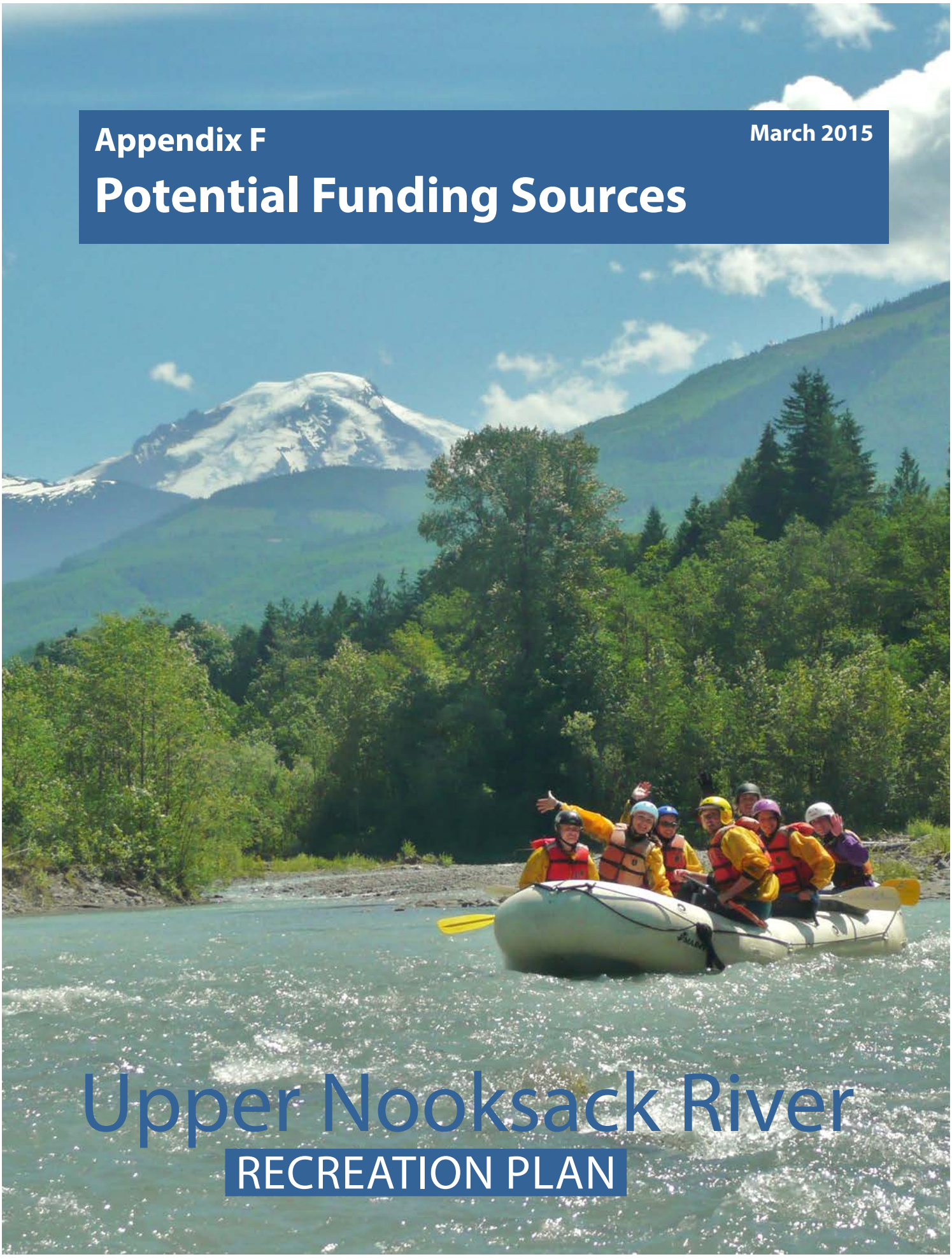
NOOKSACK RIVER, M.F.	pH	1	38N-5E-13
NOOKSACK RIVER, M.F.	Bacteria	4A	38N-5E-13
NOOKSACK RIVER, M.F.	Temperature	1	38N-6E-19
NOOKSACK RIVER, M.F.	Temperature	5	39N-5E-34
NOOKSACK RIVER, M.F.	Mercury	2	38N-5E-13
NOOKSACK RIVER, M.F.	pH	1	39N-5E-34
NOOKSACK RIVER, M.F. DIVERSION	Dissolved Oxygen	2	38N-6E-19
NOOKSACK RIVER, M.F. DIVERSION	Bacteria	1	38N-6E-19
NOOKSACK RIVER, M.F. DIVERSION	Bacteria	1	38N-5E-26
NOOKSACK RIVER, S.F.	Instream Flow	4C	37N-5E-26
NOOKSACK RIVER, S.F.	Fine Sediment	5	36N-6E-20
NOOKSACK RIVER, S.F.	Temperature	5	38N-5E-7
NOOKSACK RIVER, S.F.	Temperature	5	36N-5E-12
NOOKSACK RIVER, S.F.	Temperature	5	36N-7E-3
NOOKSACK RIVER, S.F.	Temperature	5	36N-6E-18
NOOKSACK RIVER, S.F.	Temperature	5	37N-5E-9
NOOKSACK RIVER, S.F.	Temperature	5	38N-5E-31
NOOKSACK RIVER, S.F.	Temperature	5	38N-5E-17
NOOKSACK RIVER, S.F.	Temperature	5	38N-5E-8
NOOKSACK RIVER, S.F.	Dissolved Oxygen	2	37N-5E-5
NOOKSACK RIVER, S.F.	Dissolved Oxygen	2	38N-5E-17
NOOKSACK RIVER, S.F.	Bacteria	2	37N-5E-5
NOOKSACK RIVER, S.F.	Temperature	5	37N-5E-21
NOOKSACK RIVER, S.F.	Temperature	2	37N-5E-5
NOOKSACK RIVER, S.F.	pH	5	37N-5E-5
NOOKSACK RIVER, S.F.	pH	2	38N-5E-17
NOOKSACK RIVER, S.F.	Temperature	5	38N-5E-19
NOOKSACK RIVER, S.F.	Temperature	5	38N-5E-30
NOOKSACK RIVER, S.F.	Temperature	5	37N-5E-8
NOOKSACK RIVER, S.F.	Temperature	5	37N-5E-16
NOOKSACK RIVER, S.F.	Temperature	5	38N-5E-18
NOOKSACK RIVER, S.F.	Bacteria	2	38N-5E-17
NOOKSACK RIVER, S.F.	Bacteria	5	38N-5E-8
NOOKSACK RIVER, S.F.	Dissolved Oxygen	5	38N-5E-8
NOOKSACK RIVER, S.F.	pH	2	38N-5E-8

Source: Water Quality Assessment for Washington 303(d) Integrated Report Viewer, accessed June 20, 2014.
Available at: http://apps.ecy.wa.gov/wats/Default.aspx.

Appendix F

March 2015

Potential Funding Sources



Upper Nooksack River

RECREATION PLAN

Appendix F
Potential Funding Sources

Federal Sources

MAP-21

The Moving Ahead for Progress in the 21st Century Act (MAP-21) replaces the Transportation Enhancement Activities (TE) with a new Transportation Alternatives Program (TAP) for Federal fiscal years 2013 and 2014.

Following are two of the more important program areas for bicycle and pedestrian interests to monitor:

Transportation Alternative Program
MAP-21 created the Transportation Alternatives Program (TAP) that provides funding for programs and projects defined as transportation alternatives, including federally funded on- and off-road pedestrian and bicycle facilities, infrastructure projects for improving non-driver access to public transportation and improved mobility, community improvement activities, and environmental remediation; recreational trail program projects; and federally funded safe routes to school projects.

The applications are due every couple of years. A 20% match is required. For more information see http://www.wsdot.wa.gov/LocalPrograms/ProgramMgmt/TAP.htm.

The Bicycle/Pedestrian coordinator for the state of Washington is Ian Macek, macekl@wsdot.wa.gov and phone 360-705-7596.

Recreational Trails Program
Another important program expected to be reauthorized under MAP-21 is called the National Recreational Trails Program (NRTP). This program supports the maintenance of trails that provide a 'backcountry experience'. Eligible projects include maintenance of recreational land, shelters, signs, and parking as well as those that promote safety and environmental protection. NRTP grants require a 20% match. The NRTP is administered in Washington by the Recreation and Conservation Office www.rco.wa.gov/.

Land and Water Conservation Fund

The Land and Water Conservation Fund (LWCF) was enacted by Congress in 1964 to establish a funding source for grants to state and local governments for land acquisition and/or development of outdoor recreation areas and facilities. LWCF is federally funded and overseen by the National Park Service but administered in each state through a governor-appointed state agency. In Washington, LWCF is administered by the Recreation and Conservation Office (RCO). LWCF grants require a 50% match from state or local funds. Areas funded through LWCF assistance are required to be dedicated in perpetuity for public recreation use. For information on the grant process see www.rco.wa.gov/.

EPA Environmental Education Grants

The Environmental Protection Agency (EPA) sponsors environmental education projects that enhance the public's awareness, knowledge, and skills to help people make informed decisions that affect environmental quality. The program is managed by EPA's Office of Environmental Education and awards grants each year based on funding appropriated by Congress. Annual funding for the program ranges between $2 and $3 million. More than 75 percent of the grants awarded by this program receive less than $15,000. This represents an opportunity to pursue funding for various environmental education projects (e.g., interpretive signs, exhibits, websites, brochures, etc).

State Sources

Washington Wildlife and Recreation Program (WWRP)

The WWRP is a grant program authorized by the Washington State legislature to support acquisition and development of outdoor recreation and conservation lands. Eligible projects include state and local parks, water access sites, trails, critical wildlife habitat, and natural areas. Grants require a 50% match. WWRP is managed by the Recreation and Conservation Office (www.rco.wa.gov/).

Aquatic Lands Enhancement Account (ALEA)

The ALEA is a grant program authorized by the Washington State legislature to provide grant-in-aid support for the purchase, improvement, or protection of aquatic lands for public purposes, and for providing and improving access to such lands. It is funded by is funded entirely by revenue generated by the Washington State Department of Natural Resources (DNR) from management of state-owned aquatic lands. Eligible projects include acquisition (purchase), restoration, or improvement of aquatic lands for public purposes and for providing and improving public access to aquatic lands and associated waters. Any divisions of local or state government, as well as Native American Tribes are eligible to apply if legally authorized to acquire and develop public open space, habitat, or recreation facilities. The ALEA program is managed by the RCO (www.rco.wa.gov/).

Nonhighway and Off-Road Vehicle Activities Program (NOVA)

The NOVA Program is funded by the State of Washington and helps 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. By statute, activities supported by the NOVA Program must be accessed via a "Nonhighway Road" (NHR). These are roads open to the public but not constructed with gasoline tax revenues. NHRs are found in National Forests and National Parks. Eligible projects include planning, capital improvements, maintenance and operation, and off-road vehicle (ORV) education and enforcement. Municipal subdivision, State agencies, Tribal governments, and Federal agencies are all eligible to apply. The program is managed by RCO (www.rco.wa.gov/).

Safe Routes to Schools

The Safe Routes to Schools program is a program run by the Departments of Transportation and Health, Washington Traffic Safety Commission, and the Superintendent of Public Instruction for schools and school districts in Washington working within their communities for traffic safety, transportation efficiency, healthy children, Strong neighborhoods and reduced pollution. The Safe Routes to Schools grant program aims to protect children from traffic deaths and injuries, and promotes a healthy lifestyle through biking and walking. It also provides sensible transportation by reducing the number of car trips to and from schools. For more information, see http://www.wsdot.wa.gov/localprograms/saferoutes/.

Other Sources

Other grant opportunities are available from various private groups, foundations and businesses. These have to be tracked and monitored from year to year for funding levels and availability. There are several web-based programs that assist people in identifying and locating these types of grant opportunities. Some of these are:

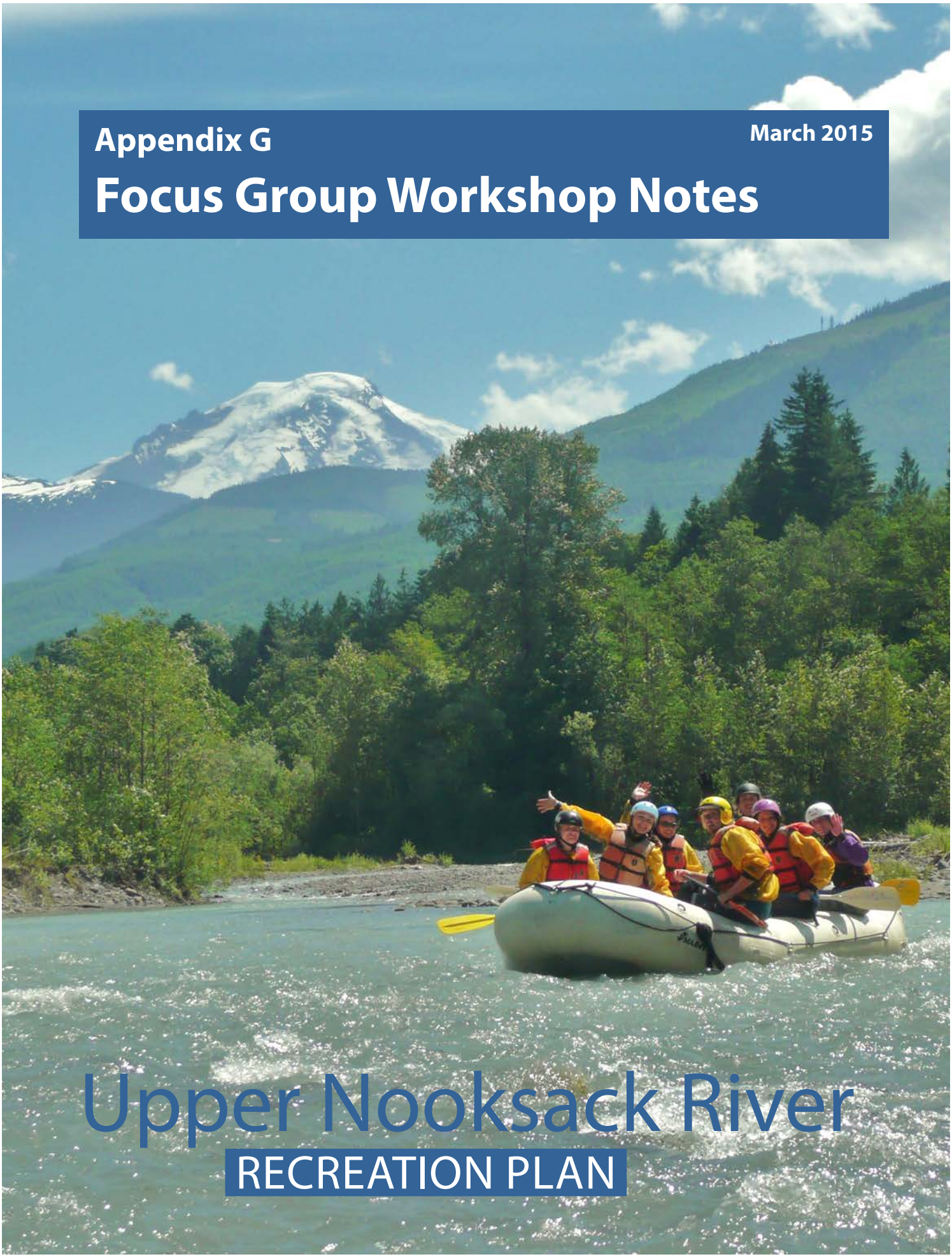
- The Red Lodge Clearinghouse (www.redlodgeclearinghouse.org)
- The Environmental Grantmakers Association (www.ega.org)
- The Trails and Greenway Clearinghouse (www.trailsandgreenways.org/)
- American Rivers Restoring Riverfronts: A Guide to Selected Funding Sources (http://www.americanrivers.org/riverfronttoolkit/)
- Foundation Center's Guide to Grants (www.fdncenter.org/pnd/)

There is also a federal website to search for grants. It is http://www.grants.gov/.

Appendix G

March 2015

Focus Group Workshop Notes



Upper Nooksack River

RECREATION PLAN

Appendix G

Focus Group Workshop Notes

Focus Group I at Van Zandt Community Hall

Meeting Notes – April 24, 2013

Participants

Jon Knechtel, Pacific Northwest Trail Association (Director of Trail Management); Bud Hardwick, Whatcom Events, Ski to Sea; Dan Coombs, 4th Corner Fly fishers; Jack Salstrom, 4th Corner Fly fishers; Sam Miller, Backcountry Horsemen; Sarah and Brian Permick, Adventure Cascades; Janet Boyhan, NLT, WPRC, GT, MBC; Chris Tretwold, recreationalist; Michael McFarlane, Whatcom County Parks and Recreation; Chris Johnson, Native Fish Society; Doug Huddle, recreationalist and wildlife specialist; Meghan Hallam, CCA-North sound; Ken Johnson, Wild Fish Society; Rich Bowers, Hydropower Reform Coalition; Phil Kincare, United States Forest Service; Tom O'Keefe, American Whitewater; Lindsay Taylor, American Rivers; Wendy McDermott, American Rivers; Susan Rosebrough, National Park Service

Nooksack Niche

- Undammed free flowing
- Glacial fed (north and middle)
- Lateral channel migration
- Remote, wilderness just off the roadways
- 4 seasons of recreation opportunities
- Geologically complex
- Wildlife
- Can do 3 recreation types in a day
- Ski to Sea is oldest wilderness race in the US
- All 5 species of salmon
- Rugged, challenging horse trails
- Lots of parks
- History
- Dead end road (542)
- Gateway to the North Cascades
- Rafting, paddling unregulated whitewater

- Fishing
- River system diversity (north, middle, south)
- Lots of things to do in lots of different places (dispersed opportunities)

Important Recreation Sites

North Fork

Sites and Trails

- Hannegan Pass – popular with horses and hiking
- Nooksack Cirque
- Pacific Northwest Scenic Trail
- North Fork, Ruth Creek – Goat Mountain – ski/hike
- North Fork, Swamp Creek -Twin Lakes – hike, camp, snowmobile, backcountry ski
- Razor Hone Road and Anderson Creek – XC Ski and Snowshoe Trails
- Mile Post 44 Old Growth – hiking, trees, nature, camping
- Excelsior Trail – popular with horses and hiking
- Nooksack Falls
- Cougar Divide – Bar Creek/Deadhorse Creek – hiking, foraging, views, waterfall
- Canyoneering – Wells Creek
- Powerhouse Wall – sport climbing
- Boyd Creek – (interpretive center, wildlife viewing, fishing)
- Horse Shoe Bend – special place (boating, camping, hiking, dog-walking)
- Glacier Creek – walk, free-flowing glacier fed creek
- Heliotrope Trailhead – Climbing Trailhead
- Glacier Disc Golf
- Horse riding, camping, fishing, boating, hiking, and mountain biking popular along Canyon Creek
- Maple Creek Park
- North Fork – Welcome Bridge Access
- Wildlife viewing and fishing – lower North Fork
- Hwy 9 bridge – Kayak instruction
- Main-stem – Nugent's Corner Access
- Canyon Lake Creek - Hike and fishing (destination kid's fishing spot), quiet, old growth forest

Reaches

- Nooksack Canyon – Horseshoe Bend run – Unique scenic canyon offers high quality Class III whitewater boating
- Canyon Creek – boating, fishing
- Maple Falls to Welcome Bridge – popular for fishing
- Scenic Float -Welcome Bridge Access to Nugent's Corner Access – wildlife viewing, boating (rafts, drift boats, some power boats)

Middle Fork

Sites and Trails

- Ridley Creek - horse and hiking trail
- Elbow Lake to Bell Creek Loop– horse and hiking trail, fishing (Wiseman Lake), wildlife viewing, solitude, great views
- Clearwater Creek - Fishing, biking, boating

Reaches

- Upper Middle Fork to Mosquito Lake Road – Unique scenic canyon and high quality class IV-V whitewater, Canyoneering
- Clearwater Creek- High quality and rapid packed class V run

South Fork

Sites and Trails

- Elbow Lake South – popular with horses (see Middle Fork Notes above)
- South Fork, Pacific Northwest Scenic Trail
- Wanlick Creek – fishing and hiking
- South Fork Park – fishing, biking, history, hiking, Interpretation (homesteads and Nesset Farm)
- Acme Bridge – kayak, raft
- Potter Bridge – kayak, raft

Reaches

- South Fork – Class II boating run, limited use due to access issues
- Skookum Creek – advanced whitewater boating
- Fishing – popular between Skookum Creek and Hutchinson Creek
- Lower South Fork (Acme to confluence) – boating, fishing, tubing, wildlife viewing

Missing Recreation Sites – Need to Add to the Map

North Fork

- Snowshoe, hike - Razor Crest and Razor Hone Creek – hike avoid highway
- Snowshoe Trails from the lodge to the N.F – check the Mt. Baker Club website for a map
- Nordic Ski Trails near Razor Creek Road – check the Nordic Ski Club for a map
- Trail connecting Yellow Aster and North Fork and Excelsior
- WW boating access – near Silver Fir Campground – put in for mist canyon
- WW boating take-out - above Nooksack falls
- Ski, snowshoe, views, wildlife, volcanic - Pinus Lake, 48.90485 latitude, and -121.7857 longitude
- Rock Climbing – Powerhouse Wall
- Dot Wayside – Potential access, walk-in access
- Warnick Bridge – downstream access need, opportunity with County
- Two mile Glacier Community Trail in planning – south side of the highway in Glacier
- Mt. Biking Trails – Town of glacier
- Skate park – Town of Glacier
- Glacier Creek – WW put-in
- WW kayak put-in -Canyon Creek – WW Kayak put-in
- Fishing – Canyon Creek
- Mt. Biking – Canyon Creek
- Proposed Bay to Baker Trail
- Wildlife Viewing/Fishing Lower North Fork – below Welcome Bridge Access
- Add boat symbols to the Welcome Bridge Access (drift boats, rafts)
- Bike/Hike road between maple falls and Kendall creek
- Palisades Gorge, slot canyon on Glacier Creek – view
- Deadhorse Road - Mountain biking, Hiking, mushroom Hunting, Foraging
- Glacier Disc golf
- Glacier Skate Park
- Canyon Lake Creek – lake is a kid fishing destination
- Hike along Canyon Lake Creek

Middle Fork

- Mt. Bike Trailhead, Road next to Middle Fork Nooksack

- Mountain Bike Trail, Whitewater Boating, Fishing - Clearwater Creek

South Fork

- Hiking and Fishing on Wanlick Creek
- Horse and Hiking Trails on the upland DNR lands between Cavanaugh creek and Skookum creek
- South Fork Trail – between Skookum and Cavannagh creek along the south fork?
- Gold mining, hiking, horse trails – WLT lands near mouth of Skookum creek – gold, hike, horse
- Biking along logging road on Skookum Creek
- Ski, rock climb, hike – Twin Sisters North and South - Wilderness between south fork and north fork
- Boating Access - Confluence with South and North forks – Hwy 9 Bridge
- County Trail – Mosquito Lake Road to Saxon
- Lower South Fork – wildlife viewing (elk), fishing – drift boat, Main stem,
- Lower South Fork -jet boats use the river below hwy 9

Issues and Needs

General

- More trail access/road repair
- Parking for trailers and trucks
- More boat ramps/fishing access
- Road access being lost – need to keep it open

North Fork

- Nooksack Cirque - rebuild bridge?
- North Fork: Ruth Creek – recommend put in a bridge?
- Potential road closure of Wells Creek Road
- Seasonal Closure of boating below Douglas Fir Campground
- Canyon Creek road closure
- Boat launch needed below Maple Falls
- Middle North Fork/Canyon Creek – Lack of river access for boating (Green truss Bridge/Canyon Creek) – no legal access to this important reach
- Main-Stem, just upstream of Deming and Confluence of South and North Forks: Squatters need sign “Day-Use Only”; Nugent’s Corner Access is signed for day-use only and this has helped with squatters

- Trail Opportunity – between Canyon Creek and Glacier- ownership challenges
- County Bay to Baker Trail exists needs to be coordinated with highway re-alignment – Lower NF below Canyon Creek to Maple Creek
- Gate blocking access between Racehorse creek and Canyon Lake creek – County is working on it
- Welcome Bridge Access – need better access for launching boats with trailers
- Road washout – near Canyon Lake Creek

Middle Fork

- Elbow Lake North/Ridley Creek – need bridge
- Potential road closure of the Middle Fork road near Clearwater Creek
- Dam removal of the Middle Fork Diversion Dam

South Fork

- Inner Tubes – lack of sanitation facilities in the south fork reach from below Acme
- ATVs and motorcycles in the south fork near Cavanaugh Creek
- Motorized dredging
- Loss of access on the South Fork
- Low summer flows – Acme to Hwy 9
- Hwy 9 overnight camping – suggest day use only signs
- Upper South Fork – lack of access to the 200 Bridge (timber companies)
- Fishing access Mosquito Lake Road – lower South Fork
- Salmon health - Spring Chinook, steelhead habitat, native, ESA

Ecological Values

- Marble Murrelet - All three branches
- Harlequin Ducks on the North Fork – concern for when babies are being born and interactions with recreationists in August and September Ducks are also in the middle and south fork
- Elk – Elk winter in the north fork
- Wetland Below Maple Falls on the north Fork
- Nooksack Cirque, remote glacial headwater
- The preserve, Cougar Divide
- Old Growth –Mile 44
- Old Growth, foraging – Ridley Creek

- Large Salmon Area – South Fork
- Old Growth- Canyon Lake Creek
- Lahar deposit – Confluence with Middle Fork and North Fork
- South Fork, Cavanaugh Creek – wildlife, elk, salmon
- SCL lands along the South Fork – wildlife and fish
- Wilderness area between middle and south forks – wildlife habitat
- Canyon Creek, North Fork – Native Char Dolley Varden
- Canyon Creek, North Fork – fish habitat
- Old Growth, Nooksack RNA

Cultural Values - orange

- South Fork Park -Nesset Farm
- Tribal cultural sites – Clearwater Creek, Middle Fork
- Boyd Creek Waterfall
- Racehorse Creek Waterfall
- Tribal lands just upstream of Van Zandt (was an old village site along the river)
- Confluence of South Fork and North Fork and main-stem

Subsistence - yellow

- Foraging mushrooms, nettles – Ridley Creek
- Foraging – Dead horse Creek

Economic Value- Gray

- Maple Falls
- Glacier
- Deming
- Mt. Baker Ski Area
- Baker Summit
- Commercial Rafting

Spiritual/Aesthetic - Purple

- Nooksack Falls
- Cougar divide
- Cirque

- Nooksack Tribe
- Glacier Creek Palisades Gorge Slot Canyon
- Waterfall near confluence of Wanlick Creek and South Fork Nooksack
- Waterfall, Mazama Falls, end of Wells Creek
- Racehorse Creek – waterfall
- Boyd Creek Waterfall
- Warnick Bluffs view up valley – North Fork downstream of Canyon Creek
- Skyline divide views
- Yellow Aster Butte

Historic Value

- Glacier Ranger Station
- Excelsior Mine
- North Fork, Swamp Creek - Twin Lakes (long Jack mine)
- Old railroad bed along North Fork – historic value and potential trail (Bay to Baker)
- Nooksack Falls Powerhouse
- Cavanaugh Trestle
- Old marathon
- Pacific Northwest Scenic Trail – old trade route
- Excelsior Trail
- South Fork between Saxon Bridge and South Fork Park - Rothen Buller Homestead
- Fossil site on DNR land near Racehorse Creek on the Lower North Fork
- Fossil leaf imprints – North Fork between Gallop Creek and Canyon Creek

Important Recreation Sites

(From Individual Worksheets)

Code	Name of Place	Activities	Why is this place important
B1	NF Round slide Mt. Glacier	Hiking River canoeing	Historical structures, "remoteness" off highway
B2	Glacier- Wells Creek	Hiking, scenic	Nooksack Falls, Basalt Towers, Historic Structures
B3	Anderson Creek Road	Ski on frozen river sides, hike connect @ Wells Creek Road	Winter and summer access and off highway connection
B4	Razor Hone	Hike and snowshoe along river and uplands, Elk viewing	Off Highway recreation winter and summer access
B5	Nooksack Cirque	Hike water shoes, could rebuild bridge would help	
B6	SF	Hike	Historic Native American Sites, Pioneer sites, wildlife viewing, historic famous RxR trestles
B7	Ridley Creek	Hike, need bridge	Crossing MF beautiful historic route to Mt. Baker and meadows, historic structures
B8	Swift Creek	Hike, ski, snowshoe	Remote trail historic mines and cabins, old growth
B9	SF, Main-stem Van Zandt to Saltwater	Canoe	Scenic, historic Native American Sites, mild canoeing
C1	Lower NF	Fly-fishing, eagle watching	Relaxation and recreation
C2	Nesset Creek and Farm	Learning about salmon spawning and farming in the early 1900s	Excellent example of small creek spawning and early farm lifestyle
C3	Boyd Creek	Visit interpretive center	Helped construct this area. Excellent example for school children to learn of the salmon spawning cycle
C4	Glacier Creek	Walk	Example of a wild free flowing glacier fed creek
E1	MF Elbow Lake	Equestrian Trail ride	Great mountain riding
E2	SF Wanlick Creek	Equestrian Trail ride	Great mountain riding

Code	Name of Place	Activities	Why is this place important
E3	Park Butte	Equestrian Trail ride	Great mountain riding
E4	Excelsior	Equestrian Trail ride	Great mountain riding
E5	Hannegan Pass	Equestrian Trail ride	Great mountain riding
E6	South Fork Park or Hutchinson Creek?	Equestrian Trail ride	Great mountain riding
G1	Douglas Fir Camp Ground/ Horseshoe Bend	Raft and kayak launch	I use this location commercially and privately to launch and take-out rafts
G2	Welcome Bridge	Raft and kayak launch	
G3	Hwy 9 Bridge, near confluence	Kayak instruction	
G4	Nugent's Corner	Raft kayak	
G5	Acme Bridge	Raft, kayak	
G6	Powerhouse Wall	Climbing	Great bolted climbing
G7	Boyd Creek	Fishing	Caught my first bull trout here
G8	Potter Road Bridge	Raft/kayak launch	
G9	Twin Lake Road	Snowmobile/ back country ski	Access to backcountry ski terrain
G10	Horseshoe Bend Trail	Dog walk	
I1	Middle Fork Nooksack Canyon , FS 38 MP 5 to Mosquito Lake Road (including Clearwater Creek)	Whitewater kayaking, canyoneering	The canyon below the dam is one of the most beautiful I've ever seen in the country that is accessible to Class IV-V boaters
I2	Ridley Creek to Bell Pass Loop off FS 38	Hiking and Fishing and Wildlife Viewing	Solitude, great fishing in Wiseman Lake, awesome views
I3	Palisades Gorge on Glacier Creek	Views of Slot Canyon	Unique slot canyon only 3 feet wide in places, nice forest
I4	Deadhorse Road	Mountain biking, Hiking, mushroom Hunting, Foraging	Easy access to great trail, good views on trails
I5	NF Horseshoe Bend and canyon to Green Truss Bridge	Kayak, hiking	After work kayaking! Easy hiking with family

Code	Name of Place	Activities	Why is this place important
I6	Cougar divide area	Foraging, canyoneering on wells, waterfall viewing, Mt. Baker views	Many options for a great day of activities
I7	MP 44 Old Growth	Hike, hug a tree	Old growth, nice dispersed camp under cedars
I8	Canyon Creek Road	Hiking to Bear paw Lake, Kayaking	Remote, difficult kayaking
I9	Twin Sisters up FS 38	Hiking, skiing, mountain biking	Only 1 other place in the world where duniTc (part of the earth's mantle) comes to the surface
I10	Glacier Disc Golf Course	36 holes of disc golf	Great for the whole family, hike in the woods
K1	Canyon Lake	Fish, hike	Quiet
K2	Daming-Briobu Access?	Walks	Convenient
K3	Warnick Bridge	Fish/walk	Access
K4	Maple Falls	Hike/fish	Trail and access

Focus Group II at Van Zandt Community Hall

Meeting Notes and Responses, 9/24/2014

Participants

Jon Knechtel, Pacific Northwest Trail Association; Pete Tryon, Nordic Ski Club; Meg Hayes, Nordic Ski Club; Todd Elsworth, Recreation Northwest; Bill McKenna, Back Country Horsemen and B&B owner; Mike McGlenn, Back Country Horsemen; Arlen Bogaards, Washington Trails Association; Rebecca Boonstra, Mt. Baker Foothills Chamber; Bud Hardwick, Whatcom Events; Karlee Deatharage, Representative DelBene Staff; Leo Bodensteiner, Professor Huxley Western Washington University; Doug Huddle; Dirk Fabian, kayaker; Eric Brown, Whatcom Mountain Biking Club; Helen Almojera, Back Country Horsemen; Roger Nelson, Back Country Horsemen; Thomas O'Keefe, American Whitewater; Rod Lamb, Whatcom County Parks and Recreaiton Department; Wendy McDermott, American Rivers; Rich Bowers, Hydropower Reform Coallition; Phil Kincare, United States Forest Service, Susan Rosebrough, National Park Service

New Ideas or Changes/Concerns about Existing Recommendations

Trails

North Fork

- Some participants noted that Hannegan Pass trailhead is starting to washout and that this is the only equestrian access from Whatcom County into the North Cascades National Park
    - Response: The plan was modified to say that this access is important as it is the only Whatcom County access to the North Cascades National Park for equestrians and it is recommend that this access be maintained into the future (see Recommendations Section, Goal 5, Upper North Fork).
- Hannegan Pass – prohibit motorized in the winter and groom for skiing
    - Response: No change, much of that area is outside of our study area. Changing the type of use would require travel management planning and input from the motorized and non-motorized groups. It would also be difficult to plow given the way WSDOT piles snow in that area. The plan does generally mention the desired for non- motorized skiing trails and recommends expansion of the Salmon Ridge System which is within the study area.
- Create a new Sno-Park parking lot near Galena Cr., utilizing the old Forest Service road there. Create a new ski trail connecting the Razor Hone Road trail and the White Salmon Road trail.
    - Response: Added this new recommendation to the plan (see Goal 5, Upper North Fork section).
- Salmon Ridge XC – trails and road could also be used as cross country mountain bike trails
    - Response: No change in the plan, forest roads can be used by mountain bikes and x-country trails

- Build trail down razor hone road and trailhead for the PNWNST
    - Response: This recommendation was in the plan, but not shown on the North Fork recommendation map. The recommendation was added to the map.
- Lots of interest in more access at the RNA: (Research Natural Area; Big Trees; Druid's Grove near Milepost 44)
    - Response: Modified the plan recommendation to say explore feasibility of creating a simple sustainable trail here in addition to the existing education recommendation (see Recommendation Chapter, Goal 5, Upper North Fork).
- Trail connecting Douglas Fir campground to town of Glacier
    - Response: Modified the plan's general recommendations to talk about the desire for trails connecting communities under the Recommendations Chapter, Goal 5. Discuss the desire to connect the Douglas Fir Campground to the community of Glacier. The challenges of this are that the public land is on the north side and private land is on the south side. The connection would require interest and cooperation of private landowners.
- Public land on north river, south side has private land; would require interest and cooperation of private landowners; desire to connect communities; - Chamber of commerce;
- Glacier community trail should include horse – work with land trust to include trail over wild cat creek off Cornell creek road
    - Response: This WLT property is open to foot traffic only. At this point, WLT would not intend to develop an access point that would increase use or more particularly horse specific access point on the Wildcat (Steiner) property which is dedicated to salmon recovery and conservation purposes. The creek systems on this property are very dynamic and access across it would likely need to be pretty deep into the property.
- Improve and expand mountain bike use in the canyon ridge trail area. The western portion of the trail is in the greatest need for improvement.
    - Response: The plan was modified to add a recommendation to improve the Canyon Ridge trail to make it more sustainable. The Canyon Ridge area was added to the potential locations for additional mountain bike use (see Recommendations Chapter, Goal 5, Middle North Fork).
- Need trail access east of Glacier town site – connect people off highway and connect all the way to Maple Falls
    - Response: The plan was modified to add more language to our recommendations around the Glacier Community Trail and Bay to Baker Trail and the desire to keep people off the highway (see Recommendations Chapter, Goal 5, Middle North Fork Section).
- Managing of social trails associated with mountain biking in Glacier area
    - Response: The plan was modified to include this to the recommendation (see Recommendations Chapter, Goal 5, Middle North Fork section).
- Since Racehorse trails are closed, can there be a designated area for this use
    - Response: No change, while not reflected on the maps, the plan does discuss this need
- Concern about the Golf course and it being in the river corridor

- Response: It is on the opposite side of the road to the river, this may not have been clear at the meeting.

- Bay to Baker Trail from Glacier to mount Baker is missing
  - Response: The Bay to Baker Trail is included in the plan, the map just shows it at the other end of the trail.

Middle Fork

- Middle Fork: Strengthen Elbow Lake Bridge language and put a bridge on Ridley Creek
  - Response: Modified the plan to recommend that a bridge be provided at Elbow Lake Trailhead that provides access to the Elbow Lake and Ridley Creek Trails. Also, add to this recommendation that the Ridley Creek Trail area is within the grizzly bear habitat management zone and trail construction needs to fully consider impacts to this (see, Recommendations Section, Goal 3 and Implementation Section).

- Mountain bike – missing on clear water
  - Response: No change as these trails are located on the plan's existing use maps, but it was not on the recommendations maps. MBMC is interested in acknowledgment of these existing trails and for DNR to allow some maintenance and improvements.

South Fork

- Lots of participants were concerned about taking out 1260 bridge without replacing it with a bridge or marking a place to ford the river. Although many people had not been there themselves, there was a general concern about losing access.
  - Response: No change, there are no established trails on the other side of the river and therefore continued formal access was determined to be unnecessary. On the other side of the river, there are just boot paths that could be used by those seeking rugged experiences. These types of users can find their own path across the river. The plan does include enhancements to the Pacific Northwest National Scenic Trail along the South Fork.

- Relocation of Nooksack Flats Trail
  - Action: The plan was modified to add this recommendation. There is a need for a re-route due to the trail frequently being washed away by the river.

- Access to the South Fork for boating
  - Response: No action, plan states AC could not reach consensus

General

- Missing hunting and foraging elements
  - Response: No change, the plan has a paragraph on each in our plan, but there are not any recommendations for improvements for this. Participants did not suggest any additional recommendations for this.

River Access

- Extending Douglas Fir campground seems inconsistent with protecting redds
  - Response: Add a recommendation to place signs at campgrounds when salmon are

spawning to encourage people to stay out of the river to protect salmon redds.

- Middle Fork: kayak access at Ridley Creek Trailhead?
    - Response: The upper Middle Fork section is not used by kayakers' so there is not a need currently for this access site.
- Kayak access sites also provide fishing access
    - Response: The plan states that river access sites can be used for both fishing and boating.
- Concern about LWD and boater safety
    - Response: The plan has a recommendation that project proponents share the location with AW and they include it on their website. There was also a recommendation that these locations be mapped and shared.
- Recommend limiting access from Saxon to Acme to limit hazing of Chinook
    - Response: No change in the plan, this section is already closed
- Is 200 bridge a realistic access point
    - Response: This site does have very limited use, but it is open for those who are willing to do the long shuttle.

Conservation

Diversion Dam Removal: Some concern that the existing water supply would not change and also one concern about Lake Whatcom kokanee

Response: No change to the plan. This action is the number one action identified in the WRIA Salmonid Recovery Plan. The City of Bellingham would still be able to divert water. Concerns regarding Lake Whatcom kokanee were resolved through a multi-agency pathologist analysis that concluded the risk of disease was low.

Recommendations That Participants Liked:

Trails

North Fork:

- Bay to Baker Trail – 8 dots
- Mountain Bike Trails near Glacier – 5 dots
- X-Country Ski Trails – 4 dots
- Hannegan Pass Horse Trailhead– 4 dots
- Water Trail – 3 dots
- Glacier Community Trail – 3 dots
- Horseshoe Bend Trail – 2 dots
- Nooksack Falls – 2 dots

- Mountain Bike Trail from Mt. Baker to WSDOT lot – 2 dots
- Disco Golf Course – 1 dot

Middle Fork & South Fork:

- Non-motorized snow parks – 3 dots
- Elbow Lake & Ridley Creek Trailheads – 6 dots
- PNWST – 4
- Loop Trail for equestrians and hikers – 4 dots

River Access

- Strong interest in extending campground season
- Maple Falls Access-6
- Warnick Bridge River Access Improvements – 3
- Gallup Creek Sign road and trail access and delineate parking -3
- Extend Douglas Fir campground season – 8
- Extend Excelsior Campground season – 4
- Extend Silver Fir Campground – 5
- Maintaining access along the Clearwater creek and Middle Fork - 5
- Upper Horseshoe Bend-4

Conservation, Management and Education

- Strong interest in education and interpretation – 5 dots
- Strong support for Razor Hone work and preventing damage from people driving in into the river – 6 dots
- Education around boating closure – 5 dots
- Strengthening suction dredging enforcement and regulations – 6 dots
- Bridge Removal – 2 dots
- Protecting Upper North Fork wetlands- 3 dots
- River Restoration – 3 dots
- River Guide – 2 dots
- Diversion Dam removal- 2 dots (many others say they would support as long as water is still supplied to Bellingham)
- Support of River Stewards Program with NSEA & USFS- 4 dots
- Nooksack RNA – educational signage about forest ecosystem- 3 dots

Resources Available and Offers of Help

- User groups can really help get the education message out!
- Tourism and chambers can help get the education message out and help direct users to appropriate places. They can help with the education component
- Volunteer labor
- Washington Trails Association has a huge member list of people interested in volunteering!
- Groups can help including Washington Trails Association, Back Country Horsemen, Whatcom Mountain Bike Club, American Whitewater, Pacific Northwest Trails Association
- Leo Bodensteiner volunteered to generate student and professor interest to help produce educational materials
- Chamber volunteered to get information out to the public, community members, business owners on education and where to go and not to go. They have a newsletter and are interested in doing some features
- Trail planning and building (WTA, WMBC, BCH)
- Community fundraising for access improvements

Concerns

- No angling groups represented at workshop
- Recreational impacts on spawning fish
    - Specific locations (saxon bridge)

Barriers

- People are unaware of the MF and to a lesser degree of the SF recreation
- Funding
- Enforcement of restrictions on any activity
- Protection of salmon habitat
- DNR access

Top Things to Focus on

- Education is better than regulation especially given lack of enforcement
- Winter recreation
- Better river access
- River access at Maple Falls
- Improving access and publicity for such a large river system as a paddling destination