The Mt. Baker Foothills
Chain of Trails Concept Plan

"A safe, accessible network of non-motorized trails connecting communities in the Mt. Baker Foothills providing everyone with improved opportunities for travel, recreation, personal well-being, community enhancement, and commerce."

Prepared in partnership with:

Mt. Baker Foothills Economic Development Association
Whatcom Council of Governments
Port of Bellingham
Whatcom County Parks and Recreation Department

with technical assistance from:

National Park Service Rivers, Trails, and Conservation Assistance Program

with funding from:
Federal Highways Administration
Transportation and Community and System Preservation Grant Program

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Table of Contents

Chain of Trails Concept Plan

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Alan Seid, Kendall business owner
Gordon Rogers and Ellen Barton of the Whatcom Council of Governments
Hal Hart, Sylvia Goodwin, Troy Holbrook and Amy Peterson of the Whatcom County Planning and Development Department

The Mt. Baker Foothills tells many forestry stories. The Chain of Trails helps visitors and residents learn the history of Silver Lake Park (pictured) and other heritage sites.

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Gordon Rogers, Deputy Director
Ellen Barton, Project Coordinator

Chain of Trails Core Advisory Committee:
Jeff Margolis, Van Zandt
Scott Thompson, Deming
Rich Clearman, Everson
Alan Seid, Kendall
Lou Piotrowski, Glacier
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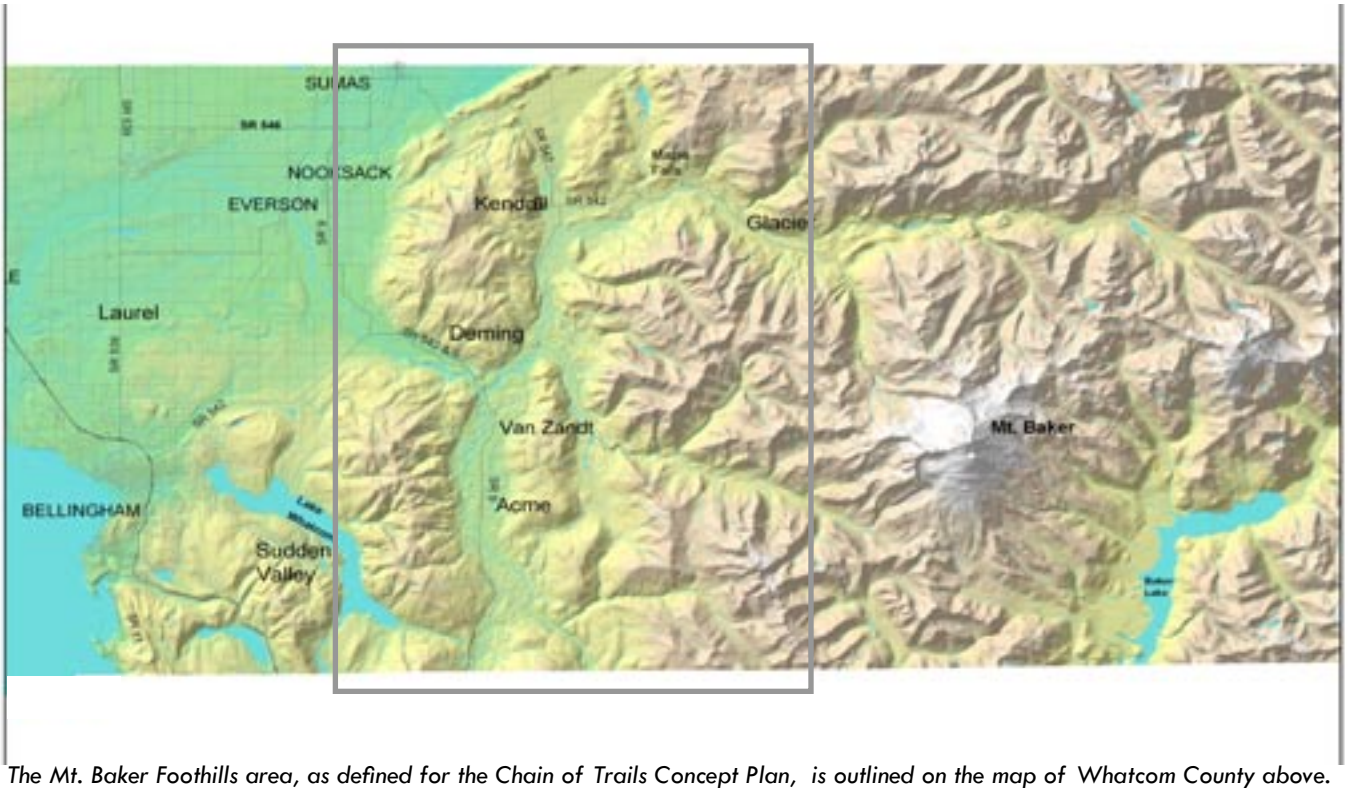
Three young travelers cross a trail bridge in Arroyo Park.
Trails bridge past and future, recreation and transportation.

Chain of Trails Concept Plan



The Mt. Baker Foothills area, as defined for the Chain of Trails Concept Plan, is outlined on the map of Whatcom County above. Starting about ten miles inland from the Salish Sea, the Foothills planning area extends east to the National Forest boundary.

The Mt. Baker Foothills Overview

This plan presents a concept for the development of a trail network for the Mt. Baker Foothills region. Located inland from the coastal waters of Bellingham Bay and the Strait of Georgia, the Foothills share qualities of the North Cascades mountains as well as some of the cultural history of the coastal areas. The plan addresses the cultural and recreational resources, the existing trail corridors and proposed loops to serve transportation and recreation for residents and visitors.

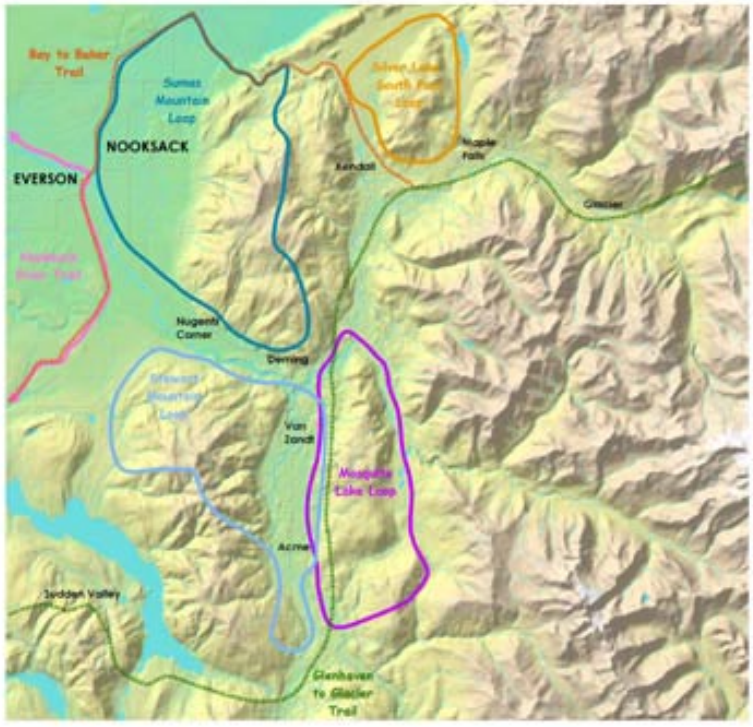
The Mt. Baker Foothills Chain of Trails Planning Area is defined as roughly equivalent to the Mt. Baker School District. The District is unique in Whatcom County in having no incorporated cities within its boundaries. Residents of the Foothills choose to live in this remote area because of their love of nature, privacy, and the rural lifestyle. Visitors are attracted to the Foothills by these same rare qualities.

The Chain of Trails Concept

Mt. Baker Foothills residents and visitors are interested in a network of trails to connect the Foothills communities as a way to preserve and enhance quality of life. Furthermore, the economic benefits that such a network of trails brings will help revitalize the employment and tax-base prospects of the Foothills to ensure a continuing strong Foothills community.

The Chain of Trails Plan emphasizes development of trails that connect communities and serve other destinations. The "chain" in Chain of Trails is an interconnected series of loop trails. These loops serve all types of travelers: those who wish to make short functional trips within the Foothills, or travelers who plan a long recreational journey, or those using trails to connect to destinations beyond the Foothills. The proposed trail loops include trails that lead a traveler from residence to recreation, or from river to mountain, or directly from home to work or school, and a variety of combinations.

The conceptual map below sketches out some of the initially identified loops along with some connecting corridors that would serve a variety of trail travelers.



Background

In the early 1990s, the Mt. Baker School District Superintendent began informal discussions with community members and business leaders about how best to sustain the high quality of the school system in the face of decreasing district revenues. Prior to that time, school district revenues were bolstered by the forestry industry and other resource extraction industries. In 1997, the Port of Bellingham received economic development funding to facilitate an on-going locally-led forum in selected unincorporated communities in Whatcom County. The Mt. Baker Foothills Steering Committee held a public forum on October 18, 1997, to begin the work to generate economic re-vitalization. The Steering Committee approached the

question of economic development with a strong commitment to simultaneously preserving the foothills quality of life. Access to nature, enjoyment of the outdoors, and keeping the rustic rural undeveloped atmosphere were qualities that residents wanted maintained and enhanced while pursuing economic development. Research showed that regional trail systems brought substantial economic gains for dozens of other rural communities similar to the Foothills.

The Planning Process

The Whatcom Council of Governments facilitated a series of meetings of the Foothills Steering Committee to develop a project action plan that included:

- expanding public involvement,
- conducting outreach through an opinion survey,
- compiling a facilities inventory
- coordinating with other County plans
- inviting and working with regional partners
- outlining an implementation plan

In 2002, the Steering Committee, assisted by leadership from the newly revitalized Mt. Baker Foothills Chamber of Commerce, reorganized itself as the Mt. Baker Foothills Economic Development Association (EDA). The volunteers of the Trails and Recreation committee of the EDA were the central powerhouse driving the Chain of Trails planning process and this committee eventually became the founding group for Whatcom TrailNet.

Summary Trail Recommendations

The proposed Chain of Trails network will utilize several existing trails and roads. By linking them through strategically located new trail segments, these trails and roads become a series of interconnected loop routes throughout the Foothills. This concept plan details eleven specific loop trails, comprising approximately 260 total trail miles, that would serve a variety of different types of travelers – hikers, road and mountain bicyclists, horseback riders and others. The key connecting links that this plan recommends for construction or acquisition would total approximately 30 miles. Of these proposed new links, most are segments less than one mile in length. In several cases, acquisition or negotiated permission for public access (rather than new construction) would be sufficient to complete the missing links.

The eleven loop routes comprising the proposed Mt. Baker Foothills Chain of Trails are described in summary below and on the next page.

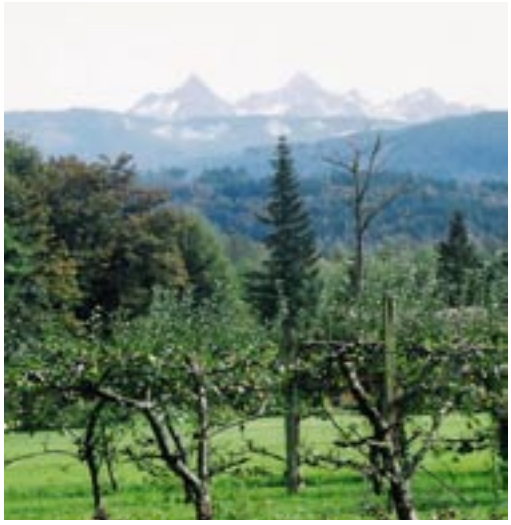
Proposed Loop Trail Name	Location Description	Approximate Length
1. Lake Whatcom Loop Trail	Trail around the entire Lake and connecting to Lookout Mountain trails	30 mi (48 km)
2. Squalicum Mountain Loop Trail	Trail from Lake Whatcom across the north side of Squalicum Mountain	11 mi (18 km)

3. North Stewart Mountain Loop Trail	Trail from the northwest of Stewart Mountain across the north side of the mountain to Van Zandt, returning along a lower elevation forest road.	24 mi (39 km)
4. South Stewart Mountain Loop Trail	Trail from west side of Stewart Mountain going southeast across the peak to Acme, returning along a parallel forest road route.	34 mi (55 km)
5. Cedarville Uuluquance Trail	Trail along north base of Stewart Mountain from Nugent's Corner to Van Zandt, returning via Deming.	21 mi (33 km)
6. South Fork Loop Trail	Trail around the base of Stewart Mountain and the Van Zandt Dike connecting Van Zandt, Acme, and Wickersham.	16 mi (26 km)
7. Mosquito Lake Loop Trail	Trail on shared Mosquito Lake Road (with traffic calming) with alternate routes over Van Zandt Dike and Canyon Creek Park.	25 mi (40 km)
8. Sumas Mountain Loop Trail	Trail from north Sumas Mountain going south across the crest to Deming, returning north along Nooksack River North Fork, crossing south of Kendall	27 mi (43 km)
9. Columbia Valley Trail Loop	Trail north along Kendall-Sumas Road proposed side walking path to Heady Road returning south via Paradise and Peaceful Valley	19 mi (31 km)
10. Maple Creek Loop Trail	Trail north along shared Silver Lake Road with traffic calming, across Lemola Pass to Vedder Mountain, returning south via new and existing trails east of Silver Lake	18 mi (29 km)
11. Maple Falls – Glacier Loop Trail	Trail east from Maple Falls along Bay to Baker Trail past Glacier to USFS center, north on Douglas Fir trail then west over Black Mountain forest roads	35 mi. (56 km)

Chain of Trails Concept Plan Introduction

Mt. Baker Foothills Steering Committee

In the early 1990s, the Mt. Baker School District Superintendent began informal discussions with community members and business leaders about how best to sustain the high quality of the school system in the face of decreasing district revenues. Prior to that time, school district revenues were bolstered by the forestry industry and other resource extraction industries. These formed the primary economic base for the Foothills economy since the 1880s. By the 1980s, changes in international forest products trade and U.S. forestry harvest regulations began to result in reduced school revenues from those sources. Meanwhile the resident population in the Foothills continued to increase as did the student population. Community members felt that it would be prudent to develop other sources of revenue would have to be developed both to support the school system and to support the livelihoods of the residents.



In 1997, the Port of Bellingham received economic development funding to facilitate an on-going locally-led forum in selected unincorporated communities in Whatcom County. The Mt. Baker Foothills Steering Committee held a public forum on October 18, 1997, to begin the work to generate economic re-vitalization. Figure 1.2 lists the founding steering committee members.

The diversity of interests represented on the Steering Committee created a strong coalition that agreed to work together to arrive at solutions that would establish sustainable family-wage jobs in the Foothills. In September, 1999, the Port of Bellingham, on behalf of the Mt. Baker Steering Committee, contracted with BST Associates of Bothell, Washington, to research and publish the *East*

Founding members of the Mt. Baker Foothills Steering Committee in 1997:

Art Anderson, Associated General Contractors
Wayne Beech, Maple Falls Resident (Retired Forestry worker)
Anne Bowen, Bellingham/Whatcom Economic Development Council
Mike Brennan, Bellingham/Whatcom Chamber of Commerce
Phil Cloward, Mt. Baker Foothills Chamber of Commerce
Bob Hilpert, Port of Bellingham
Duncan Howat, Mount Baker Ski Area
Bob Hughes, Esq., Bellingham (Attorney)
Jerry Hunter, Mount Baker School District
Michael Knapp, Whatcom County Planning
Paula Kurtz, Trillium Corporation
Butch Kvamme, Everson Resident
Kathy Larson, Puget Sound Energy
Karen Turner Lee, Puget Sound Energy
Jeff Margolis, Everybody's Store
Jeff Marr, Barter & Marr Logging
Leo Sygitowicz, Deming Resident
Fenton Wilkinson, Sustainable Options
Hubert Williams, Nooksack Tribal Council
Dan Zender, Esq., Simonarson, Visser, Zender & Thurston Attorneys

Whatcom County Economic Development Plan. The resulting analysis helped the committee focus on existing assets, market trends, and how to capitalize on these strengths for economic growth.

Quality of Life and Trails

The Steering Committee approached the question of economic development with a strong commitment to simultaneously preserving the Foothills quality of life. Access to nature, enjoyment of the outdoors, and keeping the rustic, rural undeveloped landscape character were qualities that residents wanted maintained and enhanced while pursuing economic development.

Initial research showed that regional trail systems can bring substantial economic gains for rural communities. Moab, Utah, for example, shares a similar history to the Mt. Baker Foothills. Moab's economy was historically based on extractive resource industries, but by the 1980s mining was no longer a thriving industry there. At that time, the mountain biking sport was beginning to attract attention and Moab began to establish mountain biking trails. Within a decade it had become a premier mountain biking destination generating annual revenues over $8 million[1].

In late 1999, the Mt. Baker Foothills Steering Committee partnered with the Whatcom Council of Governments (WCOG) to develop a grant proposal for the Chain of Trails project. In June, 2000, the Chain of Trails project was awarded Federal Highway Administration funds from the Transportation, Community and System Preservation grant program. The Steering Committee, through WCOG, received a grant of $126,000 to plan a regional network of trails to improve community quality of life, commerce and non-motorized transportation in the Foothills region.

The Chain of Trails Planning Process

The Whatcom Council of Governments facilitated a series of meetings of the Foothills Steering Committee to develop a project action plan as follows:

A. Initial Public involvement – Many people in the community had an interest in trails, but were not yet part of the steering committee. One of the first steps was to invite members of the public with specific types of trail experience to participate along with trail-related organizations such as the Back Country Horsemen, the Whatcom Mountain Pedalers, the Mt. Baker Club (a hiking group) and other groups. These trail users helped form a Task Force to plan the Chain of Trails. The Task Force started as a sub-committee of the Steering Committee.

B. Public opinion survey – The Task Force worked together with the Steering Committee to design a generalized opinion survey for Foothills residents. The opinion survey was designed to publicize the project and to "take the temperature" of the general Foothills population regarding attitudes about trails and interests in safer walking and bicycling facilities. While not scientifically accurate, the "opinionaire" survey gave an initial understanding of public interest in trails and helped increase participation in the Task Force.

C. Facilities inventory – The Task Force began to research: What trails already exist? What rights-of-way exist that offer possible trail development potential? What destinations should be linked by the trail system? Some of the answers to these questions came from the experience of Task Force members who hiked, rode, or built trails; other information was available from land managers such as the Crown Pacific Timber Corporation.

D. Coordination with County Plans – The Task Force decided that a strategy to have the plan adopted by the Whatcom County Council would be an important step in order to ensure that the trails could be developed and remain open to the public. The Task Force coordinated with the Parks Department throughout the process to ensure that the Chain of Trails plan could be included in the 2005 update of the Whatcom County Parks and Recreation and Open Space Comprehensive Plan.

E. Partner and public outreach – State, local, and federal agencies, along with private businesses, land managers, and residents have important roles to play in planning a trail system. Members of the Task Force met with the major land managers to ask their advice about how the plan should reference their properties, if at all. Residents and local property owners overwhelmingly supported the concept of a community trail network. Some residential land owners were interested in establishing publicly accessible trails through their own property provided that good trail management policies and liability protection were guaranteed.

F. Implementation plan – The Task Force developed a strategy to determine who would carry out the work of building the Chain of Trails, who would manage and maintain them, and where funding could come from.

Ancestors of some Mt. Baker Foothills Steering Committee Members have lived and worked in the Foothills for generations.

The Steering Committee established the general direction for the Chain of Trails planning project from July, 2000 to February, 2001. From March, 2001 to March, 2003, the Task Force, with facilitation from WCOG, carried out the Chain of Trails work, reporting to the Steering Committee on a monthly basis.

In 2002, the Steering Committee, assisted by leadership from the newly revitalized Mt. Baker Foothills Chamber of Commerce, reorganized itself as the Mt. Baker Foothills Economic Development Association.

Members of the Mt. Baker Foothills Economic Development Association in 2004

Mt. Baker School District, *Rick Gantman*
Black Mountain Ranch, *Phil Cloward*
Black Mountain Forestry Center, *Becky Rainey*
Everybody's Store, *Jeff Margolis*
Everson/Nooksack Chamber, *Tony Kelley*
Foothills Chamber of Commerce, *Lou Piotrowski*
Mount Baker Experience, *Louise Mugar*
Kendall Watch, *Norma Kerchan*
Nooksack Tribe/Casino, *John Hogl*
North Fork Community Network, *Marcy Bartelds*
South Fork Community Network, *Lisa Brown*
The Inn at Mt. Baker, *Carole MacDonald*
Port of Bellingham, *Dodd Snodgrass*
Convention and Visitors' Bureau, *John Cooper*
Whatcom County Parks & Rec., *Michael McFarlane*
Whatcom County Council, *Sam Crawford*
Whatcom County Planning, *Amy Devere-Pederson*
Whatcom Council of Governments, *Ellen Barton*

Initial Survey Questionnaire results

Among the Steering Committee members, opinions about trails differed considerably. In the early 1990s, a trail project had generated considerable opposition among residents in the area around Glacier. Concerns at that time centered around the fact that the trail right-of-way would bring trail users relatively close to some residences, creating a privacy and security concern. The committee directed the Chain of Trails project to ensure that private property rights and privacy for adjacent property owners be scrupulously protected in any trail development plan.

To determine the general community attitude about trails, and to help inform the community about the project, the Steering Committee helped develop an opinion questionnaire. This opinion survey was distributed to all Foothills residents through the Mount Baker Experience newspaper and through the Mt. Baker School District newsletter. Results of the opinion survey were graphed as shown in the following pages. Analysis of the data, while not scientific, demonstrates in a general way the importance to Foothills residents of access to natural outdoors recreation and also the importance of safe ways for children to walk to school. Out of the nearly 300 returned surveys, six included comments specifically opposed to trails, citing reasons of privacy and security.

Attitudes about trails often change over time as people's experiences change. For example, many residents along Whatcom County's Interurban Trail near Chuckanut Drive initially opposed the establishment of this public trail. After enjoying the use of the trail and seeing the increase in property values because of their proximity to the trail, these

same residents came to strongly support the trail. Similar stories are told about the Burke-Gilman Trail in Seattle, and, in Clallam County properties on the Olympic Discovery Trail sell for about $30,000 more than equivalent properties away from the trail. One of the most interesting results of the Chain of Trails opinion survey was the positive response of one of the residents who, in the early 1990s, had been opposed to trails. He took time to write a detailed letter describing the importance of safe walking and bicycling and horseback riding routes, showing a distinct change in opinion over the intervening years.

Partnership Building

Members of the Chain of Trails Task Force presented information to a number of Foothills community groups during 2001. These presentations helped to generate public awareness of the project and to invite participation among a wide spectrum of residents, both those who supported trails and those with concerns about trails.

Chain of Trails Task Force made presentations to these community groups during 2001:

- Bellingham Riding Club
- Back Country Horsemen of Whatcom County
- Mt. Baker Hiking Club
- Whatcom Independent Mountain Pedalers
- North Fork Community Network
- South Fork Community Network
- Everson/Nooksack Chamber of Commerce
- Sumas Chamber of Commerce
- Nooksack Nordic Ski Club
- Pacific Northwest Trail Association
- Bellingham Bicycle Pedestrian Advisory Committee
- Mt. Baker Bicycle Club
- Mt. Baker Chamber of Commerce
- Black Mountain Forestry Center

In the course of this outreach, the Task Force saw that the walkability and bicycle safety goals of the Chain of Trails project would be important to other parts of Whatcom County. In turn, the Task Force members realized that technical assistance and participation from County departments such as Parks, Planning, Public Works and Health, would be important in developing policies and procedures to implement the plan over the long term.

It made sense to develop these policies and procedures in concert with the needs of the entire County rather than duplicating the work for the Foothills alone. With this in mind, several members of the Chain of Trails Task Force worked with the County Council and the County Executive to establish the Whatcom County Bicycle Pedestrian Advisory Committee in June, 2001.

Bicycle Pedestrian Advisory Committee Trails Sub-committee

The Bicycle Pedestrian Advisory Committee (BPAC) Trails sub-committee became an active partner in furthering the work of the Chain of Trails group. Collaborating with the BPAC, the Chain of Trails group developed a more detailed opinion survey

The **Whatcom Bicycle Pedestrian Advisory Committee** conducted outreach about trails at Fairs and Festivals during Summer, 2001 at the following events:

- Deming Logging Show
- Sumas Community Festival
- Everson/Nooksack Community Festival
- Northwest Washington Fair, Lynden
- World of Wood Festival, Black Mountain Forestry Center, Maple Falls/Silver Lake Park

on walking and bicycling facilities in the unincorporated County. Volunteers staffed booths at fairs and festivals throughout the summer of 2001, focusing on events in the Foothills area.

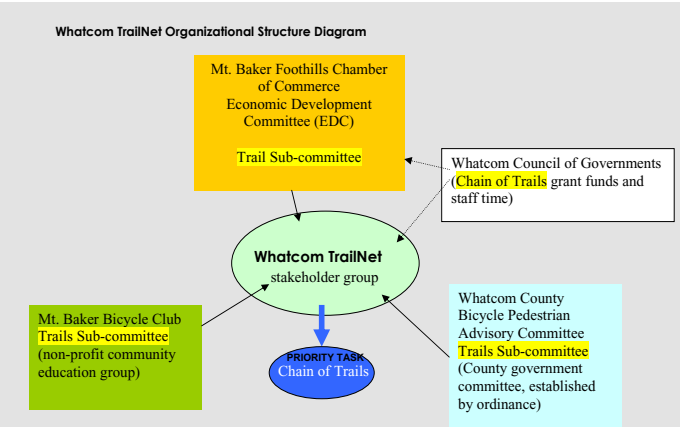
Results of the Bicycle Pedestrian Advisory Committee survey are shown in graph form in Appendix 1. In partnership with the BPAC, the Chain of Trails developed the preliminary trails and bike route map adopted by the Whatcom County Council in March, 2002, and the Whatcom County Bicycle Plan, adopted by the Council as part of the updated Comprehensive Plan in October, 2002.

Mt. Baker Bicycle Club Trails Sub-committee

Other groups were working on trails in Whatcom County and the Task Force sought them out as partners for preparing the Chain of Trails Concept Plan. Members of the Mt. Baker Bicycle Club found that there was a need for trail development to serve those bicyclists who preferred to ride on facilities separated from motor vehicles. Another bicycle group, the Whatcom Independent Mountain Pedalers, emphasized mountain bicycling on specially designed, remote, rugged trails, mainly on Lookout Mountain (nicknamed Galbraith Mountain). The Mt. Baker Bicycle Club Trail Sub-committee began to advocate for transportation-oriented trails -- differing from mountain bike trails by having more gradual grading, firm surfacing, standardized width, and proximity to communities. This type of trail design and function for transportation matched the Chain of Trails concept of connecting communities.

Through the Chain of Trails project outreach, the Task Force engaged others interested in working on related projects. Members of the Mt. Baker Foothills Economic Development Association provided important information about the history, culture, infrastructure, and economy of the Foothills, but were not able to offer technical trail knowledge that specialized trail user groups could bring. The Task Force decided to form a partnership that would draw on the existing expertise and energy in the community. By February, 2003, the Chain of Trails Task Force expanded to include the trails sub-committees of the following three groups:

- Mt. Baker Foothills Economic Development Association
- Whatcom County Bicycle Pedestrian Advisory Committee
- Mt. Baker Bicycle Club



Goals of the Chain of Trails proposal

The Chain of Trails project was funded in the year 2000 through a $126,000 grant from the Transportation and Community and System Preservation (TCSP) program of the Federal Highways Administration Transportation Equity Act for the 21st Century. The TCSP pilot project grant program supports improved transportation through preservation and innovative or expanded use of infrastructure with the goal of bolstering local economic strength. The TCSP program supports trails designed for functional transportation to connect communities rather than recreational trails.

The TCSP grant program recognizes the important role that transportation infrastructure has in furthering or hindering the maintenance of vibrant community life. Transportation infrastructure in the Foothills includes rail lines, trails, waterways, public and private bus systems as well as public and private paved and unpaved roadways. The Foothills'network of former rail lines, logging roads, and waterways represents an underutilized transportation infrastructure that could potentially be developed to benefit the local community as the Chain of Trails.

Whatcom Council of Governments and the Mt. Baker Foothills Economic Development Association agreed to use the grant funds to pay for half-time staffing for the project from 2001 to 2004.

The Chain of Trails project proposal sought to increase regional mobility through innovative and enhanced development of existing transportation infrastructure while improving safety and access for non-motorized transportation. The grant proposal described a two-part approach that would result in:

- Safety improvements for non-motorized travelers and trail facilities to improve the health of Foothills residents through increased physical activity, including a 70-mile bike/hike trail loop connecting to regional and international trail systems
- An action plan for a destination tourism facility consistent with the Mt. Baker Foothills community vision.

The project result, this Chain of Trails Concept Plan, describes recommendations for attainment of these goals that could result in quantifiable, replicable improvements for the state and region including:

- Increased public awareness of transportation and land use issues as they affect health and community

- Economic diversification and development to maintain and build a vibrant regional business climate.

The innovative approach of the Chain of Trails Plan is its strategy to alleviate road over-use through an economic development model based entirely on non-motorized transportation.

The kinds of economic development envisioned for the Foothills arising from the implementation of the Chain of Trails Concept Plan include job creation in:

- eco-tourism
- trail construction and maintenance
- recreational guide services
- hospitality services
- events
- communications services.

"The Chain of Trails project is an economic development engine that will encourage businesses such as cafés and bed & breakfasts to open along the trail."
– Mt. Baker Foothills Economic Development Association member

Thousands of trail travelers each year enjoy the Kettle Valley Trail in British Columbia.

By actively preserving and enhancing the unique economic assets that exist in the region, the Foothills community can build market share in a demand industry. Public access to open space and nature in a place which prizes its rural undeveloped character is a valuable and rare commodity that can command higher prices. The Mt. Baker Foothills Economic Development Association envisions that, with successful implementation of the Chain of Trails Concept Plan, property values may increase, thereby increasing school district revenues as well.

It is more economically efficient to preserve existing transportation system infrastructure than to try to purchase or create it anew. The Mt. Baker Foothills is a region whose assets include existing rail lines, former rail and road rights-of-way, waterway access, and logging roads or trails that represent an under-utilized transportation infrastructure. Over time, this infrastructure may lend itself to development of a trail network with a relatively low initial financial investment.

Other Goals of the Transportation Grant

Making the Foothills more walkable for residents and visitors will require a variety of approaches beyond planning and constructing a trail network. The Mt. Baker Foothills, like many rural regions, wrestles with the prospect of sprawl-type development. Distance and traffic may create disincentives to commute by walking or bicycling unless residents are shown how trails can serve their daily transportation needs. Outreach meetings conducted by the Chain of Trails Task Force helped facilitate a visioning

process to help residents articulate how walking and bicycling facilities could fit into the strategy to maintain quality of life in the Foothills. Below are descriptions of four processes by which Chain of Trails partnered to carry out the visioning task.

1. *Articulated Foothills Identity*: Chain of Trails Task Force members worked with the Whatcom County Planning and Development Department as they conducted community outreach as part of the update of the Foothills Sub-area Plan for the County Comprehensive Plan in 2002 and 2003. The long-range vision for the region's future is stated in the Sub-area plan draft excerpted here.

Mt. Baker Foothills Sub-area Community Vision (excerpt):

"A desired location for homes and businesses, with a rural community character, in an area of great natural beauty and environmental resources. The Foothills community envisions a vibrant and varied economy. Agriculture, geo-tourism, cottage, and light industry will provide decent wages and steady employment. A variety of housing options and growth are directed where appropriate to maintain the rural character of the area. Residents strive to be stewards of the environment and enjoy the natural resources. … Building active organizations and a strong community fabric, individual communities retain their unique characteristics. With a range of transportation options the roadways and neighborhoods are safe for both children and adults. A pristine natural setting inspires individuals, families, and businesses to locate and stay in the Mt. Baker Foothills Subarea."

Outreach to the Foothills community is complicated by distance, language and culture. Assisted by a graduate-level class from University of Washington, Whatcom County Planning Department conducted public participation forums in each community area. Translators were hired to assist with a meeting of the Ukranian community in the Kendall area. A meeting was held with the Nooksack Tribe, a federally-recognized jurisdiction within the Foothills area. Meetings in the Nooksack River South Fork Valley confirmed the unique and separate identity of this distinct County sub-area.

2. *Whatcom Transportation Authority (WTA) Outreach:* Chain of Trails Task Force members worked with WTA as it conducted public outreach to help improve the Whatcom County public transportation system. A public transportation plan that enables residents and visitors to access the regional trail system is key to sustaining the Foothills economy and to maintaining a low rate of increase in motor vehicle traffic on the existing roadways.

Based on comments from the public in these outreach forums, we established a baseline list of the characteristics that comprise "quality of life" to Foothills residents. These characteristics form part of the index by which to measure the success of the Chain of Trails Concept Plan. A summary list of the characteristics that are central to residents' sense of quality of life in the Foothills is included below.

3. *Whatcom Coalition for Healthy Communities*

"Community Counts" The Whatcom Coalition for Healthy Communities developed an indicator system to measure trends and factors affecting quality of life. The resulting report, Community Counts, was published in 2002. This compilation of data shows how Whatcom County quality of life compares to Washington State as a whole. As Community Counts is updated and re-published every few years, it will provide a useful measure of progress for Whatcom County as a whole and the Mt. Baker Foothills as a sub-area, to determine whether local decisions are helping achieve the desired community vision.

Characteristics of Quality of Life in the Foothills

- Strong local economy based on natural resources and cottage industry
- Access to forests, openspace, and outdoor recreation
- Good schools contributing to strong community
- Small villages with unique character
- Respect for the region's history

Community Counts is a report documenting data on 43 indicators for health, environment, crime, and other categories that, taken together, give a benchmark measure of Whatcom County's social health. Foothills residents can compare the trends shown in Community Counts to index progress toward preserving or creating the quality of life they have defined. For example, Foothills residents treasure outdoor recreational access, but Community Counts shows that only about a third of the population regularly engages in physical activity, while the rate of obesity in Washington more than doubled between 1990 and 2000. National studies by Active Living by Design show that trails and walking areas near homes are essential for ensuring that physical activity is part of daily life. Garnering public support in the Foothills for trails may be connected to public health as well as transportation

4. *Whatcom Transportation Summit:* Recognizing the integral role that transportation plays in community health, the Whatcom Coalition for Healthy Communities partnered with over 100 local businesses, government, and non-profit entities to convene a Transportation Summit in May, 2002. Together the group formulated a vision and strategy for a transportation system that would improve rather than degrade community health economically, environmentally, and socially. The important message from the summit resonates in the Foothills and for the Chain of Trails project: over-dependence on the private automobile can lead to reduced quality of life because of roadway congestion, pollution, and added public expense for infrastructure. Foothills residents already feel less safe on the roadways both as motorists and as pedestrians. Health risks associated with decreased physical activity are linked to whether residents have access to trails and places to walk safely as part of daily life. Currently, the Foothills lags behind Bellingham and the coastal areas of Whatcom County in the number and extent of public outdoor recreation sites located in proximity to residential areas.

CTAG community transportation advisory group

It matters how we get there

The summit participants emphasized the importance of taking action to avert transportation expenses and difficulties experienced by central Puget Sound and other communities throughout the nation. The findings were published in the report *It Matters How We Get There*. Acting on the recommendations of the publication, the Community Transportation Advisory Group was established and members of the Mt. Baker Foothills Economic Development Association became founding members. Some of the Advisory Group goals with specific relevance to the Foothills are listed below.

Principles and Goals of the Community Transportation Advisory Group with relevance to the Chain of Trails Concept Plan (*excerpts*)

"To preserve our precious quality of life, it is essential that each of the public agencies, private interests and jurisdictions which play a role in defining Whatcom County's transportation system work together in new ways. In the short term, our dedication will enable us to maintain our shared vision, in the long term, it will ensure a prosperous future for Whatcom County.

"Regional dependence on automobiles as the main method of transportation exacerbates problems.

"The vision for Whatcom County includes land use and transportation planning that enhances economic development and provides options for people to work, shop, and recreate close to home. Vital communities, viable farms, and green space should be preserved as attributes to the community. Whatcom County should remain a place where people have options for how to get to school, to work, or around their community.

1. Coordinate public and private policy decisions that support a connected regional multi-modal transportation system. …
2. Create a county-wide land use plan that supports and enhances a coordinated transportation system and sustainable economic development throughout the county. …
3. Land use planning should improve mobility by supporting a robust multi-modal transportation system.

Formation of Whatcom TrailNet

In March, 2003, the Chain of Trails Task Force adopted the name "Whatcom TrailNet" to describe the partnership coalition leading the Chain of Trails project. Whatcom TrailNet filled the need for a local community group working specifically on trail planning and development with the Chain of Trails Concept Plan as its first task. Envisioned as a coalition that would cooperate with other groups working on trails and related projects, TrailNet welcomed the participation of related organizations in developing on the Chain of Trails Concept Plan. For example, the Pacific Northwest Trail Association helped ensure that the Chain of Trails Concept Plan included connections for a future branch of the Pacific Northwest Trail through the Foothills.

Whatcom TrailNet began meeting on a monthly basis in January, 2003, with the initial aim:

"to advise on development of a regional trail plan, assist in finding funding for building and maintaining trails, and generally be the 'Friends of Trails group' for Whatcom County."

Whatcom TrailNet invited these and other trail-related groups to help develop the Chain of Trails Concept Plan:

Whatcom Land Trust – conserving openspace land
Nooksack Nordic Ski Club – cross-country skiing and trail maintenance
Back Country Horsemen – building and maintaining horseriding trails
Whatcom Independent Mountain Pedalers – building and maintaining mountain bike trails on Lookout Mountain.
Pacific Northwest Trail Association – building a trail from the Olympic Penninsula to Montana
Whatcom County Parks Commission – citizen advisory for all parks and recreation programs
Whatcom County Parks and Recreation Department– overseeing all parks and recreation programs for the county
Convention and Visitors' Bureau – promoting all types of tourism in Bellingham and Whatcom County
Southfork Community Network – Neighborhood association for Acme-Van Zandt area
"**Trails '90s**" or "**Whatcom Trail Committee**" – group formed to promote the Bay to Baker Trail, (group disbanded prior to 2000)
Bellingham Greenways program – a funding source rather than a community group, specific to Bellingham

Whatcom TrailNet Mission

Recognizing that the implementation of the Chain of Trails Concept Plan would require dedicated leadership and coordinated work over many years, Whatcom TrailNet formulated a mission statement that would embrace a variety of partner organizations:

Whatcom TrailNet is a coalition of individuals and groups interested in trails that is working to connect regional and community trail systems in Whatcom County and the surrounding region.

Whatcom TrailNet is a coalition of individuals and groups interested in trails that is working to connect regional and community trail systems in Whatcom County and the surrounding region.

Whatcom TrailNet was incorporated in Washington State in 2003 with a founding Board of Directors composed of representatives of trail user-groups:

Dave Black, a runner, representing Lynden Community Trail Connections
Mike McGlenn, a horseback rider, representing Whatcom Back Country Horsemen
Ellen Barton, a bicyclist, representing Mt. Baker Bicycle Club
Gretchen Kulpa, an emergency-services volunteer, representing Whatcom Search and Rescue

The initial goals of Whatcom TrailNet include providing continuity in trail planning over the long term, preserving institutional knowledge and sharing information among different community groups, and assisting groups to build trails.

Chain of Trails Vision and Goals

Whatcom TrailNet's first task was to develop the Chain of Trails Concept Plan. With help and input from community members and trail users, and with the facilitation assistance of National Park Service Technical Assistance, TrailNet came up with the following vision and goals for the Chain of Trails:

A safe, accessible network of non-motorized trails connecting communities in the Mt. Baker Foothills providing everyone with improved opportunities for travel, recreation, personal well-being, community enhancement, and commerce.

Chain of Trails Goals

1. *Create a concept plan to guide development and maintenance of the trail network*
2. *Develop and maintain safe walking, bicycling, and horseback-riding routes that connect communities, schools, and recreation sites in the Foothills area*
3. *Improve communication to strengthen our sense of community and support for trails*
4. *Encourage use of trails for personal health and environmental benefit*
5. *Benefit local businesses in the Foothills by diversifying trail related recreational opportunities and stimulating geo-tourism*

Bellingham/Whatcom Marketing Efforts

In 2003, the Bellingham/Whatcom Convention and Visitors' Bureau (CVB) began a marketing effort to establish a brand identity for this region. CVB staff met with groups throughout the County and sought input to determine what residents felt would be an appropriate and attractive image for use in marketing the area as a travel and recreation destination. After exhaustive interviews, workshops, market research, surveys and local meetings, the CVB

unveiled a graphic and descriptive marketing identity to appeal to a market segment called "geotourism." Geotourism is similar to eco-tourism in that it supports the preservation of unspoiled areas but it goes beyond the natural environment to celebrate a region's unique cultural character. Geotourism travelers appreciate an area's history, arts, education and outdoor activities. They enjoy the idiosyncracies of a region, enjoying, for example, the slower pace of a two-lane highway with surprising right-angle turns amid the farms and forests.

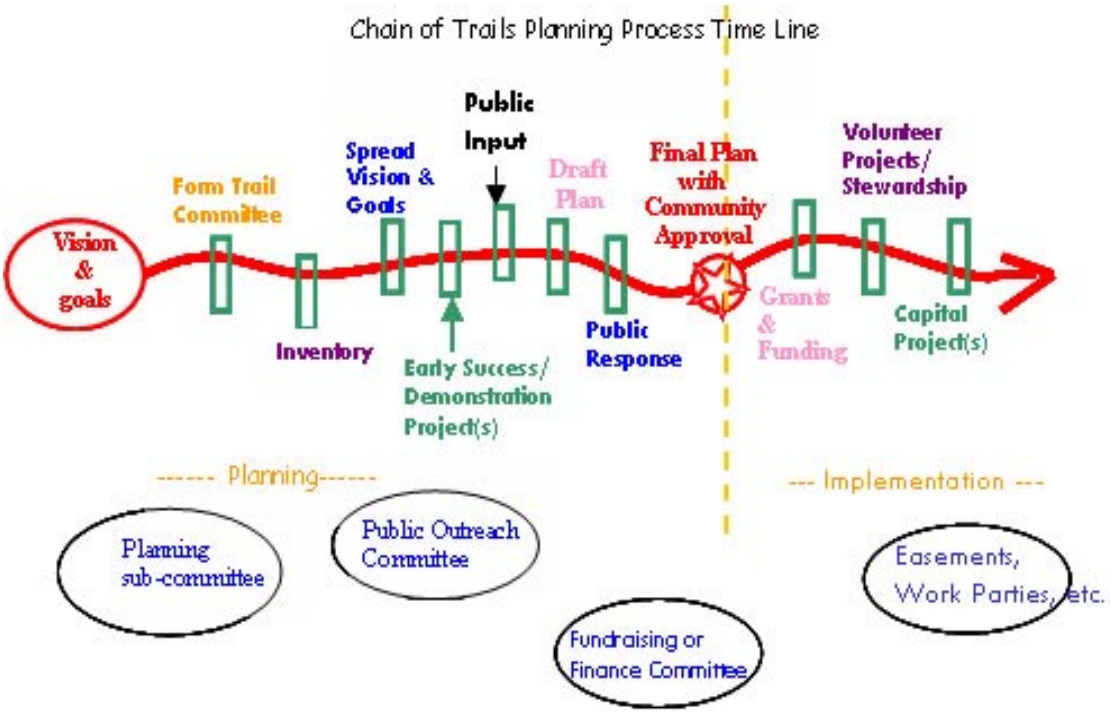
Bellingham Mt. Baker Brand:
"For travelers who seek a refreshing change from big-city living and prefer unspoiled and genuine places where community uniqueness is preserved and the environment is unspoiled"

Residents of the Foothills and participants in Whatcom TrailNet participated in the Convention and Visitors' Bureau's public process. The resulting brand supports the economic development goals of the Chain of Trails as well as the residents'goal of preserving the rural character of the Foothills.

National Park Service Technical Assistance

In October, 2003, the Mt. Baker Foothills Chain of Trails Planning Proposal was one of several regional trail projects in the three-state northwest region to be awarded a technical assistance grant from the National Park Service Rivers, Trails and Conservation Assistance Program. This technical assistance grant provided Whatcom TrailNet with the expert advice of a National Park Service planning professional over the course of one year to help guide development of the Chain of Trails Concept Plan.

Technical assistance included in-depth organizational development, community outreach strategies, meeting facilitation, plan development guidance, and site visits. The Technical Assistance representative helped Whatcom TrailNet participants understand how a successful community trail project should proceed and what components it needs to include. The sketch below shows a graphic depiction of the process timeline, including several benchmarks designed to include and incorporate community involvement.



Chapter 1

History of Trails in the Mt. Baker Foothills Region

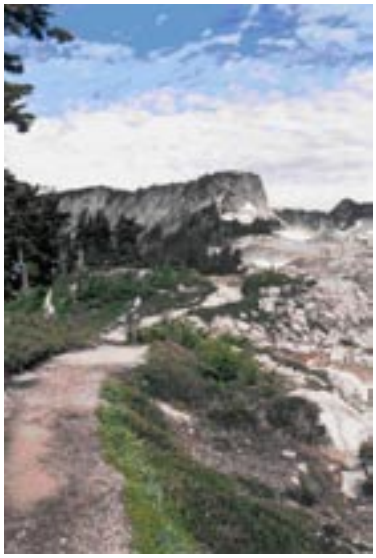
Trails and waterways formed the transportation network for people living in the Mt. Baker region for eight thousand years.

Ancient History

The mountain called Mt. Baker was formed from volcanic activity over 400,000 years ago. The glaciers receded in the last ice age about 10,000 years ago, and since that time the Mt. Baker Foothills region has been home to at least four distinct Native American cultures:

- Saquanatch Tribe
- Neuk-wer or Stick Siwash Tribe
- Sia-manna Tribe
- Upper Skagit Tribe

The Upper Skagit Tribe may have inhabited the Mt. Baker area 12,000 years ago, but the Nooksack Tribe has inhabited the inland Nooksack River area up to the glacial areas of the mountain for at least 8,000 years. The Nooksack Tribe called the mountain *Kw'eq Smaenit* meaning "White Rock" while the Nooksacks' nearest coastal trading partner, the Lummi, called it *Koma Kulshan* (meaning "wound," possibly referring to volcanic activity).



Kw-eq Smaenit means "White Rock" and was the Nooksack name for Mt. Baker, part of the Cascade Mountains inland from the Salish Sea.

Water Trails

The tribes of the Mt. Baker Foothills were part of the greater Salish Sea area extending from northern Puget Sound to the Strait of Georgia. The Salish tribes engaged in active commerce and trading for thousands of years via the sea, rivers, and overland trails. Capitalizing on the natural resources of each area and the traditional skills of the people, inland tribes traded with coastal neighboring tribes throughout the region.

The Nooksack tribe had the strongest presence in the Mt. Baker Foothills and performed a particularly strong role as a commercial trade agent. They traded with other inland tribes

including the Chilliwack to the north and the Samish to the south as well as with the Lummi on the coast. The Nooksack were expert river navigators and used the branches of the Nooksack River for transportation. They used overland trails in the mountains to gather mountain goat fur as it shed on mountain bushes to make woven blankets that became an important trade item. The coastal Lummi prize blankets as gifts of special honor, perhaps because the blankets commanded a high trade price.

Nooksack traders connected with the neighboring tribes throughout the Mt. Baker region traveling by trail and river.

Each band of the Nooksack Tribe established and lived in permanent villages or towns along the river. These towns became the later sites of towns such as Lynden, Everson, Goshen, Lawrence, Deming, Acme. The Nooksack established a thriving agricultural civilization growing root crops such as camas, fern, and potatoes, cultivating and harvesting berries and hazel nuts, fishing, hunting and trading. Advanced wood working skills included construction of housing, boats, and tools. Large cedar trees were felled without saws by drilling auger holes in the trunk, inserting burning coals, and allowing the fire to bring the tree down.

The Nooksack language differs from all the other dialects in the area: Chilliwack, Halkomelem, Lummi, Sangish, Clallam, and the Interior Salish languages all have some linguistic connections, but the Nooksack language is not related to any of them. Chinook was the trading jargon which borrowed from several languages, including, later, some European words.

Early European explorers traded with the Nooksacks for valuable river otter and beaver furs. Trappers learned from them the trails and river routes throughout the mountains.

The Nux(w)aha tribe had a presence in the Foothills region but its primary population center was located further south in Skagit County.

Trails of European Explorers

In 1790, the mountain was named *Gran Montana del Carmelo* in the notes of a Spanish explorer and in 1792, Captain Vancouver re-named it after Joseph Baker, the first member of his expedition to see the mountain. The commerce-oriented Nooksacks established fur trading contact in 1827 with Fort Langley in British Columbia, traveling north via a network of overland trails.

In 1850, the Mt. Baker region was part of Oregon Territory, a geographic region that included what are now the states of Washington, Oregon, and part of Idaho. The entire European immigrant population of this large territory was 1000 in 1850. That same year, the population of the Nooksack Tribe, occupying just the Mt. Baker Foothills area alone, numbered over 1000. Throughout the Oregon Territory there were at least one hundred other tribes of similar size. In 1870, a small pox epidemic reduced the Nooksack Tribe to 27 villages, a population estimated at no more than 400.

In 1858, the Fraser River gold rush briefly brought 10,000 prospectors to the edge of the Mt. Baker Foothills region, following the Whatcom Trail from Bellingham Bay to The Crossing at Everson and north to Sumas and Chilliwack, British Columbia. The Whatcom Trail followed the overland trading route established by centuries of Nooksack Tribe commerce, and paralleled the route of the later (1894) Bellingham Bay and British Columbia Railroad line.

Waterways formed the earliest transportation routes. Lake Whatcom floated logs, barges, and ferries.

Trails of European Immigrants

The 1862 Homestead Act provided an incentive for people of European ancestry to cultivate and build on lands in the west. Homesteaders were required to live on the claimed land for five years and to show proof of improvements. The Timber Lands Act of 1878 set a price of $2.50 per acre for forest land if it was shown to be unfit for agricultural cultivation. By 1885, nearly all the bottom lands of the South Fork Valley had been claimed, the majority of residents having immigrated directly from Europe – Norway, Germany, Switzerland. Most neighbors in the South Fork community at that time did not share a common language.

Waterways, both the Nooksack River and the long narrow length of

Lake Whatcom, formed the County's earliest transportation routes. Homesteaders traveled by trail from Bellingham Bay to the north end of Lake Whatcom, boated the length of the Lake and reached the Nooksack South Fork Valley by Nooksack trade trails. At that time, travel from the South Fork to New Whatcom, the town on Bellingham Bay, took two full days, round trip: eight miles of rough trail to the south end of Lake Whatcom, ten miles of lake rowing that took about four hours, then four miles of rough road from the north end of the lake to the Bay. Travel from the South Fork by the lake was more direct than travel by way of the branches and stem of the Nooksack River.

Trails and Transportation Advances in History:

Travelers arriving in the late nineteenth century used the existing extensive network of trails and waterways, often hiring Lummi or Nooksack canoers to travel by river, lake, and salt-water. The transportation history timeline included in Appendix 2 illustrates changes in primary transportation in use from 1850 to 2000.

In the 1860s, the first people of European descent to try homesteading hired Nooksack Indians to ferry them via river canoe up to Lynden or Everson. Starting in the 1880s, regular steamer ferry service was offered as far as Lynden on the Nooksack River. To travel beyond Lynden, travelers with money might continue by hired Nooksack Indian canoe service to reach the Foothills. Those without money would continue their journeys by walking the Nooksack Indian trails along the river. These trails extended well beyond Glacier and into the east side of the Cascade Mountains.

The Lake Whatcom Coal Barge at Blue Canyon (pictured) operated along with ferries and, later, railroads.

Those traveling to the Nooksack River South Fork valley could use ferry service on Lake Whatcom after it was established in the 1890s. The Ferry continued to serve the Blue Canyon Coal Mine until the 1920s with three regular trips per day.

Government investment in road building remained limited until the 1920s. Residents and homesteaders would post a bond to request that the County survey a road route but the bond would only be repaid after these residents had constructed the road themselves. Gravel, plank, and corduroy roads were rough and the twice-weekly Whatcom to Lynden stage coach went so slowly and was so rough that passengers would sometimes rather walk than ride on the plank seats.

By the late 1890s, people had cleared the forests close to the main waterways. Industrialists looked to the new technology of railroads to transport timber and mining products over longer distances from the inland Foothills and mountains to shipping points at Bellingham Bay. The first railroad to serve Whatcom connected the County not to the metropolitan areas to the south but to Canada, beginning service in 1890. By 1897, railroad service reached no further east than Sumas. The Bellingham Bay and British Columbia Railroad reached Glacier in 1904. Private logging company railroad spurs extended east into the mountains from Glacier. Regular passenger railroad service to Glacier ended in 1918 but industrial use of the line continued into mid-century.

The Chinn Mountain Railroad reached into forested mountains south of Glacier and crossed the North Fork Nooksack River on a railroad bridge that regularly washed out.

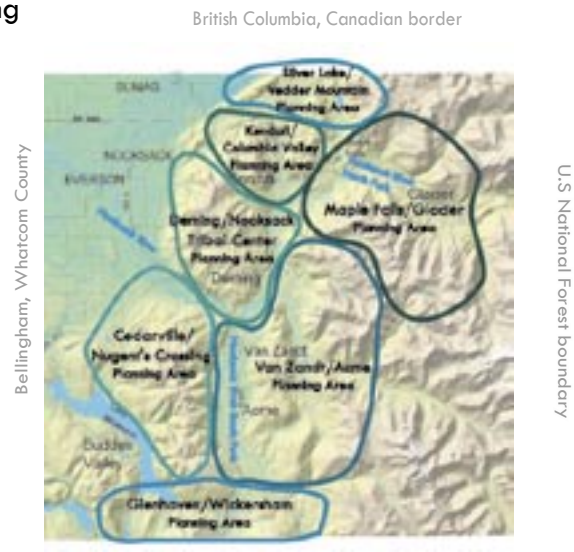
The Mt. Baker Foothills Community

Communities Within the Foothills

The Mt. Baker Foothills encompasses several distinct communities whose unique character and attractions constitute important destination and connection points for the Chain of Trails routes and loops. Historically, there were at least sixteen small towns in the Foothills and more than fourteen mountains. Some of the towns remain as unincorporated small communities, others are known now only as names on old maps.

Because the Mt. Baker Foothills planning area is large, approximately 200 square miles or 128,000 acres, and because trails connect not just towns but their surrounding hills, waterways, and forests, the Foothills was broken down into smaller planning areas. Each of the planning areas share some history, culture, and natural features, making it easier to plan trail connections within and among them. The result was seven proposed planning areas that cover the entire Foothills area. They are listed below, proceeding roughly from southwest to north east.

- **Glenhaven/Wickersham** (Kawcha)
- **Van Zandt/Acme** (Nukwem)
- **Cedarville/Nugent's Crossing** (Liliquom)
- **Deming/Nooksack Tribal Center** (Sqwahalish)
- **Kendall/Columbia Valley** (Zender *or* Chelsem)
- **Maple Falls/Glacier** (Kway)
- **Silver Lake/Vedder Mountain** (Lemola)



Each planning area name is composed of the recognizable existing town names. Next to each in parentheses is a proposed historic name based on the site names used prior to European arrival. These historic names may be useful as trails are developed because the planning areas are larger than the named towns, including adjacent mountains and waterways. The historic names offer an opportunity for trail users to connect with and appreciate Foothills history and culture through interpretive information.

Each of these seven community areas is described below with a general map to illustrate the boundaries. Along with the towns, these community areas include surrounding commercial forests, rivers, lakes, and other community recreation destinations to which residents seek to access.

British Columbia, Canadian border

Glenhaven/Wickersham (*Kawcha*) area

Mt Baker Foothills Planning Areas

Glenhaven/Wickersham *(Kawcha)*

History At the south end of Lake Whatcom over 3,000 years ago, a Nooksack village named *Kaw-tchaa-ha-muk* (or *Xasu emixy*) was established more or less where the Glenhaven community is now. Human settlement began to occur within 1000 years after the glaciers receded and as the Lake Whatcom water level (which originally included Cain, Reed, and Louise Lakes) receded to its current size.

The proposed alternative area name *Kawcha* (pronounced "Cow-chah") is an approximate pronunciation based on the first part of the Nooksack village name at South Bay Lake Whatcom.

Trails connected the village with the Skagit River to the south and the Nooksack River South Fork valley and headwaters of the Samish River to the east. The trail route along Anderson Creek matched that of the current Park Road except that the trail went to the south of Mirror Lake. A zoomorphic bowl and
pictographs found on Reveille Island may indicate a ceremonial significance for this, the only island in Lake Whatcom. Legend holds that the south end of Lake Whatcom is haunted by the ghosts of Altama and Alona, signified by the mysterious singing that is sometimes heard coming from the rocks of the island.

In the 1870s, immigrants of European descent began to establish homesteads on farmland in the valley of the Nooksack River South Fork, reaching the valley by first boating the length of Lake Whatcom, then portaging over the Nooksack's trail along Anderson Creek. The Nooksack name for Anderson Creek was Nux'sa'ak for the plentiful ferns there. The end of the trail at Mirror Lake is the site of the later-established town of Wickersham located on the headwaters of the Samish River.

Recreational Sites and Cultural Centers in Glenhaven/Wickersham (*Kawcha*)

Current Conditions:

The Glenhaven/Wickersham area includes links to the trail system on Lookout Mountain, west of Lake Whatcom, and trail connections to

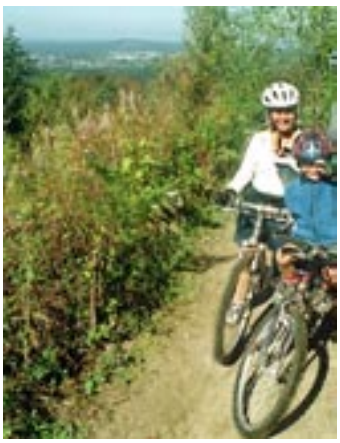
Skagit County to the south. Glenhaven has been a vacation community but more residents are beginning to live there all year. The town of Wickersham is known for its historic steam railroad. Access to both Glenhaven and Wickersham by motor vehicle is more direct from Skagit County.

Description of Community and Recreational Destinations:

Glenhaven Lakes is a resort and recreation community located approximately on the historic site of Kaw-tchaa-ha-muk, near South Bay on Lake Whatcom and on the shores of Cain and Reed Lakes.

Wickersham is located at the junction of the former Fairhaven and Southern Railway and the Blue Canyon Railroad on Lake Whatcom. The town prospered from logging and railway business in the early 1900s, and is now known for its historic excursion train, the Lake Whatcom Railway.

Lookout Mountain rises (2677 ft./ 815 m) to the northwest of Glenhaven, separated by the Reed Lake valley . Lookout Mountain is zoned for commercial forestry and the land managers at the north end of the mountain have established extensive recreational mountain bicycling trails.



Cain and Reed Lakes lie just south of Lookout Mountain where mountain bike trails are popular.

Anderson Mountain rises 1,000 ft. (305 m) between Glenhaven and Wickersham, and Lyman Hill rises to 4500 ft. (1370 m) just east of Wickersham, separated by the valley of the Nooksack River South Fork. Both of these mountains are located on the border between Whatcom and Skagit Counties.

Cain Lake Public access boat launch.

Reed Lake no public access to the lake shore.

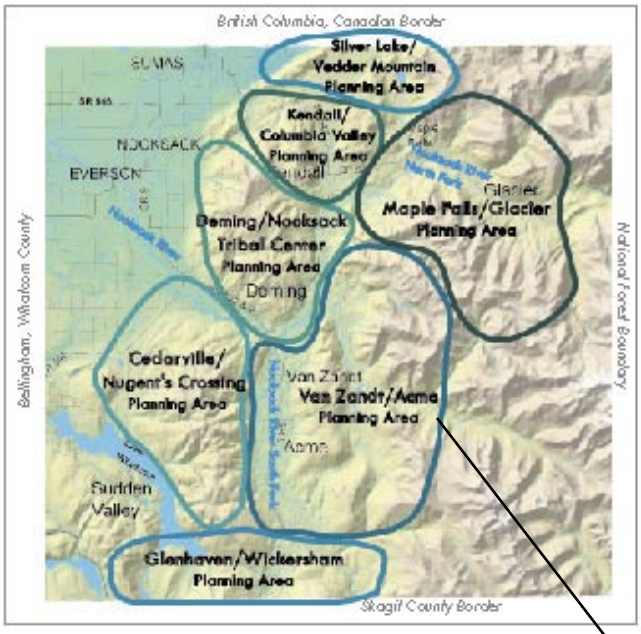
Squires Lake Park A jointly managed park between Skagit and Whatcom Counties, there are approximately 4 miles of trails for hiking, mountain bicycling, and horseback riding. Squires Lake Park is located 1 mile (1.8 km) from Cain Lake and is accessible by a low-traffic County roadway which continues to Lake Samish. There are no overnight camping facilities at Squires Lake Park.

Summary of Community Destinations:

Housing	In 2002, there were 628 houses in the Glenhaven Lakes community. Approximately 25% were seasonal occupants. This area has a recreational subdivision designation in Whatcom County zoning.
Parks	Squires Lake Park is located ½ mile (1 km) southwest of Cain Lake. Public DNR-managed forest land is located ½ mile west of the area on Lookout Mountain.
Facilities	There are no public restrooms at South Lake Whatcom boat launch, Reed Lake, or Cain Lake. There is a rustic restroom facility and trash pick-up at Squires Lake Park.
Trails	No existing public trails to DNR land from the lakes. Extensive trail system on Lookout Mountain including logging roads, horse trails, and the most extensive mountain bicycling trail system in Whatcom County.
Waterways	Despite their proximity to Lake Whatcom, Cain and Reed Lakes flow to the Samish River drainage basin to the south. South Bay Lake Whatcom and Cain Lake each have public access points for boating, fishing, and swimming.
Bus or rail service	Excursion passenger rail service is operated seasonally by the Lake Whatcom Historic Railway at Wickersham. No public bus service to Glenhaven Lakes or Wickersham.
Roadways	Glenhaven Lakes residents are connected by roadways more directly with Skagit County than with Whatcom County population centers. The postal service for these addresses is through the Skagit County system.
Churches	None in Glenhaven. The Little Brown Chapel is in Wickersham
Schools	No public schools located in Glenhaven or Wickersham.
Businesses	Active businesses include two community stores: one on Park Road at South Lake Whatcom, one at Wickersham. Cottage industry in Wickersham includes some accounting and computer programming businesses.
Visitor Accommodations	Camp Firwood is a recreational camp on 118 acres adjacent to the western shore of Lake Whatcom. It has 30 cabins, a dining hall, and amphitheater, and provides recreational amenities including water activities and a challenge course.
Restaurants	No public restaurants are located in Glenhaven or Wickersham. Agate Bay restaurant is located on Northshore Drive.

Van Zandt/Acme (*Nukwem*)

History As on the Nooksack River main stem villages, the Nooksack Tribe maintained villages and agricultural settlements along the Nooksack River South Fork for thousands of years. The Nooksack word for "Clear Water" (Nu'qwe'am) is also the name for the South Fork. The suggested alternative name for this area is *Nukwem* (pronounced "Nook-wem")an approximation of this historic name. Nukwem is especially appropriate for the extensive salmon habitat restoration taking place in the Nooksack River South Fork. Along with the towns of the Nooksack River South Fork valley, the Nukwem area encompasses the eastern foot of Stewart Mountain, Blue Mountain and Bowman Mountain and the Van Zandt Dike.



Mt Baker Foothills Planning Areas

Van Zandt/Acme (*Nukwem*) planning area

The towns of Van Zandt and Acme are living remnants of a cluster of towns along the south fork of the Nooksack River. Doran, Livewood, Saxon, Standard, and Clipper are the names of formerly prosperous towns which now exist only on old maps or road names. In 1860, John Tennant traveled to the Nooksack River South Fork prospecting for gold via the Nooksack's Trail along Anderson Creek. In the 1880s and 90s, prospectors approached the area from Skagit County along the Samish River, passing the farms where hops were grown and harvested by Indians.

The first person of European descent settling in the Saxon area set up a cabin in 1883. By 1885, the Livewood townsite was established, located on Skookum Creek. In 1884, the L. L. Bales mountain climbing party used the Lake Whatcom route to approach Mt. Baker via the south fork valley as did the P. J. Parris party in climbing the Twin Sisters range in 1891. By that time, the town of Park (named for an early land-holder, John Park) had an established post office at the southeast bay of Lake Whatcom. The town of Saxon at the confluence of Skookum Creek and the south fork also had an established post office. The south fork was surveyed in 1885 and by that time nearly all the bottomlands had been claimed and settled on. There were only eight homestead families in the Saxon school district. They generally did not share a common language coming directly from Norway, Germany, Denmark, Switzerland, Ohio, Tennessee, and Texas. Fred Zobrist operated the general store at Park and at Acme (technical report); 1909 southfork hatchery (looking back)

Van Zandt/Acme Recreational Sites and Cultural Centers

Current Conditions

The Whatcom County Comprehensive Plan notes that maintaining the rural character and lifestyle is very important to residents of the Nooksack River South Fork sub area. The mix of rural low-density uses in the south fork include residential, pasture, agriculture, woodlots, home occupations, and cottage industries. The character of the south fork community is encompassed in the active agricultural use of rural land adjacent to managed forest lands and river habitat restoration sites. Residents value open space, privacy and the largely agricultural and forest orientation. Visitors value the old fashioned peacefulness, sense of community, low-density population, and slower pace of life congestion than found in urban areas.

The town of Clipper, located in the South Fork Nooksack River Valley, was home to the Clipper Shingle Mill (above).

The winding and narrow configuration of the Valley Highway, State Route 9, accentuates the old-fashioned way of life. Vehicles navigate right-angle turns at slow speed in tiny hamlets with historic buildings. Visitors and residents alike note that there are other routes for those who wish to travel quickly. Valuing the importance of the logging industry, community members would value a trail network in order to be able to walk and bicycle away from the path of the logging trucks.

Descriptions of recreational and community destinations:

Van Zandt Community Hall

The Van Zandt Hall was a two room school house, built in the early 1920's. When the schools consolidated into the Mt. Baker District, the Van Zandt Community began to manage the building. The Hall is a model for community cooperation. Since 1950, the Hall has been thoroughly maintained by the cooperation of local residents without any type of levy or tax and with only occasional involvement of county agencies. It hosts community gatherings and regular pot-luck dinners and entertainment.

Josh Vander Yacht Park

A small community park located in Van Zandt adjacent to the Van Zandt Community Hall. The park was designed and built by volunteers. The park was established as a memorial for children who have died, and named in honor of Josh Vander Yacht who passed away as a result of a commercial forestry accident at the age of 16. The park includes a memorial bench, covered gazebo, picnic area, handball court, and play area. It is maintained by volunteers and is owned by the Whatcom County Parks and Recreation Department.

Nooksack River South Fork

The Nooksack River South Fork flows south to north through the valley in a wide braided river bed with gravel banks, large logs, and root wads of fallen trees. This fork of the river has provided salmon habitat for millennia and is currently the site of restoration projects to ensure the renewal of species listed as endangered or threatened.

The river is a popular place for recreational rafting, canoeing or kayaking on warm summer days. Overuse by recreational boaters has damaged fish habitat and nesting sites, a concern that has grown greater with the endangered listing of the salmon. This plan acknowledges the importance of public recreational access to the river while also urging establishment of appropriate management policies to balance this use with habitat needs.

Stewart Mountain trails

Turkington Road in Acme connects to logging roads operated by Crown Pacific Timber Corporation and the Washington Department of Natural Resources on Stewart Mountain. A network of trails maintained by the Back Country Horsemen leads from the south fork valley to north Lake Whatcom.

Back Country Horsemen of Whatcom County have built and maintained many trails on Stewart Mountain.

Mosquito Lake Road bike loop

Road bicyclists ride on Mosquito Lake Road, circling the Van Zandt Dike. The road has low traffic volume and a winding design that encourages low vehicle speeds. There are few residences. Logging trucks utilize the road when there are commercial harvests on adjacent lands.

Canyon Lake Creek Preserve and trail

Managed by Whatcom County Parks Department, this preserve offers a 6 mile hiking trail. Access to the Preserve is via a 7 mile gravel road from Mosquito Lake Road. Conservation priorities currently restrict use of the trail to hiking.

Blue Mountain hiking trails

Public access to the portion of Blue Mountain owned by Department of Natural Resources is permitted from Mosquito Lake Road, approximately one mile east of Acme. The majority of the south and east of Blue Mountain are privately owned and public access is not permitted.

Bowman Mountain trails

Public access to the portion of Bowman Mountain owned and managed by Department of Natural Resources is permissed from Heislers Creek Road off the Mosquito Lake Road. An extensive horseback riding trail leads from Heislers Creek Road to Skagit County.

Logging roads and un-paved public and private rights-of-way act as trails in some parts of the South Fork Valley.

Van Zandt Dike hiking

Public access to the portion of Van Zandt Dike owned by Department of Natural Resources is permitted from Mosquito Lake Road, approximately one mile north of the Hutchinson Creek crossing. The majority of Van Zandt Dike is managed by DNR and the public is permitted access. Public access is restricted to those points where DNR land is adjacent to public rights-of-way.

Events

- Acme Elementary School seasonal festivals
- AcmeNormous Fireworks, July
- Mt. Baker Blues Festival, August
- Church events (various, seasonal)
- River Farm Educational events (seasonal)
- Nesset Farm guided tours

Businesses

- *Everybody's Store* is a landmark in the region. Established in 1895, the store supplied goods to the european immigrants who farmed the valley in the early 1900s. In the 1970s, it became the first store in Whatcom County to focus on selling natural and organic foods, attracting people seeking a "natural" lifestyle. Just as Kosher butchers allowed Jewish communities to thrive, the presence of Everybody's Store has been a locus for community integration. A sense of community involvement stemmed from the sense of "home" that the store has always engendered.
- *Acme General Store* Established in 1892 by Zobrist family, the same proprietor who founded the store at Park on south Lake Whatcom.
- *Blue Mountain Retreat Center*
- *Valley Ranch Tavern*

Summary of Community Destinations:

Housing	Foothills Census tract 101 measured the 2000 population at 6,410. This includes the south fork area. Based on school enrollment figures, the south fork population is estimated to be approximately 2000 individuals, or 800 households.
Parks and public access land	Josh Vander Yacht Park, East Acme Farm, Nesset Farm, Land Trust parcels along Saxon Road, Department of Natural Resources (DNR) land on Stewart Mountain and Van Zandt Dike.
Facilities	Rustic public restroom facilities at the Van Zandt Community Hall, Everybody's Store, and at Acme General Store.
Trails	DNR logging roads on Van Zandt Dike, Blue Mountain, and Bowman Mountain.
Waterways	Nooksack River South Fork, public access points exist. however boating and rafting use of the river is discouraged due to potential damage to endangered fish and their nesting and rearing habitat. Department of Fish and Wildlife (DFW) and Nooksack Salmon Enhancement Association are in the process of developing a management plan to balance public recreational access to the river with habitat needs.
Bus or rail service	Regularly scheduled public bus service to Van Zandt beginning in 2005. Passenger rail service would be possible on the existing privately-owned rail line running north-south through the valley, but no service is currently offered.
Roadways	29 miles of County road; 7 miles of state highway. 0 miles of sidewalk
Churches	Van Zandt Nazarene, River of Life Community Church.
Schools	Acme Elementary School currently serves the area. Historically there were schools at Saxon and Van Zandt.

Businesses	Active businesses include: • Everybody's Store • Acme General Store • Valley Ranch Inn (tavern) • Blue Mountain Retreat Center • Farms and dairies
Visitor Accommodations	Blue Mountain Retreat Center (former camp sites at Hutchinson Creek and a private camp ground operated by B. L. Close have been closed.)
Restaurants	Valley Ranch Inn, Acme Café,

Cedarville/Nugent's Crossing (*Liliquom*)

<u>History</u> The Whatcom Trail (sometimes called the Nooksack Trail) led from Bellingham Bay north to the Chilliwack River in British Columbia, Canada, along a northeasterly course and gentle grade a few miles west of the Foothills. It turned north about one mile west of Nugent's Crossing. Travelers crossed the Nooksack River at a village where the town of Everson is now established. In the 1870s, the mail to Lynden was carried via this trail, by horseback from New Whatcom to the Crossing. Mr. Hampton operated a canoe ferry service until 1878. The horse remained on the western bank while the postman continued with the mail on foot via a trail on the east bank to Lynden.

Cedarville/Nugent's Crossing (*Liliquom*) planning area

Mt Baker Foothills Planning Areas

In the 1880s, people of European descent traveled southwest from the Whatcom Trail along the river to the place called Nugent's Crossing. In the 1850s, a federal Indian agent named Nugent operated a cable ferry across the river at this point and the place became known as "Nugent's Crossing." Towns and farms established by the Nooksack Indians existed for centuries along the Nooksack River main stem with trails along the river linking town to town. These travelers used the Nooksack trails along the river to make land claims in the North Fork Nooksack River area. The suggested alternate name for area 3 is Liliquom, a contraction of the Nooksack word "Lil'ye" meaning small village and the word "Quom" which means crossing place. (The Nooksack word for river crossing, *Popahomi*, signified the main crossing place at what is now Everson.)

Towns and travelways change over time. Current and historic maps show the towns of Lawrence and Cedarville but do not usually note a town named Nugent's Corner. Perhaps this is because it was never really a corner, but a crossing. The route of the Mt. Baker Highway has changed significantly since its construction in 1922. The original highway went along the route of the current Deming Road and Marshall Hill Roads.

Recreational Sites and Cultural Centers in Cedarville/Nugent's Crossing

Current Conditions

Liliquom includes Stewart Mountain and Squalicum Mountain as well as a commercial center on Mt. Baker Highway and residential areas along Deming Road. Stewart Mountain is owned and managed for commercial forest harvest by private and public entities. The Nooksack River main stem flows east to west through the valley, paralleled by the highway and a section of the Burlington Northern Santa Fe Foothills railroad line.

Nugent's Corner is the location of the only large grocery market in the Foothills. Commercial services and retail establishments are clustered here, however, further commercial development is not encouraged because the entire area is part of the flood plain.

Descriptions of recreational and community destinations:

Nooksack River Nugent's Crossing River Access Park

The town of Lawrence located just north of Nugent's Crossing was home to the Lawrence Shingle Mill (above).

Adjacent to and south of the highway bridge over the Nooksack River at Nugent's Corner is a five-acre river access park owned and operated by Whatcom County Parks & Recreation Department. Public access is permitted for fishing, canoeing, kayaking, and rafting. Future plans include a trail along the south east bank of the river.

Squalicum Mountain

A network of privately owned and managed logging roads and horseback riding trails on Squalicum Mountain link Toad Lake to Stewart Mountain via the Y Road. Private agreements with horseback riding groups have permitted members to use these trails.

Stewart Mountain

An extensive network of logging roads, former rail lines routes, and trails serves commercial logging operations on Stewart Mountain. The majority of the north part of the mountain is owned and managed by Crown Pacific Timber Corporation while the south portion of the mountain is mainly owned and managed by Washington State Department of Natural Resources (DNR).

Public access to both CP and DNR forest land is permitted

for legal recreational use via maintained routes for hiking, horseback riding, and mountain bicycling. Members of the public wishing to acces CP lands are required to report their route and activity plan at the Y Road guard shack prior to entry.

Members of the public wishing to access DNR lands are required to remain on the established, maintained routes and are prohibited from construction of new or additional trails without prior approval. Current budget and management policies prevent DNR regional office from allocating staff time to review or approval of new trail construction proposals.

Bay to Baker Trail

One mile west of Nugent's Crossing and one mile north of Squalicum Mountain is the right-of-way and former route of the Bellingham Bay and British Columbia Railroad, the proposed route of the Bay to Baker Trail. The right-of-way ownership is unclear and, because it was abandoned prior to the Federal rail banking act of 1983, much of it may now be privately owned. If the right-of-way becomes public and is developed into a trail, it will connect to the Foothills region in this area and will be an important non-motorized arterial route to enable residents and visitors to travel between Bellingham and the Foothills.

A few miles of the Bay to Baker Trail have been constructed in Bellingham.

Deming Logging Show grounds

Located one mile northwest of Nugent's Crossing, the Logging Show grounds host a variety of public and private events throughout the year. The Deming Logging Show celebrates the forest industry history and current culture in the region. Historical displays of photographs and artifacts of commercial logging are in a museum building on the grounds.

Annual Events:

- Harmony Elementary school events
- Timber Ridge high school events
- Church events

Businesses:

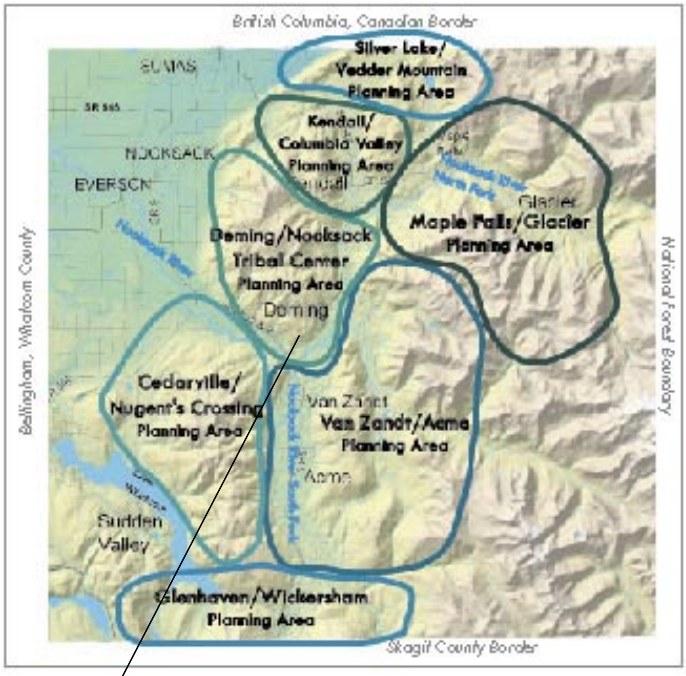
- Chainsaw Wood Carving
- Automobile Repair
- Shumway's Berry Farm
- Christmas Tree Farm
- Whatcom County Fire District #2
- Industrial Credit Union
- True Log Homes

Summary of Community Destinations in Cedarville/Nugent's Crossing:

Housing	Approximately 600 residences are located along the Mt. Baker Highway and adjacent county roads in the Nugent's Corner area.
Parks	- County Parks operates a Nooksack River boating access park at Nugent's Crossing adjacent to the highway bridge. - Public access for approved recreational purposes is permitted to Crown Pacific Timber Corporation lands on north Stewart Mountain with prior permission. - Public access for legal recreational purposes is permitted on DNR managed land on south Stewart Mountain. - County Public Works (Solid Waste division) owns a trailhead facility on the west side of Stewart Mountain off the 'Y' Road. The trailhead is maintained by the Back Country Horsemen based on a written agreement. - The Deming Log Show Grounds in Cedarville are privately owned and operated for events, camping, and entertainment.
Facilities	Commercial services, farms, private restroom facilities, commercial logging roads,
Trails	Extensive network of current and former logging roads on private and public land on Stewart Mountain.
Waterways	Nooksack River Main Stem, public boat and fishing access
Bus or rail service	Public transit bus service 4 trips daily; Commuter Connection and VanPool service offer 2 commuter trips per day, serving subscriber passengers through WTA; passenger rail service possible but not currently offered; freight rail service operates 2 trips per day. Private "ski bus" service operated by BellAir Charters seasonally; no stops in this area.
Roadways	Mt. Baker Highway vehicle speeds and volumes reduce its suitability for walking or bicycling along shoulder. Low speed, low volume county roads such as Deming Road and Cedarville Road are suitable for shared GreenRoute use.

The Y Road runs along the west edge of Stewart Mountain, connecting Lake Whatcom to the Mt. Baker Highway. Pictured above is the Y Road Shingle Mill.

Churches	Emanuel Lutheran
Schools	Timber Ridge High School and Harmony Elementary School are located near Cedarville.
Businesses	Several commercial enterprises
Visitor Accommodations	None
Restaurants	Roadside Tavern, Nugent's Corner Café



Deming/Nooksack Tribal Center (*Sqwahalish*)

Mt. Baker Foothills Planning Areas

Deming/Nooksack Tribal Center (*Sqwahalish*)

The Nooksack Tribal Center is located at the confluence of the Nooksack River Main Stem and South Fork. This is the historic site of one of the main Nooksack towns and the Tribe continues to own and manage extensive land holdings in this area and throughout the Foothills. The suggested historic name is *Sqwahalish* (pronounced "skwah-hay-lish"), which was the name of the Nooksack village located near here on the river.

In 1855, the U.S. federal government held a treaty meeting of all the northwest area tribes at Mukilteo. At this meeting, the Treaty of Point Elliott was signed designating reservation lands for the recognized tribes. Severe winter weather prevented the Nooksack Indians from attending the activities at Mukilteo. Nooksack Tribal leaders have worked for over a century to gain federal recognition and establish reservation lands. As an farming culture, the Nooksacks were the first to cultivate the potato. Members of the tribe were permitted to claim up to 160 acres of homestead land provided that they first severed tribal ties. Some Nooksack Indians chose to do this rather than be forced to live on the Lummi Indian Reservation.

Nooksack Indians assisted early explorers from Europe and the eastern U.S. Their guidance was so essential for these "first" explorers that, for example, mountain climber Edmund Coleman and his party turned back in failure on their first attempt in 1866 to scale Mt. Baker: the Koma tribe on the Skagit River refused to provide guides. The Nooksack Indians, including two named Squok and Talum, made the 1868 attempt successful. It is unfortunate that records of the ascent do not include full names and recognition of the many Nooksacks who led, guided, accompanied and assisted these and other explorations. Umptlalum, was seen as a leader or elder among all the bands of the Nooksack communities throughout the area. His home community was at Deming.

Among the European descendants who settled in the town Deming in the 1800s, William and Martha Allen of Indiana are interesting because of their choice of travel mode. In 1898, Alvin and William loaded their gear on hard wheeled bicycles and rode or walked 250 miles from Castle Rock, Washington, to Deming. (Deming was known as Hollingsworth until 1887.)

Shovel-nosed canoes guided and powered by Nooksack Indians provided the only river transportation until establishment of the first steam boat ferry, the *Edith R.,* in about 1882. Nooksack River steamer ferries offered regular service only as far as Lynden. From there, some continued into the Foothills by hiring Nooksack Indians to carry them by canoe, others walked the Nooksack Indian trail system along the river.

Recreational Sites and Cultural Centers in Deming/Nooksack Tribal Center

Current Conditions

This heart of the Deming/Nooksack Tribal area is centered on the confluence of the Nooksack River South and Middle Forks. Historically the home of the ruling village of the Nooksack Tribe, it remains the center for the Nooksack Tribe community and commercial enterprises. The Junior and Senior High School for the entire Foothills District is located in Deming. This planning area includes Sumas Mountain and trails on the east side of the river on North Fork Road through the town of Welcome.

Descriptions of recreational and community destinations:

Nooksack River Casino

The Casino and its associated restaurant and café offer entertainment and gambling to residents and visitors from the Whatcom County region and surrounding areas. The Nooksack Indian Business Council has proposed plans for development of an extensive Recreation Center to expand on the Casino attraction including sports fields, a natural sciences outdoor education center with associated trails, and accommodations for visitors.

Deming is now the home to the Mt. Baker School District offices, and historically the Deming School (above) was one of the earliest schools in the foothills.

Deming Homestead Eagle Park

Owned and maintained by the Whatcom County Parks Department, this park offers public access to the Nooksack River North Fork and includes some interpretive educational displays, walking paths, and viewing areas. Additional public access to the river is available at the properties owned by Whatcom Land Trust on the east side of the river including some trails. These properties are not currently developed as parks.

Sumas Mountain

Washington Department of Natural Resources (DNR) owns and manages forest land on approximately 75% of Sumas Mountain with two access points that allow the public to enter these forest areas. Access from the east side of Sumas Mountain is permitted on the gravel road immediately south of the property at 6210 Mt. Baker Highway. Access from the north side of Sumas Mountain is permitted via the county-owned Paradise Valley Road off South Pass Road. Hiking, horseback riding, and mountain bicycling and camping are permitted on established, maintained logging roads. Construction of new trails is not permitted without prior approval.

The northeast area of Sumas Mountain is currently popular as a destination for off-road motorized vehicle and motorcycle recreation. This use has not been approved by DNR due to problems with erosion and sedimentation of streams resulting.

North Fork Road

As a dead-end, gravel, low-traffic roadway, North Fork Road offers a suitable facility as a GreenRoute for shared walking, bicycling, and horseback riding. Currently, lands at the north end of North Fork Road are a popular destination for off-road motor vehicle and motorcycle recreation. Approval of this use is not clear. Vehicles accessing these off-road areas have been reported to be exceeding the posted speed limit on North Fork Road, causing concern to pedestrians and residents.

Events:

- Deming Library events
- Mt. Baker Junior & Senior High School events
- Nooksack Tribal center events
- North Fork Brewery and Beer Shrine

Summary of Community Destinations:

Housing	Approximately 800 residences are located along the Mt. Baker Highway and adjacent roads in the Deming area. Forestry designation of Sumas Mountain prevents housing development expansion in this area.
Parks	- County Parks operates the Deming Homestead Eagle Park at Welcome at the confluence of the Middle and North forks of the Nooksack River at the west bank. - Whatcom Land Trust owns and manages public access open space conservation properties on the east bank of the North Fork opposite the Eagle Park at Welcome. - Public access to Crown Pacific Timber Corporation lands on Sumas Mountain is permitted only where public access roads lead to the CP property. There are no public access roadways to Sumas Mountain from the Deming/Welcome area. Cabrant Road is the only public access road to CP property, located on the west side of the mountain. - Public access for legal recreational purposes is permitted on DNR managed land on Sumas Mountain only where public access roads lead to the DNR property. There are no public access roadways to Sumas Mountain DNR property from the Deming/Welcome area (existing roads are private). Public access roads to DNR land on Sumas Mountain exist near 6210 Mt. Baker Highway on the east side of the mountain, and at Paradise Valley Road on the north side of the mountain. - Public fishing access to Nooksack River at confluence of Nooksack River Main Stem and South Fork at north terminus of Valley Highway maintained by Department of Fish and Wildlife .
Facilities	Deming Public Library, Nooksack River Casino, gas station, private restroom facilities, restic restroom facilities at Eagle Park, parking area near Casino; Welcome Senior Center;
Trails	Extensive network of current and former logging roads on private and public land on Sumas Mountain; river access walking trails on land trust property at North Fork confluence.

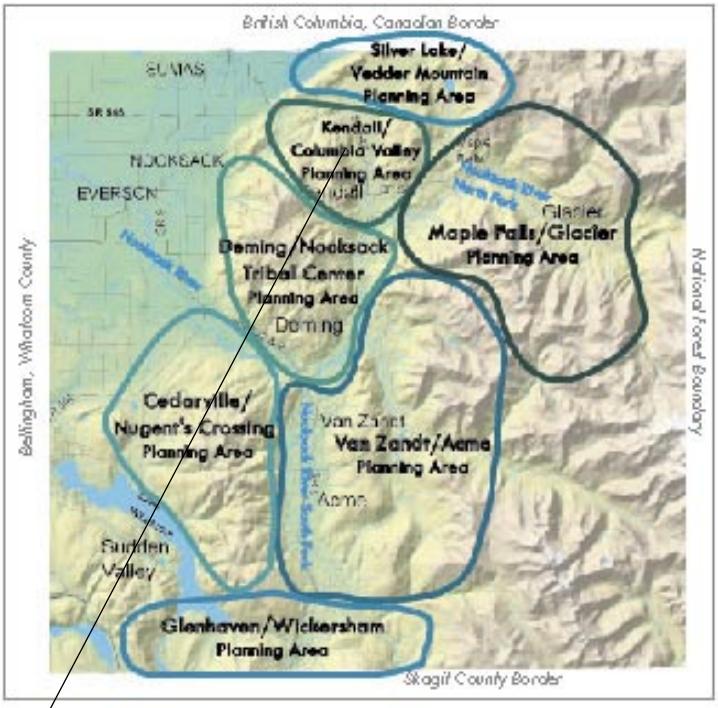
Waterways	Nooksack River Main Stem, Nooksack River North Fork public boat and fishing access;
Bus or rail service	Public transit bus service 4 trips daily; passenger rail service from Deming to Sumas possible but not currently offered; freight rail service operates 2 trips per day. Private "ski bus" shuttle service operates seasonally, no stops in Deming. Private casino shuttle bus service operates from Vancouver, British Columbia, and other areas transporting customers to and from the Nooksack River Casino.
Roadways	Mt. Baker Highway vehicle speeds and volumes reduce its suitability for walking or bicycling along shoulder. Deming Road, Marshall Hill Road, Truck Road, North Fork Road, and Mosquito Lake Road are low speed, low volume county roads that are suitable for shared GreenRoute use.
Churches	St. Peter Catholic Church (Welcome), Nooksack Tribe Christian Church
Schools	Mt. Baker Junior High School, Mt. Baker Senior High School serve the Foothills region, and Deming Elementary School serves the Deming local area. Nooksack Tribal Center offers Nooksack members with pre-school education, social services and cultural events.
Businesses	Mt. Baker Vineyard, farms, Deming Mink Farm, Welcome Grocery Store,
Visitor Accommodations	None
Restaurants	Hungry Bear Restaurant, Nooksack Café,

North Lake Whatcom Hertz Trail was built on the former Blue Canyon Railroad right-of-way at the base of Stewart Mountain.

Kendall/Columbia Valley (*Zender* or *Chelsem*)

Near the site of the current Kendall hatchery the Nooksacks had established a town called *Lhechelesem*. Artifacts found near Nooksack long houses further up river along the North Fork show that this town may have been established as long ago as 800 BCE. Nooksacks told of an easy route they used to go to the Metthow Valley via a pass across the Cascades Mountains, and that they went on annual trips to the headwaters of the North Fork. *Lhechelesem* was one of the towns along the North Fork trail route leading across the mountains.

When the Austin party traveled up the North Fork in 1886 guided by Nooksack indians on an expedition to climb Mt. Baker, they noted old marks on the trees and logs showing that the trail beyond Glacier was part of a long-used Indian route.



Kendall/Columbia Valley (Chelsem) area

Mt Baker Foothills Planning Areas

In 1884, Carthage Kendall claimed the first homestead north of Welcome on the North Fork at the mouth of Kendall Creek. European and east coast immigrants seeking homesteads this far inland reached their land by walking the trading route and hunting paths made by the Nooksack Indians. For those who had money, steamer ferry service from Whatcom to Lynden was established by 1883, and some travelers hired Nooksacks to canoe them as far as the confluence of north and south fork, but most walked.

Peter Zender, born in Germany, claimed a homestead in Columbia Valley in 1889. He later sold this and purchased timber land in the area of Keese, a town just south of the present Kendall. By the 1950s, his descendents numbered over 300 and had formed their own minor league baseball team called the Deming Loggers composed entirely of brothers and cousins.

One suggested alternative name for Area 5 is *Chelsem* (pronounced "chell-sehm"), an abbreviated spelling of the Nooksack name for their original town here, *Lhechelesem*. Another appropriate area name commemorating the history of this part of the Foothills is *Zender,* in honor of the important contributions made to the community by the many members of the Zender family.

Ox carts and walking continued to be the primary transportation means in 1893. Twenty-six residents in the Kendall area petitioned the County Commissioners for a road in 1895. The original "roads" zig-zagged from house to house along the valley, the roads built after 1897 followed more closely the township and section lines. Kendall was the location of the second salmon hatchery in Washington in 1899. By 1901, the town of Balfour was established about 2 miles north of Kendall as a company town of about 800 homes for the miners at the limestone quarry north of Kendall. A railroad spur from Sumas' Bellingham Bay and British Columbia line reached as far as Maple Falls by April, 1901. Names of stations between Limestone and Maple Falls were: Peterson, Columbia, Devon, Kendall, Baxter, Watson, Hamilton, Wayland, and Bigelow. Passenger railroad service ended in 1916. The Mission church of St. Peter was first built at Heady Road in 1908, then, in 1910, moved to a new building on Sumas-Kendall road. The 1910 church building remains a local landmark for motorcyclists: the building was converted to a tavern in 1972.

This winding trail is what the Mt. Baker Highway looked like at mile post 30 in the early 20th century.

Recreational Sites and Cultural Centers in Kendall/Columbia Valley

Current Conditions:

Columbia Valley is home to the largest residential density in the Foothills and it is unusual in that the Whatcom Comprehensive Plan includes it as a designated Urban Growth Area although it is not associated with an incorporated city. High residential density, low housing prices and long response times for law enforcement contributed to an upward trend in crime for the area during the 1990s, however, a local citizens' group, Kendall Watch, began action to reverse those trends in 2003. The Baker's Edge Golf Course has hosted fund-raising tournaments, organized by the Mt. Baker Lions Club, to benefit youth group activities in the area. A developer has submitted plans to construct housing on the site of the golf course, and proposes to include public trails in the site design.

Descriptions of Recreational and Community Destinations:

North Fork Nooksack River west: conditions on the North Fork are suitable for canoeing, kayaking or rafting however there are no public boat-launch sites in this area. The public river access at the Kendall Hatchery is not currently designed to enable boating access.

Red Mountain west: an extensive network of private logging roads and former railroads exist on private land on Red Mountain adjacent to the northeast of Kendall. Public access to these lands is not permitted. In addition, concerns

about illegal activities related to drug manufacture create disincentives to use a trail system in this area, should permission be granted and development take place. Some have proposed a mountain bike patrol to discourage illegal activity, modeled on the Guardian Angel system that evolved in New York City in the 1970s.

Kendall Community Center: a proposed social services center to provide basic care and assistance to residents of the Kendall area, the location of the Center has not yet been determined. It will be important the the Center be accessible by trail so that children and families without vehicles can access its services from the residential areas.

North Sumas Mountain trails: If existing private roadways from Kendall to Sumas Mountain become permitted for public access in the future, Kendall area residents will be able to access the extensive network of DNR public land trails on north Sumas Mountain.

Campers' Paradise: Gated, privately-owned and managed seasonal recreation and vacation properties serving motor homes, cabins, tenting, and other types of recreational use.

Red Mountain trails (west): If private forest land owners on Red Mountain permit public access in the future, Kendall area residents would be able to access an extensive network of private forest lands and logging roads on Red Mountain, connecting to the Silver Lake area.

Balfour was the company town for the limestone quarry just north of Kendall in the Columbia Valley.

Events:

- Ukrainian Church and cultural events
- Holy Smoke A Tavern events and fund-raisers
- Mt. Baker Lions Club events and fund-raisers
- Kendall Elementary school events

Summary of Community Destinations:

Housing	Approximately 2,500 year-around residents live in the Kendall area, including the Paradise Lakes and Peaceful Valley residential communities. In addition to these, an additional 2,000 platted properties may be developed in the future or are currently used on a seasonal or vacation basis. Campers' Paradise and Black Mountain Ranch are additional vacation resort developments in the Kendall area where year-around residence is not permitted. The total number of units at these two is approximately 1,800.

The former Bellingham Bay and British Columbia railroad line is visible along power line rights-of-way in the Columbia Valley.

Parks	- Paradise Lakes and Peaceful Valley developments were designed with a green-belt system of public space within and surrounding the residential properties. The green-belt areas provide a park-like setting although recreational uses within these areas is limited. - Department of Fish and Wildlife operates a Fish Hatchery at the confluence of Kendall Creek and the Nooksack River North Fork. Interpretive educational information is available and the site includes public access to view or walk to the river. - Public access to Crown Pacific Timber Corporation lands on Sumas Mountain west of Kendall is permitted only where public access roads lead to the CP property. There are no public access roadways to Sumas Mountain from the Kendall area. - Public access for legal recreational purposes is permitted on DNR managed land on Sumas Mountain only where public access roads lead to the DNR property. There are no public access roadways to Sumas Mountain DNR property from the Kendall area (existing roads are private). Public access roads to DNR land on Sumas Mountain exist near 6210 Mt. Baker Highway on the east side of the mountain, and at Paradise Valley Road on the north side of the mountain.
Facilities	Whatcom County Fire District Kendall station, gas station and grocery store, private restroom facilities, parking area at Elementary School; Baker's Edge Golf Course; Peaceful Valley Country Club house; Private swimming pools for the use of the Paradise Lakes and Peaceful Valley community association exist however they have been closed for over 5 years due to lack of maintenance funds and absence of a management organization.
Trails	Extensive network of current and former logging roads on private and public land on Sumas Mountain and Red Mountain
Waterways	Nooksack River North Fork, Kendall Creek, Sprague Lake.

Bus or rail service	Public transit bus service 4 trips daily; Private "ski bus" shuttle service operates seasonally, no stops in Kendall;
Roadways	Mt. Baker Highway (SR542) and Kendall-Sumas Road (SR547) vehicle speeds and volumes reduce these roads' suitability for walking or bicycling along shoulder. Private roadways within Paradise Lakes and Peaceful Valley developments provide segments of a shared low-traffic road for bicycling and walking.
Churches	Ukranian Church.
Schools	Kendall Elementary School
Businesses	Two Grocery store/gas stations
Visitor Accommodations	Seasonal vacation rental properties and camp sites.
Restaurants	Holy Smoke A Tavern

Maple Falls/Glacier (*Kway*) planning area

Mt. Baker Foothills Planning Areas

Maple Falls/Glacier (*Kway*)

About mid-way between Maple Falls and Glacier flows Boulder Creek. Remains of a Nooksack Indian Long House at Boulder Creek show the importance of this location as a base from which the Nooksacks hunted or prepared fish for drying and storing. Trails along the river and up Ruth Creek linked this area to the eastern Cascades and, via Silver Lake, north to the Chilliwack for trading and cultural exchange.

A suggested historic name for this area is "Kway." This is an abbreviated approximation of *cuwae-he,* the original Nooksack Indian name for the Nooksack River North Fork .

In 1858, the discovery of gold on the Fraser River to the north tempted some prospecters to try their luck in the Foothills around Glacier. While a few mines yeilded gold, more made money from coal in this area. In 1888, Chester Cornell was the first homesteader in the town which he named Cornell, later the town name was changed to Glacier. He sold potatoes to miners, and opened a hotel in 1889. In the 1890s, Albert Vaughn platted the town of Glacier measuring the meets and bounds from a stump marked "B" tree. Unfortunately, this important stump was bulldozed by highway construction in 1925.

Prior to 1908, the reputation of Maple Falls and Glacier was that of the wild west. Residents said, "There is no law east of Maple Falls." The Bellingham Bay and British Columbia railroad reached Glacier in 1904. And in 1908, the Good Roads Association petitions for a new road to Maple Falls to reach the Mt. Baker Mine Fields. Mining was a larger industry than logging in Glacier area at that time. Wooden sidewalks and hitching posts were still in common use in 1916. Homesteaders continued to claim land: Nellie Sampson received a patent for her ranch east of Glacier where she entertained and hosted legendary banquets. Her historic homestead became part of the Snowline Resort development years later.

In 1921, Charles Findley Easton addressed the Chamber of Commerce about the need for a road to the summit of Mt. Baker in order to promote Whatcom County as a destination for vacationers.

Maple Falls was a bustling town in the 1880s, with several saloons and hotels, a barber shop, general stores, its own Chamber of Commerce, and school. Shingle mills and logging operations employed many of the residents.

Recreational Sites and Cultural Centers in Maple Falls/Glacier

Current Conditions

Maple Falls is home to a small cluster of retail businesses next to the visitor welcome center which is operated by the Mt. Baker Chamber of Commerce. Year around residents number in the hundreds but vacation visitors number in the thousands, both summer and winter. Seven miles further east along the Mt. Baker Highway is the town of Glacier whose cluster of restaurants and shops similarly serves a large vacation population visiting the trails or ski slopes of the National Forest to the east.

View of the mountains and the North Fork Nooksack River from the Bay to Baker Trail.

Descriptions of Recreational and Community Destinations:

Black Mountain (east): An extensive network of active and former Crown Pacific logging roads on Black Mountain could provide a trail connection between the Maple Falls area and the Silver Lake Park area, over the mountain.

North Fork Nooksack River (east): River rafting and whitewater adventure excursion businesses offer private guided boating activities on the North Fork seasonally on a reservation basis.

Slide Mountain trails: Historically, the Chinn Logging Company established a railroad bridge from Slide Mountain to Maple Falls across the Nooksack River North Fork. Re-construction of such a bridge or cable ferry would enable recreational access to extensive state-owned forest land south of Maple Falls. Access to the eastern area of this mountain is possible from Glacier via Crown Pacific logging roads, however trail links to the western area may require construction or bridges over steep creek ravines.

Graham's Restaurant: Its humorous and quirky events have given this restaurant a legendary aura to complement its gourmet menu. It operates out of the historic Glacier Hotel building adjacent to the former railroad depot terminus of the Bellingham Bay and British Columbia line. Events conducted for publicity included the Slush Cup (an unorthodox ski event), and the Chicken and Egg Race, among many others.

Milano's Restaurant: Italian restaurant in Glacier serving hikers and skiers returning from a day on the mountain or staying at area vacation homes.

Glacier Creek Motel and Cabins: The only motel accommodations in the Foothills area, the Glacier Creek serves visitors desiring a basic room rather than the additional features of the more numerous (but less visible) inns, resorts, and bed-and-breakfasts.

The Inn at Mt. Baker: A luxury bed-and-breakfast featuring views of Mt. Baker from each room.

Events:

- Ski to Sea Race: annual multi-sport relay race

Summary of Community Destinations:

Housing	Approximately 200 year-around residents live in the Maple Falls – Glacier area. An additional 1,300 cabins, houses, or camp-sites are used or rented on a seasonal or vacation basis. The Glenn at Maple Falls, Glacier Springs, SnowWater and SnowLine are additional vacation resort developments in the area where year-around residence is rare or not permitted.
Parks	- Maple Falls is the beginning of a County-owned linear park property, the former railroad right-of-way planned as the Bay to Baker Trail to Glacier. This park property has not yet been developed as a trail. - Glacier borders the U.S. Forest Service lands which serve recreational uses similar to a park. - Public access to Crown Pacific Timber Corporation lands on Grouse Butte and other mountains south of Glacier is permitted for recreational use. Crown Pacific logging roads accessible from Glacier and the Mt. Baker Highway enable recreational access to these forest lands. - Public access for legal recreational purposes is permitted on DNR managed land on Slide Mountain south of Maple Falls. however, there are no public access roadways or bridges from the Maple Falls – Glacier area to Slide Mountain DNR property. - The grounds of the Maple Falls Community Building (formerly Maple Falls Elementary School) provide some open space for picnic or recreation use.

The town of Warnick featured the Warnick Sawmill, located between Glacier and Maple Falls.

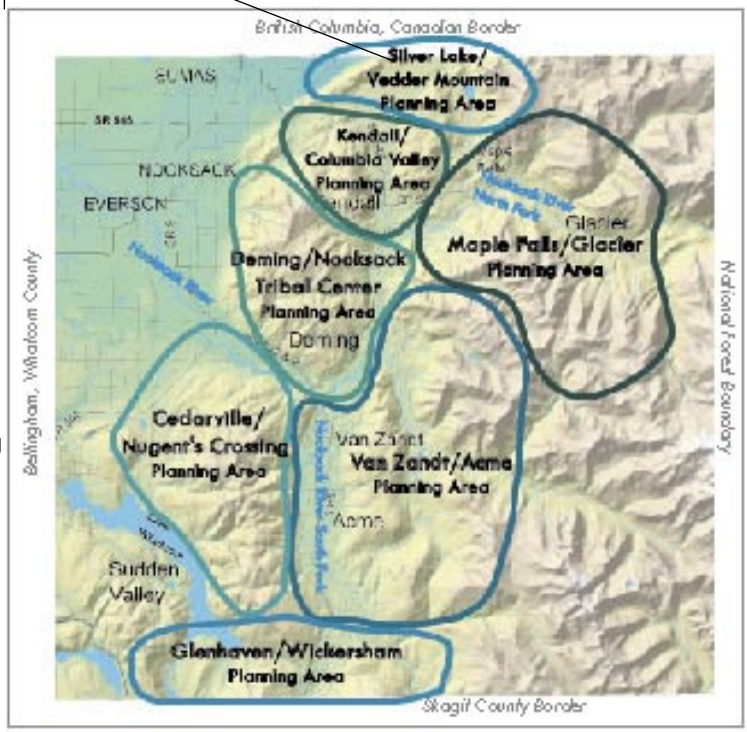
Facilities	Public and private restrooms at Maple Falls and Glacier; commercial businesses; post office at Maple Falls and Glacier; public library service at Glacier;
Trails	- Extensive network of current and former logging roads on private and public land on Black Mountain, Grousse Butte Mountain, Slide Mountain, and throughout the National Forest. - Electric utility corridor private trail from Glacier sub-station to Douglas Fir Campground vicinity - Bay to Baker Trail (proposed) from Maple Falls to Glacier
Waterways	Nooksack River North Fork public boating access sites in this area are not clearly marked.
Bus or rail service	Dial-A-Ride public transit service operated once per week with 24 hours prior request to WTA. Private "ski bus" shuttle service operates seasonally, one stop in Maple Falls or Glacier is being negotiated.
Roadways	Mt. Baker Highway (SR542) vehicle speeds and volumes reduce these roads' suitability for walking or bicycling along shoulder. Private roadways within vacation resort developments provide segments of a shared low-traffic road for bicycling and walking, but do not constitute connected transportation systems. Cornell Creek Road is a low-traffic shared roadway suitable for use as a GreenRoute.
Churches	Grace Community Church (Maple Falls)
Schools	No public schools
Businesses	Grocery stores, laundromat, gas station, Highway maintenance yards, taverns, restaurants, artist and craft studios, cottage industry, real estate sales and rental offices, recreational equipment supply and rental stores, motel.

Visitor Accommodations	motel, bed-and-breakfast inns, privately owned vacation rental properties, camp sites.
Restaurants	Frosty's Inn Tavern, Casa 542 Mexican Restaurant, Mt. Baker Espresso, Graham's Restaurant, Milano's Restaurant, private catering at resorts and inns.

Miner's cabin, east of Glacier.

Silver Lake/Vedder Mountain (*Lemola*)

Silver Lake/Vedder Mountain *(Lemola) area*



Mt. Baker Foothills Planning Areas

In pre-history, the Nooksack villages in the area of Vedder Mountain were closely affiliated with the Chilliwack Indians, whose territory now lies in Canada. A well-known long-house built at the Vedder Crossing had the name *Qwo'qwe'lel* meaning "watery eves" because its roof edges had a special tendency to collect rain water and drip.

Nooksack Indians established fur trading connections with the Hudson's Bay Company post at Fraser River in 1827. Trading routes from the mountains included the Vedder Mountain and Columbia Valley trails.

Lemola was the name of a small pioneer town at the north end of Red Mountain. Reached by rough trail from Maple Falls or via Columbia Valley from Kendall, it was a remote outpost between Silver Lake and Sumas. Located in the center of the area and representing its pioneer history, *Lemola* is the proposed historic name.

The 150-acre Camosun Ranch was located at the northernmost point of Silver Lake and extended north including seven acres of the ranch in Canada. Legend holds that the ranch was part of a smugglers route to bring Chinese laborers into the U.S.A. in the late 1890s. Smuggling was also carefully watched during the Alcohol Prohibition era of the 1920s. With dense dark forests and a location remote from the cities, people said, "Columbia Valley was a law unto itself until about 1908."

Silver Lake Resort was privately owned and operated from 1902 to 1967 for recreational boating, camping, fishing, and swimming. A popular excursion destination by rail, the resort managers met the train in a horse-drawn wagon to bring visitors for a day's outing at the lake.

Recreational Sites and Cultural Centers in Silver Lake/Vedder Mountain

<u>Current Conditions</u>

Silver Lake is a Whatcom County Park offering camping and cabin

rentals along with boating and horseback riding. A small concession market is located on the park grounds to serve visitors during the summer season. The Black Mountain Forestry Center and the Gerdrum Museum are located adjacent to the Park. The Forestry Center is operated by a non-profit organization offering education in the history and current practices of the forestry industry.

Silver Lake Park offers miles of horseback riding and hiking trails at the base of Black Mountain.

Vedder Mountain is connected to Silver Lake via horseback riding trails. Whatcom County's most extensive network of horseback riding trails is located near Heady Road approximately half way between Silver Lake and Vedder Mountain. The trails were built and and are maintained by volunteers in the Back Country Horsemen.

Descriptions of Recreational and Community Destinations:

Silver Lake Park: Owned and managed by Whatcom County Parks and Recreation, the park offers rental cabins, rustic camp sites, boating and horseback riding facilities. A small store concession operates seasonally. Stables for horses enable recreational visitors to bring their horses for extended stays to enjoy the extensive trail networks in the Vedder Mountain area. Horseback riding is prohibited, however, on most trails on Black Mountain east of Silver Lake.

Black Mountain (north): Black Mountain forest lands are owned and managed by Crown Pacific Timber Corporation. The public can access Black Mountain logging roads from Silver Lake road south of the park.

Black Mountain Forestry Center: A museum and interpretive center on lands owned by Whatcom County Parks Department, the Center conducts tours and hosts the annual World of Wood festival to educate people about the history and current culture of commercial forestry. The Center is working with a mountain biking group to plan a downhill mountain bike course on Red Mountain and to incorporate mountain bike events into the festival.

Red Mountain trails (east): Department of Natural Resources managed lands on Red Mountain can be accessed by the public directly from the Black Mountain Forestry Center grounds. An extensive network of logging roads and trails on the mountain can connect travelers to the Paradise Lakes area.

South Pass Road bicycle loop: Road bicyclists enjoy the Silver Lake – South Pass route as a scenic low-traffic roadway. Bicycling events such as the Ski to Sea relay and the Nooksack Cirque bike race sometimes use this course.

Heady Road trails: Constructed and maintained by the Back Country Horsemen, this extensive network of trails serve recreational riders,

event rides, and horse-and-carriage drivers. Connections enable riders to reach Sumas or Silver Lake via trails.

Vedder Mountain trails: Heady Road area horseback riding trails connect to Department of Natural Resources land and its logging road network on Vedder Mountain. A private hang-gliding launch site is at the top of Vedder Mountain.

Events:

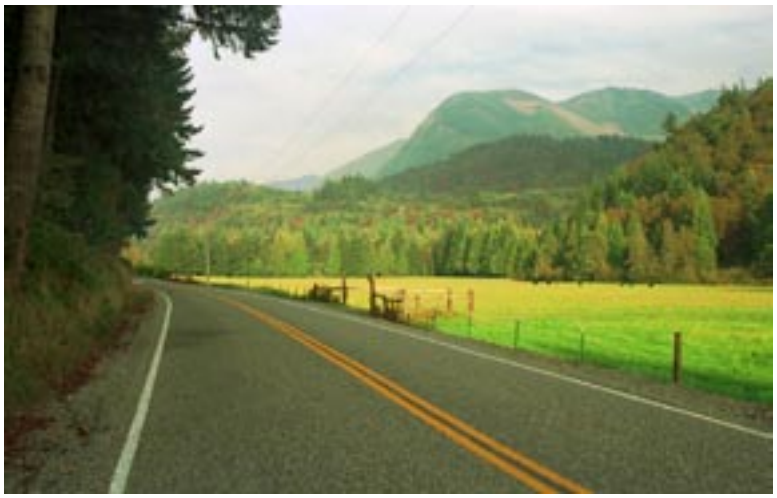
- Mt. Baker Baptist Church (Silver Lake)
- World of Wood
- Silver Lake Fishing Derby
- Ski to Sea Multi-Sport Relay Race

Silver Lake Road and South Pass Road wind through farms and forested mountains.

Summary of Community Destinations:

Housing	Approximately 80 year-around residents live Area 7.
Parks	- Whatcom County owns and operates Silver Lake Park offering a variety of recreational activities (see below) - Department of Natural Resources owns most of the forest land on Vedder Mountain with an extensive network of horseback riding trails maintained by volunteer groups.
Facilities	Public restrooms at Silver Lake Park; camp sites and concession grocery at Silver Lake Park,
Trails	Extensive network of current and former logging roads on private and public land on Vedder Mountain, Heady Road area, and the north end of Black and Red Mountains
Waterways	Silver Lake canoeing and fishing
Bus or rail service	Dial-A-Ride public transit service offered once per week with 24 hours prior request to WTA.

Roadways	Silver Lake Road and South Pass Road, Heady Road are County roads with low traffic volume and moderate speeds which function well for shared bicycling or walking.
Churches	Grace Community Church (Maple Falls)
Schools	No public schools
Businesses	Grocery concession at Silver Lake Park.
Visitor Accommodations	Campsites and rental cabins at Silver Lake Park
Restaurants	None.



Motor vehicle traffic volume on South Pass Road is very light. The quiet scenery and low traffic appeal to bicyclists.

Recreational Facilities Inventory

A complete inventory of recreational facilities and destinations in the Foothills is included in Appendix 3. The inventory is organized by planning area and lists the types of activities available at each site and whether the facilities are accessible by the public or are operated privately. It includes special indications for facilities that are planned for construction in the near future and for facilities reported but where continued operation could not be confirmed. Sites are located on land owned by the County, State, Nooksack Tribe, Whatcom Land Trust, or private commercial enterprises.

The purpose of the inventory is to help trail routes connect to the destinations people want to access. Data from this list may eventually form the basis for Geographic Information Systems (GIS) mapping to inform visitors and residents about recreational or educational opportunities in the Foothills.

Connecting Communities

Communities on the periphery of the Foothills are not covered in this plan, however, the below communities and their resources are important links for Chain of Trails travelers. These communities and the area west of them will be included in the second phase of the Chain of Trails plan:

City of Sumas
- Johnson Creek bed and breakfast
- Bay to Baker Trail – Sumas section
- Sumas Festival and events
- Schools

Cities of Everson and Nooksack
- Bay to Baker Trail – Everson trail section
- Riverside Park
- Everson-Nooksack Festival and events
- Schools

Lookout Mountain
- Mountain Biking Trail Network
- Horseback Riding Trail Network
- Lake Samish Trail access
- Lake Whatcom (southwest) recreational access

Transportation in the Foothills

Transportation in the Foothills

Transportation is an important issue for the Foothills: a primary goal of the Chain of Trails Concept Plan is to help maintain or reduce car trips in the Foothills while increasing the economic opportunities of Foothills businesses. The Recreation Facilities inventory in Appendix 3 addresses this goal by detailing transportation access options for each of the sites. Entries include codes to show accessibility by means other than the private car:

- public transit (bus),
- paved road (for road bicyclists),
- gravel trail (for mountain bicyclists or horseback riders or trekkers),
- private bus or limousine
- Passenger railroad access is a future possibility along the Foothills railroad line. Up to 2004, passenger train service was occasionally offered on an excursion basis.

As transportation facilities themselves, a well-linked trail system can eliminate or significantly reduce the need for other types of transportation service, especially for Foothills residents. Visitors can use bus service or other alternatives to access remote trails without risking damage or theft to cars parked at unmonitored trailheads.

Transportation Facilities

The existing transportation systems in the Foothills region include facilities managed by a variety of different organizations and jurisdictions. Not all of the systems serve trail users specifically but many of the destinations served are within close proximity to trailheads or recreation sites. This inventory may serve as a basis for determining partnerships for expanding existing routes or marketing the service to trail users.

Following are some of the transportation services that make up the Foothills transportation infrastructure:

Whatcom Transportation Authority bus service

Public transit service in the Foothills is provided by bus along the generally east-west corridor of the Mt. Baker Highway. Within the Foothills, the service extends from Kendall/Paradise Lakes to Nugents Crossing at the Nooksack River. Additional service is provided at the western edge of the Foothills area to the cities of Everson, Nooksack and Sumas. Service is currently five round trips per day with some flexibility in the route to accommodate residents outside the main route area. Dial-a-Ride service is available for limited days during the week for people wishing to travel to or from the Glacier/Maple Falls area and for the Acme/Van Zandt area.

Public bus routes serve the Foothills through regular fixed-route service, flex-routes, and dial-a-ride.

Private Shuttle Transportation Service

BellAir Charters Ski Bus provides seasonal ski bus service from Bellingham and limited resort sites to Mt. Baker Ski Area with limited intermediate stops.

Nooksack Casino Charter Bus runs a regular service from Seattle and British Columbia to the Casino at Deming/Nooksack Tribal Center.

Whatcom Yellow Cab Taxi service offers transportation throughout the County on an individual fee basis, and some travelers utilize this service to access trailheads.

Sidewalks and marked crosswalks

In the Foothills area, no existing sidewalks have been constructed. Every roadway intersection is defined in law as a legal crosswalk, requiring that motorists yield the right-of-way to pedestrians. Marked crosswalks are often used at sites where increased pedestrian activity is expected. School zones or commercial areas often have marked crosswalks. Within the Chain of Trails Foothills study area, there are no existing marked crosswalks.

State Highways

The Foothills area is crossed by three state highways:

- Mt. Baker Highway, State Route 542
- Valley Highway, State Route 9
- Kendall-Sumas Road, State Route 547

The Mt. Baker Highway winds east-west through the Foothills and is unique in Washington State as the only state highway that is a "dead-end." It is a state-designated Scenic Highway. As such, it has received funding from National Scenic Byways grants to finalize a Corridor Management Plan and to fund projects to enhance

tourism facilities. Mt. Baker Highway has 10-foot paved shoulders from Bellingham to Deming and no consistent shoulders from Deming to its terminus at Artist's Point. Bicyclists travel SR542 for race-training purposes and for commuting. The highway offers no pedestrian facilities.

Traffic counts for the highest volume location along the highway at the Deming and Nugent's Corner show average annual daily vehicle volumes of in the range of 3,500. In 2004, the traffic volume for travel through the town of Glacier was in the range of 250 vehicles per day. Traffic volume at Artist's Point has been estimated based on a 1989 count but has not been confirmed by a more recent physical count. The Convention and Visitors' Bureau estimates that during the summer season over 200,000 visitors access the Heather Meadows area at the eastern terminus of the highway.

The Mt. Baker Highway has historically seen some flood damage from its proximity to the Nooksack River. In the 1930's, the Bell Creek Flood carried this cabin onto the highway.

State Route 9 (SR9), the Valley Highway, is also a state-designated scenic highway but a Corridor Management Plan has not yet been prepared for this route. Such a plan is required before National Scenic Byways funds can be requested for scenic byway projects on SR9. The two-lane road winds north-south through rural farm and commercial forest in the Foothills area from Wickersham to Sumas. Traffic counts show an average volume of about 850 vehicles per day. SR 9 has unpaved shoulders or no shoulders throughout its Whatcom County stretch. The highway is enjoyed by bicyclists for its scenery, but the high speed of vehicular and truck traffic discourages some inexperienced cyclists. The highway offers no pedestrian facilities.

The Kendall-Sumas Road, State Route 547 (SR547), provides a connecting route from the Mt. Baker Highway to the town of Sumas near the British Columbia border, northwest of the Foothills. The road was constructed along a route that parallels the former Bellingham Bay and British Columbia Railroad, now the proposed route of the Bay to Baker Trail. SR547 is the only road leading from the residential area of Columbia Valley to the Kendall Elementary School. The segment of SR547 between the school and the residential areas has non-standard paved shoulders of four-foot width and no sidewalks. The remainder of the highway has no shoulders and also has no sidewalks.

County roads

The County engineering department owns and maintains approximately 50 miles of roadway in the Foothills area. These two-lane paved and gravel roads serve both residential and commercial purposes. Many County roads such as Mosquito Lake Road and South Pass Road serve logging and mining trucks along with other types of traffic. No County

roads currently offer sidewalks or shoulders, however, traffic counts are well below 1200 vehicles per day, making shared roadway use by non-motorized travelers relatively comfortable. Speed limits on county roadways vary from 25 mph, such as on Deming Road, and Cornell Creek Road, to 50 mph on roads such as Mosquito Lake Road, and Goodwin Road.

BNSF Freight Railroad – Sumas Line

The Burlington-Northern Santa-Fe Freight Railroad owns and operates a north-south line through the Foothills essentially paralleling the Valley Highway right-of-way. Current operations include one freight train per day operated at a maximum speed of 25 mph. The rail right-of-way is 100 feet wide. Wetlands in the valley, together with unstable ballast in the railbed, prevent the company from running more frequent service on the line unless or until it is renovated.

On low-volume, low-speed railways, communities in other parts of the nation have established "rail-with-trail" pathways, like the one pictured above. The Sumas-Burlington rail line is a low-volume freight line in the Foothills.

Logging Roads on State Lands

The Washington State Department of Natural Resources (DNR) owns and manages thousands of acres of forest land in the Foothills area. These resources are located on Sumas, Stewart, Van Zandt, and Red Mountains. Throughout these lands are roadways maintained for the purpose of extracting timber. After logging operations have been completed, some of these roads have become used as trails for hikers, horseback riders, and mountain bicyclists. DNR permits public recreational access and use of forest lands, subject to certain guidelines.

Private Logging Roads

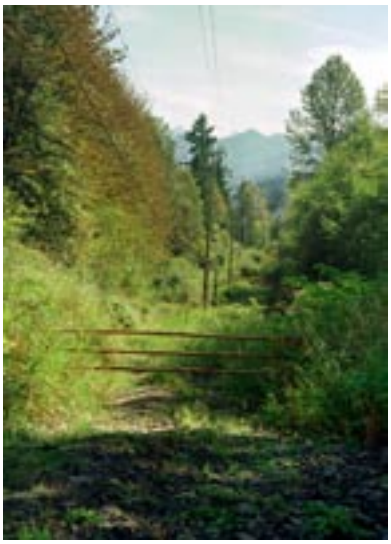
In the Foothills, eighty percent of the land area is zoned as commercial forest land. Most of this forest land is owned and managed by several private timber companies and by individuals. Similar to DNR land, these forest areas include roadways for the purpose of accessing and transporting timber. Many of the roadways were built on the historic rail easements used in the early timber harvest. After harvesting, some roads can be converted to trail use, others must be decommissioned to protect streams from erosion and sediment. Some private timber companies permit public access to their land for recreational purposes, subject to certain guidelines.

Private Roadways

A limited number of roads that serve a small number of residences are privately owned and maintained in the Foothills. Some of these are located within private developments, such as at Campers' Paradise and The Glen at Maple Falls. Others function as shared driveways at the end of publicly maintained roads. Some of these roads, such as Eagle Flyway near Cedarville, also serve as access roads for commercial forest vehicles.

Trails on County Park Land and on Whatcom Land Trust Properties

Bay to Baker Trail the Bellingham Bay and British Columbia railroad offered passenger service along this right-of-way from Bellingham to Glacier starting in 1904. Passenger service to Glacier terminated in 1916, but the railway continued to operate for freight under Millwaukee Railroad ownership until the line was abandoned in the 1970s. The rail right-of-way between Maple Falls and Glacier is now owned by Whatcom County. The Parks and Recreation Department began making plans in 1990 to develop this as a public trail but as of 2004, it had not been started.



View of the undeveloped right-of-way for the Bay to Baker trail near Glacier, part of the seven-mile section owned by the Whatcom County.

Canyon Lake Community Forest Preserve A 2,300-acre community forest that includes 700 acres of old growth forest and the 45 acre Canyon Lake. The park is located about five miles east of Van Zandt off the Mosquito Lake Road and includes a trail about four miles long.

Deming Homestead Eagle Park is located on the Nooksack River North Fork where Bald Eagles migrate in late autumn, providing park visitors with views of these stately birds. The property was acquired by Whatcom Land Trust and was donated to Whatcom County as a park. The current trail is less than one-half mile long and there are plans to extend the trail to create a loop.

Nesset Farm is located south of Acme near the historic town of Saxon. The farm is currently undeveloped as a park and public access is permitted on specific occasions. The farm includes trails along the extensive former rail line network on Blue Mountain.

North Lake Whatcom Hertz Trail runs along the historic route of the Blue Canyon Rail Road on the east shore of the lake at the base of Stewart Mountain. The trail is about three miles long and terminates at a privately owned property. Steep trails lead over Stewart Mountain to connect to the South Fork Valley.

Silver Lake Park includes at least three miles of horseback riding trails adjacent to Black Mountain, north of Maple Falls.

Waterways

The Nooksack River historically afforded transportation service for the region from Bellingham Bay to Deming by canoe. Commercial passenger steam ferry service was offered only as far as Everson from the 1880s to 1890s. River-based transportation today is currently limited to recreational uses including canoeing, kayaking and inner-tube floating. Fishers use motor boats in limited areas.

Lake Whatcom steam ferry service offered transportation service for residents on the Lake and the South Fork valley from 1883 - 1923. Today, motor boats, jet skis, kayaks, canoes, and sailboats access the lake for recreation.

Lake Whatcom and the Nooksack River offer kayak and canoe routes for a water trail network.

Community Vision for the Chain of Trails

Measuring Community Interest

During the summer of 2004, Whatcom TrailNet hosted a booth at eight different community events in and around the Foothills to give information about the Chain of Trails project and to ask for community comments. Over 600 Foothills residents and visitors participated in an interactive survey that asked whether or not they would use trails in the Mt. Baker Foothills. For those who would use trails, we asked how they might use them. The photograph below shows a sample of the chart used at one event to collect responses to the question, "How would you like to use trails in the Mt. Baker Foothills?"

Community members use dot-stickers to respond to the question "How would you use trails in the Mt. Baker Foothills?"

Methodology

Respondents used dot stickers to indicate their interest in trails for different types of activities. They placed dots is the categories of use – for example, walking, horseback riding, roller-skating – that they would be likely engage in if there were trails in the Foothills. For four of the events, the dot stickers were color-coded to indicate the place of residence of the respondent. The survey results are shown in graph form in Appendix 4.

The responses demonstrate that there is strong support, from both residents and visitors, for development of a trail network. From an economic development perspective, these results suggest that there is market demand for such a network and there is a likelihood that an increased number of trail users would use and pay for trail-related services in the Foothills if a trail network were developed.

Analysis

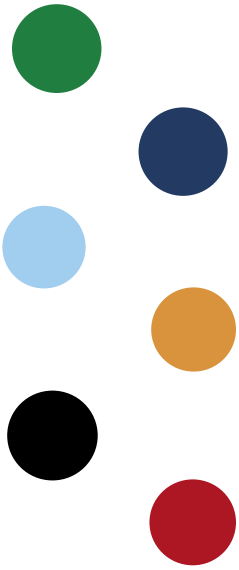
The community support for trails shown by this outreach effort reinforces the community interest reported in the 1989 *Whatcom County Parks and Recreation and Open Space Comprehensive Plan*. At that time, walking and bicycling trails ranked second to the top in response to the question "What do you feel are the three most important recreation needs in Whatcom County?" (The top priority was a public swimming pool, a need which has since

been filled.) The 1989 survey was conducted County-wide. The survey data collected for the Chain of Trails in 2004 helps show that the support for trails remains strong. It also shows more specifically that the Foothills community supports the idea of trails in their area.

The results from the World of Wood Festival at Black Mountain Forestry Center are representative. The total number of participants in the survey at the World of Wood festival booth totaled approximately 100. Of those, 13 indicated that they would not use a trail (13%). These respondents were asked if there was any particular reason they would not use a trail. In general, the reasons given were as follows, in order of most frequent response to least frequent:

- physical health or ability limitations
- residence outside the state or region
- no time or interest.

These reasons were consistent with responses at other events for non-trail users. Out of the 600 Whatcom TrailNet survey participants at the eight events, two individuals (0.3%) specifically expressed opposition to the principle of creating trail networks in general. Approximately nine individuals (1.5%) out of 600 respondents voiced concern about or opposition to having the trails located adjacent to their property. Conversely, three property owners (0.3%) in the Foothills expressed willingness to allow a trail easement for public access through their property as part of the network.



Outreach Results by Geographic area

In addition to asking the public how (or if) they would use trails in the Foothills, the outreach for four events included data about the area of residence of the respondents. Color-coding of the dots based on geographic residence location used the following scheme:

Green = Foothills Resident (Acme, Van Zandt, Nugent's Corner, Deming, Kendall, Maple Falls, Glacier)
Dark Blue = Small Cities (Ferndale, Lynden, Sumas, Everson, Nooksack, Blaine)
Light Blue = Bellingham
Orange = Whatcom County (other than the above)
Black = Other parts of Washington State
Red = Canada or other areas

The graphs in Appendix 4 show the relative interest in different trail uses based on geographic location of residence for the respondents.

Chain of Trails Vision

The desire of community members in the Mt. Baker Foothills to preserve quality of life while improving the economic health of the region is a central concept in the Chain of Trails planning process. One of the undesirable effects of increased economic activity is the potential for increased noise, danger and congestion caused by increased motor vehicle traffic. By reducing the need for at least some automobile trips and by providing increased community connection and access to nature, trails can preserve quality of life for both residents and visitors. Use of trails for some shorter trips can help slow or stabilize the growth in daily vehicle trips or the number of miles traveled in each trip. Research in another section of Whatcom County shows that 30% of all trips are less than two miles, a reasonable walking distance if trails or other safety protections are provided.

Below are two scenarios depicting how the future trail system might be used by residents or visitors to improve quality of life:

Horseback riding is popular in the Mt. Baker Foothills, and it contributes millions of dollars to the local economy.

Future Trail Vision for Residents

Trails can function both as transportation and recreation, so trails allow families and children to enjoy access to nature, commerce, and schools in their Foothills neighborhoods without driving. On a summer evening, a family in Maple Falls could walk, bike, or ride horses along the Bay to Baker Trail to Kendall to enjoy sports events at the school athletic fields. Junior high school students in Welcome could ride their horses to Silver Lake park on trails that keep them safe from traffic. Commuters in Nugents Corner could bicycle to Everson or Welcome without sharing the highways with heavy trucks. Parents in Van Zandt could walk or bike their children to school in Deming or Acme and do errands in the commercial centers without having to drive. Some trips will still require a motor vehicle, but trails reduce the need for multiple car trips each day.

Future Trail Vision for Visitors

Another way trails serve transportation and recreation is for the visitors to the Foothills. The Chain of Trails network allows and encourages a visitor group to enjoy an entire recreational vacation in the Foothills without having to drive. A visiting family could arrive at the Alaska Ferry Terminal or the Amtrak station, have their luggage transferred to a delivery service, get on bicycles or horses and ride the trail to Lake Whatcom. There they might board a replica of the historic ferry *Marguerite* and travel south on the lake to the town of Park. The historic

Lake Whatcom Steam Railway could take them to Wickersham where another trail could bring them to a bed and breakfast in Acme, Van Zandt or Blue Mountain. The next day they might hike the trails on Stewart Mountain or kayak down the South Fork of the Nooksack. Another day might include a bike ride around the Mosquito Lake Road loop or horseback riding on the Nesset Farm trails. Trails could take them to the Nooksack Casino, the Baker's Edge Golf Course, the Gerdrum House Museum and the Mt. Baker Snoqualmie National Forest.

Developing the Network

Connecting communities is a core goal for the Chain of Trails in order to ensure that the trails serve a transportation function. The key community centers in the Foothills include:

- Nugents Corner
- Deming
- Van Zandt
- Acme
- Wickersham
- Welcome
- Kendall
- Paradise Lakes
- Maple Falls
- Glacier

Trails should also serve as access routes to recreation areas. The Foothills recreation facilities inventory (Appendix 3) details the variety of existing and future recreation destinations that could be served by trails. Some key recreation areas include:

• Nooksack River and forks	• North Lake Whatcom Hertz Trail
• Silver Lake Park	• Canyon Lake Creek Community Forest
• Josh Vander Yacht Park	• Nooksack Casino
• Nesset Farm (future park)	• Public School playgrounds
• Stewart Mountain public lands	• Van Zandt Dike public lands
• Sumas Mountain public lands	• Vedder Mountain public lands

Locating the Trail Routes

In order to serve the intended economic development purpose, the Chain of Trails network needs to connect Foothills community and recreation sites. Linear, dead-end trail segments serve some purposes but will not generate the multiple transportation and economic development benefits that this Chain of Trails strives to meet. The original Foothills Steering Committee members expressed a firm desire to keep trails within sight of the roadways, not to route them through undeveloped or forest areas "behind" private property or houses. Protecting privacy and property rights is important for all community members supporting the Chain of Trails.

Easements

Utility easements and abandoned railroad rights of way in the Foothills might also serve as corridors for some trail segments. Such easements might include:

• Nooksack Middle Fork Pipeline	• Bay to Baker Trail (former railroad)
• Puget Sound Energy easements	• Logging roads (former and active)
• Bonneville Power Authority line	• Nooksack River Dikes

Some of these easements are incorporated into the trail concepts described in Chapter Six. However, those easements that would not connect the priority communities and recreation sites to make a network have not been highlighted in this plan. Many utility easements do not include surface access rights other than for occasional maintenance requirements by the utility company. This plan does not rely on rights-of-way on private property but instead encourages a negotiation process with property owners to determine whether permission for public access could be established.

Utility easement with mountain-bike trails.

Shared Roadways

Roadways in the Foothills consist of three state highways and a network of county roads. Traffic on the state highways travels fast and at higher volumes than traffic on some of the county roads. A few of the smaller county roads have low traffic volumes that travel at slower speeds. These county roads these roads are an important component in the Foothills non-motorized travel network and they could be designated as shared-roadways where bicycling, walking, rollerskating, and other non-car travel have priority over motorized travel. Drivers on many of the Foothills' low-traffic roads already recognize the need to share the road where sidewalks don't exist and yield to people walking: shared-road designation would formalize this system through signage and pavement markings.

Shared roadway designation has been successfully demonstrated by the North Carolina State Highway Department in its bike route network. It is similar to the "Bicycle Boulevard" concept used in Berkley, California, and the shared lane markings used in Chicago, Illinois, and elsewhere.

Low-speed, low-traffic roadways can become safer shared space for walking and bicycling with signage and other public education.

Part of trail development is the process of gaining community support. Trails built in small segments demonstrate to local people the benefit and utility of trails for short trips or exercise. Building positive personal experiences of trails fosters wider support for adding to the network. Gradually, as funding and political support allow, separate trails or walkways along the small roads could be built to complete an off-road trail network throughout the region.

A potential example of a shared roadway designation might be the Deming Road. Formerly the right-of-way of the old Mt. Baker Highway, the Deming Road runs parallel to Mt. Baker Highway from Nugent's Corner to Deming. It is a low traffic, low speed, local-access road that most people feel is a more comfortable environment for walking or bicycling than are the shoulders of the SR 542 highway. Consequently, the Deming Road could function as a substantial trail connection between two priority Foothills communities: Nugent's Corner and Van Zandt. If the Deming Road was designated for use by low-speed local traffic with shared use by bicycle and foot traffic, then this stretch of road could serve a trail purpose.

Turkington Road in the South Fork Nooksack River Valley "feels" like a trail.

Similar roads that might also serve a trail function:

• Marshall Hill Road	• Cornell Creek Road
• Turkington Road	• Strand Road
• Mosquito Lake Road	• Truck Road

Forest Roads

Publicly owned and managed commercial forest lands in the Foothills represent an important existing resource for recreation trails. Currently, the Washington State Department of Natural Resources (DNR) owns about half of the commercial forest land in the Foothills. State policy allows public recreational access and use of these lands and the associated logging roads for hiking or other non-motorized uses when the public access does not interfere with logging operations. Motorized uses are restricted due to fire hazard concerns.

While recreational use of the public lands is permitted, access to those lands via public roadways is quite limited in the Foothills. For example, several logging roads lead from Mt. Baker Highway into DNR land on Sumas Mountain, but only two are open to public use.

The Van Zandt Community Forest is managed by the State Department of Natural Resources.

The Foothills also has many private land owners with smaller holdings of commercial forest parcels. Negotiation would be necessary with private land owners to determine if appropriate compensation could be arranged to permit public trail use on their private logging roads. Because of the large number of the small private parcels and the time required to negotiate with each, the Chain of Trails Concept Plan recommends focusing on the large commercial forest corporations first. In 2004, Crown Pacific Timber Corporation

held approximately 40% of the designated commercial forest land in the Foothills. Crown Pacific's policy allows public recreational access to its lands, provided that the person gives prior notification of the location and activity to its representative at the office on the Y Road at Stewart Mountain. The issue of access to private logging roads via public roads is similar to that for DNR lands.

The trail resources matrix and map in Appendix 5 shows proposed trails on DNR and Crown Pacific lands and the locations of public access roadways.

Economic Benefits of Trails

The financial benefit derived from the existence of a trail is an important way to determine whether a community should invest in or expand a trail system. Community and regional trails groups and Chambers of Commerce have conducted studies to show the revenue generated by trail users both for business and tax revenue.

Mountain Bike Trails

Moab, a small town located in southeastern Utah, was historically a mining community that saw decreasing finances as mining activities were phased out in the 1970s. It enjoyed an economic boom in the late 1980s after mountain biking trails, including the well-known Slickrock Trail, made it an important recreation destination. In 1997, students at Colorado State University conducted a study to determine the economic value of the Slick Rock Mountain Bike trails in Moab, Utah. The results of the survey showed that the revenue from spending per-person on an average mountain biking vacation trip there was at least $197. Multiplied by 160,000 yearly visitors, trail related revenue resulted in an annual economic benefit of at least $8,422,800.

The Kettle Valley Trail in British Columbia attracts thousands of visitors to bike and hike. The historic trestles of this rail-trail attract sight-seers.

Multi-Use Regional Trails

The National Park Service studied three rail-trails in California, Florida, and Iowa, and found that trail use brought in at least $1.2 million to the local economies. Other studies showed that trail users account for at least 10% of income for businesses along the Cape Cod Rail Trail in Massachusetts. Dunedin, Florida, along the Pinellas Trail, went from a 35% storefront vacancy rate before the trail to a 100% occupancy rate with waiting list after the trail was in use for a year. Hotels along Wisconsin's

32-mile Elroy-Sparta State Park Trail are booked a year in advance. A user survey of the western half of the Katy Trail in Missouri showed that it generated an estimated $3 million annually in local revenue.

According to the New York Parks and Conservation Association, "Across the nation, community trails have proven to be a cost-effective use of public funds. A study of Maryland's Northern Central Rail-Trail found that trail-related tax income to the state totaled $303,000, while the trail's management and maintenance costs were $192,000. The Minnesota Department of Natural Resources estimates the total annual user spending related to the Cannon Valley Trail to be somewhere around $1 million, with the state receiving $66,000 from related sales tax revenue."

Income from Kettle Valley trail visitors helps pay for amenities like this picnic gazebo and for maintenance of the historic railroad tunnel, now used by trail riders.

Horseback Riding Trails

According to *Western Horseman* Magazine (February, 1996), horse trails can be inexpensive to develop compared to other trails, because horses can cover rough terrain with minimal construction. The majority of horses owned in Whatcom County are for pleasure riding on trails. The economic benefit generated by these trail riders starts with the property purchase or rental of stable space to board and feed their horses. In Santa Clara County, California, stables near a park with multi-use trails house 1,200 horses with board bills ranging from $125 to $250 per horse. Without the trail, the stables would be out of business. Because of the trail, the annual economic benefit generated for the local community is in excess of $150,000. Including veterinary, equipment, park fees, and feed costs, the horseback riding community estimated that they contributed at least $5 million per year to Santa Clara County's local economy. The economic benefit for the Mt. Baker Foothills from horseback riding on the Chain of Trails could be of a similar magnitude.

Members of the Whatcom County Chapter of the Back Country Horsemen of America

The Health Connection

Physical inactivity contributes to public health problems and residents of the Foothills are more sedentary than they used to be. The Centers for Disease Control and Prevention (CDC) estimates that the average American now walks less than 300 meters per day. The lack of physical activity opportunities in our technologically-assisted daily life has led to an epidemic of obesity and overweight along with attendant chronic diseases such as diabetes and heart disease. In a 2001 report, the Surgeon General identified obesity as a public health risk costing the public as much as $117 billion per year and posing as great a health danger as smoking.

Active Living by Design, a project funded by the Robert Wood Johnson Foundation, has determined that designing facilities to encourage more physically active transportation -- walking, bicycling, roller blading, etc.-- is an important way for communities to reduce their long-term liability for the increasing public costs of sedentary lifestyle diseases. In 1970, 90% of all school children in the U.S.A. walked or bicycled to school. In 2001, only 10% were able to, largely because the lack of sidewalks, paths or other facilities made such walking trips difficult or unsafe. A person in average physical condition can walk about 3 miles or bicycle about 5 miles on level terrain. Trails from Acme to Wickersham or Van Zandt to Nugent's Crossing are within range of a reasonable bicycle commute distance.

Types of Trails

Trails and Trail Surfaces

The word trail evokes an image of a quiet woodsy walking path, surfaced with dirt or gravel, remote from roadways and vehicle traffic. Trails are designed to serve different purposes and uses. Some trail uses require design features that limit other uses. For example, road bicyclists require smooth, firm surfaces like asphalt or concrete. By contrast, runners and horseback riders require a softer gravel or dirt surface. People walking to work or school can navigate stairs or rough surfaces, but people using a grocery cart, wheelchair, or stroller cannot.

The word trail is sometimes used as a metaphor to connect historic events. Many trails represent landmarks of cultural heritage. For example, the Freedom Trail in Boston, Massachusetts, or the Underground Railroad, the National Historic Lewis & Clark Trail: each of these represents an experiential connection with the past based on a journey.

The word trail can be used to describe several different types of recreational routes and opportunities. *The Mississippi River Trail* consists of marked roadways and highways through several states along the river's course. In Boston, the *Freedom Trail* is a walking route of urban sidewalks, streets, and plazas. *La Route Verte* in Ontario, Canada, consists of a combination of roadways and off-road trails. The *Kettle Valley Trail* in British Columbia, Canada, is composed entirely of off-road trails, but the surfacing varies from town to town. The *Oregon Birding Trails* follow major roads and scenic byways to connect public and private bird watching sites.

The Chain of Trails Concept Plan uses a broad definition of the word trail because the network is expected to serve a wide variety of trail users. Trails in the Mt. Baker Foothills could include low-traffic public roads, logging roads, off-road separated trails, trails in parks, and other types of routes. The table on the next page describes the different types of trails that make up the network and which types of trail users they would serve. Surfacing is an important distinction between types of trails because surface-type can limit use.

The table below shows the types of surfacing that serves various uses. People can walk, mountain-bike, or ride a horse on many types of trails, but not all of these are the preferred design for these uses. Paved road shoulders, for example, are not ideal but can be used for short segments by horse riders; compacted gravel is possible for a wheelchair to navigate, but paved surfaces are preferable.

Trails and Surfacing for Different Uses

Trail Type:	*Surface Description:*	road bicycling	strollers, wheelchairs	walking, hiking	running	horseback riders	mountain biking	downhill mountain bike	rock climbing
		Types of Trail Users:							
Steep Jumps	Steep, rocky cliffs and unconstructed terrain with little or no on-the-ground trail grading. *(Jumps are recreational features, not transportation.)*								
Rustic Trail	Rustic, off-road trails through forested or natural areas with minimal improvements designed to incorporate narrow, rough, or steep features to enhance physical and technical challenge								
Gravel Trail	Compacted gravel surfaced off-road trails with grading, drainage, bridges, and surfacing to facilitate ease of travel.								
Paved Trail	Asphalt or concrete surfaced off-road trails with grading, drainage, bridges, and surfacing to facilitate ease of travel.								
Side Path	Gravel trails separated from motor traffic lanes by berms, swales, or vegetated buffers, that run parallel to a roadway. Also called a Separated Walking Path.								
Sidewalk	Sidewalks or paved walkways along roadway separated from motor vehicle traffic by a curb barrier								
Shoulder of Road	Paved roadway lanes adjacent to motor vehicle roadway. Such lanes may be separated from motorized traffic by barriers, pavement striping, or reflective markings.								
Shared Roadway	Designated, signed sections of existing paved roadways, without shoulder lanes, where average daily traffic volume is less than 1200 and speed limits are less than 50 mph. Trail travelers share the vehicle traffic lanes with motorists.								

Chart Legend:

Preferred surface =

Possible use, not preferred =

Last resort, if no other option =

Not suitable =

Trail Design and Maintenance

Proper trail design and construction can prevent or minimize erosion. Maintenance needs for trails depends on the kind and amount of use they get. Design standards should be applied based on site conditions, the number of users, the weather conditions likely to be present, as well as the type of trail user. For example, a rustic dirt trail used by horseback riders infrequently and only in dry weather is probably less prone to erosion than a dirt trail used often by mountain bikes in a wet weather. Proper drainage design is imperative to minimize maintenance problems and costs.

Improper drainage design can lead to erosion of trails and damage to adjacent vegetation.

Erosion is not a major concern for paved trail surfaces. For those user groups which travel on both paved and unpaved surfaces, the erosion factor described is applicable for their effect on unpaved surfaces.

Different types of trail use results in different degrees of erosion. A higher potential for erosion may require more maintenance attention. The descriptions of trail uses later in this chapter give general comparisons of the relative potential to cause erosion according to the following general guidelines:

Likely – likely to cause ruts or soil erosion in dry or wet conditions at average or low usage levels (10 trips per hour)

Moderate – may cause ruts or soil erosion in wet conditions at moderate usage levels (30 trips per hour)

Low – unlikely to cause ruts or soil erosion under dry or wet conditions at high usage levels (50 trips or more per hour)

"Conflicts sometimes develop over the use of nonmotorized facilities. There are two general ways to address these conflicts:

- Separate modes and restrict uses. For example, prohibit the use of skates, scooters and bicycles on sidewalks, with the assumption that they will use the roadway or will not be used at all in an area.

- Manage facilities for shared use by establishing and promoting user behavior guidelines concerning maximum speed and which mode must yield to each other, and where necessary, establishing and enforcing regulations."

-- *Conflicts on Multiple Use Trails,* 1994

Trail Users and Trail Design

This section defines in further detail the trail design needs and preferences of each trail user-group. These are recommendations rather than absolute requirements. While the chart on the previous page includes rock climbing and down-hill mountain bicycling as distinct types of users, these uses are included below as sub-categories in mountain bicycling and hiking, respectively. The categories are organized generally in the order going from trail uses that can tolerate the most rustic conditions (with little construction) to those requiring highly developed trails (with grading, paving, and construction). Entries are included for the following types of trail users:

Rustic or Gravel Trails:

- Horseback Riders
- Mountain Bicyclists
- Hikers (for recreation)
- Ramblers
- Runners

Paved Trails:

- People using Wheelchairs, Stollers, Carts
- People Walking (for transportation)
- Road Bicyclists
- Roller Bladers or Roller Skaters
- People using Electric Mobility Devices (for the disabled)

Water Trails:

- Kayakers, Canoers, Rafters

Combination Trails:

- Interpretive Trail Travelers

The compatibility of different sorts of trail users depends on relative size, weight, speed, purpose of use, and capacity. An electric mobility device may function well on a vacant sidewalk at 5 am, but would cause obstruction on the same sidewalk during crowded use times between 8 and 10 am. As the Chain of Trails network is developed, trail managers will need to determine appropriate times of use for different purposes in order to ensure safe and enjoyable opportunities for the widest variety of travelers.

Horseback Riders

Trail Configuration Needs for Horseback riders

Type of Trail:	*Preferred:* Rustic, Gravel, Side Path *Possible use:* Paved Trail
Grade:	• All grades: level, inclined, steep • Variety of grade and turns can add to enjoyment • Good sight-distance is beneficial to prevent startling of horses
Width:	Suggested minimum 3 ft. (1 m); Multi-use and bi-directional trail width: 12 ft. (4 m)
Typical distances:	Average minimum: 4 hours Average maximum: 2 weeks
Trailhad Needs:	• Space for horse trailers and trucks to park and unload • Loop routes to get back to trailers
Enjoyable Challenges:	Some riders compete for speed or agility on special terrain.
Desirable features:	Scenic or natural surroundings, separation from motor vehicles
Access and transportation:	• Co-location of stables or pasture and horse-boarding facilities in proximity to trailheads • Networked trails from residential areas to destination trails will encourage help some riders depart from home by horse rather than driving to trails
Effect on trails:	• Horse manure is sometimes left on trails, although it biodegrades more rapidly than other wastes; • Erosion is likely during wet weather especially on rustic trails
Existing facilities:	• Estimated 140 miles of stock (horse) trails in Foothills (Silver Lake Park, Stewart Mountain, Sumas Mountain); • Ten horse-trailer parking spots, horse barns, and pasture at Silver Lake Park; • Stables near Stewart Mountain and Lookout Mountain

User Group Characteristics

Demographics	• All ages; • Families, small groups, individual; • Wide range of income levels; • Residents and visitors

Purpose of riding	• Primarily recreation • Transportation use for packing materials to remote sites for for trail maintenance work-parties • Future transportation use (when trail network is developed) for bringing horses to fairs, events, or neighbors' houses
Equipment/Financial Investment	• Purchase price of horse $1000 - $10,000; • Average cost of equipment: $500 – 3,300; • Annual expenditures for services and equipment (farrier, veterinary, feed, boarding fees or barn/shelter): $1000 – 3,000
Frequency of use	• Varies by participant: weekly, monthly, annually
Average number of riders per outing	2 to 5 individuals
Activities and Organizations	Trail building and maintenance Trail riding • Back Country Horsemen, • Bellingham Riding Club, • Nooksack Valley Riders, • 4H Groups
Issues and Concerns	Horseback riders are concerned about: • Enactment of unjustified policies that exclude horses from public lands or parks; • Lack of trail-sharing etiquette by motorcycles or mountain bicyclists (speed of approach, lack of warning sounds, startling horses) *(Note: The Chain of Trails Concept Plan is for a non-motorized network. The plan acknowledges that motorcycles, where not excluded by regulations, will share some trails with horseback riders and other users.)*

Related User Groups

Horse and Carriage Drivers:

- The required trail surface for Horse and Carriage Drivers is packed gravel.
- Minimum trail width approximately 8 ft. (2.5 m).
- There may be a growing demand for this trail use as the general population ages and has less physical ability to access trails by hiking or riding.
- Horse and Carriage Service could be offered as a business concession to bring trail users to remote camp sites as a way to reduce motor vehicle traffic.
- Horse and Carriage Service could be offered for special events such as weddings or other celebrations. Historic stage coach rides and other recreational concessions are popular in other areas and could generate revenue.

Llamas, mules, burros, other pack stock –

- These animals are typically used to transport camping packs or equipment for hikers.
- They may be used for day trips or multi-day trips.
- Private and commercial packers offer guided trail services in some areas.

Mountain Bikers

Trail Configuration Needs for Mountain Biking

Type of Trail:	*Preferred:* Rustic, Gravel, Side Path *Possible use:* Paved Trail
Grade:	• Variety of grades: level, inclined, steep • Frequent alteration of descents and ascents
Width:	Single track: minimum width 2 ft. (0.5 m) Multi-use and bi-directional trail minimum width: 8 ft. (2.5 m)
Typical distances:	• Average minimum: 5 miles • Average maximum: 30 miles • Day trips are the norm • Over-night camping is possible but not usual due to the need to carry equipment on the bike, which interferes with agility on trail
Trailhad Needs:	• Proximity to residential areas • Parking areas for cars • Water • Restrooms
Enjoyable Challenges:	Additions of technical challenges to the trail are considered attractions. These include: • Stumps or boulders to jump over • Jumps or sudden short descents • Narrow tracks or constructed trestles • Obstacles • Sharp turns
Desirable features:	Single track (narrow trails), separation from pedestrians and horseback riders and motorists.
Access and Transportation:	• Networked trails from residential areas to destination trails will encourage help some riders depart from home by bike rather than driving to trails • Public transit or shuttle service to trailheads
Effect on trails:	• Mountain Biking can cause ruts and exacerbate erosion on rustic trails during wet weather • Where ruts leave muddy pools, later trail users avoid the mud by walking on the edges of the trail, damaging vegetation and widening trails
Existing facilities:	• Lookout Mountain: estimated 40 miles of trails, access points at Bellingham, Lake Whatcom, Sudden Valley. • Black Mountain, Stewart Mountain and Red Mountain have potential for development of Mountain Bicycling Trails

Characteristics of Mountain Bikers

Demographics	• Typical participants range in age from 18 to 45 years old • Currently, more Mountain Bikers are male than female • Most are college educated and professionally employed • A minority of Mountain Bikers compete in Mountain Bike racing
Purpose of Mountain Biking	• Primarily recreation • Trails on Lookout Mountain offer potential transportation benefit
Equipment/Financial Investment	• A typical Mountain Bike purchase price ranges from $300 to $2000 • Services and annual maintenance and repair expenditures range from $50 to $200 • Event fees and travel expenditures annually range from $300 to $1000
Frequency of use	Varies by participant: daily, weekly or monthly
Average number of Ramblers per outing	2 to 8 individuals
Activities and Organizations	Groups: • Whatcom Independent Mountain Pedalers (WhIMPs) • Mt. Baker Bicycle Club • Western Washington University Cycling Team Events: • Lake Padden Pedal • Belly Big Air Festival • Bellingham Traverse • Weekly trail maintenance and construction work parties
Issues and Concerns	Mountain Bikers are concerned about: • Design and maintenance of trails to prevent erosion • Monitoring trails for security and to assist injured riders • Maintaining legal access to trails on private or commercial forest land • Educating riders to prevent them from constructing “bootleg” trails that erode or damage resources Other trails users’ concerns about Mountain Bikers: • Bikers who approach too quickly without a warning sound frightening slower moving trail users • Bikers who frighten horses, potentially causing injury to riders

Related User Groups

Downhill Mountain Bikers –

Equipment for this non-motorized sport includes full-face helmet and body padding similar to motorcycle racing. The bikes themselves are heavy and are not designed for riding uphill or even on level ground for any distance. A primary feature of the bikes is the presence of powerful shock absorbers to enable the bike to withstand impact from jumps and descents of great speed and distance. Trail design requires long, steep descents including sections where the rider is expected to be airborne during jumps. Speed of the descent is paramount.

Because of the specialized design and weight of these machines, and the weight of the protective clothing the rider wears, Downhill Mountain Bikers often use a motorized shuttle service to transport themselves with their bikes to the top of trail. Downhill Mountain Bike races can attract spectators for whom shuttle transportation service and viewing points or seating should be provided. This sport is popular in British Columbia where riders use ski-lifts and ski slopes during off-season.

Bicycle Moto-Cross (BMX) Riders –

Bicycles for this sport are sturdy and compact with a small frame and small diameter wheels for agility. BMX courses include jumps and stunts usually within a defined course loop specially built within an area of a few acres. Participants compete to complete the course quickly and to execute the jumps and stunts with skill. BMX riders do not generally use these bikes for distance transportation. As with downhill mountain bicycling, race events can attract spectators for whom shuttle transportation and viewing stands should be provided.

Cyclocross Racers –

Cyclocross is a bicycle racing event where riders traverse a variety of surfaces including paved roadways, cobblestones, rustic trails, steep slopes or stairs (where riders dismount and carry bikes). Typical season for race events is autumn with the expectation that the race course will include muddy sections. Cyclocross has a high likelihood of causing erosion on trails. Cyclocross bicycle design is capable of roadway use (narrow tires) as well as trail use (heavy tread).

Multi-Sport Events –

- Ski to Sea Multi-Sport Relay Race
- Bellingham Traverse

Hikers

Trail Configuration Needs for Hikers

Type of Trail:	*Preferred:* Rustic, Gravel *Possible use:* Paved Trail, Side Path, Sidewalk
Grade:	• Variety of grades: level, inclined, steep • Stairs may be used
Width:	Minimum width for rustic trail: 2 ft. (0.5 m) Multi-use and bi-directional trail minimum width: 8 ft. (2.5 m)
Typical distances:	• Day hikes: 1 to 15 miles (2 to 24 km) • Overnight Camping Excursions: 30 to 75 miles (48-120 km)
Trailhead Needs:	• Drinking water source • Restrooms • Trash receptacles • Sign-in book (for multi-day hikes) • Shuttle transport and drop-off service (where parking is limited) • Secure bicycle parking • Car parking
Enjoyable Challenges:	• Variety in terrain and views • Ascents or steep climbs can be attractive for exercise
Desirable features:	Scenic, natural surroundings; separation from motor vehicles
Access and Transportation:	• Public transit or shuttle service to trailheads • Secure bicycle and gear storage such as bike lockers at trailheads • Parking space for private vehicles
Effect on trails:	• Where ruts leave muddy pools, hikers sometimes avoid the mud by walking on the edges of the trail, damaging vegetation and creating widened areas along the trail • Hiking generally has a low erosion effect on trails

Existing facilities:	• Estimated 300 miles of public and private trails on the following mountains: Stewart, Van Zandt, Sumas, Squalicum, Black, Red, Slide, Lookout Mountains • Approximately 16 trailheads throughout the Foothills • Estimated 40 car-parking spaces • Approximately 125 camping spots at the following locations: Silver Lake Park, Hutchinson Creek, Travel Trailer campsite • Approximately 40 motel rooms and 600 seasonal rental houses or condominiums in the Glacier area • Hiking equipment and support services are not generally available in the Foothills • Food and supplies are available at approximately eight retail centers in Nugent's Corner, Deming, Van Zandt, Acme, Kendall, Maple Falls, Silver Lake, and Glacier

Characteristics of Hikers

Demographics	• The majority of Hikers range in age from 20 – 60 yrs old • Both female and male Hikers participate in the activity • Families, young adults and seniors groups arrange hiking trips • A majority of Hikers are professionally employed • The average income level for frequent Hikers is above the Whatcom County median
Purpose of Hiking	• Recreation • Exercise • Hunting • Fishing • Prospecting • Biologic or vegetation research • Bird or wildlife watching • Photography
Equipment/Financial Investment	• Average cost of basic supplies for a day pack is $200, includes: water, map, compass, flashlight, food, bandages, knife, matches, tarp, and other essentials • Annual expenditure for services and equipment $300.
Frequency of use	• Varies by participant: weekly or monthly
Average number of Hikers per outing	2 to 10 individuals

Activities and Organizations	Groups: • Mt. Baker Club • Pacific Northwest Trail Association • Senior Center Hiking group • North Cascades Institute • Washington Trails Association • Girl and Boy Scouts of America • Campfire Boys and Girls Activities: • Salmon enhancement stream restoration project groups • Trail building and maintenance projects • Leave No Trace education program • Bellingham and Whatcom Parks Departments' organized excursions
Issues and Concerns	Hikers are concerned about: • Poor trail-sharing etiquette from higher-speed motorized trail vehicles or mountain bicyclists, specifically, speed and lack of warning sound that can scare hikers or injure less-agile hikers • Encountering horse or pet manure on trail • Mud or erosion caused by other trail users or poor trail maintenance or design

Related User Groups

Nordic (Cross-Country) Skiers –

Nordic Ski trails are generally located at higher elevations and can be used for hiking during the non-winter seasons. Nooksack Nordic Ski Association builds and maintains trails in the mountains around Maple Falls and Glacier.

Rock Climbers –

A specialized form of hiking, rock climbing emphasizes technical skills and special equipment to scale sheer rock face escarpments. Some of these climbing sites are located in remote areas accessible by hiking. Rock climbers use trails as a means to access the climbing sites.

Fishers and Hunters –

Many hunting and fishing sites in the Foothills are only accessible by trail. Public park lands and preserves do not allow hunting. Privately owned commercial forest and Department of Natural Resources forest land have policies allowing hunting. The Department of Fish and Wildlife maintains public fishing sites along the Nooksack River and fishing is one of the attractions offered at Silver Lake Park.

Ramblers or Trekkers

Rambling or Trekking is a kind of hiking that focuses on towns and villages instead of forest and wilderness areas. Ramblers walk from town to town along walking paths often through rural or farm areas, or along greenways that are within or close to residential and commercial areas. Rambling is a popular outdoor activity enjoyed in England and Europe. In France it is known as *Randonée*. Generally the Rambler does not carry many supplies but relies on availability of services to purchase along the way. In North America, Ottawa, Canada, has a Rambling/ Randonée Club. The Tulip Trekkers are based in Skagit County and have begun to offer some Rambling events in Whatcom County.

Trail Configuration Needs for Rambling

Type of Trail:	*Preferred:* Rustic, Gravel, Side Path, Paved *Possible use:* Road Shoulder, Shared Roadway
Grade:	• Variety of grades: level, inclined, steep (5% to 8% maximum) • Stairs may be used
Width:	Minimum trail width 3 ft. (1 m)
Typical distances:	• 20 miles (32 km) to 100 miles (160 km) • Rambling trips can last one day or continue for a few weeks
Trailhead Needs:	Ramblers start from town centers or accommodations such as a bed and breakfast. Trailhead services are less important to Ramblers if there are restaurants, taverns, grocery stores, or farm stands where Ramblers can purchase refreshments and services along the way. Where towns are further than 10 miles (16 km) apart, intermediate rest stop facilities should include: • Restrooms • Drinking water source • Benches or picnic tables • Interpretive kiosks, information, or posted area map
Enjoyable Challenges:	Rambling does not usually involve technical challenges. Some Rambling routes include several hills for additional exertion
Desirable features:	• Businesses that reflect a unique local character enrich the Rambling experience. • Restaurants, taverns, grocery stores, or farm stands where Ramblers can purchase refreshments and services along the way
Access and Transportation:	Rambling lends itself well to use of public transportation because departure points are located in commercial or residential areas. A Rambling tour could depart from Bellingham Amtrak or Ferry Terminal with a walking destination of Glacier or elsewhere in the Foothills.

Effect on trails:	Ramblers have a low erosion effect on trails
Existing facilities:	• Rambling routes include all hiking trails and low-traffic public roadways in the Foothills (total approximately 400 miles) • Departure points include all commercial or residential areas • Bed-and-Breakfast or motels are ideal for Rambling

Characteristics of Rambling

Demographics	• Typical participants range in age from 30 to 70 years • Equal numbers of male and female participants • Many are professionally employed or retired • The average income is higher than the Whatcom County median • International travelers are more likely to participate in Rambling
Purpose of Rambling	• Recreation • Exercise • Bird or wildlife watching or research • Tourism • Historical or cultural research
Equipment/Financial Investment	• Average expenditure for shoes, clothes and pack supplies $400 • Services purchased include nightly accommodation and daily meals averaging $75 – 100 per day
Frequency of use	• Multi-day excursions average 2 to 4 trips per year • One-day trips may be made monthly • Organized events for large groups or for fundraising are regularly held in England
Average number of Ramblers per outing	2 to 10 individuals
Activities and Organizations	Groups: • Tulip Trekkers

Issues and Concerns	Ramblers are concerned about: • Lack of pathways adjacent to farm areas or along river channels • Missing links in the trail network • Safety and comfort of walking on shared roadways where motor vehicle speeds are high • Appropriately spaced inns and restaurants along the route • Luggage shuttle service for multi-day trips • Few Bed and Breakfast-type accommodations outside the Maple Falls/Glacier area • Vacation rental houses and camp sites are less suited for Rambling because they generally do not supply food and other basic supplies

Related Use Groups

Walking (for commute or errands) –

Residents of the Foothills could perform some commute trips or errands by walking when an attractive, safe trail network is established. The same trails that connect small towns can serve the transportation needs of residents and also serve the recreation travel of Ramblers. At least six of the Foothills towns are within three miles of each other, and this would be a reasonable walking distance for some types of errands where trails are built.

Runners

Trail Configuration Needs for Runners

Type of Trail:	*Preferred:* Gravel, Side Path (unpaved) *Possible use (for short distances):* Rustic, Paved Trail, Sidewalk, Road Shoulder, Shared Roadway
Grade:	• Inclines should be less than 5% • Incline distances should not extend for more than one mile (0.5 km)
Width:	Rustic Trail: minimum width 3 ft. (1 m) Multi-use and bi-directional trail minimum width: 8 ft. (2.5 m)
Typical distances:	• Average distance: 2 miles (3 km) to 10 miles (16 km) • Event distances: 13 miles (20 km) to 27 miles (40 km)
Trailhead Needs:	• Drinking water source • Restrooms • Stretching area • Secure storage lockers for gear • Sheltered space for changing clothes • Transit, shuttle service, or car parking space • Heated shelter or shower facilities may be beneficial
Enjoyable Challenges:	• To prevent knee injury, trails should not include extensive or steep down-hill grades • Runners training for events require a variety of different distance loops to improve endurance and to use different muscle groups
Desirable features:	• Loop configuration is beneficial with alternative distances and grade configurations to serve different training goals
Access and Transportation:	• Public transit or shuttle service to trailheads • Trails to residential areas may encourage runners to begin their run from home rather than driving to trails • Car parking space at designated trailheads
Effect on trails:	Runners have a low erosion effect on trails
Existing facilities:	• Estimated 300 miles of public and private trails in the Foothills • Approximately 15 trailheads • Approximately five public restroom locations • Three public drinking water locations • Seven commercial locations selling drinking water • One public shower location at Silver Lake Park

Characteristics of Runners

Demographics	• Most runners are between 18 and 50 years of age • 30% of runners are female and about 70% are male • High School and College students run for athletic training • Many runners are professionally employed • 39% have an annual income twice the Whatcom County median • 40% of runners are college educated
Purpose of running	• Exercise or health • Recreation • Training for athletic competition
Equipment/Financial Investment	• Most marathon runners spend about $1000 per year on shoes, clothes, and supplies • Runners purchase energy drinks or foods. • Services for running events include overnight accommodation, hearty meals, after-event entertainment, shuttle service or public transportation • Half of marathon runners spend up to $3000 per year on travel
Frequency of use	• Local runners use trails daily or weekly • Event runners and visitors could use trails 5 to 10 times per year
Average number of runners per outing	Residents: 1 to 3 individuals Event participants: 50 to 100 individuals
Activities and Organizations	Groups: • Greater Bellingham Runners Club • Lynden Runners Group Events: • Chuckanut Footrace • Ski to Sea Multi-Sport Relay Race • Regular monthly running events conducted by the running club
Issues and Concerns	• Runners need a dirt or gravel surface to avoid knee or foot injury • Trail should be of sufficient width for clear passing distance around slower trail users • Lighting of trails during autumn and winter evenings • Security monitoring of the trail

Related User Groups

Multi-Sport Competitors

- Ski-to-Sea Multi-Sport Relay Race
- Bakers Breakfast Cookie Triathlon
- Bellingham Traverse Multi-Sport Relay Race

Wheelchair Users and related groups

Some trail travelers use wheeled devices to assist them. Families walking for recreation may use strollers for young children, people walking for errands may use wheeled carts to carry purchases, people with mobility impairments may use electric assistive devices. These types of wheeled trail use require specific trail design features that are distinct from both bicycle and hiking trail design needs.

Trail Configuration Needs for Wheelchairs and related uses

Type of Trail:	*Preferred:* Paved Trail, Sidewalk *Possible use:* Gravel Trail, Side Path (Gravel) *Possible for short distances:* Road Shoulder, Shared Roadway
Grade:	• Inclines must be less than 5% • 5% incline distances should not extend for more than 16 feet (5 m) without a level resting area • Cross-slope of trail should be 2% or less • Trail cannot include stairs • Grates should not have gaps larger than ½ inch (13 mm) • Trail should not include large tree roots across the trail or stones or ditches within trail surface
Width:	Minimum width 5 ft. (1.75 m) Multi-use and bi-directional trail minimum width: 10 ft. (3 m)
Typical distances:	• Average distance: 1 mile (2 km) to 5 miles (8 km)
Trailhead Needs:	• Wheelchair accessible transit or shuttle service, or car parking space • Posted trail accessibility information including: o grade profile o overall grade o surfacing type o obstacles • Wheelchair accessible restrooms • For those trails serving electric wheelchairs with distances over one mile, electric battery re-charging stations may be useful
Enjoyable Challenges:	• Specially designed "mountain bike" style wheelchairs have been designed for use on rough rustic trails as a challenge for athletic wheelchair users • Most wheelchair and electric assistive device users do not seek additional challenges in trail design • Pedestrians using strollers or grocery carts seek a direct, smooth route for transportation purposes without technical challenges in surface or grade

Desirable features:	• Appropriate grade and surfaces; • Signage detailing conditions; • Battery-recharge stations for electric wheelchairs • Separation from motor vehicle traffic
Access and Transportation:	• Regularly scheduled public transit or shuttle service that can accommodate wheelchairs, strollers, carts, or electric assistive devices • Sidewalks connecting to residential or commercial areas help people to conduct errands or commutes
Effect on trails:	• Wheeled devices could increase erosion on rustic (dirt surfaced) trails during wet seasons • Wheelchairs and related uses have a low erosion effect on gravel and paved trails
Existing facilities:	• There are currently no paved trails in the Foothills • There are about three miles (non-contiguous) of gravel public trails in the Foothills (Nugent's Corner, Deming, Glacier) • All transit service in the Foothills is wheelchair accessible; however, only two of the transit-served public trailheads in the Foothills are compacted gravel. (Nugent's Corner, Deming Eagle Park) • For electric assistive device users, about 12 miles of rough gravel roads may be passable (Canyon Lake Creek Road, Eagle Flyway)

Characteristics of Wheelchair Users and Related Groups

Demographics	• Wheelchair users encompass all ages, the majority using trails probably range in age between 10 to 70 years • Both female and male trail travelers may use wheeled assistance • All income levels and career categories are represented in this group • Families with young children use strollers on trails
Purpose of Wheelchair or Stroller use	• Daily transportation • Recreation and access to nature • Exercise
Equipment/Financial Investment	• Average cost of an electric mobility device (wheelchair or similar) is about $6000 • A specially designed "mountain wheelchair" costs about $8000 • A stroller for carrying young children on trails costs about $300 • Electric scooter costs about $150 • Electric bicycle can cost $3000 to $6000

Frequency of use	• Parents with children in strollers might use trails daily or weekly • Wheelchair users might commute daily on trails to access bus or work or school • Shoppers using wheeled carts for groceries could use trails once per week • Electric powered devices could be used to commute daily on trails for work or school
Average number of runners per outing	Residents: 1 to 3 individuals
Activities and Organizations	In 2004, there were no known organizations for this use in Whatcom County.
Issues and Concerns	• Firm level surface required • Sufficient width for passing other wheelchair users • Lighting of trails during dark seasons • Security monitoring trail • Roadway crossings require curb ramps • Regularly spaced resting benches and pull-out areas

Related User Groups

Visually Impaired Pedestrians or Those Using Canes Or Walker-Supports –

Design guidelines for a variety of mobility issues are detailed in the document, *Designing Sidewalks and Trails for Access*, published by the U. S. Federal Highways Administration. In some cases, design solutions for wheelchair users must be modified to ensure that they also serve travelers with other disabilities. For example, people using crutches may be more comfortable using a short staircase instead of a long ramp. Design for different trails must consider the length and destination purpose of the trail in order to make sure that it provides equitable access.

Battery-Powered Wheelchairs –

Electric wheelchairs and similar mobility assistive devices allow access for people who would be otherwise unable to experience trails. The Chain of Trails Concept Plan includes in its definition of non-motorized travelers those low-speed, quiet, small-scale electrically-powered devices used by people with mobility impairments. In applying this definition, an electric bicycle would be acceptable on the trail, but an electric golf cart would not. In locations where significant numbers of electric wheelchair users are served, the trail might include periodic recharging stations, possibly operated on a fee-for-use basis.

Walkers

Walkers are those pedestrians using trails for daily transportation. Walkers are commuters or those doing their errands on foot and trails that serve them should provide fairly direct routes from origin to destination. Walking as transportation does not require loop routes, but instead, direct routes with modest elevation changes, designed for use in both directions.

Trail Configuration Needs

Type of Trail:	*Preferred:* Rustic, Gravel, Paved, Side Path, Sidewalk *Possible use:* Road Shoulder, Shared Roadway
Grade:	• Gradual slopes • Direct and efficient routes • Clear sight-distance, • Stairs should be provided as a more direct alternative where wheelchair ramps are offered
Width:	Suggested minimum: 5 ft. (1.5 m) Multi-use and bi-directional trail width: 12 ft. (4 m)
Typical distances:	Average minimum: 1 mile (1.6 km) Average maximum: 5 miles (8 km)
Trailhead Needs:	• Posted trail route information • Intersecting street names or landmarks posted along trail
Enjoyable Challenges:	Pedestrians walking for transportation prefer a direct, smooth route for transportation purposes without technical challenges.
Desirable features:	Lighting along the trail during autumn and winter evenings increases safety. Regular security monitoring of the trail may improve safety.
Access and transportation:	• Networked trails from residential areas to commercial areas or schools • Trail connections to sidewalks at residential, school, commercial and shopping areas • Regularly scheduled transit service or stops close to trail destinations
Effect on trails:	• Walking has a low erosion effect on trails
Existing facilities:	• In 2004, there were no public trails in the Foothills that connect between commercial centers, schools and residential areas

User Group Characteristics

Demographics	• Commuters walking for daily transportation mainly range from 20 to 50 years of age • For parents walking their children to school, children's ages mainly would range from 7 to 16 years of age • Wide range of income levels • Primarily residents would walk for transportation • Walking School Bus routes consist of one adult supervising a group of 5 to 8 elementary school children
Purpose of walking	• Primarily transportation • Exercise and health • Improves the natural environment • Taking pets for daily walks
Equipment/Financial Investment	• Cost of average walking shoes $50 - 200
Frequency of use	• Daily or weekly
Average number of riders per outing	1 to 5 individuals
Activities and Organizations	• Whatcom County Bicycle Pedestrian Advisory Committee • Bellingham Walks (local chapter of America Walks)
Issues and Concerns	Walkers are concerned about: • Direct connectivity to/from destinations • Efficient use of time and energy • Separation from vehicle traffic for groups of children • Lighting of trails during dark seasons • Security monitoring of the trail • Roadway crosswalk marking • Regularly spaced resting areas and benches

A multi-use path along-side a roadway can serve people walking, but can be expensive to build. Pedestrians share the road safely on low-traffic, low-speed roads like this one near Acme.

Road Cyclists

Road bicycles have narrow tires and are light weight to maximize speed and reduce rolling resistance. To reduce wind resistance, Road Cyclists riding in groups often ride in a close formation where each rider stays within a few inches of the wheel of the rider in front. Competitive riders train for events or tours covering 100 miles per day on hilly terrain. Recreational Road Cyclists enjoy a more leisurely pace and may cover less than 30 miles in a day, preferring flat terrain to hilly slopes. Organized rides lasting more than one day could bring hundreds of recreational Road Cyclists through the Foothills.

Road Cyclists are defined in law as vehicles and they operate bicycles on the road according to motor vehicle regulations. Experienced Road Cyclists are comfortable sharing the road with motor vehicles, with or without shoulders or bike lanes. Competitive cyclists conduct training rides in the Foothills to increase their speed and endurance. The annual Mt. Baker Hill Climb is a competitive Road Cycling event that attracts riders and racers from throughout Washington. Some Road Cyclists are commuters who bicycle from residences or transportation hubs to work sites in or beyond the Foothills area.

Trail Configuration Needs of Cyclists

Type of Trail:	*Preferred:* Paved trail, Road Shoulder, Shared Roadway *Possible use:* Gravel trail *Note: Side Paths are not designed for use by Road Cyclists*
Grade:	• Up to 5% grades preferred • Short stretches (up to 300 m) may be up to 8% grades
Width:	Minimum road width: 20 ft. (6.5 m) for low traffic or low speed roads Minimum road width for higher traffic volume and speeds: 28 ft. (8.5 m) Minimum width of marked shoulder: 5 ft. (1.5 m)
Typical distances:	Day trips: 20 miles to 100 miles (32 km to 160 km) Speeds range from 10 mph to 23 mph (16 km/h to 37 km/h)
Trailhead Needs:	• Restrooms • Drinking water • Resting benches • Space for stretching • Secure covered bike parking or bike lockers • Organized ride events require rest-stop areas for groups of 20 to 50 cyclists to sit, and eat

Enjoyable Challenges:	• Some recreational riders enjoy the challenge of up hill cycling in competition • Recreational riders enjoy organized distance rides such as Century rides, a 100 mile ride completed in one day • Road Cyclists commuting by bicycle prefer direct, smooth routes for efficient transportation
Desirable features:	• Shared roadway signs notify motorists to anticipate and be considerate of road cyclists • Warning signs for narrow or non-standard shoulder width are useful to notify cyclists of a change in conditions at bridges or intersections
Access and transportation:	• Roadways connecting trails to residential, commercial or transportation hubs should have wide shoulders and a regular sweeping maintenance schedule • Organized Road Cycling events such as the annual Ski-to-Sea Race or the Mt. Baker Hill Climb should offer shuttle transportation for contestants and spectators to and from competition sites • Education programs would help drivers and road cyclists better understand and abide by rules for sharing the road safely
Effect on trails:	Because Road Cycling takes place on paved surfaces, there is no erosion effect
Existing facilities:	• Estimated 50 miles (80 km) of low-traffic, low-speed roadways • Estimated 12 miles of roadways with wide, paved shoulders • In 2004, there were no paved trails in the Foothills

User Group Characteristics of Road Cyclists:

Demographics	• All ages participate in Road Cycling, the majority are 10 to 50 years old • Families, small groups, and individuals bicycle on roads • Competitive Road Cyclist racers are 70% male, 30% female • Both residents and visitors bicycle on roads
Purpose of riding	• Transportation (commuting) • Recreation (training, competition) • Daily exercise or training for sport events • Protecting natural environment and energy conservation
Equipment/Financial Investment	• Purchase price of road bicycle $2000 - $6,000 • Average annual cost of equipment: $1000 • Annual expenditures for clothing, accessories, travel: $500-700

Frequency of use	• Commuters: daily • Recreational riders: monthly • Sports training rides: weekly • Competitive events: annually
Average number of riders per outing	• Commuters: 1 riders • Training rides: 5 to 15 riders • Recreational rides: 20 to 30 riders • Events and Races: 100 to 500 riders
Activities and Organizations	Organizations: • Mt. Baker Bicycle Club • Western Washington University Viking Cycling Club • Ken Meyer Memorial Foundation Activities/Events: • Ski to Sea Multi-Sport Relay Race • Bellingham Traverse • Baker's Breakfast Cookie Triathlon • Recycled Cycles Nooksack Cirque/Omnium
Issues and Concerns	Road Cyclists are concerned about: • Motorist compliance with rules of the road and giving sufficient space when passing cyclists • Courteous sharing of the road and shoulder with pedestrians and slower cyclists • Marked bike routes or bike lanes to alert motorists to presence of cyclists • Cooperation of Washington State Department of Transportation to permit use of state highways for bicycle events Other road and trail users have these concerns about Road Cyclists: • Bicyclists should follow appropriate laws including signaling turns and using lights and reflective gear at night • Road Cyclists should not use Side Paths because the speed of the cyclists increases danger of collision at intersections where the path crosses roads or driveways. • Where Road Cyclists choose to ride on a Side Path, they should travel at pedestrian speeds (3 to 5 mph).

Related User Groups to Road Cyclists:

Cyclocross –

Cyclocross bikes (also called 'Cross Bikes) combine design features for off-road trail riding with features of a road bicycle. The frame design and wider tires give Cyclocross bikes the stability for trail riding while the lighter weight and smoother tire tread perform well on pavement so Cross riders can travel both on road and on trails. This type of bicycle would work well on the variety of trail surfaces in the Foothills. (see Mountain Biker section)

Recumbent Bicycles —

The recumbent bicycle design positions the rider in a slightly reclined position with the pedals at the front. This design reduces pressure on hands and seat and is sometimes the only type of bicycle that cyclists who have back injuries can use. These bikes perform best on pavement and are not suitable for use on rustic trails.

Tandem Bicycle Riders –

Tandem bicycles are designed for two riders, having a longer frame and two sets of pedals, seats, and handlebars, one in front of the other. A variety of designs include recumbent tandems and other innovations. Tandem bikes perform best on pavement and are not used on rustic trails.

Rollerbladers or Rollerskaters

Trail Configuration Needs for Rollerbladers and Rollerskaters:

Type of Trail:	*Preferred:* Paved trail, Sidewalk, Road shoulder *Possible use:* Shared roadway
Grade:	• Grade should be no more than 3% • Stairs should not be used
Width:	Recommended minimum width for shared use paved paths: 12 feet (3.7 m) to reduce conflict with other trail users and to accommodate wider path of rollerskating motion.
Typical distances:	Average trips range from 1 to 20 miles (1.6 km to 32 km) Speeds range from 6 to 10 mph (9.5 to 16 km/h)
Trailhead Needs:	• Restrooms • Drinking water • Resting benches • Room for changing shoes/skates
Enjoyable Challenges:	Some Rollerskaters or Rollerbladers enjoy training or competing for speed and distance
Desirable features:	• Rollerskating arenas with open paved areas for skating
Access and transportation:	• Proximity of paved trails to residential and commercial areas • Connecting routes from trails to low-speed roadways with shoulders or sidewalks • Regularly scheduled transit service to trailheads
Effect on trails:	Because Rollerblading and Rollerskating use paved surfaces, erosion is not a concern.
Existing facilities:	• Estimated 50 miles (80 km) of low-traffic, low-speed roadways • In 2004, there were no paved trails in the Foothills

User Group Characteristics for Rollerbladers or Rollerskaters

Demographics	• Rollerblading and Rollerskating is more popular among young people with a majority ranging in age from 6 to 25 years old • Families on a trail excursion may include children on rollerskates with parents who are walking • Rollerblading and Rollerskating are popular with both male and female participants • More visitors than residents are interested in Rollerblading or Rollerskating in the Foohtills • Rollerblading includes the competitive sport of Speed Skating whose participants are in the 20 to 35 year age range
Purpose of Rollerblading or Rollerskating:	• Recreation • Daily exercise or training for sport events • Fewer than 5% plan to use these for transportation
Equipment/Financial Investment	• Cost of Rollerblades or Rollerskates: $100 to $300 • Annual expenditure of related equipment and components: $50
Frequency of use	Most participants would Rollerblade or Rollerskate a few times per month
Average number of riders per outing	1 to 5 individuals, average
Activities and Organizations	• Bellingham Parks and Recreation Instruction Courses • Bellingham SpeedSkate
Issues and Concerns	Rollerbladers and Rollerskaters are concerned about: • Few locations with adequate paved surface for the sport • Rollerblading or Rollerskating on roadways, bikelanes or trails is not currently specified as a legal use Other road and trail users have these concerns about Rollerbladers and Rollerskaters: • Rollerskaters and Rollerbladers, including Speedskaters, make wide arm movements that can affect other trail users

Rollerblading is popular in other parts of Whatcom County where there are paved trails.

Related User Groups to Rollerskating and Rollerblading

Skateboarders –

The surfaces, grades, trail widths, distances, and speeds for skateboarding on trails are similar to those for Rollerblade or Rollerskating. However, skateboarders enjoy specially designed challenges such as stairs, jumps, "half-pipes," platforms, and other structures. Typical skateboard and equipment cost is $100 to 200. Skateboarders tend to be young, ages 8 to 18, and currently a majority is male. Some young people use skateboards for daily transportation. An issue of concern to others is a negative reputation attributed to skateboarding. This negative image may stem from property damage where skateboarders use walls and benches for jumps and stunts. The lack of specialized facilities for skateboard use is a concern for skateboarders.

Scooter Riders –

Scooters are similar to skateboards but have two larger wheels, one each, in front and back whereas skateboards have four smaller wheels. The rider stands on one foot on the board and pushes with one foot on the ground, holding a vertical handle attached at the front of the board. Scooter Riders are more interested in transportation and prefer paved, level roads or trails rather than special stunts and facilities.

Water Trail Travelers

Waterways historically functioned as important transportation routes in the Mt. Baker Foothills. The branches of the Nooksack River and some of the Foothills lakes offer recreational transportation as aquatic trails. Water trails are waterways that offer public access to the shoreline at periodic landing and launching points along a route to allow trips of short or long distance. Access points may have posted information or maps showing the route and may indicate distances to other points for disembarkation or rest stops. Water Trail Travelers include rowers, kayakers, canoers, ferry riders, rafters, and people floating on inflatable inner tubes.

Trail Configuration Needs for Water Trail Travelers

Type of Water Trail Conditions:	• Rivers (white water, flat water) • Lakes
Current:	Nooksack River has an average flow of 4 mph (6 km/h) Some travelers enjoy the challenge of paddling upstream, others prefer traveling with the current
Typical distances:	1 mile (2 km) to 30 miles (50 km)
Landing/Launching sites:	• Staging area space to prepare boats for launch • Short-term parking with sufficient length for boat trailers • Day or over-night parking facilities • Boat rental or livery services • Public access shore area with boat ramp
Enjoyable Challenges:	• Guided whitewater rafting excursions are offered at the headwaters of the Nooksack River Northfork for the challenge of speed and navigation • Upstream canoeing or rowing offers challenge of exertion.
Desirable features:	Landing and launching sites at regular intervals

Access and Transportation:	• Cable ferry services across the Nooksack River at Nugent's Crossing, Maple Falls, or Mosquito Lake Road would complete these trail loop excursions for a lower capital investment than construction of a bridge • Paddle boat rental at the existing end point of the Hertz North Lake Whatcom Trail could facilitate transportation for trail users to continue along Blue Canyon Road at the south end of the lake • Private car and truck transport will remain an important transportation method for boaters • Boat rental and livery services would enable a variety of trail users to utilize water trails for a portion of their excursion while returning on land via trails
Ferry service:	• Ferry services such as a restored historic steam ferry on Lake Whatcom or the Nooksack River would offer travelers a unique and enjoyable experience to access the Foothills without driving
Environmental effects:	• Access points along rivers and lake shores can become eroded if not well designed and maintained. Sediment from erosion in salmon streams damages fish habitat and can suffocate hatching fish • Sanitation concerns for water quality if facilities for proper disposal of waste are not supplied • Boating during certain seasons can harm the returning salmon or damage their egg nests (redds)

Existing facilities:	Estimated 80 miles of water trails with an estimated eleven waterway public access sites at:
	• Silver Lake
	• Squalicum Lake
	• Cain and Reed Lakes
	• Squires Lake
	• Sprague Lake (Paradise)
	• Lake Whatcom
	• Toad Lake
	• Nooksack River
	  o Main Stem
	  o North Fork
	  o Middle Fork
	  o South Fork

User Group Characteristics of Water Trail Travelers

Demographics	• All ages participate, the majority range in age from 20 to 40 • Families participate together • Individuals and small groups participate for fishing • Average income level for participants is near the Whatcom County median
Purpose of Water Trails:	• Recreation • Access to nature
Equipment/Financial Investment	• Cost of canoe or kayak purchase: $500 – 2000 • Canoe or kayak rental average fee: $50 – 100 per trip • Safety equipment and accessories: $50 – 100 per person
Frequency of use	• Most participants would use Water Trails once or twice per year • Some participants would use Water Trails on a weekly basis during the summer season
Average number of riders per outing	2 to 6 individuals, average
Activities and Organizations:	• Bellingham Parks and Recreation Instruction Courses • Whatcom Association of Kayak Enthusiast
Issues and Concerns	Water Trail Travelers are concerned about: • Restrooms and sanitation facilities should be located at intervals of about 2 to 5 miles along the route • Secure parking for vehicles and trailers is a concern during overnight trips • Water safety education should be available for boaters and contact information for instructors or courses should be posted Others have these concerns about Water Trail Travelers: • During certain seasons boating harms spawning salmon and their habitat, especially along the Nooksack River South Fork

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Interpretive Trails

Historic trails or trails with educational, environmental, or cultural themes can be comprised of all kinds of trails: rustic paths, gravel trails, sidewalks and roadways. Birdwatching is an example of a type of interpretive trail activity which has increased in popularity since 1990.

Restoration of salmon habitat is a popular community activity in Whatcom County. This work involves volunteer community members in planting and caring for salmon stream riparian areas. The regularly scheduled educational activities related to salmon could become the basis for an interpretive trail in the Foothills. The North Cascades Institute offers educational outings in the Foothills that teach a wide variety of nature-appreciation skills. Some of these topics might be suitable for an interpretive trail.

Volunteer vacation programs give travelers the satisfaction of completing a project while enjoying the outdoors and learning about natural or historical topics. Interpretive trails may be an appropriate part of involving visitors in local cultural issues.

Trail Configuration Needs for Interpretive Trail Travelers

Type of Trail:	All types of trail surface can be used for Interpretive Trails
Grade:	Grades should be no more than 5%
Width:	Minimum recommended width: 3 feet (1 m)
Typical distances:	Average trips range from 1 to 10 miles (1.6 to 16 km)
Trailhead Needs:	• Interpretive signs and maps are essential • Recordings of guided tours could be made available for rent or purchase • Educational events or tours with teachers or guides could be scheduled
	• Rollerskating arenas with open paved areas for skating
Access and transportation:	• Organized tour events with shuttle transportation to trailheads can help reduce traffic • Public transportation service to trailheads • Interpretive trail excursions could be guided as bicycle rides or nature walks

Existing facilities:	• Kendall Fish Hatchery and Hutchinson Creek Hatchery offer educational information but there are no formal trails • Black Mountain Forestry Center offers educational information and annual events with some trails on the grounds and adjacent Red Mountain
Examples of potential interpretive trails:	• The Whatcom Trail would follow the historic route of the ancient Nooksack traders and the later European settlers and gold miners traveling from Bellingham Bay to Chilliwack via the Everson Crossing • The Bay to Baker Trail follows the route of the historic Bellingham Bay and British Columbia Railroad traveling to Mt. Baker via Sumas, Kendall, Maple Falls, and many historic towns that have since disappeared. • The Salmon Trail might be an educational trail following the Nooksack River South Fork to the restored tributary streams where the salmon life-cycle begins and ends. • The Logging Heritage Trail might follow the route of an early timber cruiser from the Black Mountain Forestry Center over Lemola Pass to Vedder Mountain, educating travelers about forestry practices and history. • Eagle Watching Trail might follow the Middle Fork of the Nooksack River for bird or wildlife watching

User Group Characteristics for Interpretive Trail Travelers

Demographics:	• Interpretive trails can be designed to serve all ages, but probably the majority would range in age from 30 to 70 years old • Family groups and seniors are attracted to the educational focus • Average income level of these trail users tends to be double the Whatcom County median
Purpose of Rollerblading or Rollerskating:	• Education • Recreation • Access to nature, bird or wildlife watching
Equipment/Financial Investment	Travel expenditures range from $50 to $300 per group
Frequency of use	Most Interpretive Trail Travelers would visit a few times per year or for special occasions
Average number of riders per outing	5 to 16 individuals
Activities and Organizations	• Bellingham Parks and Recreation Instruction Courses • North Cascades Institute • Whatcom Land Trust Tours and Events

Road Shoulders and Shared Roadways

A major goal of the Chain of Trails network is to increase opportunities for non-motorized use of trails and roads for both transportation and recreation by people at all levels of fitness and ability. Some trails will include shared roadways where motorized users will share the traveled way with pedestrians, bicyclists, horseback riders, skaters and others. In other areas, the trails are separated from roads and motorized users will be prohibited. Over time, as the network develops, some regulations may evolve to specify whether non-motorized users would share some off-road trails with some motorized vehicles. The Chain of Trails Concept Plan emphasizes the need for a network of trails and shared roadways where people who are walking are safe from the dangers posed by motorized vehicles.

On shared roadways, the actions of the adjacent motor vehicle traffic directly affects the trail travelers sharing that road. Not all roads are ideal for shared use by trail travelers. Roads or highways with high speed limits and high volumes of traffic are not being considered part of the trail system's shared roadway network. However, roads with low speeds and low traffic volumes could become part of the trail network as shared roads, where necessary or appropriate. With appropriate signage and pavement markings, drivers and trail users can safely share space, similar to the manner in which shared lanes are being marked as "bicycle boulevards" in several North American cities.

An early example of special shared use designation for non-motorized use of roadways was the 1978 North Carolina Department of Transportation bicycle tour route system. In that case, bicycle route signs and maps were published to guide bicyclists on a network of low-traffic roads throughout the state where the bicyclists and motor vehicles shared space on the road. Most of these routes did not have paved shoulders or bike lanes. The state has since expanded the bike route network and it attracts millions of bicycle tourists each year.

To complement the trail network in the Foothills, shared roadways could be designated according to criteria similar to that developed in North Carolina for bicycle tour routes.

Roadway Characteristics	Threshold Criteria
Average Annual Daily Traffic (AADT) volume per lane	1,200 or less
Posted Speed Limit	50 mph (80 km/h) or below
Road width	20 ft. (6 m) minimum

Many low-traffic roads in the Foothills have a posted speed limit higher than the County standard of 35 mph. When considering roads that could be designated for shared use by trail travelers, sight distance limitations should be evaluated along with higher speed limits. In some cases, lower speed limits may need to be considered to ensure safety of pedestrians, children, and other trail travelers.

Below is a list of some of the public roadways within the Foothills that meet the proposed shared roadway criteria:

- Northshore Drive (south of Y Road intersection)
- Y Road
- Deming Road
- Marshall Hill Road
- Truck Road and North Fork Road
- Mosquito Lake Road
- Silver Lake Road
- South Pass Road
- Cornell Creek Road
- Mission Road
- Turkington Road
- all County roads in South Fork Valley
- Saxon Road
- Park Road

Road Shoulders

In the Foothills, the three state highways have paved shoulders in most sections. The posted speed limit along the highways is 50 to 55 mph. Paved highway shoulders serve road cyclists well because they offer a direct route and a smooth surface for higher speed cycling. Experienced cyclists are comfortable operating their bicycles as vehicles adjacent to motorists and the Chain of Trails network serves these travelers by including roadway shoulders in the plan.

Highway shoulders are usually not comfortable for other types of trail travelers. For example, pedestrians on the shoulder of a highway feel uncomfortable walking in such close proximity to motorized traffic going 50 mph. The noise of higher speed traffic nearby is unpleasant for people seeking a trail experience. Without the protective barrier of a curb or planting strip, pedestrians, wheelchair users, and horseback riders must remain vigilant knowing that vehicles straying from the travel lane can endanger them.

The county roads in the Foothills do not have paved shoulders. Studies show that after roads are widened to add paved shoulders, people drive faster. The added width gives drivers a perception of reduced risk and they feel comfortable traveling at higher speeds. Higher traffic speeds counteract the feeling of safety that a pedestrian or wheelchair user seeks.

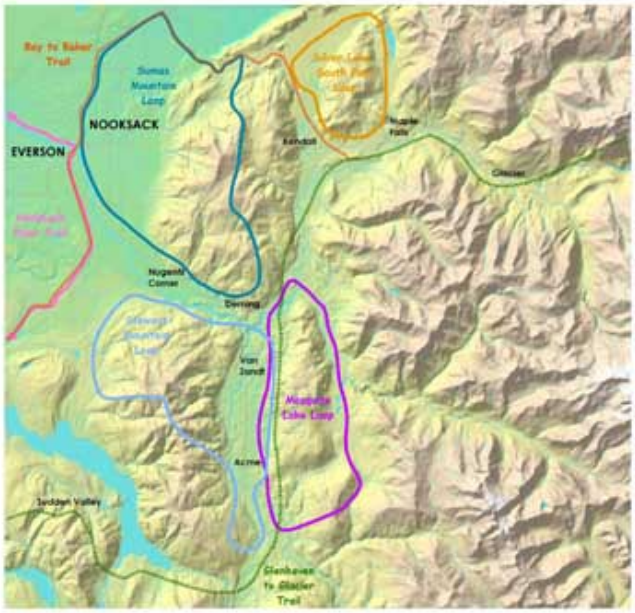
Road widening can also increase the number of car trips taking place. Since one of the

goals of this plan is to reduce or maintain the number of car trips in the Foothills as a way to protect quality of life for residents, widening roads to add paved shoulders should not be the first step toward completing the Chain of Trails network. Where increases in motor vehicle traffic volume are wanted or needed, widened roads and shoulders may be an appropriate step, but in general the goals of the Chain of Trails Concept Plan will be better served by construction of side paths or sidewalks for pedestrians and other trail travelers. Such side paths will better serve people walking or using a stroller, for example, and road cyclists would travel safely on the adjacent low-traffic county roads.

On some roads where there is very little motor vehicle traffic shared roadway signage may increase safety for walkers and other trail travelers.

The Chain of Trails Concept

The Chain of Trails Concept Plan emphasizes development of trails that connect communities and other destinations in order to strengthen and enhance Foothills economic life. Trails, as non-motorized transportation, offer a different kind of connectivity than roads do. The Chain of Trails concept is a network that offers people a rural trail experience that contrasts with faster-paced urban life while still connecting people with the small towns and commercial centers of the Foothills.



Chain of Trails Loop Concept

The Chain of Trails Concept Plan consists of eleven Loop Trails that connect the Foothills communities to each other and to their surrounding forest and recreation destinations. These eleven loop trails serve residents in their daily transportation needs while serving as recreation corridors for both residents and visitors. By connecting recreational destinations to commercial centers in the Foothills, all trail users will have more opportunities to participate in the local economy.

The proposed eleven Loop Trails comprise approximately 260 miles of trails. Of that distance, only about 30 miles of linking trail segments are missing and would need to be constructed to complete the functional network. In some locations, there are existing private trails or dirt roads that could function as trail links if agreements with land owners can be negotiated.

Trail Loops and Linear Trails

A chain, as a series of interconnected loops, creates an appropriate metaphor for the network of community trails envisioned for the Foothills. Loop trails offer travelers choices in reaching their destination, and the chance to discover different scenery on their return trip.

Linear trails that terminate without connecting to further transportation corridors or destinations are valuable for recreation but do not function for transportation. The North Lake Whatcom Hertz Trail is an example of a linear trail in the Foothills. It offers an enjoyable forested corridor, but the trail user arrives at a "dead-end" and must return by retracing steps. This type of linear trail does not serve a transportation purpose because it does not connect to a destination. Loop Trails, by contrast, are designed to lead a traveler to one or more destinations

and allow the traveler to return to the departure point via different routes and new terrain.

Direct out-and-back trail routes are useful for commuters getting to work or school or errands. A trail route that is direct, with reasonable grades, and connections to the commercial and residential centers is an ideal design for daily transportation. Commuters do not require variation for their return trip each day and their needs are served by the segments of the Loop Trails that reach their destinations.

The Chain of Trails Concept Plan emphasizes Loop Trails to connect residents, communities, and recreation areas as a way to encourage interaction between trail users and local businesses. An example of how this might work is the Blue Mountain section of the South Fork Loop Trail. The trailhead encourages trail users to begin their journey at the Acme General Store and the trail leads travelers on a loop around Blue Mountain and back. The travelers have an opportunity to interact with Foothills residents, to purchase supplies at the store as part of the outing, or to continue along connecting trail routes leading to other areas of the Foothills.

Similarly, visitors staying at the Blue Mountain Retreat Center might choose to make different outings on different days of their stay, choosing on some occasions to visit the general store by trail rather than remaining on the Center's forest and mountain trails. In this example, the trail serves two destinations: the retreat center and the general store, but it also serves a third intangible purpose, the reason people come to the Foothills to begin with: access to the outdoors and experience of nature.

In seeking the outdoors nature experience, loop trails offer variety in scenery and a sense of discovery. With a loop trail, the Blue Mountain Retreat Center guest can include multiple destinations as part of a recreation and transportation outing. The guest can enjoy a sense of discovery or challenge during the entire course of the trail route.

Loop Routes and Alternative Routes

The proposed eleven major Trail Loops that will make up the Chain of Trails are described below. The network is based on existing trails and roads located on public land and, where permission has been given, on private forest land. This plan is not exhaustive: other loop routes in unpopulated areas of the Foothills exist or others may be able to be developed. The network centers on the populated areas of the Foothills in order to serve residents' transportation needs. The system of eleven Trail Loops link

communities with each other and with educational, recreational, natural and commercial destinations that residents and visitors want to travel to.

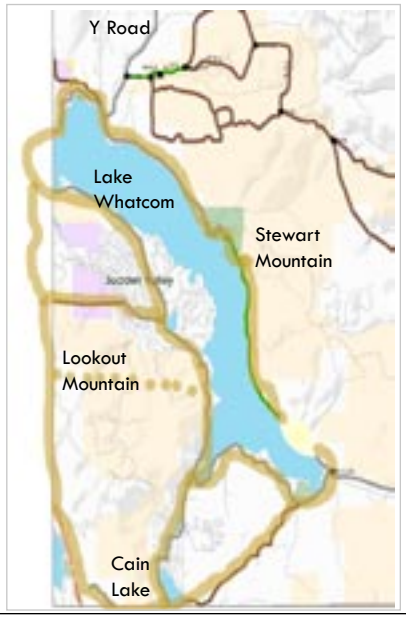
Each trail user's purpose will determine whether a longer or shorter Trail Loop would be appropriate. In some instances, there are multiple recommended alternative routes for a given Loop Trail, sometimes allowing different types of trail surfacing – for example, steep and rustic, or flat and paved. In other places, a loop route connection may be missing entirely or is only served by a high-speed, high-traffic roadway.

Where a Trail Loop connection is missing, the Concept Plan suggests interim connecting routes along public roadways, if available, and if traffic volume and speed is low. Where the only connecting road is a higher speed, high-traffic highway, this interim recommendation is not considered part of the trail network. For those sites where no connection exists, this plan recommends that alternative off-road easements be acquired and trails constructed to complete a functional network.

Existing and Proposed Trails

Each of the eleven proposed Trail Loops is described generally below. The status of each segment, including those segments where connections are missing or should be enhanced, are detailed in Trail Segment Matrix in Appendix 5. Surface conditions and trail types are color coded on the Chain of Trails Concept Map in Appendix 6. Each of the loops interconnects with other trails so that a traveler can combine segments of different loops to design longer trips. A traveler could begin, for example, in Glenhaven at the south end of Lake Whatcom and travel by trail to Glacier at the edge of the National Forest. The traveler could return by a different trail route by combining different sections of the eleven Trail Loops.

Lake Whatcom Trail Loop



Sketch of Loop 1: Lake Whatcom Loop & Alternate Routes

Route Description: The Lake Whatcom Trail Loop leads travelers in a circular route around Lake Whatcom. It includes shared roadways, gravel trails, and rustic trails. Featured segments include the Hertz Trail along the northeast shore of Lake Whatcom, historic Camp Two Road to Cain Lake, a spur route to Squires Lake Park, links to mountain bike trails on Lookout Mountain connecting to Bellingham, and five parks and boat launch areas around the Lake.

Community Areas Served: This loop connects the Glenhaven/Wickersham area and the Cedarville/Nugent's Corner area in the Foothills. It also connects to trails or water routes that allow travelers to connect by trail or transit to Bellingham.

Destinations Served:

- Stewart, Anderson, Squalicum, and Lookout Mountains
- Sunnyside Park
- South Lake Whatcom Park
- Cain Lake and South Bay fishing/ boating sites
- Lookout Mountain
- Glenhaven Lakes resort
- Camp Firwood

Alternate Routes or Missing Links: Alternate routes lead (1) along South Bay Road, (2) along Lake Whatcom Boulevard, (3) over Lookout Mountain, or (4) over the south part of Squalicum Mountain. The alternate route over Lookout Mountain connects to an extensive mountain bike recreation trail network.

Origin of the Trail/Ownership: Preliminary planning for this Trail Loop was initiated by the Whatcom County Bicycle Pedestrian Advisory Committee in consultation with the Whatcom County Public Works, Parks, and Planning Departments. Alternate routes over Lookout Mountain utilize trails constructed and maintained by a local mountain bicycling club working in partnership with private and public forest land managers.

Trail User Groups Served: Road bicyclists, Ramblers, Runners, Hikers, Horseback Riders, Mountain/'Cross Bicyclists. Trail surface conditions in 2004 allow 'Cross bicyclists and Ramblers to complete the entire loop comfortably, although majority of the route is on shared paved roadways.

Squalicum Mountain Trail Loop

Sketch of Loop 2: Squalicum Moutain Loop

Route Description: The Squalicum Mountain Trail Loop connects Stewart Mountain to north Lake Whatcom via rustic trails on Squalicum Mountain.

Community Areas Connected: Squalicum Mountain Trail Loop is entirely within the Cedarville/Nugent's Corner area of the Foothills.

Destinations Served: Squalicum Mountain, Stewart Mountain, north Lake Whatcom. Public Transit service is available two miles west of the trail intersection with North Shore Drive.

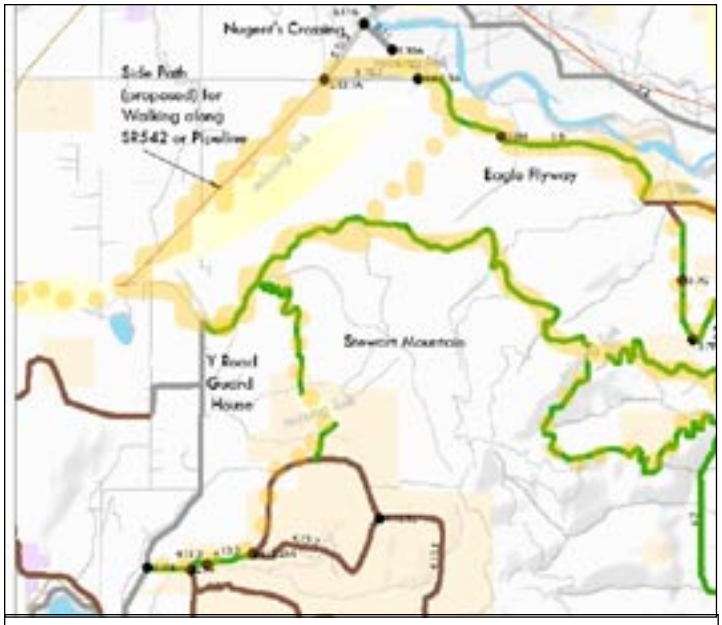
Alternate Routes or Missing Links: A missing link of approximately one-half mile would need to be constructed to connect the North Stewart Mountain trail segment with the Stewart Mountain main trail leading back to the Y Road trailhead.

Origin of Trail/Ownership: Development and maintenance of this trail has been carried out by the Whatcom Back Country Horsemen with agreements from local private land owners.

Trail User Groups Served: Horseback riders, Hikers, Mountain/Cross Bicyclists, and Runners. Trail surface conditions in 2004 allow all of these types of travelers to complete the loop, except for the missing segment on Stewart Mountain. A segment approximately one mile in length is on paved shared roadway.

North Stewart Mountain Loop

Route Description: North Stewart Mountain Loop Trail leads travelers from the west side of Stewart Mountain around the north slope to the east side of the mountain and arrives at Van Zandt in the South Fork Nooksack River valley. The return route reaches the original departure point on the Y Road via two alternate routes.



Sketch of North Stewart Mountain Loop

Community Areas Connected: The North Stewart Mountain Trail Loop connects the Cedarville/Nugent's Crossing area and the Van Zandt/Acme area.

Foothills Destinations Served:

- Van Zandt commercial area
- Van Zandt Community Hall
- Whatcom County Parks and Recreation Headquarters
- Other trail networks on Stewart Mountain
- South Fork Nooksack River fishing and boating access points
- Public Transit service on Mt. Baker Highway

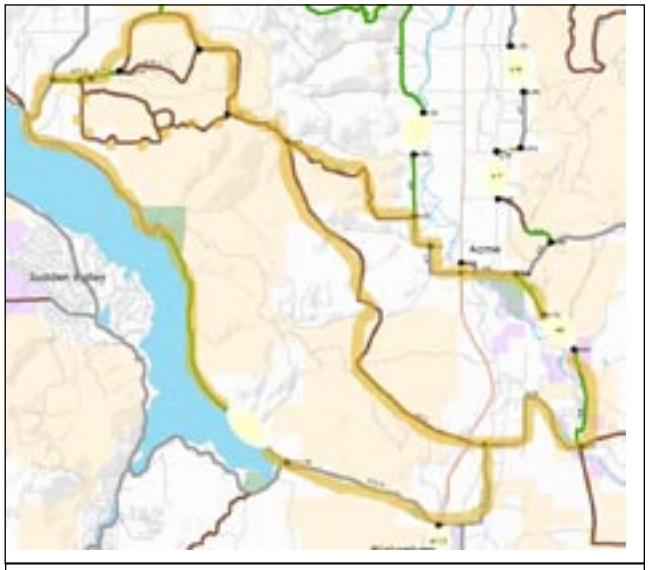
Origin of trail: Maintenance of most segments of this GreenRoute is conducted by the land owner and manager, Crown Pacific Timber Corporation. Potter and Caron Roads are maintained by Whatcom County Public Works. Private property owners limit access and maintenance to the Williams Gas Pipeline easement to pipeline maintenance operations only.

Alternate Routes or Missing Links: An alternate return route would go along the Eagle Flyway gravel road at the north slope of Stewart Mountain to a proposed pipeline trail parallel to the Mt. Baker Highway. The pipeline trail is a missing link. If property owner permission can be negotiated, the trail would be constructed on the surface of the private natural gas pipeline easement on the south side of the Mt. Baker Highway from Smith Road to Squalicum Mountain.

Trail User Groups Served: Horseback Riders, Hikers, Ramblers, Mountain/'Cross Bicyclists, and Runners. Trail surface conditions in 2004 would allow all of these types of travelers to complete the loop. The main loop route currently exists as a network of logging roads, gravel public roads, and horseback trails.

South Stewart Mountain Loop

Route Description: The South Stewart Mountain Loop Trail begins at the Y Road Trailhead, the trail goes southeast across Stewart Mountain to the Saxon Road area at the Samish River headwaters valley. Turning north, the trail skirts the western base of Blue Mountain, crosses Valley Highway at Acme and returns northwest across Stewart Mountain to the trailhead.



South Stewart Mountain Loop
& Alternate Routes

Community Areas Connected: This trail connects the Van Zandt/Acme area and the Cedarville/ Nugent's Crossing area.

Foothills Destinations Served:

- Acme commercial center
- South Fork Nooksack River fishing and boating access sites
- Valley Ranch Tavern
- Blue Mountain Retreat Center
- Other trails on Stewart Mountain

Alternate Routes or Missing Links: One proposed alternate route would link to Whatcom Land Trust properties in the South Fork Valley, however a portion of this route includes a missing link. Easements for these trail segments would need to be acquired before the trail could be constructed.

A second alternate route connects to the Lake Whatcom Loop Trail via Park Road, a shared, paved roadway from Valley Highway to Lake Whatcom South Bay. This alternate route would serve travelers who can travel on a shared, paved roadway.

A third alternate route could include the Elbow Lake and Ridley Creek trails that connect to trails in the National Forest and lead to the Baker Lake Recreation area. Horseback riders can use this segment to complete a multi-day journey connecting to Hamilton and the Centennial Trail in Skagit County.

There is a one-half mile missing link in the main trail loop at between Hutchinson Creek and Saxon Road. A one-half mile long segment in the Saxon Road area may be traversed along the shoulder of the Valley Highway (State Highway 9), until a separated side path for walking is constructed within the highway right-of-way.

Origin of Trail/Ownership: The majority of trail is located on public forest land managed by the Washington State Department of Natural Resources (DNR). Some of the trails are active logging roads maintained by the DNR. Other trail segments are constructed and maintained by the Back Country Horsemen of Whatcom County. Roadway segments such as Saxon, Doran, and Mosquito Lake Roads are paved, shared roadways maintained by Whatcom County Public Works.

Trail User Groups Served: Horseback Riders, Hikers, Ramblers Mountain/Cross Bicyclists, and Runners. Current trail surface conditions would allow all of these types of travelers to complete the loop, except for the missing ling segment. The main loop includes gravel logging roads, gravel and paved public roads, and rustic trails.

Cedarville Uuluquance Trail

Cedarville Uuluquance Loop & Alternate Route

Route Description: The Cedarville Uuluquance Loop Trail starts at the Nugent's Crossing Riverside Park. The first segment of the trail is a proposed separated side path along the south side of the Mt. Baker Highway to bring travelers to the Deming Road. Travelers continue west on the shared Deming Road to its intersection with Valley Highway (State Route 9) at Deming. The trail would continue along a proposed separated side path to be constructed along the west side of Valley Highway to Van Zandt at Potter Road. The return route would proceed along a segment of the North Stewart Mountain Loop Trail on the north slope of Stewart Mountain, connecting to Cedarville via a proposed separated side path to be constructed along the south side of Mt. Baker Highway from Smith Road to Nugent's Crossing.

Community Areas Connected: This trail connects the Cedarville/Nugent's Crossing area, the Van Zandt/Acme area, and the Deming/Nooksack Tribal Center area.

Foothills Destinations Served:

- Nugent's Corner commercial center
- Van Zandt commercial center
- Josh Vander Yacht Memorial Park
- Van Zandt Community Hall
- Nooksack River Nugent's Corner fishing and boating access & park
- Nooksack River South Fork fishing and boating access sites
- Mt. Baker Junior and Senior High School
- Nooksack Tribal Center
- Deming Elementary School
- Other Stewart Mountain trails

Alternate Routes or Missing Links: A proposed alternate route would consist of a trail from the east terminus of Smith Road to the terminus of the south Cedarville Road. The main trail loop includes three missing links:

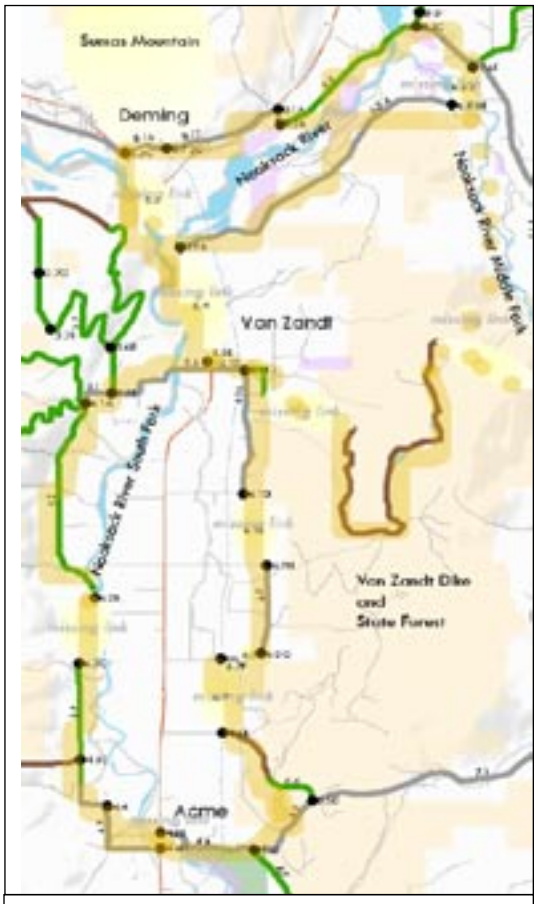
a. Nugent's Corner to Deming Road separated side path along Mt. Baker Highway
b. Deming Road to Van Zandt separated side path along Valley Highway
c. South Cedarville Road to East Smith Road easement acquisition and trail

Origin of Trail/Ownership: Of the fifteen mile length of this trail, seven miles are on paved,

shared low-traffic roadways maintained by Whatcom County Public Works. Five miles of the loop are on an active logging road maintained by a private commercial forestry corporation. The missing links comprise about three miles and would be constructed as side paths within state highway rights-of-way.

Trail User Groups Served: Ramblers and 'Cross Bicyclists. Because more than half the route as it currently exists is on paved roadways, experienced road bicyclists would be comfortable completing the entire loop. The main loop can be traversed using two one-mile segments on State Highways 542 and 9. The return route is on gravel roads and would also serve Hikers, Horseriders, Runners, and Mountain Bikers.

South Fork Loop



South Fork Loop & Alternate Route

Route Description: The South Fork Trail Loop begins at the Van Zandt Community Hall and brings travelers along the eastern base of Stewart Mountain on shared low-traffic public roadways (Potter, Hillside, Turkington) to Acme. Crossing the Valley Highway, the loop turns north along public shared roadways (Wildrose, Homesteader, Clipper, Nelson) along the western base of the Van Zandt Dike mountain side.

Areas Connected: The South Fork Loop Trail is located entirely within the Van Zandt/Acme area.

Foothills Destinations Connected:

- Van Zandt commercial center
- Josh Vander Yacht Memorial Park
- Van Zandt Community Hall
- Nooksack River South Fork fishing and boating access
- Acme commercial center
- South Fork Nooksack River fishing and boating access
- Valley Ranch Tavern
- Blue Mountain Retreat Center
- Van Zandt Dike forest land trails
- Stewart Mountain trail network

Alternate Routes and Missing Links: Alternate route (1) leads travelers over the crest of the Van Zandt Dike on logging roads and through forest land owned and managed by the Department of Natural Resources (DNR), however, there is limited public access to reach the public DNR land from the Mosquito Lake Road.

Alternate route (2) is a side path to be constructed within the Valley Highway (SR 9) right-of-way on the west side of the roadway from Wickersham to Deming. Public right-of-way for this walking path is owned by the State of Washington.

Alternate route (3) is a public trail proposed to be constructed along the pipeline easement east of the Valley Highway.

Alternate route (4) is a "rail with trail" to be constructed within the railroad right-of-way parallel to the active rail line. The low speed and low traffic on this rail line makes it an ideal candidate for a "rail with trail" facility.

Missing Links: Six segments of the South Fork Loop Trail do not currently exist as passable trail links. Four of these segments is about one mile long and each connects between the end points of dead-end public roads. Construction would require acquisition of right-of-way between the ends of these existing public roads. The fifth missing segment would be

the side path along the Valley Highway, and the sixth would be the pipeline easement trail. The highway side path, the pipeline trail, and the rail-with-trail segments would be about seven miles in length.

Origin of Trail/Ownership: The main route of the South Fork Loop Trail is about twelve miles long and ten miles of it is on shared public roads. Alternate route 1 adds an additional eleven miles to the Loop Trail, eight miles of which are located on State Department of Natural Resources (DNR) forest land. The seven shared roadway segments on the main route are maintained by Whatcom County Public Works. The alternate route trails are active logging roads maintained by the DNR or trail segments are constructed and maintained by the Back Country Horsemen of Whatcom County.

Trail User Groups Served: Hikers, Ramblers, 'Cross Bicyclists, Horseback Riders and Runners. The missing links prevent users from completing the Loop Trail under current conditions. Alternate route 2 constructed as a paved side path would serve Walking Commuters, Skateboarders, Wheelchair Users, and Rollerbladers. Novice bicyclists traveling at low speeds, 3 to 6 mph may use the side path; Cyclists at higher speeds would use the highway.

Mosquito Lake Loop Trail

Route Description: Beginning in the Acme commercial center, the Mosquito Lake Loop Trail follows Mosquito Lake Road around Van Zandt Dike to the east terminus of Rutsatz Road where, historically, a trail bridge crossed over the Nooksack River Middle Fork. A proposed cable ferry crossing or a reproduction of the historic suspension bridge at this crossing would connect the Trail Loop via Rutsatz Road to Van Zandt. Trail users would continue south via the proposed side path along the Valley Highway (State Route 9) to return to Acme.

Mosquito Lake Loop & Alternate Route

Areas Connected: The Mosquito Lake Loop Trail connects the Van Zandt/Acme area and the Deming/Nooksack Tribal Center area.

Foothills Destinations Connected:

- Acme commercial center
- South Fork Nooksack River fishing and boating access
- Valley Ranch Tavern
- Blue Mountain Retreat Center
- Van Zandt Dike forest land trails
- Van Zandt commercial center
- Josh Vander Yacht Memorial Park
- Van Zandt Community Hall
- Nooksack River South Fork fishing and boating access
- Nooksack River Middle Fork viewing
- Deming Homestead Eagle Park

Alternate Routes and Missing Links: Alternate route (1) leads travelers from Mosquito Lake Road to the Valley Highway via the Truck Road and the proposed side path along SR 9. The trail bridge or ferry over the Nooksack River Middle Fork is a missing link in the main route. The side path along the Valley Highway is a missing link of about one mile length in the alternate route.

Alternate route (2) leads travelers through Canyon Lake Community Forest via the Porter Creek logging road. A one-half mile trail segment between the Community Forest trail and the logging road terminus is a missing link. Access to the logging road would require acquisition of easements for public trail use.

Alternate route (3) consists of a re-configuration of the Mosquito Lake Road for trail use. Geologic limitations make it costly to construct a trail or side path next to Mosquito Lake

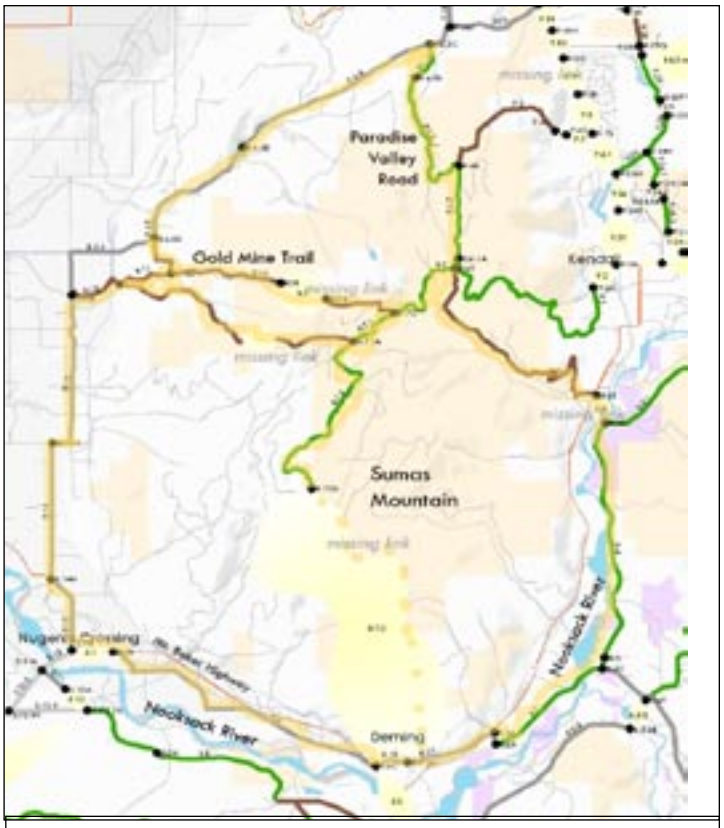
Road, but traffic volumes may allow re-configuration of the road as a one-way facility for motorized vehicles. This change would allow the remaining lane to be designated for non-motorized trail use.

Origin of Trail/Ownership: The Mosquito Lake Loop Trail is about twenty-two miles in length. Two miles of that distance are proposed trails (not yet constructed), the remaining twenty miles consist of paved shared public roadways owned and maintained by Whatcom County Public Works (Mosquito Lake, Rutsatz). This loop route has been a popular as a scenic Road Bicycling route since the 1970s.
Alternate route (2) adds about twelve miles to the Loop Trail along gravel roads. The Porter Creek logging road is privately owned and maintained; the Canyon Creek Community Forest trail and access road is owned and maintained by Whatcom County Parks and Recreation.

Trail User Groups Served: Road Bicyclists, Ramblers, and Rollerbladers. Twenty miles of the twenty-two mile loop is on paved, shared roadways. Experienced Road Cyclists can complete the loop by traveling on the Mt. Baker Highway and the Valley Highway where trail segments have not yet been constructed.

Sumas Mountain Loop Trail

Route Description: The Sumas Mountain Loop Trail begins at the Deming Homestead Eagle Park and goes north along Truck Road and North Fork Road to Racehorse Creek. At that point, the trail crosses the Nooksack River via a proposed future cable ferry or reproduction historic suspension bridge. The trail continues up the east side of Sumas Mountain via the DNR access road from Mt. Baker Highway. At the crest of Sumas Mountain, the trail turns northwest to Paradise Valley Road, then connects to the Gold Mine Trail on the west side of the mountain. The trail connects to the South Pass Road on the western base of the mountain and continues on Goodwin, Lawrence, Deming, and Marshall Hill Roads to return to the point of origin at Eagle Park.



Sumas Mountain LoopTrail & Alternate Route

Areas Connected: The Sumas Mountain Loop Trail connects the Van Zandt/Acme area, the Deming/Nooksack Tribal area, and the Cedarville/Nugent's Crossing area of the Foothills.

Foothills Destinations Served:

- Deming Eagle Park (Town of Welcome)
- Racehorse Falls
- North Fork Nooksack River viewing and fishing sites
- Sumas Mountain trail networks
- connecting routes to cities of Nooksack and Everson
- Goldmine Trail
- Nugents Corner commercial center
- Deming commercial center
- Nooksack Tribal Center
- Nooksack Casino
- Mt. Baker High School

Alternate Routes and Missing Links: Alternate route (1) would use a side path constructed within the Mt. Baker Highway right-of-way. This side path would extend from the Deming Eagle Park to the DNR Sumas Mountain access road (adjacent to 6210 Mt.

Baker Highway).
Alternate route (2) would use logging roads going north from Deming on Sumas Mountain rather than along the roadways. Two private roads connect the mountain to the Deming area via Mt. Baker Highway and the Marshall Hill Road. Public access is not permitted on private property and private logging roads and such trail use would be subject to negotiated property owner agreement.
Alternate route (3) would connect from the Paradise Valley Road at Sumas Mountain summit to the Ostrom Property via a trail through DNR land. Current DNR policy does not permit non-profit or private groups to construct recreation trails on DNR land.
Alternate route (4) would connect from the North Fork Road at the historic site of the Chinn Logging Company Bridge over a proposed cable ferry or reconstructed historic bridge over the North Fork Nooksack River south of Maple Falls. This segment connects to the Bay to Baker Trail.

Missing Links: There is a missing link of about one-half mile in the main trail loop between the Paradise Valley Road and the Gold Mine Trail on the west side of Sumas Mountain.
Alternate Route (1): The proposed side path along the Mt. Baker Highway from Deming to Kendall is a missing link. As river erosion threatens a portion of the highway in this area, the highway may be re-located away from the river, allowing the existing road to be designated as a trail.
Alternate Route (2): No public access is permitted on the private logging roads on the south side of Sumas Mountain, making this area a missing link in the loop trail.
Alternate Route (3): There is a missing link in the trail loop from Lost Lake to the Ostrom Park.
Alternate Route (4): There is a missing link over the Nooksack River to connect North Fork Road to Sumas Mountain. A cable ferry or trail bridge would need to be constructed to complete this loop.

Origin of Trail/Ownership: The main route of the Sumas Mountain Loop Trail is about twenty-six miles long. About twenty miles of that distance are on paved or gravel public roads, eight of those miles are on state highways (SR 9 and SR 542). Six miles of the trail on the east side of Sumas Mountain is along an active logging road on land owned and managed by DNR. On the west side of Sumas Mountain, about three miles of the trail loop are constructed and maintained by the Back Country Horsemen of Whatcom County.

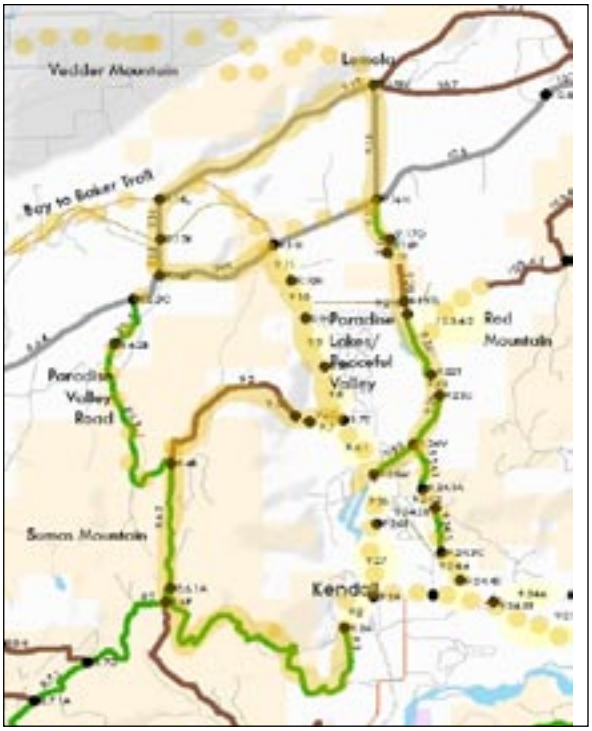
Alternate route (1) would be constructed within the state-owned right-of-way of the highway and would not add any additional mileage to the Loop Trail. Alternate route (2) would require acquisition of easement or a negotiated agreement for public access to the private logging roads. Use of one of these alternate trails would shorten the Loop Trail by about seven miles. Alternate route (3) would add about nine miles to the loop on gravel and paved roads maintained by Whatcom County Public Works.

Trail User Groups Served: Horseback Riders, Hikers, Ramblers, 'Cross Bicyclists, and Runners. 'Cross bicyclists can complete the loop using the Mt. Baker Highway rather than the North Fork Road. A linear segment of about nine miles length on Sumas Mountain serves Horseback Riders.

Columbia Valley Loop Trail

Route Description:

The Columbia Valley Loop Trail begins at Kendall Elementary School and goes west up the northeast slope of Sumas Mountain via DNR logging roads. Connecting to the Balfour logging road, the loop connects to Campers' Paradise and crosses the Kendall-Sumas Road (State Route 547) to go through the north neighborhood of Paradise Lakes. Continuing north on a proposed future side path along the SR547 highway, the route shares South Pass Road to Frost Road, crossing Saar Creek on a proposed trail bridge (closed to motor vehicle traffic), to reach the Heady Road trail network via Reese Hill Road. The loop returns south along a sequence of existing and proposed trail and shared road segments to Sprague Lake where it joins a proposed side path within the SR 547 right-of-way to return to the point of origin at Kendall Elementary School.



Columbia Valley Loop Trail & Alternate Route

Areas Connected: The Columbia Valley Loop Trail connects the Kendall/Columbia Valley area and the Silver Lake/Vedder Mountain area.

Foothills Destinations Concrete:

- Kendall Elementary School
- Sumas Mountain trail network
- Campers' Paradise vacation resort
- Paradise Lakes residential development
- Peaceful Valley residential development
- Holy Smoke A Tavern

Alternate Routes and Missing Links: The main route from the Kendall Elementary School to DNR land on Sumas Mountain accesses the mountain via a logging road that is privately owned. This one-quarter mile segment constitutes a missing link. There is a missing link at the trail bridge at Frost Road. The bridge would need to be reconstructed for trail use. There are some missing trail links between Heady Road trails and Sprague Lake. Three trail segments, each about one-quarter mile long, would need to be constructed to connect between existing road and trail ends.

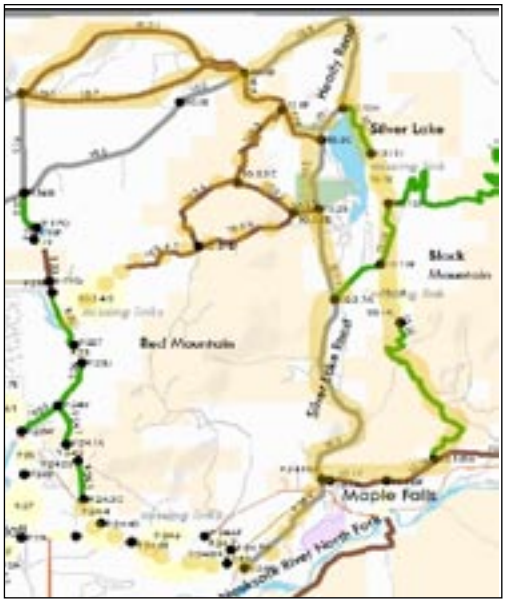
Alternate route (1) would consist of a side path constructed within the SR547 right-of-way extending from Kendall Elementary School to South Pass Road.
Alternate route (2) would use the existing former railroad right-of-way for the Bellingham Bay British Columbia Railway from SR542 at Kendall to South Pass Road, if property owner agreement could be negotiated.
Missing Links: both the side path and the former rail right-of-way are missing links.

Origin of Trail/Ownership: The Sumas Mountain segment of this loop is owned and managed by DNR. The segments on shared roads through the Paradise Lakes community are maintained by the residents. Trails at the north end of Heady Road are maintained by Back Country Horsemen on land owned by DNR. Heady Road, Limestone Road, and Tilbury Road are maintained by Whatcom County Public Works. A greenbelt around the east edge of the Paradise Lakes Community is owned and managed by the developer and the trail would be constructed in this public green space. In 2004, the developer began discussions with Whatcom County to transfer ownership of some portions of the green space for trail use.

Trail User Groups Served: Horseback Riders, Hikers, Ramblers, 'Cross Bicyclists, and Runners. The main route is about twenty-three miles long. Seven miles of the loop are gravel trails or logging roads that serve Horseback Riders and runners well. The remaining sixteen miles are on shared paved roads. The proposed side path or rail right-of-way conversion to trail would reduce the loop by about four miles. If the side path is paved, its level grade would serve Roller Skaters, Skate Boards, Wheelchair Users, and Strollers well.

Maple Creek Loop Trail

Route Description: The Maple Creek Loop Trail begins at the Maple Falls Visitor Center and goes north on the Silver Lake Road to Silver Lake Park. In the park, the trail continues north on park roads and trails to the boat launch at the north end of Silver Lake. Continuing north on Silver Lake Road and South Pass Road to Heady Road, the trail turns east along a link built by the Back Country Horsemen to return to the north end of Silver Lake. Following a trail on the east side of Silver Lake, the loop continues south along a proposed new trail link and along logging roads to link to the Bay to Baker Trail right-of-way and return to Maple Falls.



Maple Creek Loop & Alternate Route

Areas Connected: The Maple Creek Loop Trail connects the Maple Falls/Glacier area and the Silver Lake/Vedder Mountain area.

Foothills Destinations Served:

- Maple Falls commercial area
- Silver Lake Park
- Silver Lake Park Equestrian Stables and Camp
- Black Mountain Forestry Center
- east Vedder Mountain

Alternate routes and Missing Links: Alternate route (1) would consist of a side path constructed within the Silver Lake Road right-of-way extending from Maple Falls to South Pass Road. There is a missing link of about one-half mile length in the proposed trail along the east side of Silver Lake. The Bay to Baker Trail easement is overgrown and requires clearing and grading.

Origin of Trail/Ownership: Silver Lake Road, South Pass Road and Heady Road are owned and maintained by Whatcom County Public Works. Silver Lake Park trails and the Bay to Baker Trail easement are maintained by Whatcom County Parks and Recreation. East Silver Lake logging roads are owned and maintained by a private timber corporation. Heady Road trails are maintained by Back Country Horsemen on privately owned land, through agreement with the land owners.

Trail User Groups Served: Horseback Riders, Horse and Carriage Drivers, Hikers, Ramblers, Runners, Mountain and 'Cross Bicyclists. The loop is about twenty miles long and about ten miles is on paved shared roadways. Cyclists can complete the loop by riding on Silver Lake Road and Mt. Baker Highway in place of the missing trail segments on the east side of Silver Lake.

Maple Falls - Glacier Loop Trail

Route Description: The Maple Falls-Glacier Loop Trail begins at the Maple Falls Visitor Center and goes east on the Bay to Baker Trail to Cornell Creek Road. The road leads to the proposed future Cornell Creek trail bridge which connects the trail leading to the town of Glacier. The trail continues east along the electric utility right-of-way to cross the North Fork Nooksack River on a proposed future footbridge to connect with the Douglas Fir Campground. The loop trail then follows the forest service Canyon Creek Road to Kidney Creek, connects west to the private logging road 5301 to return to Silver Lake Road and Maple Falls.

Maple Falls-Glacier Loop. Alternate route: proposed separated walking path along Mt. Baker Highway

Areas Connected: The Maple Falls-Glacier Loop Trail connects the Maple Falls/Glacier area and the Silver Lake/Vedder Mountain area.

Foothills Destinations Served:

- Maple Falls commercial area
- Maple Falls area vacation properties
- Glacier commercial area
- Glacier area resorts and condominiums
- U. S. Forest Service lands & trails
- Glacier Public Service Center of U. S. Forest Service
- Douglas Fir Campground
- Nooksack River North Fork river access
- Salmon Ridge Nordic Ski Trail
- Gallop Creek Downhill Mountainbike course

Origin of Trail/Ownership: The Bay to Baker Trail right-of-way between Maple Falls and Glacier is owned by Whatcom County Parks and Recreation; however it has not been developed as a public trail. The utility right-of-way between Glacier and the Douglas Fir Campground is privately owned and maintained by Puget Sound Energy. Canyon Creek Road is maintained by the U. S. Forest Service and the loop route would connect it to a logging road owned and maintained by a private commercial forestry company.

Alternate Routes and Missing Links: The Maple Falls-Glacier Loop Trail is about twenty-seven miles long. Four miles of that distance is on paved county roads. The missing trail links

constitute about two and a quarter miles of the loop length.

Alternate route (1) would consist of a side path constructed within the Mt. Baker Highway right-of-way extending from Maple Falls to Glacier or to Douglas Fir Campground.

Alternate route (2) would consist of a side loop route ascending Grouse Butte south of Glacier and descending via the proposed future mountain bike downhill course, returning to Glacier at the Bay to Baker Trail.

There are missing links in the proposed loop on the undeveloped Bay to Baker Trail, the bridge at Cornell Creek, the utility right-of-way, the proposed North Fork footbridge to Douglas Fir Campground, and the trail link between the Forest Service Canyon Creek Road and the private logging road leading to Silver Lake.

Trail User Groups Served: Horseback Riders, Hikers, Ramblers, Mountain Bicyclists, and Runners.

Chain of Trails Implementation

When it is implemented, the Chain of Trails Concept Plan will connect the existing trails and shared-roadways in the Foothills to complement and expand the recreation routes that already exist. The existing trails and shared-roadways in the Foothills already serve residents and visitors for non-motorized recreation: hundreds of Road Cyclists enjoy scenic loop rides on the shared roadways of the Foothills, and hundreds of Horseback Riders and Hikers travel the mountain trail loops. The Chain of Trails will link these recreation routes to create a non-motorized transportation network that serves a wider variety of travelers.

Construction of the complete Foothills trail network is not quite so daunting because much of the network is already in place. The eleven Loop Trails and alternate routes of the Chain of Trails Concept Plan represent about 260 total miles, but about 220 miles of that network already exist in the form of logging roads, private trails, or shared roads. For these trail segments, construction and its associated costs may be reduced significantly if agreements and policies allowing public use can be negotiated with owners and land managers.

Missing links, or places where easements and trail construction will be required, constitute about 38 miles of the total network, and these missing links include up to seven trail bridges. The cost of building 40 miles of new trail and seven new bridges is a substantial investment if tackled all at once. Construction costs for these segments become more manageable when considered as individual projects: sixteen of the missing links are less than one mile long, and ten miles of the longer segments would not require property acquisition because they are to be built on publicly owned land. Even more encouraging is the fact that construction of a few mile-long missing links will open up a functioning Loop Trail of twenty miles or more.

Acquisition and construction costs for the new proposed routes necessitates adopting and setting priorities and taking a long term perspective. Taking an incremental approach to implementation of policy changes, easement agreements and construction will build the Chain of Trails network over a period of decades. A long-term approach allows partners to take advantage of opportunities and funding as it becomes available. In the words of the Lynden Community Trail Connections group, the Chain of Trails could be considered a "One Hundred Year Dream Trail."

Planning, Design and Engineering

New construction of trails is required where no alternative routes exist or where easement agreements cannot be negotiated for public use of existing trails. Planning, design, and engineering of the trails costs about fifteen percent of construction and includes: surveying, route design, grade, drainage, surface, permitting, and other issues dependent on the unique features of the geographic location. Federally funded projects usually incur additional engineering costs. For a compacted gravel trail ten to twelve feet wide (4 m), cost for planning, design, and engineering would be estimated at $7,000 to $14,000 per mile, with construction estimated to cost $60,000 to $75,000 per mile. The estimated cost for construction of paved or concrete surface trails is $100,000 to $300,000 per mile. Planning and design, and construction of narrow, dirt-surface, rustic horseback riding or mountain bike trails cost from $25,000 to $50,000 per mile, however maintenance costs to prevent erosion are often higher for high-impact uses.

Right-of-way Acquisition

In legal terms, right-of-way is defined as a linear corridor of land held in fee simple title, or an easement over another's land, for use as a public utility (highway, road, railroad, trail, utilities, etc.) for a public purpose. Right-of-way usually includes a designated amount of land on either side of the utility or trail corridor that serves as a buffer for adjacent land uses.

Easement agreements for trails keep the property in private ownership while allowing public access. Easements can be donated or sold. The monetary value of the easement is established through an appraisal process based on acreage, adjacent uses, and other standard real estate factors. In Whatcom County, the Interurban Trail located south of Bellingham near Chuckanut Drive represents an example of a trail easement agreement. The property owner, Puget Sound Energy, has established long term agreements with the local jurisdictions, Whatcom County and City of Bellingham, allowing public use of their utility right-of-way as a trail.

Property purchase transfers ownership of the land parcel to the organization or agency that plans to develop the trail. The property may be limited to the trail right-of-way itself or it could be a larger acreage within which the trail right-of-way is to be built. In the Foothills, the Bay to Baker Trail from Maple Falls to Glacier is an example of a purchased property right-of-way for trail

development. Canyon Creek Community Forest is an example of a larger park property within which a trail right-of-way has been constructed.

Initial Trail Priorities

The Chain of Trails Concept Plan proposes purchase of right-of-way at the following priority locations:

- South Fork Loop Trail: Nelson Road to Clipper Road and Clipper to Homestead Road (2 miles)North Stewart
- Mountain Loop: Eagle Flyway to Cedarville Road South (one-quarter mile)
- South Fork Valley Loop Trail: Hillside Road to Turkington Road (1 mile)

Side-paths should be constructed within the public road right-of-way at the following priority locations:

- Columbia Valley Loop Trail: Kendall to Paradise along SR547 (3 miles)
- Columbia Valley Loop Trail: Kendall to Maple Falls along SR542 (2 miles)
- Cedarville Uuluquance Loop Trail: Cedarville Road to Deming Road along SR542 (2 miles)
- South Fork Valley Loop Trail: Deming Road to Van Zandt along SR9 (3 miles

Purchase and development of these key segments would complete three of the eleven proposed Loop Trails:

- the North Stewart Mountain Loop Trail
- the South Fork Valley Loop Trail
- the Columbia Valley Loop Trail

Completion of these three Loop Trails will open up a 58 mile trail network serving Foothills residents in the Van Zandt/Acme area and the Kendall/ Columbia Valley area. Three of the Foothills' four elementary schools would be served by this initial trail network, giving children and their parents safe non-motorized access to schools and community centers from their homes.

These locations qualify as priorities because a relatively small investment in construction will open up comparatively large lengths of the trail system. The location of these trails will serve high numbers of Foothills residents and no nearby alternative trail routes or shared roads are available.

Longer Term Trail Priorities

For the long term, trail easements for side-paths should be designated within the highway right-of-way along each of the state highways in the Foothills:

- SR 9 in the Van Zandt/Acme area,
- SR 542 traversing three of the seven Foothills areas, and
- SR 547 in the Kendall/Columbia Valley area.

The priority segments for these side-paths comprise 32 to 44 miles. State-owned highway right-of-way is about 100 feet wide (30 m). Within this width, the existing two-lane highway measures about 44 feet (13.5 m). A side-path 12 feet wide for a multi-use, bi-directional walking path could be constructed within the state-owned right-of-way for the majority of the proposed 44 miles. In addition to the priority locations listed above for initial implementation, highway side-paths should be constructed in the following locations:

- Along Mt. Baker Highway (SR 542) from Welcome to Maple Falls (15 miles) or Douglas Fir Campground (20 miles)
- Along Kendall-Sumas Road (SR 547) from SR 542 junction to Paradise (4 miles) or Reese Hill Road (6 miles)
- Along the Valley Highway (SR 9) from Deming to Acme (12 miles) or to Wickersham (18 miles)

Easement Agreements

The following are priority locations for negotiating easement agreements with private land owners to compensate them appropriately and allow public trail access:

- Eagle Flyway from Smith Road to Van Zandt (approximately 6 miles)
- Sumas Mountain south logging roads from Hillard Road or Marshall Hill Road to DNR land at Sumas Summit(approximately 6 miles)
- Private land owners along the Gas Pipeline from Squalicum Mountain to Nugent's Crossing (approximately 8 miles)
- Private land owners along the gas pipeline from Wickersham to Sumas (approximately 50 miles

These are priority locations for establishing public access easements because of their proximity to residential and commercial areas.

Construction

Trail construction costs vary depending on surface and terrain. A 12 foot-wide compacted gravel trail on relatively level terrain with appropriate grading and drainage features costs about $80,000 to $100,000 per mile to construct. A paved trail of similar dimensions would cost $150,000 to $200,000 per mile. These costs do not include easement acquisition or planning and engineering costs.

Gravel Trails: Compacted gravel trail surfaces serve a wide range of travelers:

- Hikers, Walking Commuters, Ramblers
- Wheelchair Users (in most cases)
- Runners
- 'Cross Bicyclists and Mountain Bikers
- Horseback Riders

Trails recommended for gravel surface are those which primarily serve travelers going farther than three miles. The proposed side-paths along highways, the Bay to Baker Trail, and the pipeline trails are examples of appropriate places for compacted gravel trails. To complete the Chain of Trails, about 35 miles of compacted gravel surface side-paths would be constructed within the state highway rights-of-way.

Paved Trails: Trails should be paved where the primary purpose is for travelers going shorter distances within communities (up to about 3 miles). Paved trails serve the following types of travelers:

- Rollerblade and Speed Skaters
- Skate Boarders
- Wheelchair Users
- People using Strollers or Wheeled Carts
- Walking Commuters, Ramblers
- Novice or Slow-speed Bicyclists

The side-path from Paradise to Kendall in the Columbia Valley/Kendall area is an appropriate place for a paved trail because school children will use this trail for errands and commuting by roller blade or skate-board. A trail can be constructed with a compacted gravel surface initially and paved later, based on community needs.

Bridges: The long term vision of the Chain of Trails Concept Plan proposes up to seven trail bridges or cable ferries to help trail users cross the Nooksack River and its tributary forks. Trail bridges could be located at the following sites:

- Cornell Creek Bridge at Glacier Bay to Baker Trail
- Rutsatz Road at Welcome historic suspension bridge
- North Fork Road at Maple Falls historic Chinn Logging Company bridge
- North Fork Road at Sumas Mountain access road
- Douglas Fir Campground over the North Fork
- Nugents's Crossing historic cable ferry
- Nooksack River South Fork at Deming (side-path or rail-with-trail)

Environmental issues, flooding, wildlife habitat, and permitting regulations may preclude construction of these bridges or make them cost prohibitive.

Some bridges are more important than others to the overall function of the network. For example, the bridge from the North Fork Road to Sumas Mountain becomes less important if the side-path along the Mt. Baker Highway is developed instead. The bridge would be less important if the Hillard Road or Marshall Hill Road private logging roads on the south of Sumas Mountain can be made accessible to the public with fair compensation to the land owners, travelers will be able to access public land on Sumas Mountain from Deming.

For historic interpretive purposes, the bridges or cable ferry crossings could add an important attraction for education about the region's forestry legacy. However, because the river is expected to change its channel in response to natural conditions over a wide river bed area, it may be impossible to design a bridge that would accommodate these types of changes. Cost of constructing a trail bridge at any one of these locations would cost a minimum of $2 million, if feasible.

Maintenance costs of the trail bridges are high. Historically, the Boulder Creek bridge near Glacier washed out each winter and crews had to rebuild it each spring. As recently as 2004, the highway bridge at Boulder Creek was scheduled for costly reconstruction. Washington State Department of Fish and Wildlife has experimented with bridges designed to break away on one side and hinge open during flood events, but these, too, require expensive maintenance.

Constructing a cable ferry such as those which historically served the Nugent's, Everson, Lynden, and Ferndale Crossings would require installation of large cable anchors set back from the river bank. The ferry itself would require staffing and security to prevent unauthorized use. There are hazards associated with operation of cable ferries.

Maintenance and Operations: Arrangements to fund and ensure proper trail management are of particular importance in negotiating easement agreements with private property owners. Good trail management includes at least the following actions:

- Trash pick-up
- Monitoring to protect adjacent property
- Erosion control or repair
- Repair or replanting of privacy screening materials
- Enforcement to exclude unauthorized users
- Cleaning of trailhead facilities (if applicable)
- Prevention and repair of vandalism

Annual costs for maintenance of the County's seven mile section of the Interurban Trail on Chuckanut Mountain can run from $5,000 to $8,000. With few trailhead services, this represents the low end estimate of annual trail maintenance costs. Silver Lake Park includes trails, restrooms, campgrounds, horse-stalls, and day-use parking. Annual maintenance cost for this County Park represents the high end estimate of trail maintenance costs $300,000 per year (offset two-thirds by park income).

The County reduces trail maintenance costs by using special work crews that allow people to perform community service in place of other types of restitution. The County Parks Department does not coordinate a community volunteer program to assist with maintenance or projects on a regular basis. Funding for a paid volunteer coordinator position would be necessary in order to effectively run such a program for the County.

For the proposed priority trail segments, annual maintenance costs might be in the range of $5,000 to $15,000, depending on conditions and contingencies. Local groups such as Kendall Watch in the Kendall/Columbia Valley area or the South Fork Community Network in the Van Zandt/Acme area might consider contributing volunteer maintenance assistance to help defray costs.

Funding

Funds for planning, design, and construction of trails area available through federal, state, local, and private foundation sources. Funds for on-going maintenance of trails are not generally available through grant sources.

Some of the major grant sources for development of trail projects are listed below.

<u>Federal</u>

- *Federal Highways Administration Transportation Equity Act Enhancements*: a portion of Federal Highways funds are designated specifically for non-motorized transportation projects including trails. Allocated to State Departments of Transportation, the grants are competitively awarded bi-annually through the Regional Transportation Planning Organization. Average project award amounts for Whatcom County are in the range of $300,000 to $800,000.
- *National Scenic Byways grant program:* a program of the Federal Highways Administration for projects that further the goals of a state-designated scenic byway. Mt. Baker Highway and State Route 9 are state designated scenic byways.
- *National Park Service Rivers, Trails, & Conservation Technical Assistance* Grants for project assistance for continued work to plan or implement Chain of Trails projects.

Washington State

- Interagency Committee for Outdoor Recreation
- Land and Water Conservation Funds

Private Foundations

- Whatcom Community Foundation
- Trust for Public Land
- Rails to Trails Conservancy
- Active Living by Design
- REI

Whatcom County

- Real Estate Excise Tax
- Hotel/Motel Tax
- Open space easement tax incentive

Potential Chain of Trails Partners

Partnerships can leverage limited resources to make tight budgets meet multiple goals. When a school science project, for example, restores a stream riparian area for salmon while building a trail corridor along the stream, multiple partners benefit. Local budgets get more done with less by pooling resources of funds, work crews, materials and more. Some of the partners listed below represent the broader potential for leveraging resources across the Canada border, the Skagit County border, and even in the Okanagan.

Washington State

Department of Natural Resources
Department of Fish and Wildlife
Department of Health

Nooksack Indian Tribe

Nooksack Casino
Nooksack Indian Business Council

British Columbia, Canada

Greater Vancouver Cycling Coalition
Trans Canada Trail Coaltion

Whatcom County

Public Works Engineering (Roads)
Public Works Flood Engineering

Parks and Recreation
Health Department
Emergency Management
Mt. Baker School District
Whatcom Transportation Authority
Port of Bellingham
Whatcom Council of Governments

Private land owners

Crown Pacific Timber Corporation
Other private commercial forestry land owners
Residential/Resort developers
Private Residents
Resort/Accommodations Owners

Local Non-profit Organizations

Mt. Baker Foothills Economic Development Association
Mt. Baker Foothills Chamber of Commerce
Whatcom TrailNet
Whatcom Land Trust
Whatcom Parks and Recreation Foundation
Pacific Northwest Trail Association
Back Country Horsemen
Mt. Baker Bicycle Club
North Cascades Institute
Nooksack Salmon Enhancement Association
Mt. Baker Club
Whatcom Association of Kayak Enthusiasts
Whatcom Independent Mountain Pedalers
Black Mountain Forestry Center

National Non-profit Trail Organizations

Rails-to-Trails Conservancy
American Trails
American Hiking Society
International Mountain Bicycling Association

Chapter 8

Construction Projects and Priorities

The Chain of Trails planning project used public outreach to determine and demonstrate community interest in the Mt. Baker Foothills Chain of Trails network. Community response showed that residents and visitors see the proposed network as a way to preserve and enhance quality of life in the Foothills. Furthermore, studies by the Rails to Trails Conservancy and others show that throughout the nation the economic benefits of trail development can revitalize the employment and tax-base prospects of the Foothills to ensure a vital future economy over the long term. Conservative estimates of the financial boost projected to be realized from creation of the Chain of Trails network could more than offset the initial investment required to construct it.

Implementation of the Chain of Trails Concept Plan will require a coordinated effort on the part of several trail and transportation related agencies, organizations, and partners, especially the following:

- Mt. Baker Foothills Economic Development Association
- Whatcom County Parks and Recreation
- Whatcom TrailNet
- Whatcom County Planning
- Whatcom County Public Works
- Washington State Department of Transportation

The list of construction projects below along with the rough cost estimates are for completion of the proposed eleven Trail Loops for each of the seven Foothills community areas. Costs vary significantly depending on type of funding source and availability of volunteer or donated materials and labor. Where willing property owners have been identified, cost of negotiation for public access easements is estimated to be somewhat lower. The top three priority projects are listed in priority order for each community area and thereafter they are listed in geographic order.

The top three priorities for each community were chosen by community members and Whatcom TrailNet participants based on the following criteria (listed in order of descending importance):

- Proximity to residential population centers
- Relative size of residential population served
- Transportation function: serving school or commercial areas
- Relative cost of policy or construction action
- Lack of near-by alternate trail or shared road routes
- Recreational function: serving recreational uses or destinations

Action Steps

Government agencies, non-profit organizations, and private businesses each have an important role to play in building the Chain of Trails. Volunteer trail building, guided trail walks, and other educational and recreational events will help build trails and sustain community support for the Chain of Trails into the future. The incremental process of planning and building the trail network will take decades and the dedication of community members working toward each success and celebrating each achievement.

Here are some of the first steps that community members will take to begin implementation of the Chain of Trails Concept Plan:

- Include recommendations from the Chain of Trails Concept Plan in the 2005-2006 update of Whatcom County Parks and Recreation and Open Space Comprehensive Plan
- Include recommendations from the Chain of Trails Concept Plan in the annual updates of the Whatcom County Regional Transportation Plan and in the transportation plans of individual jurisdictions
- Include recommendations from the Chain of Trails Concept Plan in the Whatcom County Capital Facilities plans and budgets
- Work with Washington State Department of Transportation to update the state highway system plans for SR9, SR542, and SR547 to include side-paths and improvements for non-motorized travelers
- Work with Whatcom County Parks and Recreation Department to establish additional funding sources for trails development and maintenance

Glenhaven/Wickersham Community Area (*Kawcha)*

Estimated Cost (+/- 50%)	**Project Name**	**Project Descriptions and Actions**
9,600	***Priority 1*: Shared Roadway Policy *Lake Whatcom Loop Trail*	Establish shared roadway designation for walking, bicycling, horse riding, and other trail users on roadways around Lake Whatcom including: • Lake Whatcom Boulevard • Lake Louise Road • South Bay Drive • Park Road • North Shore Drive • Blue Canyon Road Actions to take: • Request recommendation from Whatcom County Public Works Engineering • Request approval from Whatcom County Council • Install appropriate signage • Establish on-going resident, pedestrian, and driver education about sharing the road
370,000	***Priority 2:*** Blue Canyon Connector	Trail link connection between Hertz/ North Lake Whatcom Trail to Blue Canyon Parkway. • Consider interim link by kayak or pedal boat by-pass • Negotiate public access permission or • Acquire publicly owned easement • Build trail
50,000	***Priority 3:*** Euclid Park Trail	Build east-west trail connection in existing park
90,000	Camp 2 Road	Connect South Lake Whatcom to Cain Lake via logging road right-of-way • negotiate public access permission to existing logging road or • acquire easement for public access • establish shared use guidelines for GreenRoutes and logging trucks, as applicable.

Estimated Cost (+/- 50%)	**Project Name**	**Project Descriptions and Actions**
30,000	Cain to Squires Lake	Re-establish trail connection between these two lakes
10,000	South Lookout Mountain	Expand mountain bike trails on south Lookout Mountain; establish trail connection from Cain Lake • Work with DNR on recreation resource management policy change
1,300,000	Lake Whatcom Historic Railway	Extend steam railroad operations to Lake Whatcom; expand educational and interpretive resources • negotiate permission to use right-of-way on intervening properties • replace and restore railroad track
1,000,000	Lake Whatcom Historic Steam Ferry	Establish historic reproduction steam ferry service on Lake Whatcom from Boulevard Park to Blue Canyon • negotiate permission • address water quality concerns
5,000	Park Road Trail *South Fork Loop Trail*	Discuss Park Road conversion to trail as possible mitigation for high maintenance costs due to its proximity to wetlands.
15,000	Historic Information	Install displays or publish brochure. Possible locations for display kiosk at South Lake Whatcom Park.
105,000	South Lake Whatcom Park	Develop County property at south Lake Whatcom for camping and day use.

Van Zandt/Acme Community Area (*Nukwem)*

Estimated Cost +/- 50%	**Project Name**	**Project Descriptions and Actions**
8,000,000	***Priority 1:*** Side-path constructed within SR 9 state highway right-of-way *Cedarville Uuluquance Loop Trail*	Plan, design and construct separated walking path from Wickersham to Deming along Valley Highway within the state-owned right-of-way. • Include this recommendation in the Whatcom County Comprehensive Plan • Include this recommendation in Regional transportation planning documents • Recommend inclusion in the Washington Transportation Plan and State Highway Planning documents

10,200	***Priority 2:*** Shared Roadways *South Fork Loop Trail* *North Stewart Mountain Loop Trail*	Establish shared roadway designation for walking, bicycling, horse riding, etc., on roadways in south fork valley including: • Mosquito Lake Road • Rutsatz Road • Potter Road • Caron Road • Hillside Road • Turkington Road • all other dead-end local traffic roads
280,000	***Priority 3:*** Porter Creek-Canyon Creek Link *Mosquito Lake Loop Trail*	Build trail connection between east terminus of Porter Creek logging road and south terminus of Canyon Lake Creek Community Forest trail • negotiate public access to Porter Creek logging road • negotiate trail alignment on CCCF land • establish policies for use • construct trail link
2,000,000	South Fork Loop trail segments *South Fork Loop Trail*	Establish trail connection between County roads east and west of South Fork including: • Hillside-Turkington Trail • Wildrose – Homesteader Trail • Homesteader-Clipper Trail • Clipper- Nelson Trail • determine topographic constraints • determine pipeline, rail or other easement feasibility • negotiate public access to properties

Nugent's Crossing/Stewart Mountain Community Area *(Liliquom)*

Estimated Cost +/- 50%	**Project Name**	**Project Descriptions and Actions**
70,000	*Priority 1:* **Eagle Flyway** *Cedarville Uuluquance Loop Trail*	Establish public access permission for trail use of Eagle Flyway (a.k.a. Lower Linberry logging road). • research existing easement agreement terms for private road • negotiate public access easement with appropriate compensation
150,000	*Priority 2:* **Nugent's Crossing – Smith Road trail** *North Stewart Mountain Loop Trail*	Construct separated walking path within the state highway right-of-way along Mt. Baker Highway from Smith Road to Deming Road. • Include this recommendation in the Whatcom County Comprehensive Plan • Include this recommendation in Regional Transportation planning documents • Recommend inclusion in the Washington Transportation Plan and State Highway Planning documents • Work with highway engineering departments to ensure priority and funding
10,200	*Priority 3:* **Shared Roadways** *Squalicum Mountain Loop Trail*	Establish shared roadway designation for walking, bicycling, horse riding, etc., on roadways in Nugent's Crossing area including: • Deming Road • Y Road • North Shore Road • Academy Road • Henderson Road • Squalicum Lake Road • Cedarville Road
1,000	**Squalicum Mountain** *Squalicum Mountain Loop Trail*	Construct trail connection between Anderson Creek headwaters and Carpenter Creek headwaters trails
33,000	**Todd Creek Headwaters** *South Stewart Mountain Loop Trail*	Construct trail connection between Todd Creek Headwaters trail and logging road 4013 • negotiate easement with private land-owner • determine design standards for usage and maintenance

190,000	**Smith – Cedarville** *Cedarville Uuluquance Loop Trail*	Construct trail link between east terminus of Smith Road and south terminus of Cedarville Road • negotiate easement with private land-owner
2,740,000	**Williams Pipeline easement** *North Stewart Mountain Loop Trail*	Construct trail along surface of pipeline easement parallel to Mt. Baker Highway • negotiate easements with individual private land-owners along right-of-way • determine feasibility and topographic constraints
27,000	**Stewart Mountain Department of Natural Resources Land** *South Stewart Mountain Loop Trail*	Establish official recognition of existing horseback riding trails on DNR land • Document location of trails constructed or maintained by other than DNR • Request change in DNR management policy to encourage recreational non-motorized uses of land • Establish maintenance responsibilities and agreements as required
(undeter-mined)	**Y Road Trailhead** *South Stewart Mountain Loop Trail*	Renew long term County contract with Back Country Horsemen (or other appropriate non-motorized trail maintenance group) for continued public use and access to trailhead.
20,000	**Stewart Mountain Private Commercial Forest Land** *North Stewart Mountain Loop Trail*	Establish long-term recreational access agreements with land owners and forest management companies.

Deming /Nooksack Tribal Center *(Sqwahalish)*

Estimated Cost +/- 50%	**Project Name**	**Project Descriptions and Actions**
9,600	*Priority 1:* **Shared Roadways** *Sumas Mountain Loop Trail*	Establish shared roadway designation for walking, bicycling, horse riding, etc., on roadways in Nugent's Crossing area including: • Marshall Hill Road • Truck Road • North Fork Road • Rutsatz Road • Goodwin Road • Hopewell Road
1,700,000	*Priority 2:* **Side-path within Mt. Baker Highway right-of-way** *Sumas Mountain Loop Trail*	Construct separated walking path within SR542 right-of-way from Deming to Kendall. • Include this recommendation in the Whatcom County Comprehensive Plan • Include this recommendation in Regional Transportation planning documents • Recommend inclusion in the Washington Transportation Plan and State Highway Planning documents • Work with highway engineering departments to ensure priority and funding
220,000	*Priority 3:* **Sumas Mountain South Logging Road** *Sumas Mountain Loop Trail*	Establish public access easement or use of existing logging road at south Sumas Mountain at Hillard Road. • negotiate public access agreement and compensation with private landowner(s)
220,000	**Sumas Mountain Southeast Logging Road** *Sumas Mountain Loop Trail*	Establish public access easement or use of existing logging road at southeast Sumas Mountain off Marshall Hill Road. • negotiate public access agreement and compensation with private landowner(s)
1,250,000	**Rutsatz Road Nooksack River Middle Fork Bridge** *Mosquito Lake Loop Trail*	Construct reproduction of historic suspension bridge or cable ferry crossing at east terminus of Rutsatz Road. • determine flood and environmental feasibility • determine right-of-way • relative feasibility of cable ferry versus trail bridge • include trail bridge in County Comprehensive Plans • construct bridge

1,700,000	**North Fork Trail Bridge at Welcome** *Sumas Mountain Loop Trail*	Construct trail bridge or cable ferry at North Fork Road north of Welcome adjacent to 6210 Mt. Baker Highway to allow trail travelers to access Sumas Mountain DNR land. • determine flood and environmental feasibility • determine right-of-way • research relative feasibility of cable ferry versus suspension trail bridge • include trail bridge or ferry in County Comprehensive and Transportation Plans • Construct ferry or bridge
200,000	**Gold Mine Trail** *Sumas Mountain Loop Trail*	Establish public access trail easement from DNR logging roads at Sumas summit to Gold Mine Trail north and south spurs • negotiate with private landowner to determine appropriate compensation for public access or easement agreements to existing trails or logging roads.
1,300,000	**Side-path within State Highway SR9 Right-of-way** *Sumas Mountain Loop Trail*	Construct separated walking path within SR9 right-of-way from Nugent's Crossing to South Pass Road. Alternative route 1: construct walking path along Nooksack River dike between Nugent's Crossing and City of Everson Alternate route 2: Construct rail-with-trail along active Foothills BNSF rail line from Wickersham to Sumas

Kendall/Columbia Valley Community Area (*Chelsem or Zender*)

Estimated Cost +/- 50%	**Project Name**	**Project Descriptions and Actions**
1,300,000	*Priority 1:* **Side-path within the State Route 547 right-of-way** *Columbia Valley Loop Trail*	Construct separated walking path within SR547 right-of-way from Kendall Elementary School to South Pass Road. Alternate route: acquire easement to construct trail along former rail right-of-way on Bay to Baker Trail route. Negotiate compensation with private landowners. • Include this recommendation in the Whatcom County Comprehensive Plan • Include this recommendation in Regional Transportation planning documents • Recommend inclusion in the Washington Transportation Plan and State Highway Planning documents • Work with highway engineering departments to ensure priority and funding purchase or acquire additional right-of-way from adjacent property owners, as necessary
200,000	*Priority 2:* **Kendall to Sumas Mountain link** *Sumas Mountain Loop Trail* *Columbia Valley Loop Trail*	Establish public access easement or use of existing logging road at northeast Sumas Mountain from Kendall Elementary School area to DNR land on Sumas Mountain • negotiate public access agreement and compensation with private landowner(s)
200,000	*Priority 3:* **Campers' Paradise to North Sumas Mountain link** *Sumas Mountain Loop Trail* *Columbia Valley Loop Trail*	Establish public access easement or use of existing logging road at northeast Sumas Mountain from Campers' Paradise. • negotiate public access agreement and compensation with private landowner(s)

8,400	**Shared Roadways**	Establish shared roadway designation for trail travelers on roadways in Kendall area including: • private roads within Paradise and Peaceful developments • South Pass Road • Limestone Road • Tilbury Road
500,000 *(either alternative)*	**Side-path within Mt. Baker Highway Right-of-way** *Maple Creek Loop* *Columbia Valley Loop Trail*	Construct separated walking path within SR542 right-of-way from Kendall Elementary School to Maple Falls. Alternate route: acquire easement for former rail right-of-way on Bay to Baker Trail route from Kendall to Maple Falls. Negotiate with private landowners to determine compensation. Alternate route: acquire easement to construct trail along former rail right-of-way on Bay to Baker Trail route. Negotiate compensation with private landowners. • Include this recommendation in the Whatcom County Comprehensive Plan • Include this recommendation in Regional Transportation planning documents • Recommend inclusion in the Washington Transportation Plan and State Highway Planning documents • Work with highway engineering departments to ensure priority and funding • Purchase or acquire additional right-of-way from adjacent property owners, as necessary
100,000	**South Heady Road to Limestone link** *Maple Creek Loop Trail*	Construct trail connection between south terminus of Heady Road and east terminus Limestone Road (at Tilbury Road) • negotiate with private landowners for compensation to allow public access
100,000	**Tilbury to Kendall Lake link** *Maple Creek Loop Trail*	Construct trail connection between south terminus of Tilbury Road to link with existing logging road to Kendall Lake (via Peaceful Valley) • negotiate with private landowners for compensation to allow public access

60,000	**Kendall Lake to Kendall east link** *Columbia Valley Loop Trail*	Construct trail connections along greenbelt on east edge of Peaceful Valley and Paradise Lakes developments to link with existing private roadways or DNR logging roads on south Red Mountain to Bay to Baker Trail right-of-way or SR 542 trail. • negotiate with private landowners for compensation to allow public access
60,000	**Limestone Road to Red Mountain link** *Columbia Valley Loop Trail*	Establish public access easement to existing logging roads on west Red Mountain from public road to existing logging roads on DNR land. • negotiate with private landowners for compensation to allow public access
(undeter-mined)	**Baker's Edge Golf Course and development proposal** *Columbia Valley Loop Trail*	Coordinate with developer proposal to ensure trail connections within and surrounding residential areas connect to and supplement the loop network to enable trail connection from Paradise area to Kendall school area and the north Sumas Mountain public land.

Maple Falls/Glacier Community Area *(Kway)*

Estimated Cost +/- 50%	**Project Name**	**Project Descriptions and Actions**
520,000	*Priority 1:* **Bay to Baker Trail** *Maple Falls-Glacier Loop Trail*	Construct multi-use gravel trail along County-owned right-of-way on former railroad bed between Maple Falls and Glacier. • secure new funding for construction and/or • coordinate volunteer work parties • construct Cornell Creek Bridge (see below)
50,000	*Priority 2:* **Cornell Creek Bridge** *Maple Falls-Glacier Loop Trail*	Construct trail bridge over Cornell Creek on the Bay to Baker Trail right-of-way near Glacier • negotiate with adjacent commercial forestry land owner for permanent trail easement for bridge on their land (if better crossing site) • secure funding for bridge engineering & construction (or pre-fabricated purchase) • secure building permits and hydraulic permits • coordinate volunteer work parties as necessary • establish volunteer monitoring and maintenance schedule and duties, as necessary
1,110,000 *(Alt: 500,000)*	*Priority 3:* **Utility easement trail from Glacier to Douglas Fir Camp** *Maple Falls-Glacier Loop Trail*	Establish public access trail use of existing electrical utility easement roadway from Glacier to Douglas Fir Campground • Negotiate with property owner, Puget Sound Energy, to allow public access to easement • Construct bridge or cable ferry or ford crossing over Nooksack River North Fork at Douglas Fir Campground Alternate route: construct side-path within the state highway right-of-way from Glacier to campground
650,000	**Side-path within State Route 542 right-of-way** *Maple Falls-Glacier Loop Trail*	Construct separated walking path within Mt. Baker Highway right-of-way from Maple Falls to Glacier. • Include this recommendation in Regional Transportation planning documents • Recommend inclusion in the Washington Transportation Plan and State Highway Plans • Work with highway engineering departments to ensure priority and funding purchase or acquire additional right-of-way from adjacent property owners, as necessary

45,000	**Black Mountain – USFS trail link** *Maple Falls-Glacier Loop Trail*	Construct trail connection link between east terminus of Black Mountain logging road and west extension of USFS Canyon Creek/road #3140. • negotiate with private forestry land owner to allow public access on Black Mountain logging road and to allow construction of trail link • coordinate trail building volunteers or secure funding.
75,000	**East Silver Lake link –North** *Maple Creek Loop Trail*	Construct trail connection link between north Silver Lake trail terminus and south Silver Lake logging road terminus • determine topographic feasibility for this link • negotiate with private landowners for compensation to allow public access and to allow construction of trail link
80,000	**East Silver Lake link – South** *Maple Creek Loop Trail*	Construct trail connection link between existing south Silver Lake logging road and existing DNR logging road (north east of Maple Falls) • determine topographic feasibility • negotiate with private landowners for compensation to allow public access and to allow construction of trail link, if feasible
7,200	**Shared Roadways** *Maple Creek Loop Trail* *Maple Falls-Glacier Loop Trail*	Establish shared roadway designation for walking, bicycling, horse riding, etc., on roadways in Maple Falls - Glacier area including: • Cornell Creek Road • Silver Lake Road
2,000	**Black Mountain – Commercial Forest Road trail link** *Maple Falls-Glacier Loop Trail*	Establish public access on existing Crown Pacific logging road on Black Mountain at Limerick Pass connecting to Silver Lake.

2,300,000	**North Fork Nooksack River Trail Bridge or cable ferry at Chinn Rail Crossing** *Maple Falls-Glacier Loop Trail*	Construct trail bridge or ferry crossing over Nooksack River North Fork on the former Chinn Logging Company railroad bridge crossing at Maple Falls • Determine flood and environmental feasibility • Determine right-of-way • Research relative feasibility of cable ferry versus suspension trail bridge • Include trail bridge or ferry in county comprehensive and transportation plans • Construct ferry or bridge

Silver Lake/Vedder Mountain Community Area *(Lemola)*

Estimated Cost +/- 50%	**Project Name**	**Project Descriptions and Actions**
8,200	*Priority 1:* **Shared Roadways** *Maple Creek Loop Trail*	Establish shared roadway designation for walking, bicycling, horse riding, etc., on roadways in Maple Falls - Glacier area including: • South Pass Road • Heady Road • Reese Hill Road • Frost Road • Paradise Valley Road
5,000	*Priority 2:* **Vedder Mountain Trails** *Maple Creek Loop Trail*	Establish public access easements for existing trails connecting Heady Road to Vedder Mountain and to Silver Lake Park equestrian area. Establish trail connection from Vedder Mountain DNR roads to Jones Road east terminus.
2,000	*Priority 3:* **Heady Road Trail** *Maple Creek Loop Trail* *Columbia Valley Loop Trail*	Establish official designation of Heady Road and area trails for horseback riding and horse and carriage use. • Work with Whatcom County Public Works to ensure that Heady Road remains unpaved

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Chain of Trails Concept Plan Appendix 1

2001 Chain of Trails Opinion Survey and Results

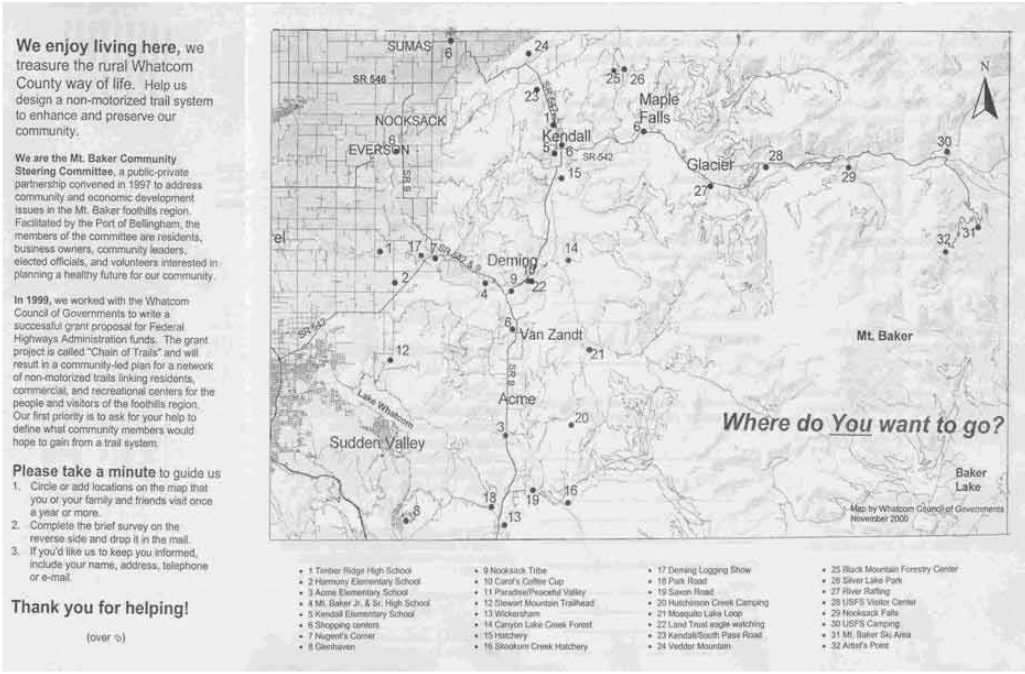


Figure 1.6: Mt. Baker Foothills Steering Committee 2001 Public Opinion Survey *(side 1)*

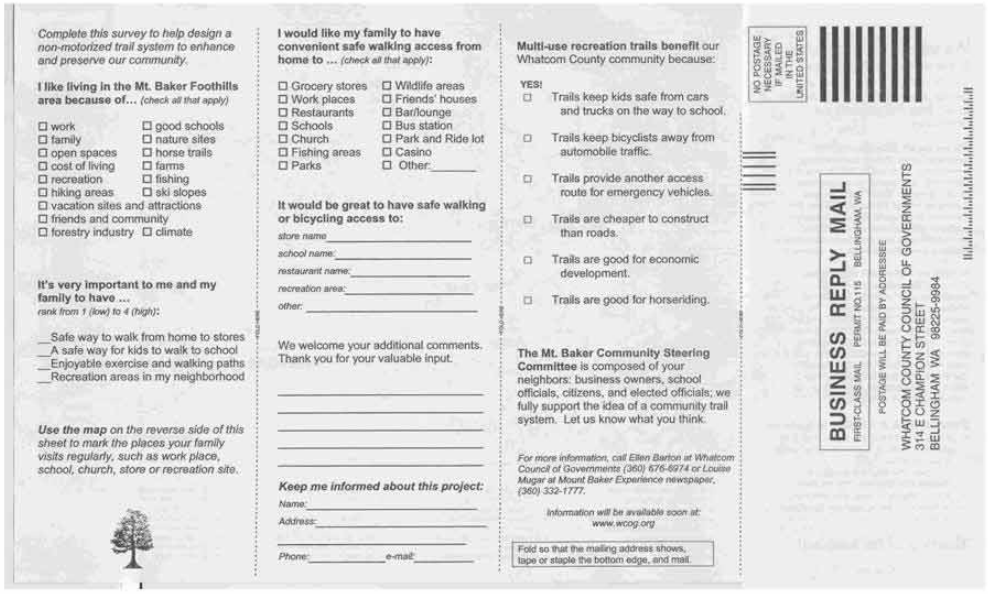
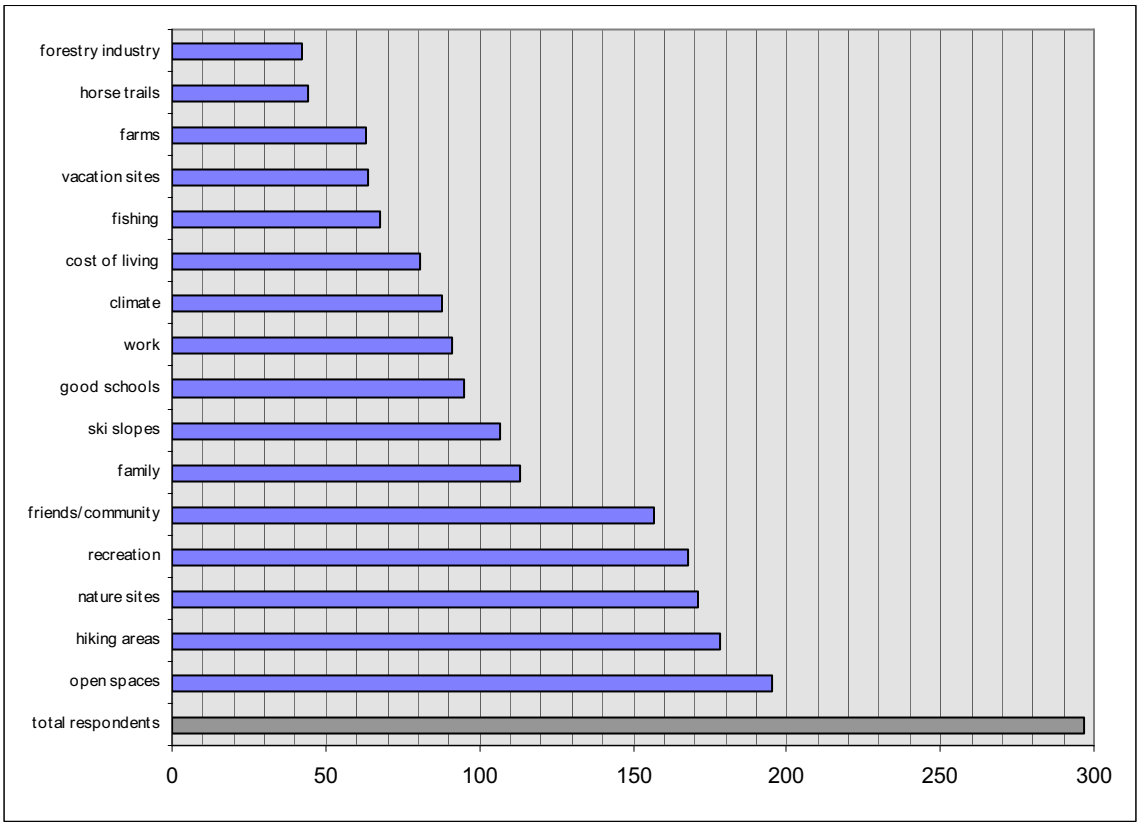


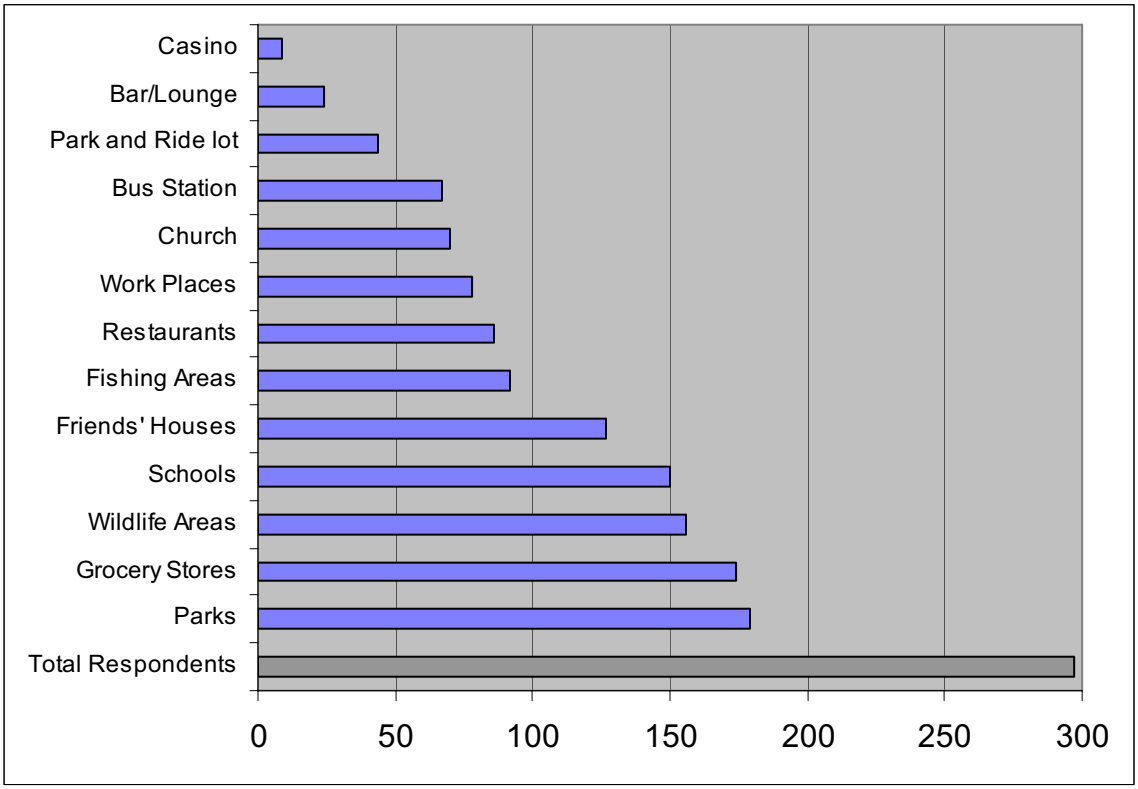
Figure 1.6: Mt. Baker Foothills Steering Committee 2001 Public Opinion Survey *(side 2)*

Reasons for Living in the Foothills



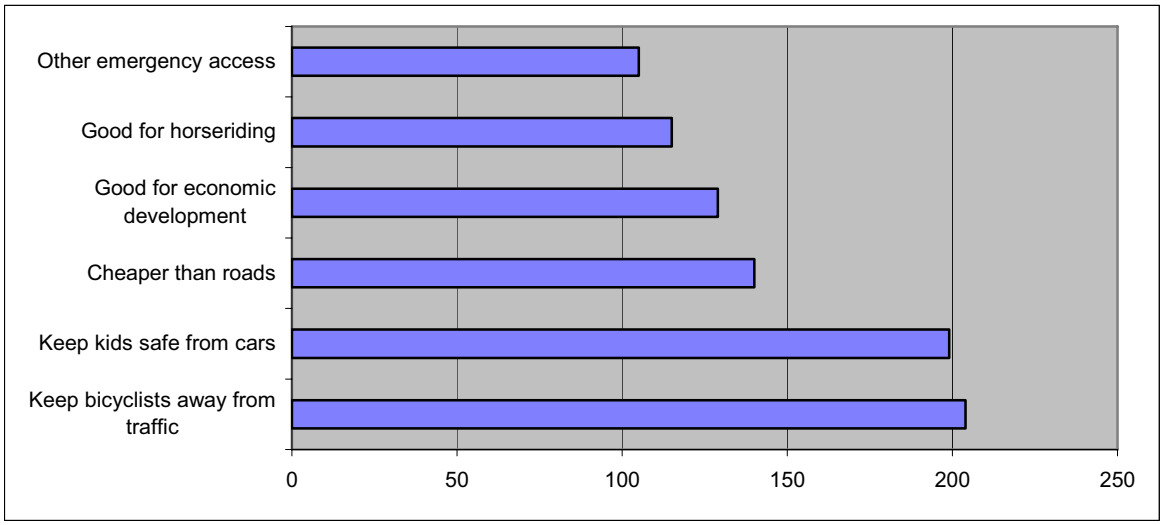
This question was designed to find out what residents like about living in the Foothills. From the answers we can gauge what people consider important to their quality of life. Outdoors recreation features highest on the list (from 52% to 65%) showing us that residents may support projects that protect or increase access to nature. A total of 297 surveys were completed and returned.

Priorities for Safe Walking Destinations



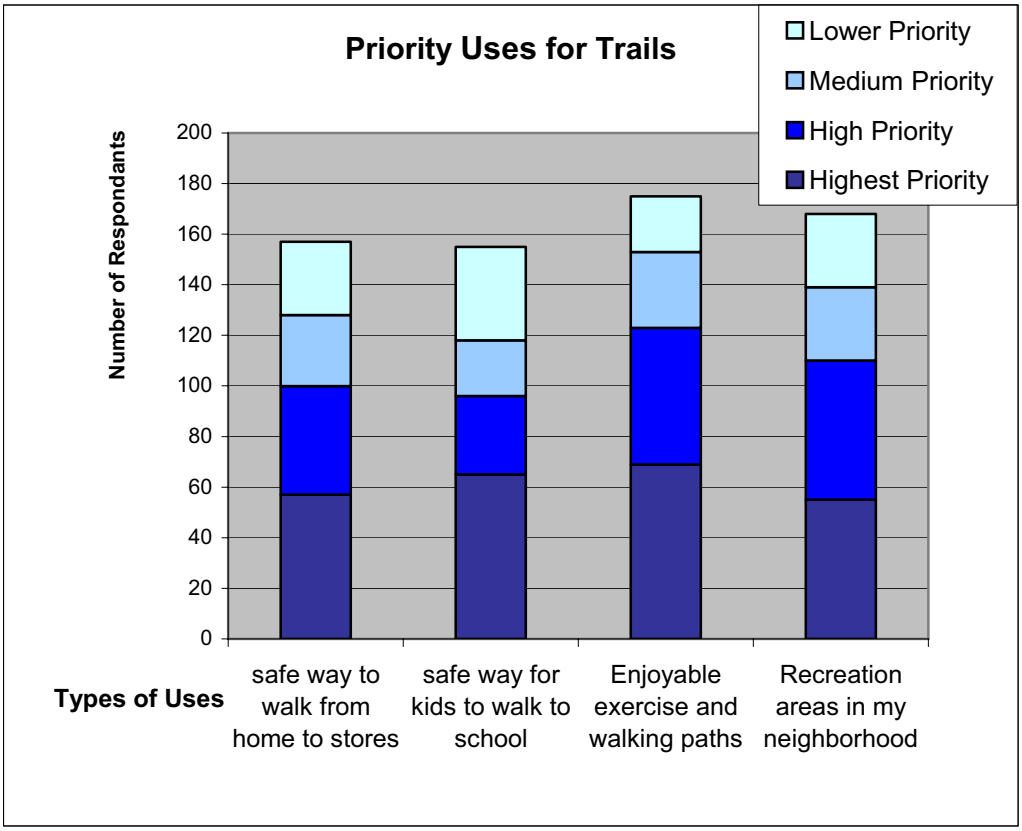
This question was designed to find out whether residents would walk as a form of transportation to errands, or if they consider walking only as a form of recreation. The top response (parks) indicates that people associate walking with recreation (66%), but other high responses (stores (65%) and schools (50%)) show an interest in walking as transportation. More than half of the respondents consider trails useful as well as recreational.

Perceived Trail Benefits



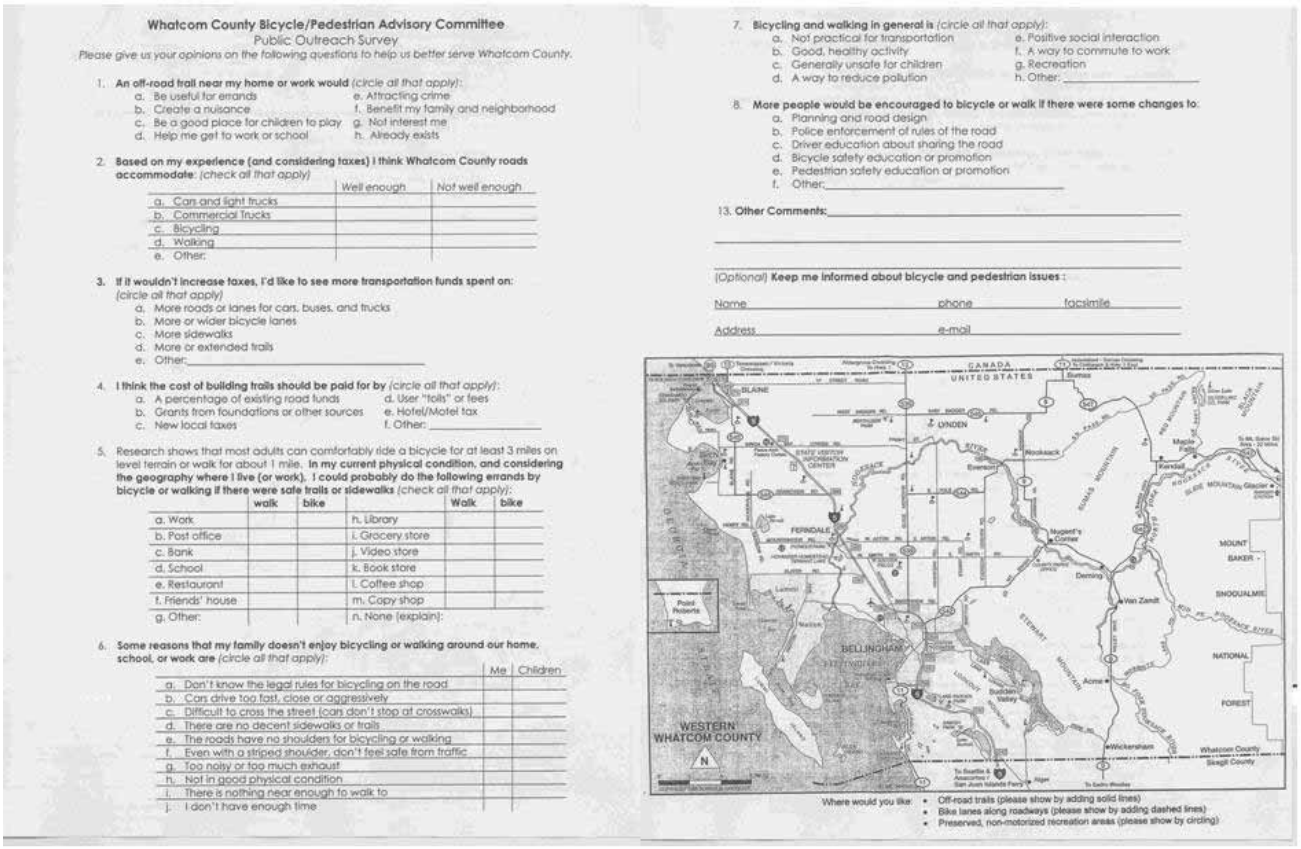
This question was designed to inform people about possible benefits of trails and to gauge the degree to which residents agreed with these benefits. Secondarily, we wanted to find whether economic or cost concerns were of more importance than safety. Cost concerns rank third. The top scorer, "Keeping bikes away from traffic," indicates both an interest in safety for the bikes and in facilitating speed for the cars.

Priority Uses for Trails



Responses to this question show the relative importance of different uses of trails – what sites are priorities for access. A lower proportion of respondents completed this question than the others. Of those who responded, walking for exercise was seen as the highest priority. Getting kids safely to school ranked next for "highest priority."

2001 Whatcom Bicycle Pedestrian Advisory Committee Public Outreach Survey



Whatcom County Bicycle/Pedestrian Advisory Committee
Public Outreach Survey
Please give us your opinions on the following questions to help us better serve Whatcom County.

1. **An off-road trail near my home or work would** *(circle all that apply)*:
   a. Be useful for errands
   b. Create a nuisance
   c. Be a good place for children to play
   d. Help me get to work or school
   e. Attracting crime
   f. Benefit my family and neighborhood
   g. Not interest me
   h. Already exists

2. **Based on my experience (and considering taxes) I think Whatcom County roads accommodate**: *(check all that apply)*

	Well enough	Not well enough
a. Cars and light trucks		
b. Commercial Trucks		
c. Bicycling		
d. Walking		
e. Other:		

3. **If it wouldn't increase taxes, I'd like to see more transportation funds spent on**: *(circle all that apply)*
   a. More roads or lanes for cars, buses, and trucks
   b. More or wider bicycle lanes
   c. More sidewalks
   d. More or extended trails
   e. Other:_____

4. **I think the cost of building trails should be paid for by** *(circle all that apply)*:
   a. A percentage of existing road funds
   b. Grants from foundations or other sources
   c. New local taxes
   d. User "tolls" or fees
   e. Hotel/Motel tax
   f. Other: _____

5. Research shows that most adults can comfortably ride a bicycle for at least 3 miles on level terrain or walk for about 1 mile. **In my current physical condition, and considering the geography where I live (or work), I could probably do the following errands by bicycle or walking if there were safe trails or sidewalks** *(check all that apply)*:

	walk	bike		Walk	bike
a. Work			h. Library		
b. Post office			i. Grocery store		
c. Bank			j. Video store		
d. School			k. Book store		
e. Restaurant			l. Coffee shop		
f. Friends' house			m. Copy shop		
g. Other:			n. None (explain):		

6. **Some reasons that my family doesn't enjoy bicycling or walking around our home, school, or work are** *(circle all that apply)*:

	Me	Children
a. Don't know the legal rules for bicycling on the road		
b. Cars drive too fast, close or aggressively		
c. Difficult to cross the street (cars don't stop at crosswalks)		
d. There are no decent sidewalks or trails		
e. The roads have no shoulders for bicycling or walking		
f. Even with a striped shoulder, don't feel safe from traffic		
g. Too noisy or too much exhaust		
h. Not in good physical condition		
i. There is nothing near enough to walk to		
j. I don't have enough time		

7. **Bicycling and walking in general is** *(circle all that apply)*:
   a. Not practical for transportation
   b. Good, healthy activity
   c. Generally unsafe for children
   d. A way to reduce pollution
   e. Positive social interaction
   f. A way to commute to work
   g. Recreation
   h. Other: _____

8. **More people would be encouraged to bicycle or walk if there were some changes to**:
   a. Planning and road design
   b. Police enforcement of rules of the road
   c. Driver education about sharing the road
   d. Bicycle safety education or promotion
   e. Pedestrian safety education or promotion
   f. Other:_____

13. **Other Comments:**_____

(Optional) **Keep me informed about bicycle and pedestrian issues :**

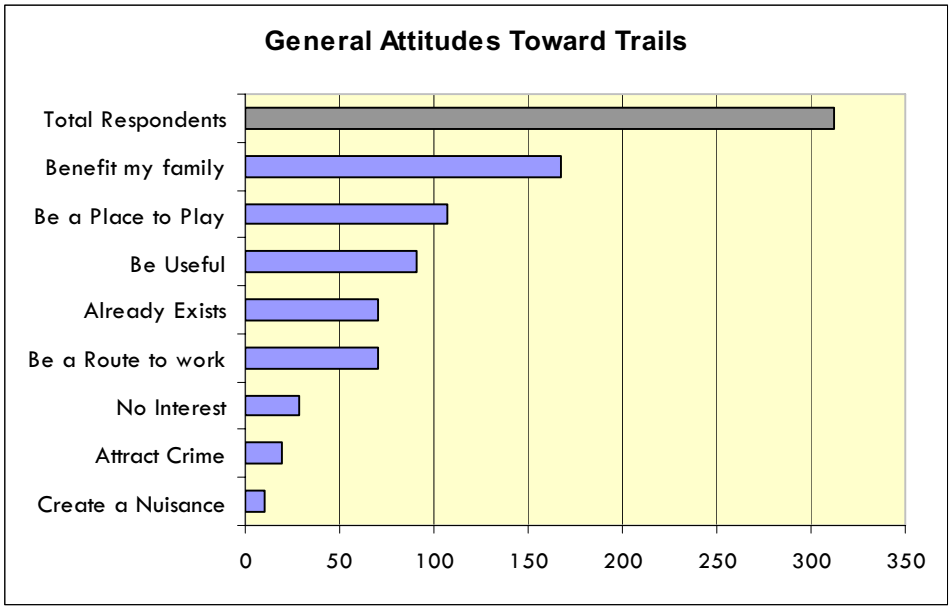
Name _____ phone _____ facsimile _____

Address _____ e-mail _____

Figure 1.10: Whatcom Bicycle Pedestrian Advisory Committee
Summer 2001 Public Outreach Survey

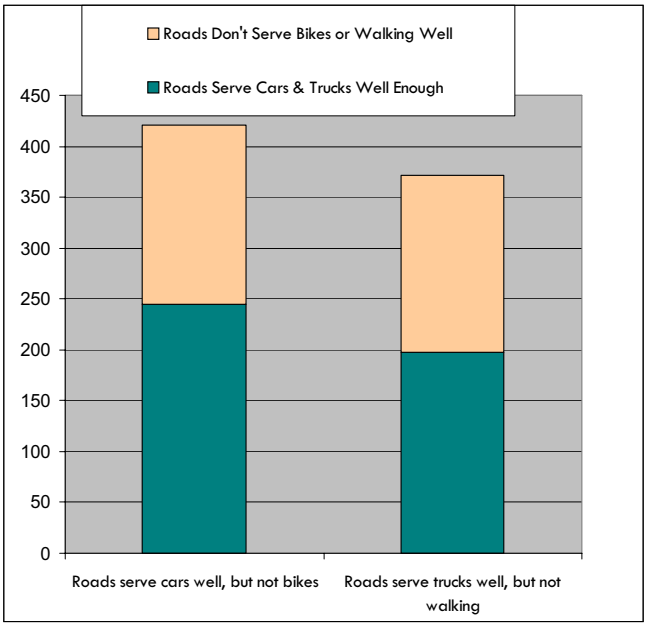
Results from Bicycle Pedestrian Advisory Committee Opinion Survey, summer 2001

1. Attitudes toward off-road trails near home or work

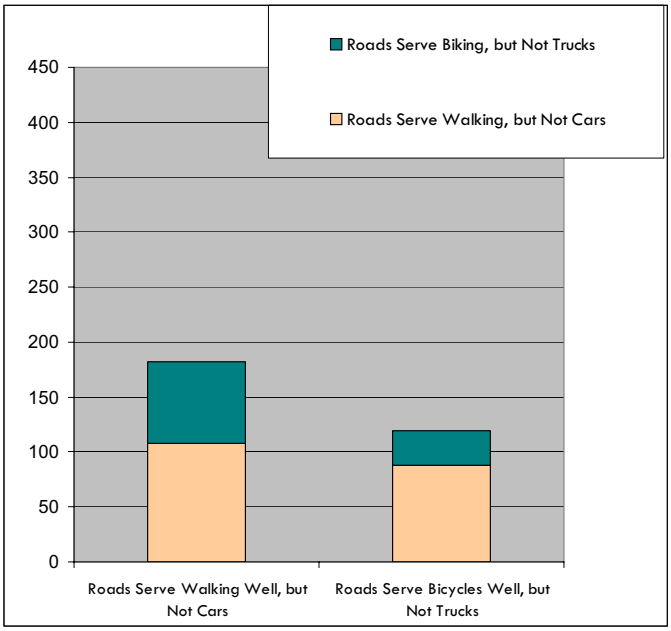


2. How Well Do Roads Serve Users?

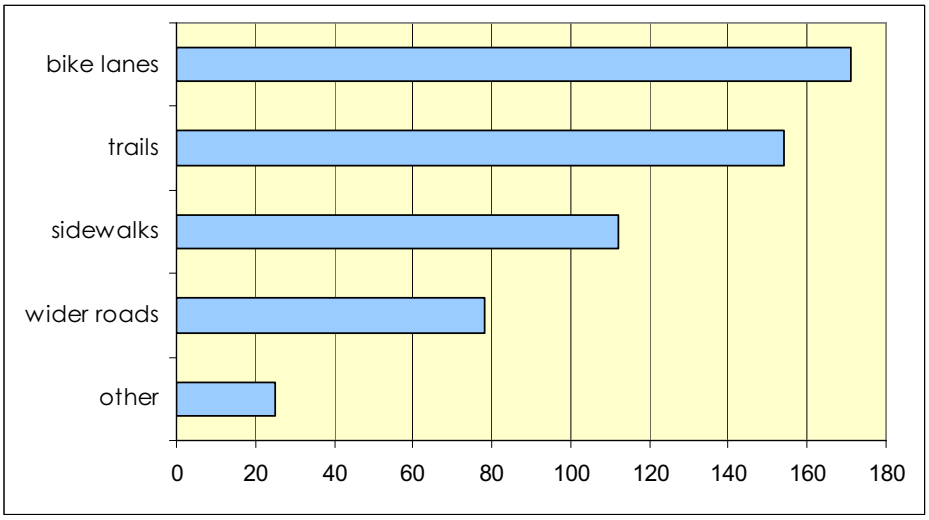
Roads Serve Cars and Trucks Well



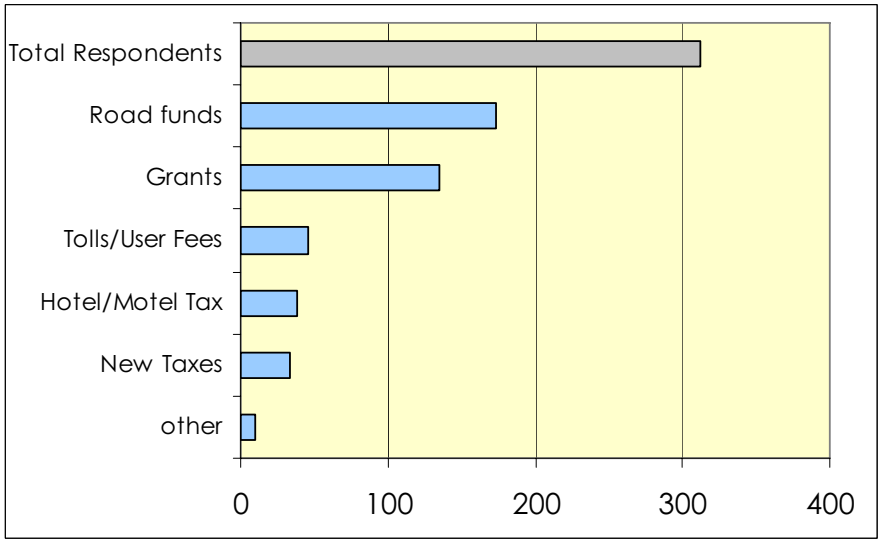
Roads Serve Biking and Walking Well



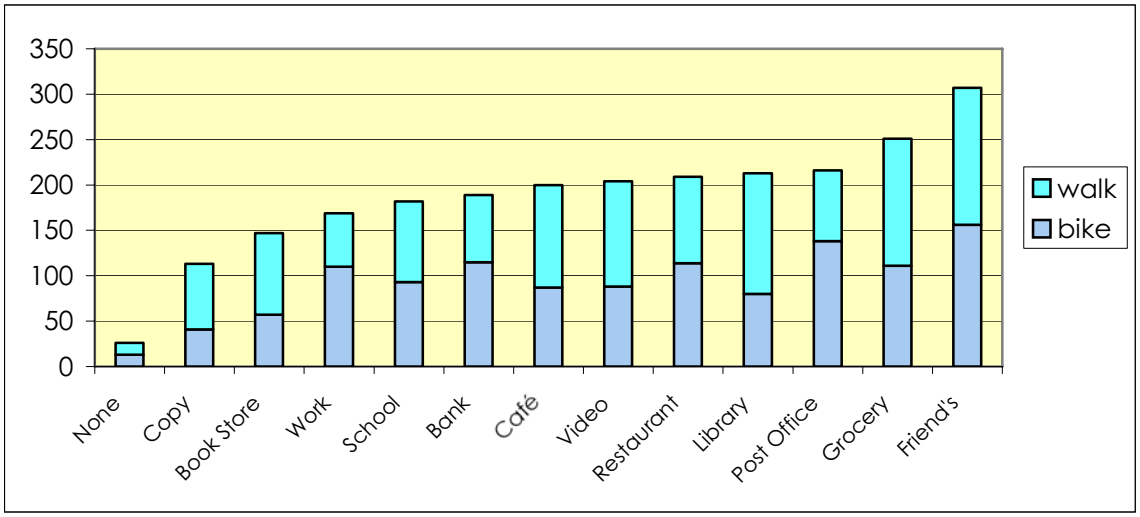
3. Transportation funds should be spent on building more…



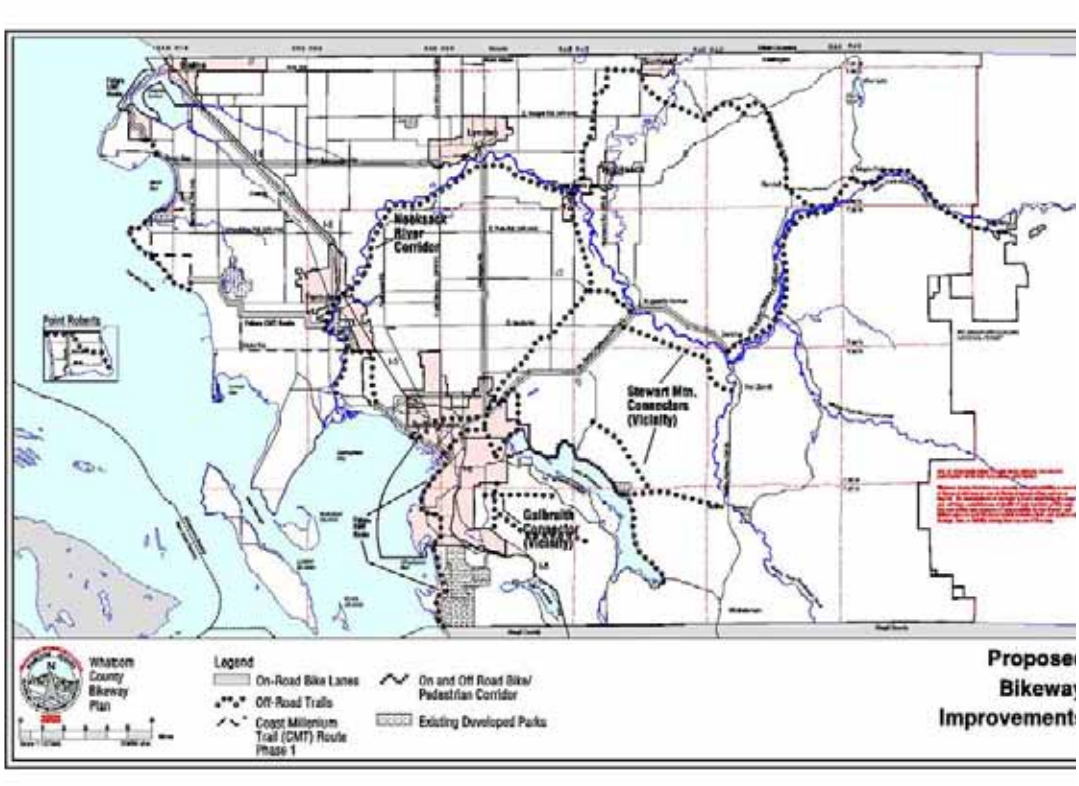
4. Trails should be paid for by…



5. I could walk or bike to these locations, if there were trails:



Whatcom County Bicycle Pedestrian Advisory Committee Bicycle Plan Map



Whatcom County Council adopted the above Bike Plan Map along with the updated Bike Plan as part of the 2003 update of the Whatcom County Comprehensive Plan.

Chain of Trails Concept Plan Appendix 2
Transportation History in Whatcom County

pre-1700 1800 1810 1820 1830 1840 1850 1860 1870 1880 1890 1900 1910

3000 + miles of Salish Sea **canoe trade** routes

400 + miles of inland **walking trails** (including original Whatcom Trail)

50 + miles of **river** canoe **trade** routes

first **steam-powered** vehicle invented

first **bicycle** invented (England)

horse-drawn **public bus** invented (France)

Trails from **Fort Langley** to future Lynden, Sumas, Bellingham areas

first US railroad established in South Carolina

Puget Sound "**Mosquito Fleet**" ferries operating scores of ferries, steam and sail

Washington **Territory** Established 1853

Eldridge cabin built -Bellingham Bay 1853

Roeder **sawmill** at Whatcom Creek 1856

Fraser River **Gold Rush**: 10,000 miners to Bellingham Bay 1858

4 miles of **Military Road** built in Bellingham using up $10,000 federal funds allocated for 100 miles. 1856 - 1858

First **telegraph** office at Sehome (links to Olympia) 1865

County raises funds to widen to 6 ft. pack **trail to Everson** along existing Whatcom Indian trail route 1857

Steamers Victoria - Bellingham – Fraser River

Canadian Pacific Rail line reaches Vancouver 1855

US – British Columbia **Boundary** Survey 1857

Coleman: first successful climb of **Mt. Baker** 1868

Transontinental Rail Line to California 1869

Telegraph trail/road begun for land telegraph to Europe 1867. Original route along Whatcom Trail

Bicycle at **Paris Exposition** creates huge sensation

Two **log jams** cleared from Nooksack River 1877

Dan Harris clears a route to **Lake Whatcom** (Lakeway Drive)

Electric Trolley Invented 1880

Black Ball Ferry Line at Chuckanut Bay; company takes over most ferry lines in Puget Sound

States start to **regulate railroad rates** and fees

Ferndale-New Whatcom **Northwest Diagonal** Road planned, built 1883 - 1885

Stage coach ox cart Bellingham to Lynden, via Everson Crossing (no bridge at Lynden)

Guide Meridian Road open to Lynden cable crossing 1885

No passable roads exist to inland Whatcom County (1886) *"More expensive to ship from Acme than from Atlantic"*

Chuckanut Trail begins conversion to dirt road 1891

Bellingham Bay and British Columbia **Rail** line construction 1884-1889

Lake Whatcom **Geneva Resort** community proposed 1889

15 miles of **Electric Trolley** lines operating in Bellingham 1892

Whatcom establishes Rail connection with **Canadian Pacific** Railroad 1891

4 separate rail lines serve Whatcom 1890

Lake Whatcom Street Car to **Silver Beach** amusement park

Railroad from California reaches **Seattle**

Dirt trail/pack road built to Boulder Creek (**Mt. Baker**)

Grange/Farmer movement gets **Rural Free Postal Delivery** – begins federal interest in roads

State allocates funds for **Chuckanut Drive**

First **airplane** flight in US

Nooksack Falls **Hydroelectric** Plant operating

First**Used Auto Wrecking** yard in Bellingham 1913

Detroit producing 50,000 + cars per year

Mt. Baker **Marathon** race (road, rail, run)

Pacific Traction **Interurban Railway** established 1912

1916 = peak of US **Railroad track-miles**: 254,000

Port of Bellingham established to promote business

Shipping: 8 days from Yokohama to Victoria

International **Yacht** Assoc. in Fairhaven

World's largest **salmon cannery** at Fairhaven

Covered Wagon or sailing ship around Cape Horn are the only travel modes to & from Atlantic

Nooksack River is main transportation route 1859 - 1888

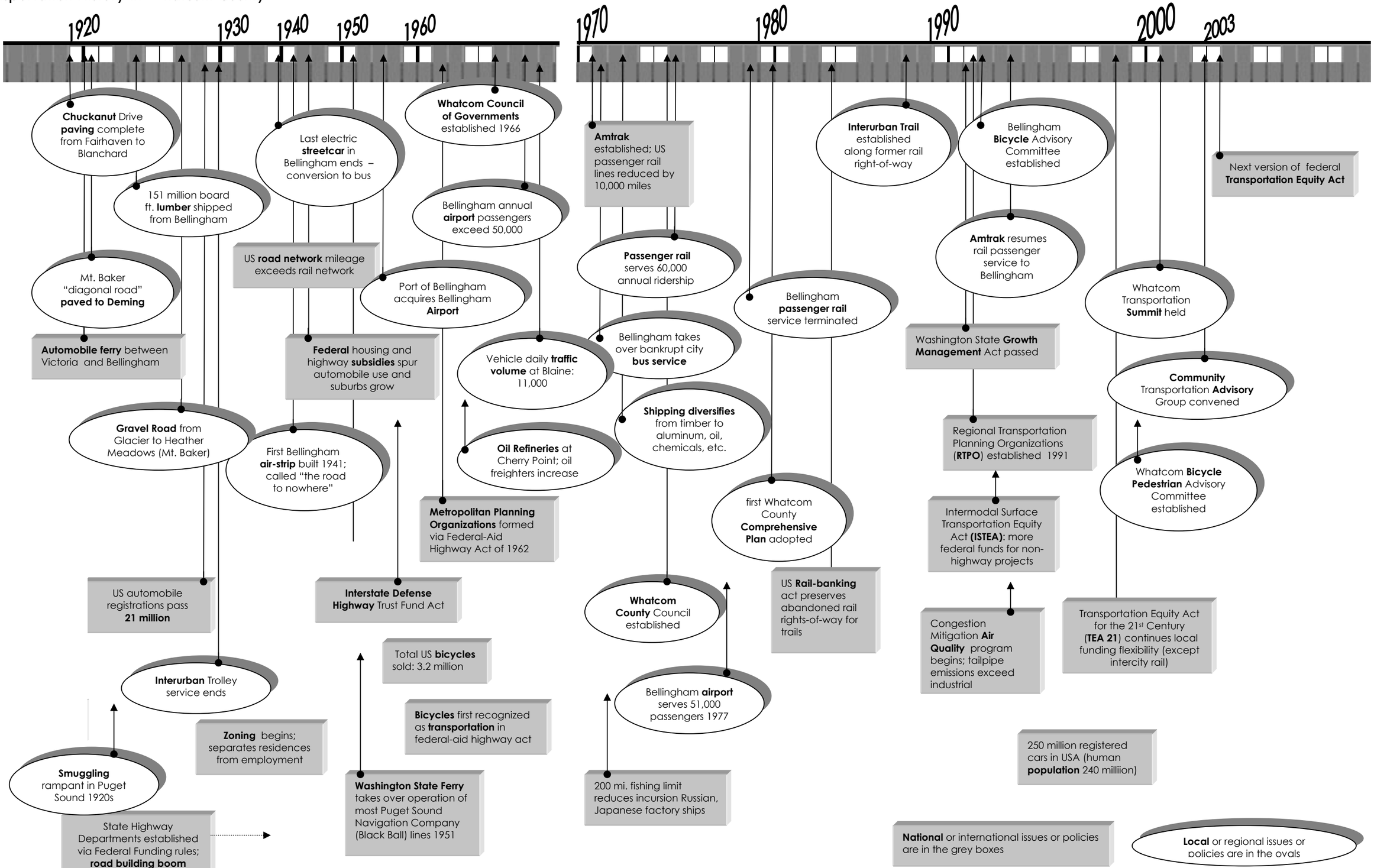
Interstate Commerce Commission (federal) to regulate rail rates

National or international issues or policies are in the grey boxes

Local or regional issues or policies are in the ovals

Chain of Trails Concept Plan Appendix 2

Transportation History in Whatcom County



Mt. Baker Foothills Recreation Inventory Matrix

	Name of facility	sports																accomodation					other entertainment												commercial				
		hike	road bike	mountain bike or downhill course	canoe	kayak	river rafting	other boat	swim	fishing	hunting	skiing and xc skiing	hang-glide	horse ride	other snow or wind sport	roller/skate board	sport fields	camping	restrooms (showers, laundry)	trailhead access	timeshare, rental houses	hotel or rental cabins	museum	historic interpretive	wildlife interpretive, viewing	casino	library	farm	music	theater	games	events	scenic/view	restaurant/commerce	grocery	schools	other
Area 1: **Kawcha** (Glenhaven/Wickersham)	Glenhaven Lakes Resort Community	x	x		x	x		x	x	x				c			c	x			c											x	c	c			
	Cain Lake	x	x	c	x	x		x	c	x				c						c				f								x					
	Reed Lake	x	x	c	p	p		p	p	p				c																		x					
	Squires Lake Park	x	x	c	x	X		x	x	x				x					x	v												x					
	South Bay Lake Whatcom	f	x		x	x		x	c	x								f		c		c		f								x					
	Lookout Mountain	x		x								c		x						t												x					
	Park Road (Anderson Creek)	x	x			c																		f								x		c			
	Wickersham	c	x																c				x	x							x	x		c			
	Samish River (headwaters)				c	c	c			c										c												x					
	Anderson Mountain	x										c	c											f								x					
	Lyman Hill (Eddys Mountain)	x										c	c																			x					
Area 2: **Nukwem** (Acme/Van Zandt)	Van Zandt community	x	x	x	x	x	x	c	x	x	x		c	x		x	x			x	t			f				x	c			x	x		x	x		
	Everybody's Store		x											f						x	t,v			x				x							x	x		
	Josh Vander Yacht Park		x													x	x			x	t,v			x					x			x					x
	Van Zandt Community Hall																				t,v			f					x			x					x
	River of Life Church		x																		v											x					x
	Mosquito Lake Road	x	x	c	x	x	x		c	c																						x					
	Van Zandt Dike State Forest lands										x	x	x	x				x			c				f							x					
	Canyon Lake Creek Community Forest	x			c	c			c	c		c							x		v			f	c							x					
	Nooksack River Middle Fork				c	x	c		c	c								c			c				c							x					
	Hutchinson Creek Campground (closed)	c	x	c						c				c				n	n		n			f								x					
	Betty Lou Close campground (closed)																				n																
	Stewart Mountain (east)	x		x							x	c	x	x				c			c											x					
	Nooksack River South Fork			x	x	x		x	x	x								f			c				c							x					
	Acme community	x	x			c	c		c	c										x			f						x				x	x		x	x	
	Acme General Store	x	x																c	v				f								x					
	Valley Ranch Inn (tavern)	x		x										x						v								c				c			x		
	Acme Elementary School	x	x														x			v						c		c	c	x		x				x		
	Skookum Creek Hatchery (Lummi)	c	x		c	x				x										v			x		x								x				
	Nesset Farm	f		f										x						x				x	f			x				x	x				
	Blue Mountain	c		c								c	c												p								x				
	Bowman Mountain	x		x							c		c	c																			x				
	Saxon Road	c	x	c																																		
	Blue Mountain Retreat Center	p																		p	p				p							x	p				

Mt. Baker Foothills Recreation Inventory Matrix

	Name of facility	hike	road bike	mountain bike or downhill course	canoe	kayak	river rafting	other boat	swim	fishing	hunting	skiing and xc skiing	hang-glide	horse ride	other snow or wind sport	roller/skate board	sport fields	camping	restrooms (showers, laundry)	trailhead, access	timeshare, rental houses	hotel or rental cabins	museum	historic interpretive	wildlife interpretive, viewing	casino	library	farm	music	theater	games	events	scenic/view	restaurant/commerce	grocery	schools	other
Area 3: **Liliquom** (Cedarville/Nugent's Crossing)	Nugents Crossing (Lawrence)		x		x	x	x	c	c	x									c	t				f	f			x	c				c	x		x	x		x
	Dodson's IGA Market		x																p	t,v															x			
	Whatcom County Fire District #2		x																p	v													x					x
	Church		x																p	t,v				x					c				c				
	Little Roadside Tavern																		p	t,v									c						x			
	Nugent's Corner Café																		p	t,v																		
	Christmas Tree Farms		x																p														c	c				
	Deming Road	x	x		c			c		c										t				x				x								x	x
	Shumway's Berry Farm		x																p	p								x					x		x			
	Nooksack River public access/park	f		f	x	x	x	c	c	x				c					c	t,v					f									x				
	Mt. Baker Log Homes		x																p	p																		x
	Stewart Mountain	x		x							x		c	x	x			c		x													f	x				x
	Eagle Flyway	p		p										p						t,p														p				x
	Crown Pacific Timber land	x		x							x		x	x	x			x		x													f	x				x
	Department of Natural Resources land	x		x							x		x	x	x			x		x														x				x
	Y Road Trailhead	x		x							c			x				c	c	v													c	x				x
	Cedarville	x	x															p	p														x					
	Deming Logging Show grounds	c	x											c			p	x	p	v				x	x				x		x		x			p			x
	Cedarville Farms		x																p	v								x					x	c				x
	Bay to Baker Trail (former rail line)	p		p										p						p				f				p					f	p				
	Squalicum Mountain	x		x							p		c	x						p														x				x
	Timber Ridge high school		x														x		p	t,v							p		c	c	x		x			x	
	Harmony Elementary school		x														x		p	t,v							p				x		x			x	
Area 4: **Sqwahalish** (Deming/Nooksack Tribal Center)	Deming community	x	x		x	x	x	x	x	x							x		p	t				f	f	f	x	x	x	x			x	x	x	x	x
	Mt. Baker Winery		x																p	t,v									x				x	x		x		
	Library	f	x																p	t,v							x		x				x					
	Sumas Mountain (south)	x		x							c		x		x					p														x				
	Mt. Baker Jr. & Sr. High school		x														x		p	t,v							p		x	x	x		x			p		x	
	Nooksack Tribal center	c	x														f		p	t,v				x	f			c					c			x		c	x
	Nooksack Casino	x	x																x	t,v							x		x		x		x			x	x	
	Nooksack Tribe Recreation Center	f	f	f	f	f	f	f	f	f	c		c	f	f	c	f	f	f	t,v	f	f		f	f				f	f	f		f	f		f	f	
	Deming Elementary School	x	x														x		p	t,v							p		c	c			x			p		x	
	Marshall Hill Road	x	x											x																					x				
	Truck Road & North Fork Road	x	x	p										x											x									x		c	c	
	Welcome		x																p	t,v					c	x								x		x	x	
	North Fork Brewery & Beer Shrine	x	x	x														p	p	t,v									c				c			x		
	Welcome Grocery Store	x	x																p	t,v																	x	
	Welcome Senior Activity Center	x	x																p	t,v					f								c			p		
	Deming Homestead Eagle Park	x	x	c	c	c	c			c								c	c	t,v						x								c	x		p		
	St. Peter's Church	x	x	x															p						f									c					
	Sumas Mountain (north)	x		x							x	c	c	x	c			c		x						f									x				x
	Goldmine Trail	x		x							c		c	x						x					f										x				x
	Paradise Valley Trail	x		x							c		c	x	c					x															x				x
	Ostrom Park	f	x	x							c			f						v						f									x				
	Lost Lake School Property & trail	f	x	x							c		c		c			p		p						f									x				

Mt. Baker Foothills Recreation Inventory Matrix

	Name of facility	hike	road bike	mountain bike or downhill course	canoe	kayak	river rafting	other boat	swim	fishing	hunting	skiing and xc skiing	hang-glide	horse ride	other snow or wind sport	roller/skate board	sport fields	camping	restrooms (showers, laundry)	trailhead, access	timeshare, rental houses	hotel or rental cabins	museum	historic interpretive	wildlife interpretive, viewing	casino	library	farm	music	theater	games	events	scenic/view	restaurant/commerce	grocery	schools	other
Area 5: **Tikwa** (Kendall/Columbia Valley)	Kendall	p	x	p		p			c	p		c			p	c		x	p	p	t,v	x										c	x		x	x	x	x
	Kendall Elementary school		x															x	p	p	t,v							p		c	c	x		x	x		p		x	
	Kendall Community Center (future)	f	x	f											f					p	t,v												f						
	Kendall Fish Hatchery (DFW)	x	x							x										x	t,v				x								c	x					
	Whatcom County Fire District Station	f	x	f																p	t,v												c						
	Church		x																	p				f															
	Paradise Lakes	p	x	p	p	p		c	c	c					p				p	p	t,v	p			f									p					x
	Peaceful Valley	p	x	p	p	p		c	c	c					p			c		p	t,v	c												p					x
	Campers' Paradise	p	p	p					p		p				p			p	p	p	p	p	c												p					x
	Bay to Baker Trail (proposed)	p		p											p						p			f									x	p					
	Baker's Edge Golf Course	p	x															p		p	p											p		p	p		p			x
	Red Mountain (west)	p		p							p		c	p					p																x				
	Limestone Junction historic mine			p																				f															x
	Balfour historic town																		p	p	p	x		f															
	Keese historic town site																							f															
	Holy Smoke A Tavern	x	x																	p	v			f					c		c		x		x				
	Church (Ukranian heritage) (future site)		x																	p	v			f			p		p				p				p		
Area 6: **Kway** (Maple Falls/Glacier)	Maple Falls community	x	x	f	p	p	p		p	p		f		f	f		c			x	t,v	x	c		f			x					x	x		x	x		x
	Frosty's Inn	f	x	f								f		f						p	t,v								c					c			x			
	Maple Falls Library	f	x	f								f		f						p	t,v							x						c					
	Maple Fuels & Laundromat	f	x	f								f		f						x,L	t,v															x	x		
	Visitor Center (Chamber of Commerce	f	x	f								f		f						p	t,v			x										x					x
	Mt. Baker Lodging	f	x	f								f		f						p	t,v	x	x																x
	Historic Maple Falls School Building	f	x	f								f		f			c			p	t,v			x										x					x
	Casa 542 Restaurant	f	x	f								f		f						p									c							x			
	Black Mountain (east)																																							
	Glenn at Maple Falls	f	x	f	p	p	p		p	p	p	f		f			c		p	p	p	x	x										c	p		c			x
	Bay to Baker Trail	f		f								f		f							f			f	f								x	f					
	The Inn at Mt. Baker	x		x							c	c	c	x						p	p		x		p									x	x		p			
	Glacier Springs Resort	f	x	f	p	p			c	p		f		f			c		p	p	p	p												c	p		p			
	Glacier (commercial)	f	x	f		c			c	x		f		f						x	t,v		x		f			x		c		c		x	x		x	x		x
	Graham's Store	f	x	f								f		f						p	t,v				x									c	x		x	x		
	Graham's Restaurant	f	x	f								f		f						p	t,v				x				c					x	x		x			
	Milano's Restaurant	f	x	f								f		f						p	t,v								c					c	x		x			
	Mt. Baker Espresso café	f	x	f								f	c	f					f	x	t,v														x		x			
	Mt. Baker Ski Shop	f	x	f								f		f						p	t,v													f			x			
	Mt. Baker Snowboard Shop	f	x	f								f		f						p	t,v													f			x			
	Glacier Park & Visitor Kiosk	f	x	f								f		f			f			x	t,v				f						f			f					x
	Slide Mountain	x		d																	x																		
	Maple Falls Community Church																																							
	Glacier Creek	x	x		x	x	c	x	x	x											t,v														x				
	Gallop Creek	x	x		c	c	c		c	x											t,v														x				
	Nooksack River North Fork	f	x	f	c	x	x														t,v														x				
	Glacier Creek Motel & Cabins	f	x	f	c	c	c		c	c				f						p	t,v		x											x		p			
	Snowline Resort	c	x	c										c			c			p	v	x			f									c	x		p			
	SnowWater Resort	c	x	c										c			c			p	v	x												c	x		p			
	Mt. Baker Rim Resort	c	x	c										c			c			p	v	x												c	x		p			
	Nooksack Falls	x	x	x						x		c				c				x	v				x										x					
	Electrical Utility right-of-way to USFS																																							
	USFS Visitor Center	x	x	c		c	c			c		c								x	v				x	x									x					

Mt. Baker Foothills Recreation Inventory Matrix

	Name of facility	hike	road bike	mountain bike or downhill course	canoe	kayak	river rafting	other boat	swim	fishing	hunting	skiing and xc skiing	hang-glide	horse ride	other snow or wind sport	roller/skate board	sport fields	camping	restrooms (showers, laundry)	trailhead, access	timeshare, rental houses	hotel or rental cabins	museum	historic interpretive	wildlife interpretive, viewing	casino	library	farm	music	theater	games	events	scenic/view	restaurant/commerce	grocery	schools	other
Area 7: **Lemola** (Silver Lake/Vedder Mountain)	Red Mountain (east)	x		x							x	c	c	x	c			c		v				x					x		x	x					x
	Gerdrum House Museum	x	x	x									c	x					p	v			x	x								x					
	Black Mountain	x	x	x							x	c	c	c				c		v														x				
	Black Mountain Forestry Center	x	x	x,d								c	c	x				c	p	v			x	x					x		x		x					
	Silver Lake Park	x	x	x	x	x		x	x	x		c	c	x			c	c	x	v		x		f									x	x		x		
	South Pass Road bicycle loop	x	x	f						c								x	x									x					x	x				
	Vedder Mountain	x	x	x							x	c	c	x	c			c		c				f										x				x
	Heady Road Trails	x	x	x								c		x						v				f									p	x				
	Saar Creek & Trestle Trail	p		p		c				x				p						p				f										x				
	Paradise Valley Road	x		x							x	c	c	x				c		x														x				
	Ostrom Park (future)	x	x	x						c	c			f					c	v					f									x				
	Sugarloaf Hill	p		p										p																				x				
Adjacent Areas																																						
	Pacific Northwest Trail																																					
	Mt. Baker Ski area	x										x			x					t,v											x		x	x		x		
	National Park Lands/trails (N. Cascades)	x	x		x	x			x	x		x						x		x													x				
	Artists' Point	x	x									x			x					x														x				
																																		x				
	City of Everson (commercial)	f	x	f	x	x		x	x	x		f		f	f		x			t,v		x					x	x	x			x	x		x		
	City of Nooksack (commercial)																			t,v																	
	City of Sumas (commercial)	f	x	f								f		f	f		x			t,v		x						x		x		x	x		x		
	Glen Echo Community Club																							f														
		x		x	x	x		x	x	x		x		x	x			x				x	x									x	x		x		
	USFS Camping/trails	x	x		x	x		x	x	x		x		x	x			x		t,v														x				
	Hopewell Grange	x		x										x										x										x				
	Bay to Baker Trail (Sumas to Bellingham)																			p																		
	Historic Community Building at Goodwin Road																			v																		
		x	x	x										x																				x				

legend:

- **x** facility exists open to the public
- **p** private facility, not open to public
- **f** potential for future development
- **x** existing facility with public access by foot, bike, or horseback
- **c** needs to be confirmed, may exist
- **d** downhill mountainbiking course
- **s** public shower facilities
- **L** public laundry facilities
- **n** no longer operating, closed facility
- **t** transit service, access
- **v** vehicle access & parking
- **h** hang-gliding or para-sailing

Transportation Options to Foothills Sites

	Name of facility	public bus	private bus	paved road	railroad	paved trail	gravel trail	dirt road	bike lane	horse trail	aviation	boat	other
Glenhaven/ Wickersham	Park Road/South Lk Whatcom			x			f						
	Glenhaven			x									
	Cain/Squires Lake/Lookout Mountain			x			x	x		x		?	
	Wickersham			x	x								
Nugents/ Deming	Deming (commercial)	x	x	x	x			x	x				
	Deming Logging Show grounds	x		x									
	Harmony Elementary school	x		x									
	Mt. Baker Jr./Sr. High school	x		x	x				x				
	Nooksack Tribal center		x	x	x							x	
	Nugents Corner (commercial)	x		x			x		x			x	
	Nugents Corner river access/boat launch	x		x	x		x						
	Timber ridge high school	x		x									
Van Zandt/ Acme	Acme Elementary school	x		x									
	Saxon Road			x									
	Skookum Creek Hatchery			x									
	Stewart Mountain trails							x					
	Nesset Farm							x		x			
	River Rafting/Kayak/Canoe							?				x	
	Van Zandt (commercial)			x	x							x	
Welcome	Deming Homestead Eagle Park	x		x									
	Canyon Lake Creek trail						x	x					
	Mosquito Lake Loop			x									
	Welcome (Carol's Girls)	x		x									
Everson / Sumas	Everson (commercial)	x		x			f			f		x	
	Sumas (commercial)	x		x			f	x		f			
	Vedder Mountain							x		?			
Kendall	Campers' Paradise	x		x			x						
	Kendall (commercial)	x		x			f	x		f			
	Kendall Community Center (future)	x		x			f						
	Kendall Elementary school		x	x									
	Kendall Fish Hatchery		x					x					
	Paradise Lakes residential	x		x									
	Peaceful Valley residential	x		x									
	South Pass Road loop			x									
Maple Falls/ Glacier	Artists' Point			x		x	x						
	Black Mountain Forestry Center			x			x			f			
	Glacier (commercial)		f	x			x			f			
	Maple Falls (commercial)		x	x			x			x			
	Mt. Baker Ski area		x	x			x						x*
	National Park Lands/trails (N. Cascades)						x	x					
	Nooksack Falls						x	x					
	River Rafting tours/sites							x				x	
	Silver Lake Park			x			x	x		x		x	
	USFS Camping/trails			x			x	x					
	USFS Visitor Center			x			x						
	Totals	17	7	36	6	1	15	14	3	6	0	7	1

trail or facility name	segment number	description of beginning point	number of begin point	description of end point	number of end point (if appl)	proposed segment name	length km	length mi	cumulative loop distance
Lake Whatcom Loop Trail	1.1	intersection of Y Rd and North Shore Rc	1.1A	So. Terminus of N. Shore Rd at park	1.1B	North Shore GreenRoute		2.25	
(Loop 1)	1.2	No. terminus of Hertz Trail	1.1B	So. Terminus of Hertz Trail	1.2C	Hertz Trail		2.25	4.5
	1.3	South terminus of Hertz Trail	1.2C	No. terminus of Blue Canyon Rd.	1.4D	Blue Canyon Coal Mine		0.5	5
	1.4	No. terminus of Blue Canyon Rd.	1.4D	Intersection Blue Canyon/Park Rds.		Blue Canyon GreenRoute		0.5	5.5
	1.5	E. terminus South Bay Dr & Blue Canyon		So. Lake Whatcom Park, lake access	1.5E	Kawchamuk		0.75	6.25
	1.6	So. Lake Whatcom Park lake access		So. Terminus Camp Two Road at Cain L	1.6F	Camp Two GreenRoute		2.2	8.45
	1.7	intersection of Camp 2 Rd & Cain Lake	1.6F	Intersection of Cain Lk Rd & South Bay F	1.6H	Neukwaha		1.7	10.15
	1.8	Cain Lake Road intersection Alder Drive	1.6F	Squires Lake Park	1.8H	Squires Lake East		0.5	10.65
	1.9	Squires Lake Park	1.8H	Intersection Squires Lake Rd & E. Lake S	1.8I	Squires Lake West		0.75	11.4
	1.10	Int. East Lake Samish & Squire Lk Rd	1.8I	E. Lake Samish Dr & North Galbraith Ln	1.10J	East Lake Samish		2.5	13.9
	1.11	N. Galbraith Ln at Lk. Samish Drive	1.10J	Euclid Park at Euclid Ave. west	1.9.3M	Lookout Mountain Pipeline		4.5	18.4
	1.12	Euclid Park at Euclid Ave. west	1.9.3M	Lakeside St-Lakeview St-Flynn St-Dakin S	1.12N	Lumber Mill Shore		0.75	19.15
	1.13	North Shore Drive at Bloedel-Donovan I	1.12N	Intersection No Shore Drive & Academy	1.13O	White City		0.75	19.9
	1.14	Intersection No Shore Drive & Academy	1.13O	Intersection No. Shore Dr. & Y Road sc	1A			2	**21.9**
	Alternate route 1.6.1 & 1.9.1								
	1.6.1	intersection South Bay Rd. & Camp 2 Rc	1.5E	Intersection Cain Lk Rd & South Bay Rd.	1.6H	Siamanna		1.5	
	1.9.1	intersection So. Bay Rd. & Lk Whatcom	1.9.1K	Intersection of Lake Louise Rd & Lk Whc	1.9.1J	Lake Louise South		2	
	1.9.1.1	Intersection Lake Louise Rd. & Lk Whatc	1.9.1.1J	Power Line Trail and Birch Street	1.9.2K	Lookout Mountain Powerline North		3	
	1.9.1.2	Birch Street at Power Line Trail	1.9.2K	Euclid Ave. at Euclid Park west	1.9.3M	Lookout Mountain Powerline South			
	Alternate route 1.9.2								
	1.9.2	Intersection Lake Louise Rd. & Lk Whatc	1.9.1J	Lakeway Drive at Euclid Park east	1.9.2L	Lake Whatcom Blvd west		2.5	
	1.9.3	Lakeway Drive at Euclid Park east	1.9.2L	Euclid Park at Euclid Ave. west	1.9.3M	Euclid Park		0.25	
	Alternate route 1.13.1								
	1.13.1	Intersection No Shore Drive & Academy	1.13O	East terminus Academy St. at trail	1.13.1P	Academy Street		1	
	1.13.2	East terminus Academy St. at trail	1.13.1P	Intersection No. Shore Dr. & Y Road sc	1.1A	Squalicum Mt south		1	
Squalicum Mountian Loop	2.1	intersection of Y Rd and North Shore Rc	1.1A	east terminus Academy St at trail	1.13.1P	South Squalicum Mountain		1	
(Loop 2)	2.2	east terminus Academy St at trail	1.13.1P	Mid Squalicum Mt trail intersection	2.2A	Cheechaco		1	
	2.3	Mid Squalicum Mt. Trail intersection	2.2A	east trail terminus at Squalicum Lake Rc	2.3B	Cheechaco East		1.25	
	2.4	east trail terminus at Squalicum Lake Rc	2.3B	Intersection Henderson Road & Y Roac	2.4C	Henderson Road		0.5	
	2.5	Intersection Henderson Road & Y Road	2.4C	Y Rd. Guard Shack (Crown Pacific)	2.5D	North Y Road			
	2.6	Y Rd. Guard Shack (Crown Pacific)	2.5D	Depdapi (logging road 4020) north terr	2.6E	Depdapi			
	2.7	Depdapi (logging road 4020)	2.6D	Anderson Headwaters	2.7F	Anderson Headwaters			
	2.8	Anderson Headwaters north	2.7F	Carpenter Headwaters	2.8G	Carpenter Headwaters			
	2.9	Olsen Creek North (4087)	2.8G	Olsen Creek Main (DNR) trail intersectio	2.9H	Olsen Creek North			
	2.10	Olsen Creek Main (DNR) trail intersectio	2.9H	Y Road Trailhead	2.10I	Olsen Creek Main			
	2.11	Y Road Trailhead	2.10I	intersection of Y Rd and North Shore Rc	1.1A	South Y Road			
North Stewart Mountain Loop	2.6	Y Rd. Guard Shack (Crown Pacific)	2.5D	intersection sultan mainline & 4020	2.6E	Depdapi			
(Loop 3)	3.1	intersection sultan mainline & 4020	2.6E	intersection sultan mainline & 4100	3.1A	Sultan East			
	3.2	intersection sultan mainline & 4100	3.1A	Sultan Mainline to log road 4013 termin	3.2B	Sultan Summit			
	3.3	Todd Headwaters (4013 to 4520 link)	3.2B	west terminus of log road 4520	3.4C	Todd Creek Headwaters			
	3.4	west terminums of log road 4520	3.4C	intersection of 4520 & Potter Road	3.4D	Todd Creek			
	3.5	intersection of 4520 & Potter Road (at I	3.4D	intersection of Potter Road & Caron Ro	3.5E	Potter Road			
	3.6	intersection of Potter Road & Caron Ro	3.5E	north terminus of Caron Road	3.6F	Caron Road			
	3.7	north terminus of Caron Road	3.6F	Linberry & Lower Linberry intersection e	3.7G	Eagle Flyway			
	3.8	Linberry & Lower Linberry intersection	3.7G	First gate off Eagle Flyway (4120 interse	3.8H	Eagle Flyway west			
	3.9	First gate off Eagle Flyway (4120 interse	3.8H	Intersection of Linberry and 4120 link	3.9I	Linberry link			
	3.10	Intersection of Linberry and 4120 link	3.9I	Intersection 4100 & Sultan Mainline	3.10J	Cedarville Overlook			
	3.1	intersection sultan mainline & 4100	3.1A	Y Rd. Guard Shack (Crown Pacific)	2.6	Depdapi to Sultan East			
	Alternate route 3.8.1								
	3.8.1	Linberry & Lower Linberry intersection e	3.7G	intersection Linberry and 4120 (west)	3.9I	Upper Linberry			
	Alternate route 3.8.2								
	3.8.2.1	First gate off Eagle Flyway (4120 interse	3.8H	east terminus Smith Road (at Eagle Flyw	3.8.2.1A	Eagle Flyway east			

Appendix 4 — Chain of Trails Concept Plan Trail Segment Matrix

trail or facility name	segment number	description of beginning point	number of begin point	description of end point	number of end point (if appl)	proposed segment name	length km	length mi	cumulative loop distance
	3.8.2.2	east terminus Smith Road (at Eagle Flyv	3.8.2.1A	Intersection of pipeline at Squalicum Lc	3.8.2.2B	Pipeline			
	3.8.2.3	Intersection of pipeline at Squalicum Lc	3.8.2.2B	Intersection of pipeline at Squalicum M	3.8.2.3C	Pipeline east			
	3.8.2.4	Intersection of pipeline at Squalicum M	3.8.2.3C	Mid Squalicum Mt. Trail intersection	2.2A	North Squalicum Mountain			
	2.3	Mid Squalicum Mt. Trail intersection	2.2A	east trail terminus at Squalicum Lake Rc	2.3B				
	2.4	east trail terminus at Squalicum Lake Rc	2.3B	Intersection Henderson Road & Y Road	2.4C				
	2.5	Intersection Henderson Road & Y Road	2.4C	Y Rd. Guard Shack (Crown Pacific)	2.5D				
South Stewart Mountain Loop									
(Loop 4)	2.10	Y Road TrailHead	2.10I	Olsen Creek Main (DNR) trail intersectic	2.9H	Olsen Creek North			
	4.1	Olsen Creek Main (DNR) trail intersectic	2.9H	Intersection Olsen Creek with Cub Cree	4.1A	Olsen Creek South			
	4.2	Intersection Olsen Creek with Cub Cree	4.1A	Intersection Hardscrabble Trail and Star	4.2B	Hard Scrabble Link			
	4.3	Standard Creek logging road	4.2B	Intersection Standard Creek road and '	4.3C	Standard Creek Trail			
	4.4	Intersection Standard Creek road and '	4.3C	Intersection Turkington Road & Valley H	4.4D	Turkington Road			
	4.5	Intersection Turkington Road & Valley H	4.4D	Intersection Valley Highway & Mosquitc	4.5E	Valley Mosquito Trail			
	4.6	Intersection Valley Highway & Mosquitc	4.5E	Intersection Mosquito Lake Road and H	4.6F	Mosquito Lake Road south			
	4.7	Intersection Mosquito Lake Road and H	4.6F	terminus of logging road at Hutchinson	4.7G	East Acme Trail			
	4.8	terminus of logging road at Hutchinson	4.7G	South Fork Land Trust property southeas	4.8H	South Fork Blue Mountain			
	4.9	South Fork Land Trust property southeas	4.8H	Logging Road intersection with terminu	4.9I	Blue Mountain Saxon			
	4.10	Logging Road intersection with east ter	4.9I	Intersection Doran Road & Valley Highv	4.10J	Saxon-Doran Road			
	4.11	Intersection Doran Road & Valley Highv	4.10J	Intersection Hardscrabble Trail and Star	4.2B	Cub Creek Trail			
	4.2	Intersection Hardscrabble Trail and Star	4.2B	Intersection Olsen Creek with Cub Cree	4.1A	Hard Scrabble Link			
	4.1	Intersection Olsen Creek with Cub Cree	4.1A	Olsen Creek Main (DNR) trail intersectic	2.9H				
	2.10	Olsen Creek Main (DNR) trail intersectic	2.9H	Y Road TrailHead	2.10I				
	Alternate Route 4.11.1								
	4.11.1	Intersection Doran Road & Valley Highv	4.10J	Intersection Ennis Creek Road and Dorc	4.11.1A	Ennis Creek Road			
	4.11.2	Intersection Ennis Creek Road and Dorc	4.11.1A	Intersection Valley Highway and Park R	4.11.2B	Valley Ennis Trail			
	4.11.3	Intersection Valley Highway and Park R	4.11.2B	Intersection Park Road and Blue Canyc	4.11.3C	Park Road			
	1.4	Intersection Blue Canyon/Park Rds.	4.11.3C	No. terminus of Blue Canyon Rd.	1.4D				
	1.3	No. terminus of Blue Canyon Rd.	1.4D	South terminus of Hertz Trail	1.2C				
	1.2	So. Terminus of Hertz Trail	1.2C	No. terminus of Hertz Trail	1.1B				
	1.1	So. Terminus of N. Shore Rd at park	1.1B	intersection of Y Rd and North Shore Rc	1.1A				
	2.11	intersection of Y Rd and North Shore Rc	1.1A	Y Road Trailhead	2.10I				
	Alternate Route 4.13.1								
	14.13.1	Intersection Olsen Creek with Cub Cree	4.1A	east intersection Carpenter Creek soutl	4.13.1L	Carpenter Creek Headwaters			
	4.13.2	intersection Carpenter Creek south loo	4.13.1 L	west intersection Carpenter Creek sout	4.13.2M				
	4.13.3	west intersection Carpenter Creek loop	4.13.2M	Olsen Creek Main (DNR) trail intersectic	2.9H				
	2.10	Olsen Creek Main (DNR) trail intersectic	2.9H	Y Road Trailhead	2.10 I				
Cedarville Uuluquance Trail	5.1	Nugents Crossing Park	5.1A	Intersection Mt. Baker Hwy & west end	5.2B	Lawrence Highway			
(Loop 5)	5.2	Intersection Mt. Baker Hwy & west end	5.2B	Intersection east end of Deming Road (	5.3C	Deming Road			
	5.3	Intersection east end of Deming Road (	5.3C	Intersection Rutsatz Road at Valley Higt	5.4D	Valley Rutzatz			
	5.4	Intersection Rutsatz Road at Valley Higt	5.4D	Intersection Potter Road at Valley Highv	5.5E	Valley Potter			
	5.5	Intersection Potter Road at Valley Highv	5.5E	Intersection Potter Road and Caron Ro	3.5E	Potter Road			
	3.6	Intersection Potter Road and Caron Ro	3.5E	north terminus of Caron Road	3.6F				
	3.8	north terminus of Caron Road	3.6F	Linberry & Lower Linberry intersection e	3.7G				
	3.7	Linberry & Lower Linberry intersection	3.7G	First gate off Eagle Flyway (4120 interse	3.8H				
	3.8.2.1	First gate off Eagle Flyway (4120 interse	3.8H	east terminus Smith Road (at Eagle Flyv	3.8.2.1A				
	5.10	east terminus Smith Road (at Eagle Flyv	3.8.2.1A	south terminus Cedarville Road (dead (	5.10A	Cedarville Link			
	5.11	south terminus Cedarville Road (dead (	5.10A	Intersection south Cedarville at Mt. Bak	5.11B	South Cedarville			
	5.12	Intersection south Cedarville at Mt. Bak	5.11B	Nugents Crossing Park on Mt. Baker Hig	5.1A	Cedarville Highway bridge			
	Alternative Route 5.10.1								
	5.10.1	east terminus Smith Road (at Eagle Flyv	3.8.2.1A	Intersection Smith Road at Mt. Baker Hig	5.10.1A	East Smith Road			
	5.10.2	Intersection Smith Road at Mt. Baker Hig	5.10.1A	Intersection south Cedarville at Mt. Bak	5.11B	Cedarville Highway west			

Appendix 4

Chain of Trails Concept Plan Trail Segment Matrix

trail or facility name	segment number	description of beginning point	number of begin point	description of end point	number of end point (if appl)	proposed segment name length km	length mi	cumulative loop distance
South Fork Loop	5.5	Intersection Potter Road at Valley High	5.5E	Intersection Potter Road and Caron Ro	3.5E	Potter Road		
(Loop 6)	6.1	Intersection Potter Road and Caron Ro	3.5E	Intersection Potter Road and Hillside Ro	6.1A	Potter Hillside		
	6.2	Intersection Potter Road and Hillside Rc	6.1A	South terminus Hillside Road	6.2B	Hillside Road		
	6.3	South terminus Hillside Road	6.2B	North terminus Turkington log road	6.3C	Hillside Turkington link		
	6.4	North terminus Turkington log road	6.3C	Intersection log road and north terminu	4.3C	Turkington extension		
	4.4	Intersection Standard Creek road and '	4.3C	Intersection Turkington Road & Valley H	4.4D			
	4.5	Intersection Turkington Road & Valley H	4.4D	Intersection Mosquito Lake Road & Vall	4.5E	Valley Mosquito		
	4.6	Intersection Valley Highway & Mosquitc	4.5E	Intersection Mosquito Lake Road and H	4.6F			
	6.5	Intersection Mosquito Lake Road and H	4.6F	Intersection Wildrose Lane at Mosquito	6.5D	Mosquito Lake Road south		
	6.6	Intersection Wildrose Lane at Mosquito	6.5G	northeast corner Wildrose Lane	6.6E	Wildrose Lane		
	6.7	northeast corner Wildrose Lane	6.6E	south terminus Homesteader Road	6.7.F	Wild Homesteader link		
	6.8	south terminus Homesteader Road	6.7.F	northeast corner Homesteader road	6.8G	Homesteader Road		
	6.9	northeast corner Homesteader road	6.8G	south terminus Clipper Road	6.9H	Home Clipper link		
	6.10	south terminus Clipper Road	6.9H	northeast corner Clipper Road	6.10 I	Clipper Road		
	6.11	northeast corner Clipper Road	6.10 I	southwest corner Nelson Road	6.11 J	Clipper Nelson link		
	6.12	southwest corner Nelson Road	6.11 J	Intersection Nelson Road and Potter Rc	6.12 K	Nelson Road		
	6.13	Intersection Nelson Road and Potter Rc	6.12 K	Intersection Potter Road at Valley High	5.5E	East Potter Road		
	Alternate Route 6.5.1							
Van Zandt Dike Summit	6.5.1	Intersection Wildrose Lane at Mosquito	6.5.1D	east terminus Rutsatz Road at DNR logg	6.5.3E	Van Zandt Dike Summit		
	6.5.2	possible gap in DNR road at summit	6.5.2 D?	possible gap in DNR road at summit	6.5.2 E?			
	6.5.4	east terminus Rutsatz Road	6.5.3E	Intersection Rutsatz road at Valley High	5.4D	Rutsatz Road		
	5.4	Intersection Rutsatz road at Valley High	5.4D	Intersection Potter Road at Valley High	5.5E	Valley Potter		
Mosquito Lake Loop	4.6	Intersection Valley Highway & Mosquitc	4.5E	Intersection Mosquito Lake Road and H	4.6F			
(Loop 7)	6.5	Intersection Mosquito Lake Road and H	4.6F	Intersection Wildrose Lane at Mosquito	6.5D			
	7.1	Intersection Wildrose Lane at Mosquito	6.5D	Intersection Mosquito Lake Road and H	7.1A	Mosquito Lake Road south		
	7.2	Intersection Mosquito Lake Road and H	7.1A	Intersection Heisler's Creek Road & Port	7.2B	Heisler's west		
	7.3	Intersection Heisler's Creek Road & Port	7.2B	east terminus Porter Creek log road	7.3C	Porter Creek Road		
	7.4	east terminus Porter Creek log road	7.3C	southeast terminus Canyon Creek Trail	7.4D	Porter Canyon link		
	7.5	southeast terminus Canyon Creek Trail	7.4D	Canyon Creek Preserve Trailhead	7.5E	Canyon Creek Trail		
	7.6	Canyon Creek Preserve Trailhead	7.5E	Intersection Canyon Creek Road @ Mo	7.6F	Canyon Creek Road		
	7.7	Intersection Canyon Creek Road @ Mo	7.6F	east terminus Rutsatz Road	6.5.3E	Mosquito Rutsatz bridge		
	6.5.4	east terminus Rutsatz Road	6.5.3E	Intersection Rutsatz Road at Valley High	5.4D			
	5.4	Intersection Rutsatz Road at Valley High	5.4D	Intersection Potter Road at Valley High	5.5E			
	5.5	Intersection Potter Road at Valley High	5.5E	Intersection Potter Road and Caron Ro	3.5E	Potter Road		
	6.1	Intersection Potter Road and Caron Ro	3.5E	Intersection Potter Road and Hillside Ro	6.1A	Potter Hillside		
	6.2	Intersection Potter Road and Hillside Rc	6.1A	South terminus Hillside Road	6.2B	Hillside Road		
	6.3	South terminus Hillside Road	6.2B	North terminus Turkington log road	6.3C	Hillside Turkington link		
	6.4	North terminus Turkington log road	6.3C	Intersection log road and north terminu	4.3C	Turkington extension		
	4.4	Intersection Standard Creek road and '	4.3C	Intersection Turkington Road & Valley H	4.4D			
	4.5	Intersection Turkington Road & Valley H	4.4D	Intersection Mosquito Lake Road & Vall	4.5E	Valley Mosquito		
	Alternate Route 7.1.1							
	7.1.1	Intersection Mosquito Lake Road and H	7.1A	Intersection Canyon Creek Road @ Mo	7.6F	Mosquito Lake Road North		
Sumas Mountain	8.1	Deming Homestead Eagle Park	8.1A	Truck Road at exit from Eagle Park	8.2B	Eagle Park		
(Loop 8)	8.2	Truck Road at east exit from Eagle Park	8.2B	Intersection Mosquito Lake Road & Truc	8.3C	Eagle Truck		
	8.3	Intersection Mosquito Lake Road & Truc	8.3C	Intersection Mosquito Lake Road & Truc	8.3C	river view access loop off Mosquito Lake Road		
	8.4	Intersection Mosquito Lake Road & Truc	8.3C	north terminus North Fork Road at Race	8.4D	North Fork Road		
	8.5	north terminus North Fork Road at Race	8.4D	intersection DNR access road at Mt. Ba	8.5E	Racehorse Bridge		
	8.6	intersection DNR access road at Mt. Ba	8.5E	Intersection Coal Creek DNR road and	8.6F	Coal Creek		
	8.7	Intersection Coal Creek DNR road and	8.6F	Intersection Paradise Valley Road and	8.7G	Sumas Summit		
	8.8	Intersection Paradise Valley Road and	8.7G	Upper Gold Mine Trail (DNR) east termir	8.8H	Upper Gold Mine		
	8.9	Upper Gold Mine Trail (DNR) east termir	8.8H	west terminus Gold Mine Trail (along Cc	8.9 I	Collins Headwaters		
	8.10	west terminus Gold Mine Trail (along Cc	8.9 I	South terminus Sealund Road	8.10 J	Gold Mine north		

Chain of Trails Concept Plan **Appendix 4**
Trails Segments and Resources Matrix

Appendix 4

Chain of Trails Concept Plan Trail Segment Matrix

trail or facility name	segment number	description of beginning point	number of begin point	description of end point	number of end point (if appl)	proposed segment name	length km	length mi	cumulative loop distance
	8.11	South terminus Sealund Road	8.10 J	Intersection Gold Mine Trail North & Sou	8.11 K	Gold Pass			
	8.12	Intersection Gold Mine Trail North & Sou	8.11 K	intersection of Swift Creek logging Roa	8.12 L	Swift Creek			
	8.13	intersection of Swift Creek logging Roa	8.12 L	Intersection of Hopewell Road at Siper	8.13 M	Goodwin Road			
	8.14	Intersection of Hopewell Road at Siper	8.13 M	Intersection of Siper Road at Lawrence	8.14 N	Siper Road			
	8.15	Intersection of Siper Road at Lawrence	8.14 N	Intersection of Lawrence Rd at Mt. Bak	5.1A	Lawrence Road			
	5.1	Intersection of Lawrence Rd at Mt. Bak	5.1A	Intersection Mt. Baker Hwy & west end	5.2B	Lawrence Highway			
	5.2	Intersection Mt. Baker Hwy & west end	5.2B	Intersection east end of Deming Road	5.3C	Deming Road			
	8.16	Intersection east end of Deming Road	5.3C	Intersection Marshall Hill Road and Privc	8.7.3 C	West Marshall Hill			
	8.17	Intersection Marshall Hill Road and Privc	8.16 O	Deming Homestead Eagle Park	8.1A	East Marshall Hill - Truck			
	Alternate Route 8.7.1								
	8.7.1	Intersection Paradise Valley Road and	8.7G	Intersection Paradise Valley Log road &	8.7.1A	Sumas Summit south			
	8.7.2	Intersection Paradise Valley Log road &	8.7.1A	DNR logging road terminus at gated pr	8.7.2B	Sumas Summit DNR			
	8.7.3	DNR logging road terminus at gated pr	8.7.2B	Private Road terminus at Marshall Hill Rc	8.7.3 C	Sumas private south			
	8.17	Private Road terminus at Marshall Hill Rc	8.7.3 C	Deming Homestead Eagle Park	8.1A				
	Alternate Route 8.6.1								
	8.6.1	Intersection Coal Creek DNR road and	8.6F	Intersection DNR east Sumas Mt. Road	8.6.1A				
	8.6.2	Intersection DNR east Sumas Mt. Road	8.6.1A	North gate on Paradise Valley Road at	8.6.2B				
	8.6.3	North gate on Paradise Valley Road at	8.6.2B	Intersection Paradise Valley Road at Sc	8.6.3C				
	8.6.4	Intersection Paradise Valley Road at So	8.6.3C	Ostrom Park trailhead	8.6.4D				
	8.6.5	Ostrom Park trailhead	8.6.4D	Intersection South Pass Road at Sealun	8.6.5E				
	8.6.6	Intersection South Pass Road at Sealun	8.6.5E	intersection of Swift Creek logging Roa	8.12 L				
Columbia Valley Loop (Loop 9)	9.1	Kendall Elementary School	9.1A	Sumas Mountain DNR logging road gat	9.2A	Private Kendall			
	9.2	Sumas Mountain DNR logging road at e	9.2A	Intersection of east Sumas DNR logging	8.6.1A				
	8.6.2	Intersection of east Sumas DNR logging	8.6.1A	Intersection north Sumas Mt. Balfour log	9.4B				
	9.5	Intersection north Sumas Mt. Balfour log	9.4B	Terminus Balfour logging road at Camp	9.5C				
	9.6	Terminus Balfour logging road at Camp	9.5C	West terminus Campers' Paradise priva	9.6D				
	9.7	West terminus Campers' Paradise priva	9.6D	Intersection Campers' Paradise private	9.7E				
	9.8	Intersection Campers' Paradise private	9.7E	Intersection Shamrock Road at Kendall	9.8F				
	9.9	Intersection Shamrock Road at Kendall	9.8F	Intersection Kendall Sumas Road at Lim	9.9G				
	9.10	Intersection Kendall Sumas Road at Lim	9.9F	Holy Smoke A Tavern	9.10H				
	9.11	Holy Smoke A Tavern	9.10 G	Intersection South Pass Road at Kendal	9.11 I				
	9.12	Intersection South Pass Road at Kendal	9.11 I	Intersection South Pass Road at Frost Rc	9.12 J				
	9.13	Intersection South Pass Road at Frost Rc	9.12 J	Frost Road Saar Creek Bridge	9.13 K				
	9.14	Frost Road Saar Creek Bridge	9.13 K	Intersection Frost Road at Reese Hill Roc	9.14 L				
	9.15	Intersection Frost Road at Reese Hill Roc	9.14 L	Intersection Reese Hill Road at Heady R	9.15 M				
	9.16	Intersection Reese Hill Road at Heady R	9.15 M	Intersection Heady Road at South Pass	9.16 N				
	9.17	Intersection Heady Road at South Pass	9.16 N	south terminus Heady Road	9.17 o				
	9.18	south terminus Heady Road	9.17M	North terminus Limestone spur DNR log	9.18 P				
	9.19	North terminus Limestone spur DNR log	9.18 P	Intersection Limestone Road at DNR spu	9.19 Q				
	9.20	Intersection Limestone Road at DNR spu	9.19 Q	(Limestone Road east terminus loop)	9.20 R				
	9.21	(Limestone Road east terminus loop)	9.20 R	Intersection Limestone Road at Tilbury F	9.21 S				
	9.22	Intersection Limestone Road at Tilbury F	9.21S	Greenbelt path east Paradise Lakes at	9.22 T				
	9.23	Greenbelt path east Paradise Lakes at	9.22 T	Roadways & greenbelt trails in Peacefu	9.23 U				
	9.24	Roadways & greenbelt trails in Peacefu	9.23 U	Intersection Overland Trail at Kendall Rc	9.24 V				
	9.25	Intersection Overland Trail at Kendall Rc	9.24 V	Intersection PSE/old RR right-of-way at I	9.25W				
	9.26	Intersection PSE/old RR right-of-way at I	9.25W	Kendall Elementary School	9.1A				
	Alternate Link 9.15								
	9.15.1	Intersection Reese Hill Road at Heady R	9.15 M	east terminus Jones Road	9.15.1 A				
	9.15.2	east terminus Jones Road	9.15.1 A	west terminus Jones Road at Sumas sec	9.15.2 B	Lambert House Inn			
Maple Creek Loop (Loop 10)	10.1	Maple Falls Visitor Center	10.1A	Silver Lake Park entrance	10.2B				
	10.2	Silver Lake Park entrance	10.2B	Silver Lake Park internal trail loop to lak	10.2B				
	10.3	Silver Lake Park entrance	10.2B	Silver Lake north boat launch	10.3C				

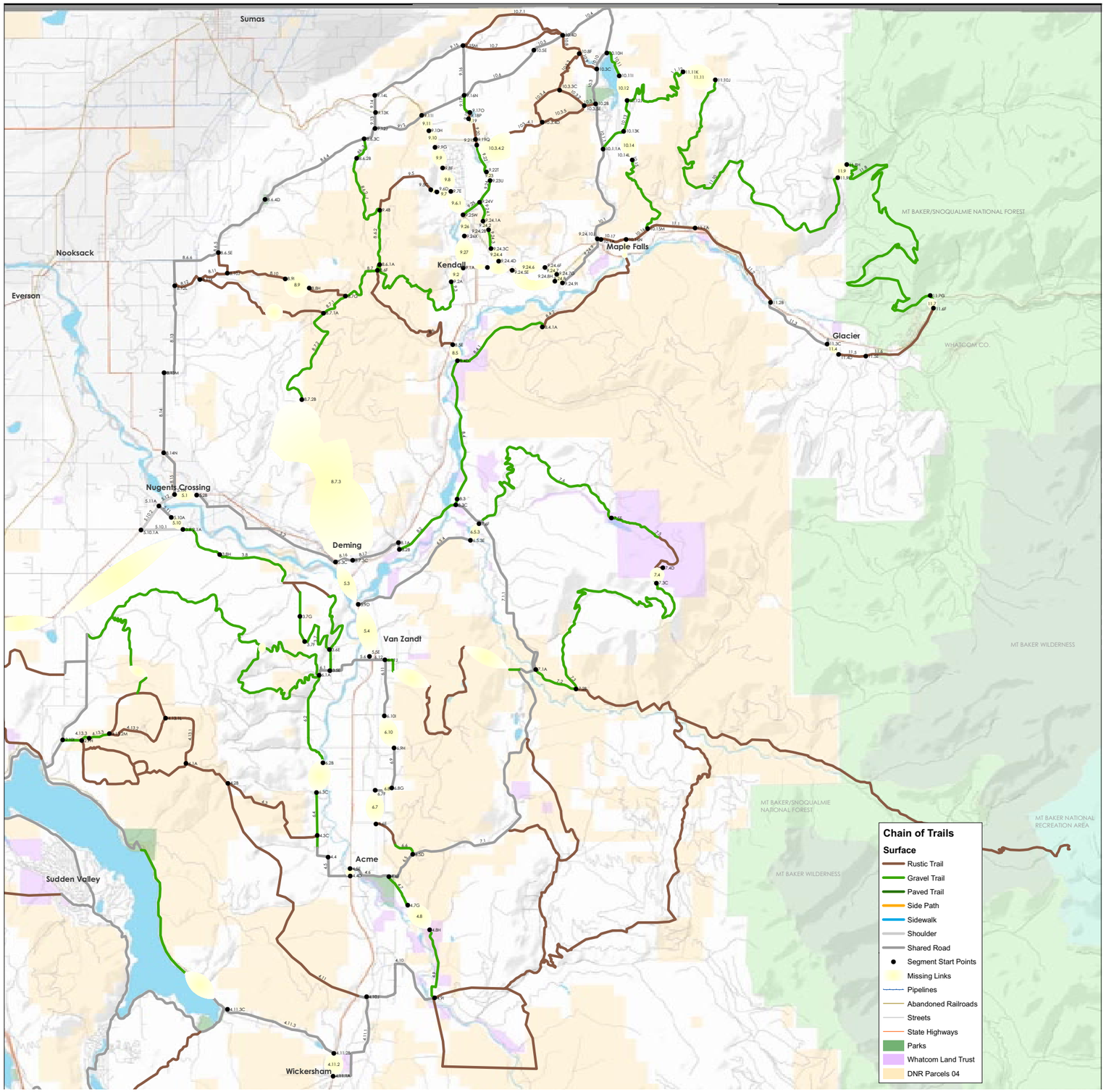
Appendix 4 Chain of Trails Concept Plan Trail Segment Matrix

trail or facility name	segment number	description of beginning point	number of begin point	description of end point	number of end point (if appl)	proposed segment name	length km	length mi	cumulative loop distance
	10.4	Silver Lake north boat launch	10.3C	Intersection South Pass Road at Vedde	10.4D				
	10.5	Intersection South Pass Road at Vedde	10.4D	Intersection South Pass Road at south V	10.5E				
	10.6	Intersection South Pass Road at south V	10.5E	Intersection Heady Road at South Pass	9.16 N				
	9.16	Intersection Heady Road at South Pass	9.16 N	Intersection Reese Hill Road at Heady R	9.15 M				
	10.7	Intersection Reese Hill Road at Heady R	9.15 M	Heady Road/Vedder Mt. Log road inte	10.4D				
	10.8	Heady Road/Vedder Mt. Log road inte	10.4D	Baptist Camp access road intersection	10.8F				
	10.9	Baptist Camp access road intersection	10.8F	Silver Lake north boat launch	10.3C				
	10.10	Silver Lake north boat launch	10.3C	North Silver Lake Trail corner	10.10 H				
	10.11	North Silver Lake Trail terminus	10.10 H	East Silver Lake Trail terminus	10.11 I				
	10.12	East Silver Lake Trail terminus	10.11 I	South Silver Lake log road	10.12 J				
	10.13	South Silver Lake log road	10.12 J	Crown Pacific road/gate 5301	10.13 K				
	10.14	Crown Pacific road/gate 5301	10.13 K	South Maple Creek log road north term	10.14 L				
	10.15	South Maple Creek log road north term	10.14 L	Intersection Maple Creek log road at B	10.15 M				
	10.16	Intersection Maple Creek log road at B	10.15 M	intersection Chinn Logging Camp form	10.16 N				
	10.17	intersection Chinn Logging Camp form	10.16 N	Maple Falls Visitor Center	10.1 A				
Maple Falls - Glacier Loop (Loop 11)	10.17	Maple Falls Visitor Center	10.1 A	Chinn Logging Camp former railroad in	10.16 N				
	10.16	Chinn Logging Camp former railroad in	10.16 N	Intersection Maple Creek log road at B	10.15 M				
	11.1	Intersection Maple Creek log road at B	10.15 M	Intersection Bay to Baker Trail at Boulde	11.1A				
	11.2	Intersection Bay to Baker Trail at Boulde	11.1A	Intersection Bay to Baker Trail at Cornel	11.2B				
	11.3	Intersection Bay to Baker Trail at west te	11.2B	Intersection Cornell Creek Road at Cor	11.3 C				
	11.4	west bank of Cornell Creek at Bay to Bc	11.3C	east bank of Cornell Creek at Bay to Bc	11.4 D				
	11.5	east bank of Cornell Creek at Bay to Bc	11.4 D	east terminus of Bay to Baker Trail at Gl	11.5 E				
	11.6	east terminus of Bay to Baker Trail at Gl	11.5 E	Douglas Fir Campground	11.6 F				
	11.7	Douglas Fir Campground	11.6 F		11.7 G				
	11.8		11.7G	Canyon Creek Road at Kidney Creek	11.8 H				
	11.9	Canyon Creek Road at Kidney Creek	11.8 H	Bald Mountain DNR log road west benc	11.9 I				
	11.10	Bald Mountain DNR log road west benc	11.9 I	north DNR log road terminus at Black M	11.10 J				
	11.11	north DNR log road terminus at Black M	11.10 J	Limerick Pass at Black Mountain west si	11.11 K				
	11.12	Limerick Pass at Black Mountain west si	11.11 K	South Silver Lake log road	10.12 J				
	10.13	South Silver Lake log road	10.12 J	Crown Pacific road/gate 5301	10.13 K				
	10.14	Crown Pacific road/gate 5301	10.13 K	South Maple Creek log road north term	10.14 L				
	10.15	Crown Pacific road/gate 5301	10.13 K	Intersection Maple Creek log road at B	10.15 M				
	10.16	Intersection Maple Creek log road at B	10.15 M	intersection Chinn Logging Camp form	10.16 N				
	10.17	intersection Chinn Logging Camp form	10.16 N	Maple Falls Visitor Center	10.1 A				
Alternate Route 11.5.1									
	11.5.1	east terminus of Bay to Baker Trail at Gl	11.5 E	Intersection Mt. Baker Highway at Corn	11.5.1A	Warnick highway walk			
	11.5.2	Intersection Mt. Baker Highway at Corn	11.5.1A	Intersection Mt. Baker Highway at Glac	11.5.2B	Glacier Springs highway walk			
	11.5.3	Intersection Mt. Baker Highway at Glac	11.5.2B	Maple Falls Visitor Center	10.1A	Maple Falls highway walk			

key to trailheads:

1.1A	North Shore Road intersection with Y Roac
1.1B	North Shore Road south terminus at Hertz Trailheac
1.2C	Hertz trail southern terminus
1.4D	Blue Canyon Road north terminus
1.5E	South Lake Whatcom Park
1.6F	Cain Lake Road at Camp Two Road intersection
1.6G	Cain Lake Fishing Access (Alder Drive)

potentially private road, trail, or property
light green highlight = existing informal trail, may need work
yellow highlight = missing link
grey highlight = on road (paved, vehicle traffic, no shoulder)
orange = no GreenRoute facility, on-highway link exists


Sumas
Nooksack
Everson
Kendall
Maple Falls
Glacier
Nugents Crossing
Deming
Van Zandt
Acme
Sudden Valley
Wickersham
MT BAKER/SNOQUALMIE NATIONAL FOREST
MT BAKER WILDERNESS
MT BAKER NATIONAL RECREATION AREA
WHATCOM CO.
Chain of Trails
Surface
Rustic Trail
Gravel Trail
Paved Trail
Side Path
Sidewalk
Shoulder
Shared Road
Segment Start Points
Missing Links
Pipelines
Abandoned Railroads
Streets
State Highways
Parks
Whatcom Land Trust
DNR Parcels 04