

# Washington State

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# Eastern Skagit Rail Project Feasibility Study





# **Eastern Skagit Rail Project Feasibility Study**

Prepared for the

**Washington State  
Department of Transportation**

By

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**November 2006**

**Prepared by the Office of Freight Strategy and Policy  
Washington State Department of Transportation**

November 2006

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# Executive Summary

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The Washington State Legislature appropriated \$50,000 for the Eastern Skagit Rail Study for the 2005-2007 biennium. The 2005 Washington State Legislature has asked the Washington State Department of Transportation (WSDOT) to perform a feasibility study that examines what it would take to restore rail service along the former rail line.

## What is the Eastern Skagit Rail Project Feasibility Study?

The Eastern Skagit Rail Project was dictated by the Washington State Legislature as part of the bill which funded the project. The bill language for the study, as written by the Washington State Legislature reads:

“\$50,000 of the multimodal transportation account is provided solely for a study of eastern Skagit County freight rail. The study shall examine the feasibility of restoring portions of the freight rail line to the towns of Lyman, Hamilton, and Concrete. The study must also identify existing and potential industrial sites available for development and redevelopment, and the freight rail service needs of the identified industrial sites.”<sup>1</sup>

Local stakeholders believe that the re-establishment of freight rail through their communities could spark economic development by attracting new industrial users to the region.

In addition to the legislature’s directive, local stakeholders suggested that the study examine how the existing, interim trail and an active freight rail line could co-exist. Some stakeholders feel that a dual-use corridor would meet the needs of the diverse Skagit community.



**Meeting in May 2006 with local stakeholders**

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<sup>1</sup>*Engrossed Substitute Senate Bill (ESSB) 6091.PL, page 37.*

## What is the current status of the former rail line?

For almost one hundred years freight rail service was available in the Skagit County communities located along Highway 20, from Sedro-Woolley to Concrete. However, starting in 1988 and ending in 1993, this rail line was abandoned by the Burlington Northern Railroad (BN).<sup>2</sup> Railroad tracks, ties, and ballast were removed in 1996, and the railroad right of way is now the popular 22.5-mile Cascade Trail.

### Where is the project located?

The Eastern Skagit Rail Project is located in Skagit County, paralleling State Route (SR) 20 and the Skagit River. **Exhibit ES.1** on

the following page presents the general location of the project. The study corridor consists of the Cascades Trail which extends from Sedro-Woolley east to Concrete, passing through the communities of Lyman and Hamilton. The Cascade Trail is the former rail line which was abandoned about twenty years ago.



**The Cascade Trail serves bicyclists, pedestrians, and horseback riders.**

### What type of rail service existed along this former rail line?

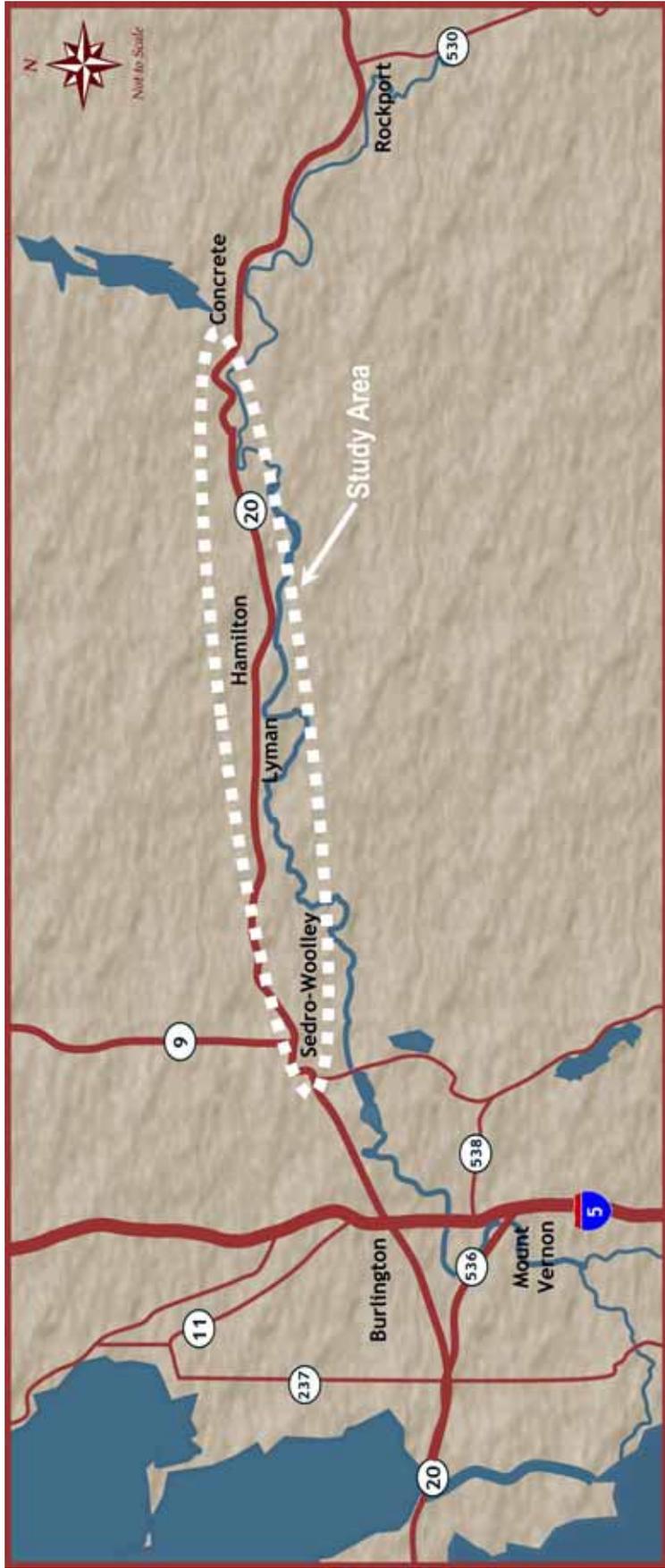
The former rail line carried passengers and freight from Rockport west to Burlington and Mount Vernon. It began when the Great Northern Railroad arrived in Skagit County in the late 1880s. In 1890, the Seattle & Northern Railroad (S&N) was constructed, connecting Sedro-Woolley and communities to the east, with the Great Northern main line.

Freight operations, though quite frequent in the early years, eventually diminished by the 1970s. With the decrease in mining and lumber mills along the corridor, demand for freight rail service diminished. The closing of these industries led to the termination, and eventual abandonment, of the rail line between Sedro-Woolley and Concrete. By 1976 freight rail trips to

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<sup>2</sup>After numerous mergers in the 1990s, the Burlington Northern Railroad is now known as the BNSF Railway Company.

**Exhibit ES.1  
General Vicinity of the Eastern Skagit Rail Project**



**Scenes of the Study Area**

Concrete were only occasional, but freight rail still served Hamilton daily (except weekends). By the mid-1980s, freight rail service was down to occasional trips to Hamilton, and by 1987 all service along the corridor was discontinued. In 1993, Skagit County, working with the Burlington Northern Railroad and the Rails to Trails Conservancy, assumed financial responsibility to preserve the rail line and convert it to an interim trail, via the *Rails-to-Trails Program*.

### **What is the Rails-to-Trails Program?**

The *Rails-to-Trails Program*, established in 1983 (*National Trails System Act*, 16 USC 1247 (d)) is a voluntary agreement between a railroad company and a trail agency to use an out-of-service rail corridor as a trail until some railroad might need the corridor again for rail service. Placing the abandoned rail corridor into service as a trail is referred to as “rail banked or rail banking.” Utilizing this program allows a community to save the rail corridor for future freight use.

Since the program’s inception, almost 1,500 former rail lines (including small segments and spurs) have been converted to interim trail use.<sup>3</sup> As of 2004, seven of these interim trails have been reconverted to active rail service.<sup>4</sup> This Eastern Skagit Rail Project study focuses on the feasibility of converting the former BN rail line back to active rail service.

### **How much would it cost to restore rail service between Sedro-Woolley and Concrete using the former rail line?**

The total estimated cost to restore rail service along the former rail line between Sedro-Woolley and Concrete without an adjacent trail is \$60.2 million in 2006 dollars. It would cost approximately \$86.8 million (in 2006 dollars) if the rail line was paralleled by a pedestrian/bicycle/equestrian trail.

The cost estimates are conceptual only and will change once detailed engineering and environmental analyses are performed. In addition, these estimates could also be affected by time. There can be significant unpredictable factors in addition to the normally predictable effect of inflation. In recent years, the costs of building materials, notably steel, concrete, and fuel have been volatile.

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<sup>3</sup>*Rails to Trails Conservancy, Frequently Asked Questions, www.railstrails.org, 2006.*

<sup>4</sup>*Rails to Trails Conservancy, Reactivated Railbanked Corridors, 2004.*

## What parcels of land along the route are most suitable for development by rail-dependent businesses?

Five sites were identified for potential use as rail-dependent industrial facilities. **Exhibit ES.2** provides these conceptual cost estimates. **Exhibit ES.3** on the following page shows the general location of these sites. General costs were developed which estimate the approximate level of investment required to provide rail access to each of these parcels. **Exhibits ES.4 through ES.8**, located at the end of this chapter, provide information on each of these sites.

## What other issues must be addressed before rail service could be restored between Sedro-Woolley and Concrete?

A number of issues need to be resolved prior to moving forward with implementation of the Eastern Skagit Rail Project. These issues are:

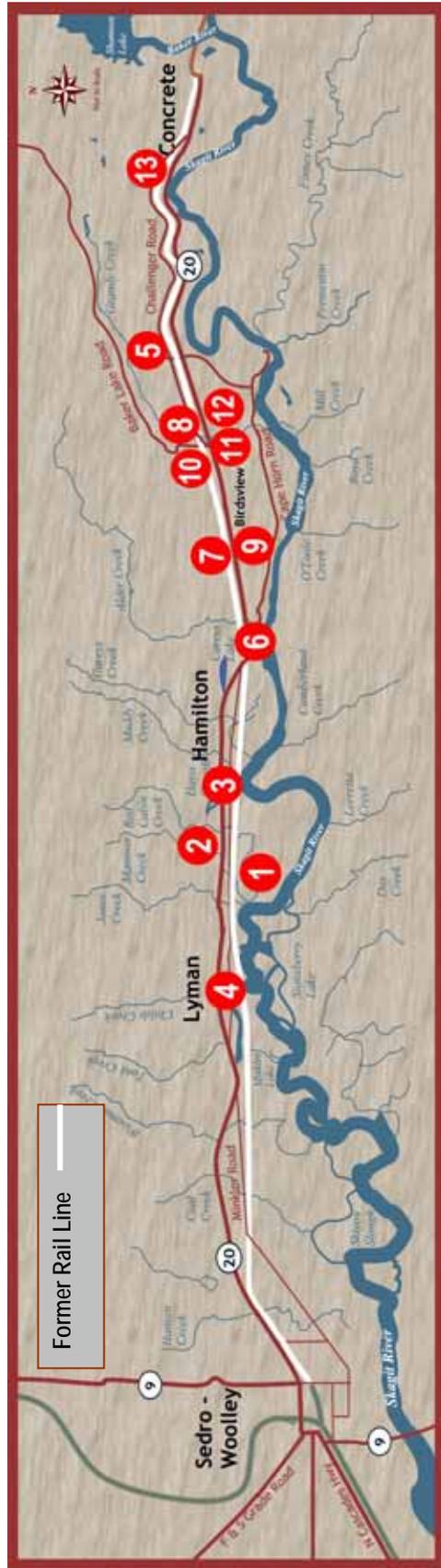
- Ensure that demand for rail service is present before advancing this project beyond the conceptual state.
- Work with Skagit County and the Army Corps of Engineers to ensure that the new rail line could safely operate within the floodway of the Skagit River. Flood prevention and mitigation measures may be necessary in order to implement this project.

**Exhibit ES.2**  
**Estimated Conceptual Cost Estimates for Rail Access to Identified Sites**

Parcel	Acres	Estimated Conceptual Cost for Rail Spur	Description
3	34.27	\$1.1 million	Has minor access issues. Best access via the southeast corner
7a	18.36	\$1.1 million	Adjacent to the former rail line
8	21.93	\$0.280 million	Good access to SR 20 at the southeast corner
10*	4.74	\$0.750 million	Good size site, however, industry would need to be somewhat narrow. If property adjacent parcel can be acquired, would create long, narrow site that could work well
13	16.23	\$0.650 million	Good for small industry, long enough for five railcar spot without substantial grading

*\*if additional parcel is purchased to make parcels contiguous*

Exhibit ES.3  
 Parcels Identified for Potential Rail-Dependent Use



- Work with the Skagit Land Trust and other relevant organizations/agencies to ensure that protected lands and habitats would not be impacted by the proposed project.
- Coordinate with the BNSF Railway Company to identify potential operating plans, service costs, and to obtain an *Industrial Track Agreement*.<sup>5</sup>
- Identify rail (and trail) ownership and negotiate operating agreements with a short line railroad.
- Research the legal issues regarding reversionary rights<sup>6</sup> along the former rail corridor and obtain copies of the original land easements.

### **What steps would need to be taken to restore rail service between Sedro-Woolley and Concrete?**

If it is determined that the Eastern Skagit Rail Project should move forward, the first step towards implementation would be to obtain funding for engineering and environmental analyses. Once funding for these tasks is obtained, the following steps should be followed:

1. Coordinate with the Surface Transportation Board (STB) to obtain their approval. Application to the STB would require that certain issues are resolved including who would own the rail line and who would operate the rail line.
2. Prepare necessary environmental documentation. Both state and federal environmental documents would be required. Given the environmental considerations along the corridor, it is assumed that extensive coordination with resource agencies would be required. A *Biological Assessment* would also need to be developed.
3. Develop a business plan (which would include operating plans and service costs) and an *Industrial Track Agreement* with the BNSF.
4. Negotiate rail line ownership and an operating agreement.
5. Perform final engineering.
6. Obtain necessary permits (federal, state, and local), which would include a *Shoreline Permit* and other water- and wetland-related approvals.
7. Secure funding for construction and right of way purchase (if necessary).

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<sup>5</sup>An *Industrial Track Agreement* is a contract between the BNSF and the short line owner/operator in which both parties agree to the cost and design of the tie-in with the main line. In addition, the agreement identifies the amount of money which the short line would give the BNSF to build the tie-in. The short line would be responsible for designing the tie-in but the BNSF would be responsible for building the line connection.

<sup>6</sup> Return of land ownership along the rail line to the original land owners.

It is estimated that steps one through four would take approximately three to four years. Once environmental documentation and STB processes are completed, right of way can be purchased and construction can begin.

### **Have local stakeholders commented on this report?**

Yes, from August through October 2006, local stakeholders and agency staff had the opportunity to review the draft document. The document was distributed to local agency staff, business representatives, and community members for review and comment. **Appendix J** contains copies of the comment letters received.

### **How will the community be kept up-to-date on the progress of the Eastern Skagit Rail Project?**

WSDOT will provide regular updates on the status of the Eastern Skagit Rail Project on the department's Web site at:

[www.wsdot.wa.gov/Projects/Rail/Freight/EasternSkagitRailStudy/](http://www.wsdot.wa.gov/Projects/Rail/Freight/EasternSkagitRailStudy/)

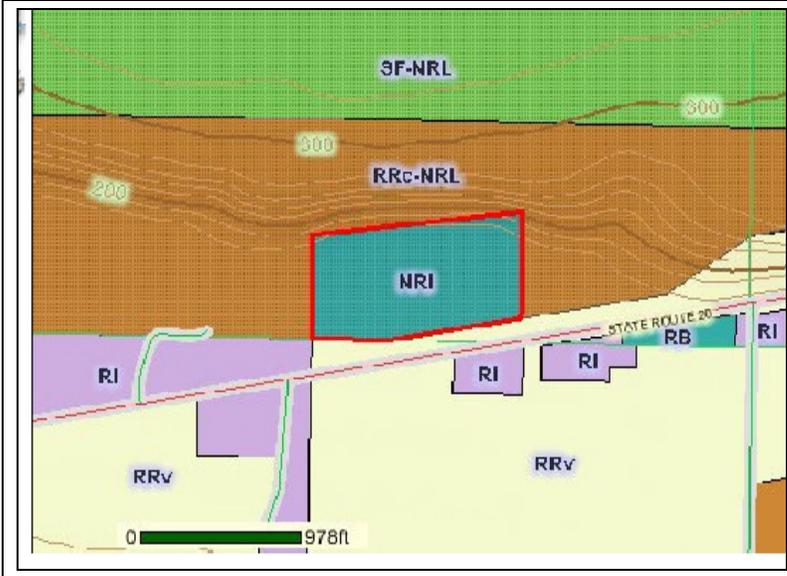
WSDOT will also work with Skagit County to schedule public meetings as the project moves forward. The public is also encouraged to contact WSDOT at 360-705-7932, or by email at [freight@wsdot.wa.gov](mailto:freight@wsdot.wa.gov) with questions or suggestions.

**Exhibit ES.4  
Parcel #3: Information Sheet**

<b>Parcel Number:</b> P41204	<b>Address:</b> Milepost 77, Route 20, Hamilton
<b>Current Use:</b> Log Dump	<b>Zoning/Land Use:</b> Natural Resource Industrial (NRI)
<b>Size:</b> 34.27 acres	<b>Legal Description:</b> NW1/4 NW1/4 LESS TRS & RLY R/W & TAX 19 20 & RD & HWY
<b>Site Conditions/Field Notes:</b>  Located a short distance north of the former rail line on the west side of Hamilton, bounded on the north by SR 20, on the west by Cabin Creek Road. A very large and level site consisting primarily of unused open land, with a tree line traversing the south side. No wetlands were observed on the site, though Muddy Creek passes close to the southwest corner. A Puget Sound Energy substation is present on the west boundary. Relatively easy access is available in the southeast corner. Judged to be an excellent site for development due to its size, proximity to the former rail line, and easy access to SR 20 and commercial power.	
	

**Exhibit ES.5  
Parcel #7a: Information Sheet**

<b>Parcel Number:</b> P42331	<b>Address:</b> 38507 Highway 20
<b>Current Use:</b> Pacific Rim Tonewoods (first and second parcel)	<b>Zoning/Land Use:</b> Natural Resource Industrial (NRI)
<b>Size:</b> 18.36 acres 13.65 acres 4.14 acres	<b>Legal Description:</b> PTN SW1/4 SE1/4 SEC 9 AND ALSO PTN NW1/4 NE1/4 SEC 16 DAF BEG SW COR SE1/4 SD SEC 9 TH S 1-07-38 W ALG W LN SD NE1/4 SEC 16 86.59FT TO N R/W LN OF BNRR TH N 80-40-32 E ALG SD NLY R/W LN 1287.73FT TH N 0-25-49 E PLW W LN SD SE1/4 639.98FT TH S 83-51-29 W 1277.0FT M/L TO W LN SD SE1/4 TH S 0-25-49 W ALG SD W LN SE1/4 TO POB EXC FDP PTN NW1/4 NE1/4 SD SEC 16 LYG N OF RD  ACREAGE ACCOUNT, ACRES 13.64, SW1/4 SE1/4 EXC FDP PTN SW1/4 SE1/4 SEC 9 AND ALSO PTN NW1/4 NE1/4 SEC 16 DAF BEG SW COR SE1/4 SD SEC 9 TH S 1-07-38 W ALG W LN SD NE1/4 SEC 16 86.59FT TO N R/W LN BNRR TH N 80-40-32 E ALG SD NLY R/W LN 1287.73FT TH N 0-25-49 E PLW W LN SD SE1/4 639.98FT TH S 83-51-29 W 1277.0FT M/L TO W LN SD SE1/4 TH S 0-25-49 W ALG SD W LN SE1/4 TO POB  4.14 CLEARED AC WITHIN SE1/4
<b>Site Conditions/Field Notes:</b>  Located east of Hamilton. P42331 is currently in use by Pacific Rim Tonewoods, and is a large, level site immediately adjacent to the trail. P42331 was judged to be a good site for development, while the other two parcels which are part of this site (P99657 and P101461) are impractical due to their extreme elevation difference above the former rail line.	

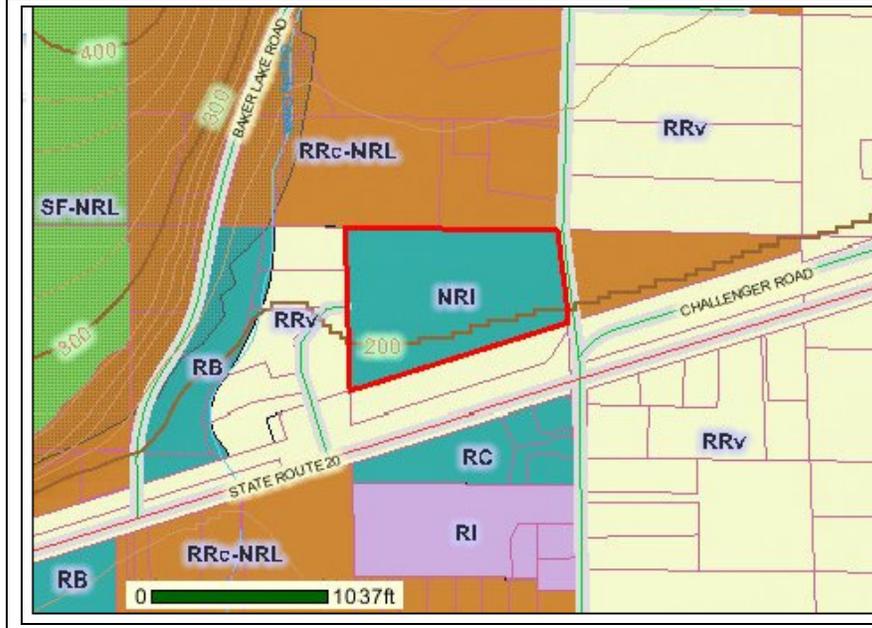


**Exhibit ES.6  
Parcel #8: Information Sheet**

<b>Parcel Number:</b> P42397	<b>Address:</b> 7578, 7552, 7628 Russell Road
<b>Current Use:</b> NW Forest Fiber	<b>Zoning/Land Use:</b> Natural Resource Industrial (NRI)
<b>Size:</b> 21.93 acres	<b>Legal Description:</b> NE1/4 SE1/4 N OF RLY LESS RD

**Site Conditions/Field Notes:**

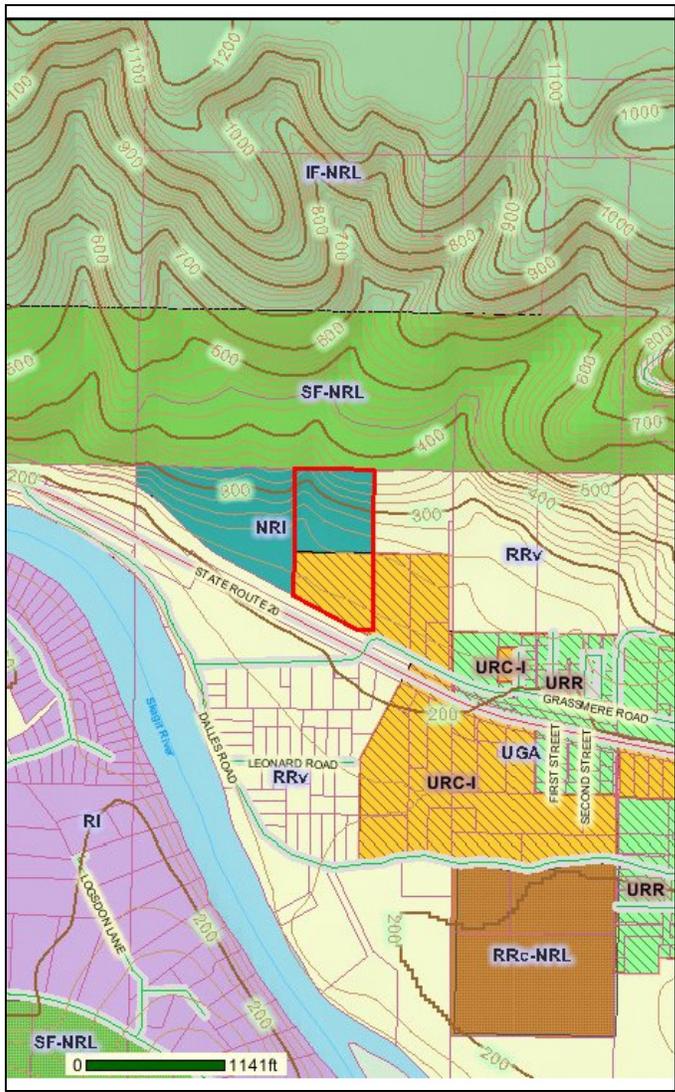
Located immediately north of the former rail line at Birdsvie Siding. A very large, level site currently in use by Northwest Forest Fiber (logging industry), with no observable wetlands. Excellent access is available to both the former rail line and SR 20; a residence lies in the northeast corner and a KOA campground is situated a short distance to the north. This site was judged to be good for development due to its current industrial use, easy transportation access, and low environment impact.



**Exhibit ES.7  
Parcel #10: Information Sheet**

<p><b>Parcel Number:</b> P42401, P42403</p>	<p><b>Address:</b> 39602 BAKER LAKE ROAD</p>
<p><b>Current Use:</b> Creekside Camping and Store</p>	<p><b>Zoning/Land Use:</b> Rural Business (RB)</p>
<p><b>Size:</b> 3.74 acres 1 acre</p>	<p><b>Legal Description:</b> PTN NW1/4 SE1/4 BAT INT OF N LI SD SUB &amp; C/L BAKER LK HWY TH S ALG SD HWY 761F TTH E 278FT TO C/L GRANDY CRK TH N ALG CTR SD CRK 895FT TH W 324FT TPB INC M/H 15156 UNIVERSAL 68 60X12  PTN OF SW1/4 SE1/4 LY N OF RLY &amp; E OF BAKER LAKE RD #3611 &amp; LY WLY GRANDY CREEK</p>
<p><b>Site Conditions/Field Notes:</b>  P42401 is located approximately one-quarter mile north of the former rail line, and P42403 is a narrow sliver of land immediately adjacent to the former rail line. Bounding the west side of both parcels is Baker Lake Road; SR 20 is immediately south of the former rail line. P42401 is a medium-sized site occupied by residences, a small grocery store and a campground; the small P42403 parcel hosts a single small house and open fields. Lying between the two parcels is parcel P42400, utilized as a residence with a large tract of open land, and posted for sale as of the date of inspection. The three parcels together could be developed for industrial use, but without the inclusion of P42400 access to P42401 could be difficult.</p>	

**Exhibit ES.8  
Parcel #13: Information Sheet**

<p><b>Parcel Number:</b> P43592</p>	<p><b>Address:</b> 44363 GRASSMERE ROAD</p>
<p><b>Current Use:</b> LB&amp;R Logging</p>	<p><b>Zoning/Land Use:</b> Natural Resource Industrial (NRI)</p>
<p><b>Size:</b> 16.23 acres</p>	<p><b>Legal Description:</b> W1/2 NE1/4 NW1/4 N OF RLY</p>
 <p>The map displays a topographic view of the area with contour lines indicating elevation. The parcel of interest is highlighted with a red rectangle and is currently zoned NRI. Surrounding areas include IF-NRL, SF-NRL, RRY, URC-I, URR, UGA, RRc-NRL, and RI. Key roads shown are Grassmere Road, Leonard Road, Dales Road, and State Route 20. The Skagit River is visible on the left side of the map. A scale bar at the bottom left indicates 0 to 1141 feet.</p>	<p><b>Site Conditions/Field Notes:</b></p> <p>Located west of Concrete on the north side of the former rail line. A medium-size parcel currently in use by a logging-industry firm, with a few older buildings present. A stream runs between the trail and the parcel, with abandoned vehicles and machinery evident alongside the waterway. Provided that environmental factors were not an overriding concern, the site would be acceptable for development.</p>

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# Chapter One

## Introduction and Background

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For almost one hundred years freight rail service was available to the Skagit County communities located along Highway 20, from Sedro-Woolley to Concrete. However, starting in 1988 and ending in 1993, this rail line was abandoned by the Burlington Northern Railroad (BN).<sup>7</sup> Railroad tracks, ties, and ballast were removed in 1996, and the railroad right of way is now the popular 22.5-mile Cascade Trail.

Although the rail line was converted to a trail, the Skagit County business community's interest in freight rail has not diminished. As such, the Washington State Legislature asked the Washington State

Department of Transportation (WSDOT) to prepare a feasibility study to examine what it would take to restore rail service along the former rail corridor. The 2005 to 2007 Washington State Transportation budget allocated \$50,000 for this *Eastern Skagit Rail Project Feasibility Study*.



**The Cascade Trail serves bicyclists, pedestrians, and horseback riders.**

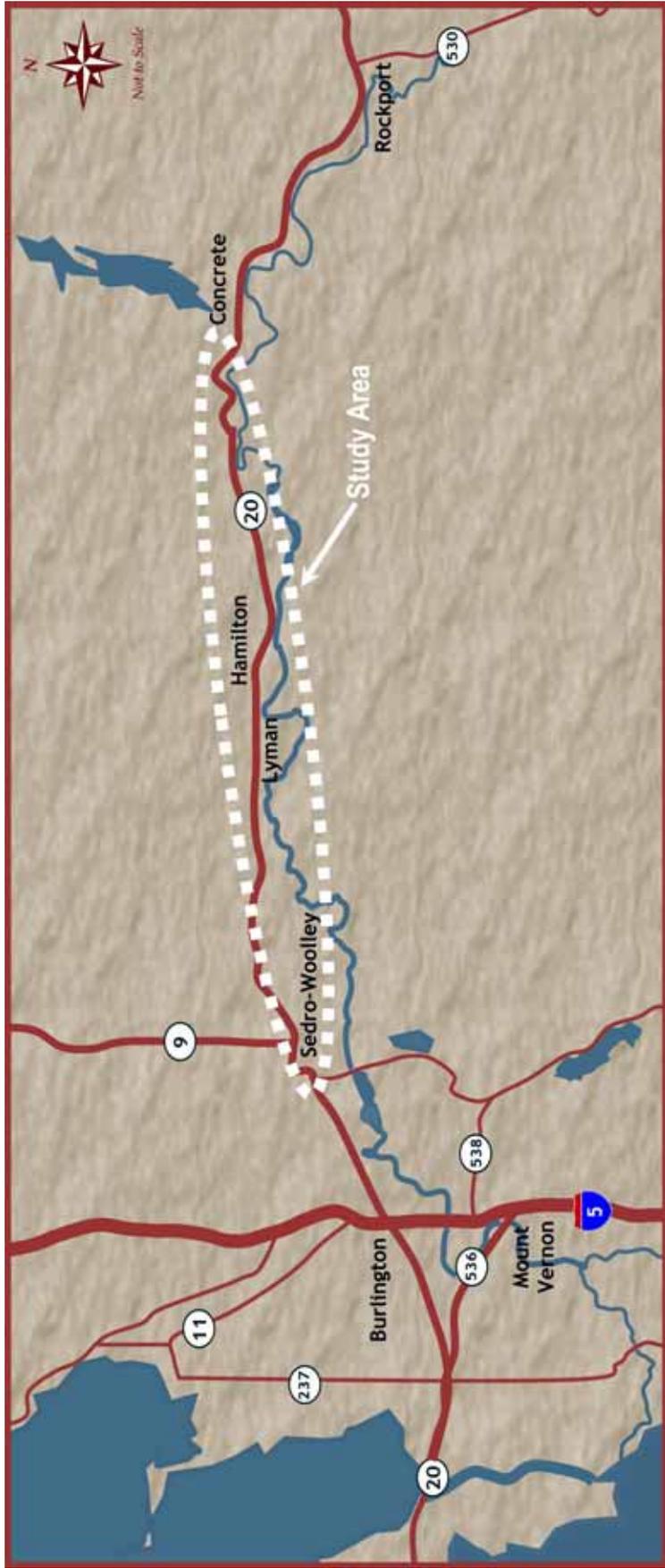
### Where is the project located?

The Eastern Skagit Rail Project is located in Skagit County, paralleling State Route (SR) 20 and the Skagit River. **Exhibit 1.1** on the following page presents the general location of the project. The study corridor consists of the Cascades Trail which extends from Sedro-Woolley east to Concrete, passing through the communities of Lyman and Hamilton. The Cascade Trail is located along the former rail line which was abandoned about twenty years ago.

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<sup>7</sup>After numerous mergers in the 1990s, the Burlington Northern Railroad is now known as the BNSF Railway Company.

**Exhibit 1.1  
General Vicinity of the Eastern Skagit Rail Project**



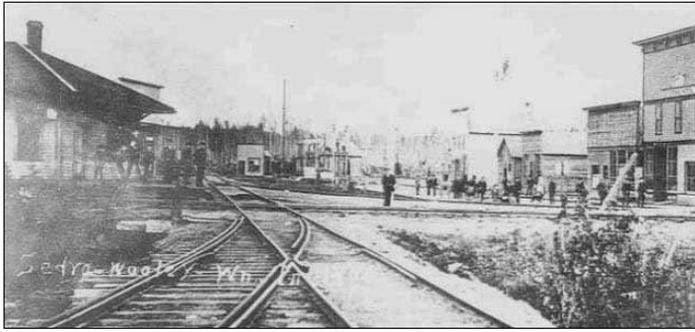
**Scenes of the Study Area**

## What type of rail service existed along this former rail line?

The former rail line carried passengers and freight from Rockport west to Burlington and Mount Vernon. It began when the Great Northern

Railroad arrived in Skagit County in the late 1880s. In 1890, the Seattle & Northern Railroad (S&N) was constructed, connecting Sedro-Woolley and communities to the east, with the Great Northern main line. The S&N served freight customers along the corridor, and in 1900, passenger service was introduced. Passenger service was discontinued in 1937. In the late 1970s passenger service was re-established as a tourist train, the Skagit River Railway. However, the Skagit River Railway service only lasted until the early 1980s.

Freight operations, though quite frequent in the early years, eventually diminished by the 1970s. With the decrease in mining and lumber mills along the corridor, demand for freight rail service diminished. The closing of these industries led to the termination, and eventual abandonment, of the rail line between Sedro-Woolley and Concrete. By 1976 freight rail trips to Concrete were only occasional, but freight rail still served Hamilton daily (except weekends). By the mid-1980s, freight rail service was down to occasional trips to Hamilton, and by 1987 all service along the corridor was discontinued. In 1993, Skagit County, working with the Burlington Northern Railroad and the Rails to Trails Conservancy, assumed financial responsibility to preserve the rail line and convert it to an interim trail, via the *Rails-to-Trails Program*.



*Photo courtesy of the Skagit River Journal.*

### **The Great Northern connection with the Seattle & Northern Railroad in Sedro-Woolley, circa 1900.**

## What is the Rails-to-Trails Program?

The *Rails-to-Trails Program*, established in 1983 (*National Trails System Act*, 16 USC 1247 (d)) is a voluntary agreement between a railroad company and a trail agency to use an out-of-service rail corridor as a trail until some railroad might need the corridor again for rail service. Placing the abandoned rail corridor into service as a trail is referred to as “rail banked or rail banking.” Utilizing this program allows a community to save the rail corridor for future freight use.

Since its inception, almost 1,500 former rail lines (including small segments and spurs) have been converted to interim trail use.<sup>8</sup> As of 2004, seven of these interim trails have been reconverted to active rail service.<sup>9</sup> This Eastern Skagit Rail Project study focuses on the feasibility of reconvertng the former BN rail line to active rail service.

## **What is the purpose of this feasibility study?**

The purpose of this feasibility study is to provide information regarding the potential costs associated with restoring rail service along the former rail line. The report includes conceptual design, cost estimates, and a review of the regulatory and environmental processes that would be required in order to convert the trail to an active rail line.

In addition to discussing the feasibility of converting the corridor to an active rail line, potential rail-dependent industrial sites along the corridor are identified. Costs associated with expanding rail to those sites are also included.

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<sup>8</sup>*Rails to Trails Conservancy, Frequently Asked Questions, www.railstrails.org, 2006.*

<sup>9</sup>*Rails to Trails Conservancy, Reactivated Railbanked Corridors, 2004.*

## Chapter Two

# Purpose and Need for the Project

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The Washington State Department of Transportation (WSDOT) wants to ensure that this feasibility study meets the needs and goals of the local community. As such, an initial meeting with stakeholders was held in Mount Vernon in September 2005. The purpose of this meeting was to get local feedback on the scope of this study and to give WSDOT staff a better understanding of the various issues that should be considered as part of the *Eastern Skagit Rail Project Feasibility Study*.

### What is the purpose of the Eastern Skagit Rail Project?

The purpose of the Eastern Skagit Rail Project was dictated by the Washington State Legislature as part of the bill which funded the project. The bill language for the study, as written by the Washington State Legislature reads:

“\$50,000 of the multimodal transportation account is provided solely for a study of eastern Skagit County freight rail. The study shall examine the feasibility of restoring portions of the freight rail line to the towns of Lyman, Hamilton, and Concrete. The study must also identify existing and potential industrial sites available for development and redevelopment, and the freight rail service needs of the identified industrial sites.”<sup>10</sup>

The legislature also indicated that the study is to be completed by January 1, 2007. In addition to the legislature’s directive, local stakeholders suggested that the study examine how the existing, interim trail and an active freight rail line could co-exist. Some stakeholders feel that a dual-use corridor would meet the needs of the diverse Skagit community.

### Is the project needed?

Local stakeholders believe that the re-establishment of rail through their communities could spark economic development by attracting new industrial users to the region.

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<sup>10</sup>*Engrossed Substitute Senate Bill (ESSB) 6091.PL, page 37.*

Beginning in the 1970s, but especially through the mid-1980s, regional and national economic downturns hit Skagit County hard. The adverse impact was particularly evident in the lumber and wood products industry, as well as the food processing industry.



**Meeting in May 2006 with local stakeholders**

Since then, economic expansion has been a consistent focus for Skagit County.<sup>11</sup>

Stakeholders believe there are emerging logging opportunities in the area, as well as existing shippers who could move gravel and limestone by rail. It is for these reasons that stakeholders believe that the former rail line should be reinstated to an active freight rail corridor.

## **Who are the project stakeholders?**

Project stakeholders range from local agency representatives to business owners to trail advocates. Stakeholders that have participated in project meetings are:

- Concrete Northwest;
- Economic Development Association of Skagit County;
- Glacier Northwest;
- Janicki Logging;
- Kaaland Mill;
- Olympic Resource Management/Windermere;
- Port Gardner Timber Company;
- Sierra Pacific Industries;
- Skagit Council of Governments;
- Skagit County Commission;
- Skagit County Parks and Recreation;
- Skagit County Planning and Development Services;
- Skagit County Public Works;

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<sup>11</sup>*Skagit County Profile, Washington State Employment Security, 2002, page 5.*

- Trillium Corporation;
- Unimin Corporation; and
- WSDOT Mount Baker Planning Area.

### **What type of outreach and coordination has taken place?**

Two project meetings have been held with stakeholders, in September 2005 and May 2006. In addition, in January 2006, local stakeholders joined the project team in a field trip of the corridor. Throughout the course of this feasibility study, WSDOT staff has been coordinating with local agency representatives, business owners, and local residents.

From August through October 2006, local stakeholders and agency staff had the opportunity to review the draft document. The document was distributed to local agency staff, business representatives, and community members for review and comment. **Appendix J** contains copies of the comment letters received. In addition, findings from this study were shared with the community on October 18, 2006. Comments gathered at that meeting are also included in the appendix.

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## Chapter Three

# Existing Corridor Characteristics

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The Eastern Skagit Rail Project corridor is 22.5 miles long. It is currently a multi-use trail that parallels State Route (SR) 20. Hiking, bicycling, and equestrian uses are permitted on the trail. The trail - known as the Cascade Trail - encompasses 280 acres of land. This chapter presents the general uses and activities along the trail, as well as the physical environmental and community features of the former rail line.

### Where is the Cascade Trail located?

The Cascade Trail extends from Sedro-Woolley to Concrete in Skagit County. The trail runs through the communities of Lyman and Hamilton. For the most part, the trail is located between SR 20 and the Skagit River. Just east of Hamilton the trail crosses over SR 20. From this point to Concrete, the trail runs parallel and north of SR 20. **Exhibit 3.1** on the following page shows the location of the Cascade Trail.

### What are the current trail features and activities?

The Cascade Trail is open year round and in places, meanders along the Skagit River. The Cascades Trail is a graveled and dirt multi-use path with views of farms, the Skagit River, and the North Cascade Mountains. Viewpoints along the way provide for wildlife viewing opportunities.

Beginning at the western end of the trail, the Sedro-Woolley trailhead (approximately five miles from I-5) provides trail information, a restroom, and parking for horse trailers. This trailhead is located at Fruitdale Road and SR 20.

Between the Sedro-Woolley trailhead and the Grandy Creek trailhead, the trail parallels SR 20 and then heads away from the highway through a quieter stretch of woods and farmland. Generally the path is



**Several small streams flow down from the adjacent bank**

**Exhibit 3.1  
Location and Features of the Cascade Trail**



**Scenes along the Cascade Trail**

bordered by a thick grove of deciduous<sup>12</sup> trees with some clearings. There are secluded woodland stretches at Minkler Lake and along the banks of the Skagit River west of Lyman.

East of Lyman the trail crosses a small bridge over an oxbow of the river before skirting the Skagit River. A picnic bench is located along the river in this general location. Between Lyman and Hamilton, trees and farms line the trail. Carey's Slough, near Hamilton, is a popular birding location. Just east of Hamilton the trail crosses SR 20.



**View of the surrounding farmlands and mountains**

At the trailhead near Grandy Creek (about sixteen miles from the start of trail) is a restroom and horse trailer parking. This trailhead is located at the intersection of Baker Lake Road and SR 20. The last four miles of the trail, beginning just past the Grandy Creek trailhead, is regarded as the most scenic stretch. The trail, bordered by sword ferns, climbs gradually through stands of evergreens and occasional big leaf maples

with some viewpoints of the Skagit River and several small streams cascading down from banks above. Elk are often spotted from this area. The last mile of the trail passes through the developed area of Concrete with views of Sauk Mountain.

The Concrete trailhead (about thirty miles from I-5) is located at the Senior Center at the end of the trail, just north of SR 20. Horse trailer parking is available at this location. In addition to the three trailheads, other access points to the trail are located along the entire 22.5 mile Cascade Trail.

The trail is also served by SKAT, Skagit County's transit agency. Route 717 stops in Concrete, Hamilton, Lyman, Sedro-Woolley, and Mount Vernon.

**Exhibit 3.1** on the previous page highlights some of the key features of the Cascade Trail.

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<sup>12</sup>*Trees that shed their leaves. In the fall, these leaves turn colors, contributing to the visual quality of the trail.*

## What are the general physical features along the former rail line?

The project team documented the environmental and community features along the former rail line by reviewing photographs and existing mapping. In addition, in June 2006, project team members bicycled along the entire corridor, making notes of key features and characteristics. Information was catalogued based on the original Burlington Northern Railroad rail line mileposts. **Exhibit 3.2** on the following page presents the general locations of these mileposts along the former rail line.

Beginning at the Sedro-Woolley trailhead, a utility gas pipeline crosses the former rail corridor. Traveling west, near rail milepost (MP) 26.4 the railroad embankment has completely washed away and a stream has taken its place for approximately one quarter of a mile. This area is bounded by dense, extensive wetlands.<sup>13</sup> The bridge that had been originally placed over this stream has been replaced by a rail-car bridge that is no longer functional due to the washout.

At MP 28.8 the embankment abuts the main stem of the Skagit River. The embankment is heavily protected in this location but is still vulnerable to high flows. Some of the large rocks located along the embankment appear to be fairly new, placed in this location within the past twenty years.

From MP 23.4 to MP 33.2 numerous bridges were observed. This part of the former rail line also lies within the



**The former rail line crosses over a number of waterways**

<sup>13</sup>A wetland is an area saturated by surface or groundwater with vegetation adapted for life under those soil conditions. Examples of wetlands are swamps, bogs, and estuaries.



Skagit River floodplain<sup>14</sup> and numerous high quality wetlands occur in this area. High quality wetlands provide habitat for rare wildlife and plant communities. The floodplain area is sparsely populated and mostly farmed.



**Culverts along the former rail corridor**

At MP 32.0 a long bridge has been washed out. This bridge crosses a slough with very little flow. In October 2003, a flood on the Skagit River was responsible for this damage. The Alder Creek bridge, located at MP 33.2, is similar to other bridges along the former rail line. These bridges consist of old railroad wood pilings with bridge stringers. Decking and hand rails were placed by the trail designers.

From MP 33.2 to MP 38, the route parallels SR 20 and contains numerous private and public crossings. No structures were observed through this stretch, but some small wetlands were present. At MP 38, the bridge over Grandy Creek is washed out. The trail detours to the SR 20 bridge. The riparian area of Grandy Creek includes willows and probable wetlands. From Grandy Creek to the outskirts of Concrete, the former rail line passes through rural areas. Prior to making a gradual descent, a number of viewpoints of the



**In some locations, the former rail line abuts the Skagit River**

Skagit River through stands of evergreens and occasional bigleaf maples are available. This part of the trail is bordered by sword ferns, and several small streams flowing down from the banks above. Also in this area, Challenger Road crosses the trail several times.

From MP 40 to MP 43 (near the Grassmere Road crossing), the corridor passes through a mature, mixed forest area. Several small streams cross the

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<sup>14</sup>A floodplain is the lowland adjacent to a river, lake or ocean. Floodplains are designated by the frequency of the flood that is large enough to cover them.

trail in culverts in this area. There is some erosion or slope instability in this area. Anadromous<sup>15</sup> fish species are not expected in these smaller streams, but the streams may have resident fish. The former rail line in this area is well vegetated with native trees. Work outside of the right of way would likely result in the need to remove a significant number of large trees, and could result in impacts to the small streams and wetlands at the base of the slope.



**Skagit Railway maintenance facility is located next to the former rail line**

The last mile of the former rail line runs through the outskirts of Concrete. The line parallels SR 20 and runs through both rural and city property. There are at-grade crossings in this area. Potential historic structures are located in this area, including a church, the Skagit Railway maintenance shed, and the Concrete silo. In addition, small, lower quality wetlands are located in this general area. Most of the railroad right of way is well vegetated with shrubs and grass. The project corridor ends in the town of Concrete. The trailhead is estimated at MP 44.5.

### Are there any environmental or community constraints?

Yes, the former rail corridor contains significant environmental and community constraints. These areas of concern are listed in **Exhibit 3.3** and are discussed below. **Appendices A through C** provide mapping from Skagit County which illustrate the location of some of these areas of concern.

**Exhibit 3.3  
Type of Environmental and  
Community Constraints**

Potential Constraints
Waterways: streams, backwater sloughs, and the Skagit River
Wetlands: high quality
Floodplains and floodways
Wildlife: potential priority habitats and species
Safety: numerous driveway and roadway crossings

<sup>15</sup>Anadromous fish, such as salmon, ascend rivers to spawn..

## Waterways

The Skagit River is the largest river in Skagit County, and the second-largest in Washington State. Originating high in the Cascade Mountains, it flows about ninety miles through the County to its outlet at Fir Island, just south of Mount Vernon. Major tributaries to the Skagit River include the Cascade, Sauk, Suiattle, and Baker Rivers. Approximately 160 miles (almost 35,000 acres) of the Skagit, Sauk, Cascade and Suiattle Rivers are included in the *National Wild and Scenic Rivers System*. The Skagit River is also designated as a Shoreline of the State, which requires review under the *Shoreline Management Act*.

**Appendix A** presents Skagit County mapping which provides more information on the waterways within and around the former rail line.

In addition to the Skagit River, numerous streams cross the former rail line. Some of these streams and waterways are currently owned by the Skagit Land Trust.<sup>16</sup> The Skagit Land Trust either acquires or uses an easement to protect lands from development. Land is protected to ensure continued use and health of habitat for fish and wildlife. The waterways (which cross or are adjacent to the rail banked corridor) within the Skagit Land Trust's domain are listed in **Exhibit 3.4**.

**Exhibit 3.4**  
**Skagit Land Trust Properties within the Project Area**

Property	Type of Trust Ownership	Size (Acres)	Features
Lyman Slough	Trust-Owned	19	The property also hosts a riparian woodland, home to many songbirds, amphibians and bats.
Grandy Creek	Trust-Owned	54	Provides a vast area of spawning habitat for several species of salmon, including Chinook.
Minkler Lake	Trust-Owned	128	In recent years the lake has been left alone and undeveloped, and fish and wildlife have thrived. The quiet backwaters are accessible to Skagit River salmon through Childs Creek.

Source: Skagit Land Trust, [www.skagitlandtrust.org](http://www.skagitlandtrust.org).

<sup>16</sup>The Skagit Land Trust protects the natural lands, open space and wildlife habitat of Skagit County. The amount of land and habitat protected by the Trust has quadrupled in the past four years to over 3,600 acres including over sixteen miles of shoreline.

## Wetlands

The entire former rail corridor contains areas of high quality wetlands and associated habitat. The many stream crossings contribute to the large number of wetlands and vegetation. **Appendix B** contains mapping which illustrates the locations and types of wetlands within the general project area.

## Floodplains and Floodways

The area between Lyman, Cockreham Island, and Hamilton has historically experienced dramatic flooding. The Skagit River has flooded more than sixty times in the last one hundred years.<sup>17</sup> Skagit County's *Flood Warning Map* (**Appendix C**) indicates that this area of the former rail line is located in three types of flood areas. **Exhibit 3.5** outlines these flood hazard types.

**Exhibit 3.5**  
**Flood Hazards along the Former Rail Line**

Flood Warning Type	Explanation
Phase 1 Flood	Inundates low areas near the Skagit River, may cover a few small sections of roads, and occur every few years on the average. These floods generally do not cause significant damage in the Skagit River Valley. A large phase 1 flood occurred in December 1989.
Phase 2 Flood	Inundates a wider area and may cause significant damage. The large phase 2 flood is approximately what occurred in December 1975 which was estimated to be a ten-year event (a flood that would have a ten percent chance of occurring on any given year).
Phase 3 Flood	Can cause catastrophic damage in the valley. This flood would have approximately a one percent chance of occurring on any given year. If such a flood were to occur, many hundreds of homes would be flooded, thousands of people may have to be evacuated, and numerous public facilities and businesses would be inundated. In some neighborhoods flood waters would be deep and currents swift. Many roads would become impassable and extremely dangerous to use. The 1990 & 1995 floods were smaller phase 3 floods. As a result portions of the phase 3 areas were flooded in 1990 and 1995. Under extreme conditions a flood greater than the 100-year flood can occur.

Source: *Skagit County Flood Warning Map, 1996.*

In October 2003, the Skagit River flooded the area and washed out bridges along the former rail line. As a result of this severe flood, a number of studies to control the flooding were undertaken. Studies include the Army Corps of Engineers' *Economic Flood Damage Assessment* (June 2005) and Hamilton's

<sup>17</sup> *Seattle Daily Journal of Commerce*, "Less Federal Funding leaves flood control work in limbo," by Margie Slovan, August 16, 2006, page 1.

Public Development Authority's *Flood Mitigation and Town Relocation Program* (January 2006). Prior to designing and constructing a new rail line, flooding issues along the corridor would need to be assessed and addressed.



Photo courtesy of the Skagit County Public Works

**Flood damage in Hamilton, October 2003**

## Wildlife

Though diking, logging, and other land conversions have altered Skagit County's landscape, it is still host to a wide variety of wildlife, including deer, elk, bear, mountain goats, cougar, and numerous birds and small mammals.

Priority species in Skagit County include the Bald Eagle, Heron, Trumpeter Swan, Grizzly bear, and the Gray Wolf (which can be found in portions of the County). In order to assist counties and other agencies with incorporating wildlife concerns with their planning processes, the Washington State Department of Fish and Wildlife developed the *Priority Habitats and Species Program*. Through this program, state biologists have generated countywide maps of areas used by high-priority wildlife species, as well as high priority habitat areas. Priority habitats are areas that are valuable for the number and/or diversity of species present, are important breeding, travel, or foraging areas, or are rare and/or vulnerable. Priority species include those wildlife species with populations that are currently or potentially threatened with extinction, as well as those that are sensitive to habitat loss.

Skagit County includes at least ten of the possible twenty-four priority habitat areas, as well as confirmed sightings of at least twelve of sixty priority species. **Exhibit 3.6** presents a summary of priority habitat areas.<sup>18</sup>

## Safety

The former rail line crosses a number of major roadways, including SR 20. In addition, there are numerous private crossings which lead to single family homes.

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<sup>18</sup>*It should be noted that there are many small priority habitat areas (notably wetlands) interspersed throughout the County that are too small to map. These include harlequin duck habitat, eagles and osprey.*

**Exhibit 3.6  
Priority Habitats and Species  
Skagit County, WA**

The many roadway crossings are always a concern for pedestrians and bicyclists; however, as an active rail corridor, of equal concern will be the many private driveway crossings. A project team review indicated that there are almost thirty roadway crossings and fifty private driveway crossings along the former rail line.

Priority Habitats	Priority Species
Caves	Bald Eagle
Cliffs/Bluffs	Golden Eagle
Estuarine Zone	Grizzly Bear
Snag-Rich Area	Harlequin Duck
Urban Natural Open Space	Marbelled Murrelet
Wetlands	Northern Goshawk
Critical Spawning Habitat for Resident Species	Osprey
Anadromous Fish Runs	Pileated Woodpecker
Resident Fish Reaches	Rocky Mountain Elk
	Townsend's Big-Eared Bat
	Trumpeter Swan

*Source: Skagit County Comprehensive Parks & Recreation Plan, 2004.*

**How does the Eastern Skagit Rail Project fit within current county and community plans?**

Although the *Skagit County Comprehensive Plan* identifies economic development as one of its main goals, it also designates the former rail line (Cascade Trail) as a regional park facility. The *Comprehensive Parks & Recreation Plan, 2004* further stresses the need, within the County to maintain and expand regional park/trail/recreation facilities. The Cascade Trail is considered one of the more important regional facilities within Skagit County.

Another planning document, the *Skagit County Non-Motorized Transportation Plan, 2000* (NMTP), lists a number of priority projects associated with the Cascade Trail as projects of regional importance. These priority projects are listed in **Exhibit 3.7** on the following page, and include the need for keeping the trail open, even if the corridor is converted to active rail use. The *Skagit County Transportation System Plan, 2001* supports the goals of the NMTP to improve safety, access, and mobility of non-motorized transportation facilities (including trails).

**Exhibit 3.7**  
**Priority Projects for the Cascade Trail**

<b>Priority Projects</b>
Make minor improvements to control drainage, prevent erosion and discourage unauthorized motor vehicle access.
Sedro-Woolley to Hamilton: Consider access and sub-grade improvements and temporary crushed rock surfacing for interim use of the railroad grade south of SR 20. Apply for grants to develop this portion of the trail.
Prepare a master plan and funding strategy for the entire project, including possible shared-use of the SR 20 and Burlington Northern railroad corridor west of Sedro-Woolley to Anacortes. Monitor the right of way west of March Point for possible abandonment and rail banking.
Investigate opportunities to acquire abandoned railroad right of way between Concrete and Rockport, particularly as needed to link Rockport State Park with Howard Miller Steelhead Park. If possible, identify alternative routes where river washouts have obliterated the old grade east of Concrete.
Provide for the development of a new trail surface within the right of way as a development condition of any potential reopening of the corridor for commercial rail use, consistent with proposed volume and frequency of rail operations.

*Source: Skagit County Non-Motorized Transportation Plan, 2000*

## Chapter Four

# Proposed Corridor Improvements

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The purpose of this feasibility study is to identify potential constraints along the rail line, develop conceptual engineering, and prepare conceptual cost estimates to restore freight rail service along the former rail line between Sedro-Woolley and Concrete. As requested by project stakeholders, the restoration of freight rail service was evaluated with and without a pedestrian/bicycle trail paralleling the rail line.

Prior to designing the new rail line, and its associated operations plan, the project team reviewed existing data and mapping. In addition, local rail experts were interviewed. The References Chapter of this document provides more information about research materials and interviews used to design the rail line.

### Where would the rail line be located?

The new rail line would run within the former rail line right of way. It would replace the existing Cascade Trail. It would extend from the current BNSF Railway Company's (BNSF) existing line in Sedro-Woolley and travel east to Concrete. If a pedestrian/bicycle/equestrian trail is also constructed with the new rail line, it would extend the entire length of the corridor and be located parallel, and south of the tracks. **Exhibit 4.1** on the following page illustrates how the existing corridor may look with an active rail line only, and with an active rail line and trail.

### Would additional right of way be needed?

Using base mapping provided by Skagit County and right of way maps provided by the BNSF, it was confirmed that the freight rail line between Sedro-Woolley and Concrete could be re-established without obtaining additional right of way. However, new right of way may be required for a 7,500 foot interchange track<sup>19</sup> which would need to be located somewhere between Burlington and Sedro-Woolley<sup>20</sup> (see the rail operations discussion later in this chapter). The exact location of the interchange has not been identified.

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<sup>19</sup>A designated track on which one railroad delivers cars to another.

<sup>20</sup>Interview with Terrie Nies, BNSF Trainmaster, Bellingham, WA, July 17, 2006.

**Exhibit 4.1  
Illustration of Potential Improvements (Looking East along the Corridor)**



**Existing Trail**



**Rail Only**



**Rail with Trail**

## What would be needed for a trail to be located adjacent to the new rail line?

New right of way would be required for a pedestrian/bicycle trail parallel to the new rail line. Based on current engineering standards, the track and trail must be separated by a solid barrier or chain link fence with the minimum distance of seventeen feet between the centerline of track and the nearest edge of the trail. This would require an eighteen foot strip of land parallel to, and south of, the former rail line corridor. The amount of needed land for the entire corridor for a trail would be approximately 54 acres. Right of way would also be required for wetland mitigation for approximately half of the new right of way outside the existing roadbed. The impacted wetlands are generally Class 1 or 2,<sup>21</sup> which would require a four to one mitigation ratio. This means that for every acre of wetland impacted, four acres must be replaced.

## What design standards did the project team use to design the new rail line?

The Eastern Skagit Rail Project was designed to meet engineering, operational, and safety standards to meet the Federal Railroad Administration's (FRA) *Track Safety Standards* for Class 2 tracks. The class of the track dictates the speed along the line as well as the type of rail to be used. The track alignment was designed to match the original Burlington Northern Railroad (BN) right of way. **Appendix D** provides the original BN right of way track maps. **Appendix E** presents the specific design criteria used to design this rail line.

## What are the features of the new rail line?

The new rail line will be located within the existing right of way. Another alternative, also discussed below, includes a rail line with a trail. **Exhibit 4.2** on the following page provides a cross section of the proposed rail with trail facility.

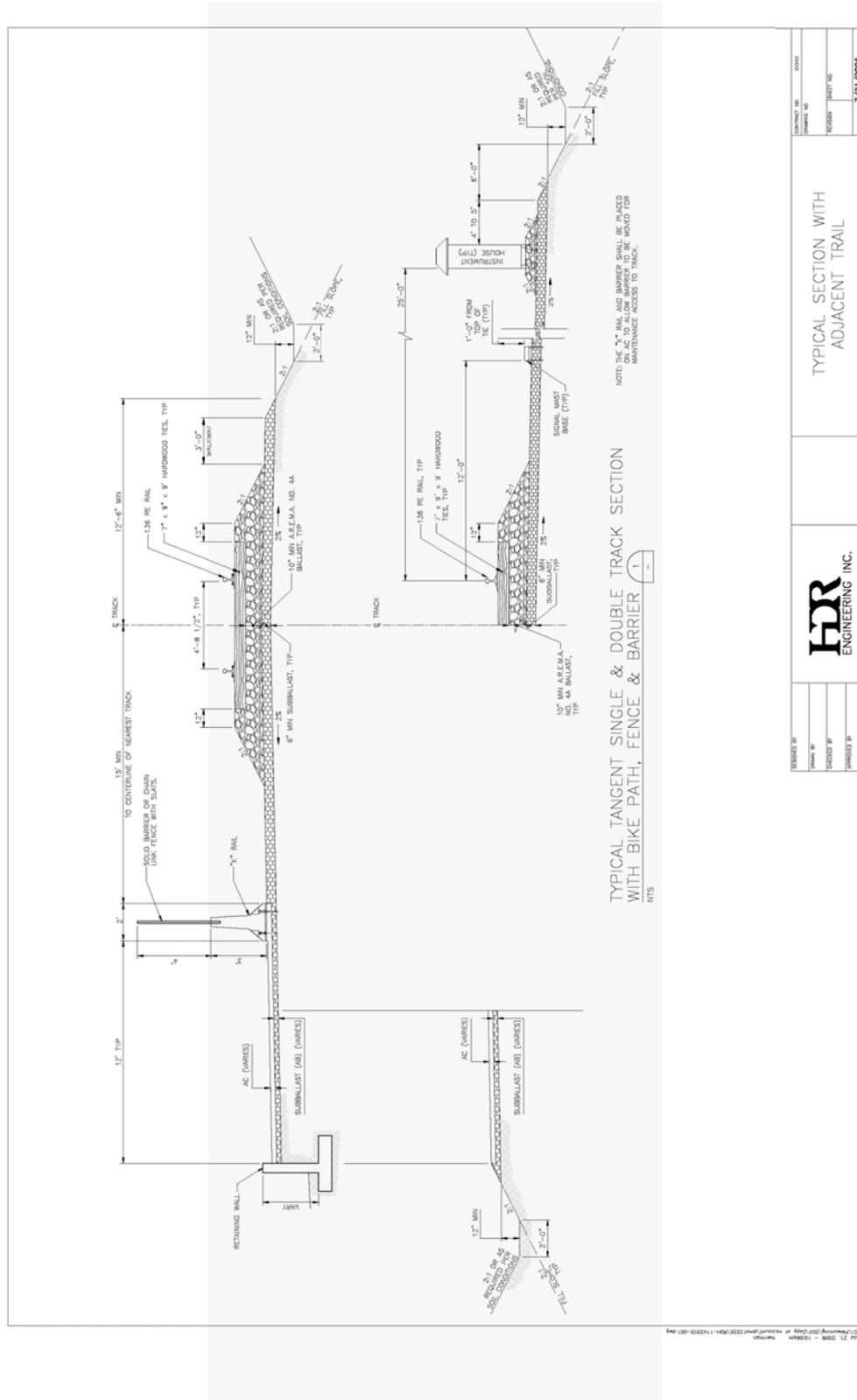
### Roadbed Construction

The method of subgrade construction would depend upon the existing trail roadbed conditions. The subgrade will be constructed by rolling and compacting the existing subgrade. Suitable subgrade material will be placed

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<sup>21</sup>Wetlands are categorized by Class. A class 1 wetland is a higher quality wetland with unique features and special habitat. A class 2 wetland is a lower class of wetland with less critical habitat.

**Exhibit 4.2  
Conceptual Cross-Section Showing the Rail Line with a Trail**



as required to maintain embankment elevation and shoulder consistency. Two exceptions to this are listed in **Exhibit 4.3**.

**Exhibit 4.3  
Exceptions to Subgrade Construction**

Location	Description
MP 40 to MP 43	Due to observed poor soil conditions the existing roadbed will be over excavated and replaced with suitable fill material. This location is also where the line is cut on a bench above the Skagit River to the south and rock outcrops to the north.
MP 26.4 to MP 26.65	The railroad embankment is completely washed away and a stream has taken its place for approximately one quarter mile. A new roadbed will need to be constructed and the stream re-routed to it's original alignment.

**Track Construction**

The track will be constructed with 115 pound or greater jointed or continuously welded rail (CWR) on concrete ties. This would allow the line to be “286k capable” which means this line could handle 286,000 pound cars without degradation of the track structure.

**At-Grade Crossings**

The former rail line has twenty-eight public and fifty private at-grade crossings. At this time, based on Skagit County and WSDOT traffic volumes, it is assumed that none of the crossings would require construction of a grade separation. However, the SR 20 grade crossing at MP 34.15 would require active warning device signalization. Active warning device signalization



**Existing crossing at SR 20**

includes flashing lights and/or gates at the grade crossings. In addition, full active warning devices would be required at MP 40.42 where Challenger Road crosses the former rail line.

Based on Skagit County engineering standards, public crossings must be at least thirty-two feet wide and private crossings must be at least sixteen feet wide.

## Bridges

The former rail line includes twenty-five bridge structures. It was assumed that the replacement bridges will be the same length as the existing bridges. For the existing fourteen-foot timber span bridges, it is assumed that the new bridges will be pre-stressed slab girders on open pile bents.<sup>22</sup>

## Culverts

The former rail line includes sixty-five culverts of varying types and sizes. All culverts will be replaced at the same location with corrugated steel pipe.

## Utilities

**Exhibit 4.4** presents a list of utility crossings identified on the BNSF right of way maps and track charts. Relocation may be required for some of these utilities.

**Exhibit 4.4**  
**Listing of Utility Crossings in the Rail Corridor**

Utility	Number of Crossings
Phone	6
Water	4
Gas	2
Sewer	1
Underground Power	8
Overhead Power	10

## What would be required to operate the rail service?

Based on interviews with BNSF representatives, a preliminary operations plan was developed. This plan is based on the proposed rail design as well as regulatory requirements dictated by the Federal Railroad Administration (FRA)<sup>23</sup> and the Washington Utilities and Transportation Commission (WUTC), agencies which oversee various aspects of freight rail operations.

### Speed

The line would have a 25 mile-per-hour (mph) speed designation, but would require some form of traffic control (discussed in the Train Signalization section of this Chapter).

### Interchange

The BNSF would interchange cars with a short line railroad (who would operate along the new rail line) at either Burlington or Sedro-Woolley

<sup>22</sup>A row of driven or placed piles with a pile cap to hold them in their correct positions.

<sup>23</sup>Code of Federal Regulations (49 CFR 213, Track Safety Standards).

(depending on where the interchange track is constructed).<sup>24</sup> Service between Sedro-Woolley and Everett would be provided for up to six days per week.

## **Trains**

Non-unit trains<sup>25</sup> would be moved by the BNSF between Sedro-Woolley to Everett and then added to outbound trains leaving Everett to their final destination. Aggregate (grain) unit trains would be moved by the BNSF as a shuttle train. Aggregate loading/unloading facilities must meet specific engineering requirements to qualify for shuttle rates. The BNSF *Shuttle Facility Design Guidelines* and *Industry Track Standards* provide guidance on specific engineering.

## **Locomotives**

About 0.4 horse power (HP) would be sufficient for 25 mph in the loaded direction starting from Birdsvew or 0.8 HP starting from Concrete. Although the grade is moderate, extended range dynamic brake<sup>26</sup> would probably be helpful with an aggregate train at 25 mph on the 0.8 percent grade leaving Birdsvew.

## **Locomotive service and crew headquarters**

The location of the short line locomotive service and crew headquarters would be important in developing the place at which interchange with the BNSF occurs. A separate track for interchange would be necessary so that it is possible to move the short line engine past received or delivered freight cars. Thus, it appears that there will probably need to be a second track at the interchange location.

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<sup>24</sup> *Although the BNSF would prefer to interchange railcars at Burlington, there is no room in the Burlington Yard to add tracks and there are no locations between existing at-grade crossings where railcars could be stored for interchange. If the interchange point is located in Sedro-Woolley, it will need to be located about 1.8 miles east of the main line connection because of grade crossings in the area. Although there is enough room between Fruitdale Road and Minkler Road there are private crossings in three places that appear to provide the only access to these properties.*

<sup>25</sup> *A non-unit train consists of freight cars that come from different origins which have different destinations. Unit trains consist of cars which all come from the same place and all have the same destination.*

<sup>26</sup> *A type of braking system used on locomotives when extra braking power is necessary.*

## Train Signalization

If the track is to be main track so that the speed can be 25 mph, some form of traffic control would be needed. It appears that Block Register<sup>27</sup> would be sufficient.

The track between the interchange location and the BNSF connection at Sedro-Woolley would be yard limits.<sup>28</sup> A power switch at Sedro-Woolley would be a minimum requirement. With an interlocking<sup>29</sup> at Sedro-Woolley and one at Burlington, centralized traffic control (CTC)<sup>30</sup> should be considered.

## Crossing Signals and Warning Devices

In addition to the active warning devices discussed earlier in this chapter, additional crossing signals and warning devices would be needed in Sedro-Woolley. Eight new crossings would be required in Sedro-Woolley, in an area consisting of homes and commercial uses. The *Revised Code of Washington* (RCW) 81.53.261 governs the process for installing crossing signals and warning devices.

## How much would it cost to build the Eastern Skagit Rail Project?

The total estimated cost to restore rail service along the former rail line between Sedro-Woolley and Concrete without an adjacent trail is \$60.2 million in 2006 dollars. It would cost approximately \$86.8 million (in 2006 dollars) if the rail line was paralleled by a pedestrian/bicycle/equestrian trail. **Exhibits 4.5 and 4.6** on the following pages present the detailed conceptual cost estimates.

## What are conceptual cost estimates?

Cost estimates can be conceptual, preliminary, or final (or someplace in between each of these steps, depending upon the level of project design). For

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<sup>27</sup>*Block Register refers to a way trains can operate on a piece of track, assuming there is only one train on the track at any one time. This form of operation has a special book locked in a phone booth like box at the beginning of the line (Sedro-Woolley). The conductor registers the train in the book. Once the train is registered, the engineer may operate on the railroad at 25 mph. On return, the engineer must register that the train is no longer on the tracks.*

<sup>28</sup>*An area where locomotives may enter the main tracks under simplified conditions without authority from the dispatcher.*

<sup>29</sup>*An interlocking is a system of signals and tracks.*

<sup>30</sup>*Centralized traffic control is an electronic system that uses remote controls to change signals and switches along a designated portion of railroad track.*

**Exhibit 4.5**  
**Conceptual Cost Estimate: Rail Only**  
**(in 2006 Dollars)**

<b>Track Improvements</b>					
<b>ITEM</b>	<b>UNIT</b>	<b>UNIT PRICE</b>	<b>QTY.</b>	<b>AMOUNT</b>	<b>SUBTOTAL</b>
<b>Mobilization, Etc.</b>					<b>\$ 35,000</b>
Mobilization	LS	\$ 35,000.00	1	\$ 35,000	
Real Estate Purchase	LS	\$ -	-	\$ -	
<b>Track-Related Earthwork</b>					<b>\$ 4,019,000</b>
Clear & Grub	Acre	\$ 3,000.00	89.65	\$ 268,940	
Remove Structures	Each	\$ 3,000.00	25	\$ 75,000	
Excavation to Waste (Incl. Haul)	CY	\$ 8.50	50,659	\$ 430,600	
Fill from Borrow - for Over Excavation	CY	\$ 20.00	50,659	\$ 1,013,176	
Fill from Borrow - New Roadbed	CY	\$ 20.00	4,005	\$ 80,098	
Sub-ballast	CY	\$ 28.00	76,813	\$ 2,150,777	
<b>Track</b>					<b>\$ 16,429,000</b>
Install 115 LB Ballasted Track	TF	\$ 110.00	130,167	\$ 14,318,370	
Install 115 LB Ballasted Track - New Siding	TF	\$ 110.00	7,200	\$ 792,000	
Install No. 11 T.O Hand Throw (HT)	Each	\$ 125,000.00	2	\$ 250,000	
Grade Crossing Signals	Each	\$ 120,000.00	2	\$ 240,000	
Concrete Grade Crossing - Public	TF	\$ 800.00	896	\$ 716,800	
Concrete Grade Crossing - Private	TF	\$ 140.00	800	\$ 112,000	
<b>Structures</b>					<b>\$ 12,892,000</b>
Bridges	LS	\$ 12,892,050.00	1	\$ 12,892,050	
<b>Drainage</b>					<b>\$ 238,000</b>
12" STEEL PIPE	LF	\$ 30.00	90	\$ 2,700	
24" STEEL PIPE	LF	\$ 55.00	539	\$ 29,645	
36" STEEL PIPE	LF	\$ 80.00	2,317	\$ 185,320	
72" STEEL PIPE	LF	\$ 160.00	126	\$ 20,160	
<b>Utilities</b>					<b>\$ 351,000</b>
Phone	Each	\$ 5,000.00	6	\$ 30,000	
Water	Each	\$ 25,000.00	4	\$ 100,000	
Gas	Each	\$ 10,000.00	2	\$ 20,000	
Sewer	Each	\$ 25,000.00	1	\$ 25,000	
Underground Power	Each	\$ 12,000.00	8	\$ 96,000	
Overhead Power	Each	\$ 8,000.00	10	\$ 80,000	
<b>Contingencies (30%)</b>			30%		<b>\$ 10,189,000</b>
<b>Environmental Mitigation</b>	Acre	\$ 44.82	100,000		<b>\$ 4,482,000</b>
<b>Construction Subtotal</b>					<b>\$ 48,635,000</b>
<b>Engineering Design (10%)</b>			10.0%		<b>\$ 4,864,000</b>
<b>Construction Management (6%)</b>			6.0%		<b>\$ 2,918,000</b>
<b>Sales Tax</b>			7.8%		<b>\$ 3,794,000</b>
<b>TOTAL</b>					<b>\$ 60,211,000</b>

Notes: subtotals rounded to nearest 1,000s

TF = Track Foot LS = Lump Sum CY = Cubic Yards LF = Linear Foot

**Exhibit 4.6**  
**Conceptual Cost Estimate: Rail with Trail**  
**(in 2006 Dollars)**

<b>Track Improvements</b>					
ITEM	UNIT	UNIT PRICE	QTY.	AMOUNT	SUBTOTAL
<b>Mobilization, Etc.</b>					<b>\$ 3,275,000</b>
Mobilization	LS	\$ 35,000.00	1	\$ 35,000	
Real Estate Purchase	Acre	\$ 20,000.00	162	\$ 3,240,000	
<b>Track-Related Earthwork</b>					<b>\$ 11,055,000</b>
Clear & Grub	Acre	\$ 3,000.00	143	\$ 430,304	
Remove Structures	Each	\$ 3,000.00	25	\$ 75,000	
Excavation to Waste (Incl. Haul)	CY	\$ 8.50	50,659	\$ 430,600	
Fill from Borrow - for Over Excavation	CY	\$ 20.00	50,659	\$ 1,013,176	
Fill from Borrow - New Roadbed	CY	\$ 20.00	4,005	\$ 80,098	
Fill from Borrow - Trail Roadbed	CY	\$ 20.00	260,334	\$ 5,206,680	
Subballast	CY	\$ 28.00	136,410	\$ 3,819,483	
<b>Track</b>					<b>\$ 16,429,000</b>
Install 115 LB Ballasted Track	TF	\$ 110.00	130,167	\$ 14,318,370	
Install 115 LB Ballasted Track - New Siding	TF	\$ 110.00	7,200	\$ 792,000	
Install No. 11 T.O Hand Throw (HT)	Each	\$ 125,000.00	2	\$ 250,000	
Grade Crossing Signals	Each	\$ 120,000.00	2	\$ 240,000	
Concrete Grade Crossing - Public	TF	\$ 800.00	896	\$ 716,800	
Concrete Grade Crossing - Private	TF	\$ 140.00	800	\$ 112,000	
<b>Structures</b>					<b>\$ 16,974,000</b>
Pedestrian Bridges	SF	\$ 120.00	34,015	\$ 4,081,824	
Bridges	LS	\$ 12,892,050.00	1	\$ 12,892,050	
<b>Drainage</b>					<b>\$ 325,000</b>
12" STEEL PIPE	LF	\$ 30.00	108	\$ 3,240	
24" STEEL PIPE	LF	\$ 55.00	881	\$ 48,455	
36" STEEL PIPE	LF	\$ 80.00	3,091	\$ 247,240	
72" STEEL PIPE	LF	\$ 160.00	162	\$ 25,920	
<b>Utilities</b>					<b>\$ 351,000</b>
Phone	Each	\$ 5,000.00	6	\$ 30,000	
Water	Each	\$ 25,000.00	4	\$ 100,000	
Gas	Each	\$ 10,000.00	2	\$ 20,000	
Sewer	Each	\$ 25,000.00	1	\$ 25,000	
Underground Power	Each	\$ 12,000.00	8	\$ 96,000	
Overhead Power	Each	\$ 8,000.00	10	\$ 80,000	
<b>Contingencies (30%)</b>			30%		<b>\$ 14,523,000</b>
<b>Environmental Mitigation</b>	Acre	\$ 71.72	100,000		<b>\$ 7,172,000</b>
<b>Construction Subtotal</b>					<b>\$ 70,104,000</b>
<b>Engineering Design (10%)</b>			10.0%		<b>\$ 7,010,000</b>
<b>Construction Management (6%)</b>			6.0%		<b>\$ 4,206,000</b>
<b>Sales Tax</b>			7.8%		<b>\$ 5,468,000</b>
<b>TOTAL</b>					<b>\$ 86,788,000</b>

Notes: subtotals rounded to nearest 1,000s

TF = Track Foot LS = Lump Sum CY = Cubic Yards LF = Linear Foot

conceptual cost estimates, known information is compiled, and then industry-wide, standard unit costs are used to estimate how much a particular element would cost. For example, in order to estimate the cost of rail for a 10,000 foot siding, that length would be multiplied by the current, industry standard cost for the particular rail that would be used.

The specifics of construction are not available during the conceptual stage of engineering. The unknown site-specific information result in variable costs for individual items. Experience indicates that for the level of detail of the available information, a contingency<sup>31</sup> of thirty percent is sufficient to cover issues found during engineering. In addition, for the Eastern Skagit Rail Project, \$100,000 per acre of disturbed area outside the roadbed was added to the cost estimates to cover the cost of environmental mitigation. The environmental contingency is used to ensure that any mitigation that may be necessary is accounted for in the conceptual cost. At the conceptual level, it is rarely known what, if any, mitigation would be required.

The estimates can also be affected by time. There can be significant unpredictable factors in addition to the normally predictable effect of inflation. In recent years, the costs of building materials, notably steel, concrete, and fuel have been volatile.

### **What is included in the cost estimate?**

Costs were developed using 2006 dollars, and include:

- Earthwork;
- Mobilization;
- Track work;
- Structures;
- Right of way;
- Grade crossing improvements; and
- Utility relocation.

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<sup>31</sup>Contingency is an amount intended to mitigate the unknown. As the level of detail in project plans increases, the contingency in the estimate is reduced because there is less that is unknown. The contingency in the final engineered estimate is small because the estimate includes all information that it is possible to know without beginning construction. There are almost always surprises, but their effect is generally small enough to fall within the contingency amount. Occasionally, a surprise such as the discovery of historical artifacts or underground water can have an impact that exceeds the amount estimated for contingency.

Mobilization,<sup>32</sup> contingencies, environmental mitigation, engineering design, and construction management are also part of the estimate. Sales tax of 7.8 percent was also applied to each estimate.

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<sup>32</sup>*Before the work can progress, the contractor must mobilize the necessary workers, equipment and supplies required to construct the rail line. Staging areas need to be set up and materials need to be brought to the construction area.*

## Chapter Five

# Potential Rail-Dependent Industrial Sites

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Implementation of new freight rail service would require that a number of new and expanded industrial businesses locate along the rail line and utilize the new freight rail service. Spur lines from these industrial sites to the rail line would be required. Such construction is dependent upon many factors, including terrain, distance from the rail line, and environmental features. Depending upon these elements, construction costs could potentially make the site infeasible as a rail-dependent parcel.

### How were parcels identified?

At the onset of this feasibility study, the project team and local stakeholders participated in a field visit to identify preliminary parcels. Following the field visit, the project team and county planners reviewed the revised *Skagit County Comprehensive Plan Map Amendment, 2006*. As part of this review, County planners identified thirteen<sup>33</sup> parcels which are designated for “Natural Resource Industrial” or “Rural Business” use. These parcels were targeted by County planners as the most appropriate sites for rail-dependent industrial use. **Appendix F** presents the amended *Comprehensive Plan* map which identifies land use designations within the County. **Exhibit 5.1** on the following page identifies the parcels that were evaluated.

### How were parcels evaluated for potential use as a rail-dependent site?

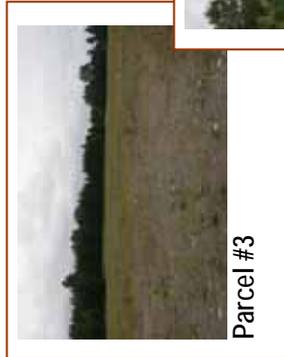
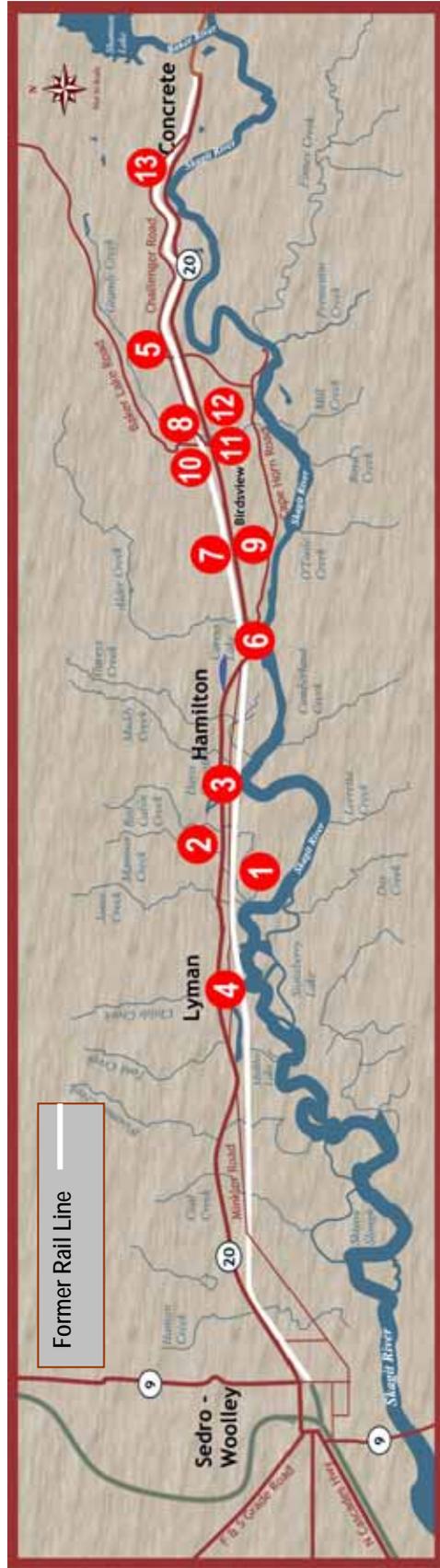
The project team developed a methodology for review and ranking of the potential rail-dependent sites. The following outlines the process used in this analysis:

1. Identify potential parcels (with County planners and stakeholders);
2. Prepare parcel data sheets which included tax identification number, address, tax map, and size of parcel (see the end of this Chapter and **Appendix G**);
3. Develop data sheets to be completed during a field visit to each site. These field sheets included information regarding the site’s terrain, stream

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<sup>33</sup> *Two parcels had more than one tax identification number: Parcel 7 had three components and Parcel 10 had two components.*

**Exhibit 5.1  
Parcels Identified for Potential Rail-Dependent Use**



or river crossings, distance from the rail line, environmental constraints (flooding), right of way requirements for a spur line, site access, and street crossings.

4. Perform field review – visit and photograph each parcel. (Completed field data sheet for each parcel are presented in **Appendix H**);
5. Develop design criteria for construction of rail spur from the proposed rail line to the potential industrial parcel (See **Exhibit 5.2**);
6. Based on elements provided on the field sheets and design criteria, develop an order of magnitude cost comparison (i.e., low (\$100 thousand - \$500 thousand), medium (\$500 thousand to \$1 million), high (greater than \$1 million));
7. Using the parcel data sheets and the field data sheets, develop order of magnitude cost estimates for each parcel (see **Appendix I**); and
8. Recommend parcels which have the most potential to have a rail spur constructed to link to the new rail line.

During Step 8 (above), two criteria were applied to each of the parcels:

1. Is the parcel located within the existing floodway?; and
2. Would the proposed spur line (connecting the parcel to the former rail line) need to cross SR 20?

If “yes” was answered for either question, the parcel was eliminated from further study due to the:

- Extensive cost associated with a grade separation (at SR 20); or
- Inability to develop an industrial facility within an existing floodway.

**Exhibit 5.2  
Industrial Site Criteria**

Design Element	Criteria
Parcel	Maximum grade on tracks is 0.1 percent Minimum parcel length is 1200 feet Minimum parcel depth is 400 feet
Access Track	Maximum grade on industry track lead is 1.5 percent Maximum track curvature 9° 30'

**Exhibit 5.3**  
**Estimated Conceptual Cost Estimates for Rail Access to Identified Sites**

Parcel	Acres	Estimated Conceptual Cost for Rail Spur	Description
3	34.27	\$1.1 million	Has minor access issues. Best access via the southeast corner
7a	18.36	\$1.1 million	Adjacent to the former rail line
8	21.93	\$0.280 million	Good access to SR 20 at the southeast corner
10*	4.74	\$0.750 million	Good size site, however, industry would need to be somewhat narrow. If property adjacent parcel can be acquired, would create long, narrow site that could work well
13	16.23	\$0.650 million	Good for small industry, long enough for five railcar spot without substantial grading

*\*if additional parcel is purchased to make parcels contiguous*

### **What was the result of the evaluation?**

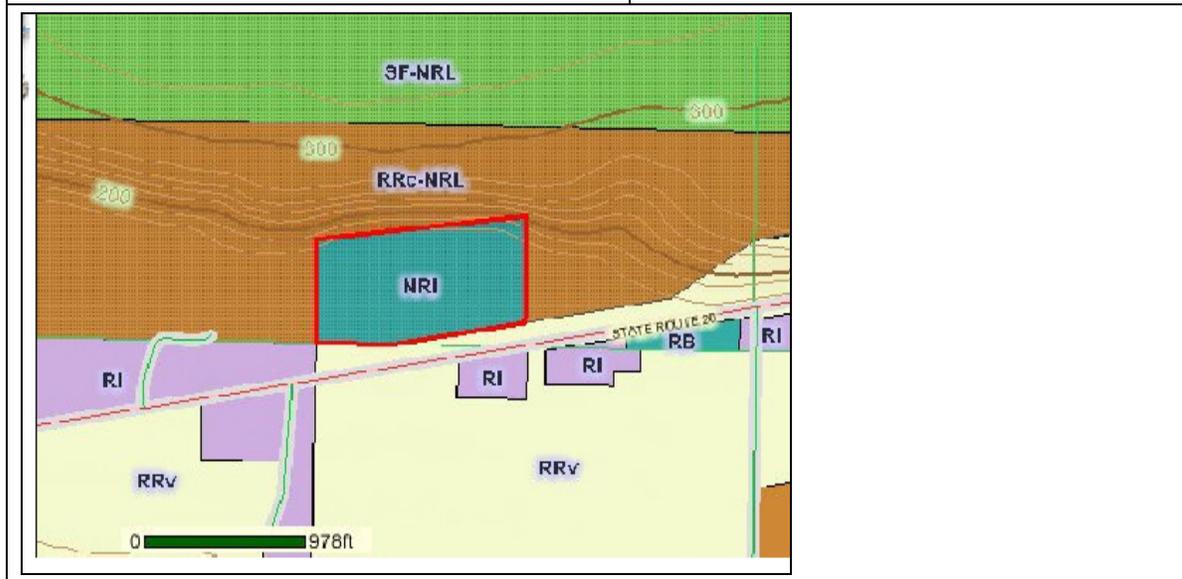
Based on the design criteria and environmental review, eleven of the sixteen sites did not meet the minimum site requirements for rail access. These sites were eliminated from further consideration. The remaining parcels were then further evaluated and conceptual cost estimates (for providing rail to the parcel) were developed. The results of the evaluation and parcel comparison are presented in **Exhibit 5.3**. **Exhibits 5.4** through **5.8** present parcel information for these sites.

**Exhibit 5.4  
Parcel #3: Information Sheet**

<b>Parcel Number:</b> P41204	<b>Address:</b> Milepost 77, Route 20, Hamilton
<b>Current Use:</b> Log Dump	<b>Zoning/Land Use:</b> Natural Resource Industrial (NRI)
<b>Size:</b> 34.27 acres	<b>Legal Description:</b> NW1/4 NW1/4 LESS TRS & RLY R/W & TAX 19 20 & RD & HWY
<b>Site Conditions/Field Notes:</b>  Located a short distance north of the former rail line on the west side of Hamilton, bounded on the north by SR 20, on the west by Cabin Creek Road. A very large and level site consisting primarily of unused open land, with a tree line traversing the south side. No wetlands were observed on the site, though Muddy Creek passes close to the southwest corner. A Puget Sound Energy substation is present on the west boundary. Relatively easy access is available in the southeast corner. Judged to be an excellent site for development due to its size, proximity to the former rail line, and easy access to SR 20 and commercial power.	
	

**Exhibit 5.5  
Parcel #7a: Information Sheet**

<b>Parcel Number:</b> P42331	<b>Address:</b> 38507 Highway 20
<b>Current Use:</b> Pacific Rim Tonewoods (first and second parcel)	<b>Zoning/Land Use:</b> Natural Resource Industrial (NRI)
<b>Size:</b> 18.36 acres 13.65 acres 4.14 acres	<b>Legal Description:</b> PTN SW1/4 SE1/4 SEC 9 AND ALSO PTN NW1/4 NE1/4 SEC 16 DAF BEG SW COR SE1/4 SD SEC 9 TH S 1-07-38 W ALG W LN SD NE1/4 SEC 16 86.59FT TO N R/W LN OF BNRR TH N 80-40-32 E ALG SD NLY R/W LN 1287.73FT TH N 0-25-49 E PLW W LN SD SE1/4 639.98FT TH S 83-51-29 W 1277.0FT M/L TO W LN SD SE1/4 TH S 0-25-49 W ALG SD W LN SE1/4 TO POB EXC FDP PTN NW1/4 NE1/4 SD SEC 16 LYG N OF RD  ACREAGE ACCOUNT, ACRES 13.64, SW1/4 SE1/4 EXC FDP PTN SW1/4 SE1/4 SEC 9 AND ALSO PTN NW1/4 NE1/4 SEC 16 DAF BEG SW COR SE1/4 SD SEC 9 TH S 1-07-38 W ALG W LN SD NE1/4 SEC 16 86.59FT TO N R/W LN BNRR TH N 80-40-32 E ALG SD NLY R/W LN 1287.73FT TH N 0-25-49 E PLW W LN SD SE1/4 639.98FT TH S 83-51-29 W 1277.0FT M/L TO W LN SD SE1/4 TH S 0-25-49 W ALG SD W LN SE1/4 TO POB  4.14 CLEARED AC WITHIN SE1/4
<b>Site Conditions/Field Notes:</b>  Located east of Hamilton. P42331 is currently in use by Pacific Rim Tonewoods, and is a large, level site immediately adjacent to the trail. P42331 was judged to be a good site for development, while the other two parcels which are part of this site (P99657 and P101461) are impractical due to their extreme elevation difference above the former rail line.	



**Exhibit 5.6  
Parcel #8: Information Sheet**

<b>Parcel Number:</b> P42397	<b>Address:</b> 7578, 7552, 7628 Russell Road
<b>Current Use:</b> NW Forest Fiber	<b>Zoning/Land Use:</b> Natural Resource Industrial (NRI)
<b>Size:</b> 21.93 acres	<b>Legal Description:</b> NE1/4 SE1/4 N OF RLY LESS RD

**Site Conditions/Field Notes:**

Located immediately north of the former rail line at Birdsvie Siding. A very large, level site currently in use by Northwest Forest Fiber (logging industry), with no observable wetlands. Excellent access is available to both the former rail line and SR 20; a residence lies in the northeast corner and a KOA campground is situated a short distance to the north. This site was judged to be good for development due to its current industrial use, easy transportation access, and low environment impact.



**Exhibit 5.7  
Parcel #10: Information Sheet**

<b>Parcel Number:</b> P42401, P42403	<b>Address:</b> 39602 Baker Lake Road
<b>Current Use:</b> Creekside Camping and Store	<b>Zoning/Land Use:</b> Rural Business (RB)
<b>Size:</b> 3.74 acres 1 acre	<b>Legal Description:</b> PTN NW1/4 SE1/4 BAT INT OF N LI SD SUB & C/L BAKER LK HWY TH S ALG SD HWY 761F TTH E 278FT TO C/L GRANDY CRK TH N ALG CTR SD CRK 895FT TH W 324FT TPB INC M/H 15156 UNIVERSAL 68 60X12  PTN OF SW1/4 SE1/4 LY N OF RLY & E OF BAKER LAKE RD #3611 & LY WLY GRANDY CREEK
<b>Site Conditions/Field Notes:</b> <p>P42401 is located approximately one-quarter mile north of the former rail line, and P42403 is a narrow sliver of land immediately adjacent to the former rail line. Bounding the west side of both parcels is Baker Lake Road; SR 20 is immediately south of the former rail line. P42401 is a medium-sized site occupied by residences, a small grocery store and a campground; the small P42403 parcel hosts a single small house and open fields. Lying between the two parcels is parcel P42400, utilized as a residence with a large tract of open land, and posted for sale as of the date of inspection. The three parcels together could be developed for industrial use, but without the inclusion of P42400 access to P42401 could be difficult.</p>	

**Exhibit 5.8  
Parcel #13: Information Sheet**

<p><b>Parcel Number:</b> P43592</p>	<p><b>Address:</b> 44363 Grassmere Road</p>
<p><b>Current Use:</b> LB&amp;R Logging</p>	<p><b>Zoning/Land Use:</b> Natural Resource Industrial (NRI)</p>
<p><b>Size:</b> 16.23 acres</p>	<p><b>Legal Description:</b> W1/2 NE1/4 NW1/4 N OF RLY</p>
	<p><b>Site Conditions/Field Notes:</b></p> <p>Located west of Concrete on the north side of the former rail line. A medium-size parcel currently in use by a logging-industry firm, with a few older buildings present. A stream runs between the trail and the parcel, with abandoned vehicles and machinery evident alongside the waterway. Provided that environmental factors were not an overriding concern, the site would be acceptable for development.</p>

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## Chapter Six

# Regulatory Requirements and Considerations

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Prior to moving forward to obtain funding and construct the Eastern Skagit Rail Project, a number of state and federal regulatory requirements must be considered. In addition, operational and ownership issues need to be resolved prior to implementation.

### **What ownership and operational issues need to be resolved prior to implementation of the Eastern Skagit Rail Project?**

At this time, ownership and maintenance responsibility of the Eastern Skagit Rail Project have not been determined. In addition, issues regarding land ownership along the former rail line need to be resolved.

#### **Operations and Maintenance**

Before construction begins, legal agreements between the various parties (the Washington State Department of Transportation, Skagit County, BNSF Railway Company, property owners, and the new rail operator) would need to be in place so that all parties understand who would be responsible for providing the funds to operate and maintain the new assets in the years ahead.

#### **Land Ownership**

A key element to reinstating freight rail service, in conjunction with a new trail, is the issue of reversionary rights.<sup>34</sup> At the turn of the century when railroads were building their rail lines, they often negotiated easements over private property (in lieu of purchasing the land). The terms of the easements often dictated the use of the land (for which the easement was negotiated) – typically only allowing the private property to be used for an active rail line. It is partly due to this issue that the *Rails-To-Trails Program* (RTP) was originally developed. By converting the abandoned rail line to a trail – via the RTP – the land is saved as a rail corridor, thus negating any reversionary rights of the original property owner.

For the Eastern Skagit Rail Project, reversionary rights may or may not be an issue. Based on this preliminary engineering review, it has been determined that the former rail line is not wide enough to accommodate a new rail line and a trail. A new rail line could be accommodated within the existing right

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<sup>34</sup> *Return of land ownership along the rail line to the original land owners.*

of way (per the original easement), but additional right of way would be required for a new trail. If the new trail would be located entirely off of the former rail right of way, then, land purchases would be required between the property owner and the trail owner. However, if any portions of the new trail would be located on the former rail line, then, depending upon the language and restrictions of the original land easement (from the 1890s), the trail may not be a permitted use per the original easement. If this is the case, the land would have to be purchased, or a new easement would have to be negotiated between the trail owner and the property owner.

## **What regulatory requirements pertain to the Eastern Skagit Rail Project?**

Rail operations and construction are regulated and monitored by various state and federal agencies. In addition, if public funds are used to construct new rail lines, then additional federal regulations may also apply to the Eastern Skagit Rail Project. The following provides a summary of potential federal, state, and local regulatory requirements which would likely need to be followed as the project moves forward.

### **Surface Transportation Board (STB)**

The Surface Transportation Board is a federal regulatory agency that oversees the operation of railroads – including the introduction of new lines, new service, and abandonment. The project proponent would be required to file a number of petitions to the STB to obtain permission to convert the former rail line to an active rail line.

The first application would be to get approval of the new rail construction and/or trackage rights (and an individual exemption from the regular, more burdensome, procedural rules for STB approval under 49 U.S.C. §10901).

If the new track and right of way is to be owned by Skagit County, then either the County (if it is also going to operate the line) or the carrier that would be leasing the operating rights will need to apply for a certificate of public convenience and necessity from the STB. This application is covered by a class exemption from the more burdensome pre-approval rules and will become effective seven days after the *Notice of Exemption* is filed, subject only to an after-the-fact Board review if objections are received.<sup>35</sup>

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<sup>35</sup>Where proper objections are filed, the STB approval may later be revoked (if the STB determines its regulatory scrutiny is necessary) or treated as void (if the exemption notice is found by the STB to have contained false or misleading information). 49 C.F.R. §1150.32; Riverview Trenton Railroad Company, STB Finance Docket No. 34040, 2003 WL 21108179 (2003).

At the time of application for authorization for rail construction, all directly related applications would be required to be filed concurrently.

### Estimated Application and License Costs

STB application fees, as they pertain to the Eastern Skagit Rail Project are as follows:

- Application for new rail line/trackage rights: \$60,800 filing fee; and
- Certificate of public conveyance and necessity: \$1,500 filing fee.

However, filing fees are waived for an application or other proceeding which is filed by a state or local government entity.

### Estimated Timeline

Depending upon the type and number of STB applications required, the timeline could take anywhere from six months to a year, in addition to the required environmental process.

### Washington Utilities and Transportation Commission (WUTC)

The rail line crosses a number of roads. The Washington Utilities and Transportation Commission must approve creation of rail/highway crossings before they are constructed. It would specify the safety devices and warning systems that must be installed at each crossing.

### Estimated Petition Costs

There is no fee for filing a petition to the WUTC.

### Estimated Timeline

Past experience indicates that it takes the Commission from one to three months to process a petition or group of related petitions. Design engineers can reduce the uncertainty about what the Commission may require by performing diagnostic evaluations with Commission staff before filing the petitions.

### Environmental Documentation

Two environmental laws govern development within Washington State: the *State Environmental Policy Act (SEPA)* and the *National Environmental Policy Act (NEPA)*. Both of these regulations require that environmental analysis be performed to ensure that minimal (or no) harm will come to the human, physical, or biological environment. Each of these regulations has their own documentation requirements, depending upon the project.

## National Environmental Policy Act (NEPA) Requirements

Pursuant to the *National Environmental Policy Act*, any federal action requires compliance with NEPA. A federal action can either be a project which is:

- Implemented by a federal agency;
- Requires a federal permit or approval;
- Funded by a federal agency; or
- Located on federal property.

If it is determined that STB has jurisdiction over the Eastern Skagit Rail Project, then a federal action is initiated. Therefore NEPA compliance would be required.

In addition, if federal funding for construction is obtained, other environmental regulations, pursuant to the federal funding agencies' guidelines, would also be required.

### Surface Transportation Board

The Surface Transportation Board has several different approaches to completing the required NEPA analysis and documentation, depending on the type of project, expected complexity, and desires of the applicant.

One approach, which generally follows the process outlined in the STB environmental rules, has the applicant prepare and submit an *Environmental Report* and a *Historic Report* as part of the *Application or Petition for an Exemption*. Depending on the project, and the quality of the environmental report, STB will either:

- complete the NEPA process and document in-house; or
- have the applicant retain a third party consultant to complete the NEPA process and document.

STB's rules require substantial agency coordination as part of the development of the *Environmental Report*. However, STB has found that pre-coordination by the applicant with the various federal resource agencies can create some confusion and redundancy since STB must also coordinate with the same set of agencies after the *Environmental Report* is filed as part of their NEPA responsibility.

A second approach is to have the applicant request a waiver of the *Environmental Report* requirement and instead participate in the STB agency and public scoping process and prepare a *Preliminary Draft Environmental Assessment* (PDEA). The PDEA normally is submitted after the *Application or Petition for an Exemption* and requires only one coordinated round of

agency contacts. Following the filing of the PDEA, STB will then verify the PDEA and publish the *Environmental Assessment*. This could require the hiring of a third party consultant to provide STB with the staff support necessary to complete the process. One benefit of this process is that it allows the applicant to manage the cost and schedule for the bulk of the environmental review.

A final approach that is used is that the applicant requests a waiver of the *Environmental Report* requirement and engages the services of an independent third party consultant to support STB. At STB's direction, the third party completes the NEPA analysis and prepares the NEPA document. The applicant's primary role is to respond to requests for information from STB. This process has fewer parties involved, but limits the ability of the applicant to manage the cost and schedule of the NEPA process.

### Federal Funding

If federal funding becomes available for the Eastern Skagit Rail Project, it is likely that the earmark would either be distributed via the Federal Highway Administration (FHWA) or the Federal Railroad Administration (FRA). The federal funding would require NEPA compliance. Coordination with STB and the federal funding agency would be required to determine which environmental guidelines would be followed, and which federal agency would be the lead agency.

One important consideration regarding federal funding and NEPA pertains to the acquisition of right of way. If funding is provided by either FHWA or FRA, then right of way cannot be purchased until the NEPA process has been completed. This requirement is pursuant to 23 CFR 771.305 which states:

“The National Environmental Policy Act (NEPA) process, as described in FHWA's NEPA regulations in 23 CFR part 771, normally must be conducted and concluded with a record of decision (ROD) or equivalent before Federal funds can be placed under agreement for acquisition of right of way.”

However, pursuant to 23 CFR 710.502, under certain, very limited circumstances, FHWA/FRA do permit the purchase of right of way prior to the completion of the NEPA document. The regulations state:

“(a) *General conditions.* Prior to the STD [State Transportation Department] obtaining final environmental approval, the STD may request FHWA agreement to provide reimbursement for advance acquisition of a particular parcel or a limited number of parcels, to prevent imminent development and increased costs on the preferred location (Protective Buying), or to alleviate hardship to a property

owner or owners on the preferred location (Hardship Acquisition), provided the following conditions are met:

- (1) The project is included in the currently approved *State Transportation Improvement Plan* (STIP);
- (2) The STD has complied with applicable public involvement requirements in 23 CFR parts 450 and 771;
- (3) A determination has been completed for any property subject to the provisions of 23 U.S.C. 138; and
- (4) Procedures of the Advisory Council on Historic Preservation are completed for properties subject to 16 U.S.C. 470(f) (historic properties).

(b) *Protective buying.* The STD must clearly demonstrate that development of the property is imminent and such development would limit future transportation choices. A significant increase in cost may be considered as an element justifying a protective purchase.

(c) *Hardship acquisitions.* The STD must accept and concur in a request for a hardship acquisition based on a property owner's written submission that:

- (1) Supports the hardship acquisition by providing justification, on the basis of health, safety or financial reasons, that remaining in the property poses an undue hardship compared to others; and

- (2) Documents an inability to sell the property because of the impending project, at fair market value, within a time period that is typical for properties not impacted by the impending project.

(d) *Environmental decisions.* Acquisition of property under this section shall not influence the environmental assessment of a project, including the decision relative to the need to construct the project or the selection of a specific location.”

Once federal funding sources are secured, it would be the responsibility of the project proponent to work with FHWA or FRA to determine the right of way acquisition requirements and process. This could affect the timing of implementation of the rail line in conjunction with the trail, which would require additional right of way.

### State Environmental Policy Act (SEPA) Requirements

The *State Environmental Policy Act* (SEPA) requires that an environmental review be prepared for projects which may have substantial impacts. Under

SEPA, a number of projects are exempt from this analysis. However, the construction of a rail line is not exempt. It is therefore anticipated that the project proponent, at a minimum, would be required to complete a SEPA checklist. If a NEPA document is also prepared, the project proponent can adopt the NEPA document to fulfill its SEPA obligations.

### State Funding

Similar to federal regulations, SEPA has guidelines related to the completion of the environmental document and the purchase of right of way. Pursuant to WAC 197-11-704(2)(a)(ii), an agency action includes a decision to:

"Purchase, sell, lease, transfer, or exchange natural resources, including publicly owned land, whether or not the environment is directly modified."

As such,

"No agency action can be taken until a final determination of nonsignificance or a final environmental impact statement has been issued." (WAC 197-11-070)

However, some real property transactions are exempt from SEPA and this requirement, including the purchase or acquisition of any right to real property (WAC 197-11-800(5)). However, this exemption does not apply when the acquisition is part of a larger proposal (WAC 197-11-305). Therefore, if the purchase of the right of way and the construction of a new rail line are interdependent pieces of a proposal, they must then be evaluated in a single environmental document.

The SEPA lead agency would need to make the final decision about the interdependency of the land purchase and the railroad construction, and whether both segments would need to be evaluated in a single document.

### Estimated Environmental Documentation Costs

Depending upon the type of environmental document prepared, costs could vary considerably. It is estimated that the cost of the NEPA/SEPA environmental documentation could range from \$500,000 to \$1 million.

### Estimated Timeline

Beginning with project scoping through the final ruling (a *Record of Decision* (ROD) if an *Environmental Impact Statement* is prepared or a *Finding of No Significant Impact* (FONSI) if an *Environmental Assessment* is prepared), the joint NEPA/SEPA process could take from one to three years.

## Environmental Permits

In addition to NEPA and SEPA compliance, a project must adhere to specific laws and ordinances at the federal, state and local levels. The following list of permits is general and not intended to be all-inclusive. As project design and environmental analysis moves forward, more specific permit requirements would be identified. Specific elements of project design would trigger or not trigger the need for certain permits.

### Endangered Species Act

Because this project would likely have a federal nexus (STB jurisdiction and possibly federal funding), it must comply with the *Endangered Species Act* (ESA). Completion of a *Biological Assessment* (BA) would be required.

A BA requires the evaluation of project elements, including:

- Direct impacts to habitat;
- Secondary impacts to habitat elements that could result from aspects of the design such as storm water treatment and operations; and
- Indirect or interdependent effects that could result from increased roadway capacity, or increased growth that results from the project.

The primary goal of the assessment is to determine how the project (and its construction) would affect listed species of threatened or endangered plants or animals protected under the federal *Endangered Species Act*. This analysis results in an *Effect Determination* which states clearly how the proposed activity would positively or negatively affect the listed species that occur in the project vicinity. The BA also identifies specific project activities that must be implemented for the effect determination to remain valid.

### Determination and Consultation

The project impacts may be so minor as to warrant a *No Effect Letter*. This letter does not go to the federal resource agencies for concurrence, but is reviewed by STB (assuming STB is the lead federal agency). A *No Effect Letter* can take a week to a month depending on workload.

However, if it is determined that the project would have an adverse effect, STB would submit the BA to the National Marine Fisheries Service and the U.S. Fish and Wildlife Service (collectively referred to as 'the services'). A review for a BA can take four to six months with the services, depending on their workload.

## Potential Federal Permits

For areas with in-water work, a Section 404 permit from the U.S. Army Corps of Engineers (Corps) would be required. The Corps administers the *Clean Water Act*, and Section 404 is the section that regulates authorized fill within waters of the United States, including wetlands. A Section 404 permit would require that impacts to natural wetland functions be mitigated.

Soil-disturbing activity, including new construction or track rehabilitation, would trigger the need for a *National Pollutant Discharge Elimination System* (NPDES) general construction permit. The Washington State Department of Ecology administers this program and would issue the permit. This permit oversees erosion control activities and best management practices related to construction. This approval is required for land disturbing activity for construction at sites greater than one acre.

## Potential State Permits

In-water work would also require a *Section 401 Certification*. This permit is issued by the Washington State Department of Ecology. Ecology may also place mitigation requirements on the applicant for the 404 permit through the 401 certification process.

Impacts, such as rail construction within 200-feet of the Skagit River would trigger a *Shoreline Substantial Development Permit*. This permit is issued by the local agency (Skagit County) and then also approved by Ecology. This approval would also require mitigation for natural resource impacts.

## Potential County and Local Government Approvals

Soil-disturbing activity, including new track construction, would trigger a review by the local jurisdictions along the corridor and Skagit County. These local agencies would issue grading permits for construction.

In-water work would also require permits from Skagit County. Skagit County has environmental ordinance restrictions concerning impacts to wetlands. These rules require mitigation for impacts.

## Estimated Permit Costs

Environmental permit fees and associated mitigation have been included as part of the conceptual cost estimates presented earlier in this document.

## Estimated Timeline

STB typically prepares the *Biological Assessment* in conjunction with the NEPA document; however, a ROD or FONSI cannot be issued until consultation with the services is complete. As such, the timeline for an *Environmental Assessment* or an *Environmental Impact Statement* could be

lengthened by as much as six months depending upon consultation with the services, to a total of two to three years.

## Chapter Seven

# Issues and Challenges

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While conducting research for the *Eastern Skagit Rail Project Feasibility Study*, the project team uncovered some issues and challenges that would need to be addressed before the project or portions of the project could be constructed. This chapter provides a brief overview of these issues and challenges and how they could affect project implementation. This list is not intended to be all-inclusive. It is likely that other issues and challenges would emerge as more research on the feasibility of the project is performed.

### What are the major issues and challenges?

The Eastern Skagit Rail Project has four major issues which could potentially result in fatal flaws or challenges. These four issues are primarily environmental and economic. The following discussion presents these issues and their potential challenges.

#### **Shipper demand and potential operating subsidies**

The economic viability of rail transportation is driven by many factors, including the level of demand for service as measured in carloads per year, the timeliness of service provided by a railroad or series of railroads, and cost of service.

The new rail line would connect with the BNSF Railway Company's (BNSF) main line tracks near Sedro-Woolley. BNSF delivery times, service reliability, and costs would be an important component of any operating plan for the new rail line.

A detailed demand analysis for the Eastern Skagit Rail Project was beyond the scope of this study. However, the project team did receive some preliminary feedback from some potential rail shippers in the study area. **Exhibit 7.1** on the following page lists the businesses that responded to the project team's survey regarding future potential business. Based on this initial feedback, the number of carloads per year on the new rail line may be quite limited. The establishment of new industries near the new rail line could increase the traffic base, and demand for gravel and limestone may cause local mines near the former rail line to increase production and seek rail service to move their products.

**Exhibit 7.1  
Survey Responses  
Potential Industrial Customers**

Industrial Survey Participants
Concrete Northwest
Glacier NW
Kalland Mills
Olympic Resource Management
Trillium Corporation
Unimin Corporation

Unless there is sufficient traffic on the line to generate enough revenue to keep the rail line in a state of good repair, the owner of the rail line may have to provide some type of operating subsidy to maintain the tracks, bridges, ballast, ties, and public crossings. If the owner is a public agency, then these operating subsidies must be provided through taxes collected by some public entity.

Before commencing with rail line construction, project proponents must perform additional research on market demand, BNSF operating plans for the area, and BNSF pricing policies before embarking on the Eastern Skagit Rail Project. This research must be performed so that the risks associated with the project are fully understood by those providing funds for the project.

### **Skagit River Flooding**

The rail-banked corridor that connects Sedro-Woolley and Concrete runs along the north shore of the Skagit River. Several sections of the rail line pass through lands designated as floodways, where the land is susceptible to recurring floods. Areas where the most severe flooding has occurred and is anticipated to occur include Lyman, Cockreham Island, Hamilton, and Cape Horn. (See **Appendix C** for a map of these designated flood areas.)

The cost estimates for the new rail line included in this study are one-time investments. Additional flood prevention and mitigation measures may be necessary in order to implement this project. These measures are not included in the cost estimates.

If major flooding occurs in the future, additional investments may be needed to repair any flood-related damage to the rail bed, tracks, ties, bridges, and crossing signals. These potential flood damage repair costs are unknown at this time, but could be significant and recurring. Rail line project proponents

would need to fully consider the long-term risks and costs associated with providing freight rail service through designated floodways before embarking on rail line construction.

### **Skagit Land Trust**

The Skagit Land Trust protects the natural lands, open space, and wildlife habitat of Skagit County. The Skagit Land Trust either acquires or uses an easement to protect land from development. There are over two hundred acres of trust lands connected to three waterways that cross or are adjacent to the former rail line. Project proponents would need to work closely with the Skagit Land Trust and other relevant organizations to ensure that protected lands and habitats would not be impacted by the proposed project.

### **Rail Line Ownership and Operator**

If the Washington State Legislature determines that the Eastern Skagit Rail Project should move forward, WSDOT, Skagit County, and other project stakeholders will need to identify agency roles and responsibilities. Prior to construction, it will be necessary for the major stakeholders to negotiate ownership of the new rail line. A rail line operator will also need to be identified.

### **Business Plan and Industrial Track Agreement**

Once an owner and operator for the new rail line have been identified, a business plan must be developed. This plan should include operating plans and service costs. In addition, coordination with the BNSF is essential. Key to the success of the new rail line will be the development of an *Industrial Track Agreement*.

An *Industrial Track Agreement* is a contract between the BNSF and the short line owner/operator in which both parties agree to the cost and design of the tie-in with the main line. In addition, the agreement identifies the amount of money which the short line would give the BNSF to build the tie-in. The short line would be responsible for designing the tie-in but the BNSF would be responsible for building the line connection.

### **Rails-to-Trails, Rails-with-Trails, and reversionary property rights along the corridor**

The rail corridor examined in this study is classified as a rail-banked corridor under the provisions of the federal *Rails-to-Trails Program*. This program, established in 1983, is a voluntary agreement between a railroad company and a trail agency to use an out-of-service rail corridor as a trail until some railroad might need the corridor again for rail service.

The project team was asked by local stakeholders to investigate the costs of providing a trail adjacent to the new tracks within the existing rail-banked corridor. This concept is known as “Rails-with-Trails.” The project team determined that new right of way would be needed to accommodate a “rails-with-trails” configuration, with the nearest edge of the trail no closer than seventeen feet from the centerline of the track. Including the space needed for a fence, this would require an easement or outright acquisition of approximately fifty-four acres of land for the trail.

When the rail line was constructed in the 1880s and 1890s, some property owners gave the railroad an easement over their land. In other words, these private landowners gave the railroad permission to use their property under certain conditions, without giving the railroad company complete ownership of the land used by the railroad. When the rail line was to be abandoned in the 1990s, several landowners who inherited the original easements granted to the predecessors of the Burlington Northern Railroad (now BNSF Railway Company) sought to prevent the proposed public trail from being constructed, claiming that they had reversionary rights to the land under the terms of the original deeds. The federal Surface Transportation Board (STB) denied a petition to reopen abandonment proceedings on the rail-banked corridor that would have led to the reversion of the corridor to private ownership.<sup>36</sup>

A number of landowners with properties adjacent to the corridor would need to grant their permission for this public trail, as it will fall outside of the existing rail-banked corridor. Acquiring this permission from all of the adjacent landowners could become a challenge for project proponents. A public proponent for the trail could acquire the land for the trail through the powers of eminent domain, but this could prove to be a very divisive, costly, and time-consuming endeavor.

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<sup>36</sup>*Surface Transportation Board - Docket No. AB-6 (Sub-No.341X), Burlington Northern Railroad Company Abandonment Exemption in Skagit County, WA; decided September 19, 1997.*

# References

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The following resources were used in the preparation of this *Eastern Skagit Rail Project Feasibility Study*:

## Interviews

BNSF Railway Company:

- John Karl – January 30, 2006
- Rich Stroot – July 14, 2006
- Stu Gordon – July 14, 2006
- Terrie Nies – July 17, 2006

Skagit County:

- Kirk Johnson – May 30, 2006

## Documents and Mapping

Railroad Documents:

- *BN Track Charts*, dated 1991
- *Historic Northern Pacific Railroad Track Charts*, not dated
- BN right of way track maps, last updated in 1996
- *Pocket List of Bridges*
- *Shuttle Facility Design Guidelines and Industry Track Standards*

Skagit County Documents:

- *Comprehensive Plan Map Amendment*, 2006
- *Flood Warning Map*, 1996
- *Non-Motorized Transportation Plan*, 2000
- *NWI Wetlands and Hydric Soils Map*, 2004
- *Parks & Recreation Plan*, 2004
- *Road Standards Version 5.2*, amended July 17, 2000
- *Roads Traffic Volumes 2006*
- *Stream Types Map*, 1999

Washington State Documents:

- *TRIPS SYSTEM Annual Traffic Report*, 2006

Other:

- Army Corps of Engineers, *Economic Flood Damage Assessment*, June 2005
- Hamilton's Public Development Authority, *Flood Mitigation and Town Relocation Program*, January 2006

- Puget Sound Regional Council, *An Introduction to Rails with Trails*, 2006
- Rails to Trails Conservancy, *Railbanking and Rails-Trails*, 2005
- Rails to Trails Conservancy, *Rails with Trails*, 2000
- Rails to Trails Conservancy, *Reactivated Railbanked Corridors*, 2004
- Seattle Daily Journal of Commerce, *Less Federal Funding Leaves Flood Control Work in Limbo*, Margie Slovan, August 16, 2006
- Sonoma Marin Area Rail Transit (SMART) *Environmental Impact Report and Impact Statement*, 2006
- Surface Transportation Board, *Overview: Abandonments & Alternatives to Abandonments*, 1997
- Surface Transportation Board, *So You Want to Start a Small Railroad*, 1997
- U.S. Department of Transportation, *Rails-with-Trails: Lessons Learned*, 2002

### **Websites**

Rails-To-Trails Conservancy: <http://www.railstrails.org>

Skagit County: <http://www.skagitcounty.net>

Skagit County Journal: <http://www.stumpranchonline.com/skagitjournal/>

Skagit Land Trust: <http://www.skagitlandtrust.org>

# Glossary

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**Active warning device** Flashing lights and/or gates used at grade crossings.

**Advance warning signals** A sign used along a roadway to warn that a roadway-rail grade crossing is ahead.

**At-grade crossing** The surface where the rail and a roadway (or pathway) cross at the same level.

**Ballast** Material selected for placement on the roadbed for the purpose of holding the track in place.

**Bypass** A track that goes around other rail facilities or provides a more direct route between two points. A bypass may be as simple as a track that goes around a small yard, or may be as significant as a complete route revision.

**Capital costs** Non-recurring costs required to construct (or improve) the rail line. Capital costs include the purchase of vehicles, track improvements, station rehabilitation, and design and administrative costs associated with these improvements.

**Centralized Traffic Control** An electronic system that uses remote controls to change signals and switches along a designated portion of railroad track.

**Chokepoint** An area along the railroad track that has less capacity than the adjoining tracks, resulting in congestion. This makes it difficult for trains to pass uninterrupted.

**Continuous welded rail** Rails welded together in lengths of 400 feet or more.

**Crossover (and Power crossover)** A set of turnouts connecting multiple tracks. A crossover allows a train to move from one track to another. A power crossover may be controlled by Centralized Traffic Control.

**Deficiencies** Areas along the track that cannot handle expected increased train frequencies.

**Derail (and Power Derail)** A safety device on the track strategically located that when positioned, intentionally guides runaway rolling stock off the track to protect against collisions. A power derail may be operated by Centralized Traffic Control.

**Dispatcher** The individual who plans and controls the movement of trains.

**Double track** Two sets of main line track located side by side, most often used for travel in opposite directions, like roadways.

**Environmental Assessment (EA)** An environmental analysis prepared pursuant to the National Environmental Policy Act (NEPA) to determine whether a federal action (or project with federal investment) would significantly affect the environment and thus require a more detailed environmental impact statement.

**Environmental Impact Statement (EIS)** A document required by federal and state agencies under the National Environmental Policy Act (NEPA) and Washington State's Environmental Policy Act (SEPA). An EIS is required for major projects or legislative proposals that may significantly affect the environment. A tool for decision making, it describes the positive and negative effects of the undertaking and identifies alternative actions.

**Fill sections** Depositing of dirt, mud, or other materials into aquatic areas to create more dry land.

**Flashing light signals** Used with the crossbuck signs at railroad crossings. When the lights are flashing, the motorist or pedestrian must stop.

**Gates** Used with flashing signals at certain crossings to warn that a train is approaching.

**Geometrics** An engineering term that refers to the design of the tracks.

**Grade crossing** The area along the track where a roadway or pathway crosses.

**Grade-separated** Crossing lines of traffic that are vertically separated from each other (i.e., a roadway that goes over or under a railroad track).

**Habitat** The place where a population (human, animal, or plant) lives and its surroundings.

**Hazardous materials** Material, often waste, that poses a threat to human health and/or the environment. Typical hazardous substances are toxic, corrosive, explosive, or chemically reactive.

**Intermodal** The use of different types of transportation modes to move freight shipments and people, i.e. ships, trains, buses, and trucks.

**Lock switch (and Electric lock switch)** Operated by Centralized Traffic Control to regulate when trains can enter on or off the tracks. An electro-mechanical device that prevents movement of a hand throw switch when a train is approaching

**Main line (Mainline)** A railroad's primary track that usually extends great distances. It usually carries both freight and passenger trains.

**Meet** A meet is the location where two trains traveling in opposite directions pass one another. Additional tracks and/or crossovers may need to be placed near these locations so that trains can maintain speeds and schedule reliability.

**Mitigation** Measures taken to reduce adverse impacts on the environment.

**National Pollutant Elimination Discharge System (NPDES)** A provision of the Clean Water Act that prohibits discharge of pollution into waters of the United States unless a special permit is issued by the U.S. Environmental Protection Agency, a state agency, or where delegated, a tribal government.

**Operating costs** Recurring costs of operating passenger service. These costs include wages, maintenance of facilities and equipment, fuel, supplies, employee benefits, insurance, taxes, marketing, and other administrative costs.

**Passive warning device** Signs or markers used at all grade crossings.

**Pavement markings** Painted on the pavement in advance of a railroad highway crossing, to warn the motorist or pedestrian of the rail crossing.

**Positive train separation** A new railroad safety system, using high tech equipment to prevent train collisions.

**Rail yard** A system of tracks within defined limits, designed for storing, cleaning, and assembling (to each other) rail cars.

**Railroad crossbuck** A type of sign found at all public railroad crossings. This sign should be treated as a yield sign.

**Railroad tie** The part of the track, often wood or concrete, where the rails are spiked or otherwise fastened.

**Right of way** The horizontal and vertical space occupied by the rail service.

**Siding** An auxiliary track located next to a main line that allows a train to move out of the way of an oncoming train. Sidings are also used to store trains or to add/subtract rail cars.

**Switch** The component of a turnout consisting of switch rails and connecting parts providing the means for making a path over which to transfer rolling stock from one track to another. The switch may be thrown manually or electronically.

**Travel time** The elapsed time between a trip's beginning and end. It includes travel, transfers, and waiting time.

**Turnout** A track arrangement that connects tracks, allowing movement from one to another.

**Wetland** An area saturated by surface or groundwater with vegetation adapted for life under those soil conditions. Examples of wetlands are swamps, bogs, and estuaries.

**Yard limits** An area where locomotives may enter the main tracks under simplified conditions without authority from the dispatcher.

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# Appendices



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## **Appendix A**

### **Skagit County Stream Types**



# SKAGIT COUNTY STREAM TYPES

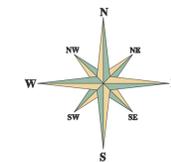
APRIL 5, 1999

## LEGEND

-  200 Ft. Area
-  D.N.R. Type 1 Streams
-  D.N.R. Type 2 Streams
-  D.N.R. Type 3 Streams
-  D.N.R. Type 4 Streams
-  D.N.R. Type 5 Streams

DNR Water Types classify streams, lakes and ponds in Washington in relation to forest practices. Type code definitions were developed cooperatively by the departments of natural resources, fisheries, wildlife, and ecology, affected Indian tribes, private industry and environmental groups.

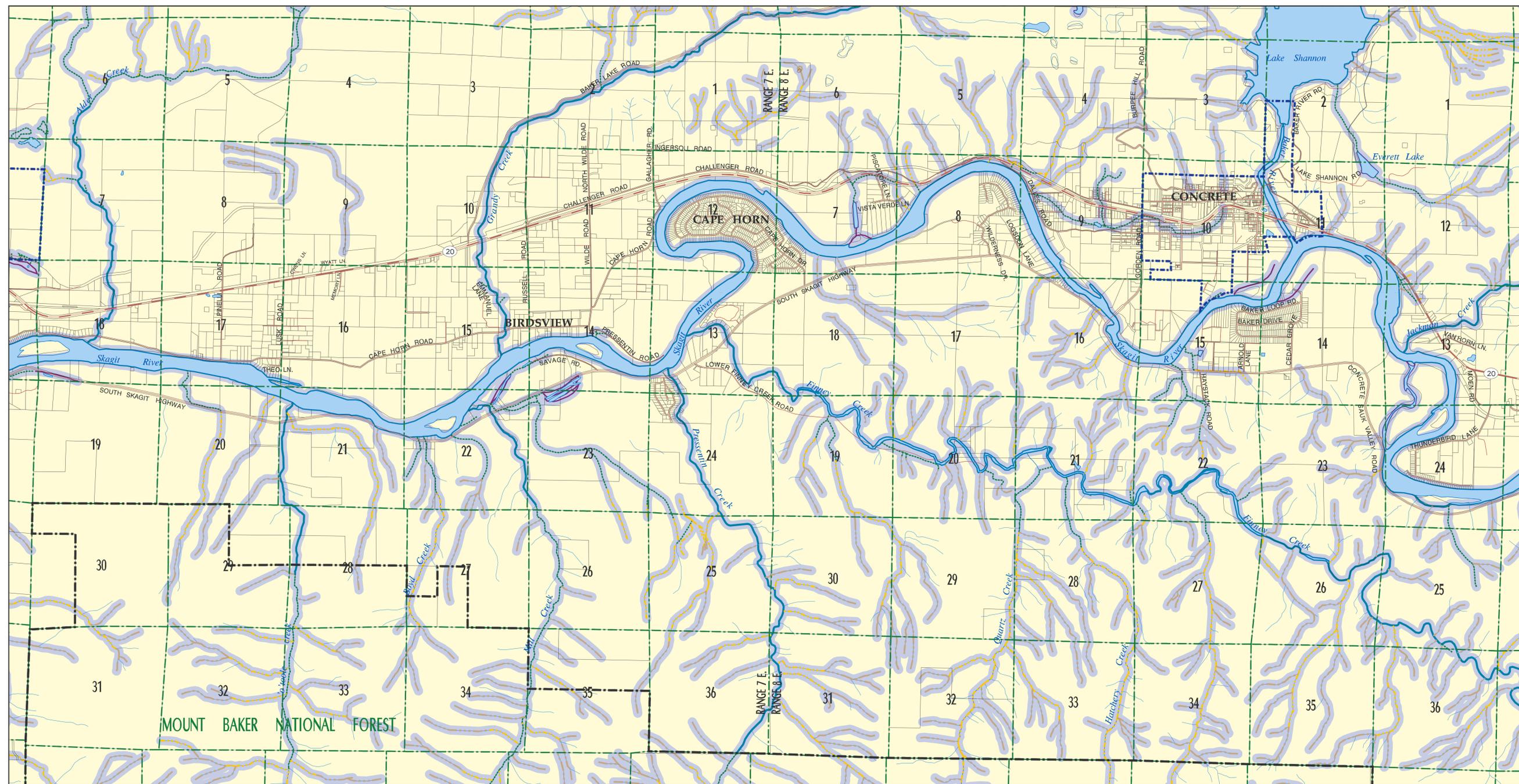
See "Water Typing Criteria," WAC 222-16-030; and "Washington Forest Practices Rules and regulations."



0 2,000 ft. 4,000 ft. 6,000 ft.

Scale 1 inch = 2000 Feet  
Map Scale 1 : 24,000

T35N R7 and 8E W.M.



This map was created from available public records and existing map sources, not from field surveys. Map features from all sources have been adjusted to achieve a "best fit" registration to the Ownership Parcels Map. While great care was taken in this process, maps from different sources rarely agree as to the precise location of geographic features. The relative positioning of map features to one another results from combining different map sources without field "ground truthing".

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The Skagit County Assessor tax lots depicted on this map represent parcel information as of September 15, 1999. For current up to date parcel information the maps available in the Skagit County Assessor office should be consulted.

Stream Data Source:

Washington State  
Department of Natural Resources  
Water Type Reference Maps.



# SKAGIT COUNTY STREAM TYPES

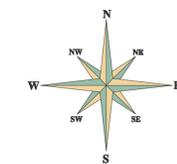
APRIL 5, 1999

## LEGEND

-  200 Ft. Area
-  D.N.R. Type 1 Streams
-  D.N.R. Type 2 Streams
-  D.N.R. Type 3 Streams
-  D.N.R. Type 4 Streams
-  D.N.R. Type 5 Streams

DNR Water Types classify streams, lakes and ponds in Washington in relation to forest practices. Type code definitions were developed cooperatively by the departments of natural resources, fisheries, wildlife, and ecology, affected Indian tribes, private industry and environmental groups.

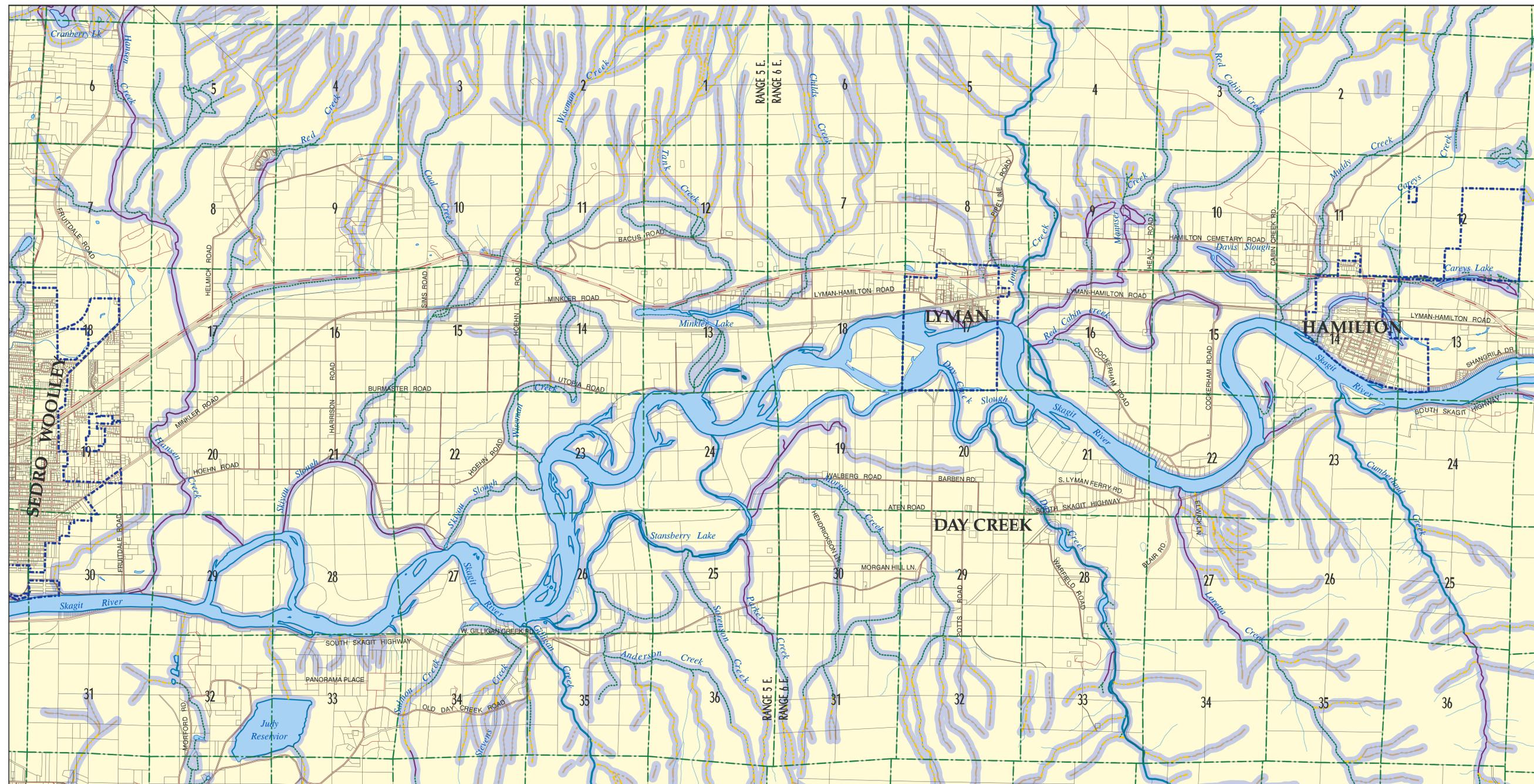
See "Water Typing Criteria," WAC 222-16-030; and "Washington Forest Practices Rules and regulations."



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Scale 1 inch = 2000 Feet  
Map Scale 1 : 24,000

T35N R5 and 6E W.M.



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Stream Data Source:

Washington State  
Department of Natural Resources  
Water Type Reference Maps.



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## **Appendix B**

### **Skagit County Wetlands and Hydric Soils**

**Eastern Skagit Rail Project  
Feasibility Study**

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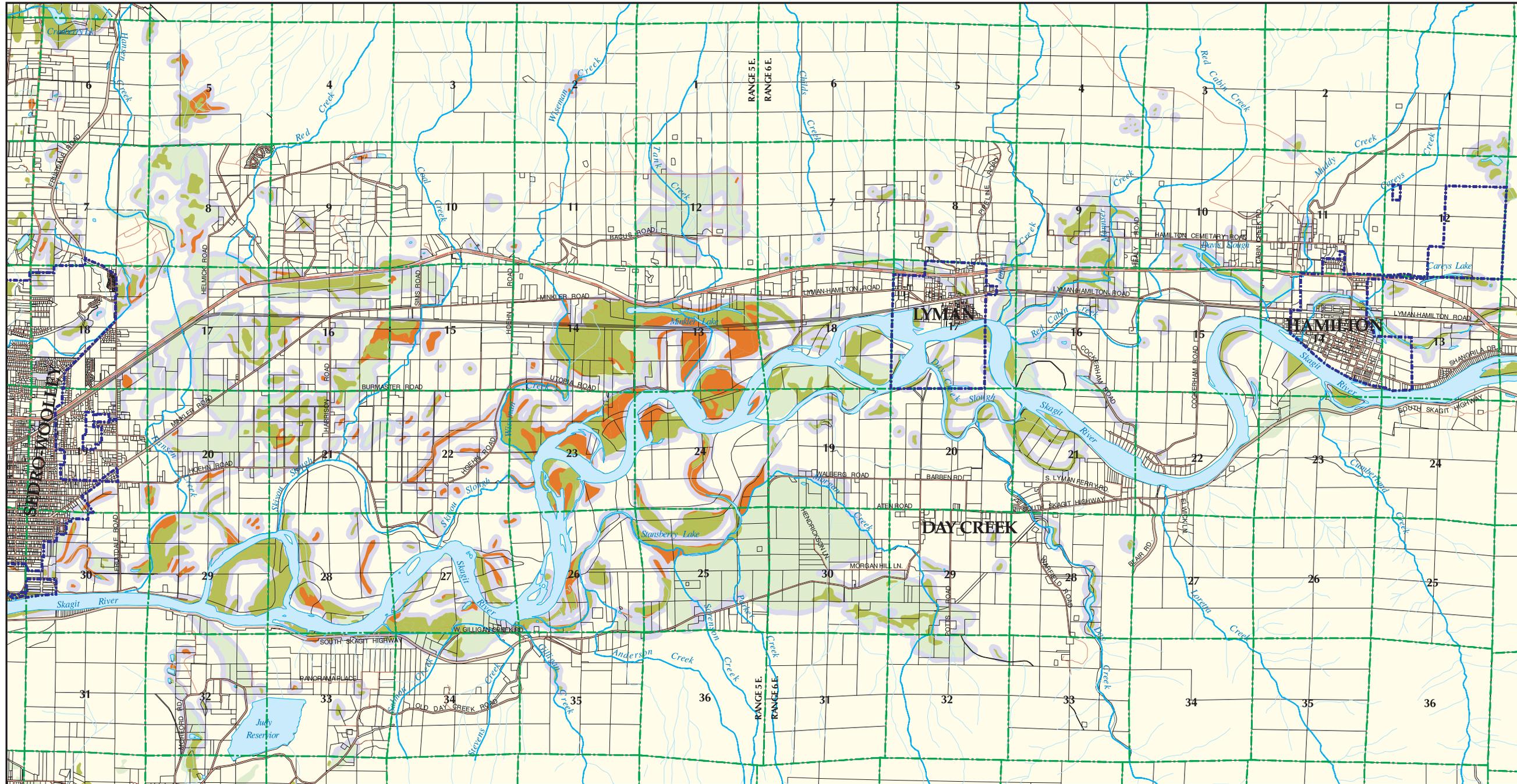


# SKAGIT COUNTY NWI WETLANDS AND HYDRIC SOILS

March 2, 2004

## LEGEND

-  200 Foot Area
-  Hydric Soils
-  National Wetland Inventory
-  Air Photo Interpretation of Wetland Boundaries



0 2,000 ft. 4,000 ft. 6,000 ft.

Scale 1 inch = 2000 Feet  
Map Scale 1 : 24,000

This map was created from available public records and existing map sources, not from field surveys. Map features from all sources have been adjusted to achieve a "best fit" registration to the Ownership Parcels Map. While great care was taken in this process, maps from different sources rarely agree as to the precise location of geographic features. The relative positioning of map features to one another results from combining different map sources without field "ground truthing".

"Skagit County disclaims any warranty of merchantability or warranty of fitness of this map for any particular purpose, either express or implied. No representation or warranty is made concerning the accuracy, currency, completeness or quality of data depicted on this map. Any user of this map assumes all responsibility for use thereof, and further agrees to hold Skagit County harmless from and against any damage, loss, or liability arising from use of this map"

The Skagit County Assessor tax lots depicted on this map represent parcel information as of February 19, 2004. For current up to date parcel information the maps available in the Skagit County Assessor office or on the web at [www.skagitcounty.net](http://www.skagitcounty.net) should be consulted.

The National Wetlands Inventory (NWI) Database is an inventory system developed in 1974 by U.S. Fish and Wildlife Service. NWI data is collected through stereoscopic analysis of high altitude color infrared aerial photographs. Because methodology and scope of work impose limitations on the accuracy of the data, there is an inherent margin of error. As there has been no attempt in the design of the inventory system to delineate wetland boundaries, the maps should not be used for regulatory purposes. They are useful as an initial means of identifying the general location and extent of wetlands within a region, and when used in conjunction with hydric soils maps and aerial surveys, as a starting point for developing more detailed wetland inventories.



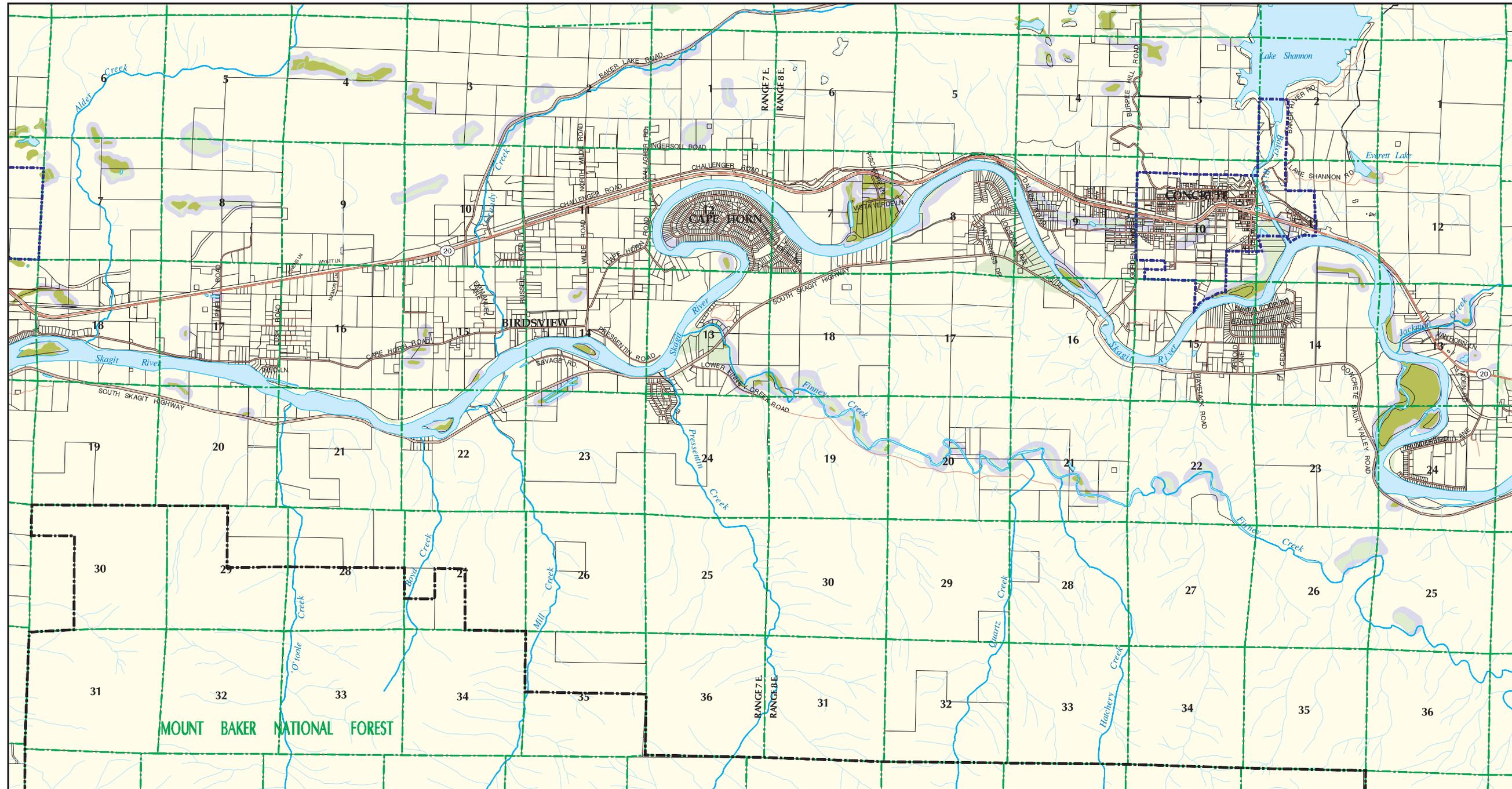
T35N R5 and 6E W.M.

# SKAGIT COUNTY NWI WETLANDS AND HYDRIC SOILS

March 2, 2004

## LEGEND

-  200 Foot Area
-  Hydric Soils
-  National Wetland Inventory
-  Air Photo Interpretation of Wetland Boundaries



0 2,000 ft. 4,000 ft. 6,000 ft.

Scale 1 inch = 2000 Feet  
Map Scale 1 : 24,000

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T35N R7 and 8E W.M.

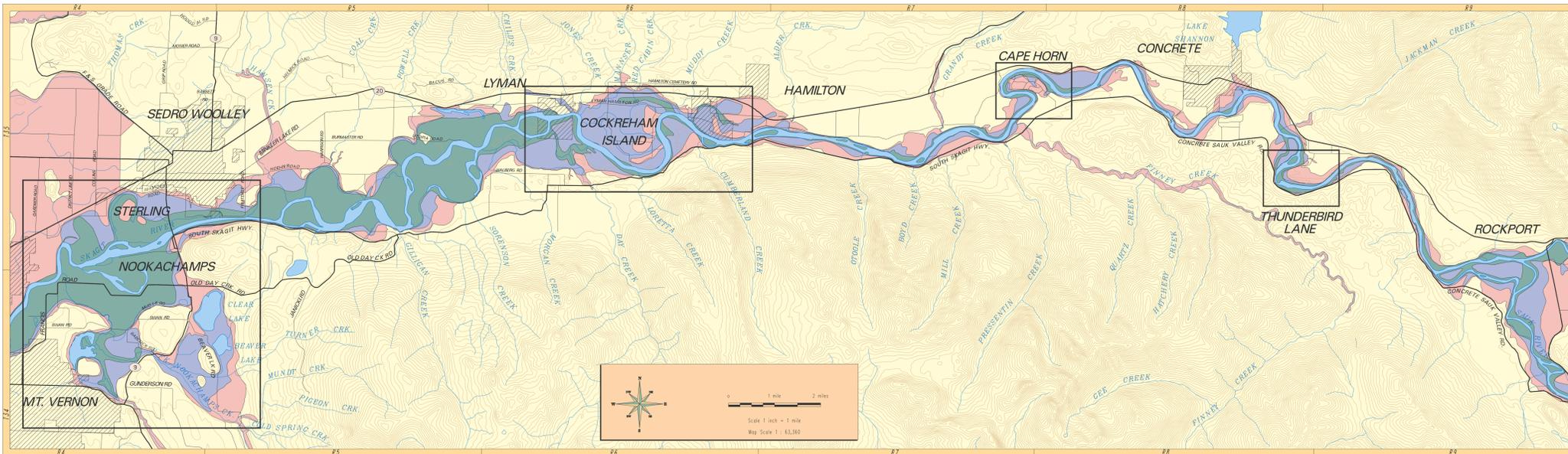
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**Appendix C**

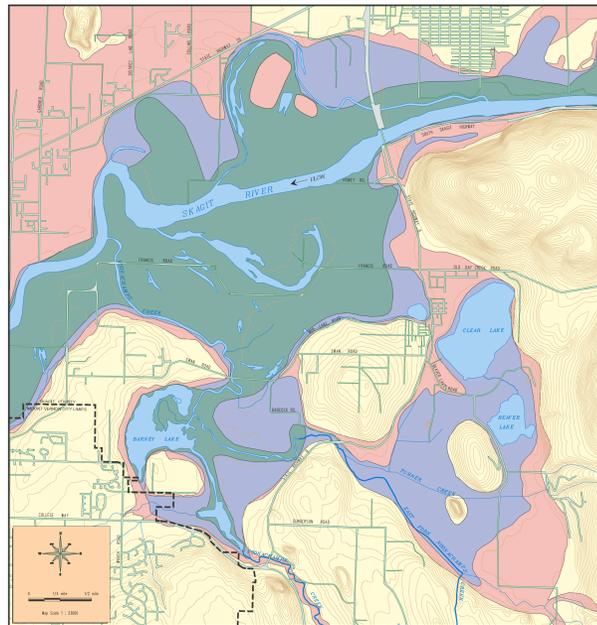
**Skagit County  
Flood Warning Map**



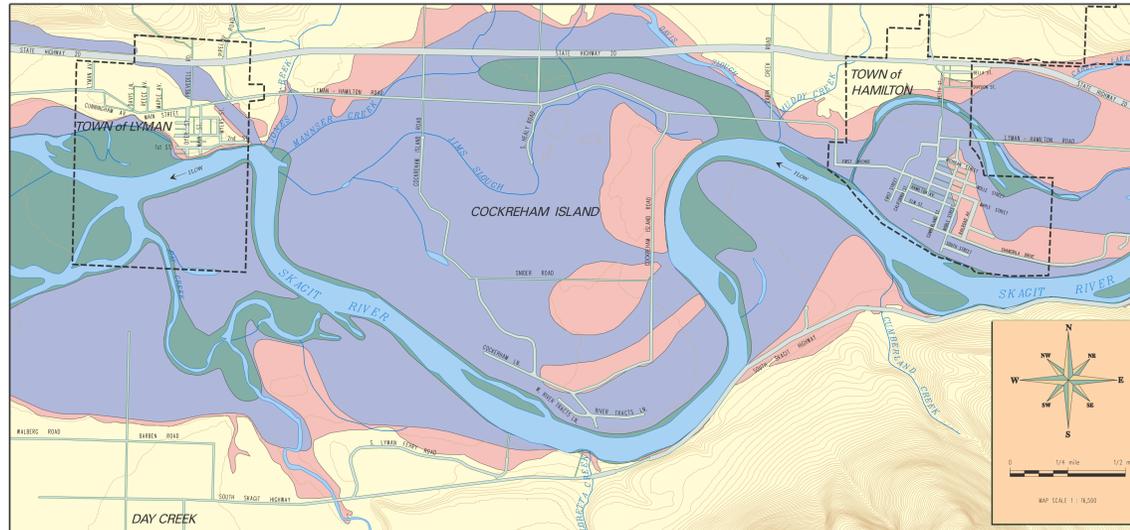
# FLOOD WARNING MAP FOR THE SKAGIT RIVER VALLEY FROM NOOKACHAMPS AREA TO ROCKPORT AREA



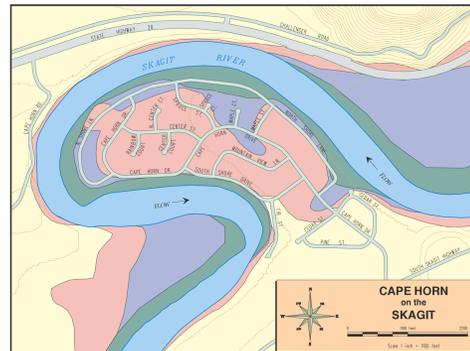
**Sterling and Nookachamps Creek Vicinity**



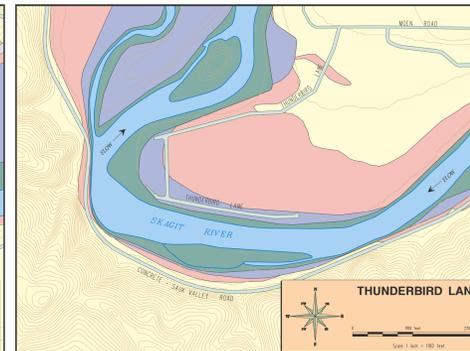
**Detail Area For Lyman, Cockreham Island and Hamilton**



**Detail Area Cape Horn on The Skagit**



**Detail Area Thunderbird Lane**



Skagit  
County  
Washington  
State



Map Produced By:  
Skagit County Mapping Services  
February 1996

## PHASE DESCRIPTIONS

### Phase 1 Flooding :

Phase 1 floods (shown as dark green on map) inundate low areas near the Skagit River, may cover a few small sections of roads, and occur every few years on the average. These floods generally do not cause significant damage in the Skagit River Valley. A large phase 1 flood occurred in December 1989.

### Phase 2 Flooding :

Phase 2 floods (shown as purple on map) inundate a wider area and may cause significant damage. The large phase 2 flood depicted on this map is approximately what occurred in December 1975 which was estimated to be a 10-year event (a flood that would have a 10% chance of occurring on any given year).

### Phase 3 Flooding :

Phase 3 floods (shown as orange on map) can cause catastrophic damage in the valley. The very large phase 3 flood depicted on this map is the FEMA mapped 100-year flood. This flood would have approximately a 1% chance of occurring on any given year.

If such a flood were to occur, many hundreds of homes would be flooded, thousands of people may have to be evacuated, and numerous public facilities and businesses would be inundated. In some neighborhoods flood waters would be deep and currents swift. Many roads would become impassable and extremely dangerous to use. The 1990 & 1995 floods were smaller phase 3 floods. As a result portions of the phase 3 areas were flooded in 1990 and 1995.

Caution: Under extreme conditions a flood greater than the 100-year flood can occur.

## GAGE HEIGHT AND PHASE

### Skagit River Gage near Concrete Phase Ranges in Feet

This USGS gage is located near the community of Concrete at river mile 54.1 on the Skagit River.	Phase 1	Phase 2	Phase 3
	28.0 to 32.0	32.0 to 37.0	37.0 to 48.8+

### Skagit River Gage near Mount Vernon Phase Ranges in Feet

This USGS gage is located at the Riverside bridge on the main stem at river mile 17.0.	Phase 1	Phase 2	Phase 3
	28.0 to 32.0	32.0 to 35.6	35.6 to 40+

Note:

Gage heights (measured in feet) indicate level at which the flood phase begins at the gage location. Flood severity may significantly increase as the flood moves from the upstream to the downstream locations.

Flood travel time from Concrete gage to Mount Vernon travel times are averages from past floods, actual travel times may vary depending on flood size, storm distribution, and other factors.

Note 1:

The inundation limits shown on this map are for the purposes of flood emergency preparedness only. The flood limits shown are approximate and may not accurately correspond to the actual limits of any given flood due to the unique and complex nature of individual flood events.

Note 2:

The phase areas on the map represent the areas that are likely to become inundated if the largest floods within each phase occur. Smaller floods within each phase may not inundate all of the phase area indicated.

Note 3:

Creek flooding usually occurs prior to, and independent of, river flooding. The information on this map will not necessarily help predict creek flooding.

Note 4:

Photographic evidence was used to map the phase 1 and phase 2 floods.

Note 5:

This map was developed in 1996 by the U.S. Army Corps of Engineers and Skagit County Officials. For further information contact Skagit County Public Works, Surface Water Management Division.



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**Appendix D**

**BNSF  
Track Charts**



**BNSF**



# Track Chart

## Sumas Subdivision

Sumas, WA (M.P. 127.2) to Burlington, WA (M.P. 16.5)

Revised: 02/21/2003

To view on the intranet or print this Track Chart go to:  
<http://kcintvdpd0001.iss.bnr.com/maprec/mapsrehome.htm>

Notes:

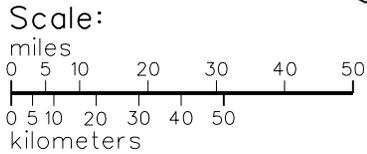
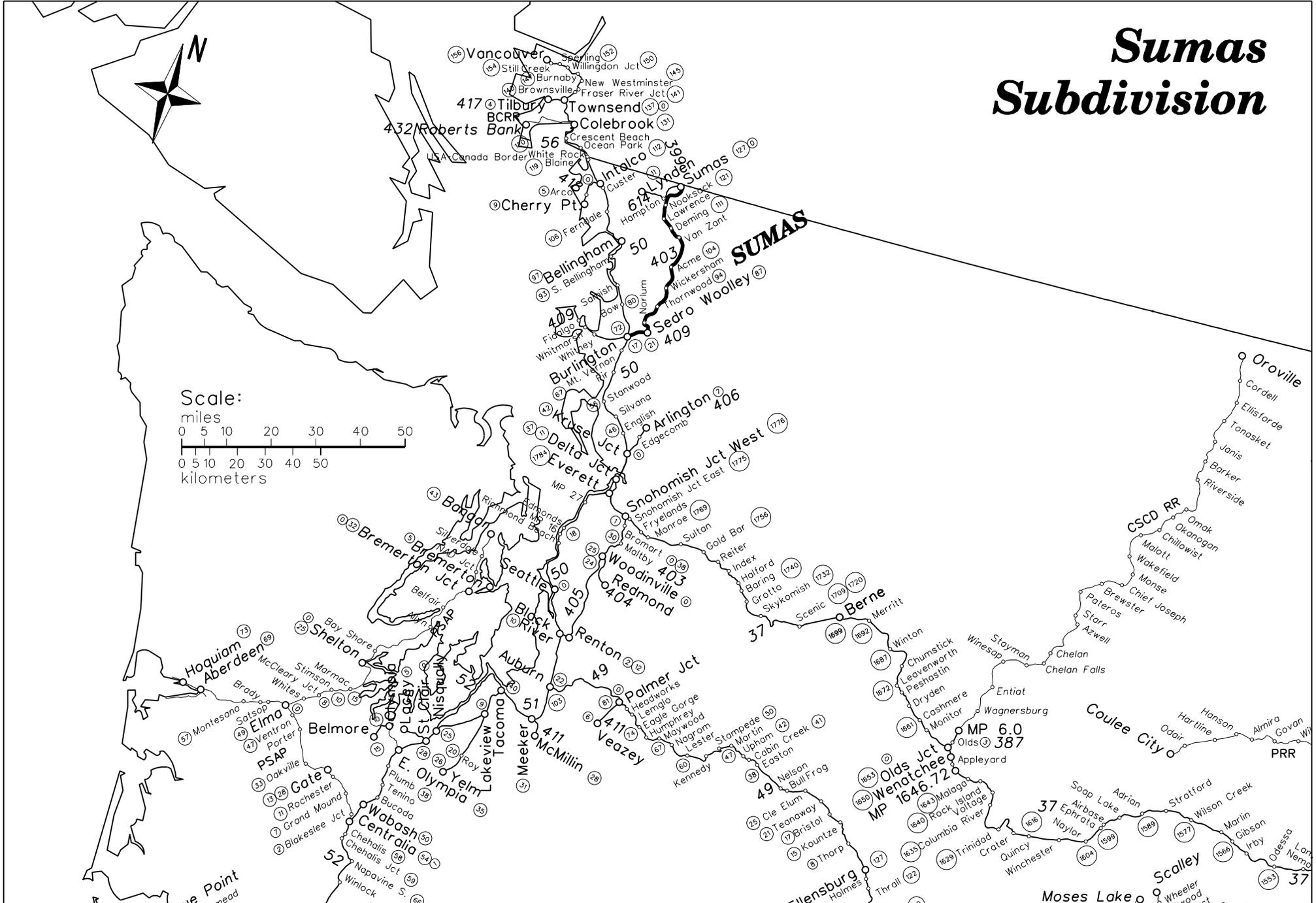
To order this Track Chart in Sourcenet or  
Millennium, use: 1358171

If you have any corrections or changes to these pages,  
either mail to the Manager of Maps and Records at  
4515 Kansas Ave., Kansas City, KS 66106 or FAX to  
913-551-4285. Mailing is preferred.

SUM000.DGN

BNSF System Maintenance and Planning

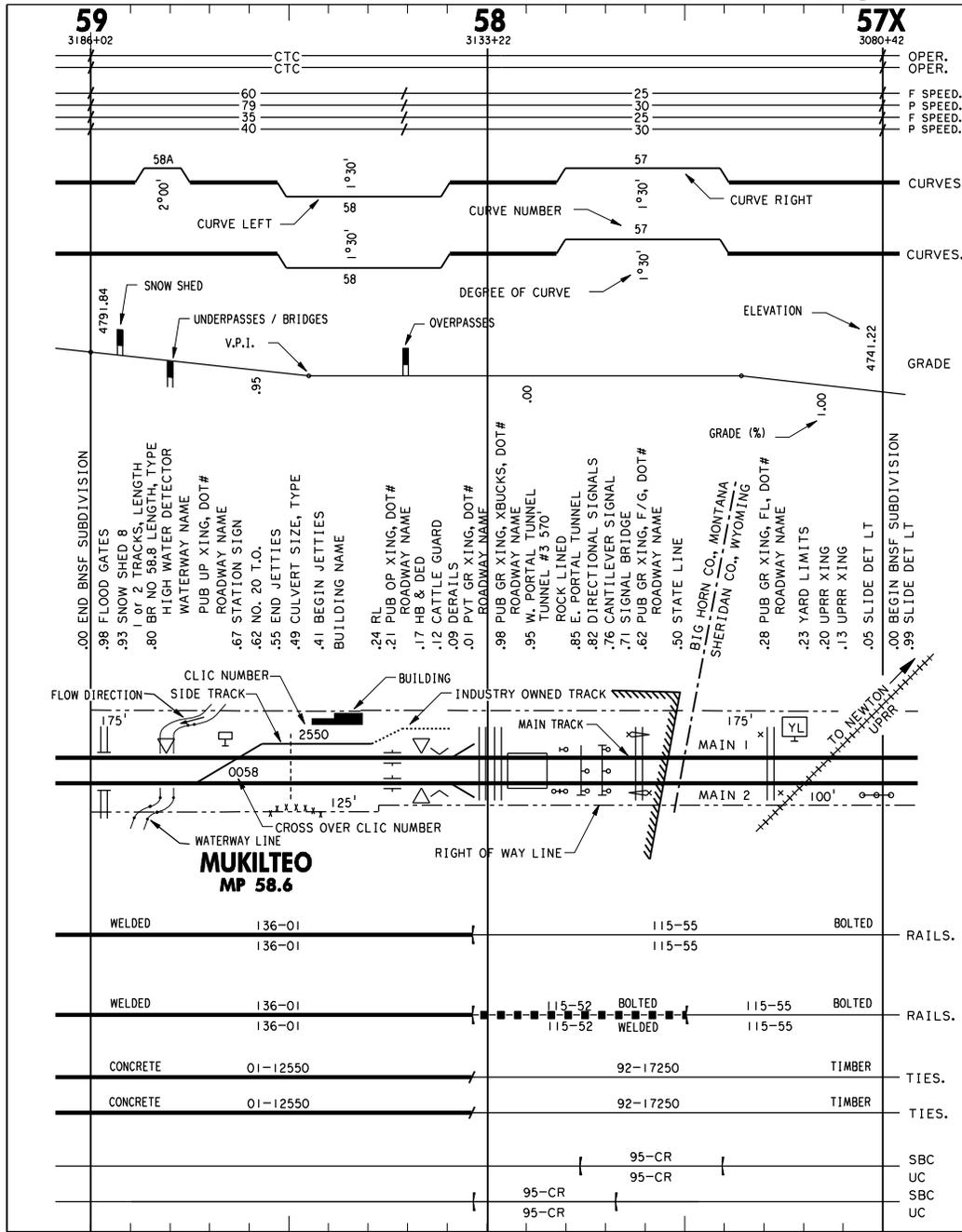
# Sumas Subdivision



← Timetable Subdivision Terminus West

Line Segment Number

Timetable Subdivision Terminus East →



MILEPOST NUMBER	OPER. OPER.
SURVEY STATION	METHOD OF OPERATION
F SPEED.	MAIN 1 OR 3 SPEEDS
P SPEED.	MAIN 2 OR 4 SPEEDS
T SPEED.	
P SPEED.	
CURVE RIGHT	CURVE RIGHT
MAIN 1 OR 3 TANGENT	MAIN 1 OR 3 TANGENT
CURVE LEFT	CURVE LEFT
CURVE RIGHT	CURVE RIGHT
MAIN 2 OR 4 TANGENT	MAIN 2 OR 4 TANGENT
CURVE LEFT	CURVE LEFT
ELEVATION	ELEVATION
GRADE LINE	GRADE LINE
GRADE	GRADE
GRADE (%)	
PLAN VIEW MILEPOST AND FEATURE DESCRIPTION	
FOREIGN LINE	
RIGHT-OF-WAY LINE	
RIGHT-OF-WAY DIMENSION	
MAIN 1	
MAIN 2	
RIGHT-OF-WAY DIMENSION	
RIGHT-OF-WAY LINE	
STATION NAME	
STATION MILEPOST	
WEIGHT - YEAR	
MAIN 1 OR 3 - RAIL TYPE	
WEIGHT - YEAR	
WEIGHT - YEAR	
MAIN 2 OR 4 - RAIL TYPE	
WEIGHT - YEAR	
WEIGHT - YEAR	
MAIN 1 OR 3 - YEAR-NUMBER INSTALLED	
MAIN 2 OR 4 - YEAR-NUMBER INSTALLED	
SHOULDER BALLAST CLEANING YEAR	
MAIN 1 OR 3	
UNDERCUT YEAR	
SHOULDER BALLAST CLEANING YEAR	
MAIN 2 OR 4	
UNDERCUT YEAR	

TRACK CHART FEATURE LEGEND

**NOTES**  
TRACK NUMBERS MAY NOT BE AVAILABLE FOR ALL TRACKS  
TRACK NUMBERS MARKED WITH AN \* ARE UNKNOWN

**BRIDGES**  
THE MILEPOST LOCATION OF A BRIDGE IS THE LOW MILEPOST END OF THE BRIDGE.

**GRADE**  
GRADE IS SHOWN PERIODICALLY WHERE THE GRADE CHANGES ARE TOO NUMEROUS OVER SHORT DISTANCES TO CLEARLY SHOW.

**MILEPOST**  
SIGNIFICANTLY LONG OR SHORT MILES ARE NOTED WITH THEIR RESPECTIVE EQUATIONS. ALPHA CHARACTER MILEPOST INDICATE DUPLICATION OF NUMBERS WITHIN A SUB OR MAIN 1 HAS DIFFERENT ALIGNMENT THAN MAIN 2.

**TRACK**  
MAIN LINES ARE SHOWN WITH A BOLD LINE.

**RAIL**  
WELDED RAIL IS SHOWN WITH A BOLD LINE. BOLTED RAIL IS SHOWN WITH A THIN LINE.

**TIES**  
CONCRETE TIES ARE SHOWN WITH A BOLD LINE. TIMBER TIES ARE SHOWN WITH A THIN LINE.

**SCALE**  
HORIZONTAL: 2"=1 MILE (1 MILE MAY NOT EQUAL 5280') VERTICAL: NONE

**SYMBOLS**

	RAIL LUBRICATOR
	SIGNALS: BRIDGE CANTILEVER
	SINGLE DIRECTIONAL
	BI-DIRECTIONAL
	ROAD CROSSINGS: D.O.T. NUMBER, AS SHOWN ON PUBLIC AND PRIVATE CROSSINGS
	ROAD CROSSING WARNING DEVICE, FLASHING SIGNALS WITH AUTOMATIC GATES ROAD CROSSING WARNING DEVICE, FLASHING SIGNALS
	SLIDE DETECTOR FENCE
	DETECTORS: ABD - ACOUSTIC BEARING DETECTOR AEI - AUTOMATIC EQUIPMENT IDENTIFICATION READER BFD - BROKEN FLANGE DETECTOR SLD - SHIFTED LOAD DETECTOR SLTD - SHIFTED LOAD WITH TOP DETECTOR HB & DED - HOT BEARING & DRAGGING EQUIPMENT DETECTOR HWD - HIGH WATER DETECTOR WID - WHEEL IMPACT DETECTOR
	STATION SIGN
	YARD LIMIT SIGN
	CATTLE GUARD
	CULVERT
	TUNNEL OR SNOW SHED
	JETTIES
	FLOOD GATE
	DERAIL
	CITY LIMITS
	RIGHT OF WAY LINE *

\* RIGHT OF WAY OWNERSHIP DIMENSIONS SHOWN MAY BE APPROXIMATE OR OUT OF DATE. FOR MORE ACCURATE INFORMATION ACCESS THE MAPS AND RECORDS WEBSITE FOR STATION AND RIGHT OF WAY MAPS OR CALL THE BARTLETT AND WEST COMPANY AT 785-435-4607

## TRACK CHART ABBREVIATION LEGEND

### BRIDGES & CULVERTS

A	ARCH	RCA	REINFORCED CONCRETE ARCH
AB	ABUTMENT	RCB	REINFORCED CONCRETE BOX
AP	APPROACH	RCP	REINFORCED CONCRETE PIPE
AR	ARCH	RCT	REINFORCED CONCRETE TRESTLE
ARM TL	ARMCO TUNNEL LINER	RD WD	REDWOOD
B	BOX	RSB	REINFORCED STONE BOX
BASC	BASCULE	RTB	RAIL TRACK BOX
BD	BALLAST DECK	RTCB	RAIL TOP CONCRETE BOX
BDPT	BALLAST DECK PILE TRESTLE - WOOD	RTSB	RAIL TOP STONE BOX
BR	BRIDGE	SA	STEEL ARCH
BRK	BRICK	SBG	STEEL BOX GIRDER
BX	BOX	SP	STEEL PIPE
C	CONCRETE	SPP	STEEL PLATE PIPE
CA	CONCRETE ARCH	SSC	STEEL STRINGERS & CAPS
CB	CONCRETE BOX	SSP	STRUCTURAL STEEL PIPE
CBG	CONCRETE BOX GIRDER	STA	STONE ARCH
CCTS	COMBINATION CONCRETE & TIMBER SLAB	STB	STONE BOX
CG	CONCRETE "I" GIRDER	STO	STONE
CIP	CAST IRON PIPE	T	TILE
CMA	CURRUGATED METAL ARCH	TBX	TIMBER BOX
CMP	CORRUGATED METAL PIPE	TDBX	THRU VOID, DBL. CELL PRES. CONC. BEAM OR GIRDER
CTG	CONCRETE "T" GIRDER	TL	TUNNEL LINER
CP	CONCRETE PIPE	THG	THRU GIRDER
CUL	CULVERT	THT	THRU TIMBER TRUSS
DBL	DOUBLE	TPLG	THRU PLATE LATTICE GIRDER
DG	DECK GIRDER	TP	TILE PIPE
DPG	DECK PLATE GIRDER	TPCT	THRU PIN CONNECTED TRUSS
DPLG	DECK PLATE LATTICE GIRDER	TPG	THRU PLATE GIRDER
DPCT	DECK PIN CONNECTED TRUSS	TR	TREATED
DR SP	DRAW SPAN	TR	T-RAIL
DRT	DECK RIVETED TRUSS	TPL	TRIPLE
DS	SWING SPAN	TRT	THRU RIVETED TRUSS
DT	DECK TRUSS	TSBX	THRU VOIDED-SINGLE CELL PRESTRESSED CONCRETE BEAM OR GIRDER
EXT	EXTENSION	VIT P	VITRIFIED PIPE
FT	FRAME TRESTLE - WOOD	VP	VITRIFIED PIPE
FTG	FOOTING	VTEE	VOIDED PRESTRESSED CONC. TEE GIRDER
GCIP	GALVANIZED CORRUGATED IRON PIPE	VTP	VITRIFIED TILE PIPE
GIP	GALVANIZED IRON PIPE	WB	WOOD BOX
IB	"I" BEAM OR GIRDER BEAM SPAN	WD	WOOD
I BM	"I" BEAM	WF	WIDE FLANGE BEAM SPAN
LG	LONG	WP	WOOD PIPE
LS	LIFT SPAN	WR I P	WROUGHT IRON PIPE
MPP	MULTI-PLATE PIPE		
MSY	MASONRY		
O	OVAL		
OCP	OVAL CONCRETE PIPE		
OD	OPEN DECK		
OMP	OVAL METAL PIPE		
ORCP	OVAL REINFORCED CONCRETE PIPE		
PC	PRE-STRESSED CONCRETE		
PCMP	PERFORATED CORRUGATED CONCRETE PIPE		
PED	PEDESTAL		
PRT	PONY RIVETED TRUSS		
PT	PILE TRESTLE - WOOD		

### TRACK & SIGNAL

ABS	AUTOMATIC BLOCK SIGNAL SYSTEM
ABD	ACOUSTIC BEARING DETECTOR
AEI	AUTOMATIC EQUIPMENT IDENTIFICATION READER
ATS	AUTOMATIC TRAIN STOPS
BFD	BROKEN FLANGE DETECTOR
BR SIG	BRIDGE SIGNAL
CANT SIG	CANTILEVER SIGNAL
CTC	CENTRALIZED TRAFFIC CONTROL
DED	DRAGGING EQUIPMENT DETECTOR
DESLTD	DRAGGING EQUIP. & SHIFTED LOAD W/TOP DETECTOR
F	FREIGHT (SPEED)
F/G	FLASHING SIGNAL WITH AUTOMATIC GATES
FL	FLASHING SIGNAL
HB & DED	HOT BEARING & DRAGGING EQUIP. DETECTOR
HWD	HIGH WATER DETECTOR
INTLK	INTERLOCKING
I TOWER	INTERLOCKING TOWER
LS	LINE SEGMENT
MP	MILEPOST
NO.	NUMBER
OCS	OCCUPANCY CONTROL SYSTEM
OH	OVERHEAD
OOS	OUT OF SERVICE
P	PASSENGER (SPEED)
RES LIM	RESTRICTED LIMITS
RL	RAIL LUBRICATOR
SIGS	SIGNALS
SBC	SHOULDER BALLAST CLEANING
SLD	SHIFTED LOAD DETECTOR
SLTD	SHIFTED LOAD WITH TOP DETECTOR
S SW	SPRING SWITCH
T.O.	TURNOUT
TRK	TRACK
TWC	TRACK WARRANT CONTROL
UC	UNDERCUT
WID	WHEEL IMPACT DETECTOR
YL	YARD LIMIT

### MISCELLANEOUS

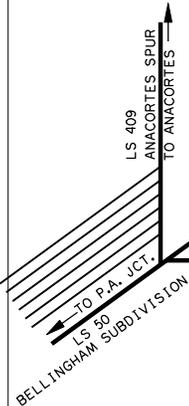
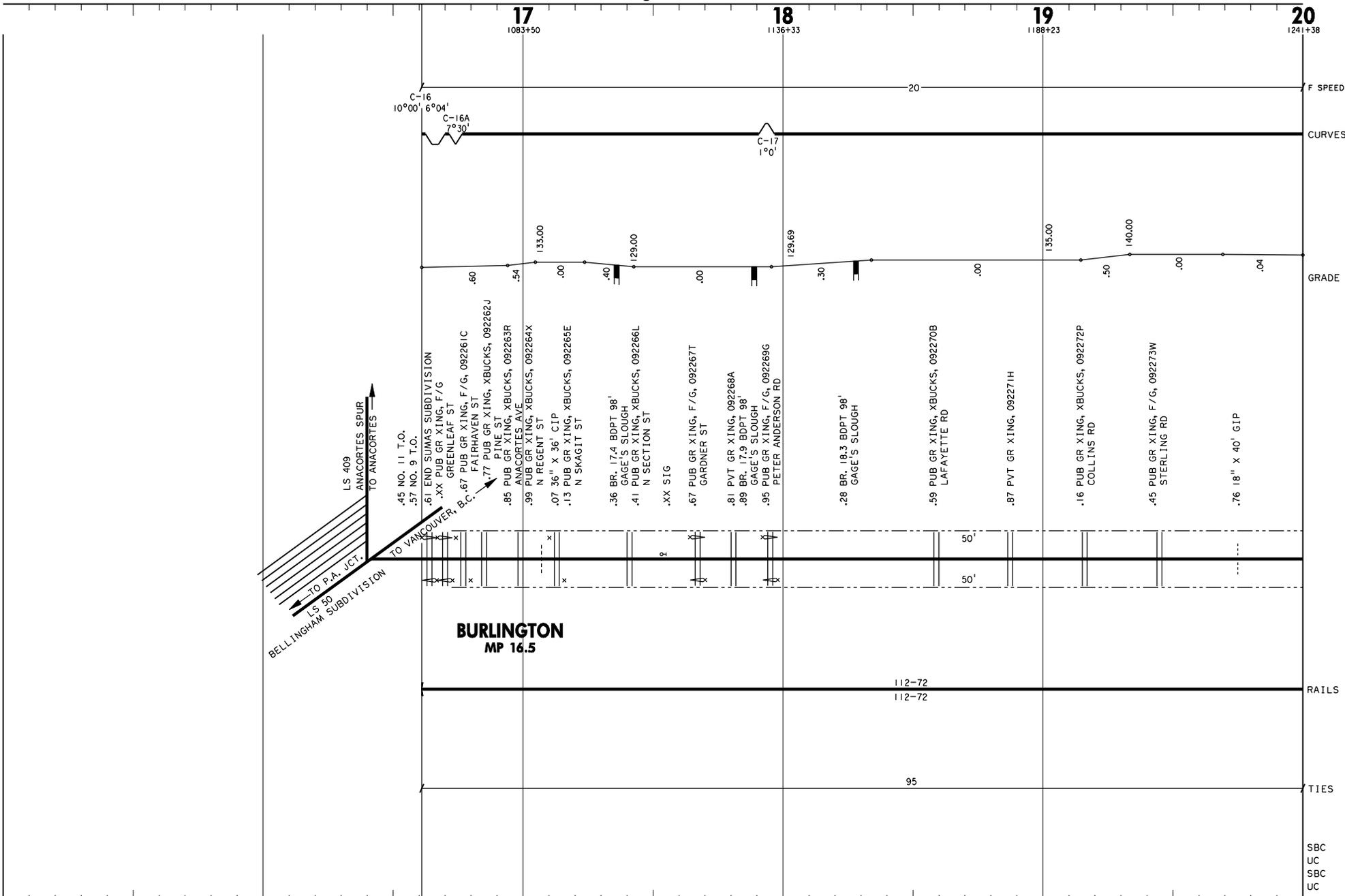
AVE	AVENUE
BLVD	BOULEVARD
CO	COUNTY
CONN	CONNECTION
CONST	CONSTRUCTED
CR	CREEK OR CRUSHED ROCK
DBL	DOUBLE
DIV	DIVISION
DR	DRIVE
E	EAST
EL	ELEVATION
F LT P	FLOOD LIGHT POLE
F LT T	FLOOD LIGHT TOWER
FRT	FREIGHT
GR	AT GRADE
HO	HOUSE
HWY	HIGHWAY
IND	INDUSTRY
JCT	JUNCTION
JT	JOINT
LT	LEFT
MAX	MAXIMUM
MTCE	MAINTENANCE
NO	NORTH
OH	OVERHEAD
OP	OVERPASS
PED	PEDESTRIAN
PK	PARKWAY
PO	POWER
PSGR	PASSENGER
PUB	PUBLIC
PVT	PRIVATE
RD	ROAD
RESERV	RESERVOIR
RIV	RIVER
RR	RAILROAD
RT	RIGHT
RW	RIGHT-OF-WAY
RY	RAILWAY
SEC	SECTION
SO	SOUTH
ST	STREET
STA	STATION
SUB	SUBDIVISION
TPL	TRIPLE
UP	UNDERPASS
W	WEST
YD	YARD
XBUCKS	CROSSBUCKS
XING	CROSSING

WB

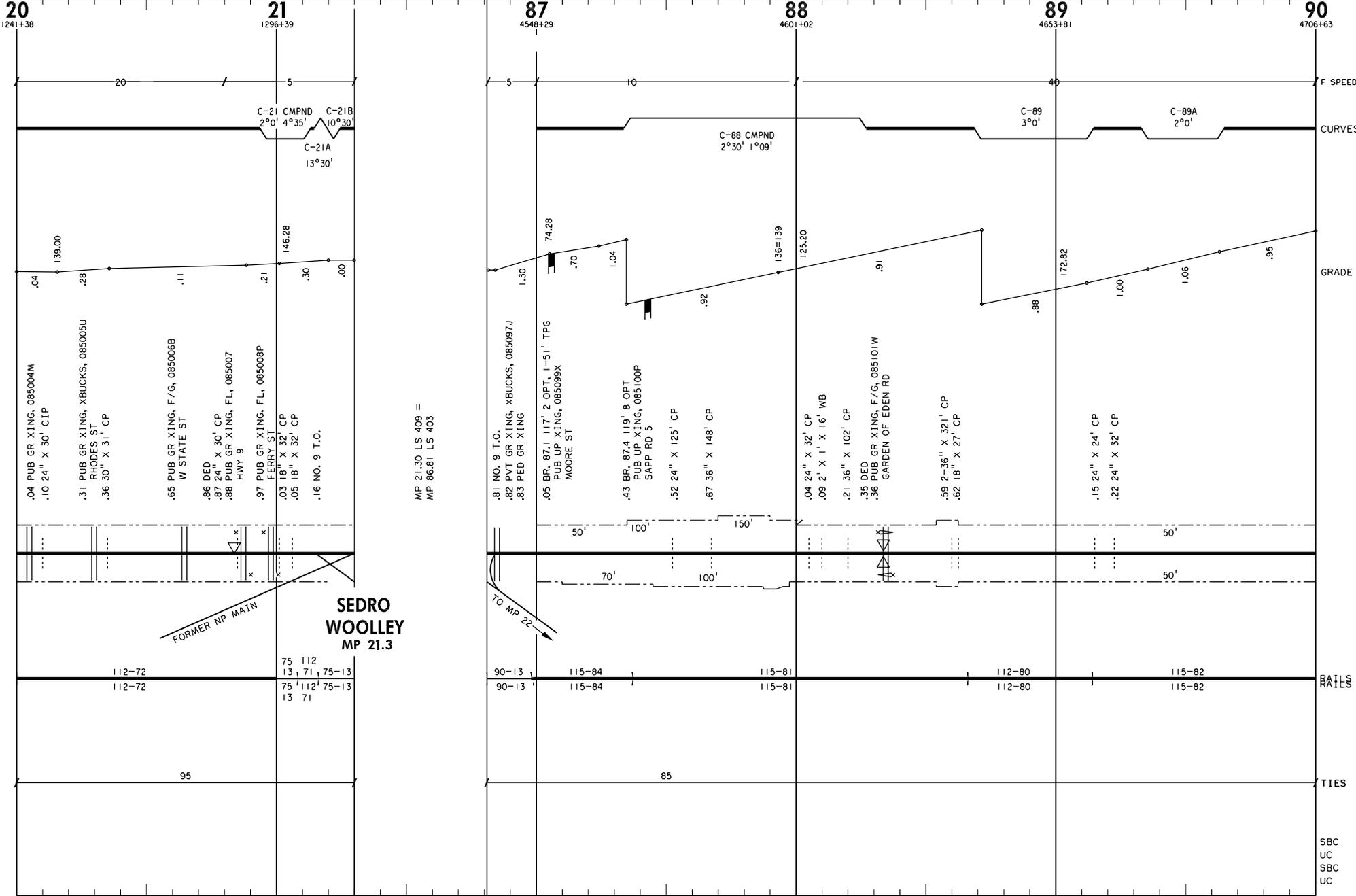
# Line Segment 409

Sumas, WA

EB 1



**BURLINGTON  
MP 16.5**

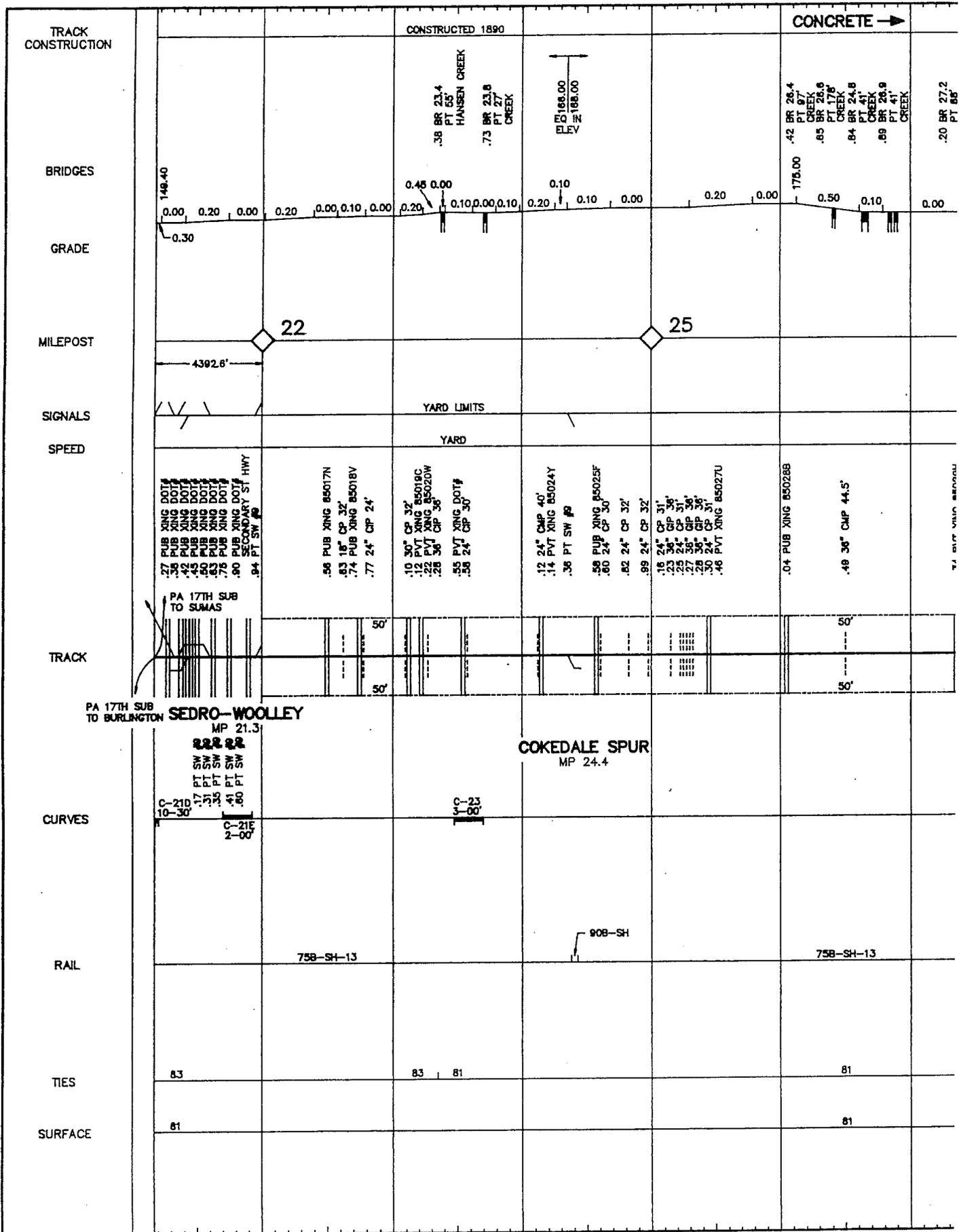


MP 21.30 LS 409 =  
MP 86.81 LS 403

**SEDRO  
WOOLLEY**  
MP 21.3

SEDRO WOOLLEY TO HAMILTON  
PACIFIC DIVISION - 17TH SUBDIVISION SPUR

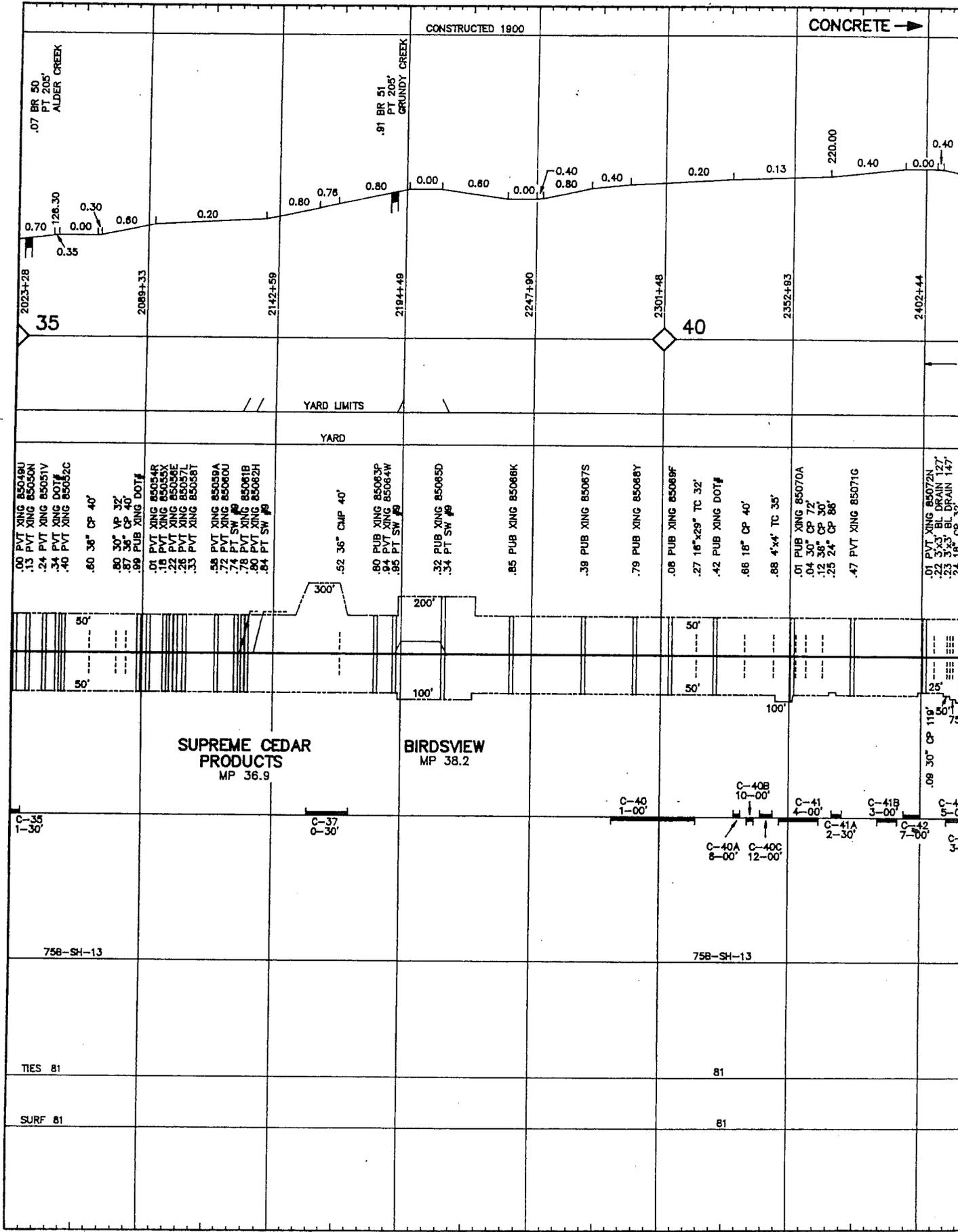
BRIDGE	DESCRIPTION	OVER	LGTH	HT	YR BLT	LDG	TIES	WLK	B DK	PILES	STRG	REMARKS
<b>Sedro Woolley - MP 21.3</b>												
32 (23.4)	4PT	Hansen Creek	55	6	1934		1946			1934	1950	8-8x16 Str
33 (23.8)	2PT	Creek	27	9	1934		1982			34-T86	1982	6-10x18 Str
25.3	1PT	Coal Creek	20	6	1976		1976	R		1976	1976	6-12x24 Str
34 (26.4)	7PT	Wiseman Creek (Stringers and Ties Removed)	97	12	1946		1957			1946	1959	8-8x16 Str
35 (26.6)	13PT	Creek	178	9	1946		1950			46-T80	1960	8-8x16 Str
35.4 (26.8)	3PT	Creek	41	10	1937		1947			37-T86	50-T86	8-8x16 Str
35.5 (26.9)	3PT	Creek	41	11	1947		1946			1947	1962	8-8x16 Str
36 (27.2)	5PT	Creek	68	9	1938		1955			38-T86	50-T86	8-8x16 Str
37 (27.7)	15PT	Creek	210	13	1946		1946			46-T86	61-T86	8-8x16 Str
38 (27.9)	4PT	Creek	56	9	1980		1948			1980	1980	6-10x18 Str
39 (28.0)	5PT	Creek	69	12	1944		1950			44-T86	50-T86	8-8x16 Str
39.25 (28.3)	4PT	Overflow	52	16	1947		1950			47-T80	1953	8-8x16 Str
39.5 (29.0)	3PT	Cattle Pass	41	9	1946		1950			46-T86	50-T86	8-8x16 Str
39.75 (29.6)	3PT	Overflow	40	9	1946		1954			46-T86	54-T86	8-8x16 Str
40 (30.2)	7PT	Jones Creek	96	12	1944		1955			44-T80	1955	8-8x16 Str
40.5 (30.4)	3PT	Creek	41	10	1943		1954			43-T86	57-T86	8-8x16 Str
41 (30.6)	15PT	Mannser Creek	206	15	1946		1951			46-T80	1951	8-8x16 Str
42 (31.1)	2PT	Etach Creek	28		1943		1978			43-T80	1943	8-8x16 Str
	1PT		22		1949		1978		49-T80	1978	6-12x24 Str	
	60'TPG		60	19	1949		1978		43-T80			
	1PT		22		1949		1978		49-T80	1978	6-12x24 Str	
	2PT		28		1959		1978		59-T80	1959	8-8x16 Str	
43 (31.8)	1PT	Etach Creek	22		1949		1972			49-T80	1978	6-12x24 Str
	60'TPG		60	17	1949		1978		49-T80			
	1PT		23		1949		1972		49-T80	1978	6-12x24 Str	
	1BDPT		14		1931			T	31-T80	1931	11-8x16 Str	
44 (32.4)	5PT	Muddy Creek	68	13	1947		1948		47-T86	1978	6-10x18 Str	
46 (32.7)	5PT	Alder Creek	70	13	1936		1951		36-T86	1981	6-10x18 Str	
<b>Hamilton - MP 33.1</b>												
47 (33.2)	19PT	Alder Creek	259	15	1944		1944			44-T80	1982	6-10x18 Str
<b>End of Track - MP 33.42</b>												



PA 17TH SUB TO BURLINGTON  
**SEDRO-WOOLLEY**  
 MP 21.3

**COKEDALE SPUR**  
 MP 24.4





.07 BR 50  
PT 208'  
ALDER CREEK

.91 BR 51  
PT 208'  
GRUNDY CREEK

CONSTRUCTED 1900

CONCRETE →

35

40

YARD LIMITS

YARD

- .00 PVT XING 85049U
- .13 PVT XING 85050N
- .24 PVT XING 85051V
- .34 PVT XING DOT#
- .40 PVT XING 85052C
- .60 36" CP 40'
- .80 30" VP 32'
- .87 36" CP 40'
- .96 PUB XING DOT#

- .01 PVT XING 85054R
- .16 PVT XING 85055Y
- .22 PVT XING 85056E
- .26 PVT XING 85057L
- .33 PVT XING 85058T
- .58 PVT XING 85059A
- .72 PVT XING 85060U
- .74 PT SW #9
- .78 PVT XING 85061B
- .80 PVT XING 85062H
- .84 PT SW #9

.52 36" CMP 40'

- .80 PUB XING 85063P
- .94 PVT XING 85064W
- .85 PT SW #9

.32 PUB XING 85065D  
.34 PT SW #9

.85 PUB XING 85066K

.38 PUB XING 85067S

.79 PUB XING 85068Y

.08 PUB XING 85069F

.27 16"x29" TC 32'

.42 PUB XING DOT#

.66 18" CP 40'

.88 4"x4" TC 35'

.01 PUB XING 85070A

.04 30" CP 72'

.12 36" CP 30'

.25 24" CP 86'

.47 PVT XING 85071G

C-36  
1-50'

C-37  
0-30'

C-40  
1-00'

C-40B  
10-00'

C-41  
1-00'

C-41A  
2-50'

C-41B  
3-00'

C-42  
7-00'

75B-SH-13

75B-SH-13

TIES 81

81

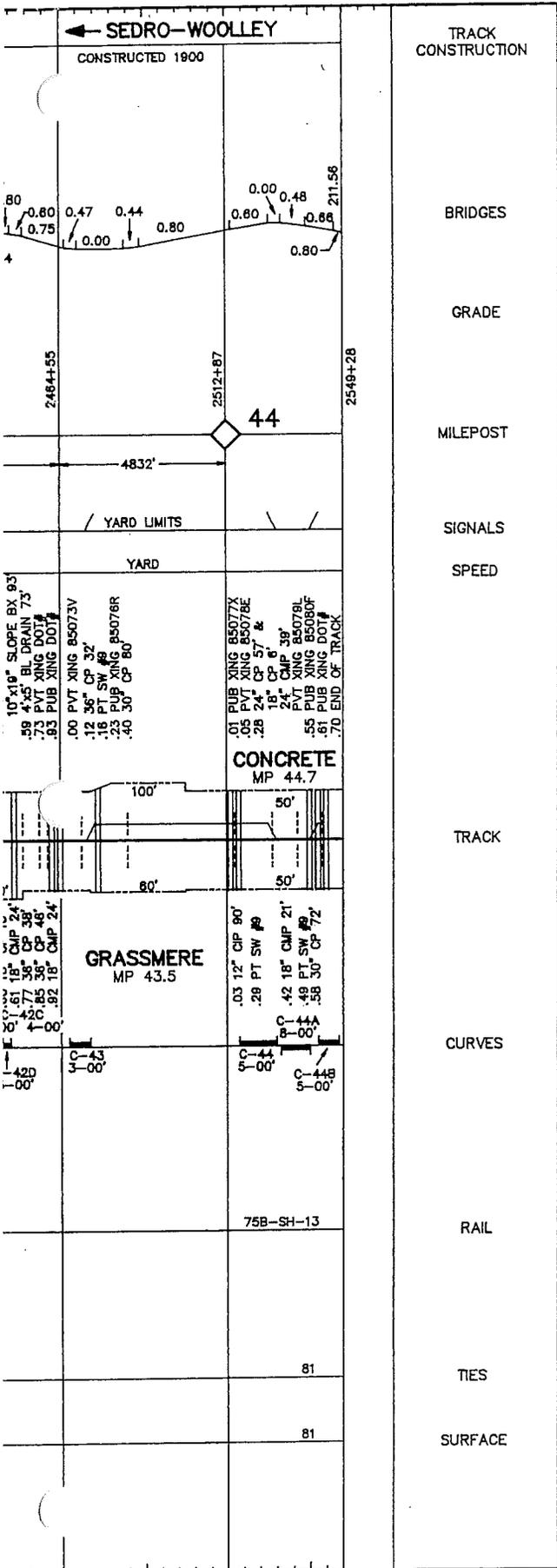
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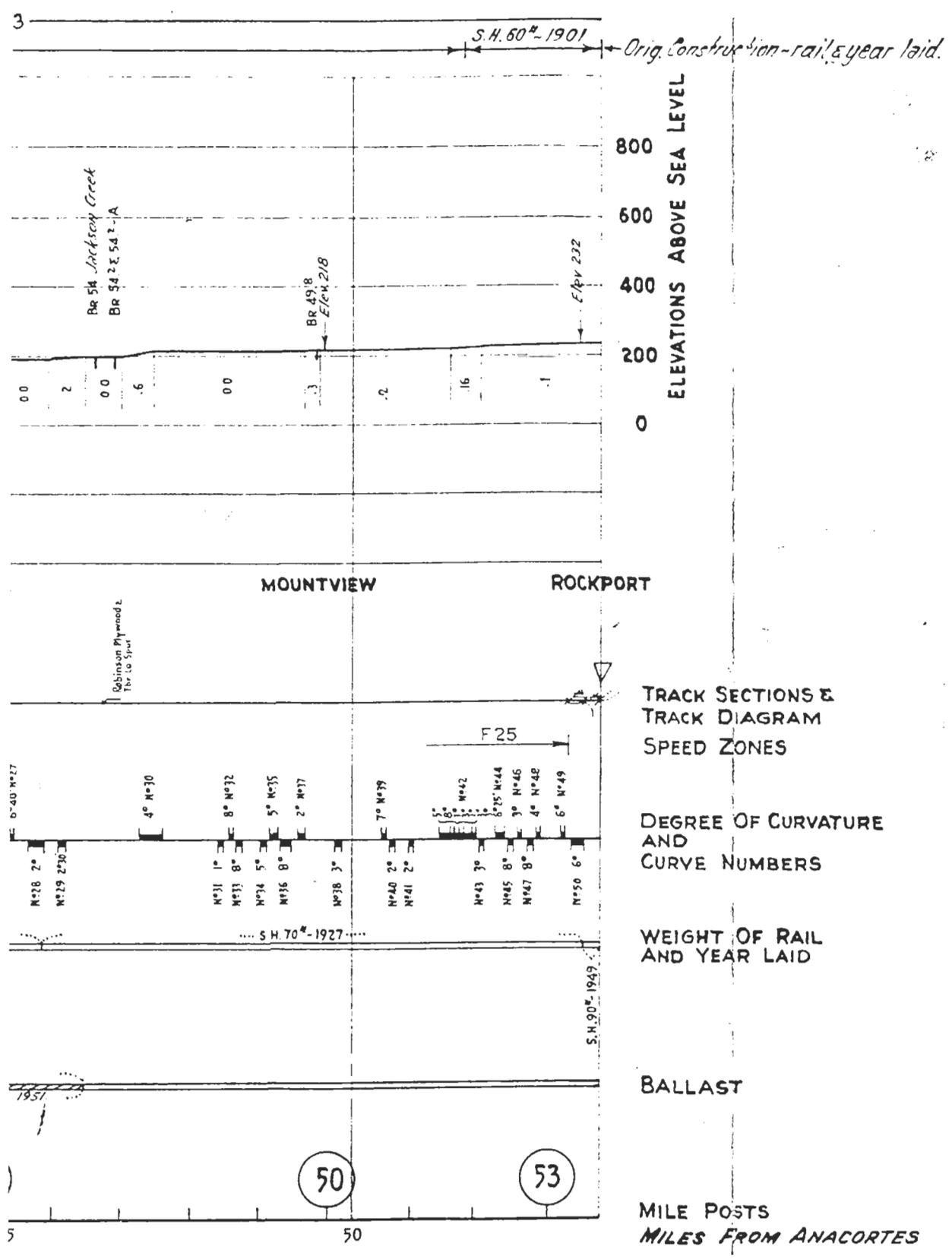
81

.01 PVT XING 85072N  
.22 3"x3" BL DRAIN 127'  
.23 3"x3" BL DRAIN 147'  
.24 18" CP 32'

.08 30" CP 119'  
.50 1-75'

4-0'





Orig. Construction-rail, & year laid.

ELEVATIONS ABOVE SEA LEVEL

MOUNTVIEW ROCKPORT

TRACK SECTIONS & TRACK DIAGRAM  
SPEED ZONES

DEGREE OF CURVATURE AND CURVE NUMBERS

WEIGHT OF RAIL AND YEAR LAID

BALLAST

MILE POSTS  
MILES FROM ANACORTES

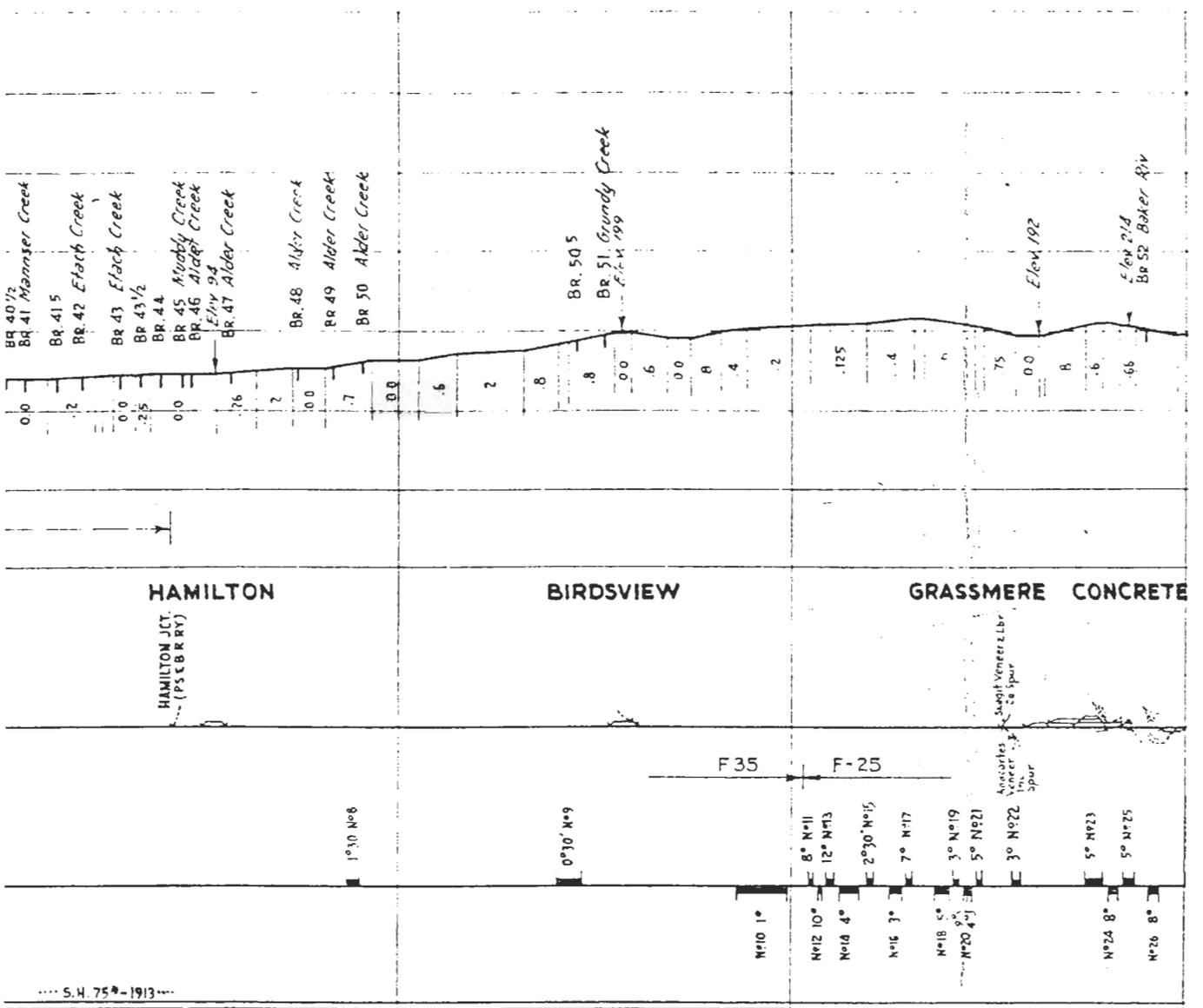
5

50

50

53

~1891 S.H. 60 ~ 1900 818-



.... S.H. 75 ~ 1913 ....

S.M. - 2" L - Belleville - 1953 ....

.... S.M. - 2" L - Belleville - 1955 ....

S.M. - 2" L - Belleville 1950

.... S.M. - 2" L - Belleville .... 1956

35

40

45

35 40 45



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## **Appendix E**

### **Railroad Engineering Design Standards**

**Eastern Skagit Rail Project  
Feasibility Study**

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# Appendix E

## Design Criteria

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The construction parameters for the Washington State Department of Transportation's (WSDOT) Eastern Skagit Rail Project were developed with consideration for light traffic main line freight operations, safety, and accepted railroad engineering practices. The track alignment is assumed to match that provided in the Burlington Northern (BN) right-of-way maps provided by the BNSF Railway Company (BNSF) in February 2006. Bridge and structures are assumed to match that provided in the BNSF right-of-way maps and the *Pocket List of Bridges*.

### Design Speed

The proposed design speed for freight rail for this project is: 25 miles per hour (mph). The actual design speed will be limited by curvature and grade considerations.

### Clearances

For new freight main lines, sidings or extensions, the desirable minimum track spacing is fifteen feet. For freight yard tracks, the desirable minimum track spacing is also fifteen feet.

The desirable horizontal distance from the centerline of new tangent track to a fixed object will follow state of Washington clearance requirements.

The minimum vertical distance from the top of rail to the nearest point of obstruction wall follow state of Washington clearance requirements.

### Turnouts

Turnouts (T.O.), costs, and geometry for track work will comply with BNSF / Union Pacific *Common Standard Plans*. The following is based on the Common Standard:

Turnout Data	PS1 to PITO2	Turnout Length	Turnout Angle
#9	30.17'	107.38'	6°21'35"
#11	31.25'	124.58'	5°12'18"

1 PS = Point of Switch  
2 PITO = Point of Intersection of Turnout

## Weight of Rail

The following table will be used to determine the preferred weight of rail for turnouts.

Preferred Weight of Rail	Tracks
New or Second Hand (Relay) 115 pound or greater: jointed or continuously welded rail (CWR)	Light tonnage and secondary main lines

Specific track elements such as size of turnouts and weight of rail have not been identified at this time. For this feasibility study, conceptual alignments and profiles were prepared to allow for further development in accordance with these standards.

## Typical Roadbed Section

The typical roadbed section for new construction will comply with the BNSF *Design Guidelines for the Construction of Industrial Tracks* (Standards Plan Drawing Number 1000, Sheet Number 3, Revision Number 01). The typical section includes timber crossties on six inch of ballast, or concrete crossties on eight inch of ballast, which is on twelve inch subballast, on a compacted subgrade.

## Typical Roadbed with Trail Section

The typical roadbed with Trail section for new construction will comply with the BNSF *Design Guidelines for the Construction of Industrial Tracks* (Standards Plan Drawing Number 1000, Sheet Number 3, Revision Number 01). This section includes timber crossties on six inch of ballast, or concrete crossties on eight inch of ballast, which is on twelve inch subballast, on a compacted subgrade.

## Railroad Construction

Track materials and special track work will conform to recommendations set forth in the most current BNSF *Design Guidelines for the Construction of Industrial Track*.

## Grade Crossing Signal Construction

Highway/railroad at-grade crossings will be protected with typical industry standard signal installations for a light traffic main line at all grade crossings of

primary county and city roads and at all State Highways. It is assumed there will be no grade separations.

### **Typical Roadbed Construction – Roll and Compact**

Roll and compact finished surfaces. Areas of unsuitable materials may require removal and placement with eight inch quarry spalls. Thickness of eight inch quarry spalls to be determined by geotechnical investigations, which will be performed during preliminary and final design. Finished grade will maintain embankment shoulder consistency.

### **Typical Roadbed Construction – Over Excavate**

Remove on average three feet of unsuitable materials and replace with suitable material or suitable material plus quarry spalls. Quarry spall and new material to be determined by geotechnical investigation. Build grade back up with three feet of new engineered fill material. Finished grade will maintain embankment shoulder consistency.

### **Railroad Bridges**

All bridges will be replaced with the same type of superstructure and substructure as indicated on the BNSF right-of-way maps and the *Pocket List of Bridges*. Exceptions will be identified and noted during preliminary and final design.

Structural design shall be in accordance with the *American Railway Engineering and Maintenance-of-Way Association Manual for Railway Engineering* (AREMA), 2005 edition.

#### **Design Loads**

Per AREMA, bridges will be designed for an initial ballast depth of fifteen inch (timber ties) and a future ballast depth of 21-inch to account for potential grade raises.

#### **Live Load**

Cooper E80 with diesel impact, except when the Alternate Live Load on 4 Axles governs in accordance with AREMA.

### **Culverts**

Except for timber box culverts all culverts will be replaced at the same location with the same size and type. Timber box culverts will be replaced with minimum 36-inch diameter, reinforced concrete pipe (Class V RCP).

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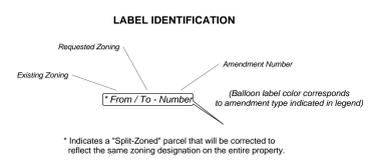
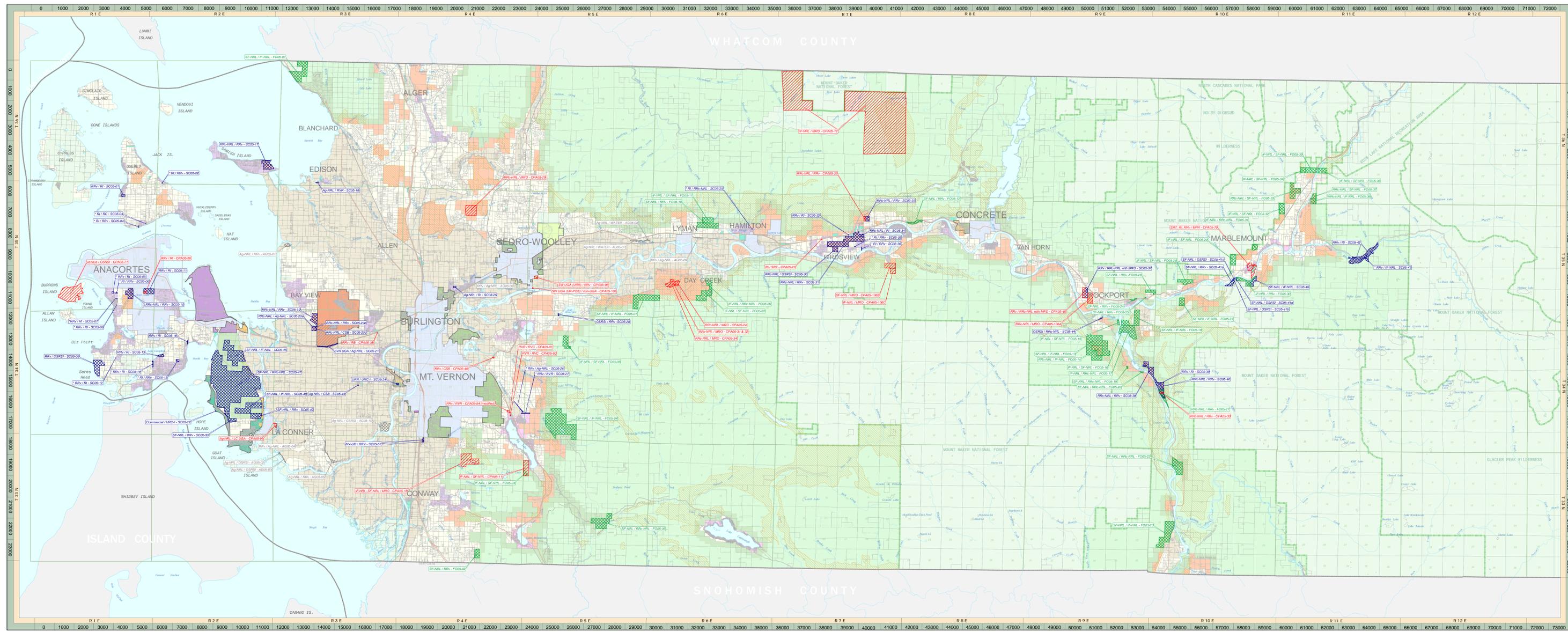
**Appendix F**

**Skagit County  
Comprehensive Plan Land Use Designations**

**Eastern Skagit Rail Project  
Feasibility Study**

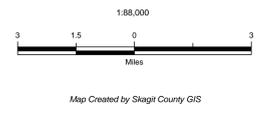
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- LEGEND**
- Forest Advisory Board Recommendations
  - AG Advisory Board Recommendations
  - Public Amendment Requests
  - County Initiated Amendment Requests
  - Updated Mineral Resource Overlay
- NATURAL RESOURCE LAND**
- [RRL-NRL] Rural Resource - NRL
  - [Ag-NRL] Agricultural - NRL
  - [SF-NRL] Secondary Forest - NRL
  - [IF-NRL] Industrial Forest - NRL
- RURAL**
- [RR-V] Rural Reserve
  - [RI] Rural Intermediate
  - [RVR] Rural Village Residential
- COMMERCIAL / INDUSTRIAL**
- [RB] Rural Business
  - [RC] Rural Center
  - [RVC] Rural Village Commercial
  - [RFS] Rural Freeway Service
  - [RI] Rural Resource Industrial
  - [SRT] Small-scale Recreation & Tourism
  - [CSI] Cottage Industry / Small-Scale Business
  - [RMI] Rural Marine Industrial
- OPEN SPACE**
- OSRSI
- URBAN GROWTH AREA**
- Incorporated Areas
  - Unincorporated Urban Growth Area Boundary
  - [URC-I] Urban Reserve Commercial-Industrial
  - [URP-OS] Urban Reserve Public-Open Space
  - [URR] Urban Reserve Residential
  - [A-UD] Anacortes UGA Urban Development District
  - [M-V-UD] Mount Vernon UGA Urban Development District
  - [BR-I] Bayview Ridge Industrial
  - [BR-H] Area Eligible For Heavy Industrial Special Uses
  - [AVR] Aviation Related
  - [C] Commercial
  - [R] Residential

Comprehensive Plan Map Amendment Proposals  
 Recommended for Approval (Preferred Alternative)  
 February 10, 2006





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## **Appendix G**

### **Industrial Parcel Information Sheets - Eliminated Sites**

**Eastern Skagit Rail Project  
Feasibility Study**

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# Parcel #1

<p><b>Parcel Number:</b> P41286</p>	<p><b>Address:</b> 3092 South Healy Road [Old Situs] Also includes: 8330 and 8354 South Healy Road</p>
<p><b>Current Use:</b> Kaland Mills</p>	<p><b>Zoning/Land Use:</b> Natural Resource Industrial (NRI)</p>
<p><b>Size:</b> 37.45 acres</p>	<p><b>Legal Description:</b> SE1/4 NE1/4 LESS RW O/S#4 #873808 1979 LESS FDT BAT SE COR OF SD PAR TH N 118 FT TH W 388FT TH S 118FT TH E 388FT TPO B</p>
	<p><b>Site Conditions/Field Notes:</b></p>
	<p>Located adjacent to and south of the former rail line between Lyman and Hamilton within the floodway. A large, level site of which the eastern one-third is occupied by a lumber yard and wood chip plant, and the remaining two-thirds are a crop field. No wetlands were readily visible on the site, nor between it and the former rail line, though a creek forms the east boundary of the parcel. Eliminated due to its proximity to the Skagit River floodway.</p>

## Parcel #2

<b>Parcel Number:</b> P40962	<b>Address:</b> 33081 State Route 20, Sedro-Woolley
<b>Current Use:</b> Moffet Shakemill	<b>Zoning/Land Use:</b> NRI
<b>Size:</b> 9.29 acres	<b>Legal Description:</b> S1/2 SW1/4 SW1/4 LY E OF C/L OF RED CA- BIN CRK
<b>Site Conditions/Field Notes:</b> <p>Located approximately one-third of a mile north of the trail between Lyman and Hamilton. A small site bounded by wetlands and streams, currently in apparent use as a farm. Access to the site would require crossing SR 20 and Lyman-Hamilton Highway and traversing numerous pastures and wetlands. Judged to be a poor site due to small size, distance from trail, and limited obstacles.</p>	
 <p>The map displays a grid of land parcels. A central parcel is highlighted in teal and labeled 'NRI'. This parcel is situated north of 'STATE ROUTE 20' and east of 'HAMILTON CEMETERY ROAD'. To the north of the NRI parcel is a green area labeled 'SF-NRL'. To the west is a yellow area labeled 'RRv'. To the south is a light brown area labeled 'Ag-NRL'. A blue line representing a stream or wetland runs through the parcel. A vertical road labeled 'HAMILTON ROAD' is visible to the west of the parcel.</p>	

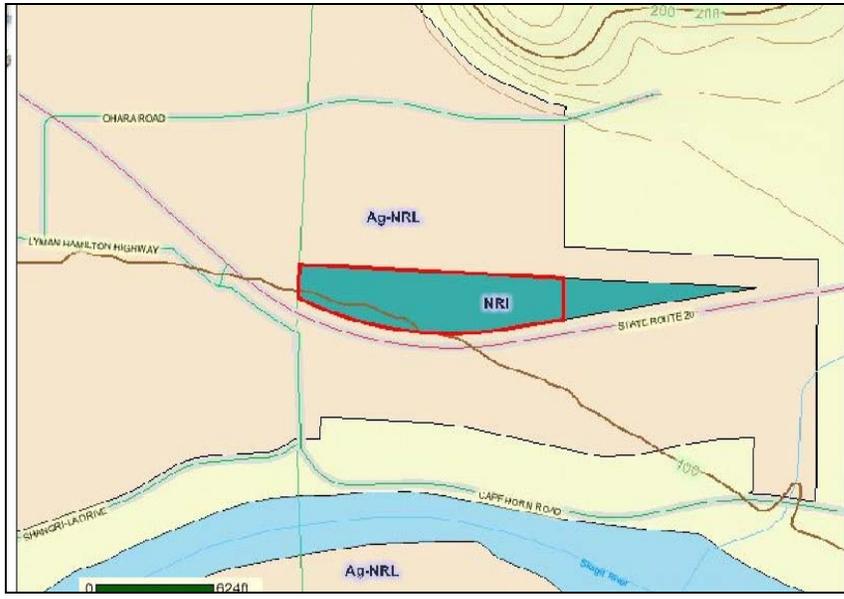
# Parcel #4

<b>Parcel Number:</b> P41611	<b>Address:</b> 30732 Highway 20, Sedro-Woolley
<b>Current Use:</b> Our Wickiup	<b>Zoning/Land Use:</b> RB
<b>Size:</b> 4.5 acres	<b>Legal Description:</b> TAX 18; THE WEST 206.25 FEET OF THE EAST 412.5 FEET OF THAT PORTION OF THE NW1/4 NE1/4 OF SEC 18, TWP 35, RNG 6 LYING SOUTH OF THE STATE HWY #17-A AS CONDEMNED BY SKAGIT COUNTY SUPERIOR COURT CAUSE #25060 AND NORTH OF OLD STATE HWY #17-A LYING ALONG THE SOUTH LINE OF SAID SUBDIVISION
<b>Site Conditions/Field Notes:</b> Located approximately one-quarter mile north of the trail; the majority of the property functions as a cow pasture, with a business called "Our Wickiup" occupying the north end. The site is long, narrow and rolling, and would require a long lead traversing a pasture over non-level ground. Due to the access obstacles and lack of width, this parcel was judged as a poor choice for development.	
	

# Parcel #5

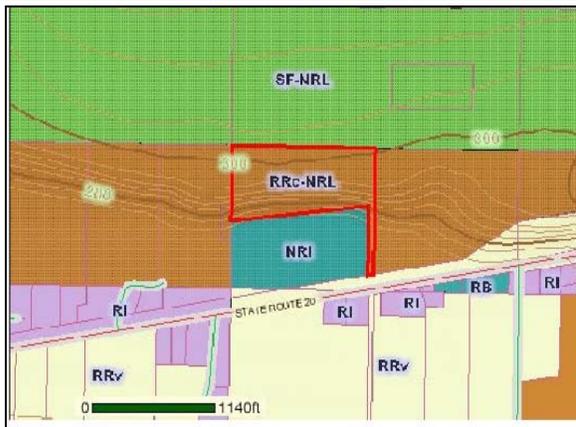
<p><b>Parcel Number:</b> P42422</p>	<p><b>Address:</b> 40783 and 40787 Challenger Road</p>
<p><b>Current Use:</b> Shake Mill</p>	<p><b>Zoning/Land Use:</b> NRI</p>
<p><b>Size:</b> 3.99 acres</p>	<p><b>Legal Description:</b> (TAX 5) BEGINNING AT A POINT ON THE NORTHWEST CORNER OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION THENCE EAST 380 FEET THENCE SOUTH TO STATE HIGHWAY 17A THENCE SOUTHWESTERLY ALONG THE STATE HIGHWAY TO THE WEST LINE OF THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER THENCE NORTH TO POINT OF BEGINNING</p>
	<p><b>Site Conditions/Field Notes:</b> Located across Challenger Road a short distance north of the trail. A very small site hosting two residences and associated out-buildings. No wetlands were observed on-site. The trail runs in a cut approximately fifteen to twenty feet deep immediately south of Challenger Road; a long lead west of the property, climbing a steep grade, would be required. This site was judged to be poor for development due to its very small size and access.</p>

# Parcel #6

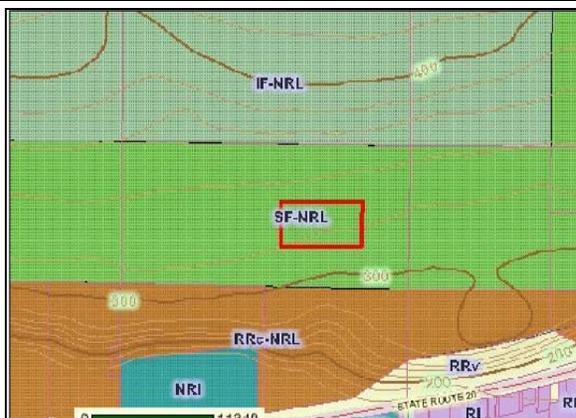
<b>Parcel Number:</b> P42946	<b>Address:</b> State Route 20
<b>Current Use:</b> Empty Field	<b>Zoning/Land Use:</b> NRI
<b>Size:</b> 6.7 acres	<b>Legal Description:</b> LT 2 N OF HWY 17A & S OF GN RLY
<b>Site Conditions/Field Notes:</b> <p>Located east of Hamilton between SR 20 and the trail. A long, level site with excellent access to SR 20; currently in use as an open field that appears to be maintained. A creek runs along the east border, wetlands are present on the north side of a private road in the northeast corner, and a thick stand of trees lies between the trail and the private road. Judged to be a good site for development. Eliminated due to its proximity to the Skagit River floodway.</p>	
	

# Parcel #7 (b and c)

<b>Parcel Number:</b> P99657, P101461	<b>Address:</b> 38507 and 38511 Highway 20
<b>Current Use:</b> Pacific Rim Tonewoods	<b>Zoning/Land Use:</b> NRI
<b>Size:</b> 13.65 acres 4.14 acres	<b>Legal Description:</b> ACREAGE ACCOUNT, ACRES 13.64, SW1/4 SE1/4 EXC FDP PTN SW1/4 SE1/4 SEC 9 AND ALSO PTN NW1/4 NE1/4 SEC 16 DAF BEG SW COR SE1/4 SD SEC 9 TH S 1-07-38 W ALG W LN SD NE1/4 SEC 16 86.59FT TO N R/W LN BNRR TH N 80-40- 32 E ALG SD NLY R/W LN 1287.73FT TH N 0-25-49 E PLW W LN SD SE1/4 639.98FT TH S 83-51-29 W 1277.0FT M/L TO W LN SD SE1/4 TH S 0-25-49 W ALG SD W LN SE1/4 TO POB  4.14 CLEARED AC WITHIN SE1/4
<b>Site Conditions/Field Notes:</b> P99657 lies immediately north of P42331 and encompasses a 150 foot bluff rising over the valley, and P101461 lies north of P99657 on top of the bluff. P42331 was judged to be a good site for development, while P99657 and P101461 are impractical due to their extreme elevation difference above the trail.	



**Parcel #99657**

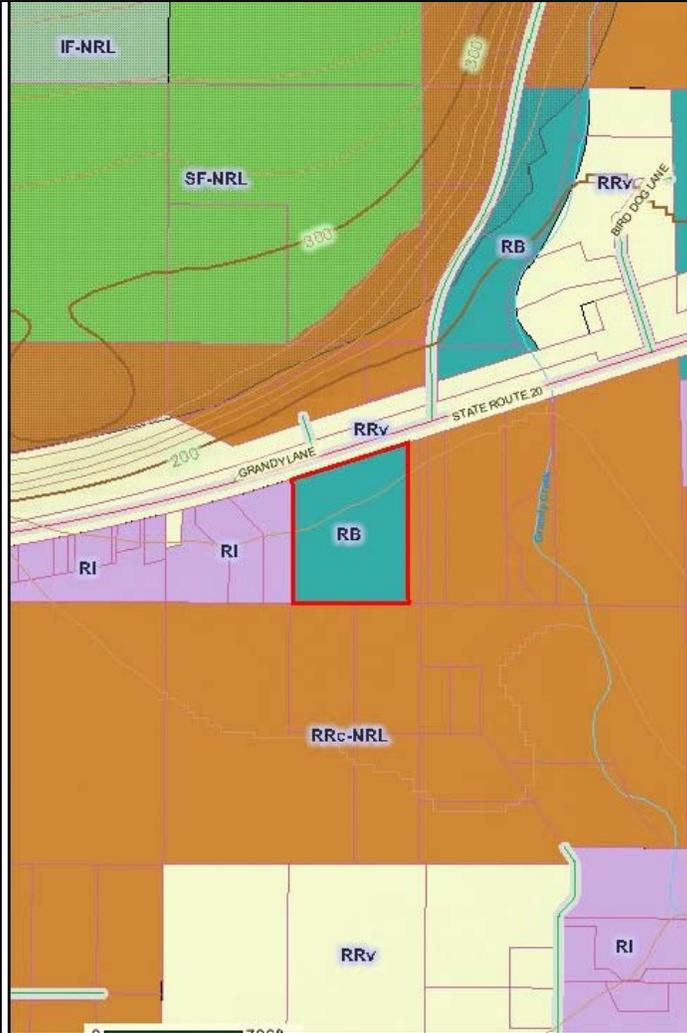


**Parcel #101461**

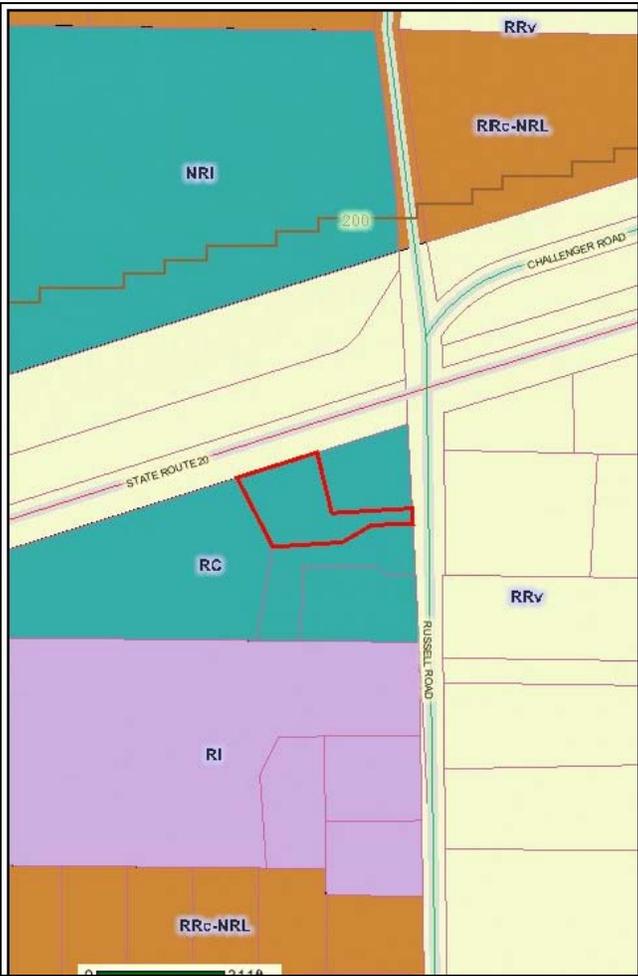
# Parcel #9

<p><b>Parcel Number:</b> P42311</p>	<p><b>Address:</b> 38940 Highway 20</p>
<p><b>Current Use:</b> Baker Lake Grocery and Gas</p>	<p><b>Zoning/Land Use:</b> RB</p>
<p><b>Size:</b> .77 acres</p>	<p><b>Legal Description:</b> S9 T35 R7 TAX 1 BAAP ON THE S LINE OF SEC 9-35-7 296.53' W OF THE SE COR THOF TH N 189.38' TO THE S MARGIN OF ST. HWY NO. 17A TH S 77 DEG 22' W ALG SD S MARGIN 200' TH S 149.78' TO THE S LINE OF SD SEC 9 TH N 88 DEG 47' E ALG SD S LINE 195.19' TO THE POB</p>
	<p><b>Site Conditions/Field Notes:</b> Located across SR 20 from the trail between Hamilton and Birdview Siding and currently in use as Baker Lake Grocery. This is a very small site, and the gas station co-located with the grocery store raises the concern that the underlying soil could potentially be contaminated; thus, it was deemed impractical for development by a rail-served industry.</p>

# Parcel #11

<p><b>Parcel Number:</b> P42393</p>	<p><b>Address:</b> 39394 STATE ROUTE 20</p>
<p><b>Current Use:</b> Harkness Trucking and Logging</p>	<p><b>Zoning/Land Use:</b> RB</p>
<p><b>Size:</b> 9.59 acres</p>	<p><b>Legal Description:</b> PTN SE1/4 SW1/4 AKA TR B S/P#68-74</p>
	<p><b>Site Conditions/Field Notes:</b></p> <p>Located west of Birdview Siding on the south side of SR 20, south of the trail. A large, open site, gently sloping to the south, and currently in use by an unidentified logging-industry business. A large LNG-type tank is located on the north boundary of the property, close to SR 20. This site was judged to be good for development due to its size, proximity to the trail, and easy access to SR 20; however it was not selected as a potential development site due to the spur track having to cross SR 20.</p>

# Parcel #12

<p><b>Parcel Number:</b> P42393</p>	<p><b>Address:</b> 39952 STATE ROUTE 20 7722 RUSSELL ROAD</p>
<p><b>Current Use:</b> Birdsview Burgers</p>	<p><b>Zoning/Land Use:</b> RC</p>
<p><b>Size:</b> 1.03 acres</p>	<p><b>Legal Description:</b> ACREAGE ACCOUNT, ACRES 1.03, LOT 1, SKAGIT COUNTY SHORT PLAT 00-0085, RECORDED UNDER AF# 200009130102, BEING A PORTION OF SE1/4 SE1/4 AND NE1/4 SE1/4</p>
 <p>The map displays a zoning overlay with several distinct zones: NRI (teal), RRc-NRL (orange), RRv (yellow), RC (light blue), and RI (purple). Major roads shown include STATE ROUTE 20, RUSSELL ROAD, and CHALLENGER ROAD. A red outline delineates the specific parcel being discussed, which is situated at the intersection of State Route 20 and Russell Road. A scale bar at the bottom of the map indicates a distance of 0.110 miles.</p>	<p><b>Site Conditions/Field Notes:</b> Located at Birdsview Siding at the intersection of SR 20 and Russell Road. The parcel currently hosts Birdsview Burgers and is adjacent to a gas station, raising the concern that the underlying soil could potentially be contaminated. It was deemed that the site's diminutive size would make industrial development impractical.</p>

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## **Appendix H**

### **Industrial Parcels Field Survey Data Sheets**

**Eastern Skagit Rail Project  
Feasibility Study**

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Project Parcel #: 1  
County Parcel #: P41286

Current parcel use: Lumber mill & wood chip plant; farm

Wetlands present? N

General topography:

Hilly	<input type="checkbox"/>
Trees	<input type="checkbox"/>
Brush	<input checked="" type="checkbox"/>
Standing water	<input type="checkbox"/>
Streams	<input type="checkbox"/>
Roads	<input type="checkbox"/>
Buildings	<input checked="" type="checkbox"/>

Condition: Good

On-site utilities: Power

Other utilities:

Gas	<input type="checkbox"/>
Fiber optic	<input type="checkbox"/>
Overhead power	<input checked="" type="checkbox"/>

Opinion of potential as a rail-served industry:

Long enough? Y  
Flat enough? Y  
Big enough? Y

Adjacent property uses: N - Trail, then Lyman-Hamilton Highway  
S - unknown (no access)  
E - creek  
W - farms, residences

Comments: Good site: Wide-open, flat, eastern area already in industrial use, directly adjacent to trail

Area between potential site and trail:

Approx diff. in elevation between site and trail -5'

Wetlands present? N Located in the floodway

Roads to be crossed between site and trail none

General topography:

Hilly	<input type="checkbox"/>
Trees	<input type="checkbox"/>
Brush	<input checked="" type="checkbox"/>
Standing water	<input type="checkbox"/>
Streams	<input type="checkbox"/>
Roads	<input type="checkbox"/>
Buildings	<input type="checkbox"/>

Utilities potentially impacted:

Gas	<input type="checkbox"/>
Fiber optic	<input type="checkbox"/>
Overhead power	<input type="checkbox"/>

Project Parcel #: 2  
 County Parcel #: P40962

Current parcel use: Farm?

Wetlands present? Y

General topography:

Hilly	
Trees	X
Brush	X
Standing water	
Streams	X W boundary
Roads	
Buildings	X Condition: unknown

On-site utilities: Power

Other utilities:

Gas	
Fiber optic	
Overhead power	X

Opinion of potential as a rail-served industry:

Long enough? N  
 Flat enough? Y  
 Big enough? N

Adjacent property uses:

S - SR 20  
 E - pasture  
 W - creek, then pasture and Healy Road  
 N - pasture, then Hamilton Cemetary Road

Comments: Poor site: small, long distance from trail; lead would have to cross numerous wet areas

Area between potential site and trail:

Approx diff. in elevation between site and trail +10'? (1/4 mi away, tough to judge)

Wetlands present? Y

Roads to be crossed between site and trail Lyman-Hamilton Highway  
 SR 20

General topography:

	pastures
Hilly	
Trees	X
Brush	X
Standing water	
Streams	X
Roads	X residences
Buildings	X

Utilities potentially impacted:

Gas	
Fiber optic	
Overhead power	X

Project Parcel #: 3  
 County Parcel #: P41204

Current parcel use: Vacant open land

Wetlands present? N

General topography:

Hilly	
Trees	X
Brush	X
Standing water	
Streams	
Roads	
Buildings	

E edge and line through S side

Condition:

On-site utilities: PSE Hamilton Substation on W side

Other utilities:

Gas	
Fiber optic	
Overhead power	X

Opinion of potential as a rail-served industry:

Long enough? Y  
 Flat enough? Y  
 Big enough? Y

Adjacent property uses: N - SR 20  
 S - woods, then Lyman-Hamilton Highway  
 W - Cabin Creek Road  
 E - industry?

Comments: Very large, flat site, though w/ minor access issue due to hill and creek on south/southwest side. Best access likely via SE corner

Area between potential site and trail:

Approx diff. in elevation between site and trail +15' to +20'  
 (gradual slope in SE corner)

Wetlands present? Y Muddy Creek in SW corner

Roads to be crossed between site and trail Lyman-Hamilton Highway

General topography:

Hilly	X
Trees	X
Brush	X
Standing water	
Streams	X
Roads	X
Buildings	

Utilities potentially impacted:

Gas	
Fiber optic	
Overhead power	X

Project Parcel #: 4  
 County Parcel #: P41611

Current parcel use: Our Wickiup (business); cow pasture

Wetlands present? N

General topography:

Hilly	<input checked="" type="checkbox"/>
Trees	<input checked="" type="checkbox"/>
Brush	<input checked="" type="checkbox"/>
Standing water	<input type="checkbox"/>
Streams	<input type="checkbox"/>
Roads	<input type="checkbox"/>
Buildings	<input checked="" type="checkbox"/>

Condition: Good

On-site utilities: Power

Other utilities:

Gas	<input type="checkbox"/>
Fiber optic	<input type="checkbox"/>
Overhead power	<input checked="" type="checkbox"/>

Opinion of potential as a rail-served industry:

Long enough? Y  
 Flat enough? N  
 Big enough? N

Adjacent property uses: E & W - Residences and pastures  
 N - SR 20  
 S - Lyman-Hamilton Highway, then residence/pastures

Comments: Poor site: Long distance from trail; hilly between trail and site; site would require leveling; surrounded by residences; very narrow

Area between potential site and trail:

Approx diff. in elevation between site and trail unknown

Wetlands present? Y N unknown

Roads to be crossed between site and trail Lyman-Hamilton Highway

General topography:

Hilly	<input checked="" type="checkbox"/>
Trees	<input checked="" type="checkbox"/>
Brush	<input checked="" type="checkbox"/>
Standing water	<input type="checkbox"/>
Streams	<input type="checkbox"/>
Roads	<input checked="" type="checkbox"/>
Buildings	<input checked="" type="checkbox"/>

Utilities potentially impacted:

Gas	<input type="checkbox"/>
Fiber optic	<input type="checkbox"/>
Overhead power	<input checked="" type="checkbox"/>

Project Parcel #: 5  
 County Parcel #: P42422

Current parcel use: Residences

Wetlands present? N

General topography:

Hilly	
Trees	X
Brush	X
Standing water	
Streams	
Roads	X
Buildings	X

Condition: Good

On-site utilities: Power

Other utilities:

Gas	
Fiber optic	
Overhead power	X

Opinion of potential as a rail-served industry:

Long enough? N  
 Flat enough? Y  
 Big enough? N

Adjacent property uses: N - woods? (could not access)  
 W - woods; observed a dump truck enter property and heard gravel being dumped; purpose unknown  
 E - residences  
 S - Challenger Road; trail

Comments: Would require a long (~ 1/4 mi) lead and steep grade to access relatively small site

Area between potential site and trail:

Approx diff. in elevation between site and trail + 15'-20'

Wetlands present? N

Roads to be crossed between site and trail Challenger Road

General topography:

Hilly	
Trees	X
Brush	X
Standing water	
Streams	
Roads	X
Buildings	

ROW in a cut immediately south of road

Utilities potentially impacted:

Gas	
Fiber optic	
Overhead power	X

Project Parcel #: 6  
 County Parcel #: P42946

Current parcel use: empty field that is mowed; unsure if used  
 for a crop

Wetlands present? N

General topography:

Hilly	<input type="checkbox"/>
Trees	<input type="checkbox"/>
Brush	<input checked="" type="checkbox"/>
Standing water	<input type="checkbox"/>
Streams	<input checked="" type="checkbox"/> east boundary
Roads	<input checked="" type="checkbox"/> north boundary
Buildings	<input type="checkbox"/> Condition:

On-site utilities: power

Other utilities:

Gas	<input type="checkbox"/>
Fiber optic	<input type="checkbox"/>
Overhead power	<input checked="" type="checkbox"/>

Opinion of potential as a rail-served industry:

Long enough? Y  
 Flat enough? Y  
 Big enough? Y

Adjacent property uses: N - private road, then trail  
 S & W - SR 20  
 E - creek, then wood shop or residence

Comments: Excellent access to SR 20; large, flat site; concern would be crossing creek/wetland, which would be most difficult in NE corner

Area between potential site and trail:

Approx diff. in elevation between site and trail -5' to -10'

Wetlands present? Y

Roads to be crossed between site and trail private road

General topography:

Hilly	<input type="checkbox"/>
Trees	<input checked="" type="checkbox"/>
Brush	<input checked="" type="checkbox"/>
Standing water	<input checked="" type="checkbox"/>
Streams	<input checked="" type="checkbox"/>
Roads	<input checked="" type="checkbox"/>
Buildings	<input type="checkbox"/>

Utilities potentially impacted:

Gas	<input type="checkbox"/>
Fiber optic	<input type="checkbox"/>
Overhead power	<input checked="" type="checkbox"/>

Project Parcel #: 7  
 County Parcel #: P42331

Current parcel use: Pacific Rim Tonewoods

Wetlands present? N (could only inspect SW corner)

General topography:

Hilly	
Trees	X
Brush	X
Standing water	
Streams	
Roads	X
Buildings	X

Condition: Good

On-site utilities: Power

Other utilities:

Gas	
Fiber optic	
Overhead power	X

Opinion of potential as a rail-served industry:

Long enough? Y  
 Flat enough? Y  
 Big enough? Y

Adjacent property uses: E - Woods  
 S - Trail, SR 20  
 N - woods  
 W - residences

Comments: Large, flat site adjacent to trail; already in industrial use

Area between potential site and trail:

Approx diff. in elevation between site and trail +2' to +5'

Wetlands present? N

Roads to be crossed between site and trail none

General topography:

Hilly	
Trees	X
Brush	X
Standing water	
Streams	
Roads	
Buildings	

Utilities potentially impacted:

Gas	
Fiber optic	
Overhead power	

Project Parcel #: 7  
County Parcel #: P99657

Current parcel use: Woods (Pacific Rim Tonewoods)

Wetlands present? unknown

General topography:

Hilly	X
Trees	X
Brush	
Standing water	
Streams	
Roads	
Buildings	

Condition:

On-site utilities:

Other utilities:

Gas	
Fiber optic	
Overhead power	

Opinion of potential as a rail-served industry:

Long enough?	N
Flat enough?	N
Big enough?	N

Adjacent property uses:

Comments: Parcel encompasses a 100- to 150-foot high bluff north of P.R.T.; impractical for industrial use

Area between potential site and trail:

Approx diff. in elevation between site and trail

Wetlands present? unknown

Roads to be crossed between site and trail

General topography:

Hilly	
Trees	
Brush	
Standing water	
Streams	
Roads	
Buildings	

Utilities potentially impacted:

Gas	
Fiber optic	
Overhead power	

Project Parcel #: 7  
County Parcel #: P101461

Current parcel use: unknown

Wetlands present? unknown

General topography:

Hilly	<input checked="" type="checkbox"/>
Trees	<input checked="" type="checkbox"/>
Brush	<input type="checkbox"/>
Standing water	<input type="checkbox"/>
Streams	<input type="checkbox"/>
Roads	<input type="checkbox"/>
Buildings	<input type="checkbox"/>

Condition:

On-site utilities:

Other utilities:

Gas	<input type="checkbox"/>
Fiber optic	<input type="checkbox"/>
Overhead power	<input type="checkbox"/>

Opinion of potential as a rail-served industry:

Long enough?	N
Flat enough?	N
Big enough?	N

Adjacent property uses:

Comments: Parcel is on top of a 100- to 150-foot high bluff north of P.R.T.; impractical for industrial use

Area between potential site and trail:

Approx diff. in elevation between site and trail

Wetlands present? unknown

Roads to be crossed between site and trail

General topography:

Hilly	<input type="checkbox"/>
Trees	<input type="checkbox"/>
Brush	<input type="checkbox"/>
Standing water	<input type="checkbox"/>
Streams	<input type="checkbox"/>
Roads	<input type="checkbox"/>
Buildings	<input type="checkbox"/>

Utilities potentially impacted:

Gas	<input type="checkbox"/>
Fiber optic	<input type="checkbox"/>
Overhead power	<input type="checkbox"/>

Project Parcel #: 8  
 County Parcel #: P42397

Current parcel use: Northwest Forest Fiber

Area between potential site and trail:

Wetlands present? N (could not access north side of property)      Approx diff. in elevation between site and trail 0' to +3' (except for dirt pile)

General topography: Large dirt pile in SW corner, approx 20'h x 40'w x 150'l

Wetlands present? N

Hilly	
Trees	X
Brush	X
Standing water	
Streams	
Roads	
Buildings	X

Condition: Good

Roads to be crossed between site and trail none

General topography:

Hilly	
Trees	X
Brush	X
Standing water	
Streams	
Roads	
Buildings	

On-site utilities: Power

Other utilities:

Gas	
Fiber optic	
Overhead power	X

Utilities potentially impacted:

Gas	
Fiber optic	
Overhead power	X

Opinion of potential as a rail-served industry:

Long enough? Y  
 Flat enough? Y  
 Big enough? Y

Adjacent property uses: E - open field (pasture?); residences 1/4 mi to east  
 N - woods; residence in NE corner; KOA campground 1/4 mi to NE  
 W - residence  
 S - trail

Comments: Direct access to SR 20 in SE corner; directly adjacent to trail; large, flat site already in industrial use

Project Parcel #: 9  
 County Parcel #: P42311

Current parcel use: Baker Lake Grocery (includes gas station)

Wetlands present? N

General topography:

Hilly	
Trees	
Brush	
Standing water	
Streams	
Roads	X parking lot/fuel pumps
Buildings	X Condition: good

On-site utilities: Power

Other utilities: underground storage tanks for fuel

Gas	
Fiber optic	
Overhead power	X

Opinion of potential as a rail-served industry:

Long enough?	N
Flat enough?	N
Big enough?	N

Adjacent property uses: E & W - Residences  
 S - Pasture  
 N - SR 20, then trail

Comments: Much too small for rail access; likely underground storage tank is concern for contaminated so

Area between potential site and trail:

Approx diff. in elevation between site and trail -10'

Wetlands present? N (except for roadside ditch)

Roads to be crossed between site and trail SR 20

General topography:

Hilly	
Trees	X
Brush	X
Standing water	
Streams	
Roads	X SR 20
Buildings	

Utilities potentially impacted:

Gas	
Fiber optic	
Overhead power	X

possible underground power

Project Parcel #: 10  
 County Parcel #: P42403

Current parcel use: Open field; residence

Wetlands present? N

General topography:

Hilly	
Trees	X
Brush	
Standing water	
Streams	
Roads	
Buildings	X

Condition: Good (one house)

On-site utilities: X

Other utilities:

Gas	
Fiber optic	
Overhead power	X

Opinion of potential as a rail-served industry:

Long enough? N  
 Flat enough? Y  
 Big enough? N

Adjacent property uses: N - residence, open field (property is for sale as of 06/09/06)  
 W - Baker Lake Road; residences  
 S - Trail, then SR 20  
 E - creek

Comments: Too small by itself to host an industry; if property between this parcel and parcel P42401 can be acquired, would create long, narrow site that could work well.

Area between potential site and trail:

Approx diff. in elevation between site and trail 0'

Wetlands present? N

Roads to be crossed between site and trail none

General topography:

Hilly	
Trees	X
Brush	X
Standing water	
Streams	
Roads	
Buildings	

Utilities potentially impacted:

Gas	
Fiber optic	
Overhead power	

Project Parcel #: 10  
 County Parcel #: P42401

Current parcel use: Creekside Store; campground; residence

Area between potential site and trail:

Approx diff. in elevation between site and trail +5' to +10' (gradual slope)

Wetlands present? N

Wetlands present? N

General topography:

Hilly	
Trees	X
Brush	
Standing water	
Streams	X east boundary
Roads	X gravel roads traverse site
Buildings	X Condition: Good

Roads to be crossed between site and trail none

General topography:

Hilly	
Trees	X
Brush	X
Standing water	
Streams	
Roads	
Buildings	

On-site utilities: Power

Other utilities:

Gas	
Fiber optic	
Overhead power	X

Utilities potentially impacted:

Gas	
Fiber optic	
Overhead power	X

Opinion of potential as a rail-served industry:

Long enough? Y  
 Flat enough? Y  
 Big enough? Y

Adjacent property uses: W - Baker Lake Road, then hillside  
 E - creek  
 S - residence, open field (property for sale as of 06/09/06)  
 N - residences

Comments: If property between this parcel and parcel P42403 can be acquired, would create long, narrow site that could work well.

Project Parcel #: 11  
County Parcel #: P42393

Current parcel use: Logging company (no name visible)

Area between potential site and trail:

Wetlands present? N (could not inspect south side of parcel)

Approx diff. in elevation between site and trail -5' to -10'

General topography:

Hilly	
Trees	X
Brush	X
Standing water	
Streams	
Roads	X
Buildings	X

Condition: Good

Wetlands present? Y between SR 20 and parcel (ditch)

Roads to be crossed between site and trail SR 20

General topography:

Hilly	
Trees	X
Brush	X
Standing water	
Streams	
Roads	X
Buildings	

On-site utilities: Power

Other utilities: Large LNG-type tank on north edge of parcel

Gas	
Fiber optic	
Overhead power	

Utilities potentially impacted:

Gas	
Fiber optic	
Overhead power	X

Opinion of potential as a rail-served industry:

Long enough? Y  
Flat enough? Y  
Big enough? Y

underground power marked between SR 20 and trail

Adjacent property uses: W & E - residences  
S - unknown  
N - SR 20, then trail, then residences

Comments: Large, flat site w/ easy access to SR 20

Project Parcel #: 12  
 County Parcel #: P42393

Current parcel use: Birdsvie Burgers

Wetlands present? N

General topography:

Hilly		
Trees	X	Very large
Brush		
Standing water		
Streams		
Roads	X	Parking lot
Buildings	X	Condition: Good

On-site utilities: Power

Other utilities:

Gas	
Fiber optic	
Overhead power	X

Opinion of potential as a rail-served industry:

Long enough? N  
 Flat enough? N  
 Big enough? N

Adjacent property uses:

N - SR 20  
 E - Russell Road; residences on far side of road  
 S - residences  
 W - gas station

Comments: Too small for most industrial purposes; difficult rail access conditions; adjacent gas station could be concern for soil contamination

Area between potential site and trail:

Approx diff. in elevation between site and trail 0'

Wetlands present? N (unless SR 20 roadside ditch counts)

Roads to be crossed between site and trail SR 20

General topography:

Hilly	
Trees	X
Brush	X
Standing water	
Streams	
Roads	X
Buildings	

Utilities potentially impacted:

Gas	
Fiber optic	
Overhead power	X

Project Parcel #: 13  
 County Parcel #: P43592

Current parcel use: No business name - logging equipment & repair shop  
 Wetlands present? Y stream flowing in ditch between property & trail  
 General topography: gradually slopes uphill to north

Hilly	
Trees	X
Brush	X
Standing water	
Streams	X
Roads	
Buildings	X

Condition: run-down; not re-usable

On-site utilities: power

Other utilities:

Gas	
Fiber optic	
Overhead power	X

Opinion of potential as a rail-served industry:  
 Long enough? Y for roughly 5-car tracks perpendicular to ROW; longer will require grading  
 Flat enough? Y  
 Big enough? Y

Adjacent property uses: E - Northwest Mobile Home & RV Salvage  
 W & N - Woods  
 S - Trail

Comments: Will have to cross stream running in north ditch to access site, but otherwise would work well for a small-medium industry

Area between potential site and trail:  
 Approx diff. in elevation between site and trail 0 ft

Wetlands present? Y

Roads to be crossed between site and trail none

General topography:

Hilly	
Trees	X
Brush	X
Standing water	
Streams	X
Roads	
Buildings	

Utilities potentially impacted:

Gas	
Fiber optic	
Overhead power	

---

## **Appendix I**

### **Industrial Parcels Access Cost Estimates - Details**



**Appendix I  
Parcel Access Costs**

COMPUTED: K.Reichelt DATE: 26-Jul-06  
 CHECKED: D.Honan DATE: 28-Jul-06  
 SHEET: 1 OF: 1

Parcel #	Real Estate		Track			New - Roadbed - 3'		Subballast		Clear/Grub		AT-GRADE XINGS			Signals		BRIDGES	UTILITIES	SUBTOTAL	CONTINGENCY	ENV. MITIG.	DESIGN/CM	SALES TAX	TOTAL	LOW \$100K-\$500K MED \$500K-\$1M HIGH > \$1M			
	AC	\$20K/AC	TF	\$110/TF	EA	\$125K/TO	CY	\$20/CY	CY	\$28/CY	AC	\$3000/AC	LF	\$800/TF- Pub	\$120K-Pub	\$140/TF-Priv	\$4500/TF	\$15K/EA										
				Cost	Turnout	Cost	3.11		0.58		30 ft			PUB	PVT	LENGTH	LENGTH	LENGTH								L (ft)	EA	30%
1	0.000	\$0	150	\$16,500	1	\$125,000	466.50	\$9,330	87.00	\$2,436	0.10	\$310								\$0	\$153,576	\$46,073	\$15,358	\$15,358	\$16,770	\$247,134	LOW	
2	3.640	\$72,800	1584	\$174,240	1	\$125,000	4926.24	\$98,525	918.72	\$25,724	1.09	\$3,273	2	64	0	64	\$51,200	\$240,000	55	\$247,500	\$1,053,262	\$315,979	\$105,326	\$105,326	\$115,016	\$1,694,909	HIGH	
3	1.210	\$24,200	528	\$58,080	1	\$125,000	1642.08	\$32,842	306.24	\$8,575	0.36	\$1,091	1	32	0	32	\$25,600	\$120,000	55	\$247,500	\$657,887	\$197,366	\$65,789	\$65,789	\$71,841	\$1,058,672	HIGH	
4	2.420	\$48,400	1056	\$116,160	1	\$125,000	3284.16	\$65,683	612.48	\$17,149	0.73	\$2,182	1	32	0	32	\$25,600	\$120,000	\$0		\$535,174	\$160,552	\$53,517	\$53,517	\$58,441	\$861,203	MED	
5	1.210	\$24,200	528	\$58,080	1	\$125,000	1642.08	\$32,842	306.24	\$8,575	0.36	\$1,091	1	32	0	32	\$25,600	\$120,000	\$0		\$410,387	\$123,116	\$41,039	\$41,039	\$44,814	\$660,395	MED	
6	0.000	\$0	150	\$16,500	1	\$125,000	466.50	\$9,330	87.00	\$2,436	0.10	\$310	1	0	16	16	\$2,240	\$0	\$0		\$170,816	\$51,245	\$17,082	\$17,082	\$18,653	\$274,877	LOW	
7	\$97,000			\$248,820		\$125,000		\$140,696		\$36,735		\$4,674					\$0	\$0	\$0		\$652,925	\$195,877	\$65,292	\$65,292	\$71,299	\$1,050,687	HIGH	
7a	0.000	\$0	150	\$16,500	1	\$125,000	466.50	\$9,330	87.00	\$2,436	0.10	\$310	0	0	0	0	\$0	\$0	\$0		\$0					\$0		
7b	1.210	\$24,200	528	\$58,080		\$0	1642.08	\$32,842	306.24	\$8,575	0.36	\$1,091	0	0	0	0	\$0	\$0	\$0		\$0					\$0		
7c	3.640	\$72,800	1584	\$174,240		\$0	4926.24	\$98,525	918.72	\$25,724	1.09	\$3,273	0	0	0	0	\$0	\$0	\$0		\$0					\$0		
8	0.000	\$0	150	\$16,500	1	\$125,000	466.50	\$9,330	87.00	\$2,436	0.10	\$310									\$0					\$0		
9	0.610	\$12,200	264	\$29,040	1	\$125,000	821.04	\$16,421	153.12	\$4,287	0.18	\$545	1	32	0	32	\$25,600	\$120,000	\$0		\$168,576	\$50,573	\$16,858	\$16,858	\$18,408	\$271,272	LOW	
10		\$40,600		\$145,200		\$125,000		\$82,104		\$21,437		\$2,727					\$0	\$0	\$0		\$348,094	\$104,428	\$34,809	\$34,809	\$38,012	\$560,152	MED	
10a	2.420	\$48,400	1056	\$116,160	1	\$125,000	3284.16	\$65,683	612.48	\$17,149	0.73	\$2,182	0	0	0	0	\$0	\$0	\$0		\$452,068	\$135,620	\$45,207	\$45,207	\$49,366	\$727,468	MED	
10b	0.610	\$12,200	264	\$29,040	0	\$0	821.04	\$16,421	153.12	\$4,287	0.18	\$545	0	0	0	0	\$0	\$0	\$0		\$0					\$0		
11	0.610	\$12,200	264	\$29,040	1	\$125,000	821.04	\$16,421	153.12	\$4,287	0.18	\$545	1	32	0	32	\$25,600	\$120,000	\$0		\$348,094	\$104,428	\$34,809	\$34,809	\$38,012	\$560,152	MED	
12	0.610	\$12,200	264	\$29,040	1	\$125,000	821.04	\$16,421	153.12	\$4,287	0.18	\$545	1	32	0	32	\$25,600	\$120,000	\$0		\$348,094	\$104,428	\$34,809	\$34,809	\$38,012	\$560,152	MED	
13	0.000	\$0	150	\$16,500	1	\$125,000	466.50	\$9,330	87.00	\$2,436	0.10	\$310							55	\$247,500	\$0	\$401,076	\$120,323	\$40,108	\$40,108	\$43,797	\$645,411	MED



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## **Appendix J**

### **Stakeholder Comments on Draft Report**

**Eastern Skagit Rail Project  
Feasibility Study**

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**Fredrickson, Kirk**

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**From:** RobertVaux [bobv@co.skagit.wa.us]  
**Sent:** Tuesday, September 26, 2006 9:42 PM  
**To:** Fredrickson, Kirk  
**Subject:** RE: Draft Eastern Skagit Rail Project Feasability Study

Hello Kirk: my computer is not allowing me to open the study. Needless to say, my staff and I feel strongly about maintaining the trail, regardless of the status of the rail line - and there are federal regulations addressing this, of which I am sure you are well aware. We also believe in being a strong economic partner. If east county industry can possibly justify this kind of expense, then we would work hard as a partner.

User numbers on the trail are growing, and we are currently embarking on a significant improvement project and lengthening of the east end of the trail with the Town of Concrete. There is great economic value in trail systems, and improving this trail alone would be an economic benefit to the communities of east Skagit County.

Please mail me a hard copy of the final report. I will be happy to work with you and other officials on setting up the future public meeting.

Sincerely,

*Bob Vaux*

*Director*

*Skagit County Parks and Recreation*

*315 South Third Street*

*Mount Vernon, WA 98273*

*360/336-9328*

*skagitparksfoundation.org*

*CREATING COMMUNITY THROUGH PEOPLE, PARKS AND PROGRAMS*

---

**From:** Fredrickson, Kirk [mailto:Fredrik@WSDOT.WA.GOV]  
**Sent:** Friday, September 08, 2006 9:46 AM  
**To:** bailey\_ba@leg.wa.gov; bailey\_ca@leg.wa.gov; RobertVaux; Brad Barton; Carlson, Todd; ChalMartin; danp@scog.net; DaveBrookings; dmueller@hdrinc.com; Don Wick; Gary Christensen; Gary Rowe; Harrison, Todd; Ivanov, Barbara; Jim Koetje; JoanneGiesbrecht; kreichel@hdrinc.com; Kristen LeMieux; kristian\_da.@leg.wa.gov; linda@resourcenw.com; McKinnie, Jill; morris\_je@leg.wa.gov; pearson\_ki@leg.wa.gov; quall\_da@leg.wa.gov; Randy Bartelt; rlgood@fidalgo.net; Sen. Mary Margaret Haugen; Sheri Nelson; spanel\_ha@leg.wa.gov; stevens\_va@leg.wa.ov; strow\_ch@leg.wa.gov; TAW@vtd.net; TomKarsh; Tom Stacey; Wood, Andrew  
**Subject:** Draft Eastern Skagit Rail Project Feasability Study

Dear Eastern Skagit Rail Study Stakeholders:

9/28/2006



# Eastern Skagit Rail Study Public Comment Form

The Washington State Department of Transportation (WSDOT) has prepared a draft study exploring the feasibility of restoring rail service between the communities of Sedro Woolley, Lyman, Hamilton, and Concrete, Washington. Please use this form to share any comments, concerns, or suggestions. Comments on the draft study will be taken until November 3, 2006. Please use the back side of this sheet if you need more space. Our mailing address is:

WSDOT Office of Freight Strategy and Policy  
P.O. Box 47322  
Olympia, WA 98504-7322

You can also call the WSDOT Office of Freight Strategy and Policy at (360) 705-6835 or email us at [freight@wsdot.wa.gov](mailto:freight@wsdot.wa.gov) to share your thoughts.

Thank you for your interest in the Eastern Skagit Rail Study.

Comments:

Important to also include in the study the already operating industries and also potential companies, stakeholders also interested in Rail service that are not included in this study.

Reinstatement of rail service would be a huge economic boom for eastern Skagit County along with reducing truck traffic on Hwy 20.

Optional	
Name	Randy Good
Address	25514 Minkler Rd.
City/State/Zip	Sedro Woolley Wn. 98284
Email	
Phone	360-856-1199



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Thank you for your interest in the Eastern Skagit Rail Study.

Comments:

My personal interest in this project is 0 to negative (-) unless this rail project includes a PASSENGER ~~Vehicle~~ <sup>need</sup> here. My ~~problem~~ is ~~to~~ get up/down valley without driving my car. Unfortunately, our bus service is spotty.

Optional	
Name	Mary Pat Larsen
Address	48372 Yeager Road
City/State/Zip	Concrete, WA 98237
Email	lazuliflats@yahoo.com
Phone	360.708.0337



## Eastern Skagit Rail Study Public Comment Form

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Thank you for your interest in the Eastern Skagit Rail Study.

Comments:

When a rail is put down, they will  
come. It is a fixed asset that  
draws more,

Optional

Name K B Johnson

Address 889 Carriage Ct

City/State/Zip Sedro-Woolley, WA 98284

Email kjbjohn@fidalgonet

Phone 360-8561465



# Eastern Skagit Rail Study Public Comment Form

The Washington State Department of Transportation (WSDOT) has prepared a draft study exploring the feasibility of restoring rail service between the communities of Sedro Woolley, Lyman, Hamilton, and Concrete, Washington. Please use this form to share any comments, concerns, or suggestions. Comments on the draft study will be taken until November 3, 2006. Please use the back side of this sheet if you need more space.

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You can also call the WSDOT Office of Freight Strategy and Policy at (360) 705-6835 or email us at [freight@wsdot.wa.gov](mailto:freight@wsdot.wa.gov) to share your thoughts.

Thank you for your interest in the Eastern Skagit Rail Study.

Comments:

Is there really enough business potential in eastern Skagit Co to justify this expense?

Regardless, it is imperative that the Cascade Trail be maintained.

<i>Optional</i>	
Name	Jerry McKett Crowl
Address	PO Box 1376
City/State/Zip	Mount Vernon WA 98273
Email	LCrowl@skagitvalleyhospital.org
Phone	360 428-2331

