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Comment Due Date: 12/08/2008

## **PRELIMINARY ENVIRONMENTAL ASSESSMENT**

### **SURFACE TRANSPORTATION BOARD FINANCE DOCKET NO. 34936**

**Northern Columbia Basin Railroad Project  
Grant County, Washington**



#### **Co-Lead Agencies**

Surface Transportation Board – Section of Environmental Analysis  
and Washington State Department of Transportation



# Northern Columbia Basin Railroad Project

## Preliminary Environmental Assessment

Prepared by the

**Surface Transportation Board  
Section of Environmental Analysis**

and the

**Washington State Department of  
Transportation**

**November 7, 2008**



For more information or to submit comments:

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- Comments may also be filed electronically on the Surface Transportation Board's website at [www.stb.dot.gov](http://www.stb.dot.gov) by clicking on the "E-FILING" link. A Login Account is not needed; simply click on "Environmental Comments," which will take you to the comment screen. Type in the docket number "FD 34936" then select "Christa Dean" in the drop down list under "attention of." Complete the form by adding your name, address, phone, and e-mail, and click "Submit."

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***SURFACE TRANSPORTATION BOARD***

*Section of Environmental Analysis*

***Washington, DC 20423***

November 7, 2008

Dear Reader:

The Surface Transportation Board's (STB's) Section of Environmental Analysis (SEA) and the Washington Department of Transportation (WSDOT) are pleased to provide you with the enclosed Preliminary Environmental Assessment (EA) for the proposed construction and acquisition of an approximately 11.5-mile-long rail route in Grant County, Washington.<sup>1</sup> The project proponent is the Port of Moses Lake, which would own and construct the rail lines. Columbia Basin Railroad Company would operate over the proposed rail lines. The purpose of the proposed project is to provide rail service to lands designated for industrial development in northern Moses Lake, as well as to the eastern side of the Grant County International Airport, to enhance opportunities for economic development, and to attract new rail-dependent businesses to those areas.

SEA and WSDOT prepared this EA pursuant to the National Environmental Policy Act, the STB's environmental rules, the Washington State Environmental Policy Act, WSDOT requirements, and other applicable state and federal laws, including the National Historic Preservation Act (NHPA).<sup>2</sup> The EA discusses potential environmental impacts that could result from the proposed rail project and includes preliminary recommendations for mitigating possible environmental effects. The EA also considers the views of the public, as well as federal, state, and local agencies.

Availability of the Preliminary Environmental Assessment

Copies of this EA are being provided to all parties of record for this proceeding and the environmental distribution list, as well as to appropriate government agencies and groups. In addition, as part of the tribal consultation required under Section 106 of the NHPA, all Native

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<sup>1</sup> The proposed project would involve approximately 11.1 to 11.5 miles of rail line depending on the route selected.

<sup>2</sup> A signature page is included with this document that indicates the approval of this EA by Megan White, the Director of Environmental Services at WSDOT.

American tribes that may have ancestral connections to the project area are being provided copies of this EA.

Public Comment and Review of the Preliminary Environmental Assessment

A Notice to the public will be published in the Federal Register announcing the availability of the EA. SEA and WSDOT invite comments on all aspects of this EA, including suggestions for additional mitigation measures. SEA will consider all comments received in response to the EA in making its final recommendations to the STB. The STB will consider the entire environmental record, SEA's final recommendations, including final recommended mitigation measures, and the environmental comments in making its final decision in this proceeding.

All comments must be postmarked by **December 8, 2008**. Please send written comments (one original and two copies) to either SEA or WSDOT:

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Section of Environmental Analysis  
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Written comments may also be filed electronically on the STB's website at <http://www.stb.dot.gov/stb/efilings.nsf>. From this link, click on "Environmental Comments" to be directed to an electronic comment form. Please refer to STB Finance Docket No. 34936 in all correspondence.

Thank you for your interest and participation in the environmental review process. If you have any questions regarding this EA or would like additional information about the environmental review process, please contact Christa Dean at (202) 245-0299 or Elizabeth Phinney at (360) 705-7902.

Sincerely,



Victoria Rutson  
Chief  
Section of Environmental Analysis

# Northern Columbia Basin Railroad Project

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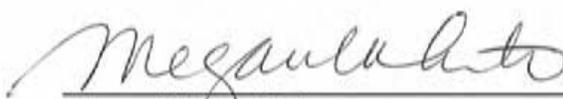
City of Moses Lake, Grant County, Washington

## Preliminary Environmental Assessment

Submitted pursuant to Section 42 U.S.C. 4332(2)(c) and 23 C.F.R. Part 771

By the Surface Transportation Board and the Washington State Department of Transportation

10/30/08  
\_\_\_\_\_  
Date of Approval

  
\_\_\_\_\_  
Megan White, P.E.  
Director, Environmental Services  
Washington State Dept of Transportation

In compliance with the National Environmental Policy Act, this Environmental Assessment describes the environmental effects of constructing two segments of new rail line and refurbishing one segment of existing rail in the northern part of the City of Moses Lake in Grant County, Washington. The analysis concludes that the project will not have a significant adverse effect on the environment.

The Environmental Assessment is available for review at the City of Moses Lake Public Library, 418 E 5th Avenue, as well as at the Port of Moses Lake, 7810 Andrews Street NE. It is also available on the project website: <http://www.wsdot.wa.gov/projects/rail/northerncolumbiabasinrrr/>

A Public Open House regarding this project will be held on November 20, 2008, at the Port of Moses Lake, 7810 Andrews Street NE, Moses Lake, Washington.

Comments are due by December 8, 2008.

For additional information about this document, please contact:

Elizabeth Phinney  
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Washington State Dept of Transportation  
PO Box 47407  
Olympia, WA 98504-7407  
[phinnee@wsdot.wa.gov](mailto:phinnee@wsdot.wa.gov)

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Agencies**

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# Acronyms

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AAR	American Association of Railroads
ADA	Americans with Disabilities Act
AM	morning
APE	Area of Potential Effect
AREMA	American Railway Engineering and Maintenance of Way Association
BNSF	BNSF Railway Company
BTS	Bureau of Transportation Statistics
BTU	British thermal unit
CAD	computer-aided design
Caltrans	California Department of Transportation
CBRW	Columbia Basin Railroad Company
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CFS	Commodity Flow Survey
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
Corps	U.S. Army Corps of Engineers
CY	cubic yard
dba	decibel (A-weight)
DOL	U.S. Department of Labor
EA	Environmental Assessment
Ecology	Washington State Department of Ecology
EIS	Environmental Impact Statement
EIT	Engineer in Training
EL	East Low
EO	Executive Order
ERNS	Emergency Response Notification System
ESD	Washington State Employment Security Department
F	Fahrenheit
FAA	Federal Aviation Administration

FHWA	Federal Highway Administration
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FINDS	Facility Index System
FR	Federal Register
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
FTTS	FIFRA and TSCA Tracking System
GCIA	Grant County International Airport
GHG	greenhouse gas
GIS	Geographic Information System
GPS	Global Positioning System
HC	hydrocarbon
HDR	HDR Engineering, Inc.
HMIRS	Hazardous Materials Information Resource System
HPA	Hydraulic Project Approval
ICC	Interstate Commerce Commission
IPCC	Intergovernmental Panel on Climate Change
Ldn	day-night sound level (or DNL)
LEP	limited English proficiency
Leq	energy-equivalent sound level
MBTU	million BTUs
mph	miles per hour
MSATs	Mobile Source Air Toxics
MTCA	Model Toxics Control Act
NAAQS	National Ambient Air Quality Standards
NCBR	Northern Columbia Basin Railroad (Project)
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NO <sub>x</sub>	nitrogen oxide
NP	Northern Pacific Railway
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service

NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
O <sub>3</sub>	ozone
OFM	Office of Financial Management
OHWM	Ordinary High Water Mark
PA	Programmatic Agreement
PAHs	polycyclic aromatic hydrocarbons
PCB	polychlorinated biphenyl
PE	Professional Engineer
PHS	Priority Habitat and Species
PM	evening
PM	particulate matter
Port	Port of Moses Lake
PUD	Public Utility District
R	range
RCD	Rocky Coulee Diversion
RCI	residential, commercial, and industrial
RCRIS	Resource Conservation and Recovery Information System
RCW	Revised Code of Washington
RP	Reference Point
S	section
SEA	Section of Environmental Analysis
SEPA	State Environmental Policy Act
SHPO	State Historic Preservation Office
SO <sub>2</sub>	sulfur dioxide
SPCC	Spill Prevention Control and Countermeasures (Plan)
SR	State Route
SSD	stopping sight distance
STB	Surface Transportation Board
T	township
TESC	Temporary Erosion and Sediment Control (Plan)
TLM	track laying machine

TSCA	Toxic Substance Control Act
U.S.C.	U.S. Code
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	underground storage tank
VdB	vibration decibels
VMT	vehicle miles traveled
VOC	volatile organic compound
WAC	Washington Administrative Code
WDFW	Washington State Department of Fish and Wildlife
WDNR	Washington State Department of Natural Resources
WRIA	Water Resource Inventory Area
WRCC	Western Regional Climate Center
WSDOT	Washington State Department of Transportation

# Executive Summary

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On August 28, 2008, the Port of Moses Lake (Port) filed a petition with the Surface Transportation Board (STB) seeking an exemption under 49 U.S.C. 10502 from the prior approval requirements of 49 U.S.C. 10901 for the construction and acquisition of approximately 11.5 miles of rail line in Grant County, Washington.<sup>1</sup> Columbia Basin Railroad Company, Inc. (CBRW) intends to file a verified notice of exemption to operate over the rail lines that are the subject of the Port's Petition for Exemption. The proposed rail project (also known as the Build Alternative) is the action that is evaluated in this Preliminary Environmental Assessment (EA).

The STB, pursuant to 49 U.S.C. 10901, is the federal agency responsible for granting authority for the construction and operation of new rail line facilities. The Washington State Department of Transportation (WSDOT) is responsible for improving the state's transportation systems, including short-line rail systems.

The STB's Section of Environmental Analysis (SEA) and WSDOT are issuing this Preliminary Environmental Assessment (EA) for public review and comment. SEA will consider all comments received on this document in making its final recommendations to the STB. The STB will consider the entire environmental record, all comments, and SEA's final recommendations in making its final decision in this proceeding. The STB will decide whether to approve, approve with conditions (which could include environmental conditions to mitigate impacts), or deny the proposed action.

## What is the Northern Columbia Basin Railroad Project?

The proposed project, known as the Northern Columbia Basin Railroad (NCBR) Project, includes the construction of two new rail line segments and the acquisition and refurbishment of an existing rail segment to provide rail access to land designated and zoned for industrial uses along Wheeler Road (Road 3 NE) and at the Grant County International Airport (GCIA).<sup>2</sup> Although CBRW operates rail lines in the City of Moses Lake and Grant County, the industrial areas along Wheeler Road (Road 3 NE) and the eastern side of the GCIA are not currently served by rail.

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<sup>1</sup> The proposed 11.5-mile-long rail route includes the acquisition and rehabilitation of approximately three miles of existing track that is currently owned by Columbia Basin Railroad Company (CBRW). In addition, the proposed 11.5-mile-long rail route includes the acquisition of approximately 0.5 miles of existing track, for which no construction or rehabilitation is planned. Accordingly, the 0.5-mile rail segment was not evaluated in this EA.

<sup>2</sup> Two airports are located in the project vicinity. The larger airport, Grant County International Airport (GCIA), is located north and west of Randolph Road. Moses Lake Municipal Airport is located north of Wheeler Road (Road 3 NE) and east of Crab Creek / Parker Horn. GCIA is the airport that would be accessed by the proposed project.

The project location is shown in **Exhibit ES.1**. The entire proposed route is would be between 11.1 miles and 11.5 miles long, depending on the alternative selected at the western end of the project corridor. The entire rail route would be owned by the Port and operated by CBRW.

Segment 1 (4.5 miles) would begin at the existing CBRW rail line at the community of Wheeler, diverge south of Wheeler Road (Road 3 NE), and proceed west, paralleling Wheeler Road (Road 3 NE). Segment 1 would then swing to the northwest and cross back over Wheeler Road (Road 3 NE) and cross Parker Horn / Crab Creek at one of two alternative locations (Segment 1 or Alternative 1A). Segment 2 would start at the western end of Segment 3 and would proceed north to the eastern side of the GCIA property. At the northern end of Segment 2, one of two alternatives would be constructed, either Segment 2 (3.1 miles of track ending on the west side of the GCIA industrial area) or Alternative 2A (3.6 miles of track ending on the east side of the GCIA industrial area). Segment 3, an existing 3.0-mile rail line located between Parker Horn and the GCIA, would be acquired and refurbished by the Port. The Port would also acquire a total of approximately 0.5 miles of rail line located north of the conjunction of Segments 2 and 3. However, no construction or rehabilitation work is proposed on that portion of the rail line, and it is not evaluated in this EA.

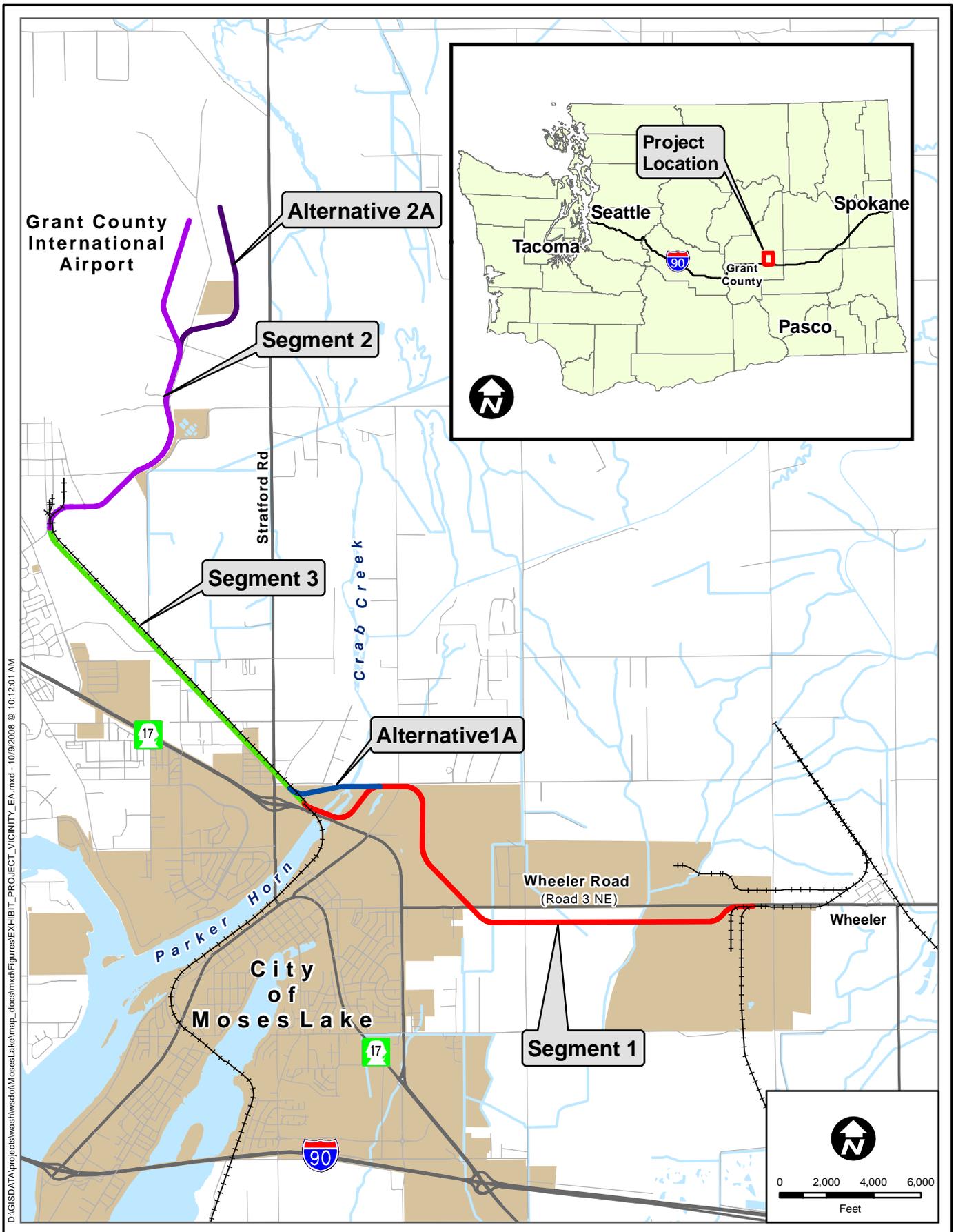
The purpose of the proposed project is to provide rail service to lands designated for industrial development in the northern part of the City of Moses Lake as well as to the south and east of the GCIA, to enhance opportunities for economic development, and to attract new rail-dependent businesses to those areas. Depending on the demand for rail service, rail traffic would increase as needed from the current one train per month (or less) up to a reasonably foreseeable future maximum of two trains per day (one round trip).

## **Why did the STB and WSDOT prepare an Environmental Assessment?**

Under the National Environmental Policy Act (NEPA),<sup>3</sup> the STB must take into account in its decision-making the environmental impacts of its actions, including direct, indirect and cumulative impacts. The STB must consider these impacts before making its final decision in a case. SEA assists the STB in meeting this responsibility by conducting an independent environmental review of cases filed with the agency and preparing any necessary EA or Environmental Impact Statement (EIS).

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<sup>3</sup> 40 CFR 1500 et seq.



An EA is a public disclosure document required by NEPA that analyzes potential environmental impacts, as well as alternatives to the proposed action. Coordination with federal, state, and local agencies; applicants; Tribes; and the public are key elements in the preparation of an EA. When the preliminary analysis is completed, an EA is issued and government agencies, Tribes, and the public have an opportunity to review and comment on the document. The purpose of an EA is to provide enough analysis to determine whether a proposed project would have significant environmental impacts, in which case an Environmental Impact Statement is required. When no significant impacts are found or significant impacts can be mitigated, that results in a “Finding of No Significant Impact.”

Under Washington’s State Environmental Policy Act (SEPA)<sup>4</sup>, any agency that proposes to take an official action is required to perform an environmental review to identify any benefits and/or impacts that may result from the action.

Therefore, SEA and WSDOT prepared this EA in accordance with NEPA and SEPA, as well as the Council on Environmental Quality (CEQ) guidelines,<sup>5</sup> the STB’s environmental regulations,<sup>6</sup> WSDOT requirements,<sup>7</sup> Executive Orders,<sup>8</sup> and other applicable federal and state laws.

## Why is the Port of Moses Lake proposing this rail project?

The purpose of the proposed NCBR Project is to provide rail service to lands designated for industrial development in the northern part of the City of Moses Lake as well as to the south and east side of the GCIA, to enhance opportunities for economic development, and to attract new, rail-dependent businesses to those areas.

The proposed project includes the following:

- Segment 1 - Building a new rail line between the community of Wheeler and Parker Horn (a water body and an arm of Moses Lake) or Crab Creek to join the existing line (Segment 3);
- Segment 2 - Extending the existing track, which currently terminates just south of the GCIA, to the industrial lands located east of the GCIA; and

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<sup>4</sup> Revised Code of Washington (RCW). 43.21C.

<sup>5</sup> 43 CFR § 1508.9(b).

<sup>6</sup> 49 CFR Part 1105.

<sup>7</sup> WSDOT’s *Environmental Procedures Manual* outlines the department’s legal requirements related to natural and man-made environmental resources. The *Environmental Procedures Manual* provides guidance on environmental procedures for WSDOT and its environmental consultants. The *Environmental Procedures Manual* may be viewed online at <http://www.wsdot.wa.gov/Publications/Manuals/M31-11.htm>.

<sup>8</sup> Executive Order (EO) 12898 (Federal Register 1994), *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*.

- Segment 3 - Refurbishing the existing track between Parker Horn and the GCIA.

The new rail line segments would be owned and constructed by the Port. Segment 3 (existing track) would be acquired by the Port from CBRW and would be refurbished by the Port. As stated above, the entire route would be operated by CBRW.

Although the proposed project would allow trains to bypass downtown Moses Lake, the project does not include abandonment of the existing rail line that runs through downtown Moses Lake. If that line were proposed for abandonment in the future, that would be a separate action before the STB and would be subject to a separate environmental review by SEA.

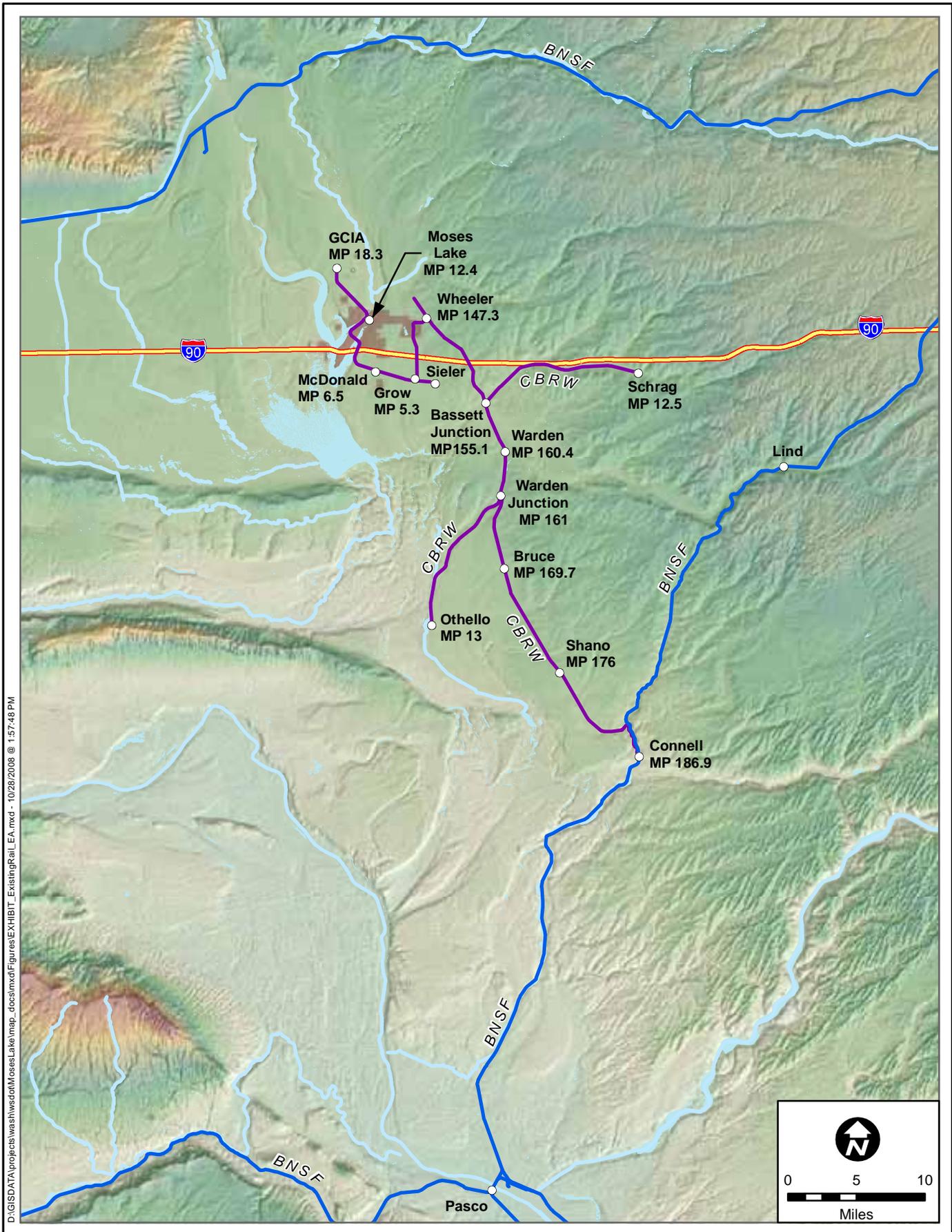
## **What is the physical setting of the project area?**

The project area is located in central Washington, in Grant County, north of I-90. **Exhibit ES.2** shows the existing rail lines and general topography in the project vicinity. The project area is located partially in the northern portion of the City of Moses Lake and partially in unincorporated Grant County. Although generally zoned and designated for industrial use, at this time land in Segments 1 and 2 is primarily being used for agricultural purposes. Segment 3, the existing line, is adjacent to the Longview residential neighborhood and the Longview Elementary School.

The project area is located northeast of Moses Lake in the Crab Creek Watershed. Upper Crab Creek originates on the northeastern Columbia River Plateau and flows to Moses Lake at Parker Horn and ultimately to the Columbia River. Local topography consists of relatively flat uplands broken by the Crab Creek and Parker Horn drainages, where the topography slopes downward to the creek.

## **What alternatives were considered?**

Two alternatives are analyzed in depth in the EA: the Build Alternative, which includes the construction of Segments 1 and 2 and the acquisition and rehabilitation of existing Segment 3, and the No Build Alternative. Within Segment 1, two alternative water crossings (at Parker Horn and Crab Creek) were evaluated, and within Segment 2, two alternative routes on the eastern side of the GCIA were evaluated. The EA also includes discussion of two additional alternatives initially considered, but rejected, due to the length of those routes and associated adverse environmental impacts. In addition, those two alternatives were rejected because they did not meet the purpose and need of the proposed project, which is described in Chapter Two. A comparison of all the alternatives considered can be found at the end of this Executive Summary, in **Exhibit ES.3**.



## EXISTING RAIL SYSTEMS IN THE PROJECT AREA Exhibit ES.2

Northern Columbia Basin Railroad Project

## **What potential environmental impacts could result from the Build Alternative?**

The project team identified potential adverse environmental impacts that could result from the proposed project. Chapter Five contains a more detailed discussion of these potential impacts, and **Exhibit ES.3** provides a summary of potential environmental impacts for all alternatives considered. SEA and WSDOT have incorporated mitigation measures that would avoid, reduce, or otherwise mitigate all identified potentially adverse environmental impacts. All mitigation measures are discussed in detail in Chapter Six.

The following is an overview of potential environmental impacts that could result from the proposed rail project.

### **Air Quality, Energy, Noise and Visual Quality**

Grant County is in attainment for all criteria air pollutants. Because the proposed project is expected to result in a maximum of two trains (one round trip) per day for the foreseeable future, impacts to air quality, energy, and noise are not expected to be significant. The EA includes measures to minimize dust and noise during construction and to revegetate disturbed areas following construction.

### **Cultural Resources**

A cultural resources survey of the project area was prepared and sent to the Washington Department of Archaeology and Historic Preservation (State Historic Preservation Office or SHPO), the Colville Confederated Tribes, the Confederated Tribes and Bands of the Yakama Nation, the Confederated Tribes of the Warm Springs Reservation of Oregon, and the Wanapum Tribe for review. Based on the results of the survey and initial consultations with the SHPO, the project team determined that there are no prehistoric archaeological sites, historic period archaeological sites, or traditional cultural properties located within the project area.

However, the project team identified 20 potential historic resources (sites that are 50 years old or older) within the study area; one of those resources, the Columbia Basin East Low Canal Feeder Canals system, has been determined to be eligible for listing on the National Register of Historic Places (NRHP). The proposed rail project is not expected to have an adverse effect on any historic resources, but any sites that are eligible for the NRHP would not be disturbed prior to completion of the Section 106 review process of the National Historic Preservation Act, 16 U.S.C. 470f (NHPA).

Because there are certain land parcels that the project team was unable to evaluate, the SHPO has recommended that SEA and WSDOT develop a programmatic agreement (PA) to ensure that cultural resources are assessed on

these parcels prior to initiation of construction. Accordingly, the project team is preparing a PA pursuant to the requirements of Section 106 of the NHPA. In addition, in the event that any unanticipated historic or cultural properties, archaeological sites, human remains, funerary items, or assorted artifacts are discovered during the proposed construction activities, the Port would be required to cease work and notify the SHPO, SEA, WSDOT, interested federally-recognized Tribes, and consulting parties, if any, in order to coordinate as appropriate to protect those resources.

### **Fish, Wildlife, and Vegetation**

The proposed project is not expected to result in any adverse impacts to federally-listed threatened or endangered species or critical habitats. On August 28, 2008, SEA and WSDOT submitted a letter to the U.S. Fish and Wildlife Service requesting a concurrence with this determination.

Construction of the proposed crossing at Crab Creek for Alternative 1A would impact a substantially smaller area than construction of the proposed crossing at Parker Horn for Segment 1 because Crab Creek is less than half as wide as Parker Horn. Alternative 1A would therefore have fewer impacts on biological resources.

The proposed project does have the potential to adversely affect the following state priority species: bald eagles, burrowing owls, Yuma myotis, Townsend's big-eared bat, and northern leopard frog. However, through design measures and the implementation of mitigation measures recommended by SEA and WSDOT, these impacts would be minimized or avoided.

### **Hazardous Materials**

Based on several screening criteria, 19 hazardous materials sites were found within the study area. Of these 19 sites, 13 were determined to be at low risk, four were determined to be at moderate risk, and two were determined to be at high risk of being disturbed by the proposed construction activities. To mitigate or avoid such risks, SEA and WSDOT have incorporated measures into the mitigation, including consultation and coordination with the U.S. Environmental Protection Agency's Region 10 Office and the Washington State Department of Ecology (Ecology) to ensure that appropriate investigation and mitigation are conducted prior to finalizing design plans and construction specifications. In addition, to minimize any impacts associated with accidental spills of hazardous materials, the preparation of a Spill Prevention, Control and Countermeasures Plan and an emergency response plan would be required.

### **Land Use**

Construction of the proposed project would not have significant land use impacts. Although the route would cross existing farmland, there is no prime or unique farmland and the land is zoned primarily for industrial use. In

addition, most of the land is designated for industrial development. The proposed project would require between 93 and 100 acres of right of way, depending on the alternative selected. This includes approximately 55 acres for Segment 1 or Alternative 1A and approximately 38 acres for Segment 2 or 45 acres for Alternative 2A. One business would need to be relocated; however, no residences would be acquired and no residents would be displaced. To mitigate or avoid land use impacts, the Port would be required to negotiate with any landowners whose property would be affected or whose land access would be severed. In addition, the Port would be required to abide by all requirements of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970.

## **Social Elements and Environmental Justice**

Along Segments 1 and 2, the proposed project would not divide or separate any community or population groups. Along Segment 3, the existing rail line serves as a physical barrier between the Longview neighborhood and Longview Elementary School. Impacts along Segment 3 would be limited because the rail line already exists in this location, and because the rail traffic is expected to be low (two trains per day, one round trip) for the foreseeable future. SEA and WSDOT have included mitigation measures in the EA to address safety concerns, including the following measures: coordination with the Longview Elementary School, the City of Moses Lake, and community organizations to ensure that railroad safety programs (such as Operation Lifesaver) and other measures are implemented.

Grant County and the City of Moses Lake have greater minority and low-income populations than Washington State as a whole. Some of these populations are located within the study area for Segment 3. Because the rail line in Segment 3 already exists, and because the rail traffic is expected to be low (two trains per day, one round trip) for the foreseeable future, the proposed project would not have a high or disproportionate adverse effect on these populations.

## **Traffic**

The Build Alternative would require seven new at-grade crossings of public roads and would include the upgrade of two existing crossings. Accordingly, the Port would be required to install the necessary signs, lighting, and safety warnings for all at-grade crossings. SEA and WSDOT have also incorporated mitigation measures for the proposed construction period to ensure minimal disruption to traffic along public roadways. The proposed rail operations would not be expected to cause significant traffic delays or accident impacts due to the low traffic levels expected on the route.

## **Water Resources**

Segment 1 would cross six irrigation canals and two drainage ditches. The Port would be required to install culverts or bridges or otherwise assure that irrigation and drainage water would not be affected.

The proposed project would build a bridge across Parker Horn for Segment 1 or across Crab Creek for Alternative 1A. The bridge would be designed to ensure that stormwater did not enter the water body. Specific design and construction measures would prevent impacts to the water during bridge construction.

Construction could result in sediments being washed into waterways. To avoid or minimize impacts to water resources, best management practices and other mitigation measures would be implemented to control erosion, sedimentation, and release of any contaminants during construction and operation of the proposed project.

The Port would be required to coordinate with federal, state, and local agencies to obtain all necessary permits for work in and around water resources, including Clean Water Act permit applications to the U.S. Army Corps of Engineers and Ecology, and the Port would also be required to comply with local agency requirements mandated by Washington State's Growth Management Act and the Shoreline Management Act.

## **Wetlands**

Wetlands are found along Segment 1 and Alternative 1A on either side of Parker Horn and Crab Creek. Construction of Segment 1 across Parker Horn would have a direct adverse impact on 3.02 acres of Category 3 wetlands, and would have indirect adverse impacts, such as fragmentation or shading, on an additional 3.25 acres of wetlands within 50 feet of the proposed track, for a total impact area of 6.27 acres. Construction of Alternative 1A across Crab Creek would have direct adverse impacts on approximately 2.14 acres of Category 3 wetlands, and would have indirect adverse impacts on approximately 2.514 acres of wetlands within 50 feet of the proposed track, for a total impact area of 4.654 acres.

Accordingly, to mitigate impacts on wetlands, SEA and WSDOT have included measures in the EA, such as the preparation of a Wetland Mitigation Plan that describes measures to compensate for wetlands affected directly or indirectly by the proposed project.

## **Conclusion**

The proposed project would provide new rail service to the northern part of the City of Moses Lake and to the south and east of GCIA to lands that have been designated for industrial development. Implementing the proposed project

would expand railroad service and add to the existing transportation network. According to project stakeholders,<sup>9</sup> the project would help attract new businesses to the area and contribute to improving the local economy.

During the scoping process, SEA and WSDOT solicited comments from federal, state, and local agencies; Tribes; and the public. Comments received during the scoping process are addressed in the EA and were considered in the development of mitigation measures.

Under the No Build Alternative, the proposed project would not be constructed and rail service would continue on the existing CBRW system. In addition, under this alternative there would be no potential for rail service to lands designated for industrial development in the northern part of the City of Moses Lake or to the south or eastern part of the GCIA.

Based on available information from all sources to date, SEA and WSDOT preliminarily conclude that, as currently proposed, the construction, acquisition and operation of approximately 11.5 miles of rail line in Grant County (the Build Alternative) would not significantly affect the quality of the natural or human environment provided that all the recommended mitigation measures, as set forth in the EA, are implemented. Therefore, an Environmental Impact Statement is unnecessary in this proceeding.

## How can I comment on the Northern Columbia Basin Railroad Project?

SEA and WSDOT invite comments on all aspects of the EA, including suggestions for additional mitigation measures. SEA will consider all comments received in response to the EA in making its final recommendations to the STB. The STB will consider the entire environmental record, SEA's final recommendations and the environmental comments in making its final decision in this proceeding.

All comments must be postmarked by **December 8, 2008**. Please send written comments (one original and two copies) to either SEA or WSDOT:

Christa Dean  
Section of Environmental Analysis  
Surface Transportation Board  
395 E Street, SW, Room 1108  
Washington, DC 20423  
Phone: (202) 245-0299  
Fax: (202) 245-0454  
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Elizabeth Phinney  
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WSDOT  
P.O. Box 47407  
Olympia, WA 98504-7407  
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Fax: (360) 705-6821  
E-mail: [phinnee@wsdot.wa.gov](mailto:phinnee@wsdot.wa.gov)

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<sup>9</sup> Project stakeholders include existing and potential CBRW customers, CBRW and BNSF Railway Company, the ASPI Group, the Port of Moses Lake, the Moses Lake Chamber of Commerce, and the Grant County Economic Development Council. Please see Chapter Two for a more detailed discussion of the stakeholders.

Written comments may also be filed electronically on the STB's website: <http://www.stb.dot.gov/stb/efilings.nsf>. At this site, click on "Environmental Comments" to be directed to an electronic comment form. Please reference STB Finance Docket No. 34936 in all correspondence.

A **Public Open House** is scheduled to be held on **November 20, 2008**, from 4:00 – 7:00 P.M. Pacific Standard Time, at the Grant County International Airport located at 7810 Andrews Street, NE, Moses Lake, Washington, and comments may also be submitted at that meeting.

**Exhibit ES.3  
Comparison of Alternatives**

	Public Alternatives		Build Alternative				No Build Alternative
	Segment 1		Segment 2		Segment 3		
	July	October	Segment 1	Alternative 1A	Segment 2	Alternative 2A	
<b>Distance of line in miles</b>	9.7	7.0	4.5	4.5	3.1	3.5	3.0
<b>Right of way acquisitions/relocations</b>	Affected parcels: 24 Relocations: unknown Acres of right of way required: 58	Affected parcels: 24 Relocations: unknown Acres of right of way required: 58	Affected parcels: 15 Relocations: 1 business / 0 residences Acres of right of way required: 55	Affected parcels: 4 Relocations: 1 business / 0 residences Acres of right of way required: 55	Affected parcels: 16 Relocations: none Acres of right of way required: 38	Affected parcels: 7 Relocations: none Acres of right of way required: 45	The Port would purchase the existing railroad.  No additional land would be required
<b>Acres of wetlands within the 100 foot right of way</b>	0.9 acres through Crab Creek, including crossing Gloyd Seeps Wildlife Area	4.8 acres through Crab Creek, including crossing Gloyd Seeps Wildlife Area	6.27 acres	4.654 acres	No impact	No impact	No impact
<b>Acres of encroachment into the Gloyd Seeps Wildlife Area</b>	7.2	10.5	No impact	No impact	No impact	No impact	No impact
<b>Number of water crossings</b>	6	5	7	7	No impact	No impact	No impact
<b>Number of public road crossings</b>	12	10	3	3	1	1	No impact
<b>Meets the Purpose and Need</b>	No	No	Yes	Yes	Yes	Yes	Yes
							No

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On August 28, 2008, the Port of Moses Lake (Port) filed a petition with the Surface Transportation Board (STB) seeking an exemption under 49 U.S.C. 10502 from the prior approval requirements of 49 U.S.C. 10901<sup>1</sup> for the construction and acquisition of approximately 11.5 miles of new and existing rail line in Grant County, Washington.<sup>2</sup> Columbia Basin Railroad Company, Inc. (CBRW) intends to file a verified notice of exemption to operate over the rail lines that are the subject of the Port's Petition for Exemption. The proposed rail project (also known as the Build Alternative) is the action that is evaluated in this Preliminary Environmental Assessment (EA).

The STB, pursuant to 49 U.S.C. 10901, is the agency responsible for granting authority for the construction and operation of new rail line facilities. The Washington State Department of Transportation (WSDOT) is responsible for operating and improving the state's transportation systems. The STB, through its Section of Environmental Analysis (SEA), and WSDOT are co-lead agencies responsible for the preparation of this EA.<sup>3</sup>

## Why did the STB and WSDOT prepare an Environmental Assessment?

Under the National Environmental Policy Act (NEPA),<sup>4</sup> the STB must take into account in its decision-making the environmental impacts of its actions, including direct, indirect and cumulative impacts. The STB must consider these impacts before making its final decision in a case. SEA assists the STB in meeting this responsibility by conducting an independent environmental review of cases filed with the agency and preparing any necessary EA or Environmental Impact Statement (EIS).

An EA is a public disclosure document required by NEPA that analyzes potential environmental impacts, as well as alternatives to the proposed action. Coordination with federal, state, and local agencies; applicants; Tribes; and the public are key elements in the preparation of an EA. When the preliminary

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<sup>1</sup> Under 49 U.S.C. 10502, the STB must exempt the proposed construction of a rail line from the requirements of 49 U.S.C. 10901 if it finds that regulation of the project: (1) is not necessary to carry out the transportation policy of 49 U.S.C. 10102; and (2) either: (a) the transaction or service is of limited scope, or (b) the application of a subdivision of subtitle IV of the ICC Termination Act of 1995 is not needed to protect shippers from the abuse of market power.

<sup>2</sup> The proposed 11.5-mile-long rail route includes the acquisition and rehabilitation of approximately three miles of existing track that is currently owned by Columbia Basin Railroad Company (CBRW). In addition, the proposed 11.5-mile-long rail route includes the acquisition of approximately 0.5 miles of existing track, for which no construction or rehabilitation is planned. Accordingly, the 0.5-mile rail segment was not evaluated in this EA.

<sup>3</sup> The STB and WSDOT are co-lead agencies pursuant to 40 Code of Federal Regulations (CFR) 1501.5(b).

<sup>4</sup> 40 CFR 1500 et seq.

analysis is completed, an EA is issued and government agencies, Tribes, and the public have an opportunity to review and comment on the document. The purpose of an EA is to provide enough analysis to determine whether a proposed project would have significant environmental impacts, in which case an Environmental Impact Statement is required. When no significant impacts are found or significant impacts can be mitigated, that results in a “Finding of No Significant Impact.”

Under Washington’s State Environmental Policy Act (SEPA)<sup>5</sup>, any agency that proposes to take an official action is required to perform an environmental review to identify any impacts that may result from the action.

This EA identifies and analyzes the potential environmental impacts associated with the construction, acquisition and operational components of the proposed Build Alternative. SEA and WSDOT prepared this EA in accordance with NEPA, the Council on Environmental Quality (CEQ) guidelines,<sup>6</sup> the STB’s environmental regulations,<sup>7</sup> Washington SEPA, WSDOT requirements,<sup>8</sup> Executive Orders,<sup>9</sup> and other applicable federal and state laws.

SEA and WSDOT are issuing this EA for public review and comment. SEA will consider all comments received on this document in making its final recommendations to the STB. The STB will consider the entire environmental record, all comments, and SEA’s final recommendations in making its final decision in this proceeding. The STB will decide whether to approve, approve with conditions (which could include environmental conditions to mitigate impacts), or deny the proposed action.

## **What is the role of the Surface Transportation Board?**

The ICC Termination Act of 1995<sup>10</sup> established the STB to assume certain regulatory activities that the Interstate Commerce Commission (ICC) had previously administered, particularly those related to the regulation of railroads. The STB has jurisdiction over certain transportation matters such as railroad acquisitions, rail line construction, and abandonment of rail service.

SEA is responsible for conducting the environmental review of the proposed Northern Columbia Basin Railroad (NCBR) Project on behalf of the STB. In preparing this EA with WSDOT, SEA identified issues and areas of potential

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<sup>5</sup> Revised Code of Washington (RCW). 43.21C.

<sup>6</sup> 43 CFR § 1508.9(b).

<sup>7</sup> 49 CFR Part 1105.

<sup>8</sup> WSDOT’s *Environmental Procedures Manual* outlines the department’s legal requirements related to natural and man-made environmental resources. The *Environmental Procedures Manual* provides guidance on environmental procedures for WSDOT and its environmental consultants. The *Environmental Procedures Manual* may be viewed online at <http://www.wsdot.wa.gov/Publications/Manuals/M31-11.htm>.

<sup>9</sup> Executive Order (EO) 12898 (Federal Register 1994), *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*.

<sup>10</sup> ICC 1995. L, pp 104-88; p. 109 no. 803.

environmental impact, analyzed the potential environmental impacts of the proposed rail project, reviewed agency and public comments, and developed mitigation measures to avoid or reduce anticipated impacts on the environment.

In accordance with the STB's environmental regulations at 49 CFR 1105.4(j) and 1105.10(d), SEA approved HDR Engineering, Inc., to act as the independent third-party consultant. Under the direction, supervision, and approval of SEA, the third-party contractor develops the technical data required to conduct the environmental review of the proposed project and assists in the preparation of the EA.

## **What is the role of the Washington State Department of Transportation?**

WSDOT's mission is "to keep people and business moving by operating and improving the state's transportation systems vital to taxpayers and communities,"<sup>11</sup> while "protecting and preserving natural resources and other environmental assets and its citizens' health and safety."<sup>12</sup>

The economic vitality of Washington State requires a strong rail system capable of providing its businesses, ports, and shippers with competitive access to North American and international markets.

WSDOT's State Rail & Marine Office is responsible for managing and directing the state's capital freight and passenger rail programs, and working with private and federal railroads to ensure safe, consistent, and efficient service all across Washington State. In addition, the State Rail & Marine Office is responsible for environmental compliance for rail projects that are funded through its office.

For the Northern Columbia Basin Railroad Project, the State Rail & Marine Office assisted SEA in the preparation of this EA. WSDOT also provided technical expertise specific to Washington State.

## **Who is the project applicant?**

The Port of Moses Lake is a municipality of Washington State that is chartered for economic development. As a municipality, it is similar in nature to cities, counties and other municipal organizations. State law authorizes Port Districts to be established in various counties of the state for purposes of industrial

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<sup>11</sup> *WSDOT Mission Statement*, found at <http://www.wsdot.wa.gov/accountability/mgmtprinciples.htm>.

<sup>12</sup> *WSDOT Environmental Policy Statement*, September 26, 2001, found at <http://www.wsdot.wa.gov/Environment/PolicyStatement.htm>.

improvements and economic development.<sup>13</sup> The Port is governed by three elected commissioners who represent the district.

CBRW would operate over the rail lines that are part of the proposed project. CBRW is a Class III short line rail carrier<sup>14</sup> incorporated in Washington State and headquartered in Yakima, Washington. CBRW serves central Washington via its main line between Connell and Wheeler. It connects with the BNSF Railway Company's main line at Connell. A map showing the CBRW rail line and its connection to the national rail system can be found in Chapter Two, **Exhibit 2.1**.

## Organization of the EA

This EA is organized as follows:

- The Executive Summary provides a brief description of the project and the potential environmental impacts associated with the proposed rail line construction and operation.
- Chapter One introduces the environmental process.
- Chapter Two describes the purpose and need of the proposed project.
- Chapter Three describes the proposed project and its alternatives.
- Chapter Four describes the project area and the existing environmental conditions.
- Chapter Five identifies the potential environmental impacts of the proposed project and its alternatives.
- Chapter Six addresses mitigation measures.
- Chapter Seven offers a conclusion statement.
- Chapter Eight describes the agency consultation process and public involvement opportunities.
- Chapter Nine provides information about the individuals who prepared the EA.
- Chapter Ten lists the references used for preparing the EA.

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<sup>13</sup> RCW 53.04.010.

<sup>14</sup> A "short line" railroad is a railroad that generally serves industries in small communities by providing a link to the larger, national rail network.

### What is the purpose of the project?

The purpose of the proposed Northern Columbia Basin Railroad (NCBR) Project is to provide rail service to lands designated for industrial development in the northern part of the City of Moses Lake as well as to the south and east of the Grant County International Airport (GCIA), to enhance opportunities for economic development, and to attract new rail-dependent businesses to those areas.

The three components of the proposed project include:

- Segment 1 - Building a new rail line between the community of Wheeler and Parker Horn (a water body and an arm of Moses Lake) or Crab Creek to join to the existing line;
- Segment 2 - Extending the existing track, which currently terminates just south of the GCIA, to the industrial lands located east of the GCIA; and
- Segment 3 - Improving existing track between Parker Horn and the GCIA.

The new rail line segments would be constructed and owned by the Port of Moses Lake (Port). The existing rail segment is currently owned by Columbia Basin Railroad Company (CBRW), and would be acquired and refurbished by the Port. All three line segments would be operated by CBRW.

Although the proposed project would allow trains to bypass downtown Moses Lake, the project does not include abandonment of the existing rail line that runs through downtown Moses Lake. If that line were proposed for abandonment in the future, that would be a separate action before the STB and would be subject to a separate environmental review by SEA.

Reliable and efficient rail service may favorably influence a community's ability to attract new businesses and improve the local economy. The City of Moses Lake has maintained a steady 3 percent growth rate, increasing employment by 22 percent from 2001 to 2006, at an annual rate of 4.4 percent.<sup>1</sup> This growth is partly a result of the transportation services available in the area, including rail and highway access. Implementing the project would expand railroad service and add to the existing transportation network.

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<sup>1</sup> Brewer, Terry. 2008. Grant County Economic Development Council. E-mail message addressed to Alivia Body, HDR. Material is derived from the Washington State Employment Security Department, Labor Market and Economic Analysis, Average Employment, 2001 and 2006. April 8, 2008.

## Why is this project needed?

The Washington State Department of Transportation (WSDOT) and the project team interviewed representatives of existing and potential rail customers, as well as representatives of CBRW and BNSF Railway Company (BNSF). The results of these interviews are summarized in the *Northern Columbia Basin Railroad Project Feasibility Study*.<sup>2</sup> Other groups and organizations, such as the ASPI Group, the Port of Moses Lake, the Moses Lake Chamber of Commerce, and the Grant County Economic Development Council also provided input (together the project “stakeholders”). These stakeholders believe that good rail service is paramount to attracting new businesses into the area and improving the local economy.

The stakeholders determined that the proposed rail project is needed to stimulate economic development and to preserve existing freight rail service. As presented in the *Moses Lake Railroad Task Force Feasibility/Cost Study*,<sup>3</sup> industrial growth is important to future economic development in the region.

The GCIA and the Port of Moses Lake Industrial Park provide service to many businesses and individuals. The GCIA has 2,000 acres of low-cost available land in its industrial park, mainly in the eastern and southern areas of the GCIA property. While the southern area is served by existing rail, the eastern area is not.

The other major area zoned and available for industrial development is in the northern part of the City of Moses Lake along Wheeler Road (Road 3 NE). Existing businesses that use rail service are located at the eastern end of the project area, where existing rail service is available. The area along Wheeler Road (Road 3 NE) between the existing rail line and Parker Horn is being promoted for future development by the Port of Moses Lake and the Grant County Economic Development Council. According to these agencies, businesses that have expressed interest in the area cited rail service as important to their relocation. The Port believes that improvements to rail service in this corridor would make the area more attractive to businesses and would aid in promoting this development.

Under the Washington State Growth Management Act,<sup>4</sup> a comprehensive plan amendment is required to rezone areas to industrial use from non-industrial designations. Land already designated for industrial use, such as that along the project corridor, can be developed without requiring an amendment.

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<sup>2</sup> Washington State Department of Transportation (WSDOT). 2006. *Northern Columbia Basin Railroad Project Feasibility Study*. February 2006.  
<http://www.wsdot.wa.gov/freight/images/Northern%20Columbia%20Basin%20Railroad%20Project%20Feasibility%20Study.pdf>.

<sup>3</sup> Jessup, Eric L. and Kenneth L. Casavant. *Moses Lake Railroad Task Force Feasibility/Cost Study*. Prepared for the Port of Moses Lake. 2003. Also released as *Strategic Freight Transportation Analysis: Rail Lien Investment Alternatives Resulting from Abandonment: A Case Study of Moses Lake, WA*. By Eric L. Jessup and Kenneth L. Casavant, Washington State University, July 2003.

<sup>4</sup> Chapter 36.70A Revised Code of Washington (RCW).

## What are the existing railroads in the project vicinity?

Rail service in the project area is currently provided by CBRW, which is a Class III short line railroad.<sup>5</sup> CBRW is one of several short line railroads that provide freight rail service to local communities in Washington.



Existing CBRW track at Road M at McDonald Station

CBRW provides a connection between the project area and the national rail network, in this case, main lines operated by BNSF. CBRW's main branch extends from Connell to the community of Wheeler,<sup>6</sup> connecting with the BNSF main line at Connell. This is CBRW's only connection to the BNSF main line and the national rail system.

**Exhibit 2.1** shows the location of the CBRW and BNSF rail lines in the project vicinity.

## What are the existing rail operations?

CBRW operates six days per week on the following segments:

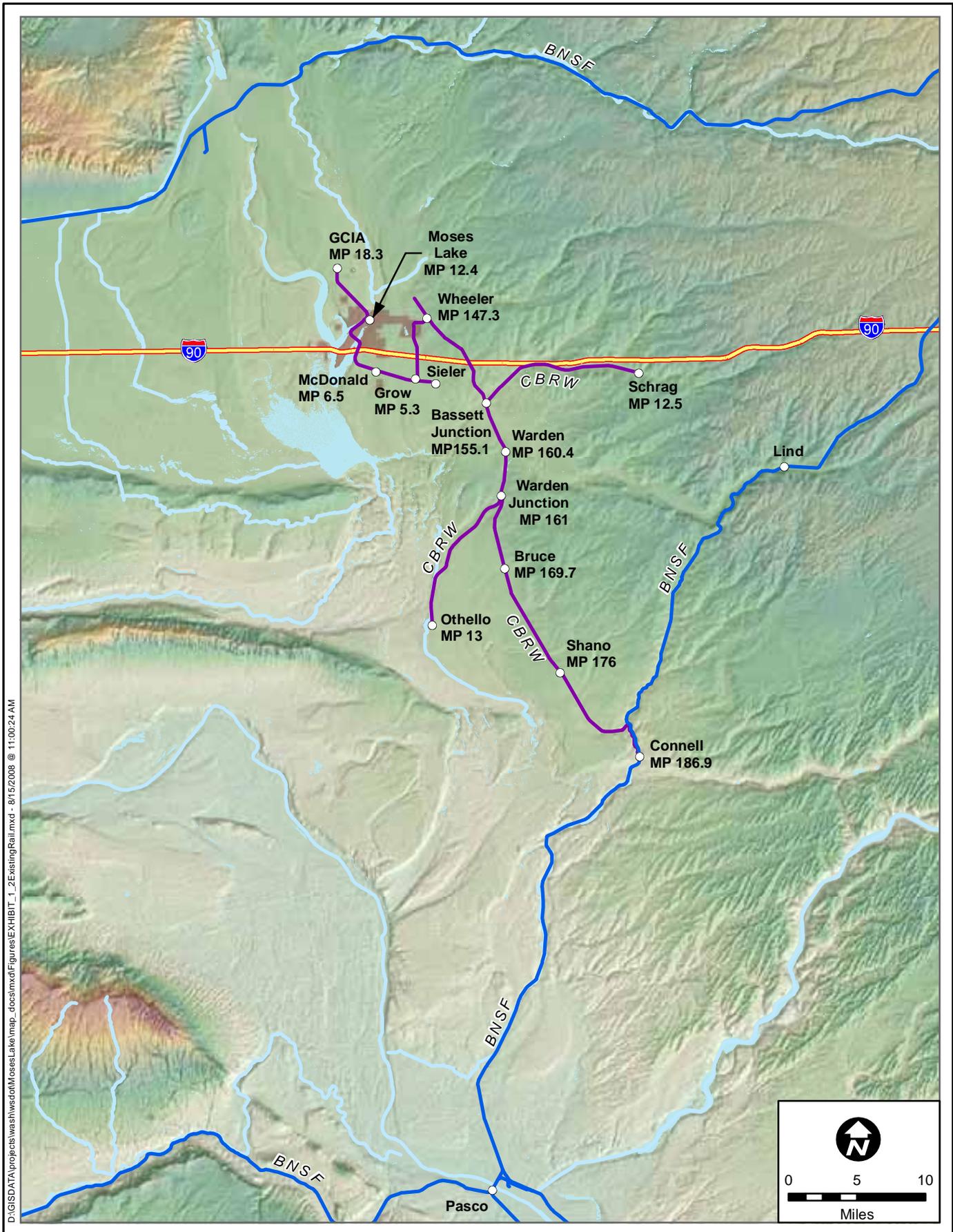
- Warden to Connell (including service to Othello).
- Warden to Wheeler.
- Warden local (which typically covers the Schrag Branch and switching in Bruce).
- Beyond Wheeler Road (Road 3 NE) (two days per week).
- Service to GCIA on an as-needed basis (covered by the Warden to Wheeler service).

At Connell, CBRW transfers freight to the BNSF Columbia Gorge main line and the route via Stampede Pass. Cars are dropped off by CBRW and then brought by BNSF to its yard in Pasco. At the yard, cars are sorted by destination and then connected to trains traveling east and west.

<sup>5</sup> A "short line" railroad is a railroad that generally serves industries in small communities by providing a link to the larger, national rail network.

<sup>6</sup> The community of Wheeler is referred to as "Wheeler" throughout this document. Wheeler Road is referred to as "Wheeler Road (Road 3 NE)."

In 2007, CBRW handled approximately 8,700 carloads of primarily agricultural products, including grain, sugar beets, fresh and frozen potatoes, fertilizers, chemicals, and paper products. Beyond the McDonald siding, CBRW handled 108 carloads, of which 22 carloads originated or terminated at two GCIA-area rail shippers, Northern Energy and REC Solar Grade Silicon, LLC.



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## EXISTING RAIL SYSTEMS IN THE PROJECT AREA Exhibit 2.1

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## **Chapter Three Proposed Action and Alternatives**

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This chapter describes the alternatives considered for the proposed project, as well as the alternatives that were excluded from consideration. Two alternatives are analyzed in depth in this Preliminary Environmental Assessment (EA): the Build Alternative and the No Build Alternative.

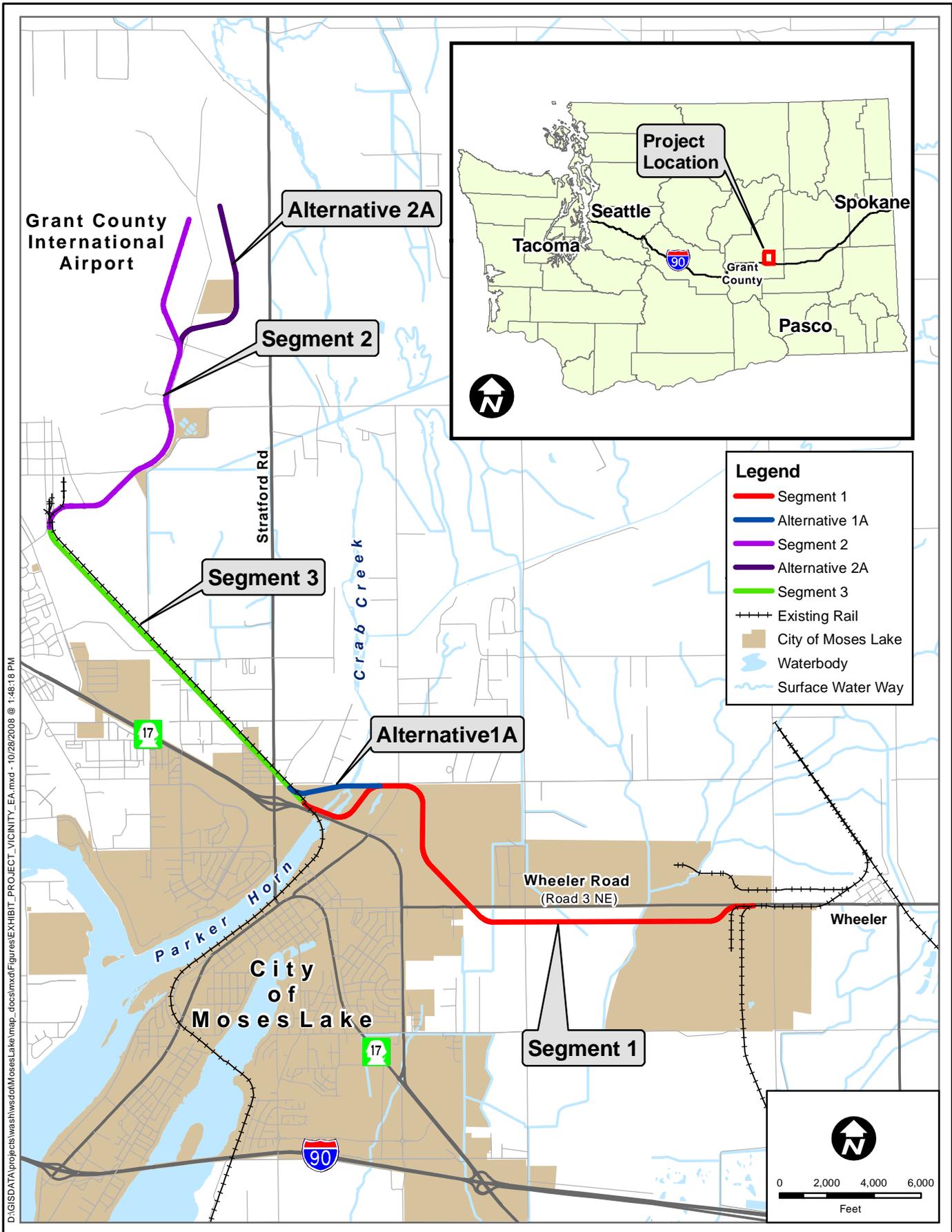
### **What alternatives are evaluated in this Environmental Assessment?**

- **Build Alternative.** The Build Alternative includes the acquisition, construction and operation of rail lines that would provide rail service to lands designated for industrial development in the northern part of the City of Moses Lake and to the south and east of the Grant County International Airport (GCIA), as well as enhance opportunities for economic development in the area. The proposed rail project consists of three components, two of which would require the construction of new rail line segments. This EA includes analysis of alternate alignments for both of the proposed new rail line segments. The third segment is an existing rail line that would be acquired and rehabilitated.
- **No Build Alternative.** Under the No Build Alternative, the proposed project would not be constructed and rail service would continue on the existing Columbia Basin Railroad Company (CBRW) system. In addition, under this alternative there would be no potential for rail service to lands designated for industrial development in the northern part of the City of Moses Lake or to the lands to the south and east of the GCIA. However, rehabilitation of the existing line (Segment 3) would not be precluded under this alternative and could take place in the future.

### **What is the Build Alternative?**

The Build Alternative, also known as the proposed Northern Columbia Basin Railroad (NCBR) Project, is defined in Chapter Two, Purpose and Need. It includes the following (See **Exhibit 3.1**):

- Segment 1 - Construction of an approximately 4.5-mile-long rail line that would allow trains to bypass downtown Moses Lake and would provide access to the industrial areas along Wheeler Road (Road 3 NE), including one of two alternatives for a bridge crossing at Parker Horn or Crab Creek;



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# PROJECT LOCATION Exhibit 3.1

Northern Columbia Basin Railroad Project

- Segment 2 - Construction of one of two alternatives (3.1 miles or 3.6 miles long) that would connect the existing CBRW line to the south and east of the GCIA; and
- Segment 3 - Rehabilitation of the 3.0 miles of existing CBRW rail line between Parker Horn and the GCIA.

## **What is the proposed route of the Build Alternative?**

### **Segment 1**

**Exhibit 3.2, Sheet 1** illustrates the location of Segment 1, which would consist of approximately 4.5 miles of new track. Beginning on the east, Segment 1 would connect to an existing industrial track that currently serves Central Leasing at the old sugar processing plant (south of Wheeler Road [Road 3 NE]). This industrial track is connected to CBRW's main line at Wheeler.

The proposed rail line would diverge south and head west, parallel to and about 620 feet south of Wheeler Road (Road 3 NE). The line would proceed west through land currently used for agricultural purposes (although zoned for development with industrial uses) and cross Road L, then swing to the northwest and cross Wheeler Road (Road 3 NE).

Across Wheeler Road (Road 3 NE), the Segment 1 track would cross additional land zoned for industrial uses but currently used for agricultural purposes, before turning north and then west again to cross Road K just south of Road 4 NE (Cherokee Road). The line would sweep to the south and then again to the west and come parallel to and just north of State Route (SR) 17. The track would cross Parker Horn north of the SR 17 bridge, and then swing slightly to the north and connect to the southeast end of Segment 3. Maximum grade for the entire segment would be 1.7 percent.

### **Alternative 1A (alternate crossing of Parker Horn)**

Because of the sensitive wetland habitat in and around Parker Horn, which is an arm of Moses Lake, the project team developed an alternate crossing of this water body. The alternate crossing, known as Alternative 1A (shown on **Exhibit 3.2, Sheet 1**), would diverge from Segment 1 at Reference Point (RP) 3.8, then continue west, south of Road 4 NE (Cherokee Road), crossing Parker Horn about 1,000 feet farther to the north than Segment 1. This alternative, approximately the same length as Segment 1, would descend more directly from the bluff, minimizing intrusion into wetland areas and crossing Parker Horn at the mouth of Crab Creek, parallel to Road 4 NE (Cherokee Road). Maximum grade for Alternative 1A would be 1.7 percent.

## Segment 2

The construction of Segment 2, which would consist of approximately 3.1 miles of new track, would begin at a turnout<sup>1</sup> installed at the north end of Segment 3 (the existing rail line). The line would turn and cross Forbes Road, then initially proceed due east. The line would swing to the northeast and then cross Randolph Road about 3,700 feet east of the intersection of Randolph Road and 22nd Street. The line would generally follow Randolph Road as it swings to the north around the east side of the GCIA. Just south of Tyndall Road, Segment 2 would head northwest, diverge away from Randolph Road, and run west of Moses Lake Industries. At that point, the line would generally run north and slightly east, parallel to Randolph Road, before terminating about 6,000 feet from the Tyndall Road crossing. **Exhibit 3.2, Sheet 3** illustrates the location of Segment 2. Maximum grade for the segment would be 1.7 percent.

## Alternative 2A

An alternate alignment for the north end of Segment 2 is being considered to provide access to the east side of the GCIA industrial area, as shown on **Exhibit 3.2, Sheet 3**. Alternative 2A would consist of approximately 3.6 miles of new track, which would be approximately 0.5 miles longer than Segment 2. This alternative would re-cross Randolph Road about 700 feet north of the intersection of Randolph and Tyndall Roads, then curve to the north and extend about 7,000 feet before terminating. Maximum grade for Alternative 2A would be 1.7 percent.

## Segment 3

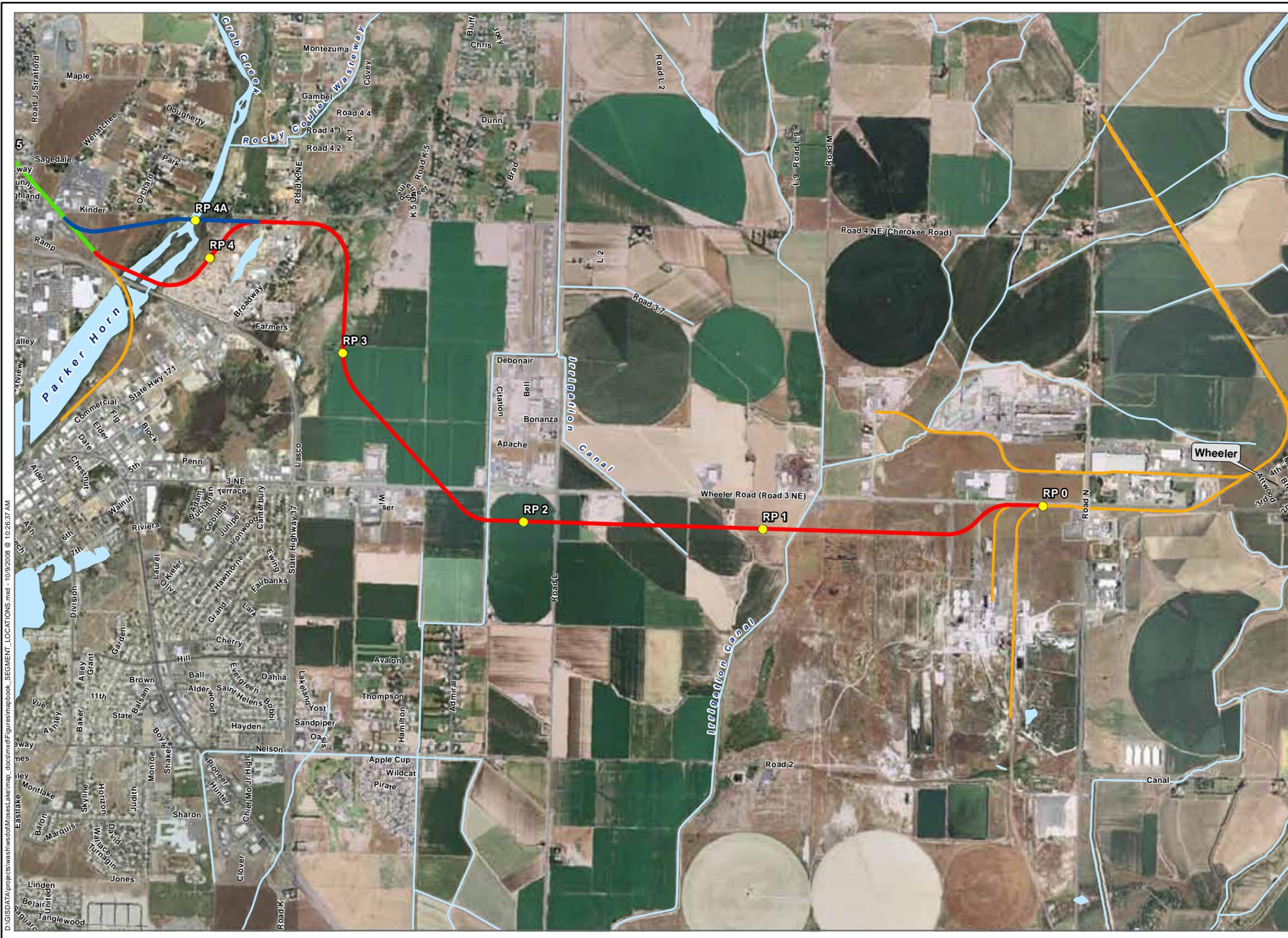
In Segment 3, approximately 3.0 miles of the existing CBRW rail line between Parker Horn and the GCIA would be rehabilitated. **Exhibit 3.2, Sheet 2** illustrates the location of Segment 3. This segment was constructed in approximately 1942 to service the construction and operation of Larson Air Force Base, now the GCIA. Adjacent residences in the Longview neighborhood were built in 1943, shortly after the rail line was constructed.

## What are the physical features of the Build Alternative?

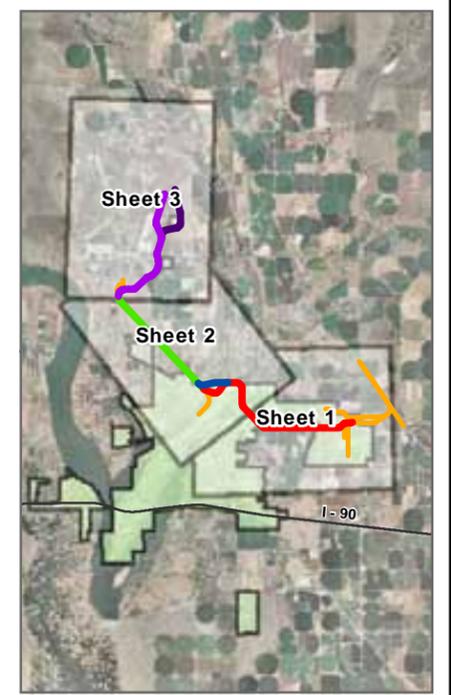
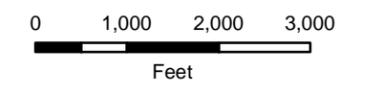
For Segment 1, Alternative 1A, Segment 2, and Alternative 2A, a new single track would be constructed within a 100-foot-wide right of way, with the exception of a small portion of Segment 1 between RPs 2 and 3. For that portion of the alignment, an excavation approximately 20 feet deep would be cut into the hillside to allow the rail to keep its vertical alignment. Grading for this part of the line would extend out from the track farther than the standard 100-foot-wide right of way, and so the right of way in this area would be widened up to 120 feet.

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<sup>1</sup> A turnout is a set of tracks that connect the main line to a siding or rail yard. A turnout allows the train to move on or off the main line.

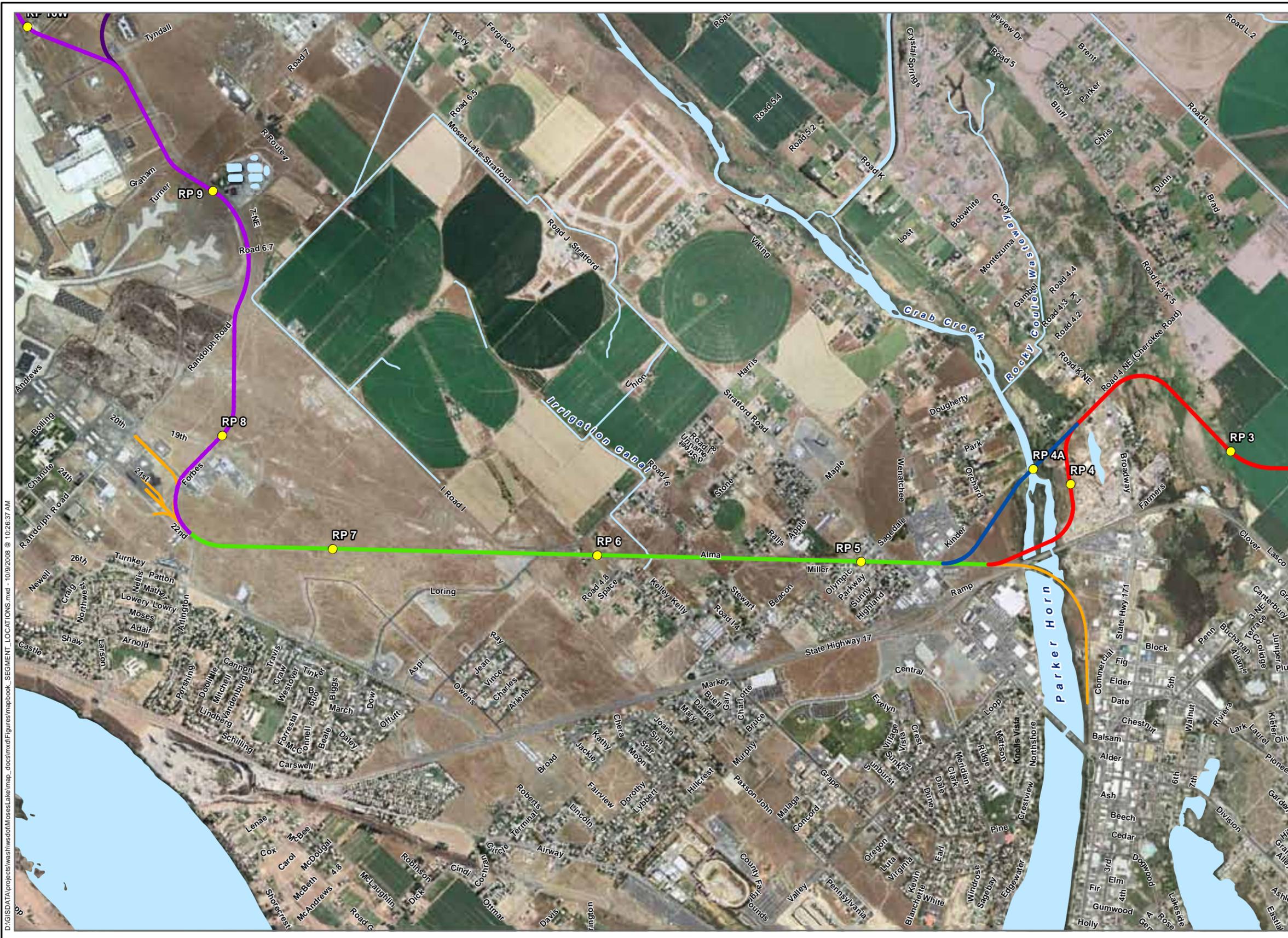


- Legend**
- Segment 1
  - Alternative 1A
  - Segment 2
  - Alternative 2A
  - Segment 3
  - Existing Active Rail
  - Reference Point (approx 1 mile apart)
  - Water Body
  - Surface Waterway

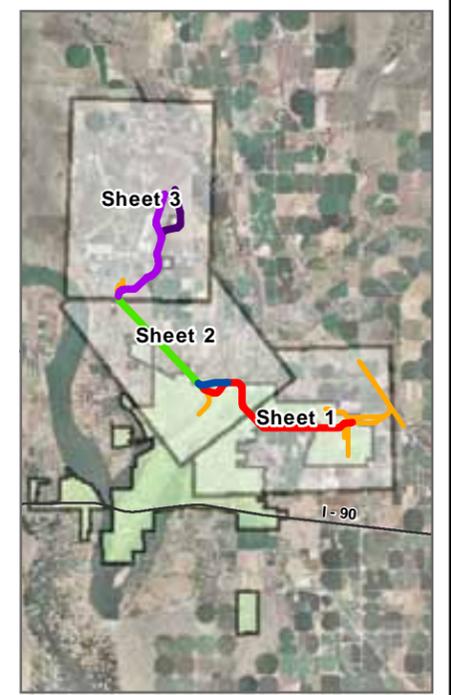
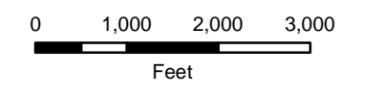


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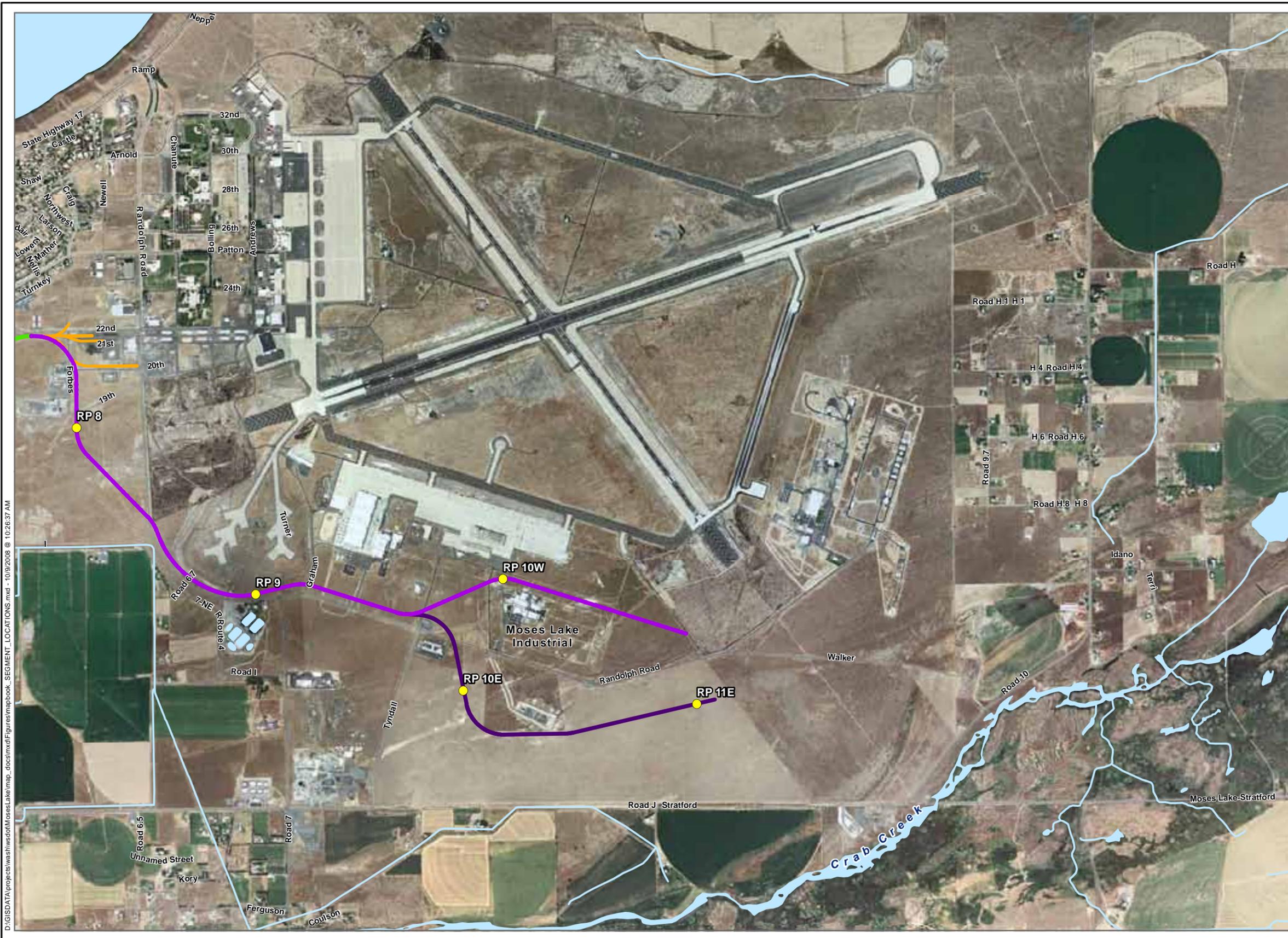


- Legend**
- Segment 1
  - Alternative 1A
  - Segment 2
  - Alternative 2A
  - Segment 3
  - Existing Active Rail
  - Reference Point (approx 1 mile apart)
  - Water Body
  - Surface Waterway

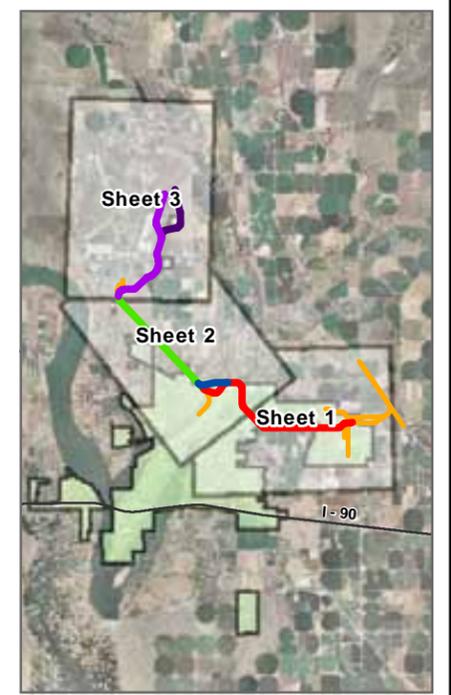
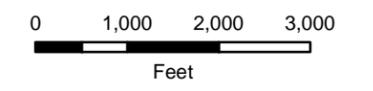


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- Legend**
- Segment 1
  - Alternative 1A
  - Segment 2
  - Alternative 2A
  - Segment 3
  - Existing Active Rail
  - Reference Point (approx 1 mile apart)
  - Water Body
  - Surface Waterway



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## **What roads would be crossed by the Build Alternative?**

The proposed project would add new at-grade crossings in Segments 1 and 2 (and Alternative 2A, if selected), and would upgrade existing crossings in Segment 3. At all crossings, streets in the immediate vicinity of the crossings would be reconstructed to provide a better crossing approach surface. The proposed single track would be constructed through the road, closely matching the existing roadway surface.

A concrete crossing surface would be installed and the existing roadway approaches would be repaved to match the crossing surface.

### **Segment 1**

The grade crossings at Road L NE (RP 1.9), Wheeler Road (Road 3 NE) (RP 2.4), and Road K NE (RP 3.6) would be constructed with flashing lights and crossing gates.

### **Segment 2**

The grade crossing at Randolph Road (RP 8.5) would be constructed with flashing lights and crossing gates. The grade crossings at Turner Road NE (RP 9.2), Graham Road NE (RP 9.5), and Tyndall Road NE (RP 9.7) would be constructed with crossbuck signs<sup>2</sup> rather than with gates and signals because the traffic on the streets is limited. If Alternative 2A was selected, then crossbuck signs would also be installed at Randolph Road (RP 9.9).

### **Segment 3**

The existing warning devices at Stratford Road (RP 4.8) and Loring Drive (RP 6.1) would be upgraded. Warning signals (flashing lights and ringing bells) would be modified to provide appropriate warning time for 25-mph train traffic.

## **How would the Build Alternative cross Parker Horn or Crab Creek?**

Prior to crossing Parker Horn, the proposed line would need to drop down in elevation from the top of the bluff on the east side to an elevation suitable for crossing the waterway. Because of the sensitive nature of the crossing of Parker Horn, the project team is considering two alternate crossings (Segment 1 and Alternative 1A) to descend from the bluff and cross Parker Horn.

Segment 1 would cross Parker Horn approximately 150 feet north of the existing SR 17 bridge, and then would swing slightly more to the north and connect to the southeast end of Segment 3. In Segment 1, the bridge over Parker Horn would be 16 feet wide and a total of 865 feet long, with 21 spans

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<sup>2</sup> A crossbuck sign is an X-shaped warning sign for vehicular traffic used where a railroad crosses a street.

that were 35 or 45 feet long. Of the 21 spans, 19 would be located over the floodplain. Stormwater falling on the bridge would be collected within the bridge and conveyed to treatment facilities (ditches) on either side of Parker Horn; it would not be allowed to run off the bridge nor flow directly into Parker Horn.

Alternative 1A was proposed in part to reduce the impacts associated with the bridge length, the number of piers in the floodplain, and water/wetland impacts resulting from Segment 1. The line for Alternative 1A would descend more directly from the bluff, minimizing intrusion into wetland areas, and would cross Parker Horn at the mouth of Crab Creek at RP 4A, which is approximately 1,000 feet north of SR 17. Although the same width (16 feet), the bridge for Alternative 1A would be 475 feet long, which is considerably shorter than the bridge for Segment 1. For Alternative 1A, there would be 11 total spans 35 or 45 feet long, with ten piers in the floodplain. Only four of those would be in the active channel of Crab Creek. As with the bridge in Segment 1, stormwater falling on the bridge in Alternative 1A would be collected within the bridge and conveyed to treatment facilities (ditches) on either side of Crab Creek.

For both bridges, work would need to be conducted in the water of Parker Horn or Crab Creek; this would include placing fill and constructing bridge piers, foundations, and abutments. The bridges would meet hydrologic flow requirements.

### **How would the Build Alternative be constructed?**

For Segments 1 and 2 and Alternatives 1A and 2A, track work would consist of constructing new track using concrete ties, elastic rail fasteners, ballast, and welded or jointed rail. New industry track connections might be constructed using either wood or concrete ties; elastic rail fasteners or cut spikes; ballast; and welded or jointed rail. The work might be performed using a mechanized track laying machine.

The work on Segment 3 would primarily consist of replacing rails, ties, and other track materials. The rail line upgrade would permit use of the newer, larger railcars. Upgrades to the two signalized grade crossings (Stratford Road and Loring Drive) would also be included in the design, although these crossings are currently in good to excellent condition. With these upgrades, this portion of the rail line could be operated at 25 mph. All work would meet or exceed Federal Railroad Administration (FRA) inspection criteria. The existing alignment for Segment 3 would not be changed.

All earthwork would be contained within the project right of way. Fill materials would need to be hauled from one area to another within the project limits. This might be accomplished with dump trucks or small scrapers using the existing access roads as haul roads, where available. For short trips, construction vehicles would stay within the proposed right of way. For longer

trips, it might be necessary for construction vehicles to use public roads. Construction equipment would operate primarily within the right of way, except when accessing the earthwork staging and equipment turnaround sites. One or two major staging areas or several minor material staging areas would be used.<sup>3</sup>

In areas where new track would be constructed, the top of the existing ground would be cleared and grubbed of trees and vegetation (organic materials would be removed) and a new subgrade constructed. The grading contractor would be required to dispose of excess excavated materials. This material could be used on-site in the form of access roads or landscaping or could be completely removed from the site and used on other construction projects. Any subballast material, the granular material that underlies the ballast or gravel that supports the ties and track, would need to be imported onto the site. Subballast would be spread evenly in an approximately six-inch-deep layer and compacted on the newly constructed subgrade. **Exhibit 3.3** summarizes the general quantities of subballast material needed for the Build Alternative where new track would be constructed.

**Exhibit 3.3**  
**Quantities of Subballast Material Needed for the Build Alternative**

Segment	Track Constructed (miles)	Total Excavation Cut (CY)	Embankment Fill (CY)	Excess Material (CY)	Grading Footprint (acres)	Proposed Total Right of Way (acres)	Subballast (CY)
1	4.5	192,000	76,000	69,000	30	55	15,000
1A	4.5	190,000	88,000	55,000	30	55	15,000
2	3.1	85,000	14,000	41,000	18	38	10,000
2A	3.5	96,000	45,000	17,000	21	45	11,000

**Note:** All quantities are rounded and approximate.  
**CY** = cubic yards

Approximately three miles of existing track would be rehabilitated along Segment 3. This work would consist of replacing existing, worn, or otherwise defective ties with new ties; adding ballast; and re-surfacing, lining, and tamping the track. These activities are typical of the maintenance work regularly performed on most railroads and are accomplished without removing the track. Existing drainage paths would be cleared of blockages. Little or no new grading work would be required.

<sup>3</sup> Additional details about construction of the proposed project are provided in the *Northern Columbia Basin Railroad Project Conceptual Construction Plan*. This document is available upon request from the Washington State Department of Transportation (WSDOT) Rail & Marine Office. Contact information is provided on the back of the title page.

## How would the project operate if it is constructed?

Although train traffic would increase from current levels (two trains / one round trip per month), the rate of increase would depend on the addition of new customers. Any rail traffic resulting from the proposed project would not be expected to exceed two trains per day (one round trip) for the foreseeable future. In general, rail operations after completion of the proposed NCBR Project would be similar to current operations. Two trains per day (one round trip) would operate between Warden (See **Exhibit 2.1**) and the GCIA, picking up and delivering rail cars. At the outset, a train on the proposed line would operate only occasionally. However, as industrial development proceeded along the line, train size and frequency would be expected to increase to up to two trains per day (one round trip), the maximum for the foreseeable future. CBRW expects that each train would consist of three to six cars, with a total of 500 to 1,000 cars per year. To be conservative, the project team used a greater train length of ten cars in conducting the environmental analysis. Goods to be shipped would vary depending on the specific industries along the route, but would likely consist of steel, manufactured parts, and specialty chemicals.

There would be one notable difference between current rail operations and the proposed operations. Instead of the single existing through-route between Wheeler and the GCIA through McDonald and the southern part of the City of Moses Lake, as shown on **Exhibit 2.1**, the Build Alternative would add a second route between Wheeler and the GCIA located north of the City of Moses Lake. The existing route would still be usable.<sup>4</sup> Service to the GCIA and to Moses Lake or McDonald on the same day would require separate trips from Wheeler.

The maximum speed on the line would be 25 mph. Trains would generally operate at or near the maximum allowable speed. Trains might operate at a lower speed in some areas depending upon conditions.

The following typical railroad practices would be implemented upon completion of construction:

- All track maintenance and inspection would be conducted in compliance with FRA standards.
- A bridge maintenance plan for the Parker Horn / Crab Creek crossing would be developed in compliance with FRA regulations.
- Machinery and equipment associated with the proposed operations would be checked regularly for fluid leaks.

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<sup>4</sup> A separate petition would need to be filed for the abandonment of any of the existing line, requiring a separate environmental analysis and a separate action by the STB.

- A contingency plan to minimize any impacts associated with emergencies, such as derailments or natural disasters, would be prepared.

## **What is the No Build Alternative and why is it included?**

Pursuant to the Council on Environmental Quality (CEQ) regulations,<sup>5</sup> a brief discussion of the alternatives that are being considered in this EA is required. The No Build Alternative describes what the baseline condition would be if the proposed project was not built.

Under the No Build Alternative, the proposed new rail lines (Segments 1 and 2) would not be constructed and rail service would continue on the existing CBRW system, serving customers on demand. The constraints on the existing line (Segment 3) related to size and weight of railcars could still be remedied if the line were rehabilitated as a separate project, so that newer, larger, and heavier railcars could be used in the future. Any rehabilitation of the existing line would likely be similar to what is currently proposed under the Build Alternative for Segment 3.

Under the No Build Alternative, there would be no rail service to the areas designated for industrial development along Wheeler Road (Road 3 NE) and next to the GCIA. Although opportunities for developing these areas would still arise as planned in the City's and County's comprehensive plans and zoning, without the proposed rail lines, development would rely on trucks rather than trains to haul products or supplies. The intention to develop these areas with rail-serving industries would not be met; therefore, industries that require rail access to be profitable would not be likely to locate in these designated areas. However, since the area is zoned and designated for industrial uses by the City of Moses Lake and Grant County, other industries could still locate there.

## **What other alternatives were examined, and why were they not carried forward?**

Two feasibility studies, the *Moses Lake Railroad Task Force Feasibility/Cost Study (2003 Study)* and the *2006 Northern Columbia Basin Railroad Feasibility Study (2006 Study)*, were used as background data throughout the engineering analysis to develop and evaluate potential routes that would meet the current project's general goals.<sup>6</sup>

The *2003 Study* investigated alternative investment options that would move the rail line but maintain rail access to the GCIA and its industrial areas. Since that time, the purpose and need for the project has been refined to include

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<sup>5</sup> 40 CFR § 1508.9(b).

<sup>6</sup> The *2003 Study* and the *2006 Study* are available upon request from the WSDOT Rail & Marine Office. Contact information is provided on the back of the title page.

access to other industrial land in the City of Moses Lake outside the GCIA. Accordingly, the *2006 Study* used the *2003 Study* as a basis for identifying rail alignments that would provide rail service to the Moses Lake industrial lands along Wheeler Road (Road 3 NE) and to the eastern side of the GCIA.

## Public Alternatives

As part of the environmental review process, the Surface Transportation Board's Section of Environmental Analysis (SEA) and WSDOT held a Public Open House in the City of Moses Lake, Washington, on July 19, 2007. As a result, the public requested that the project team consider a northern route (referred to as the July Alternative) that would entirely bypass the existing developed area of Moses Lake. The suggested locations for a northern route varied and included constructing a rail line parallel to Road 4 NE (Cherokee Road), parallel to Road 7, or along the former Northern Pacific Railway (NP) Wheeler-Adrian railroad right of way.<sup>7</sup> Based on these suggestions, the project team developed an alternative, known as the July Alternative.

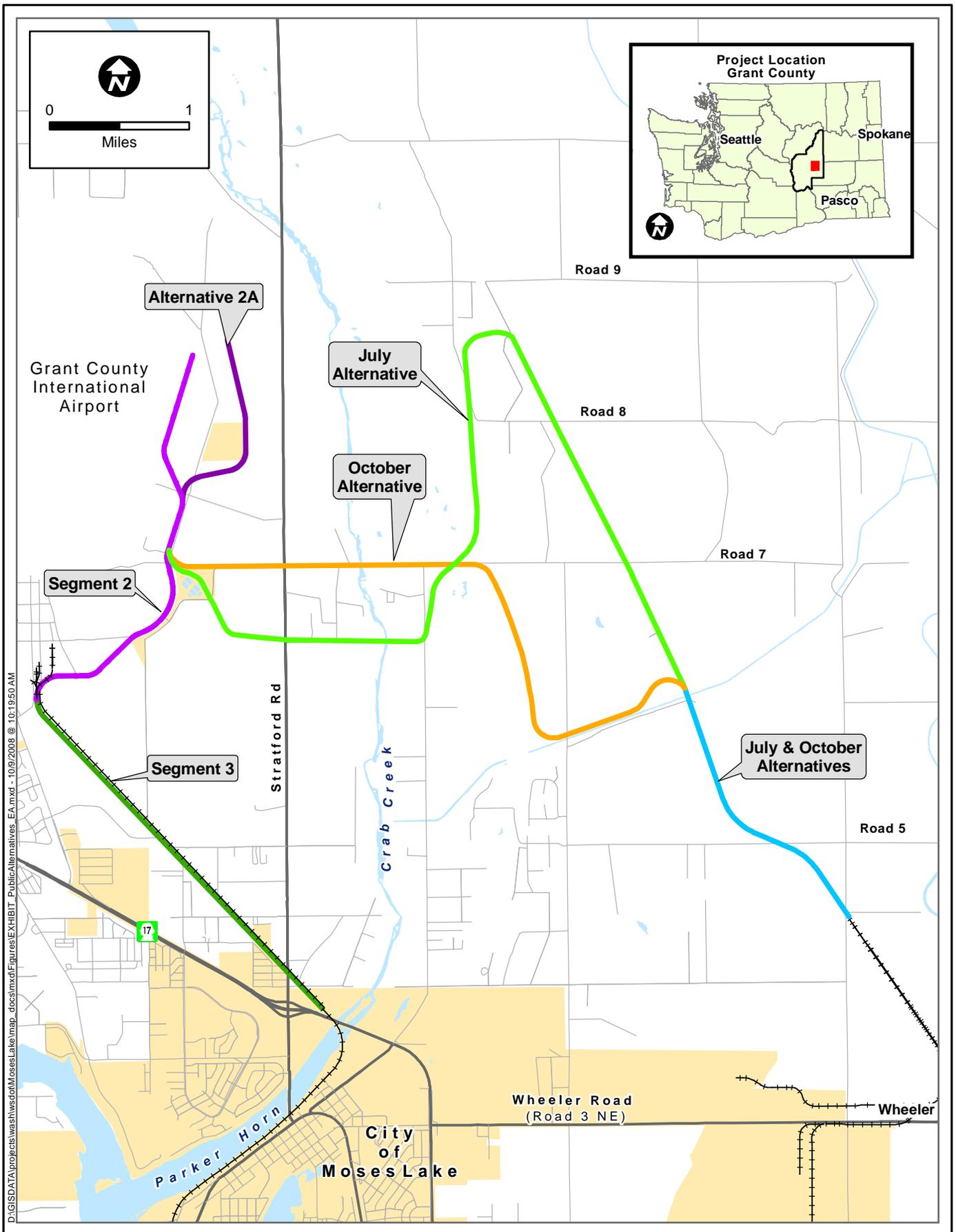
### July Alternative

The July Alternative would consist of approximately 9.7 miles of new track, and 4.9 miles of this alternative would be located within a former NP right of way. As illustrated in **Exhibit 3.4**, it would extend from a point near the eastern terminus of Segment 1 north of Wheeler, move north along the abandoned NP alignment, and curve down to the southwest at a grade of 1.7 percent to cross Crab Creek. The location of the creek crossing was selected to minimize disturbance to the creek and associated wetlands. The July Alternative would then ascend at a grade of 1.2 percent and travel westward to intersect Segment 2 adjacent to the GCIA. Segment 2 would still need to be constructed to provide access to the industrial lands to the south and east of the GCIA, and to connect to the north end of the existing line (Segment 3).

Segment 3 (the existing rail line) would remain in place; CBRW would retain the ability to operate this existing line. From a rail operations perspective, construction of this alternative might allow for an efficient service pattern, with trains moving northwestward, and then turning south along the south part of Segment 2 to connect into the existing rail system at Segment 3. For this reason, in comparing the July Alternative with the Build Alternative, the project team assumed that Segment 3 would remain in place and would continue to be used for rail services as part of the existing CBRW network.

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<sup>7</sup> The community of Wheeler is located at the eastern end of the study area; the community of Adrian is located approximately 18 miles north of Wheeler. The Northern Pacific Railway formerly operated a rail line between the two locations. Although that line has been abandoned and no right of way retained, some of the old railroad grade remains.



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# PUBLIC ALTERNATIVES Exhibit 3.4

Northern Columbia Basin Railroad Project

## **October Alternative**

The project team presented a comparison of the July Alternative and the Build Alternative (Segment 1 alignment) to the Port of Moses Lake and the Moses Lake City Council on October 23, 2007. No additional alignments were suggested at the Port of Moses Lake or City Council meetings. However, following the City Council meeting, an additional northern alignment was suggested by a member of the public. This alternative is referred to as the October Alternative.

The October Alternative would be 7.0 miles long, and 2.1 miles of this alternative would be located within a former NP right of way. As illustrated in **Exhibit 3.4**, it would extend from a point near the eastern terminus of Segment 1 north of Wheeler, move north along the abandoned NP alignment to the point where it crosses the Bureau of Reclamation's irrigation canal north of Road 5.6, then turn west and run along the north side of the canal to the edge of the bluff. At this point, the line would turn north and run along the hill, descending at a 1.35 percent grade to a point south of Road 7, where the line would again turn west and run along the south side of Road 7. From that point, the line would then travel westward to intersect Segment 2 adjacent to the GCIA. Segment 2 would still need to be constructed to provide access to the industrial lands to the south and east of the GCIA, and to connect to the north end of the existing line (Segment 3).

Segment 3 (the existing rail line) would remain in place; CBRW would retain the ability to operate this existing rail, even if the October Alternative was constructed. From a rail operations perspective, the construction of this alternative might allow for an efficient service pattern, with trains moving northwestward, and then turning south along the south part of Segment 2 to connect into the existing rail system at Segment 3. For this reason, in comparing the October Alternative with the proposed project, the project team assumed that Segment 3 would remain in place and would continue to be used for rail services.

## **Conclusions for both the July and October Alternatives**

After evaluating the alignment alternatives, the project team found that neither the July Alternative nor the October Alternative would meet the purpose and need for the proposed project, which are to provide rail service to industrial areas in the City of Moses Lake as well as to the eastern side of the GCIA, and to enhance opportunities for economic development. In addition, both the July Alternative and the October Alternative would cross the Gloyd Seeps Wildlife Area, managed by the Washington Department of Fish and Wildlife, which would require extensive permitting and would likely require substantial mitigation. Finally, both the July and October Alternatives are based in part on the former Northern Pacific Railway alignment. Although that line has been abandoned and no right of way retained, some of the old railroad grade

remains. However, much of the alignment has been converted to other uses and the right of way would have to be acquired and the line constructed anew.

These two northern alternatives were also withdrawn from further consideration because they were the longest in length, and therefore had the largest impact areas. They would cross more public roads, thereby increasing the potential for accidents, and would require more land acquisition for the right of way. In addition, these alternatives would cross land that is primarily zoned for agricultural and rural residential uses, while the Build Alternative would cross land that is primarily zoned for industrial use. For these reasons, the July Alternative and the October Alternative were not carried forward for further review in this EA.

A summary comparison of each project alternative is provided in **Exhibit 3.5**.

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**Exhibit 3.5  
Comparison of Alternatives**

	Public Alternatives				Build Alternative				No Build Alternative
	Segment 1		Segment 2		Segment 2		Segment 3		
	July	October	Segment 1	Alternative 1A	Segment 2	Alternative 2A	Existing		
<b>Distance of line in miles</b>	9.7	7.0	4.5	4.5	3.1	3.5	3.0		
<b>Right of way acquisitions/relocations</b>	Affected parcels: 24 Relocations: unknown Acres of right of way required: 58	Affected parcels: 24 Relocations: unknown Acres of right of way required: 58	Affected parcels: 21 Relocations: 1 business / 0 residences Acres of right of way required: 55	Affected parcels: 19 Relocations: 1 business / 0 residences Acres of right of way required: 55	Affected parcels: 17 Relocations: none Acres of right of way required: 38	Affected parcels: 18 Relocations: none Acres of right of way required: 45	The Port would purchase the existing railroad. No additional land would be required	No impact	
<b>Compatibility with existing and planned land uses</b>	Generally no (land is zoned mostly for agriculture and rural residential)	Generally no (land is zoned mostly for agriculture and rural residential)	Generally yes (land is zoned mostly for industrial uses)	Generally yes (land is zoned mostly for industrial uses)	Generally yes (land is zoned mostly for industrial uses)	Generally yes (land is zoned mostly for industrial uses)	No additional land would be required	No additional land would be required	
<b>Acres of wetlands within the 100-foot right of way</b>	0.9 acres	4.8 acres	6.27 acres	4.654 acres	None	None	None	None	
<b>Acres of encroachment into the Gloyd Seeps Wildlife Area</b>	7.2 acres	10.5 acres	None	None	None	None	None	None	
<b>Number of water crossings</b>	6 (5 irrigation canals and Crab Creek)	5 (4 irrigation canals and Crab Creek)	7 (1 drain, 5 canals, and Parker Horn)	7 (1 drain, 5 canals, and Parker Horn at the mouth of Crab Creek)	No impact	No impact	No impact	No impact	
<b>Number of public road crossings</b>	12	10	3	3	1	1	No impact	No impact	
<b>Meets the Purpose and Need</b>	No	No	Yes	Yes	Yes	Yes	Yes	No	

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This chapter provides an overview of the existing environment in the area of the proposed project. Existing conditions are described so that the potential environmental impacts of the proposed project may be assessed. (See Chapter Five, Potential Environmental Impacts).

This chapter includes information about the project corridor and the surrounding areas that was provided by federal, state, and local agency contacts, as well as data from field work and site visits conducted by scientists and planners from the project team.

The following Technical Memoranda and Reports<sup>1</sup> were prepared for the proposed project:

- Air Quality Memorandum
- Cultural Resources Report
- Fish, Wildlife, and Vegetation Report
- Energy Memorandum
- Hazardous Materials Memorandum
- Land Use, Farmland, and Relocation Report
- Noise and Vibration Report
- Social Elements and Environmental Justice Memorandum
- Soils and Geology Memorandum
- Traffic Memorandum
- Visual Quality Memorandum
- Water Resources Memorandum
- Wetlands Report

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<sup>1</sup> Technical Memoranda and Reports are prepared by technical experts in a variety of disciplines to ensure that the affected environment and potential environmental impacts of a project are accurately represented in the EA. The complete Technical Memoranda and Reports may be obtained from the Washington State Department of Transportation (WSDOT) Rail & Marine Office. Contact information is provided on the back of the cover page.

## What is the physical setting of the project area?

The proposed Northern Columbia Basin Railroad (NCBR) Project is located in Grant County, Washington, primarily within the greater City of Moses Lake. The proposed rail alignment would extend from the community of Wheeler (the east end of the corridor) to Grant County International Airport (GCIA) (the west end of the corridor).

Grant County is located in central Washington and has an estimated population of 83,047. Moses Lake is the largest city in Grant County, with an estimated population of 17,932.<sup>2</sup> Major industries in the project vicinity include commercial agriculture and associated processing, as well as manufacturing associated with the aerospace industry. Most of the land in the project area is zoned for industrial uses.

The climate in the project vicinity is mild and dry. The average annual daily temperatures range from 61 degrees Fahrenheit to 36 degrees Fahrenheit, although the temperature can rise above 100 degrees and fall below minus 20 degrees.<sup>3</sup> From September 2007 to August 2008, the highest monthly average temperature was 88 degrees; the lowest average monthly temperature was 22 degrees.<sup>4</sup> The average total annual precipitation is 7.87 inches. The project area is situated on an upland plateau and is relatively flat, with elevations ranging from 1,050 to 1,220 feet above sea level. The project area is located near Moses Lake in the Crab Creek Watershed.<sup>5</sup>

## Air Quality

### How was the air quality study area defined?

The air quality study area included all areas within 0.25 miles of the centerline of the proposed rail corridor. The air quality study area was based on an assessment of the project area, existing emission sources in the area, the air quality of the area, and environmental review of similar rail projects.

Existing air quality information for the study area was collected from reports published by the U.S. Environmental Protection Agency (USEPA) and the Washington State Department of Ecology (Ecology). A review of aerial

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<sup>2</sup> City Data.com, Detailed Profile for Moses Lake, Washington, Population, July 2007. Accessed at: [http://www.city-data.com/county/Grant\\_County-WA.html](http://www.city-data.com/county/Grant_County-WA.html)

<sup>3</sup> Western Regional Climate Center, Historical Climate Information, Moses Lake, Washington, Station Moses Lake 3E. Accessed at <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?wasmose>

<sup>4</sup> Weather.Com, Local Weather, Monthly Averages for Moses Lake, Washington. Accessed at <http://www.weather.com/weather/wxclimatology/monthly/graph/USWA0285>

<sup>5</sup> A watershed is the area draining into a particular river, stream, or lake. In this case, all of the area where the proposed project corridor would be located drains into Crab Creek and Moses Lake.

photography was also performed to identify potentially sensitive receptor populations, such as individual residences along Segment 3.<sup>6</sup>

### **What is the air quality in the project area?**

Air pollutants within the air quality study area include windblown dust and particulates from exposed agricultural soil, emissions from agricultural equipment and traffic on nearby roads, and emissions from occasional locomotives on the existing rail corridor. There are few industrial operations in the project vicinity, and emissions from these facilities are considered a minor component of the total air pollution in the region. Vehicle and diesel emissions are common throughout the study area; however, emission levels are low because traffic volumes are low. Agricultural activity (for example, crop planting and harvesting), which creates dust that can be carried by wind, is spread over the growing season and, as a result, concentrations of dust emissions are relatively low at any given time.

The USEPA has established National Ambient Air Quality Standards (NAAQS) for the following six air pollutants, known as criteria pollutants: sulfur dioxide (SO<sub>2</sub>), carbon monoxide (CO), nitrogen oxide (NO<sub>x</sub>), lead (Pb), ozone (O<sub>3</sub>), and particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>).<sup>7</sup> The standards were established to protect the public from exposure to harmful amounts of pollutants. When the pollutant levels in an area have caused a violation of a particular standard, the area is classified as a “non-attainment area.” If emissions in an area do not exceed the standards, the area is considered to be in attainment of the standards for each of the criteria pollutants. The proposed project would be constructed in Grant County, Washington, which is in attainment for all of the criteria pollutants.

### **Are there any sensitive receptors in the vicinity of the project?**

Sensitive receptors along Segment 3 include the Longview Elementary School, located approximately 190 feet north of the existing rail line, and the Longview neighborhood, where the closest residence is approximately 45 feet from the existing rail line. The Millerville neighborhood is within 500 feet of the proposed alignment at the eastern end of Segment 1, and the closest residence would be approximately 210 feet from the proposed track. Effects to these sensitive receptors are evaluated in Chapter Five.

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<sup>6</sup> The term “sensitive receptors” includes members of the population who are most sensitive to adverse health effects of air pollution. The term sensitive receptors includes specific population groups, such as children, the elderly, and the chronically ill. Commonly identified sensitive land uses include residences, schools, retirement homes, and hospitals. .

<sup>7</sup> National Ambient Air Quality Standards (NAAQS). [www.epa.gov/air/criteria.html](http://www.epa.gov/air/criteria.html). Accessed September 20, 2007.

## Cultural, Historic, and Archaeological Resources

### What are cultural and historic resources?

Cultural and historic resources provide an important link to the past, serving as memories of a community's accomplishments and representing the distinctive history of a region. Cultural resources are properties that reflect the heritage of local communities, states, and nations. Properties judged to be significant in American history, architecture, or archaeology, that possess integrity and that have achieved significance within the past 50 years, are considered "historic properties." Such historic properties are afforded certain considerations in accordance with state and federal regulations.

Section 106 of the National Historic Preservation Act (NHPA), 16 U.S.C. 470f, requires federal agencies to take into account the effects of their undertakings on historic properties<sup>8</sup> and defines an "historic property" as any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places (NRHP).<sup>9</sup> The proposed project is subject to the NHPA's Section 106 historic review process because the Port of Moses Lake (Port) is seeking the Surface Transportation Board's (STB's) authorization for the proposed rail project.

### How was the cultural resources study area defined?

For the purpose of identifying cultural, historic, or archaeological resources in the project area, the STB's Section of Environmental Analysis (SEA) and the Washington State Department of Transportation (WSDOT) defined the cultural resources study area or the "Area of Potential Effect" (APE) as the area within the proposed rail right of way. See 36 CFR 800.16(d). SEA and WSDOT determined that the APE extends 50 feet from the centerline of the proposed rail line for the entire length of the project. This 100-foot-wide corridor allows a buffer between the track itself and adjacent uses, and takes into consideration the possibility of noise and vibration issues with regard to historic buildings or structures. The APE includes approximately 200 acres. The Washington State Department of Archaeology and Historic Preservation (State Historic Preservation Office or SHPO) concurred with this APE determination in a letter dated October 31, 2007 (Appendix A).

To identify any documented or NRHP-eligible cultural, historic, or archaeological resources within the APE, the project team conducted a preliminary reconnaissance survey of the project area, a record search of the database at the Washington SHPO, and archival research. In addition, the project team contacted Native American representatives, the SHPO, and other

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<sup>8</sup> See 36 CFR 800.1(a).

<sup>9</sup> The term "historic property" includes artifacts, records, and remains that are related to and located within such properties. The term also includes properties of traditional religious and cultural importance to an Indian Tribe or Native Hawaiian organization and that meet the National Register criteria. See 36 CFR 800.16(1)(1).

interested parties. For the proposed project, surveys were undertaken and documentation prepared in accordance with the Secretary of Interior's Standards and Guidelines for Identification of Historic Properties (48 FR 44716), using personnel who meet the Secretary of Interior's Professional Standards (48 FR 22716) in the fields of prehistoric archaeology, historic archaeology, architectural history, and history.<sup>10</sup> On July 30, 2008, the Cultural Resources Discipline Report/Survey (Cultural Resources Report and Survey) was sent to the SHPO for review and comment. In response to comments from the SHPO, additional research was conducted and a revised Cultural Resources Report and Survey was sent to the SHPO for review in October 2008.

### **What Tribal consultation was included?**

Pursuant to 36 CFR 800.2(c), SEA and WSDOT initiated Tribal consultation by sending letters describing the proposed project to Native American Tribes that may have ancestral connections to the project area. Accordingly, consultation letters were sent to the designated cultural representatives of the federally-recognized Colville Confederated Tribes, Confederated Tribes and Bands of the Yakama Nation, and Confederated Tribes of the Warm Springs Reservation of Oregon, as well as to the non-federally-recognized Wanapum Tribe.

In April 2008, the Cultural Resources Report and Survey<sup>11</sup> was sent to the above-listed Tribes for review and comment. The Warm Springs Tribe and the Colville Confederated Tribes had no comments on the Report,<sup>12</sup> and the Wanapum Tribe declined to comment. The Confederated Tribes and Bands of the Yakama Nation is currently reviewing the Cultural Resources Report and Survey.

### **Are there cultural, historic, or archaeological resources in the project area?**

No prehistoric archaeological sites or traditional cultural properties were identified within the APE. However, 20 potential historic resources were identified within the cultural resources study area (**Exhibit 4.1**). One of those resources, the Columbia Basin East Low Canal Feeder Canals system has been determined to be eligible for listing on the NRHP.

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<sup>10</sup> The project team contacted property owners and attempted to access all properties within the APE. Although repeated requests were made, access to two parcels was denied. The two parcels are located east of Parker Horn and are the following: Parcel No. 170543000 and Parcel No. 170545000.

<sup>11</sup> The Cultural Resources Report and Survey may be obtained from the WSDOT Rail & Marine Office. Contact information is provided on the back of the title page.

<sup>12</sup> Sally Bird, Warm Springs Tribe, Telephone communication with Elizabeth Phinney, WSDOT Rail & Marine Office, July 22, 2008. Camille Pleasants, Colville Tribes, Telephone communication with Elizabeth Phinney, WSDOT Rail & Marine Office, July 22, 2008.

Three specific features of the canal system (Canal EL20, EL20U1, and RCD 180+182) are contained within the project's APE:

***EL (East Low) 20:*** This earthen irrigation canal is approximately 10 feet wide and four feet deep, and about 100 linear feet of it lie within the APE. It runs through a cast concrete culvert under Wheeler Road (Road 3 NE). Herbicides are used to prevent plant growth and maintain water flow.

***EL (East Low) 20U1:*** This irrigation canal is approximately two feet wide and 16 to 18 inches deep. About 100 linear feet lie within the APE. Although it was originally earth-lined, it has since been lined with poured-in-place cast concrete and now has steps to help regulate water flow. These improvements altered its historic integrity.

***RCD (Rocky Coulee Diversion) 180+182:*** About 100 linear feet of this eight-foot-wide and five-foot-deep earthen canal are located within the APE. It is generally overgrown with plants.

The three canal segments described above are part of the Columbia Basin East Low Canal system. The need for irrigation and electricity in Washington resulted in the U.S. Government's embarking on what is known as the Columbia Basin Project. It began with the construction of the Grand Coulee Dam, the largest concrete structure ever built in the U.S. The project has been called the largest Bureau of Reclamation project since the establishment of the Bureau. A total of 671,000 acres of farmland were brought under irrigation through the construction of the Main, West, East High, and East Low Canals, and associated irrigation ditches. Canals EL20, EL20U1, and RCD 180+182 were constructed between 1946 and 1951.

**Exhibit 4.1  
Potential Historic Resources Identified and Evaluated  
within the Area of Potential Effects**

<b>ID No.</b>	<b>Historic Name</b>	<b>Address</b>	<b>Parcel No.</b>	<b>Year Built</b>	<b>Preliminary NRHP Determination</b>	<b>Section (S), Township (T) and Range (R)</b>
1	10973 Road 4	10973 Road 4	170543000	c. 1957	Ineligible	S14:T19:R28
2	4199 Miller Street	4199 Miller Street	120498000	1943	Ineligible	S10:T19:R28
3	4255 Miller Street	4255 Miller Street	120503000	1943	Ineligible	S10:T19:R28
4	4267 Miller Street	4267 Miller Street	120504000	1943	Ineligible	S10:T19:R28
5	4279 Miller Street	4279 Miller Street	12505000	1943	Ineligible	S10:T19:R28
6	4289 Miller Street	4289 Miller Street	120506000	1943	Ineligible	S10:T19:R28
7	4301 Miller Street	4301 Miller Street	120508000	1943	Ineligible	S10:T19:R28

ID No.	Historic Name	Address	Parcel No.	Year Built	Preliminary NRHP Determination	Section (S), Township (T) and Range (R)
8	4321 Longview Street	4321 Longview Street	120513000	1943	Ineligible	S10:T19:R28
9	4321 Miller Street	4321 Miller Street	120508000	1943	Ineligible	S10:T19:R28
10	4325 Miller Street	4325 Miller Street	120509000	1943	Ineligible	S10:T19:R28
11	4335 Miller Street	4335 Miller Street	120510000	1943	Ineligible	S10:T19:R28
12	4359 Miller Street	4359 Miller Street	120512000	1943	Ineligible	S10:T19:R28
13	4890 Grape Drive NE	4890 Grape Drive NE	170325000	c. 1940	Ineligible	S10:T19:R28
14	8 Place Hangar drainage ditch	8 Place Hangar drainage ditch	171016013	c. 1952	Ineligible	S27:T20:R28
15	9930 Parkway Drive NE	9930 Parkway Drive NE	110279000	1943	Ineligible	S10:T19:R28
16	9972 Sunny Drive	9972 Sunny Drive	120405000	1954	Ineligible	S10:T19:R28
17	Chicago, Milwaukee, St. Paul & Pacific Railroad Building	Chicago, Milwaukee, St. Paul & Pacific Railroad Building	Chicago, Milwaukee, St. Paul & Pacific Railroad right of way	c. 1920	Ineligible	S10:T19:R28
18	Columbia Basin East Low Canal Feeder Canals: EL20; EL20U1; and RCD 180+182	Columbia Basin East Low Canal Feeder Canals: EL20; EL20U1; and RCD 180+182	East Columbia Basin Irrigation District Easement	1946-1951	Eligible	S19 and 24:T19:R28
19	Storm drainage ditch adjacent to Alert Center Building	Storm drainage ditch adjacent to Alert Center Building	17100600	c. 1952	Ineligible	S27:T20:R28
20	Chicago, Milwaukee, St. Paul & Pacific Railroad Branch Line	Railroad ROW Between 22nd Ave NE and Kinder Rd NE	Chicago, Milwaukee, St. Paul & Pacific Railroad right of way	c. 1942	Ineligible	S03:T19:R28, S04:T19:R28, S10:T19:R28, S11:T19:R28, S14:T19R28, S33:T20:R28

The canals are eligible for listing on the NRHP under Criterion A, for their association with events that have made a significant contribution to the broad patterns of our history. The canals are part of the potentially NRHP-eligible Columbia Basin Project historic district and appear to be part of the original design of the Columbia Basin Project. In addition, the canals are important because of the impact irrigation has had on the economic development of the City of Moses Lake.

## Energy

### How was the study area for energy consumption defined?

The study area for energy consumption was generally defined as the location of the proposed rail corridor, including the location of rail crossings (where vehicles might be delayed and thus consume more energy).

The energy consumed by freight trains was estimated as part of the operations analysis prepared for the proposed project. Information collected for the operations analysis included the diesel fuel consumed by trains along the existing route and along the proposed route. Data such as train speed, length of track, number of train trips, and number of train cars were collected from the design engineers and used to calculate diesel fuel consumption. Bureau of Transportation Statistics provided the gallons of diesel fuel per mile consumed by freight trains.<sup>13</sup>

### How much energy is used by the current operation of the trains in the project area?

Because a locomotive generally uses 7.33 gallons per mile, the project team estimated that trains running on the existing 16.8-mile route to the southern edge of the GCIA currently use approximately 246 gallons of diesel fuel for each round trip (**Exhibit 4.2**).

**Exhibit 4.2**  
**Fuel Used by Existing Freight Trains (Diesel Fuel)**

Description	Monthly Average	Annual Average
Number of trains	2	24
Total miles traveled (miles)	33.6	403
Total energy used (gallons)	246	2,954

Freight train traffic is so infrequent on the existing route that the fuel consumed by vehicles waiting for trains to pass is negligible and was not quantified for this project.

Electrical energy is also used on the right of way to operate switches, crossing arms, and communication devices. The amount of energy consumed for electrical devices and equipment is negligible and was not quantified.

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<sup>13</sup> Bureau of Transportation Statistics (BTS). National Transportation Statistics 2006. <http://www.bts.gov>. 2006.

## Fish, Wildlife, and Vegetation

### How was the fish, wildlife, and vegetation study area defined?

The study area for fish, wildlife, and vegetation included all areas within 200 feet of the proposed rail corridor, as well as aquatic and riparian areas 0.5 miles downstream of the northern and southern project alignment crossings of Parker Horn. The limits of the study area were chosen to provide a basis for the analysis of potential construction and operational impacts on fish, wildlife, and vegetation, as well as on water quality.

Technical staff then reviewed the existing information on fish, wildlife, and vegetation presence, as well as habitat conditions, in the study area. Sources included written reports and databases, discussions with local experts, and field visits to the project area, where biologists made direct observations.

Field visits were performed on June 19 and 20, 2007, to assess habitat conditions along the proposed project corridor and to record observations. Field visits were restricted to portions of the project corridor where landowners granted rights of entry. Permission to enter three parcels along Segment 1 and its northern and southern Parker Horn crossing alternatives could not be obtained for the following: (1) Parcel 190483000 at Reference Point (RP) 2, (2) Parcel 170543000 just east of RP 4, and (3) Parcel 178545000 at RP 4. Where possible, the project team made a visual survey of these areas from the nearest public right of way. Aerial photographs were reviewed to supplement the observations made during the field visits. The following category-specific information was used:<sup>14</sup>

#### *Fish*

- Priority Habitats and Species (PHS)<sup>15</sup> data provided by Washington Department of Fish and Wildlife (WDFW)
- Published WDFW stock reports
- StreamNet database ([www.streamnet.org](http://www.streamnet.org))
- Field visit
- Published literature (listed in Chapter Ten)
- Interview with the WDFW area habitat biologist

#### *Wildlife*

- PHS data provided by WDFW

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<sup>14</sup> For additional detail, the Fish, Wildlife, and Vegetation Technical Report may be obtained from the WSDOT Rail & Marine Office. Contact information is provided on the back of the title page.

<sup>15</sup> State priority species include game species and species that the state lists as endangered, threatened, or sensitive. This generally includes those species listed as threatened or endangered by the federal government under the Endangered Species Act.

- Interview with the WDFW area habitat biologist
- Field visit
- Published literature (listed in Chapter Ten)

### ***Vegetation***

- PHS data provided by WDFW
- Washington Department of Natural Resources (WDNR) Natural Heritage Program database
- Field visit
- Visit to the University of Washington Herbarium to review collections and literature
- Published literature (listed in Chapter Ten)

### **What types of vegetation are found in the project area? What plant species are listed as rare, threatened, or endangered in the project area?**

The most common vegetation types in the study area are row crops of corn, wheat, and peas. The second most common type of vegetation consists of disused field and range areas, where the vegetation is dominated by non-native weed species. Close to Parker Horn and Crab Creek, there are moist sites that support wetland and riparian (streamside) vegetation.

No plant species on the federal or state lists of rare, threatened, or endangered species<sup>16</sup> are likely to occur in the study area. Ute ladies'-tresses (*Spiranthes diluvialis*), a federally-listed threatened species, could grow in Grant County, but this plant requires special gravel soils in abandoned river or stream channels that do not occur in the vicinity of this project. Northern wormwood (*Artemisia campestris* spp. *borealis* var. *wormskioldii*) (a federal candidate and state endangered species) grows in Grant County but only within the floodplain of the Columbia River. Directed surveys for these two species were not conducted because their required soils and hydrology are not present in the study area. Gray cryptantha (*Cryptantha leucophaea*), Hoover's desert-parsley (*Lomatium tuberosum*), and Wanapum crazyweed (*Oxytropis campestris* var. *wanapum*) are federally-listed species of concern that are present in Grant County, although these species were not found in the study area.

Piper's daisy (*Erigeron piperianus*), a state sensitive species, was identified as possibly occurring in the study area. However, during the June 2007 field visits, project biologists did not find any evidence of the species. In addition, the areas within the study area where this plant might be found are highly

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<sup>16</sup> The term endangered species means any species that is in danger of extinction throughout all or a significant portion of its range. A threatened species is any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

disturbed and degraded, with little to no native vegetation; therefore, habitat for Piper's daisy within the project area would be of relatively poor quality.

### **What is the condition of fish and wildlife habitat in the study area?**

The majority of the upland habitat<sup>17</sup> within the study area has been highly modified, mainly for agricultural use. While agricultural lands can provide habitat for some wildlife species, agricultural fields in general tend to support fewer wildlife species than natural habitats.

The remaining undeveloped upland habitats have a predominant cover of non-native vegetation and display signs of former anthropogenic modifications (modifications caused by humans) such as litter, debris, and wheel ruts. The study area contains habitats suitable for ground bird nesting by raptors and burrowing owls.

Riparian habitat<sup>18</sup> along Moses Lake has been reduced and its functions impaired by development and by decreased water levels in winter, which expose the roots of riparian vegetation to wave erosion and freezing. Higher quality riparian habitats are located along the shores of islands in Moses Lake and wetlands found along Crab Creek.

The sections of Parker Horn and Crab Creek over which both Segment 1 and Alternative 1A would cross have been designated by the WDFW as a priority habitat for waterfowl, shorebirds, bald eagles (*Haliaeetus leucocephalus*), and mink (*Mustela vison*).

### **What priority fish are present in or around the project area? Are there any fish listed as rare, threatened, or endangered?**

Parker Horn and Crab Creek are the only water bodies within the study area that are identified as containing priority fish species.<sup>19,20</sup> Priority fish species found in the project vicinity include redband rainbow trout (*Oncorhynchus mykiss*), walleye (*Stizostedion vitreum*), largemouth bass (*Micropterus salmoides*), and smallmouth bass (*Micropterus dolomieu*). The redband rainbow trout is designated as a federal species of concern; the other priority species have no federal designation, but all are designated by the state of Washington as priority game fish (**Exhibit 4.3**).

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<sup>17</sup> Upland habitat is the dry habitat adjacent to water bodies and wetlands, beginning with the riparian zone immediately adjacent to the surface water and gradually merging into other habitat types, such as forest and grassland.

<sup>18</sup> Riparian habitat is the vegetative zone immediately adjacent to a water body, often characterized by thick vegetation, including shrubs, vines, trees, and grasses.

<sup>19</sup> In addition to state endangered, candidate, or species of concern, priority species include game fish, such as resident trout, perch, bass, and other species.

<sup>20</sup> WDFW. 2007. *Priority Habitat and Species Maps and Polygon Reports for Townships T20R28E, T19R28E, and T19R29E*. August 24, 2007.

**Exhibit 4.3**  
**Washington State Priority Fish Species Present**  
**in the Study Area and their Federal and State Status**

Species	Federal Status	State Status
Redband Rainbow Trout ( <i>Oncorhynchus mykiss</i> )	Species of Concern (native Columbia River Basin fish only)	Game Fish
Walleye ( <i>Stizostedion vitreum</i> )	None	Game Fish
Largemouth Bass ( <i>Micropterus salmoides</i> )	None	Game Fish
Smallmouth Bass ( <i>Micropterus dolomieu</i> )	None	Game Fish

WDFW conducted surveys for walleye in Moses Lake in 2005, and walleye are known to heavily utilize the habitat in Parker Horn and Crab Creek for spawning in April and May. Both of the Build Alternative’s proposed water crossings (Segment 1 and Alternative 1A) would cross walleye spawning habitat in Parker Horn and Crab Creek.

WDFW also operates a fish-stocking program in Moses Lake. Rainbow trout are raised in net pens within the lake south of I-90, and released in mid-April.

There are no federal or state rare, threatened, or endangered fish species in the study area.

**What priority wildlife are present in the project area? Are there any wildlife species listed as rare, threatened, or endangered?**

No federally-listed rare, threatened, or endangered wildlife species are found in the study area. The Columbia Basin pygmy rabbit (*Brachylagus idahoensis*), a federally-listed endangered species, relies on tall, dense big sagebrush cover to provide food and shelter, a habitat that does not occur in the study area, and relatively deep, loose soils that allow burrowing.<sup>21</sup> Neither the greater sage grouse (*Centrocercus urophasianus*) nor the Washington ground squirrel (*Spermophilus washingtonii*), both federal candidate species, occur in the study area due to a lack of suitable habitat (big sagebrush for the grouse, and a

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<sup>21</sup> USFWS (United States Fish and Wildlife Service). *Draft Recovery Plan for the Columbia Basin Distinct Population Segment of the Pygmy Rabbit (Brachylagus idahoensis)*. Portland, OR. 2007.

particular type of silty loam soil for the squirrel).<sup>22,23</sup> During the June 2007 field visits to the study area, project biologists did not find any evidence that these species reside in the study area.

Other priority wildlife species are found in the study area (**Exhibit 4.4**). Species with a defined federal status include the bald eagle, burrowing owl (*Athene cunicularia*), Yuma or long-eared myotis (bat) (*Myotis evotis*), Townsend's big-eared bat (*Corynorhinus townsendii pallescens*), and the northern leopard frog (*Rana pipiens*).

Bald eagles winter along Parker Horn. Bald eagles are a species monitored by the federal government, and are listed as threatened by Washington State. On average, three to four bald eagles spend the winter in the project area and bald eagles can be found perching on shoreline trees, islands, or ice shelves, often in association with waterfowl concentrations.

Burrowing owls, a federal species of concern and a state candidate species, may occur throughout the study area in upland areas. Within approximately one mile of Segment 1, there are three known burrowing owl nest sites: one near the Moses Lake Municipal Airport, which is outside of the study area, and two within the study area (approximately two miles and three miles west of the community of Wheeler, respectively). Project biologists did not observe any burrowing owls along Segment 1 or Alternative 1A, but they did observe one along Segment 2 and Alternative 2A near the GCIA.

Yuma myotis, a small, insect-eating bat that is a federal species of concern, is more closely linked to water than the Townsend's big-eared bat. Yuma myotis were documented in the area during June site visits, and there are likely to be roosts in the vicinity. Foraging Yuma myotis found in the study area would likely be concentrated in the Parker Horn area.

The northern leopard frog is also a federal species of concern. These frogs are found in marshes, wet meadows, and riparian areas, and in moist, open woods. They prefer water bodies with dense vegetation such as cattail or sedge marshes for breeding, and in the study area, this species would be limited to Parker Horn and the wetlands east of Parker Horn located between RP 3.0 and RP 3.5.

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<sup>22</sup> Finger, R., G. J. Wiles, J. Tabor, and E. Cummins. *Washington Ground Squirrel Surveys in Adams, Douglas, and Grant Counties, Washington, 2004*. Washington Department of Fish and Wildlife, Olympia, WA. 2007.

<sup>23</sup> Schroeder, M.A, D. Stinson, and M. Tirhi. Greater Sage-Grouse. In E. Larsen, J. M. Azerrad, N. Nordstrom (eds.): *Management Recommendations for Washington's Priority Species*. Volume IV: Birds, pp. 17-1 – 3-13. Washington Department of Fish and Wildlife, Olympia, WA. 2003.

**Exhibit 4.4**  
**Washington State Priority Wildlife Species Present**  
**in the Study Area and their Federal and State Status**

Species	Federal Status	State Status
Bald eagle ( <i>Haliaeetus leucocephalus</i> )	Monitor Species <sup>1</sup>	Threatened <sup>3</sup>
Burrowing owl ( <i>Athene cunicularia</i> )	Species of Concern <sup>2</sup>	Candidate <sup>4</sup>
Townsend's big-eared bat ( <i>Corynorhinus townsendii pallescens</i> )	Species of Concern <sup>2</sup>	Candidate <sup>4</sup>
Yuma or long-eared myotis ( <i>Myotis evotis</i> )	Species of Concern <sup>2</sup>	Monitor Species <sup>5</sup>
Northern leopard frog ( <i>Rana pipiens</i> )	Species of Concern <sup>2</sup>	Endangered <sup>6</sup>
Western grebe ( <i>Aechmophorus occidentalis</i> )	None	Candidate <sup>4</sup>
Great blue heron ( <i>Ardea herodias</i> )	None	Monitor Species <sup>5</sup>
Mink ( <i>Mustela vison</i> )	None	Game Species <sup>7</sup>

Notes

1. "The Secretary shall implement a system in cooperation with the States to monitor effectively for not less than five years the status of all species which have recovered to the point at which the measures provided pursuant to this Act are no longer necessary" (16 U.S.C. § 1533(4)(g)(1)).

2. Species of concern are defined as those species whose conservation status is of concern to the U.S. Fish and Wildlife Service, but for which further information is still needed. Such species receive no legal protection and use of the term does not necessarily imply that a species will eventually be proposed for listing.<sup>24</sup>

3. State threatened species is defined in the Washington Administrative Code (WAC) 232-12-297, Section 2.5, to include "any wildlife species native to the state of Washington that is likely to become an endangered species within the foreseeable future throughout a significant portion of its range within the state without cooperative management or removal of threats."

4. State candidate species is defined in WDFW Policy M-6001 to include fish and wildlife species that the WDFW will review for possible listing as state endangered, threatened, or sensitive. A species will be considered for designation as a state candidate if sufficient evidence suggests that its status may meet the listing criteria defined for state endangered, threatened, or sensitive.

5. State monitor species are not considered species of concern, but are monitored for status and distribution. They are managed by the WDFW, as needed, to prevent them from becoming endangered, threatened, or sensitive.<sup>25</sup>

6. A state endangered species is defined in WAC 232-12-297, Section 2.4, to include "any wildlife species native to the state of Washington that is seriously threatened with extinction throughout all or a significant portion of its range within the state."

7. Game species are native and non-native fish and wildlife species of recreational or commercial importance.<sup>26</sup>

<sup>24</sup> USFWS. 2008. *Federally Listed, Proposed, Candidate, Delisted Species and Species of Concern Which May Occur Within Oregon*. Available at <http://www.fws.gov/oregonfwo/Species/Lists/Documents/OregonStateSpeciesList.PDF>. Accessed on April 8, 2008.

<sup>25</sup> WDFW (Washington Department of Fish and Wildlife). *WDFW - Species of Concern: Status Definitions*. Available at <http://wdfw.wa.gov/wlm/diversty/soc/definitn.htm>. Accessed on April 8, 2008.

<sup>26</sup> WDFW (Washington Department of Fish and Wildlife). *WDFW - Priority Habitat and Species List*. Available at <http://wdfw.wa.gov/hab/phsdef.htm>. Accessed on April 8, 2008.

The Townsend's big-eared bat is a federal species of concern and is known to live in the Moses Lake area. Bats in the study area would likely be foraging from summer roost or nursery sites and might use buildings along each segment of the project as day roosts.

The western grebe (*Aechmophorus occidentalis*), great blue heron (*Ardea herodias*), and mink (*Mustela vison*) are state priority species that likely use the area around Parker Horn. Western grebes, a species of migratory water bird, use large lakes and open wetlands. No nesting colonies have been documented in the study area, and any western grebe present within the study area would likely be a foraging individual.

During the June 2007 field visits, project biologists noted an individual great blue heron foraging along Parker Horn near the crossing of State Route (SR) 17. The rookery<sup>27</sup> nearest to the study area is located at Potholes Reservoir, approximately 17 miles southwest of Moses Lake. Individual birds that breed near Potholes Reservoir could use Parker Horn as a foraging area. Breeding individuals can forage up to 18 miles from their nest sites, but predominantly forage within a one- to three-mile radius.

Mink, which are a Washington State priority species, utilize suitable feeding and breeding habitat at Rocky Ford Creek and Crab Creek, which are north of Moses Lake and Parker Horn. The species can be found in these areas throughout the year.

### **Are there any state parks or forests, national parks or forests, or wildlife refuges or sanctuaries in the study area?**

There are no state parks or forests, national parks or forests, or wildlife refuges or sanctuaries within the study area. However, Crab Creek connects Moses Lake with the Gloyd Seeps Wildlife Area (Gloyd Seeps), which is located approximately five miles to the north of the project alignment. Gloyd Seeps is an 8,000-acre area within the historic flood channels of Crab Creek. Numerous wetlands, ponds, and seeps are surrounded by older shrub steppe uplands and basalt scablands. Fires have created grasslands on most of the area along the west side of Crab Creek. It is one of several state wildlife areas in the Columbia Basin that the WDFW considers to be the most important waterfowl breeding grounds in the state. Millions of other birds also use the waters and marshes for resting and feeding on their annual migrations along the Pacific Flyway. WDFW manages Gloyd Seeps and other wildlife areas to protect and preserve wildlife habitat in the state.<sup>28</sup>

The existing wildlife habitats of Crab Creek and Parker Horn are degraded by poor water quality, weedy species cover, and human presence; nevertheless, it

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<sup>27</sup> A rookery is a breeding place or colony of gregarious birds or animals.

<sup>28</sup> WDFW. 2008. *Wildlife Areas and Access Points, Gloyd Seeps Wildlife Area*. Available at <http://wdfw.wa.gov/lands/r2glydsp.htm>. Accessed July 30, 2008.

is the largest riparian corridor draining to Moses Lake and is likely to serve as a wildlife connection between the lake and Gloyd Seeps. Crab Creek and Parker Horn are vegetated by a mix of native and exotic vegetation, with little upland buffering.

## **Hazardous Materials**

### **How was the hazardous materials study area defined?**

For the hazardous materials analysis, the project team identified and evaluated known hazardous waste sites or potentially contaminated sites in the area of the proposed project. For data collection purposes, the initial hazardous materials study area was defined as a one-mile radius around the proposed project area.

The project team requested that Environmental Data Resources, Inc. provide environmental regulatory records from 39 federal, 19 state and local, three Tribal, and eight other databases. In addition, the team identified and reviewed historical aerial photos (1954, 1976, 1982, and 1996) and undertook a search for Sanborn Fire Insurance Rate Maps and historical city directories. The team also conducted an Internet search to obtain additional information and to verify database search results.

Site files from Ecology and USEPA were reviewed to determine the nature and extent of hazardous materials released into the environment and the status of cleanup activities at identified sites. Once information from all sources was reviewed, the team conducted a site visit on September 23, 2007, to the proposed rail corridor area to: (1) identify current conditions at known contaminated or potentially contaminated sites, and (2) identify any current site conditions along the corridor that had not been described in any database or document records.

### **Were hazardous materials or potentially contaminated sites identified in the project area?**

Eighty-six potentially contaminated sites were identified in the study area through database and Internet searches. Of the 86 sites identified, all but 19 were eliminated from further review based on several screening criteria. Sites were screened in accordance with WSDOT guidance<sup>29</sup> to determine which sites warranted file reviews and site visits. The following types of sites were eliminated from further consideration:

- Sites listed only on the Resource Conservation and Recovery Information System (RCRIS) (Small and Large Quantity Generators), Facility Index

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<sup>29</sup> WSDOT. *Draft Guidance and Standard Methodology for WSDOT Hazardous Material Discipline Reports*. Available at <http://www.wsdot.wa.gov/NR/rdonlyres/79415778-FC82-4924-8C82-D69524EF9669/0/HazMatMethodologyDisciplineRpts.pdf>. June 2007.

System (FINDS), and/or the FIFRA<sup>30</sup> and TSCA<sup>31</sup> Tracking System (FTTS) databases.

- Sites listed only on the Emergency Response Notification System (ERNS) or Hazardous Materials Information Resource System (HMIRS) databases.
- Sites listed only on the underground storage tank (UST) database and located greater than 0.125 (1/8) mile from the project footprint.
- Sites located a sufficient distance downstream from the project footprint, based on the judgment of a qualified Environmental Professional (as defined by ASTM International and USEPA).

Of these 19 sites, 13 were determined to pose a low risk to the project and were not evaluated further, four were determined to pose a moderate risk, and two were determined to pose a high risk. **Exhibit 4.5** shows the location of these sites along the project corridor.

Thirteen of the sites are located along Segment 1 and Alternative 1A and six of the sites are located along Segment 2 and Alternative 2A. No sites were identified along Segment 3. Risk levels were determined in accordance with WSDOT guidance.<sup>32</sup>

**Low to Moderate Impact:** This risk level identifies sites where the nature of potential contamination is known based on existing investigation data, or where it can be reasonably predicted based on observations of the site or experience at a similar site or best engineering judgment. Potentially low to moderate impact sites are typically small to medium in size, the potential contaminants are not extremely toxic or difficult to treat, and remediation approaches are generally straightforward.

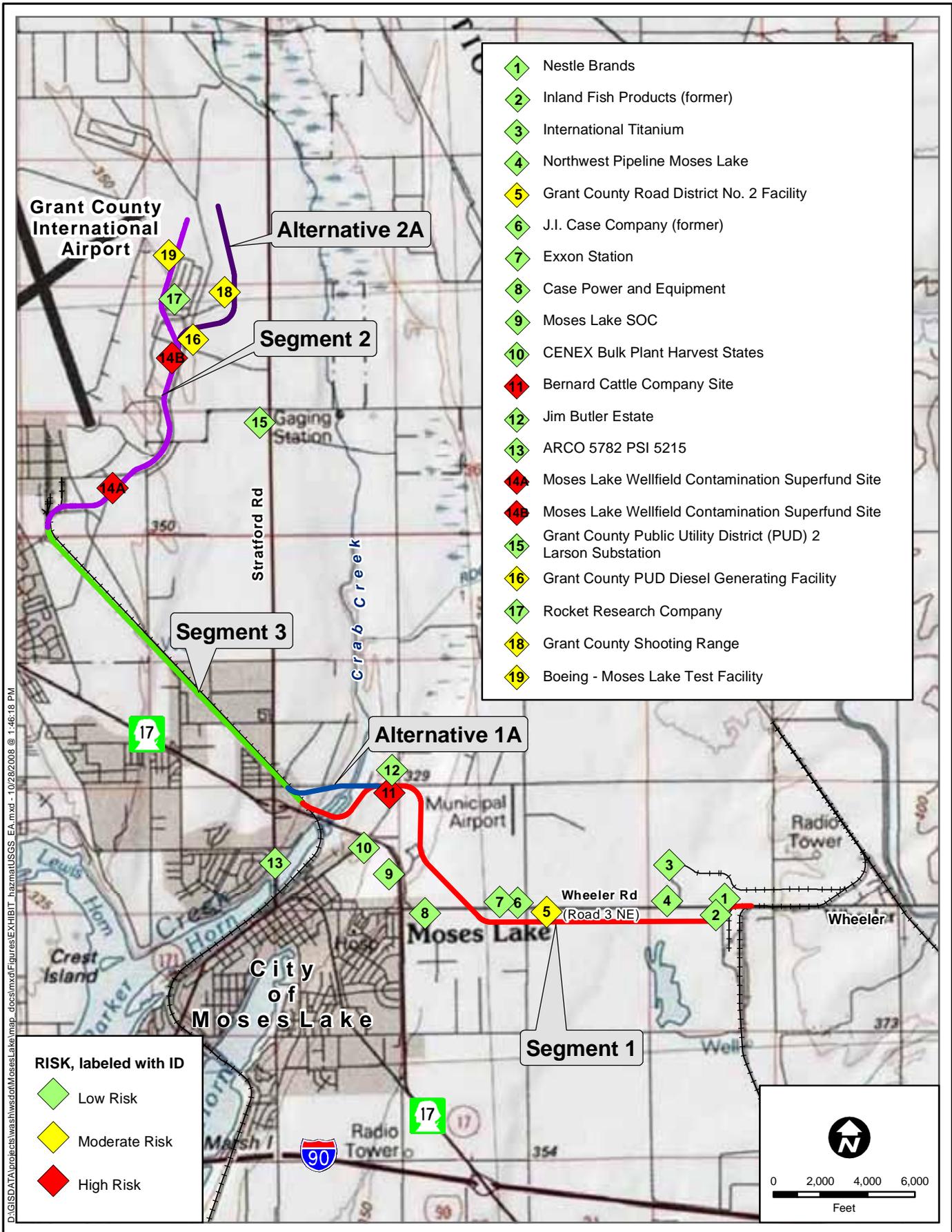
**High Impact:** This risk level identifies sites that may be substantially contaminated and that could create a major liability either in construction liability or by virtue of acquiring all or a portion of the site. If the site has undergone a detailed investigation and a feasibility study, the impacts and remediation costs may already be predicted. Nonetheless, the site is identified as a high impact site because of its potentially substantial impact or liability. In general, high impact sites are properties that possess a potential for substantial soil, groundwater, or sediment contamination, or the information necessary to predict remedial costs is lacking and/or the contaminants are persistent, or expensive to manage. The site may be contaminated over a large area by a single contaminant or over a smaller area by multiple contaminants. Potentially high impact sites are typically large, have large volumes of contaminated materials, or have a long history of industrial or commercial use.

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<sup>30</sup> Federal Insecticide, Fungicide, and Rodenticide Act of 1947 (7 U.S.C. § 136 et seq.).

<sup>31</sup> Toxic Substance Control Act of 1976 ([15 USC \(C. 53\) 2601-2692](#)).

<sup>32</sup> WSDOT. *Draft Guidance and Standard Methodology for WSDOT Hazardous Material Discipline Reports*. Available at <http://www.wsdot.wa.gov/NR/rdonlyres/79415778-FC82-4924-8C82-D69524EF9669/0/HazMatMethodologyDisciplineRpts.pdf>. June 2007.



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The moderate- and high-risk sites identified in the study area are described below.

### **Segment 1 and Alternative 1A**

One site poses a high risk to both Segment 1 and Alternative 1A of the proposed project. This site, the Bernard Cattle Company site (Site 11), comprises an area of approximately three to five acres and is located on the southwest corner of Broadway and Road 4 NE (Cherokee Road) in the vicinity of the Municipal Airport. This land is known as Grant County Parcel Number 170543000. The property appears to be a storage yard for abandoned vehicles and heavy equipment. Piles of tires and other extraneous material are scattered throughout the area. At least one tank was observed from the right of way.

The ground surface is very uneven, implying potential fill of unknown origin on the property. The proposed rail corridor would cross this property. Based on observations from the September 2007 site visit, there is a high potential that releases of hazardous materials may have occurred on this site. In addition, the site contains fill of unknown origin, resulting in the high ranking.

One site poses a moderate risk to both Segment 1 and Alternative 1A of the proposed rail corridor. The Grant County Road District No. 2 (Site 5) facility is the County Road Department vehicle parking, fueling yard, and equipment storage area. Three above-ground storage tanks were identified during the September 2007 site visit and appeared to be in good condition. The south side of this facility abuts the proposed rail corridor. Based on maps from the 1950s, the area appears to have been used as a borrow pit<sup>33</sup> and then later filled with unknown materials.

### **Segment 2 and Alternative 2A**

Segments 2 and Alternative 2A lie within the Moses Lake Wellfield Superfund site. Of the 39 potential source areas identified for chemical releases in the Superfund site, seven of them are along Randolph Road. Of these seven, two are considered high risk to the project: the Randolph Road Base Dump (Site 14A), and the Paint Hangar Leach Pit (Site 14B). These sites are adjacent to both Segment 2 and Alternative 2A. The USEPA plans to conduct investigations and remediation in these areas in the next two years, and coordination with the USEPA's Superfund office is recommended for any construction activities to avoid interference with planned investigation or remedial activities.

One site close to the northern end of Segment 2 was identified as a moderate risk to the proposed project, the Boeing – Moses Lake Test Facility's PCB-contaminated soil cleanup area (Site 19). Although the records currently do

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<sup>33</sup> A borrow pit is an area where gravel or soil is removed for use at another location, often for major construction projects like highways or large buildings.

not show the full extent of the contamination, ongoing cleanup activities, which began in fall 2007, will identify it in the future.

Two sites along Alternative 2A were identified as moderate risks to the proposed project. These include the Grant County shooting range used by law enforcement officers for firearms training, and the Grant County PUD Diesel Generating Facility.

The Grant County shooting range (Site 18) is an active law enforcement training area. It is possible that lead or other heavy metals that become pulverized during the discharge of a firearm may be encountered in soils. In addition, this site was used during the active era of the Larson Air Force Base, and it is unknown what, if any, chemicals may have been used or disposed of there.

The Grant County PUD Diesel Generating Facility (Site 16) has soils that contain petroleum compounds typically found in diesel fuel. This site may also have underlying groundwater contamination. The extent of any soil contamination is not known.

### **Segment 3**

No hazardous materials sites were identified along Segment 3.

## **Land Use**

### **How was the land use study area defined?**

For the purposes of the land use analysis, the study area was defined as the area within 0.25 miles from the centerline of the proposed corridor. The study area is intended to capture the rail corridor and adjacent areas that could be affected by the proposed project.

Information on existing and planned land use was gathered through review of maps, aerial photography, preliminary engineering drawings, and comprehensive plans and zoning for Grant County and the City of Moses Lake. The project team reviewed the following comprehensive plans and community codes and ordinances:

- Grant County Zoning Map and Geographic Information System (GIS) data;
- Grant County Zoning Code;
- Grant County International Airport Master Plan;
- City of Moses Lake Zoning Map and GIS data;
- City of Moses Lake Municipal Zoning Code; and

- City of Moses Lake Comprehensive Plan.

The project team conducted a windshield survey on August 21, 2007, to view current land use along the project corridor, and interviewed staff members at the City of Moses Lake to verify the data. In addition, information was collected using GIS maps, aerial photographs, preliminary maps of the proposed rail line, Grant County public records and tax assessor's information, and the 2006 feasibility study.<sup>34</sup>

### **What are the existing land uses in the project area?**

The majority of land in the study area is zoned for industrial uses; however, much of the land is currently used for agricultural purposes. Crops observed in the study area included onions, corn, beans, and alfalfa. Other existing land uses in the study area include residential and commercial. Grant County is served by the Moses Lake Municipal Airport and GCIA, both of which are located in the vicinity of the proposed project.

### **What are the planned land uses in the study area?**

Land uses in the study area are regulated by the City of Moses Lake and Grant County. Both jurisdictions have approved zoning ordinances and comprehensive plans that identify land uses planned for the future.<sup>35 36</sup>

In the study area, land in the City of Moses Lake is zoned for the following uses: Heavy and Light Industrial, General Commercial, Public, and Rural Urban Reserve. The Rural Urban Reserve zoning designation is given to areas that are transitioning from rural to urban uses. Several parcels in the study area near Segment 2 and Alternative 2A are owned by the Port of Moses Lake and are designated specifically as the GCIA zone, which is intended to maintain and enhance aviation-compatible industries.

A small island within Parker Horn (in the corridor for Segment 1) is zoned for Conservation to protect water quality while encouraging recreational uses of Moses Lake. The shoreline of Parker Horn is protected by the *City of Moses Lake Shorelines Management Master Plan*.<sup>37</sup> This plan applies to shoreline areas within 200 feet of the Ordinary High Water Mark (OHWM), and places special restrictions on construction practices to protect shorelines.

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<sup>34</sup> WSDOT. *Northern Columbia Basin Railroad Project Feasibility Study*. February 2006. <http://www.wsdot.wa.gov/freight/images/Northern%20Columbia%20Basin%20Railroad%20Project%20Feasibility%20Study.pdf>.

<sup>35</sup> City of Moses Lake Comprehensive Plan 2002 Amendment.

<sup>36</sup> Grant County Municipal Code Title 23 Zoning (current ordinance December 2006).

<sup>37</sup> The City of Moses Lake is in the process of updating the 1988 Shorelines Management Master Plan. The updated version of the plan, which will be called the Shoreline [sic] Management Master Plan, would likely apply if the proposed project is constructed.

The existing rail line (Segment 3) passes between Longview Elementary School, which is located approximately 190 feet to the north, and the Longview neighborhood, which is located to the south (RP 5). The closest residence in the Longview neighborhood is 45 feet from the existing rail line. The Longview neighborhood is located within the city limits of Moses Lake and is zoned for Single and Multi-Family Residential uses, which allow for four to eight dwelling units and six to fifteen dwelling units per acre, respectively.

Land in the County's jurisdiction is zoned for Urban Commercial, Urban Heavy Industrial, Industrial Park, Urban Residential, Urban Residential 2, and Rural Residential. The Millerville neighborhood, at the western end of Segment 1, is located in unincorporated Grant County and is zoned by the County as Rural Residential 3.

### **Does the study area include any agricultural lands considered prime, unique, or of state or local significance?**

Farmlands defined as prime, unique, or of state or local significance are protected by federal and state legislation. Soils are categorized and evaluated by the Natural Resources Conservation Service (NRCS).

According to the City of Moses Lake and Grant County, there are no agricultural lands that are considered prime, unique, or of long-term significance located within the study area.<sup>38, 39</sup> There is no land in the study area zoned for agricultural use by either the City of Moses Lake or Grant County. There are several parcels in the study area that are currently farmed for crops such as onions, corn, beans, and alfalfa; these parcels are primarily zoned for Light or Heavy Industrial, Commercial, or Rural Urban Reserve uses by either the City or the County.

On August 20, 2008, the NRCS concurred with the determination that no prime or unique farmlands or farmlands of long-term significance are present in the project corridor.

## **Noise and Vibration**

### **How was the noise and vibration study area defined?**

The study area for the noise and vibration analysis included all potential sensitive receptors (e.g., schools, libraries, hospitals, residences, retirement communities and nursing homes) residential and institutional properties within 750 feet of the proposed rail corridor. This distance takes into account all potential sensitive receptors for a train traveling at 25 mph, including horn noise.

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<sup>38</sup> City of Moses Lake Comprehensive Plan 2002 Amendment.

<sup>39</sup> Grant County Municipal Code Title 23 Zoning (current ordinance December 2006).

Existing noise was estimated by conducting several measurements in the proposed project area as part of a site visit on August 13, 2007. The measurements consisted of one 16-hour measurement (Alma Road) and three 30-minute measurements, one along each of the three project segments. The sites were chosen to be representative of populated areas in the study area.

### **What are the existing noise and vibration levels in the project area?**

Sound amplitude is expressed in decibels (dB), which is a logarithmic scale that compresses the wide range of pressure amplitudes that humans can hear to a more manageable range. Environmental noise is almost always characterized using the A-weighted sound level in decibels (dBA). A-weighted noise-monitoring equipment “hears” similarly to how humans perceive sounds of low to moderate magnitude. The letter “A” indicates that the sound has been filtered to reduce the strength of the very low and very high-frequency sounds, much as the human ear does. If the noise readings were taken without the A-weighting noise-monitoring equipment, the results would include the noises that are out of human hearing range.

Short-term measurements taken at three sites (Cherokee Road NE, Randolph Road NE, and Miller Drive NE) within the study area indicated that there are relatively low existing noise levels throughout the project corridor. Background noise levels were typically in the 35 to 40 dBA range. The primary noise sources are intermittent traffic on local roads and occasional over-flights by aircraft from the GCIA or the Moses Lake Municipal Airport.

Building occupants rarely experience perceptible vibration from external sources unless the building is near a construction site, a mining operation where blasting is used, or a rail line. Although vehicular traffic always generates vibration, the vibration is usually below the threshold of human perception unless the roadway has potholes, wide expansion joints, or other significant surface irregularities. Existing train traffic along Segment 3 is the only source of perceptible vibration in that area, and that there are few perceptible sources of vibration along the other segments of the proposed project.

## **Social Elements and Environmental Justice**

The economic setting and demographics of an area provide indicators of local and regional economic strength, population trends, and population characteristics. For the social elements and environmental justice analysis, the project team reviewed the population and income characteristics of the project area and vicinity and considered potential environmental justice effects of the proposed project on low-income and minority populations. In addition, the analysis included a review of social elements, such as community cohesion, recreation, and public services and the potential project-related impacts on those elements.

## How was the social elements study area defined?

The social elements study area was defined as the area within 500 feet of the proposed right of way, based on an assessment of the project area; the location of existing residences, schools, parks and other social elements; and review of similar rail projects. For the environmental justice study area, the study area was larger and boundaries were matched to the areas for which census data was available. Census block group data was used to define the boundaries for low-income populations and census block level data was used to define the boundaries for minority populations.

Information was collected from aerial photographs, computer-aided design (CAD) and GIS maps, local sources, and the project Technical Memoranda and Reports.

The project team used 2000 U.S. Census block group and block level data to assess population, minority, and income characteristics in the study area. Demographics for Grant County were also reviewed. "Census block groups" are geographic subdivisions of counties, with population within the block group typically ranging from 600 to 3,000 people. The study area included seven block groups.

Residential areas and neighborhoods within the proposed project area were identified by reviewing municipal zoning, comprehensive plans, and aerial photographs, as well as through communication with both Grant County and the City of Moses Lake. The project team conducted site visits on August 21 and August 27, 2007, to view proposed segment locations and neighborhoods within the study area. Information about local services was obtained from the two local governments. Additional minority data was obtained from the National Center for Education Statistics.

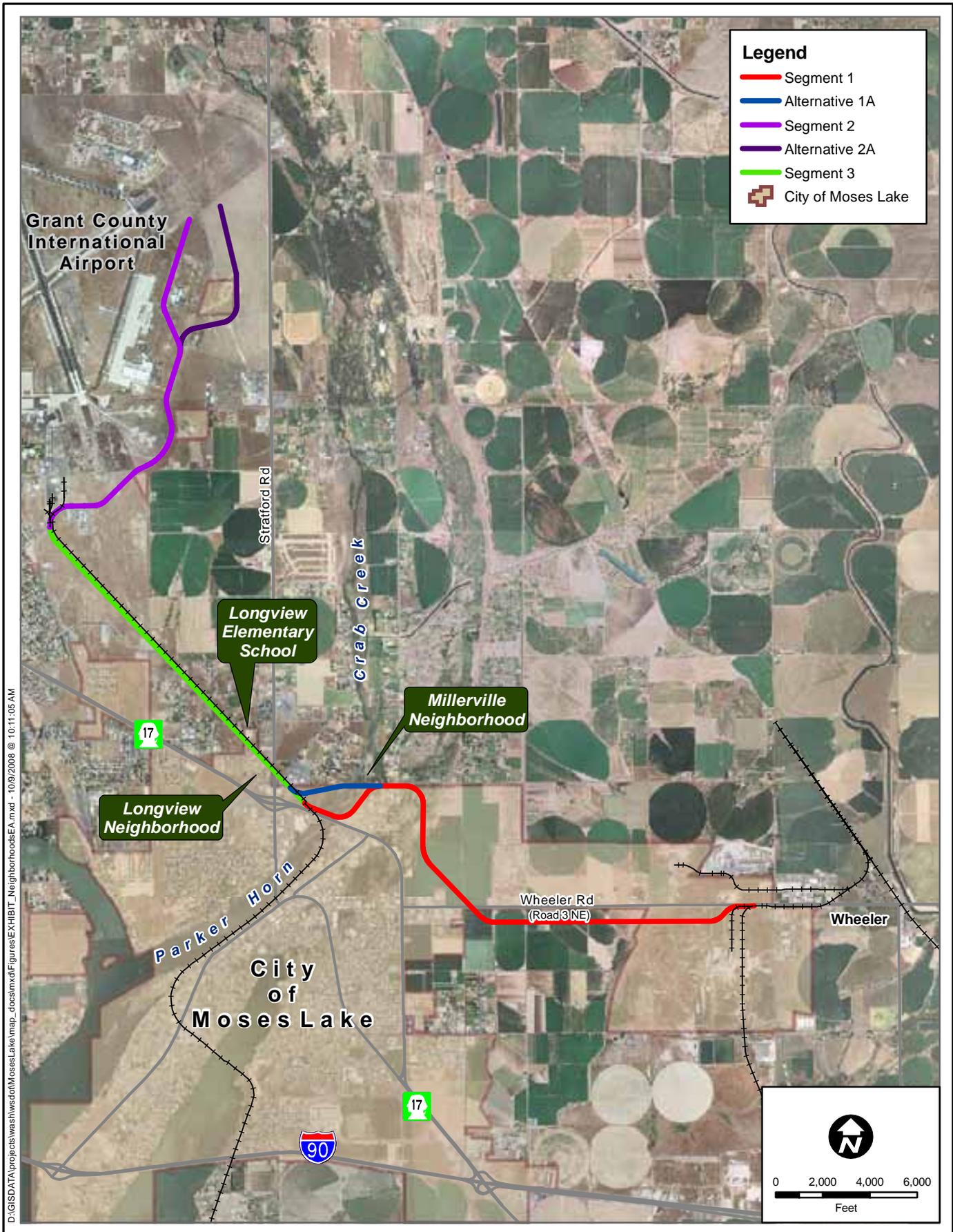
## What are the characteristics of the neighborhoods in the study area?

The City of Moses Lake covers 10.2 square miles and averages 1,758 persons per square mile. The population of the City of Moses Lake grew 54 percent between 1990 and 2006, increasing from 11,235 to 17,272 people. In 2007, the city's population was 17,932.<sup>40</sup>

As shown on **Exhibit 4.6**, there are two neighborhoods within 500 feet of the proposed right of way. The Millerville neighborhood is located directly north of Road 4 NE (Cherokee Road) and north of proposed Segment 1 and Alternative 1A. The Longview neighborhood is located directly adjacent to the existing rail alignment along Segment 3. No other residences are found within 500 feet of the right of way.

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<sup>40</sup> City Data.com, Detailed Profile for Moses Lake, Washington, Population, July 2007. Accessed at: [http://www.city-data.com/county/Grant\\_County-WA.html](http://www.city-data.com/county/Grant_County-WA.html)



## What are the existing economic conditions in the study area?

Data in this section is derived from government and local sources including the U.S. Census Bureau, Economic Census, U.S. Department of Labor (DOL), Washington State Employment Security Department (ESD), Washington State Office of Financial Management (OFM), and the Grant County Economic Development Council.

### Housing

According to the 2000 U.S. Census, there were 6,263 housing units in the City of Moses Lake, of which 90 percent were occupied. The total number of housing units increased by 35 percent from 1990 to 2000, and occupied units increased by 31 percent in the same time period.<sup>41</sup>

### Employment

The most recent data from the ESD indicate that the total number of jobs in the City of Moses Lake increased by 22.1 percent from 2001 to 2006, an annual rate of 4.4 percent.<sup>42</sup> However, the total number of firms decreased by 2.3 percent.

According to the DOL, the unemployment rate has gone down considerably since 2000. As illustrated in **Exhibit 4.7**, the unemployment rate has been dramatically decreasing since 2002. In 2000, the unemployment rate was 7.7 percent. In 2002, it peaked at 9.5 percent and continues to decrease. As of 2007, the unemployment rate for the Moses Lake Micropolitan Statistical Area<sup>43</sup> (consisting of all of Grant County) was 5.8 percent, which is 1.3 percentage points higher than the state of Washington as a whole at 4.5 percent. As of September 2008, unemployment in the Moses Lake Micropolitan Statistical Area was 5.3 percent.<sup>44</sup>

### Major Employment Industries

According to 2000 U.S. Census data, 6,358 people were employed in the City of Moses Lake. Employment in the educational, health, and social services sector dominated the labor market, encompassing 22.2 percent of the employed

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<sup>41</sup> U.S. Census Bureau. 2000. <http://www.census.gov>.

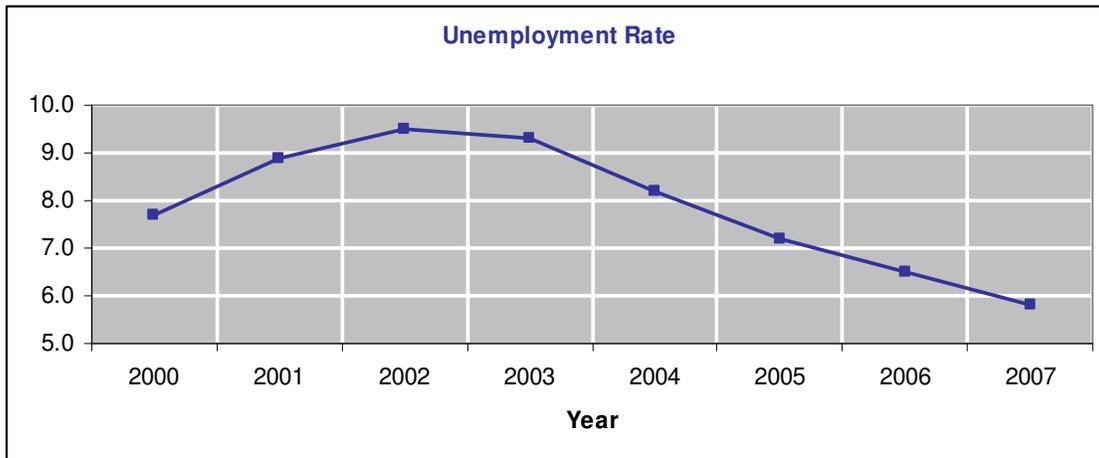
<sup>42</sup> Washington State Employment Security Department, Labor Market and Economic Analysis. 2006 . *Workforce Explorer*. <http://www.workforceexplorer.com/>. U.S. Census Bureau. 2002. *2002 Economic Census*. [http://factfinder.census.gov/servlet/DatasetMainPageServlet?\\_program=ECN&\\_submenuId=datasets\\_4&lang=en](http://factfinder.census.gov/servlet/DatasetMainPageServlet?_program=ECN&_submenuId=datasets_4&lang=en).

<sup>43</sup> The Moses Lake Micropolitan Statistical Area is composed of Grant County and is defined by Washington OFM as follows: A micro area contains an urban core of at least 10,000 (but less than 50,000) population. Each metro or micro area consists of one or more counties and includes the counties containing the core urban area, as well as any adjacent counties that have a high degree of social and economic integration (as measured by commuting to work) with the urban core.

<sup>44</sup> Washington State Employment Security Department. 2008. <http://www.workforceexplorer.com> *Resident Labor Force and Employment in Washington State and Labor Market Areas*. October 21, 2008.

labor force in the City of Moses Lake. Manufacturing was the second leading industry, capturing 18 percent of the labor market. By 2002, manufacturing grew to be the leading industry, employing 23 percent of the workers in the City of Moses Lake (2002 Economic Census).<sup>45</sup> The same pattern occurs today with the expansion of manufacturers such as REC Silicon and the construction of a 620,000 square-foot facility by Guardian Fiberglass, Inc. (creating 209 total jobs).

**Exhibit 4.7**  
**Unemployment Rate for the City of Moses Lake**  
**(Micropolitan Statistical Area)**



Manufacturing and educational, health, and social services remain the base of the City of Moses Lake’s economic well-being. Also contributing to the economic stability of the area are sectors such as retail trade (12 percent), arts and entertainment (9.1 percent), transportation (6.1 percent), professional services (6 percent), wholesale trade (5.6 percent), and agriculture (5.3 percent). The government employs 17.9 percent of the labor force in the City of Moses Lake.

### Income

Personal income statistics are a critical indicator of an area’s output and economic stability. Data from the U.S. Census indicate that, from 1990 to 2000, personal income in the City of Moses Lake increased by a total of 51.8 percent, or at an annual rate of 5.2 percent. Per capita income for the City of Moses Lake was \$16,644, compared with \$15,037 for Grant County, in 1999 dollars, according to 2000 U.S. Census data.<sup>46</sup>

<sup>45</sup> U.S. Census Bureau. 2002. *2002 Economic Census*. [http://factfinder.census.gov/servlet/DatasetMainPageServlet?\\_program=ECN&\\_submenuId=datasets\\_4&\\_lang=en](http://factfinder.census.gov/servlet/DatasetMainPageServlet?_program=ECN&_submenuId=datasets_4&_lang=en).

<sup>46</sup> U.S. Census Bureau. 2000. <http://www.census.gov>.

Median household income data are based on U.S. Census data for household income and earnings for 1989 and 1999, as reported in 1990 and 2000. Median income in the City of Moses Lake increased by a total of nearly 57 percent, from \$23,258 in 1989 to \$36,467 in 1999. In 2000, the median household income in the City of Moses Lake was comparable to Grant County's median of \$35,276 and 26 percent lower than Washington State's median at \$45,776. By 2006, median income in the City was \$38,200, approximately 37 percent lower than the state's median income of \$52,583.<sup>47</sup>

### **Are there any Environmental Justice Communities in the area of the proposed project?**

Executive Order (EO) 12898,<sup>48</sup> *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, requires federal agencies to consider whether their actions would have a disproportionately high and adverse impact on minority or low-income populations.

Along the existing line (Segment 3), Longview neighborhood residences are found as close as 45 feet from the existing line. In Segment 1 and Alternative 1A (Millerville), the closest residence is 210 feet from the proposed line. In Segment 2 and Alternative 2A, no residences are found within 500 feet of the proposed right of way.

### **Minority Populations**

The total minority population comprises approximately 24 percent of the population within the study area<sup>49</sup> (**Exhibit 4.8**). This compares to roughly 23 percent within the City of Moses Lake and 24 percent in Grant County.

According to the 2000 U.S. Census, approximately 24 percent of the population of the census tracts and block groups within the study area identified themselves as Hispanic (persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race); this compares to 25 percent in the City of Moses Lake, and 30 percent in Grant County.<sup>50</sup> However, when the census data is broken down into block groups, the Longview neighborhood, located south of the existing Segment 3 alignment, contains approximately 65 percent Hispanic persons in the total neighborhood population, and only 2.2 percent other minority composition.

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<sup>47</sup> City Data.com, City of Moses Lake, Washington. Available at <http://www.city-data.com/city/Moses-Lake-Washington.html>

<sup>48</sup> The STB, as an independent regulatory agency, is not legally bound by Executive Orders; nevertheless, the STB makes every effort to comply with the intent of applicable Executive Orders for projects subject to its authority.

<sup>49</sup> U.S. Census Bureau, Census Block Group data. 2000. <http://www.census.gov>

<sup>50</sup> U.S. Census Bureau, Census Block Group data. 2000. <http://www.census.gov>

**Exhibit 4.8  
Population and Minority Characteristics**

<b>Geography</b>	<b>Race</b>	<b>Population</b>	<b>Percent</b>
<b>Project Area</b>	White	6,341	75.8%
	Black or African American	222	2.7%
	American Indian and Alaska Native	121	1.4%
	Asian	127	1.5%
	Native Hawaiian and Other Pacific Islander	4	0.0%
	Other	1,553	18.6%
	Total Population	8,368	100.0%
	<b>Total Non-white Population</b>	<b>2,027</b>	<b>24.2%</b>
	<b>Total Hispanic or Latino</b>	<b>2,026</b>	<b>24.2%</b>
<b>City of Moses Lake</b>	White	11,537	77.2%
	Black or African American	253	1.7%
	American Indian and Alaska Native	152	1.0%
	Asian	214	1.4%
	Native Hawaiian and Other Pacific Islander	10	0.1%
	Other	2,787	18.6%
	Total Population	14,953	100.0%
	<b>Total Non-white Population</b>	<b>3,416</b>	<b>22.8%</b>
	<b>Total Hispanic or Latino</b>	<b>3,800</b>	<b>25.4%</b>
<b>Grant County</b>	White	57,174	76.5%
	Black or African American	742	1.0%
	American Indian and Alaska Native	863	1.2%
	Asian	652	0.9%
	Native Hawaiian and Other Pacific Islander	53	0.1%
	Other	15,214	20.4%
	Total Population	74,698	100.0%
	<b>Total Non-white Population</b>	<b>17,524</b>	<b>23.5%</b>
	<b>Total Hispanic or Latino</b>	<b>22,476</b>	<b>30.1%</b>

Source: 2000 U.S. Census, Block Group data, SF1, Table P7 except for Hispanic or Latino populations, where Table P8 was used.

Note: Total non-white population does not include the Hispanic race alone; therefore, Hispanics are combined with "other." Including the Hispanic or Latino category would be double-counting the population.

The only school located within the study area is Longview Elementary School, which is located approximately 190 feet north of the existing rail line (Segment 3) near RP 5. To the south of the school is the Longview neighborhood, which is within the school district boundary. Accordingly, elementary students from the Longview neighborhood are likely to attend Longview Elementary School.

The Longview neighborhood and Longview Elementary School are separated by the existing rail line, Segment 3. The school population is approximately 40 percent Hispanic and 13.5 percent of the school's students are enrolled in the Migrant Education Program<sup>51</sup> for children of migrant workers. One measurement of minority status in school districts is the number of students served in language assistance programs (e.g., English as a Second Language, High Intensity Language Training, bilingual education). The Moses Lake School District averages 59 students enrolled in the language assistance program per school.<sup>52</sup> Based on that average, approximately 11 percent of the students at Longview Elementary School are enrolled in the language assistance program.

Census Tract 9808, Block Groups 1 and 2, encompass the western portion of Segment 3 (the existing rail line) and all of Segment 2 and Alternative 2A. Both block groups indicate areas of minority populations above 50 percent. This is significantly higher than the minority population of 24 percent within the overall study area, 23 percent within the City of Moses Lake, and 24 percent in Grant County.

### **Low-income Populations**

Low-income populations are identified based on median household income relative to the poverty threshold for the area. According to the U.S. Department of Health and Human Services, poverty is defined by comparing the total family income with the poverty threshold. The poverty threshold for both the state of Washington (average household size of 2.53) and Grant County (average household size of 2.91) is \$16,600. The 2000 Census indicates that 2,221 people live below the poverty level in the City of Moses Lake, and 1,163 people located in census block groups adjacent to the study area live below the poverty level. **Exhibit 4.9** provides a summary of poverty status in the study area, City of Moses Lake, and Grant County.

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<sup>51</sup> A child who qualifies for the Migrant Education Program is any child who has moved across school district lines within the last three years to accompany or join a parent or guardian who has moved to seek or obtain temporary or seasonal work.

<sup>52</sup> U.S. Department of Education, National Center for Education Statistics. 2007. <http://nces.ed.gov/ccd/districtsearch/index.asp>. Accessed December 19, 2007.

**Exhibit 4.9  
Poverty Status Summary**

Geography	Population	Below Poverty Threshold	Percent Below Poverty Threshold
Project Area	7,001	1,163	16.6%
City of Moses Lake	14,661	2,221	15.1%
Grant County	73,591	12,809	17.4%

Source: 2000 U.S. Census, Block Group, SF3

Block Groups 1 and 2 of Census Tract 9808 encompass the western portion of the existing alignment, Segment 3, and all of the proposed Segment 2 and Alternative 2A. These block groups include roughly 30 percent low-income households. This is significantly higher than the low-income population of 16.6 percent for the study area as a whole, 15 percent for the City, and 17.4 percent for the County. More than half the student population in Longview Elementary School has applied for the National School Lunch Program,<sup>53</sup> which offers reduced price and free meals for eligible low-income households.

**Are parks, recreational resources, public schools, or emergency medical facilities located in the project area?**

There are no designated parks or recreational facilities located within 500 feet of the right of way.

There are no emergency or medical facilities located in the study area. Many of these facilities are located southeast of the study area in the Moses Lake city center, including the following:

- The Samaritan Hospital;
- The Moses Lake Community Health Center;
- The City of Moses Lake Fire Department (2 stations); and
- The City of Moses Lake Police Department.

The study area is also served by the Grant County Fire Department, District No. 5.

The project area is served by the Moses Lake School District, which has more than 7,000 students. The only school located within the study area is Longview Elementary School, serving kindergarten through fifth grade. The

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<sup>53</sup> The National School Lunch Program includes meals at reduced prices and free meals. As outlined by the U.S. Department of Agriculture guidelines, income eligibility for an average household size of 2.6 (the average household size in the City of Moses Lake) is an annual income of \$25,327 (reduced price meal) and \$17,797 (free meal). Students enrolled in the Migrant Education Program are also eligible.

school had an enrollment of 517 students in 2007.<sup>54</sup> Longview Elementary School is located approximately 190 feet north of the existing rail line (Segment 3) (**Exhibit 4.6**).

## Soils and Geology

### How was the geology and soils study area defined?

This section describes existing geological and soil conditions in the project area. For the purposes of this analysis, the geology and soils study area was defined as the area within 100 feet of the centerline of the proposed project corridor.

Information was collected from published sensitive area, soil survey, geologic, and topographic maps; from previous geotechnical and environmental consultant reports; and from recent aerial photographs.

Subsurface information was obtained from WSDOT, the Port of Moses Lake, and the City of Moses Lake. Other information sources included the following:

- *Engineering Report: Process Water Land Application System, Port of Moses Lake, Moses Lake, Washington.*<sup>55</sup>
- Pile driving records for the State Route 17 (SR 17) temporary construction bridge over Parker Horn.
- *Report of Soils Investigation, Proposed Alder Street Bridge, Moses Lake, Washington.*<sup>56</sup>
- *A Preliminary Evaluation of Soils at a Proposed Crossing of Parker Horn, Moses Lake, Grant County, Washington.*<sup>57</sup>
- Various WSDOT soils reports, including reports for the following:
  - SR 171 East Pioneer Way to Moses Lake.
  - SR 171 Moses Lake Vicinity – Alder Street Intersection.
  - SR 17 South Pioneer Drive to Wheeler Road (Road 3 NE).

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<sup>54</sup> U.S. Department of Education, National Center for Education Statistics. 2007. <http://nces.ed.gov/ccd/districtsearch/index.asp>.

<sup>55</sup> Cascade Earth Sciences, Ltd. *Engineering Report, Process Water Land Application System, Port of Moses Lake, Moses Lake, Washington.* Spokane, WA. May 7, 1998.

<sup>56</sup> Dames and Moore. *Report of Soils Investigation, Proposed Alder Street Bridge, Moses Lake, Washington.* July 8, 1957.

<sup>57</sup> George Maddox & Associates. *A Preliminary Evaluation of Soils at a Proposed Crossing of Parker Horn, Moses Lake, Grant County, Washington.* November 3, 1978.

- SR 17 Wheeler Road (Road 3 NE) Intersection.
- SR 17 Stratford Road to Larson Air Force Base.
- Field notes related to SR 17 and Broadway to Road 4 NE (Cherokee Road) water main extension by the City of Moses Lake (2001).
- *Superfund Fact Sheet, Moses Lake Wellfield Contamination, Skyline Water System.*<sup>58</sup>

The project team conducted two field visits to the study area on August 15 and September 4, 2007, to assess surface conditions, geologic hazards, and likely subsurface conditions.

### **What are the general surface conditions of the project area?**

Central Washington ground surface topography is characterized by several broad basins and flat, open areas separated by ridges and transected by stream channels and flat-bottomed coulees, which are dry, braided channels formed by glacial drainage. The project area is contained in one such broad basin, the Quincy Basin. The boundaries for the Quincy Basin are the Frenchman Hills on the south, the Columbia River on the west, and uplands on the north and east.

The project area contains several subtle scabland tracts, which are features that have been scoured and modified by glacial meltwater rivers and floods. One such scabland tract is occupied by Crab Creek, which crosses the study area.

The study area is predominantly underlain by sand and gravel except where the project crosses Parker Horn. There the proposed alignment is underlain by relatively fine-grained sand and silt.

Surface water and groundwater in the project area are controlled primarily by soil and bedrock conditions, as well as ground surface topography. The topography across most of the project area is gently rolling, and the soils are coarse-grained and permeable. Rather than flowing overland and forming streams, most precipitation falling in the vicinity of the project area infiltrates directly into the highly pervious soils. Two streams are found within the study area: Crab Creek, which flows into Moses Lake at the north end of Parker Horn; and Stream C, which flows in a roadside ditch within the right of way for SR 17.

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<sup>58</sup> USEPA (U.S. Environmental Protection Agency). *Superfund Fact Sheet, Moses Lake Wellfield Contamination, Skyline Water System*. EPA Region 10. July 2002.

## Are geologic hazards present in the project area?

Earthquakes and volcanic activity are known to occur in the project vicinity. The rate of earthquake activity in the study area is moderate to low. The principal source of volcanic activity in the project vicinity is the Cascade Mountain Range, located more than 90 miles from the project area. The nearest active fault is the Frenchman Hills Fault, located approximately seven miles south of the Moses Lake area.<sup>59</sup>

## Traffic and Transportation

### How was the traffic study area defined?

The study area for the traffic analysis is generally the length of the Build Alternative between the east end of Segment 1 (RP 0) and the north end of Segment 2 and Alternative 2A (RP 11), including the streets that cross the alignment. Where cross streets intersected with SR 17, those intersections were also examined. SR 17 itself was not evaluated in the traffic study.

Relevant roadway traffic volumes in the study area were obtained from the City of Moses Lake and Grant County. The City of Moses Lake provided average daily traffic volumes for 2006. Grant County provided average daily traffic volumes for 2007.

### What are traffic conditions in the project area?

The existing rail line (Segment 3) crosses six roads:

Kinder Road NE	Maple Drive NE
Wenatchee Drive NE	Loring Drive
Stratford Road NE	Forbes Road NE

There are existing grade crossing signals and gates located at Stratford Road NE and Loring Drive. There are no signals or gates at Kinder Road NE, Wenatchee Drive NE, Maple Drive NE, and Forbes Road NE; those crossings are marked with crossbuck signs only.

Average daily road traffic volumes range from 960 to 1,700 cars per day on most streets in the study area. Volumes on Stratford Road near SR 17 are higher, with average daily traffic volumes of over 13,000 cars per day. The average daily traffic volumes are summarized in **Exhibit 4.10**.

Many of the streets within the study area are minor roadways, for which traffic counts are not available.

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<sup>59</sup> Lidke, D.J. (compiler). *Fault Number 561s, Frenchman Hills Structures, Frenchman Hills Fault*. In Quaternary Fault and Fold Database of the United States: U.S. Geological Survey website, <http://earthquakes.usgs.gov/regional/qfaults>. 2002. Accessed November 2007.

**Exhibit 4.10**  
**Average Daily Traffic Volumes**

Location	Year of Count	Average Daily Traffic Volume***
Road L NE	2007	1,560
Wheeler Road (Road 3 NE)*	2006	13,180
Road K NE	N/A	N/A
Kinder Road NE	N/A	N/A
Wenatchee Drive NE	N/A	N/A
Stratford Road NE**	2006	13,180
Maple Drive NE	N/A	N/A
Loring Drive	N/A	N/A
Forbes Road NE	N/A	N/A
Randolph Road (east of 22nd Ave)	2007	1,700
Turner Road NE	N/A	N/A
Graham Road NE	N/A	N/A
Tyndall Road NE	2007	960
Randolph Road (north of Road 7)	2007	1,300

\* 300 feet west of SR 17

\*\* 100 feet north of SR 17

\*\*\*Traffic counts were provided by the City of Moses Lake (2006 data) and Grant County (2007 data). Counts are averaged over road segments.

N/A = not available.

Traffic delays at railroad at-grade crossings were calculated based on the queuing theory equations from *Traffic Flow Fundamentals*.<sup>60</sup> The hourly delay calculation takes into consideration several parameters including train frequency, train blockage time, hourly traffic volume, and traffic departure capacity. Based on factors including train frequency and road traffic volumes, the hourly delay calculation estimates the delay time that drivers will experience if they are stopped at a railroad crossing. The estimated delay time resulting from a freight train is 70 seconds, starting from the first warning and the lowering of the crossing gate, to the completion of the gate's rise after the train has passed. Due to the seasonal nature and low numbers of freight trains currently using the existing track, trains do not block area roads on a regular basis. Occasionally, in the eastern part of the study area at the eastern end of Segment 1, trains on the existing rail line can cause delays as they move to and from existing track around Wheeler Road (Road 3 NE) and Road 0 NE, but this does not occur on a regular basis.

<sup>60</sup> May, Adolf D. *Traffic Flow Fundamentals*. 1990.

## How will road traffic change in the future?

Future traffic volumes for 2010 and 2030 were predicted by applying a 3 percent annual growth rate to existing traffic volumes, as forecasted by the *Moses Lake Comprehensive Plan (Exhibit 4.11)*.<sup>61</sup> Although growth rates over the last five years have actually been occurring at a lower rate (closer to 1.7 percent based upon actual traffic counts), the project team used the higher growth rate to estimate the greatest future traffic volumes that could reasonably be expected.

**Exhibit 4.11  
Future Average Daily Traffic Volumes**

Location	2010 Average Daily Traffic Volume	2030 Average Daily Traffic Volume***
Road L NE	1,700	2,640
Wheeler Road (Road 3 NE)*	15,160	22,670
Road K NE	N/A	N/A
Kinder Road NE	N/A	N/A
Wenatchee Drive NE	N/A	N/A
Stratford Road NE**	15,160	22,670
Maple Drive NE	N/A	N/A
Loring Drive	N/A	N/A
Forbes Road NE	N/A	N/A
Randolph Road (east of 22nd Ave)	1,850	2,870
Turner Road NE	N/A	N/A
Graham Road NE	N/A	N/A
Tyndall Road NE	1,050	1,620
Randolph Road (north of Road 7)	1,420	2,200

\* 300 feet west of SR 17

\*\* 100 feet north of SR 17

\*\*\* Future traffic volumes are based on the counts provided by the City of Moses Lake and Grant County, and are averaged over road segments.

N/A = not available

## Visual Quality

### How was the visual quality study area defined?

Visual resources are the natural and human-made features of a landscape that characterize its form, line, texture, and color. This section describes the existing visual landscape within the project area and vicinity.

<sup>61</sup> City of Moses Lake. 2002. *Moses Lake Comprehensive Plan 2002 Amendment*.

The study area was defined as a corridor the length of the Build Alternative, from RP 0 at the eastern end to approximately RP 11 at the northwestern end. The width of the study area was generally 1,000 feet from the centerline of the proposed right of way, depending on the topography.

The project team identified nine viewpoints in the project area to be studied for visual quality. The viewpoints were selected based on their potential to be an area of impact or because the view was a representative example of a particular landscape type (for example, an industrial or residential area).

The study area included views experienced from Wheeler Road (Road 3 NE) on the east project boundary to the GCIA on the west project boundary. The views from the nine viewpoints spanned the foreground to background area from which the proposed rail line segments could be viewed. The location of the viewpoints is shown on **Exhibit 4.12**.

The visual character and quality of the study area was determined through site visits and review of aerial and on-site photographs. Viewer response and sensitivity was derived from interviews with City of Moses Lake Planning Department staff and comments received at the July 2007 Public Open House. The project team reviewed concept plan sheets and other planning documents to determine what changes to the visual environment would result from the proposed project.

### **What are the existing visual quality characteristics in the project area?**

The criteria used to describe the visual quality of the project study area are derived from *Visual Impact Assessment for Highway Projects*,<sup>62</sup> and consist of vividness, intactness, and unity:

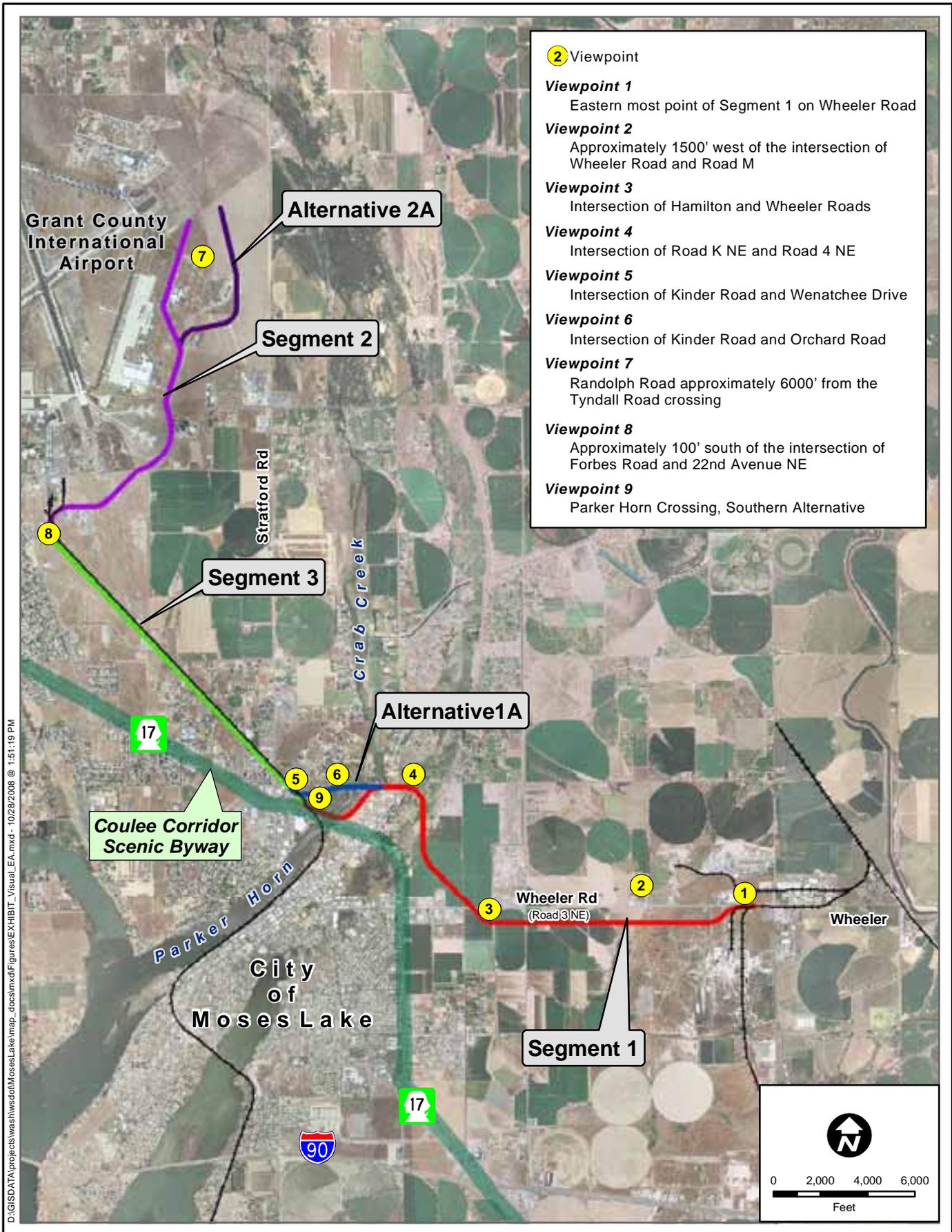
**Vividness** – The memorability of the visual impression received from contrasting landscape elements as they combine to form a striking and distinctive visual pattern.

**Intactness** – The integrity of visual order in the natural and man-built landscape, and the extent to which the landscape is free from visual encroachment.

**Unity** – The degree to which the visual resources of the landscape join together to form a coherent, harmonious visual pattern. Unity refers to the compositional harmony or inter-compatibility between landscape elements.

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<sup>62</sup> FHWA (Federal Highway Administration). *Visual Impact Assessment for Highway Projects*. 1981.



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Using these criteria, the overall existing visual quality in the study area was rated as moderately low. Dominant visual features include undeveloped or irrigated crop fields and large industrial buildings, with increasing commercial development toward SR 17. Enclaves of low-density residential development occur near the northern arms of Parker Horn.

Each of the nine viewpoints was rated for vividness, intactness, and unity.<sup>63</sup> Representative photographs are included for Viewpoint 2 (Wheeler Road), Viewpoint 4 (Road K NE and Road 4 NE), and Viewpoint 9 (Parker Horn), since those are located close to existing residences and have relatively high visual quality when compared with other views in the study area (See **Exhibit 4.13**).

### **Are there any designated scenic resources in the project vicinity?**

SR 17 is part of the Coulee Corridor National Scenic Byway. Scenic byways are roads designated by the U.S. Secretary of Transportation as distinct based on archaeological, cultural, historical, natural, recreational, and scenic qualities. The National Scenic Byways Program was established to help recognize, preserve, and enhance selected roads throughout the U.S. The Coulee Corridor National Scenic Byway traverses central Washington State in

#### **Exhibit 4.13a Viewpoint 2 (Wheeler Road)**



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<sup>63</sup> For the numeric ratings and calculation sheets, please see the Visual Quality Technical Memorandum, which may be obtained from the WSDOT Rail & Marine Office. Contact information is provided on the back of the title page.

**Exhibit 4.13b  
Viewpoint 4 (Road K NE and Road 4 NE)**



**Exhibit 4.13c  
Viewpoint 9 (Parker Horn)**



a north to south direction and includes portions of three highway routes – SR 155, U.S. Highway 2, and SR 17.

Scenic byways can be selected for their rural character and for the elements that compose the visual landscape along the roadway. In addition, SR 17 is prized for its “geological wonders,” which include canyons, cliffs, lakes, and sand dunes; its archaeological history; and prevalent avian wildlife.

Although included in the Scenic Byway designation, this urbanized segment of SR 17 along the proposed project corridor does not reflect the distinct characteristics that led the highway to be designated as a national scenic byway.

## **Water Resources**

### **How was the water resources study area defined?**

The study area extends approximately 11 miles, from RP 0 to RP 11, and includes the water bodies that cross or run parallel to the proposed rail line segments, or that may receive drainage from these water bodies. The study area also includes aquatic areas 0.5 miles downstream of where Segment 1 and Alternative 1A would cross Parker Horn or Crab Creek. The 0.5-mile limit was determined based on the potential extent of water quality-related impacts resulting from construction and operation of the proposed project.

Information was acquired through a review of basin plans, topographic and resource maps, aerial photographs, water quality studies, and agency websites. A site visit was conducted in August 2007 to assess existing drainage and water quality features.

### **What water resources are found in the project area?**

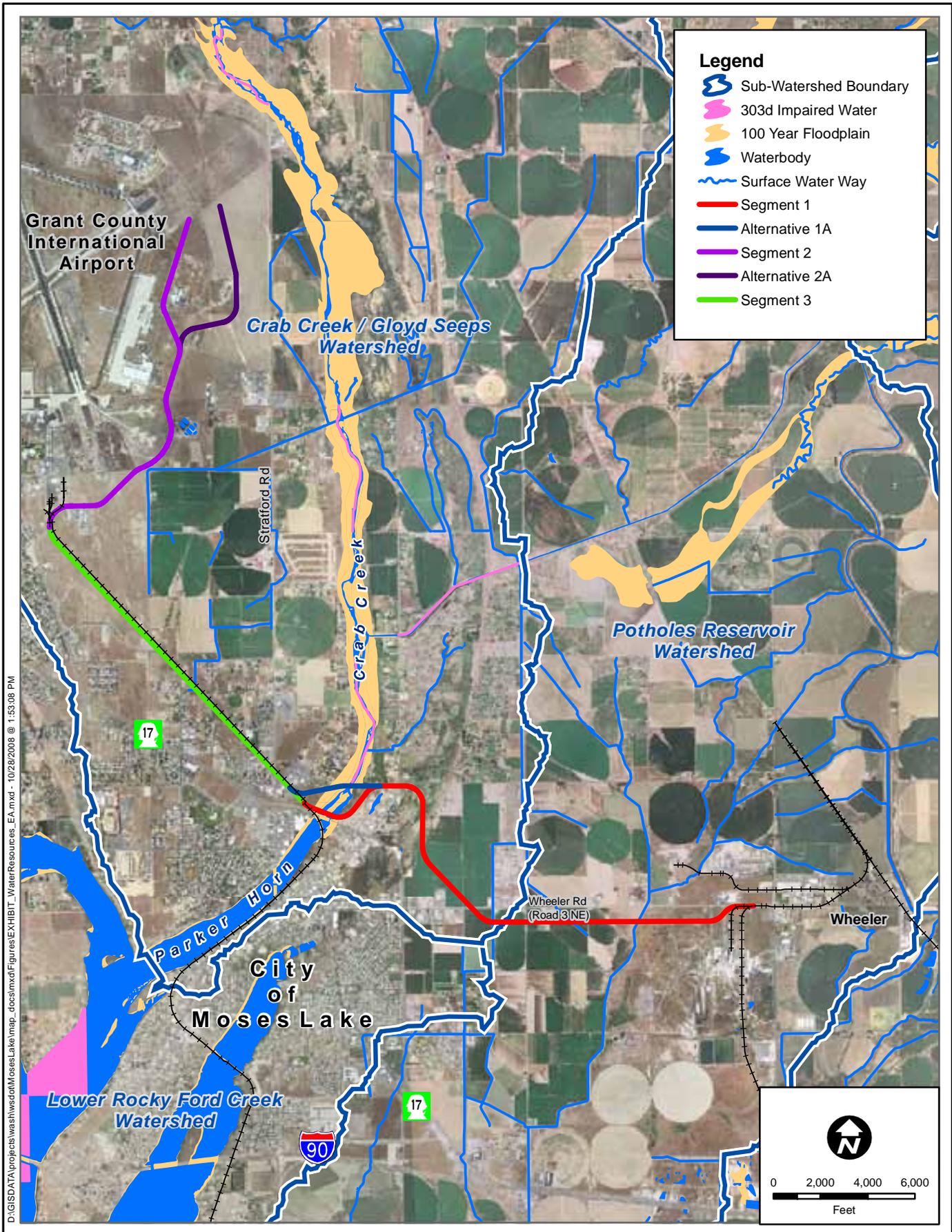
Lower Crab Creek flows southwest from Moses Lake to its confluence with the Columbia River. Upper Crab Creek originates on the northeastern Columbia River Plateau approximately three miles east of Reardan, Washington, flowing into Moses Lake at Parker Horn. The Crab Creek Watershed, which includes the project area, drains an area of approximately 4,840 square miles.

Crab Creek and Stream C are located within the study area. Stream C is a small, channelized roadside drainage ditch that parallels SR 17 to its discharge at Parker Horn, which is an arm of Moses Lake.

The study area also includes six irrigation canals and irrigation wasteways (canals that receive wastewater from the irrigation of nearby fields), as well as two drainage ditches. Most of the irrigation canals and wasteways eventually drain to the Potholes Reservoir, a 28,000-acre water body located approximately 2.5 miles south of the project area, and which drains to the Columbia River. Water resources in the study area are shown on **Exhibit 4.14**.

### **What are the characteristics of water bodies in the project area?**

Ecology monitors water quality in Washington State and has determined that Moses Lake and Crab Creek do not meet one or more water quality standards



(303(d) list).<sup>64</sup> Moses Lake has been shown to have excessive levels of total phosphorus, high pH,<sup>65</sup> and toxic parameters measured in fish tissue samples. The principal water quality problem in the lake is excessive levels of algae due to high concentrations of phosphorus. High phosphorus in the lake results primarily from agricultural practices and operations associated with the system of irrigation canals in the watershed. Crab Creek has been shown to have high temperatures, high pH, and fecal coliform bacteria.<sup>66</sup>

### **Are floodplains present in the project area?**

Floodplains in the study area are limited to the Parker Horn / Crab Creek area. There are few impervious surfaces in the study area and soils generally have high infiltration rates. Very little surface water runoff occurs except under infrequent conditions such as extreme thunderstorms or rain following snowstorms. These characteristics reduce the potential for flooding problems.

## **Wetlands**

### **How was the wetlands study area defined?**

Wetlands are biologically diverse and dynamic ecosystems that support diverse populations of fish, wildlife, and plants. Wetlands also help protect water quality by filtering out pollutants, providing natural flood control by absorbing excess water, and buffering coastal areas from erosion.

Wetlands are defined by three characteristics: wetland vegetation, wet soils, and the presence of water. Both the U.S. Army Corps of Engineers and Ecology have regulations that define how wetlands are assessed.

The wetlands study area is a 600-foot-wide corridor, with 300 feet on either side of the proposed track centerline. Prior to visiting the proposed project site, site-specific information was collected and analyzed. This information was obtained from the WDFW PHS database, Moses Lake Shorelines Management Master Plan,<sup>67</sup> U.S. Fish and Wildlife National Wetlands Inventory (NWI), U.S. Department of Agriculture Natural Resources Conservation Service soil survey, U.S. Geologic Survey quadrangle maps, technical reports previously produced by WSDOT, and aerial photographs.

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<sup>64</sup> Ecology. 2004 *Water Quality Assessment (Final) - Category 5 Listings for WRIA 41*.

[http://www.ecy.wa.gov/programs/wq/303d/2002/2004\\_documents/wria\\_pdfs-5final/kk-active-5-wria41.pdf](http://www.ecy.wa.gov/programs/wq/303d/2002/2004_documents/wria_pdfs-5final/kk-active-5-wria41.pdf).

<sup>65</sup> pH is a measure of how acidic or basic a liquid is. Low pH indicates an acid, whereas high pH indicates a base. As a water body becomes more acidic or basic, it can adversely affect the health of aquatic populations that are not adapted for those conditions.

<sup>66</sup> The presence of fecal coliform bacteria in aquatic environments indicates that the water has been contaminated with the fecal material of humans or animals.

<sup>67</sup> City of Moses Lake. 1988. *Shorelines Management Master Plan*.

The project team conducted field visits in July 2007 and August 2007. They identified and assessed wetlands and other waters of the U.S. within the study area. Accessible wetlands and other waters located within the proposed project corridor were evaluated for the presence of wetland vegetation, soils, and hydrology as described in the 1987 *Corps of Engineers Wetlands Delineation Manual*<sup>68</sup> with the 2006 *Arid West Supplement*<sup>69</sup> and the *Washington State Wetland Identification and Delineation Manual*.<sup>70</sup> The *Arid West Supplement* was used because the study area is located within the Columbia / Snake River Plateau.

Two types of analysis were performed within the study area:

- **Formal wetland delineations:** All accessible wetlands within 100 feet of either side of the project centerline were delineated and rated. Wetland boundaries were identified using Global Positioning System (GPS) equipment.
- **Wetland reconnaissance:** The approximate boundaries of wetlands located between 100 to 300 feet from the project centerline, or wetlands that were inaccessible due to private property issues, were mapped by a wetland biologist. The boundaries and ratings of these wetlands were estimated using NWI data and then verified by visiting the project area.

Descriptions of wetlands and other waters of the U.S. that could be affected by the proposed project were classified using *The Classification of Wetlands and Deepwater Habitats of the United States*.<sup>71</sup> Hydrologic, water quality, and habitat functions were evaluated using the *Washington State Wetland Rating System for Eastern Washington – Revised*.<sup>72</sup>

Ditches and canals that convey water to navigable waters with sufficient duration to be jurisdictional<sup>73</sup> were identified during the fieldwork. Other features that were determined not to be jurisdictional were investigated in the field based on aerial photo signatures or NWI data.

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<sup>68</sup> Environmental Laboratory. 1987. *Corps of Engineers Wetland Delineation Manual*. Technical Report Y-87-1. U.S. Army Waterways Experiment Station. Vicksburg, MS.

<sup>69</sup> Environmental Laboratory. 2006 *Arid West Supplement*. 2006

<sup>70</sup> Ecology (Washington State Department of Ecology). *Washington State Wetland Identification and Delineation Manual*. Publication # 96-94. Olympia, WA. 1997.

<sup>71</sup> Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. *Classification of Wetlands and Deepwater Habitats of the United States*. Fish and Wildlife Service PUBL. FWS/OBS-79/31. 1979.

<sup>72</sup> Hruby, T. *Washington State Wetland Rating System for Eastern Washington - Revised*. Washington State Department of Ecology Publication #04-06-15. 2004.

<sup>73</sup> The term “jurisdictional” applies to wetlands regulated by the U.S. Army Corps of Engineers and for which a permit would be required for any disturbance.

## What types of wetlands are found in the project area?

Six wetlands were identified in the study area, as shown on **Exhibit 4.15**. These wetlands are primarily associated with Crab Creek and Parker Horn and are located near the western end of Segment 1 and Alternative 1A. When lake levels are low and Crab Creek is flowing freely through Parker Horn, wetlands along the creek receive occasional flooding and exchange nutrients with the creek. These same wetlands also function as lacustrine (lake fringe) wetlands when water levels in Moses Lake are high, which creates a backwater effect in Crab Creek. During these times of high water, wetlands buffer shorelines and provide habitat for species associated with lake habitats.

Wetlands outside of Parker Horn and Crab Creek are associated with spring flow and groundwater discharge resulting from landscape-wide irrigation practices.

All of the wetlands in the study area were rated as Category III wetlands (moderate functional levels); wetlands are rated by Ecology and range from Category I (unique or rare, relatively undisturbed) to Category IV (low functional level). The wetlands in the project area provide flood attenuation, water quality, habitat functions, and have aesthetic value.

Wetlands in the study area are described in **Exhibit 4.16**. They are mostly emergent,<sup>74</sup> but also include small, non-native forest and scrub-shrub communities and open water. The open water area (unconsolidated bottom, no emergent vegetation) is located at Parker Horn where the channel is deeper due to water flow from Crab Creek. Many of the plant species occurring in the study area are non-native and equally adapted for both wetlands and uplands.

## Are there other water resources regulated by the U.S. Army Corps of Engineers in the study area?

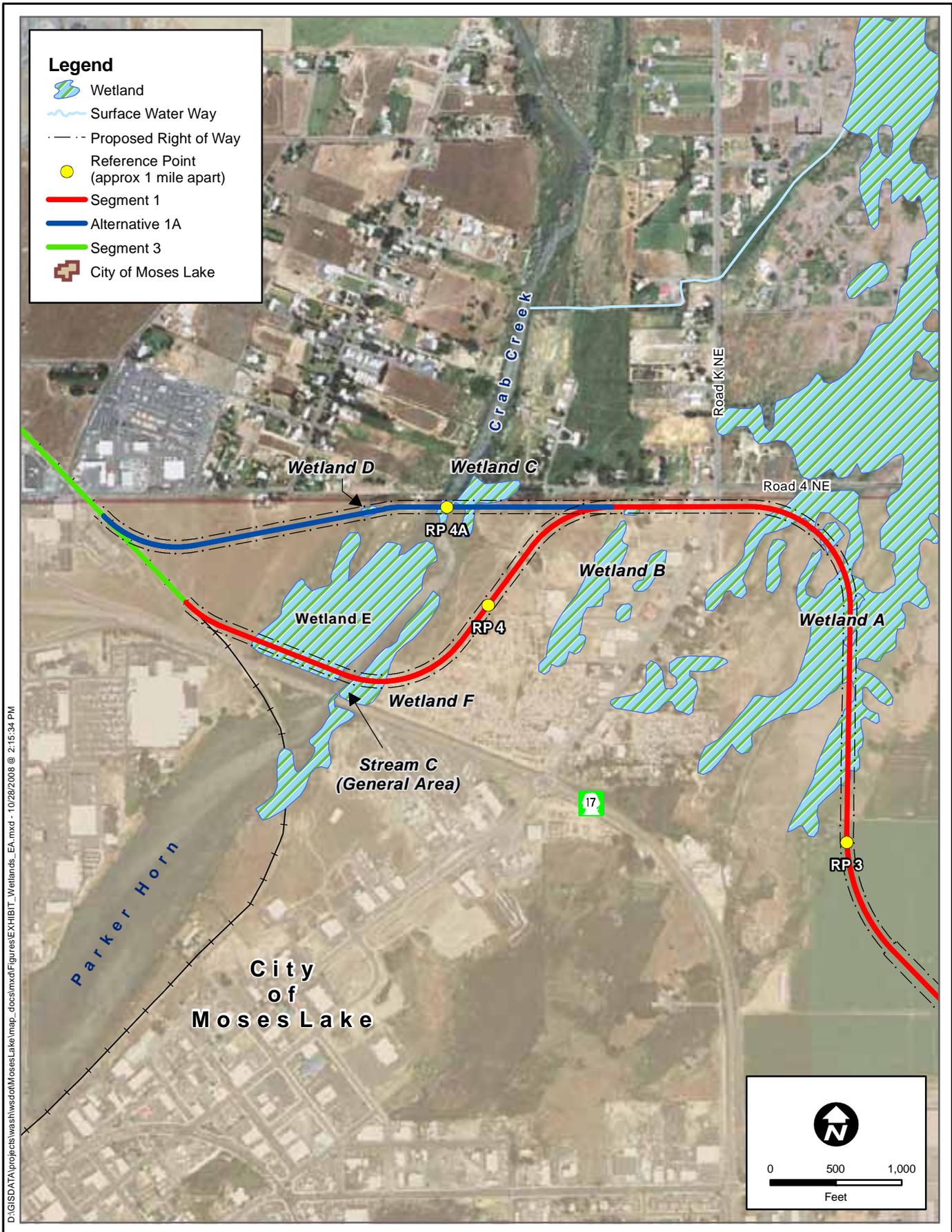
In addition to Stream C and Crab Creek, eight ditches and irrigation canals cross the study area. The ditches and canals meet the definition of “waters of the U.S.” because they convey irrigation return flows to the receiving navigable water, the Columbia River.<sup>75</sup>

Stream C is spring-fed, originating from a wetland area located southeast of the study area. During construction of improvements to SR 17, this stream was channelized in a ditch on the north side of the highway, outside the area of disturbance and outside the right of way for the Build Alternative.

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<sup>74</sup> Emergent plants are aquatic plants that have their stem, leaves, etc., extending above the surface of the water.

<sup>75</sup> There are also several roadside ditches and one area that was mapped by NWI as a wetland but found not to be one in the field. The roadside ditches are not “waters of the U.S.” as defined by the criteria of Ecology and the U.S. Army Corps of Engineers, and are therefore not evaluated in this EA.



**WETLANDS ALONG THE PROJECT CORRIDOR**  
**Exhibit 4.15**

Northern Columbia Basin Railroad Project



Crab Creek is a perennial stream that drains approximately 84 percent of the Moses Lake Watershed, including major irrigation return flows through the Rocky Coulee Wasteway. Crab Creek and the northern portion of Parker Horn contain populations of priority resident fish species such as largemouth bass, rainbow trout, and walleye. The creek flows into Parker Horn in the area of the proposed Segment 1 crossing. At the proposed Segment 1 crossing, the water body is approximately 300 feet wide. Upstream from the Segment 1 crossing, Crab Creek narrows to approximately 170 feet at the proposed crossing for Alternative 1A.

**Exhibit 4.16  
Wetlands in the Study Area**

<b>Wetland</b>	<b>Location</b>	<b>Functional Category</b>	<b>Water Source</b>	<b>Required Buffers</b>	<b>Comments</b>
A	RP 3.1-3.5	III (moderate)	Groundwater and irrigation returns	25 feet	Large on both sides of study area, heavily browsed, <sup>76</sup> current livestock use.
B	RP 3.8	Estimated III (moderate)	Groundwater and irrigation returns	Estimated 25 feet	Property owner denied access. Appears large with open water.
C	RP 4.0	Estimated III (moderate)	Crab Creek	Estimated 80 feet in shoreline area; 25 feet outside shoreline area.	Property owner denied access; located on the east bank of Crab Creek, within the Shoreline Management Area.
D	RP 4.1	III (moderate)	Groundwater	25 feet	Small, depressional. <sup>77</sup>
E	RP 4.3-4.4	III (moderate)	Crab Creek	80 feet	Includes west bank of Crab Creek within the Shoreline Management Area, Crab Creek floodplain, a high-water channel of Crab Creek, and an island that separates the high-flow channel from the primary channel.
F	RP 4.2	Estimated III (moderate)	Fluctuating lake and creek levels	Estimated 80 feet	Property owner denied access. Located on the east bank of Crab Creek. Provides habitat for northern leopard frog, Townsend's big-eared bat, and western grebe.

<sup>76</sup> To eat, nibble at, or feed on leaves, tender shoots, or other soft vegetation.

<sup>77</sup> Depressional wetlands are those that occur in an area of lowered elevation, usually supported by groundwater or springs.

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## Chapter Five Potential Environmental Impacts

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This chapter describes the potential environmental impacts associated with the proposed construction and operation of the Build Alternative. Chapter Six presents recommended mitigation measures.

Impacts have been differentiated as construction impacts, permanent physical impacts, and operation impacts. Construction impacts are usually temporary and are resolved or mitigated by the end of construction activities. Permanent physical impacts involve permanent changes to the landscape or environment as a result of project construction. Operational impacts are those that occur as a result of railroad operations or maintenance activities.

### Air Quality

#### Would the Build Alternative result in any potential impacts to air quality?

The proposed project would be constructed in Grant County, Washington, which is in attainment for all of the criteria pollutants. For this reason, the Build Alternative does not require a General Conformity Determination.<sup>1</sup>

Air quality impacts were identified by comparing the projected rail operations to the Surface Transportation Board's (STB) thresholds<sup>2</sup> for analyzing the anticipated effects of a proposed rail project on air emissions.

The air quality impact assessment conducted for the Build Alternative considered the STB's air quality impact thresholds of an increase of at least eight trains per day, an increase in rail traffic of at least 100 percent (measured in gross ton-miles annually), or an increase in rail yard activity of at least 100 percent (measured by carload activity).<sup>3</sup>

Because rail operations were estimated assuming two trains per day (one round trip) for the foreseeable future, the proposed project would not meet or exceed the STB's threshold of an increase of at least eight trains per day (the level that would require a quantitative analysis of air quality impacts). However, eventually increasing rail traffic on the existing rail line (Segment 3) to two trains per day (one round trip) would effectively increase current rail traffic by 100 percent or more; therefore, emissions from rail traffic were quantified as described below.

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<sup>1</sup> Under 40 CFR 93, Subpart A, Transportation Conformity rules apply to projects funded or approved by the Federal Highway Administration or the Federal Transit Administration. If a project is not subject to Transportation Conformity, it is then covered under General Conformity rules (40 CFR 93, Subpart B). As discussed above, the proposed project is in an attainment area for all criteria pollutants; therefore, the conformity requirements do not apply to the proposed project.

<sup>2</sup> 49 Code of Federal Regulations (CFR) 1105.7(e)(5).

<sup>3</sup> See 49 CFR 1105.7(e)(5)(A) and (B).

## Construction Effects

Construction of the Build Alternative would result in minor changes to air quality in the project area. Potential air quality impacts from rail line construction include fugitive dust from grading and cut-and-fill operations; dust from construction vehicles traveling on gravel roads; and emissions from construction vehicles and equipment.

Effects from construction activities would be short-term and localized in the immediate vicinity of the construction activity. In addition, emissions would be dispersed by wind, preventing them from becoming concentrated. Construction vehicles operating on local gravel roads could also stir dust from the roadways, but fugitive dust suppression controls such as spraying water, covering loaded trucks, and employing best management practices would minimize impacts to air quality. Accordingly, if the mitigation measures in Chapter Six are implemented, the STB's Section of Environmental Analysis (SEA) and the Washington State Department of Transportation (WSDOT) determined that the proposed construction would not cause significant air quality impacts, either locally or regionally.

## Physical Effects

There would be no physical effects to air quality as a result of the proposed project.

## Operational Effects

Rail operations can affect air quality through emissions of air pollutants from locomotive engines, including emissions of Mobile Source Air Toxics (MSATs) (compounds present in diesel fuel that are emitted to the air when the fuel evaporates or passes through the engine unburned).

The proposed rail operations were estimated assuming two trains per day (one round trip), 365 days per year, consisting of up to ten cars pulled by one locomotive operating at 25 mph. Each train would travel a round trip distance of approximately 22 miles (11 miles in each direction).<sup>4</sup> Locomotive emissions were then estimated using emission factors published by the U.S. Environmental Protection Agency (USEPA).<sup>5</sup> Under these conservative operational assumptions, annual emissions would be as follows:

- Hydrocarbons (HC) – 0.648 tons per year
- Carbon monoxide (CO) – 1.73 tons per year

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<sup>4</sup> The proposed 11.5 mile long rail route includes the acquisition of approximately 0.5 miles of existing track for which no construction or rehabilitation is planned. Through traffic would not traverse this part of the proposed line. Accordingly, this 0.5 mile segment was not included in the round trip distance used in the air quality analysis.

<sup>5</sup> U.S. Environmental Protection Agency (USEPA), Office of Transportation and Air Quality. *Technical Highlights – Emission Factors for Locomotives (EPA 420-F-97-051)*. December 1997.

- Nitrogen Oxides (NO<sub>x</sub>) – 17.51 tons per year
- Particulate matter (PM) – 0.435 tons per year

This analysis evaluated emissions from locomotives traveling along the project line. Since it is assumed that there would be a maximum of two trains per day, it is unlikely that an individual train would idle for such a period of time that emissions from idling would be substantial.

Under this operating scenario, operation of the proposed project would have a minor effect on overall air quality in the project area. Emissions associated with this volume of train traffic would be low.

While no general conformity analysis is required, the proposed implementation of the Build Alternative has the potential to increase localized concentrations of several criteria pollutants, including particulates and carbon monoxide. MSATs, including volatile organic compounds (VOCs), associated with the low volume of future train traffic would be negligible. Although VOCs are considered precursors to ozone, another criteria pollutant, the low volumes generated would not result in a significant impact.

In March 2008, the USEPA adopted more stringent emission standards for diesel locomotives, which apply to newly manufactured locomotives and re-manufactured locomotives that were originally manufactured after 1972. The USEPA estimates that the rule will cut PM emissions from these engines by as much as 90 percent and NO<sub>x</sub> emissions by as much as 80 percent when fully implemented. Implementation of these standards begins in 2008 with re-manufactured engines, and will be fully implemented by 2015. Accordingly, as these locomotives are placed into service on rail lines, it will substantially reduce locomotive emissions compared with those from locomotive engines that met the prior standards.<sup>6</sup>

## **Conclusion**

Air emissions associated with the proposed rail line construction and operation would not be expected to affect Grant County's air attainment status. The existing air quality attainment status of the region, the low volume of train traffic expected from the proposed project, and the USEPA's more stringent emission standards for diesel locomotives all indicate that the proposed project would have no significant air quality impacts. As discussed in Chapter Six, mitigation would be implemented to reduce the short-term impacts of any construction activities.

## **No Build Alternative**

Under the No Build Alternative, no rail line construction would take place. However, if the existing line (Segment 3) is rehabilitated in the future, then

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<sup>6</sup> See 40 CFR Part 92 - Control of Air Pollution From Locomotives and Locomotive Engines.

that rehabilitation could involve minor impacts to air quality. In addition, in the national rail system, rail transportation – with limited stops, lack of traffic congestion, and greater efficiency per gallon – is approximately three times more energy efficient than hauling freight by truck.<sup>7</sup> As a result, if this area is developed without the proposed project, the resulting truck traffic would likely consume greater amounts of fuel and would generate greater levels of emissions compared with moving the same amount of freight by rail.

## **Cultural, Historic, and Archaeological Resources**

### **Would the Build Alternative affect cultural, historic, or archaeological resources?**

Following initial consultations with the Washington State Department of Archaeology and Historic Preservation (State Historic Preservation Office or SHPO), 20 potentially historic resources were identified in the project area.<sup>8</sup> One of those resources, the Columbia Basin East Low Canal Feeder Canals system (specifically Canals EL20, EL20U1, and RCD 180+182) has been determined to be eligible for listing in the National Register of Historic Places (NRHP).

As explained in more detail below, the Build Alternative would not be expected to affect cultural, historic, or archaeological resources in the Area of Potential Effect (APE).

### **Construction Effects**

Construction of the Build Alternative would create noise and dust in the project area. Such temporary impacts are not expected to affect the canals because they would not diminish the characteristics of the property that make it eligible for the NRHP.

Because there are certain land parcels in the project area that the project team was unable to evaluate, the SHPO has recommended that SEA and WSDOT develop a programmatic agreement (PA) to address the proper identification, evaluation, and handling of historic, cultural, and archeological resources on these parcels. Accordingly, the project team is preparing a PA pursuant to the requirements of Section 106 of the National Historic Preservation Act, 16 U.S.C. 470f (NHPA), and SEA and WSDOT will require the Port's participation in the PA as a signatory.

Although not expected, buried cultural artifacts such as chipped or ground stone, historic refuse, building foundations, or human bone could be

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<sup>7</sup> American Association of Railroads (AAR). 2008. AAR News, *Railroad Fuel Efficiency Sets New Record*. May 21, 2008.

<sup>8</sup> As of the date of this EA, there have been no responses from any Tribes indicating concerns about cultural resources within the project area.

discovered during construction excavation. The Confederated Tribes of the Warm Springs Reservation of Oregon has requested that it be notified if ancestral remains are found. Accordingly, SEA and WSDOT have included a mitigation measure that addresses unanticipated discoveries of historic or cultural resources or ancestral remains (See Chapter Six).

## **Physical Effects**

### **Columbia Basin East Low Canal Feeder Canals: EL20; EL20 Extension, EL20U1; and RCD 180+182**

This historic resource is part of the NRHP-eligible Columbia Basin Project historic district and appears to be part of the original design of the Columbia Basin Project. As described below, the Build Alternative would not be expected to have an adverse effect on any of the three canals within the APE.

#### ***RCD (Rocky Coulee Diversion) Canal 180+182:***

The proposed project would involve the construction of a bridge across RCD Canal 180+182; no piers would be sunk into the canal and the abutments would be constructed clear of the water channel. Therefore, the proposed project would not be expected to have an adverse effect on this canal.

#### ***EL (East Low) Canal 20U1:***

The proposed project would involve construction of a culvert to allow the irrigation water in this canal to flow beneath the railroad tracks. The culvert would replace the concrete-lined canal, but because the existing concrete lining had previously altered the historic integrity of the original earth-lined canal, the proposed project would not be expected to have an adverse effect on EL Canal 20U1.

#### ***EL (East Low) Canal 20:***

The proposed project would construct a bridge to span the canal; no piers would be sunk into the canal and the abutments would be constructed clear of the channel. Therefore, the proposed project would not be expected to have an adverse effect on EL Canal 20.

## **Operational Effects**

Operation of the rail line, including vibration, would not be expected to cause adverse effects to historic resources.

## **Conclusion**

The proposed project would not be expected to have any adverse effect on historic, cultural, or archaeological resources, including the NRHP-eligible canals. However, pending completion of the Section 106 process of the

NHPA, SEA and WSDOT recommend that none of the NRHP-eligible sites in the project area be disturbed.

Because there are certain land parcels in the project area that the project team was unable to evaluate, SEA and WSDOT are preparing a PA pursuant to the requirements of Section 106 of the NHPA to ensure that cultural resources would be assessed on these parcels prior to initiation of construction. The Port would be required to participate in the PA as a signatory and will be required to adhere to the stipulations of the PA. In addition, in the event that any unanticipated historic or cultural properties, archaeological sites, human remains, funerary items, or assorted artifacts were discovered during the proposed construction activities, the Port would be required to cease work and notify the SHPO, SEA, WSDOT, interested federally-recognized Tribes, and consulting parties, if any, in order to coordinate, as appropriate, to protect those resources. (See Chapter Six, Mitigation Measures).

### **No Build Alternative**

Under the No Build Alternative, no rail line construction would take place within the project area. Accordingly, the No Build Alternative would have no adverse effect on any historic, cultural, or archaeological resources within the project area.

## **Energy**

### **Would the Build Alternative affect energy resources?**

SEA and WSDOT evaluated the potential for the proposed rail project to affect energy resources and overall energy efficiency. Energy consumption is projected to increase in the project area during the proposed rail construction activities and operations; however, as explained below, it would not be significant enough to impact regional energy supplies.

The commodities to be shipped on the proposed rail line would vary depending on the specific industries along the route and future market demand, but the applicants have indicated that commodities would likely consist of steel, manufactured parts, and specialty chemicals, such as trimethylamine. Steel is a recyclable commodity but the proposed project would have a positive impact on the transportation of steel. Accordingly, the proposed project would not be expected to have an adverse impact on the movement of energy resources or recyclable commodities.<sup>9</sup>

### **Construction Effects**

The amount of energy that would be consumed during the proposed construction was estimated by using guidelines developed by the California

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<sup>9</sup> See 49 CFR 1105.7(e)(4).

Department of Transportation (Caltrans).<sup>10</sup> Energy consumption during construction is proportional to the project's size, and is estimated at 8,430 British thermal units (BTUs) per dollar of construction cost (expressed as 2005 dollars). The preliminary cost estimate for the proposed project is approximately \$25 million in Year 2007 dollars, excluding costs for right of way acquisition and mitigation.<sup>11</sup> Using the Caltrans construction energy factor, the project team calculated that construction activity would require an estimated 2,107 million BTUs (MBTUs) of energy over the entire construction period (equivalent to 15,050 gallons of diesel fuel). This rate accounts for energy consumed in the manufacture of materials, fuel to transport those materials to the job site, and fuel to operate the on-site machinery and equipment during construction.

These temporary energy impacts resulting from the proposed construction would be relatively minor and would not significantly reduce regional energy supplies. There are sufficient energy supplies (electricity and diesel fuel) serving the project area.

### **Physical Effects**

There would be no permanent physical effects to energy other than the operational effects discussed below.

### **Operational Effects**

Energy consumption associated with projected train operations for the proposed project was predicted based on the length of track, speed, and the number of trains per day.

Trains operating along the project would travel approximately 10.6 miles if Segment 2 is selected, and approximately 11.0 miles if Alternative 2A is selected. (See Chapter Three, Exhibit 3.5). The project includes acquisition of 0.5 miles of short rail lines at the southern end of Segment 2, but these are located to the side of the proposed construction and would not be part of the "through" rail traffic from the eastern end of Segment 1 to the northern end of Segment 2. Therefore, the 0.5 miles is not included in the round trip distance used in the energy analysis. Under the Build Alternative, current train traffic is projected to increase to a maximum of two trains per day (one round trip) for the foreseeable future. Accordingly, the overall fuel consumption would be greater under the Build Alternative compared with the No Build Alternative. The project team determined that the Build Alternative would use approximately 4,650 gallons of diesel fuel per month compared with the 246 gallons that are used on the existing route (**Exhibit 5.1**). Energy consumption is projected to increase in the project area during rail operations, but would not be expected to impact regional energy supplies.

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<sup>10</sup> California Department of Transportation (Caltrans). *Energy and Transportation Systems Manual*. 1983.

<sup>11</sup> The project team notes that this cost is a preliminary estimate.

The following information was used to develop an estimate of fuel consumption by vehicles delayed by train traffic at rail crossings:

- Vehicle delay and queue length predictions for the main at-grade crossings (calculations are provided in the Traffic and Transportation section of this chapter).<sup>12</sup>

**Exhibit 5.1  
Current and Projected Energy Consumption**

Freight Train Fuel Consumption (in Gallons)			
Description	Daily	Monthly	Annually
Current Route	N/A	246	2,954
Proposed Route (if Segment 2 is selected) <sup>13</sup>	155	4,650	55,800
Proposed Route (if Alternative 2A is selected)	161	4,830	57,960

- Based on Bureau of Transportation Statistics,<sup>14</sup> gasoline engines and diesel engines consume approximately one gallon of fuel per hour while idling, depending on the size of the engine, the idle speed, and accessory loads.
- There are 28 at-grade train crossings of public streets or private driveways along the proposed route.

Delays for vehicular traffic at the proposed at-grade crossings would have negligible effect on energy consumption in the project area, since the delay would be approximately 70 seconds, twice per day for the foreseeable future.

**Conclusion**

The proposed project would not be expected to affect the movement of energy resources and it would have a positive effect on the transportation of recyclable commodities. Although current energy consumption is projected to increase in the project area during the proposed rail construction activities and operations, it would not be significant enough to impact regional energy supplies. Accordingly, no mitigation would be necessary.

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<sup>12</sup> The complete *Traffic Technical Memorandum* may be obtained from the Washington State Department of Transportation (WSDOT) Rail & Marine Office. Contact information is provided on the back of the title page.

<sup>13</sup> Because Segment 1 and Alternative 1A are the same length, the amount of fuel used would vary only with the selection of Segment 2 or Alternative 2A.

<sup>14</sup> Bureau of Transportation Statistics. *National Transportation Statistics 2006*. <http://www.bts.gov>. 2006.

## No Build Alternative

Under the No Build Alternative, there would be no rail line construction, and if the existing rail line (Segment 3) was rehabilitated in the future, impacts to energy associated with that rehabilitation would be expected to be minor.

When averaged over the national rail system, rail transportation – with limited stops, lack of traffic congestion, and greater efficiency per gallon – is approximately three times more energy efficient than hauling freight by truck.<sup>15</sup> As a result, if the area around the Grant County International Airport (GCIA) was developed without the proposed rail project, the resulting truck traffic would consume more fuel than hauling the same quantity of freight by rail.

## Fish, Wildlife, and Vegetation

### How would the project affect biological resources including fish, wildlife, and vegetation?

The project team assessed the biological resources and the potential for the Build Alternative to affect species or to otherwise modify habitat in the project area. Biological resources include vegetation and wildlife habitat, wildlife, and fish.

Construction impacts are usually temporary and are resolved or mitigated by the end of construction activity. Permanent physical impacts from the proposed rail project would be direct or indirect impacts that could result in the loss of habitat. Direct impacts to biological resources would be those caused by implementation of the proposed project and would usually be immediate and site-specific. Indirect impacts would be any reasonably foreseeable impacts that could occur as a result of the proposed project but that would occur later in time or farther removed in distance. Operational impacts involve those impacts incurred by railroad operations, including use and maintenance of the right of way.

The project team used the following evaluation criteria for assessing the potential harm or loss to biological resources:

- Harm or loss to an individual or population of species that is listed by either federal or state agencies as rare, threatened, or endangered, or is a state priority species.
- Loss or degradation of habitat, sanctuaries, refuges, use areas, or migration corridors for species that are listed by either federal or state agencies as rare, threatened, or endangered or are state priority species.

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<sup>15</sup> American Association of Railroads (AAR). 2008. AAR News, *Railroad Fuel Efficiency Sets New Record*. May 21, 2008.

## Construction Effects

The proposed construction activities, staging, and equipment turnaround areas would be contained within the project right of way to minimize habitat impacts.

The proposed construction activities have the potential to disturb fish or wildlife within the study area through either the presence of the equipment and crews or through impacts from construction noise.<sup>16</sup> Noise from construction activities could also extend outside the study area. Project activities could cause wildlife to leave the area during construction. Impacts might be less severe on populations that utilize the habitat within the project area because they may be habituated to human activity, including impacts from the construction, maintenance, and operation of SR 17. Construction impacts would be minimal for the refurbishment of the existing rail line (Segment 3).

Construction impacts, staging areas (typically 0.75 acres [32,670 square feet]), and equipment turnaround areas (typically 0.05 acres [2,200 square feet]) would be contained within the project right of way or within previously disturbed areas to minimize habitat impacts. Habitat loss could be permanent within the right of way and in construction or earthwork staging areas, if such areas had not been previously disturbed.

### **During construction, would there be any effects to rare, threatened, or endangered species?**

There would be no effects to any wildlife, fish, or plant species listed as rare, threatened, or endangered under the federal Endangered Species Act or by the state of Washington because there are no such species in the study area.

### **Would there be any effects to state priority fish species from construction?**

Degradation of water quality could adversely impact priority fish species within Parker Horn. Extremely high levels of turbidity associated with activities that could occur during project construction have been linked to stress in some species of fish.<sup>17,18</sup> Other potential effects of turbidity include reducing the levels of dissolved oxygen in the affected area, altering the suitability of spawning areas, and smothering benthic organisms<sup>19</sup> and

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<sup>16</sup> WDFW (Washington Department of Fish and Wildlife). *Priority Habitat and Species Maps and Polygon Reports for Townships T20R28E, T19R28E, and T19R29E*. August 24, 2007.

<sup>17</sup> Berg, L. and T.G. Northcote. Changes in territorial, gill-flaring, and feeding behavior in juvenile coho salmon (*Oncorhynchus kisutch*) following short-term pulses of suspended sediment. *Canadian Journal of Aquatic Sciences* 42:1410-1417. 1985.

<sup>18</sup> Servizi, J. A. and D. W. Martens. Sublethal responses of coho salmon (*Oncorhynchus kisutch*) to suspended sediments. *Canadian Journal of Aquatic Sciences* 49:1389-1395. 1992.

<sup>19</sup> Benthic organisms are macroinvertebrates (such as aquatic insects, snails, and shellfish) that live in the sediment at the bottom of a water body. Benthic organisms are an important part of the food chain and are used by scientists as an indicator of water quality and the overall health of an aquatic ecosystem.

communities.<sup>20,21,22</sup> While it is unlikely that turbidity within the proposed project area would reach such high levels, turbidity could still impact priority fish species present during construction. If the mitigation measures described in Chapter Six are implemented during construction, adverse impacts to state priority fish species would be minimized or avoided.

Petroleum-based products contain polycyclic aromatic hydrocarbons (PAHs), which can cause acute toxicity to fish at high levels of exposure and can also cause chronic lethal and acute and chronic sublethal effects to aquatic organisms.<sup>23</sup> Such impacts could occur if fuel products were accidentally spilled during construction into the aquatic environment and priority fish species or their prey were exposed to these products. Mitigation measures described in Chapter Six would help protect water quality and habitat for state priority fish.

If the proposed project required pile driving for bridge piers or abutments at the Parker Horn crossing for Segment 1 or the Crab Creek crossing for Alternative 1A, fish could be disturbed, injured, or killed by underwater sound pressure from pile driving operations. Fish might vacate the area during in-water construction activities, and any fish that did not vacate could be injured during in-water work. The potential magnitude of this impact would depend on many factors including size and number of piles driven, material used, water depth where pile driving occurred, duration of the activity, and time of year when the activity occurred.

Apart from the impacts of pile driving, disturbance impacts to aquatic species would be limited to occasions of in-water construction work, such as bridge piers and abutment construction.

Walleye are more sensitive to disturbance during the spring spawning run (April through May). Parker Horn has been recognized as an important area for walleye spawning. Therefore, as stated in Chapter Six, construction activities would be restricted at Parker Horn or Crab Creek to avoid work in the water between April 1 and May 30.

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<sup>20</sup> Martin, D. J., E. O. Salo, and B. P. Snyder. *Field bioassay studies on the tolerances of juvenile salmonids to various levels of suspended solids. Final Report, FRI-UW-7713*. Fisheries Research Institute, University of Washington, Seattle, WA. 1977.

<sup>21</sup> Carrasquero, Jose. *White Paper – Over-water structures: freshwater issues*. Prepared by Herrera Environmental Consultants. Submitted to Washington Department of Fish and Wildlife, Washington Department of Ecology, and Washington Department of Transportation. April 12, 2001.

<sup>22</sup> Mulvihill, E.L., C.A. Francisco, J.B. Glad, K.B. Kaster, and R.E. Wilson. *Biological impacts of minor shorelines structures on the coastal environment: State of the art review. Volume II, data printout. FWS/OBS-77/51*. Prepared by BEAK Consultants, Inc., Portland, Oregon, with O. Beeman, for National Coastal Ecosystems Team, Office of Biological Services, Fish and Wildlife Service, U.S. Department of the Interior. 1980.

<sup>23</sup> Neff, J. M. Polycyclic aromatic hydrocarbons. In: Rand, G.M., Petrocelli, S.R. (eds.): *Fundamentals of aquatic toxicology, methods and applications*. Hemisphere Publishing Corporation (McGraw-Hill International Book Company), Washington, DC. pp. 416-454. 1985.

## Would there be any effects to priority wildlife species from construction?

Visual or auditory disturbance could adversely affect the following state priority species: bald eagles (*Haliaeetus leucocephalus*), burrowing owls (*Athene cunicularia*), Yuma myotis (*Myotis evotis*), Townsend's big-eared bat (*Corynorhinus townsendii pallescens*), northern leopard frog (*Rana pipiens*), western grebe (*Aechmophorus occidentalis*), great blue heron (*Ardea herodias*), and mink (*Mustela vison*).

Bald eagles, a state sensitive species and a federal species of concern, winter in the area of Parker Horn, which is where the Segment 1 crossing would be located and, to a lesser extent, bald eagles may winter in the area of Crab Creek, which is where the crossing for Alternative 1A would be located. Alternative 1A is approximately half a mile upstream from Parker Horn. Any construction activities within 400 feet of a winter roosting site during the wintering season between October 31 and March 31 could disturb bald eagles utilizing Parker Horn.<sup>24</sup> The associated stress and forced activity could result in reduced health and reduced foraging success for affected bald eagles.

Burrowing owls in the area of Segments 1, Alternative 1A, 2 and Alternative 2A could be disturbed by construction activities that occurred within 0.5 miles of their nesting sites between February 15 and September 25. Disturbance could cause owls to vacate the area, and reproductive success of individuals nesting within construction sites is significantly lower than individuals nesting nearby.<sup>25</sup>

Construction noise could cause Yuma myotis and Townsend's big-eared bats to vacate any roosts located near construction activities. Foraging would not likely be affected because bats are nocturnal and would forage at night when construction would not normally take place. If any nursery sites were present within the project area, they could be affected by construction activities from April 1 to September 15.<sup>26</sup>

Northern leopard frogs could be affected by temporary ground disturbance during construction activities for the bridge and in the wetland areas of Segments 1 and Alternative 1A. These activities could cause frogs present in the project area to vacate the area immediately surrounding construction. If the proposed construction activities took place during the winter hibernation season, any northern leopard frogs hibernating within aquatic habitats

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<sup>24</sup> Watson, J.W. and E.A. Rodrick. Bald Eagle. In E. Larsen, J. M. Azerrad, N. Nordstrom (eds.): *Management Recommendations for Washington's Priority Species. Volume IV: Birds*. pp. 9-1 – 9-15. Washington Department of Fish and Wildlife, Olympia, WA. 2000.

<sup>25</sup> Nordstrom, N. 2003. *Burrowing Owl*. In E. Larsen, J. M. Azerrad, N. Nordstrom (eds.): *Management Recommendations for Washington's Priority Species. Volume IV: Birds*, pp. 23-1 – 23-6. Washington Department of Fish and Wildlife, Olympia, WA.

<sup>26</sup> Woodruff, K. and H. Ferguson. *Townsend's big-eared bat*. In E. Larsen, J. M. Azerrad, N. Nordstrom (eds.): *Management Recommendations for Washington's Priority Species. Volume V: Mammals*, pp. 1-13. Washington Department of Fish and Wildlife, Olympia, WA. 2005.

impacted by the proposed project would not vacate the area and could be killed or injured by fill placement or in-water work.

Construction noise could cause foraging grebes, herons, and mink to leave the area of disturbance. The proposed project area is not the only suitable foraging habitat for great blue heron in the area and is outside of the area of most intensive usage by breeding great blue herons. Any disturbance to great blue herons would likely cause them to seek other suitable foraging areas. Project construction could have similar effects to western grebes and other avian species that utilize the area for foraging. If the proposed construction activities took place during the nesting season for these species, the impacts to foraging habitat could result in reduced reproductive success, such as smaller clutches or nestlings not successfully fledging.

Because the proposed project would have the potential to disrupt or impact certain vegetation, habitat, and wildlife in the project area, SEA and WSDOT incorporated mitigation measures, including restrictions on when construction activities could take place, to minimize or avoid potentially adverse impacts to state priority species and their habitats (See Chapter Six).

## **Physical Effects**

### **How would the Build Alternative permanently affect habitat?**

In terrestrial habitats, the majority of habitat loss would occur in current or fallow agricultural fields or in areas of degraded former shrub-steppe habitat. These areas have limited value as habitat and their loss would not be significant.

Both Segment 1 and Alternative 1A would cross aquatic habitat and adjacent moist site (riparian and wetland) vegetation, as listed in **Exhibit 5.2**. For both Segment 1 and Alternative 1A, the bridge itself would be located over water, and would cover aquatic habitat. Over-water and in-water structures, such as bridges, can degrade aquatic habitat by modifying flow hydraulics and sediment transport. Over-water structures can also have shading impacts, which can degrade aquatic habitats.

In Segment 1, the bridge over Parker Horn would be 16 feet wide and a total of 865 feet long, with 21 spans either 35 or 45 feet long. Of the 21 piers, 19 would be in the floodplain, with 14 of those in the water area of Parker Horn. Stormwater falling on the bridge would be collected within the bridge; it would not be allowed to run off the bridge and would not flow directly into Parker Horn.

**Exhibit 5.2**  
**Habitat Loss at Parker Horn or Crab Creek**

Habitat Type	Segment 1	Alternative 1A
Moist Site Vegetation (wetland and riparian)	0.86 acre	0.52 acre
Aquatic Habitat (direct loss – fill)	0.57 acre	none
Aquatic Habitat (indirect loss – beneath bridge)	0.07 acre	0.04 acre
Overwater shading	0.08 acre or less	0.08 acre or less

Note: includes bridge and approaches

Alternative 1A was developed in part to reduce the impacts associated with the bridge length, the number of piers in the floodplain, and water and wetland impacts. In Alternative 1A, the bridge over Crab Creek would be 16 feet wide and a total of 475 feet long, with 11 total spans either 35 or 45 feet long. Ten piers would be in the floodplain, with four of those in the active channel of Crab Creek. As with the bridge in Segment 1, stormwater falling on the bridge in Alternative 1A would be collected within the bridge and conveyed to treatment facilities (ditches) on either side of Crab Creek.

Construction of the proposed crossing for Alternative 1A would impact a substantially smaller area than construction of the proposed crossing for Segment 1 because Crab Creek is less than half as wide as Parker Horn.

**How would the Build Alternative permanently affect sensitive plants?**

Piper’s daisy is the only state sensitive plant that might grow in the vicinity of the study area, at the east end of Segment 1. None were found during field investigation by the project team in June 2007. Because the existing habitat is already heavily disturbed, it was determined that any loss of habitat for Piper’s daisy as a result of the proposed project would not be significant.

**How would the Build Alternative permanently affect priority fish?**

Aquatic and riparian habitat loss would adversely impact priority fish species within the project area by removing areas used by priority fish and their prey species for foraging, rearing, or spawning. Additionally, the loss of heavily utilized walleye spawning habitat in Parker Horn would have an adverse impact on the local population of the species. Loss attributable to the project would be only a small part of the overall walleye spawning habitat in Parker Horn. Suitable habitat for foraging, spawning, and rearing would still be available and accessible within the proposed project vicinity, and the impact,

although adverse, would not be significant. Chapter Six includes a measure to restrict any in-water construction to avoid walleye spawning season.

### **How would the Build Alternative permanently affect sensitive wildlife?**

Both Segment 1 and Alternative 1A would cause the loss of riparian, aquatic, and wet meadow habitat in the vicinity of Parker Horn or Crab Creek. Both Segment 1 and Alternative 1A would result in the loss of wet meadows just to the east, particularly Wetland A, which provides habitat to the northern leopard frog. Approximately 4.13 acres of Wetland A would be affected by direct and indirect effects resulting from the proposed project. Other wetlands along the project corridor are farther away from the Parker Horn and Crab Creek riparian and aquatic areas and would not provide the same type of riparian and aquatic habitat as Wetland A (See Wetlands section later in this chapter). Northern leopard frogs could reasonably be expected to use wet meadow habitat in either Segment 1 or Alternative 1A, and habitat loss could have an adverse effect on individuals in the project area. This would require mitigation for wetland effects (discussed in further detail in the Wetlands section and in Chapter Six).

Degradation of water quality could also adversely impact any northern leopard frogs present within Parker Horn or Crab Creek. This frog is identified as a highly aquatic species, and deterioration in water quality, especially as tied to urban runoff, has been identified as playing a major role in the decline of the species.<sup>27</sup> To prevent potential impacts to leopard frogs, the bridge for either of the alternatives would be designed to prevent fluid leakage and runoff from entering Parker Horn.

The Washington Department of Fish and Wildlife (WDFW) expressed concerns regarding the burrowing owl, and loss of habitat used by burrowing owls for foraging and nesting would occur due to the proposed project. The loss of habitat due to human activity is one of the major limiting factors for burrowing owls, and the direct loss of a burrow could have a substantial adverse impact on individuals in the project area.<sup>28</sup> Two such burrows in the study area, active during the WDFW's last survey,<sup>29</sup> are near the project right of way in Segment 1 and Alternative 1A and could be destroyed by project activities. Although owls were not seen near Segment 1 or Alternative 1A during field visits, an owl was observed within the study area for Segment 2 near the GCIA. The loss of any foraging habitat could also reduce the fitness and survival of burrowing owls in the area of Segment 1, Alternative 1A,

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<sup>27</sup> Nordstrom, N. 1997. *Northern Leopard Frog*. In E. Larsen, J. M. Azerrad, N. Nordstrom (eds.): Management Recommendations for Washington's Priority Species. Volume III: Amphibians and Reptiles, pp. 5-1 to 5-10. Washington Department of Fish and Wildlife, Olympia, WA.

<sup>28</sup> Nordstrom, N. 2003. *Burrowing Owl*. In E. Larsen, J. M. Azerrad, N. Nordstrom (eds.): Management Recommendations for Washington's Priority Species. Volume IV: Birds, pp. 23-1 – 23-6. Washington Department of Fish and Wildlife, Olympia, WA.

<sup>29</sup> WDFW. 2007. *Priority Habitat and Species Maps and Polygon Reports for Townships T20R28E, T19R28E, and T19R29E*. August 24.

Segment 2, or Alternative 2A. Accordingly, to minimize or avoid potential impacts to nesting burrowing owls, SEA and WSDOT are recommending that any construction work within 0.5 miles of the nesting sites be restricted during the time period between February 15 and September 25. In addition, the Port could minimize disturbance to wildlife by restricting construction activities to the smallest area possible within the right of way (See Chapter Six).

### **Would the Build Alternative affect migration corridors, refuges, and/or sanctuaries in the study area?**

Crab Creek connects Moses Lake with the Gloyd Seeps Wildlife Area, which is located approximately five miles to the north of Moses Lake. The Build Alternative would not have a direct effect on the Gloyd Seeps Wildlife Area. Nevertheless, the project would decrease the amount of habitat available and establish new disturbances to wildlife that use the project area for survival or as a migratory corridor between the Gloyd Seeps Wildlife Area and Moses Lake.

### **Operational Effects**

Noise and visual disturbance impacts could occur during track maintenance and train operations. These impacts would be similar to the impacts associated with construction noise and disturbance. Some species could become somewhat accustomed to long-term disturbance impacts.

Wildlife could also be killed or injured if struck by a train. The risk of this is low because trains are expected to operate up to 25 miles per hour and trains would produce noticeable noise and vibration during their approach, allowing many animals to avoid the hazard.

### **Conclusion**

The proposed project would not be expected to result in any adverse impacts to federally-listed threatened and endangered species or critical habitats. On August 28, 2008, SEA and WSDOT submitted a letter to the U.S. Fish and Wildlife Service requesting a concurrence with this determination.

The proposed project does have the potential to adversely affect several state priority species: bald eagles, burrowing owls, Yuma myotis, Townsend's big-eared bat, and northern leopard frog. However, through design measures and the implementation of mitigation measures recommended by SEA and WSDOT in Chapter Six, these impacts would be minimized or avoided.

Construction of the proposed crossing for Alternative 1A would impact a substantially smaller area than construction of the proposed crossing for Segment 1 because Crab Creek is less than half as wide as Parker Horn. Alternative 1A would therefore have fewer impacts on biological resources.

## No Build Alternative

Under the No Build Alternative, there would be no rail line construction within the project area. Therefore, there would be no construction-related impacts to vegetation and wildlife habitats, wetlands, or special status species.

Impacts from current rail operations include existing visual and auditory disturbance to any wildlife in the vicinity, which could lead to periodic avoidance of the area by sensitive species. Wildlife could also be struck and killed by a train in operation, although this would be unlikely due to the slow speed (10 mph) of the trains operating on the existing tracks. Maintenance activities and the potential rehabilitation of the existing rail line (Segment 3) would not be expected to result in significant wildlife, plant, or habitat impacts.

## Hazardous Materials

### How would the Build Alternative affect hazardous materials sites or the transportation of hazardous materials?

The project team evaluated the proposed project, as well as known and potential hazardous materials sites in the project area, to determine if the Build Alternative would have any of the following effects:

- Increase in generation or release of hazardous waste.
- Increase in quantity of hazardous materials transported.
- Potential disturbance of existing hazardous materials sites.

## Construction Effects

### Segment 1 and Alternative 1A

The potential for the proposed construction of Segment 1 or Alternative 1A to disturb existing hazardous materials sites was identified at Site 11 (see **Exhibit 4.5**) on the southwest corner of Broadway and Road 4 NE (Cherokee Road) (Grant County Parcel Number 170543000, owned by Bernard Cattle Company). The project proposes excavation in the general vicinity of this site that could be as deep as 12 feet (see **Exhibit 5.6**). Therefore, this site could pose a risk to construction workers on the project. SEA and WSDOT recommend additional investigation of the Bernard Cattle Company site, and coordination with the USEPA and Ecology (see Chapter Six).

Construction of Segment 1 (but not Alternative 1A) has the potential to affect one additional site: the Grant County Road District No. 2 facility (Site 5, **Exhibit 4.5**) located on the south side of Wheeler Road (Road 3 NE) (between RP 1 and RP 2). The project proposes excavation in the general vicinity of the Grant County Road District No. 2 facility of up to five feet deep (see **Exhibit 5.6**). This site could pose a risk to construction workers on the project.

Therefore, SEA and WSDOT recommend additional investigation of the Road District site and coordination with the USEPA and Ecology (see Chapter Six).

### **Segment 2 and Alternative 2A**

Because the alignments for Segment 2 and Alternative 2A lie within the bounds of the Moses Lake Wellfield Superfund site, the potential exists for the proposed project to impact two hazardous materials sites identified along this segment. The two sites that pose a high risk to both Segment 2 and Alternative 2A are located along Randolph Road: the Randolph Road Base Dump (Site 14A, **Exhibit 4.5**), and the Paint Hangar Leach Pit (Site 14B, **Exhibit 4.5**). The project proposes excavation in the area of Site 14A as deep as six feet, and in the area of 14B of up to seven feet deep. Therefore, these sites could pose a risk to construction workers.

Coordination with the U.S. Environmental Protection Agency's (USEPA's) Superfund office is recommended for any construction activities to prevent interference with planned investigation or remedial activities. In addition, construction specifications for any areas located on the west side of Randolph Road where cuts are planned should include provisions for worker health and safety, along with sampling and appropriate disposal of potentially contaminated soils.

In the vicinity of the Boeing polychlorinated biphenyl cleanup area located on Tyndall Road close to the northern end of Segment 2 (Site 19, **Exhibit 4.5**), the project proposes excavation up to 8.5 feet deep. This site could pose a risk to construction workers. SEA and WSDOT recommend that coordination with USEPA and Ecology (see Chapter Six).

For Alternative 2A, the Grant County Public Utility District Diesel Generating Facility located on Tyndall Road NE (Site 16, **Exhibit 4.5**) and the County shooting range located east of Randolph Road that is used by law enforcement officers for firearms training (Site 18, **Exhibit 4.5**) could be disturbed by the project. Proposed excavation in the area around the Diesel Generating Facility is up to 11 feet deep, and in the area around the County shooting range could also be up to 11 feet deep. These hazardous materials sites could pose risks for construction workers. For both sites, implementation of the mitigation measures recommended in Chapter Six would minimize potential risks and adverse impacts associated with disturbing hazardous materials sites during construction.

### **Segment 3**

No hazardous materials sites were identified in Segment 3.

## Physical Effects

Effects related to existing hazardous materials sites would occur primarily from disturbance during the construction phase of the project and are discussed above. If the mitigation measures in Chapter Six are implemented, the proposed project would not have any long-term impacts related to existing hazardous materials sites.

## Operational Effects

The commodities to be shipped on the proposed rail line would be determined in the future by market demand, but the applicant has indicated that commodities could include steel, manufactured parts, and specialty chemicals, such as trimethylamine. If hazardous materials or chemicals were shipped over the proposed line, it is possible that an accidental release could occur. According to statistics compiled by the U.S. Department of Transportation-Federal Railroad Administration (FRA) and analyzed by the Association of American Railroads, hazardous materials transported by railroad are much less likely to be involved in an accidental release than hazardous materials transported by truck. Analysis found that despite roughly equal amounts of ton-mileage (about 110 billion ton-miles in 2003), railroads had hazardous material incidents equal to about six percent of such incidents related to truck transport.<sup>30</sup>

The Port and the rail line operator would coordinate to put in place contingency plans in the event of a hazardous materials release related to emergencies, such as derailments and natural disasters. The plans would identify personnel who would respond to any incidents in the project area involving the actual or potential accidental release of hazardous materials. In addition, the plans would be circulated to police and firefighting service providers in Grant County. (See Chapter Six, Mitigation Measures).

## Conclusion

Construction activities associated with implementation of the proposed project have the potential to impact known sites of contamination, and hazardous materials might be shipped over the line. However, implementation of mitigation measures, such as coordination with the USEPA and preparation of emergency response plans, would help avoid or minimize potential risks and adverse impacts associated with encountering or disturbing hazardous materials.

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<sup>30</sup> U.S. Department of Transportation, Pipeline & Hazardous Materials Safety Administration. Hazardous Materials Incidents By Year & Mode, from <http://hazmat.dot.gov/pubs/inc/data/10yearfrm.htm> for 1995 through 2004. USDCO, 2002 Commodity Flow Survey (CFS), Table 1a for truck ton-mi. FHWA Highway Statistics. ICC/STB Waybill Sample for rail ton-miles. In 2003, trucks hauled an estimated 110 billion ton-miles of hazardous materials, while railroads also hauled an estimated 110 billion ton-miles of hazardous materials.

## **No Build Alternative**

Under the No Build Alternative, no rail line construction would take place. Therefore, any existing hazardous materials sites would not be disturbed and impacts would not be anticipated.

## **Land Use**

### **How would the Build Alternative affect land uses?**

Typically, land use impacts due to the construction of any rail line result from land acquisition for the right of way. In addition, impacts may occur to properties adjacent to the right of way due to such things as restriction of land access.

The Build Alternative would result in the following direct effects to existing land uses: acquisition of land to accommodate the proposed improvements to the rail corridor; relocation of a commercial property; changes in existing land uses; and extension, realignment, and reconstruction of small segments of area roadways.

The project team considered the following criteria to assess the Build Alternative's potential to impact land uses:

- Interference with the normal functioning of adjacent land uses.
- Consistency and/or compatibility with local land use plans and policies.
- Permanent loss of any farmland of prime, unique, or state or local significance.

## **Construction Effects**

Impacts to land use as a result of the proposed construction activities would be expected to be minimal and involve the temporary use of land for such activities as construction easements. In addition, there might be temporary inconveniences to adjacent land uses from dust, noise, or construction traffic. The proposed construction activities would be consistent with current land use plans and policies for the study area. Although some of these activities might impact lands currently being used for agricultural purposes, there are no lands zoned for agricultural use in the study area.

## **Physical Effects**

### **What physical effects would the Build Alternative have on existing land uses?**

The project would be located within three miles of the GCIA and the Moses Lake Municipal Airport. The project would not construct any structures that would be taller than existing buildings in the airport area, and would not

interfere with airport operations. The Federal Aviation Administration requires notification of proposed construction to ensure that any construction not adversely affect airport operations.

Right of way would need to be acquired for the portions of the rail line where new track construction is proposed (Segment 1, Alternative 1A, Segment 2, and Alternative 2A). Accordingly, the Build Alternative would have permanent physical impacts on existing land uses along any of those segments, since acquisition of the right of way would require the permanent use and conversion of land. The Port also plans to acquire Segment 3 from CBRW; however, there would be no change to land use on that segment. For all segments, the rail line would be located within a 100-foot-wide right of way, with one exception at the west end of Segment 1, where the ground is steeper and the right of way would need to be widened to 120 feet so all grading could be contained within the right of way.<sup>31</sup>

Properties that would be converted from their current use as the result of acquisitions along the proposed line include agricultural, retail trade/general merchandise, residential, aircraft transportation, government services, and undeveloped/unused property. Details of these conversions are discussed below. Land acquisitions would change the use of the lands acquired and might affect how the property owners used remaining portions of the parcels or adjoining properties. No residences would be acquired by the proposed project. The conversion of land uses of any acquired properties would be consistent with current land use plans and policies for the study area.

### **How much land would be needed for the Build Alternative?**

As stated above, land would need to be acquired for the portions of the rail line where new track construction is proposed (Segment 1, Alternative 1A, Segment 2, and Alternative 2A).. Because Segment 1 and Alternative 1A are the same length, the total acreage required would be the same for that portion of the project. Because Segment 2 is approximately 0.4 mile shorter than Alternative 2A, the total acreage required for Alternative 2A would be greater than for Segment 2. As stated above, the Port plans to acquire Segment 3 from CBRW. The estimate of acquisitions required for the proposed project was based on a review of parcel information, geographic information system data, aerial photos, and the alignment of the proposed rail line.

**Exhibit 5.3** provides a summary of parcels that would be affected by right of way acquisition. Segment 1 would be expected to require the acquisition, in total or in part, of 21 separate tax lots, for a total acquisition of approximately 55 acres. Alternative 1A, if selected, would be expected to require the acquisition, in total or in part, of 19 separate tax lots, for a total acquisition of

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<sup>31</sup> For analytical purposes, the project area for land use impacts was identified as the proposed right of way.

approximately 55 acres. Several property owners own multiple tax lots in the affected area.

Segment 2 would be expected to require the acquisition, in total or in part, of 17 separate tax lots, for a total acquisition of approximately 38 acres. Alternative 2A, if selected, would be expected to require the acquisition, in total or in part, of 18 separate tax lots, for a total acquisition of approximately 45 acres. Several property owners own multiple tax lots in the affected area.

**Exhibit 5.3**  
**Summary of Parcels Affected by Right of Way Acquisition**

<b>Alternative</b>	<b>Number of Parcels Affected</b>	<b>Approx. Acres Acquired</b>
Segment 1	21	55
Alternative 1A	19	55
Segment 2	17	38
Alternative 2A	18	45

**Would any businesses or residences need to be relocated?**

Relocation along Segment 1 would be projected for one commercial enterprise, which is a small cattle operation called Cows R Us. Accessory structures such as storage trailers and sheds on four other properties<sup>32</sup> along Segment 1 would also likely be displaced. No relocations would be projected along Segments 2 or 3. As stated above, no residences would be affected by land acquisition.

Where land acquisition would cause the relocation of business activities on the properties, the extent of this impact would be considered in the relocation services and payments made under the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (42 U.S.C. 4601 et seq).

**Would the project affect any farmland of prime, unique, or state or local significance?**

No farmland of prime, unique, or state or local significance is found in the study area. The Natural Resources Conservation Service concurred with this determination on August 20, 2008. (See Appendix A.)

In addition, there is no land zoned for agricultural use in the study area. As discussed in more detail below, conversion of land used for agricultural purposes to other uses is anticipated by the City of Moses Lake and Grant

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<sup>32</sup> Potentially affected accessory structures are located on Grant County Parcel numbers 190479000, 190481000, 170543000, and 170543000.

County regardless of whether this proposed project is approved and implemented.

### **Is the Build Alternative in conformance with land use plans and policies of the City of Moses Lake and Grant County?**

The purpose of the Build Alternative is to promote economic development in the Moses Lake area by attracting new rail-dependent businesses to those areas designated for industrial development. Such development could result in changes to existing land uses in the study area. For example, land currently used for agricultural purposes could change to industrial uses. Much of the land in the study area is currently used for growing crops; however, most of the land in the project area is zoned for industrial uses. Increased development of industrial uses in the study area would be consistent with City and County land use plans and policies.<sup>33, 34</sup>

The Build Alternative would involve some in-water work and potential impacts to shorelines along Parker Horn for Segment 1 or Crab Creek for Alternative 1A. Both crossings would be designed to comply with the City of Moses Lake Shorelines Management Master Plan, as well as state and federal regulations and/or permitting requirements.

### **Operational Effects**

The proposed rail operations would not conflict with existing land uses in the study area. The proposed project would provide rail service to land zoned for industrial uses along Segments 1 and 2 (or Alternative 2A), which is consistent with City and County land use plans and policies. Alternative 1A is an alternate bridge crossing and would not change the location of the majority of Segment 1 with respect to zoning.

The existing track at the southeast end of Segment 3 passes between Longview Elementary School, which is located to the north of the track, and the Longview neighborhood, which is located to the south of the track (near RP 5). The Longview neighborhood is located within the Moses Lake city limits and is zoned for Single and Multi-Family Residential uses. The portion of the existing track passing between the residential area and the school poses a safety concern, in part because train speeds on the rail line would increase from 10 mph to 25 mph. Accordingly, the railroad safety program, Operation Lifesaver, would be used to educate the community, specifically students at Longview Elementary School, about railroad safety issues. Mitigation measures to address safety concerns are discussed in Chapter Six, Mitigation Measures.

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<sup>33</sup> City of Moses Lake. 2002. *Moses Lake Comprehensive Plan 2002 Amendment*.

<sup>34</sup> Grant County. 2006. Grant County Municipal Code Title 23 Zoning (current ordinance December 2006). Accessed October 30, 2007. <http://municipalcodes.lexisnexis.com/codes/grantco/>.

## Conclusion

Although there are lands in the project area that are currently used for agricultural purposes, the land is primarily zoned for industrial use and the proposed project would be consistent with existing land use plans and policies.

The proposed project would result in the permanent conversion of 93 to 100 acres of land, depending on the alternative selected. This includes approximately 55 acres for Segment 1 (or Alternative 1A), plus approximately 38 acres for Segment 2 or 45 acres for Alternative 2A. In the event that the proposed project was approved, land acquisition for Segment 1 would cause the relocation of one commercial enterprise, a small cattle operation called Cows R Us. However, no residences would be affected by land acquisition. Where relocations would be necessary, appropriate mitigation would be offered in accordance with federal law, thereby ensuring that there would not be any significant impacts to land use.

## No Build Alternative

The No Build Alternative would not include rail line construction and would not require the use of any public or private property. Accordingly, there would be no land acquisitions or relocations as a result of the No Build Alternative, and there would be no impact to existing land use.

Without the proposed project, the areas that are designated for industrial development along Wheeler Road (Road 3 NE) and next to the GCIA would not be served by rail. Industries that require rail access to be profitable would not be likely to locate in these designated areas, although it would be possible for the land to be developed with industries that use trucks to transport products or materials.

## Noise and Vibration

### How would the Build Alternative affect noise levels?

The noise analysis for the proposed project followed the STB's noise impact criteria<sup>35</sup> for assessing the potential for adverse environmental noise effects. A description of the key acoustical terms used to describe noise effects is provided in **Exhibit 5.4**.

The STB applies a threshold level of rail traffic increase for determining whether to quantify noise that would be generated by rail traffic over a new rail line proposed for construction. The STB regulations state that for projects where an increase in rail traffic of eight trains per day or an increase in rail traffic of at least 100 percent (measured in average annual gross ton-miles)

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<sup>35</sup> 49 CFR 1105.7(e)(6).

would occur, the project should be evaluated to determine whether it would result in the following conditions:

- An incremental increase in noise levels of 3 A-weighted decibels (dBA) or more in community noise exposure as measured by the Day-Night Sound Level (Ldn).
- An increase to an overall noise level of 65 dBA Ldn or greater.

If the estimated noise increase at a location exceeds these criteria, the number of affected noise-sensitive receptors (i.e., schools, libraries, hospitals, residences, retirement communities, and nursing homes) should be identified and the noise increase for these receptors should be quantified.

**Exhibit 5.4  
Key Acoustical Terms**

Term	Description / Meaning
A-Weighted Level (dBA)	Environmental noise is almost always characterized using the A-weighted sound level in decibels. The weighting is intended to approximate the response of the human ear to sound. Sound amplitude is expressed in decibels, which is a logarithmic scale that compresses the wide range of pressure amplitudes that humans can hear to a more manageable range.
Energy Equivalent Level (Leq)	Leq is a method of characterizing fluctuating sounds over a period of time. It represents a constant sound that has the same energy as the fluctuating sound.
Day-Night Average Level (Ldn or DNL)	Ldn is basically an Leq over a 24-hour period with an adjustment added to sounds between 10 PM and 7 AM to account for people being more sensitive to nighttime noise.

Under the Build Alternative, an increase of two trains per day (one round trip) is projected. The current traffic on Segment 3, an existing line, is approximately two trains per month (one round trip). Accordingly, if the proposed project is authorized, Segment 3 would experience an increase of greater than 100 percent, and is therefore subject to the STB regulations. The STB regulations also state that for a project where a new line is constructed, only the eight trains per day provision would apply. Since Segments 1 and 2 would consist of new construction, no noise analyses of those segments would be required for this project with respect to the STB’s thresholds for noise impact assessment. However, SEA applies this threshold with flexibility, finding it a useful guide in a preliminary assessment of the need for more detailed analysis. When circumstances warrant, SEA will examine noise impacts of a proposed rail line construction even though proposed traffic levels do not exceed the threshold noted here. Because of the public interest in this proposed project, a noise analysis was performed for all three segments.

## Construction Effects

The proposed construction would require use of equipment such as bulldozers, front-end loaders, dump trucks, generators, and compressors. As for any infrastructure project, noise from construction of the proposed project could affect residents of the communities near the construction sites. To minimize noise, the Port or its contractor would be required to do the following: (1) install manufacturer-recommended mufflers on all diesel-powered equipment used on the project, and (2) keep all equipment in good operating condition (See Chapter Six).

The City of Moses Lake Municipal Code addresses noise issues in Chapter 8.28 – Noise Control. According to Section 8.28.050B of the code, construction noise is considered exempt from the provisions of the chapter. The only specific limits placed on construction noise are that construction should not occur between 10 PM and 7 AM without prior approval by the City Council.

The STB noise criteria do not include specific criteria for assessing potential impacts from construction noise. However, the FRA and the Federal Transit Administration (FTA) do provide the guidelines shown in **Exhibit 5.5**. The guidelines are based on an average Leq over a typical eight-hour work day.

**Exhibit 5.5**  
**FRA / FTA General Assessment Construction Noise Guidelines<sup>36</sup>**

Land Use	Noise Limit, 8-Hour Leq (dBA)	
	Daytime	Nighttime
Residential	80	70
Commercial	85	85
Industrial	90	90

Construction noise levels depend on the number of and type of equipment, the general condition of the equipment, the amount of time each piece of equipment operates per day, the presence of any noise-attenuating features (such as walls and berms), and the location of the construction activities relative to the sensitive receptors. The proposed project would be constructed in stages, but more than one stage might be under construction concurrently. Because construction activities would be located in one area for a limited period of time, extended noise impacts would be expected only if staging areas

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<sup>36</sup> U.S. Department of Transportation, Federal Transit Administration. *Transit Noise and Vibration Impact Assessment, FTA report FTAVA-90-1003-06*. May 2006.

and access points to the project area were in close proximity to residential properties.

## **Physical Effects**

As discussed below, the only physical effects from noise would be related to the proposed increase in train operations in the project area.

## **Operational Effects**

Potential noise impacts associated with the operations of the Build Alternative were determined from application of FRA/FTA noise criteria shown above in **Exhibit 5.5**. The project team used the following assumptions in the noise analysis:

- Two trains per day (one round trip), seven days a week;
- Average train speed of 25 mph; and
- A train length of one locomotive and a maximum of ten railcars.

Noise generated by train operations along the Build Alternative would include crossing warnings (horns or audible signals), locomotive noise, wheel/rail rolling noise, wheel/rail impact noise, and wheel squealing. The noise assessment evaluated the noise from all of these sources and determined that noise would be greater than the STB's criteria of 65 dBA only within 20 feet of the tracks and within 750 linear feet of grade crossings. This area is entirely within the right of way for the proposed project.

Based on the land use information and mapping, there are no residences or other sensitive receptors located within the noise impact area (within 20 feet of the tracks) for any of the project segments. The Longview Elementary School and the Longview neighborhood are both located near the right of way along Segment 3, and they currently experience train noise from the existing rail operations. However, the school is approximately 190 feet away from the existing tracks and residences in the Longview neighborhood are at least 45 feet away from the existing tracks. Residences in the Millerville neighborhood, near Segment 1, would be at least 210 feet away from the tracks. Since no residences or sensitive receptors would experience noise levels that exceeded 65 dBA, according to the STB criteria, the 3-dBA incremental increase threshold would not be applicable. Therefore, rail operations under the Build Alternative would not have the potential to cause significant adverse noise impacts.

## **What vibration impacts would result from the Build Alternative?**

Ground-borne vibration is generated by the interaction of steel wheels rolling on steel rails. Ground-borne vibration is strongly influenced by a number of

factors including local geology, tie spacing, track fastening system, vehicle dynamics, and condition of the wheels and rails. The project team evaluated vibration impacts following the FTA/FRA General Vibration Assessment procedures.<sup>37, 38</sup> For this analysis, the vibration assessment used the generalized vibration formula per the FTA/FRA procedures, but adjusted it for a train speed of 25 mph, the maximum expected train speed in the project area.

The applicable FRA impact threshold for residences is 80 vibration decibels (VdB), which would occur at a distance of 40 feet from the track for a 25-mph locomotive-powered freight train. The threshold for institutional land uses (such as schools) is 83 VdB, which would occur at a distance of less than 30 feet from the track. For both residential and institutional land uses, the limit of significant vibration would be within the right of way. As stated above, the closest sensitive receptors to the project corridor are located along Segment 3 (the Longview neighborhood and the Longview Elementary School), but in all cases, these residences and the school are located outside the 40-foot impact area.

## **Conclusion**

The closest sensitive receptors to the proposed project corridor are the Longview neighborhood and the Longview Elementary School, which are located near the existing line (Segment 3). For both noise and vibration, the closest sensitive receptor in the Longview neighborhood is at least 45 feet from the proposed track and would therefore be outside the area of impact. Accordingly, SEA and WSDOT determined that there would not be any significant adverse noise or vibration impacts from operation of the proposed project. Potential adverse impacts from construction noise would be mitigated by measures described in Chapter Six.

## **No Build Alternative**

Under the No Build Alternative, there would be no new rail line construction and there would be no change in the existing noise and vibration conditions. If the existing line (Segment 3) was rehabilitated at some point in the future, the current volume of trains could increase and the noise and vibration associated with train operations could increase.

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<sup>37</sup> U.S. Department of Transportation, Federal Transit Administration. *Transit Noise and Vibration Impact Assessment, FTA report FTAVA-90-1003-06*. May 2006.

<sup>38</sup> U.S. Department of Transportation, Federal Railroad Administration. *High-Speed Ground Transportation Noise and Vibration Impact Assessment, Final Report*. October 2005.

## Social Elements and Environmental Justice

### How would the Build Alternative affect social characteristics of the community?

Potential project impacts were identified by evaluating how the local community, including minority and low-income populations, would be affected by the proposed construction activities, changes to the physical environment, and proposed operations.

Because there are no recreational facilities within 500 feet of the proposed project, there would be no recreational impacts and a Section 4(f) analysis would not be required.<sup>39</sup> In addition, there would be no impacts to public services because the proposed project would not prevent or adversely alter the community's access to emergency services, education, or medical care.

There are no residences within 200 feet of the proposed project along Segment 1, Alternative 1A, Segment 2, or Alternative 2A. In Segment 3, the Longview neighborhood is located immediately south of the existing track (the closest residence is 45 feet from the track) and the Longview Elementary School is located approximately 190 feet north of the track. Potential impacts to the community, including minority and low-income populations, in the area of Segment 3 are discussed below.

### Construction Effects

During the proposed construction, the Build Alternative would have temporary impacts on neighborhoods and businesses adjacent to the railroad corridor. There would be short-term construction impacts at the roadways on both sides of the railroad crossings from construction traffic and crossing improvements. Roadways that cross the track could be temporarily or partially closed during track construction. Although closures would likely occur overnight or on weekends to minimize impacts on traffic, these impacts could temporarily affect local traffic circulation and access to neighborhoods and businesses, as well as create noise and dust.

Construction traffic might increase delays along existing roadways. Construction trucks and equipment are much larger than regular vehicles, require a longer distance to accelerate and decelerate, and would be more likely to block regular traffic and sight distance.

Temporary positive economic impacts might occur in the project area during the proposed construction phase. The proposed project would provide temporary employment opportunities and local merchants could experience a

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<sup>39</sup> Section 4(f) is a federal transportation policy enacted by the Department of Transportation Act of 1966 to preserve the integrity of publicly owned public parks and recreation areas, waterfowl and wildlife refuges, and historic sites considered to have national, state or local significance.

temporary increase in sales with the increase of construction workers in the area. Construction activities associated with the proposed project would not result in a permanent increase in population within the local community. If construction workers were drawn from outside the local area, they would likely commute from areas around the region or stay in local hotels. Population would not be affected on a regional scale.

## **Physical Effects**

### **How would the Build Alternative affect the neighborhoods in the study area?**

Effects to neighborhoods in the study area would not occur along Segments 1, Alternative 1A, Segment 2, or Alternative 2A because the proposed project would not divide or separate any community or population groups and there are no residences within 200 feet of the above-listed segments. In addition, the proposed physical changes would not affect access to neighborhoods or public services and would not separate residential areas from retail, service, or employment centers.

Along Segment 3, the existing rail line serves as a physical barrier between the Longview neighborhood and Longview Elementary School. Refurbishing this existing line and increasing train traffic from two trains per month (one round trip) to two trains per day (one round trip) might increase the feeling of separation between the residences and the school. The extent of this impact would be limited because the rail line already exists in this location, and because the proposed project would increase train traffic by a maximum of two trains per day (one round trip) for the foreseeable future.

### **How would the project comply with Executive Order 12898 on environmental justice?**

The project team analyzed the potential effects of the proposed project on low-income and minority populations in accordance with the procedures established in Executive Order 12898 *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*. The analysis was conducted for the following reasons: (1) to determine whether low-income or minority populations were present in the project corridor, and (2) if such a community was present, to determine whether the project would have disproportionately high and adverse human or environmental effects on the citizens of that community.

According to 2000 Census block group data, low-income and minority populations are found in the census groups in the eastern portion of Segment 3 and the whole of Segment 2 and Alternative 2A. Along Segment 2 and Alternative 2A, there are very few residences in the vicinity of the proposed line, and none within 500 feet of the right of way. Along Segment 3, however,

minority and low-income populations are present in the Longview neighborhood between RP 5 and RP 6.

The Longview neighborhood is situated immediately adjacent to the existing rail line along Segment 3, and residences in that neighborhood are at least 45 feet away from the existing tracks. The proposed project would not involve the construction of additional lines, widen the right of way, or require any land acquisition along Segment 3. Although train traffic would increase from current levels, the increase would depend on the addition of new customers and would be likely to happen gradually. Due to the fact that the rail line already exists in this location and because train traffic would increase by a maximum of two trains per day (one round trip) for the foreseeable future, SEA and WSDOT determined that the impact to the Longview neighborhood would be negligible.

To ensure meaningful community representation and participation, a Public Involvement Plan was developed to meet specific public and project needs, incorporating the Hispanic population and Limited English Proficiency requirements under Presidential Executive Order 13166. The following outreach activities were conducted to be responsive to the Spanish-speaking residents: (a) a bilingual fact sheet was distributed that announced the proposed project and invited people to the Public Open House that was held on July 19, 2007; (b) 17 announcements were aired on the La Nueva radio station (a popular Spanish-language radio station in the study area); and (c) a certified Spanish language interpreter was available during the Public Open House.

Air quality impacts associated with the proposed project would be adverse, but not high, and would not disproportionately affect the low-income and minority populations in the study area, including the Longview neighborhood and Longview Elementary School.

Relocation along Segment 1 is projected for one commercial enterprise, and no residential dwellings would be needed for right of way acquisition. Since minority and low-income populations are not present along Segment 1 at greater than regional averages, impacts associated with the relocation of one business along Segment 1 would not be disproportionately high and adverse to environmental justice populations.

## **Operational Effects**

### **How would the project affect safety?**

Under the Build Alternative, the projections of increased train traffic and vehicular traffic, combined with new at-grade crossings, would increase train exposure for both vehicles and pedestrians. Therefore, the proposed design includes upgrading the existing crossing gate structures and signs in Segment 3 to help provide better advance warnings of approaching trains for pedestrians and drivers.

Public concerns about the safety of students who attend Longview Elementary School, which is located adjacent to Segment 3 (the existing line), were raised during the July 2007 Public Open House and the October 2007 presentations to the Port of Moses Lake and the Moses Lake City Council. The increased train traffic would result in safety concerns for children in the Longview neighborhood who must cross the tracks to access Longview Elementary School. Accordingly, the railroad safety program Operation Lifesaver, would be used to educate the community, specifically students at Longview Elementary School, about railroad safety issues. Mitigation measures to address safety concerns are discussed in Chapter Six, Mitigation Measures.

### **What socioeconomic impacts would be anticipated in connection with the rail operations?**

Positive economic impacts would be anticipated in connection with the Build Alternative and increased rail operations. Maintenance and operation of the rail line would provide employment opportunities and the rail line would provide the opportunity for additional businesses to locate along the line, with potential to create more employment opportunities in Grant County.

### **Conclusion**

Although construction of the Build Alternative would disrupt traffic flow at the road crossings, these effects would be temporary and would not significantly impact the local communities. In addition, the proposed project would require the relocation of one business that is located in Segment 1; however, no residences would be acquired. The proposed project would provide the opportunity for additional businesses to locate along the line, with potential to create more employment opportunities in Grant County.

The Longview neighborhood, which includes minority and low-income populations, is located near Segment 3. This rail segment already exists and the proposed project would not involve the construction of additional lines, widen the right of way, or require any land acquisition along Segment 3. Train traffic is expected to increase by a maximum of two trains per day (one round trip) for the foreseeable future, and the increase would depend on the addition of new customers and would likely happen gradually. Accordingly, SEA and WSDOT determined that the impact to the Longview neighborhood would be negligible. The proximity of Longview Elementary School to the existing rail line (Segment 3) is a safety concern, but SEA and WSDOT have developed mitigation measures to address safety concerns.

For the reasons stated above, SEA and WSDOT have determined that the Build Alternative would have no significant adverse socioeconomic or community impacts. In addition, the Build Alternative would have no disproportionately high or adverse (temporary or permanent) impact on minority or low-income communities.

## **No Build Alternative**

Under the No Build Alternative, the existing social environment would not be altered and the local community, including minority and low-income populations, would not be affected.

## **Soils and Geology**

### **How would the Build Alternative affect soils and geology in the study area?**

The project team examined the potential for the Build Alternative to impact topography, soils, and geology within the project area. The Build Alternative would involve earthwork in Segment 1 (or Alternative 1A) and Segment 2 (or Alternative 2A) to allow for the construction of track with the necessary grade.

No grading would be needed for the refurbishment of the existing line in Segment 3.

### **Construction Effects**

Construction activities for the project would include the following:

- Clearing and grubbing the existing ground of vegetation where new fill would be placed.
- Cutting into the existing ground surface to accommodate track grades.
- Excavating ditches and installing culverts to allow for drainage of surface water and near-surface groundwater.
- Placing fill for new embankments and widening existing embankments.
- Hauling away and stockpiling, or disposing of, excavated material.
- Driving piles for bridge supports at Parker Horn (for Segment 1) or Crab Creek (for Alternative 1A).

The construction activities for the proposed project would result in short-term soils and geology-related impacts to the study area.

### **Erosion and Sediment Control**

In areas of proposed new construction, soil beneath proposed fills and structures would be cleared and grubbed of all vegetation and debris, and stripped of all organic topsoil. No grading work would be required for the proposed rehabilitation of Segment 3.

The coarse, granular nature of the dominant soil types along the proposed project indicates that the likelihood of erosion problems is small, because most surface water would infiltrate quickly and the coarse sediment is resistant to

movement. However, soils exposed in slope excavations or fills might be susceptible to erosion locally until vegetation was established.

Fine-grained deposits, such as those found near the ground surface along Segment 1 (or Alternative 1A), are susceptible to wind erosion when disturbed. In addition, the surface water flow across exposed soil could remove sediment and deposit it in areas farther down the slope.

Any areas that were disturbed during the proposed construction would be subject to increased erosion if proper erosion control measures were not implemented. The amount of erosion and sedimentation would depend on soil type, the amount of soil exposed and disturbed, weather conditions, groundwater conditions, and the erosion control measures implemented. The eroded soils could be carried into stormwater drains, existing culverts, adjacent streets, or adjacent properties. During construction, the tires of construction vehicles could also carry soil onto roadways when leaving construction areas, which could then be carried into ditches or stormwater drains.

### **Cuts into Existing Slopes**

Construction of a low-gradient rail bed would require cuts to construct embankments and drainage ditches, and to install culverts. During construction, soils exposed in cut slopes might be susceptible to erosion until vegetation was established. Cuts for track construction and culvert installation could result in shallow landslides and sloughing, specifically along Segment 1 (or Alternative 1A), where cuts as deep as 20 feet high into gravel would be expected and where relatively shallow groundwater might exist.

The heights of anticipated cuts into slopes would vary along the proposed project. Proposed cut slopes along much of Segment 1 would generally be between two and seven feet high, but could be 18 to 20 feet high between RP 2.2 and RP 3.0. Segment 2 cut slopes would typically range between three and eight feet, but would be as high as 11 feet along Alternative 2A. The higher the cut slope, the more susceptible the slope is to failure and the greater is the potential impact. No grading work would be required for the refurbishment of the existing line in Segment 3. Proposed cut heights are summarized in **Exhibit 5.6**.

### **Fill Embankments**

Generally, the proposed project is underlain by sand and gravel; however, soft or weak foundation soils might be present in localized areas, chiefly the Parker Horn or Crab Creek crossing. The heights of anticipated fill slopes would vary along the proposed project. Proposed fill slopes along Segment 1 are typically between about two and 14 feet high, but are as much as 20 feet at the east end of the segment. At the bridge crossing, Segment 1 proposes fill slopes to a maximum of 13 feet at the west end of the bridge over Parker Horn, while

Alternative 1A proposes a maximum of 25 feet in the vicinity of the bridge over Crab Creek.

**Exhibit 5.6  
Summary of Proposed Cut-and-Fill Heights**

Segment Number	Approximate Reference Point (RP)	Height in Feet		
		Cut	Fill	
1	0.0 - 1.2	Typically < 5 feet	Typically 3.5 to 14 feet	
			Maximum 20 feet	
	1.2 - 2.2	Typically 2 to 5 feet	Typically 1 to 5.5 feet	
			Maximum 10 feet	
2.2 - 3.0	Typically 3 to 20 feet	None	Maximum 20 feet	
			Maximum 20 feet	
3.0 - 4.3 (includes bridge)	Typically 7 to 10 feet	Typically 2 to 4 feet	Maximum 12.5 feet	
			Maximum 13 feet at west end of bridge	
1A	3.8 - 3.9	Typically 6 to 7 feet	Typically 6 to 7 feet	
			Maximum 12 feet	
	3.9 - 4.2 (includes bridge)	Typically 5 to 6 feet	Typically 10 to 22 feet	Maximum 7 feet
				Maximum 25 feet
4.2 - 4.7	Typically 3-10 feet	Typically 5 to 6 feet	Maximum 11 feet	
			Maximum 17 feet	
2	7.6 - 8.5	Typically 3.5 to 6 feet	Typically 3 to 11 feet	
			Maximum 6 feet	
	8.5 - 9.3	Typically 3 to 5 feet	Typically 2 to 3 feet	Maximum 6 feet
				Maximum 8 feet
	9.3 - 10.2	Typically 6 to 7 feet	Typically 5 to 8 feet	Maximum 7 feet
				Maximum 11 feet
10.2 - 10.7	Typically 3 to 8.5 feet	Typically 2.5 to 6 feet	Maximum 8.5 feet	
			Maximum 10 feet	
2A	9.6 - 10.4	Typically 4.5 to 10 feet	Typically 3 to 15.5 feet	
			Maximum 11 feet	
	10.4 - 11.1	Typically 4.5 to 7 feet	None	Maximum 7 feet
				Maximum 7 feet

Segment 2 fill slopes would typically range between two and 11 feet but would be as much as 19 feet high along Alternative 2A. Although the sand and gravel subgrade<sup>40</sup> soils present along nearly the entire proposed project route

<sup>40</sup> Subgrade is the prepared earth surface on which a pavement or the ballast of a railroad track is placed.

are not densely packed, settlement of these soils would occur rapidly and would have little impact on train operations. Fill embankments constructed over localized areas of soft, compressible soil could experience settlement. Although unlikely, instability and long-term settlement could occur and interrupt train service (either requiring repair of failed embankments, or repeated rebuilding of the track structure where settlement was ongoing).

The sand and gravel deposits that dominate along the proposed project are likely to be suitable for use as fill during construction, unless they locally contain a relatively high percentage of silt, clay, or organic material.

### **Cold/Wet Weather Work**

Because the Moses Lake area incurs freezing weather for three to four months each year, with an average frost penetration of about 18 inches, earthwork could be impacted if subgrade soils or embankment fill layers became frozen. Construction could be delayed, or fill material could be wasted because fill cannot be placed over frozen soil.

Although Moses Lake has a relatively dry climate, thunderstorms or frontal cells can produce significant precipitation volumes. If silt or clay soils were used as embankment fill, the wetting of those soils could cause them to become unsuitable for placement and compaction without time-delaying drying and reworking.

### **Drainage in Construction Areas**

During construction, poor drainage practices could result in drainage of surface water into foundation subgrades or onto slopes, resulting in landslides, erosion, or other adverse impacts to adjacent properties. Throughout most of the study area, surface water would be likely to infiltrate into the permeable soils with little runoff. Areas of the proposed project most prone to impacts from poor drainage practices are located along Segment 1, between RP 2.9 and RP 4.3, where groundwater is shallow and the surface soils are fine grained and often saturated with water.

Areas disturbed during the proposed construction would be subject to increased erosion and soil impacts. Accordingly, erosion control measures and mitigation, such as revegetating the project area with native grasses, are included in Chapter Six.

### **Physical Effects**

The cut-and-fill slopes described above would remain following the completion of construction activities, and therefore would be considered permanent physical effects. However, once cut-and-fill slopes were completed and stabilized as described in Chapter Six, there would be no adverse physical effects.

If an earthquake occurred during the life of the proposed project, the stability of bridges and culverts, cut slopes, and fill embankments could be affected. The Build Alternative would generally be underlain by sandy gravel and gravelly sand, which are not typically subject to liquefaction<sup>41</sup> during earthquakes.

## **Operational Effects**

There would be no operational effects to soils and geology.

## **Conclusion**

For most of the area that would be disturbed, the erosion potential is relatively low. However, soils exposed in slope excavations or fills could be susceptible to local erosion until vegetation was established. With the implementation of the mitigation measures described in Chapter Six for areas that would be disturbed during the proposed construction activities, there would be no significant impacts.

## **No Build Alternative**

Under the No Build Alternative, no rail line construction would take place and there would be no geologic or soil impacts. While rehabilitation of the existing line (Segment 3) is possible, it would not be expected to result in significant geologic or soil impacts.

## **Traffic and Transportation**

### **How would the Build Alternative affect traffic?**

The project team evaluated the effects of the proposed construction and operation of the Build Alternative on rail, roadway, and pedestrian traffic, as well as traffic delays and safety conditions at the proposed at-grade crossings.

## **Construction Effects**

Construction duration would be approximately 12 months for Segment 1 and eight months for Segment 2. Track rehabilitation would require approximately six months for the existing rail in Segment 3. The time periods for the proposed construction and rehabilitation activities could and likely would overlap.

Existing freight service would be affected only during the proposed refurbishment of Segment 3 and while upgrading the existing road crossings along Segment 3. Trains would need to slow when passing through any construction zones, but it is unlikely that the service would need to be

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<sup>41</sup> Liquefaction is a phenomenon in which the strength and stiffness of soil is reduced by earthquake shaking. Liquefaction commonly occurs in loose soils that are saturated with water.

disrupted completely because the volume of freight traffic on the existing line is low.

The proposed rehabilitation of Segment 3 would result in short-term impacts to vehicular traffic, particularly during any work on the existing road crossings, and roadways that cross the existing track could be temporarily closed during track rehabilitation. Construction of the new rail line segments at road crossings might result in temporary road closures on minor roads. On major roads, such as Wheeler Road, the road would remain open, but some lanes might be closed during construction activities. A typical track construction vehicle list was assumed to be the following: trucks, skid steer loaders, front-end loaders, air compressors, a spiker, a ballast regulator, and tampers.

Construction equipment would access the proposed project using public roads, as well as an access road that would be constructed alongside the proposed rail bed within the right of way. Construction vehicles and equipment would travel primarily along this access road with minimal use of public roadways. Use of public roads would be primarily to move equipment and materials to and from the work area. Because of the relatively low number of construction vehicles that would be on the roads in the project vicinity at any time and the short duration of their use on the roadway, the impact to local traffic would not be significant. Nevertheless, traffic mitigation measures are included in Chapter Six.

## **Physical Effects**

### **How would the road network change in the study area?**

The roadway network would not change within the study area, but the intersections on both sides of the railroad crossing would receive minor improvements. These road improvements would occur at the seven new crossings in Segments 1 and 2. These crossings would be located in the common part of each segment and would therefore be required regardless of which alternative was selected:

Road L NE	Turner Road NE
Wheeler Road (Road 3 NE)	Graham Road NE
Road K NE	Tyndall Road NE
Randolph Road	

Along Segment 3, existing gates and signals at Stratford Road (RP 4.8) and Loring Drive (RP 6.1) would be upgraded and modified to allow for the proposed 25-mph train traffic. To ensure safety under the proposed operations, new signs, more visible crossing gates, and flashing lights would be installed. These devices would be more visible and prominent than the existing protective measures.

## Operational Effects

### How would the Build Alternative affect rail traffic?

The proposed project would allow improved rail operations, with better track and locations close to potential customers (the industrially-zoned land along Wheeler Road [Road 3 NE] and to the east of GCIA). The project team assumed that the trains would be a maximum of ten cars, or approximately 1,000 feet long, and would be traveling at a maximum speed of 25 mph. This would be faster than the existing trains, which operate at about 10 mph due to the condition of the existing track.

### How would road traffic be affected by trains?

Traffic impacts would be considered significant if the Build Alternative resulted in excessive delay as characterized by “queue length,” which is the number of cars that stop while the crossing gates are down. Traffic delays were calculated both for the proposed year of opening (2010) and for the design year (2030).

Queue lengths were calculated based on the estimated number of vehicles stopped during the passage of a single train during the peak hours. This number was then multiplied by an average vehicle length of 20 feet to arrive at an average queue length.

The schedule of future trains is not known; thus, to be conservative, the project team evaluated the situation where one freight train passed along the route when traffic was greatest, during the evening peak hours (between 4:00 PM and 6:00 PM). During the evening peak hours, the Wheeler Road (Road 3 NE) (Segment 1) and Stratford Road (Segment 3) crossings would experience the longest queue of 15 cars, or 300 feet in each direction (20 feet per car). Vehicles at the end of the queue would experience the longest delay time, because they would be required to wait for the cars in front of them to move once the gates rose.

The freight trains would have a maximum speed of 25 mph through the study area, but the normal operating train speed would be 15 to 20 mph. To be conservative in determining impacts, the project team used a slower average train speed of 15 mph. With an average speed of 15 mph and a freight train length of 1,000 feet, the time that a road crossing would be blocked was estimated to be 70 seconds, including the raising and lowering time of the crossing gates.

In 2030, if road traffic increased by three percent per year as predicted, the same two crossings at Wheeler Road and Stratford Road would experience the longest queue of 23 cars, or 460 feet, in each direction if a train passed during the evening peak hours. Accordingly, delay and queue length would increase

slightly, but these would not be substantially greater than the values for the analysis described above.

As a result of the at-grade crossings, vehicles traveling along each of the study roadway segments would be required to come to a complete stop when a train was crossing the roadway. Any impacts related to limited stopping sight distance (SSD) were examined within the project area. SSD is the sum of two distances: (a) the distance traversed by a vehicle from the instant the driver sights an object, necessitating a stop, to the instant the brakes are applied, and (b) the distance required to stop the vehicle from the instant the brake application begins.<sup>42</sup>

Field observations revealed no horizontal or vertical sight distance concerns because the roadways are flat and relatively straight at all of the existing and proposed at-grade crossings.

The line of vehicles stopped at the at-grade crossings waiting for a train to pass would not be long enough to back up onto other nearby roads, even if the train passed during the most congested time of day (evening peak hour). The SR 17 and Wheeler Road (Road 3 NE) intersection would be about 2,500 feet away from the railroad crossing of Wheeler Road (Road 3 NE) (Segment 1). The SR 17 and Stratford Road intersection would be more than 1,000 feet away from the railroad crossing of Stratford Road (Segment 3). In both cases, the longest queue would be considerably shorter than the distance between the crossing and SR 17.

### **Would the Build Alternative deter or slow down emergency vehicles?**

Fire, police, and emergency medical response vehicles rely on the ability to use at-grade crossings to respond to emergencies. Because blocked road crossings can delay emergency response vehicles, the project team evaluated the extent to which increased train traffic would block roads. The proposed project would not greatly increase the travel time for emergency vehicles, because no more than two trains per day (one round trip) would be expected for the foreseeable future.

Occasionally, there is a problem in the eastern part of the study area at the eastern end of Segment 1, where existing trains can cause delays as they move to and from existing track around Wheeler Road (Road 3 NE) and Road 0 NE. However, even in this area, with a train length of 1,000 feet or less, it is unlikely that the proposed train operations would block more than one intersection at a time.

If an emergency vehicle arrived at the same time that a freight train was approaching, the emergency vehicle would need to wait the full 70 seconds for

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<sup>42</sup> American Association of State Highway and Transportation Officials (AASHTO), *A Policy on Geometric Design of Highway and Streets*, pp. 110-112 (2004).

the freight train to clear the crossing. If for any reason the train became stationary at the crossing, the train would be short enough to clear adjacent intersections. Two intersections would not be blocked simultaneously.

## **Conclusion**

Construction of the Build Alternative would result in some temporary traffic delays due to construction at road crossings and the movement of construction equipment on public roads. Mitigation for these delays is proposed in Chapter Six. Although traffic delays from the proposed rail operations would increase to a maximum of 70 seconds at certain road crossings, these delays would generally not be likely to occur during peak hours due to the low volume of train traffic. In addition, there is sufficient sight distance to allow vehicles to stop safely, and, due to the low volume of vehicles on the roads, the line of cars waiting at a crossing would not be long enough to block more than one intersection at a time. Accordingly, there would be no significant impacts to traffic or transportation as a result of the proposed project.

## **No Build Alternative**

Under the No Build Alternative, there would be no new rail line construction or associated traffic and transportation impacts. There could be temporary traffic delays at road crossings if the existing line (Segment 3) was rehabilitated in the future, but such delays would not be significant.

## **Visual Quality**

### **Would the Build Alternative affect visual quality?**

The project team evaluated the impact that the Build Alternative would have on the surrounding visual and aesthetic environment. Although there are no specific federal criteria for evaluating visual or aesthetic impacts under the National Environmental Policy Act (NEPA), federal agencies are required to consider the impacts to these resources that may result from any proposed action. The Council on Environmental Quality regulations also require an evaluation of impacts on visual and aesthetic resources arising from federal projects. Because neither WSDOT nor the STB have set forth detailed guidelines for assessing impacts to visual and aesthetic resources, this analysis uses a methodology based upon guidelines established by the Federal Highway Administration (FHWA).

Determination of visual impacts began by assessing existing visual resources and predicting viewer response to changes in the landscape resulting from implementation of the Build Alternative. Changes to visual resources were determined by assessing the compatibility of the Build Alternative with the visual character of the existing landscape. In addition, changes to visual resources included the comparison of the existing visual quality with projected

visual quality after implementation of the proposed project. Visual quality was evaluated by rating vividness, intactness, and unity.<sup>43</sup>

The resulting level of visual impact was determined by combining the severity of the resource change with the degree to which people are likely to oppose the change.

## **Construction Effects**

Most construction impacts to visual resources would be temporary or relatively short-term. The proposed construction activities would temporarily reduce the visual quality in the project area due to the presence of construction equipment, materials, signs, and staging locations, as well as clearing and grading and utility relocation activities. Although most of the construction would be expected to occur during the day, temporary lighting might be employed for construction during the hours of darkness for some project elements.

The primary visual effects would occur during clearing and grading activities. Grading of the existing natural ground surface, the top of existing track grade, side slopes, and ditches would be conducted during implementation of the proposed project. Clearing of vegetation and grading for rehabilitation would not be needed along Segment 3, where railroad tracks already exist. During construction, driver attention would likely be focused on detours or lane shifts due to construction rather than on views.

Distant views, such as those from Viewpoint 2, located on Wheeler Road, and Viewpoint 7, located on Randolph Road, would not be affected by construction since emissions during construction would generally be consistent with those currently present in the project area (that is, fugitive dust from agricultural operations, wind-blown dust, and vehicle emissions). Residents who live near the proposed project, users of adjacent transportation corridors where crossings would be constructed, and individuals who frequent stores and schools in the vicinity of the proposed project would experience the greatest temporary visual impacts due to construction because of their close proximity and the length of time (duration) they would be exposed to the construction. Because these effects would be temporary, the impact would not be significant.

## **Physical Effects**

Following the proposed rail construction, overall visual quality along the length of the proposed rail corridor would return to near pre-existing conditions. Although there would be changes to the landscape in a few localized areas, these changes would not be substantial enough to change the visual quality of the corridor as a whole, or substantially reduce the visual quality from most of the representative viewpoints.

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<sup>43</sup> The terms vividness, intactness, and unity are discussed in more detail in the Visual Quality section of Chapter Four, Affected Environment.

## Where would adverse visual quality impacts occur?

There would be no adverse visual quality impacts in Segment 2, Alternative 2A, or Segment 3 (see **Exhibit 5.7**). Three viewpoints along Segment 1 (and Alternative 1A) would be degraded, according to the FHWA methodology for visual assessment:

- Views along Wheeler Road (Road 3 NE) (Viewpoint 2; **Exhibit 4.13a**) would be affected by the proposed project. Creating a new rail corridor through land parcels largely used for agricultural purposes would affect the general pattern of the landscape and the visual relationship between natural and human-made elements. Bisecting crop fields along the proposed alignment would decrease the overall intactness and vividness. Effects would be the same for both Segment 1 and Alternative 1A.
- Views from the western side of the Millerville neighborhood (Viewpoint 4; **Exhibit 4.13b**) would be affected. Earthwork in this area would be minor, but the new tracks would reduce the harmony of the landscape by running through the generally uniform foreground. The proposed changes to the existing natural landscape would add human-made encroachment (tracks, ties, and other rail-related materials) in the landscape. In addition, these elements would be in the foreground of the Millerville residents' views. Effects would be similar for both Segment 1 and Alternative 1A.
- Views of the existing SR 17 bridge (Viewpoint 9; **Exhibit 4.13c**) would also be degraded. The Build Alternative would include excavation, the placement of fill into the waters of Parker Horn or Crab Creek, and the construction of a bridge, bridge piers, and abutments. All of these elements would be added to the existing view, increasing the human-made landscape and structural elements in an overall natural setting. Because the Segment 1 crossing would be longer than the Alternative 1A crossing, effects would be greater for Segment 1 than for the Alternative 1A.

## Would the Build Alternative affect the Coulee Corridor Scenic Byway?

SR 17 is part of the Coulee Corridor Scenic Byway.<sup>44</sup> The Coulee Corridor Scenic Byway is noted for its “geological wonders,” which include canyons, cliffs, lakes, and sand dunes; its archaeological history; and prevalent avian wildlife. The urbanized segment of SR 17 along the proposed Build Alternative does not reflect the distinct characteristics that led these highway segments to be designated as a national scenic byway.

Travelers on SR 17 might be able to view portions of the proposed line in Segment 1 and its Alternative 1A and would definitely be able to view the

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<sup>44</sup> National scenic byways are roads designated by the U.S. Secretary of Transportation as distinct based on archaeological, cultural, historical, natural, recreational and scenic qualities. The National Scenic Byways Program was established to help recognize, preserve and enhance selected roads throughout the U.S.

bridge crossings for both alternatives. The proposed line is closest to SR 17 at RP 3 (common to both Segment 1 and Alternative 1A). At this location the distance between the highway and the proposed line is approximately 1,000 feet (middle ground). In addition, the view of the proposed rail line would be partially obscured by existing structures and vegetation. The proposed line would not be expected to have an adverse impact to views from SR 17 in this location.

**Exhibit 5.7  
Viewpoints and Summary of Visual Impact Parameters**

Viewpoint	Existing Visual Quality <sup>1</sup>	Projected Visual Quality <sup>1</sup>	Degree of Resource Change	Principal Viewer Group(s)	Viewer Sensitivity	Duration of Exposure	Potential Visual Impact <sup>2</sup>
1	3.6	3.5	0.1	Local Roadway Users	Low	Short	No Significant Impact
2	5.3	4.3	1.0	Local Roadway Users	Low	Short	Potential Impact
3	1.3	1.3	0	Local Roadway Users, Retail Customers and Workers	Low	Medium	No Impact
4	3.6	2.6	1.0	Millerville Neighborhood Residents	High	Long	Potential Impact
5	1.2	1.2	0	Local Roadway Users, Retail Customers and Workers	Low	Medium	No Impact
6	3	2.25	0.75	Local Residents	High	Long	No Significant Impact
7	3.8	3.6	0.3	Industrial Workers	Low	Medium	No Significant Impact
8	3.2	3.2	0	Local Roadway Users	Low	Short	No Impact
9	4.2	3.2	1.0	SR 17 Users	Low	Short	Potential Impact

<sup>1</sup> Rating Scale: 7 = very high; 6 = high; 5 = moderately high; 4 = average; 3 = moderately low; 2 = low; 1 = very low

<sup>2</sup> For this report, the project team defined a visual quality rating change of one point or more to describe a potential impact due to project implementation. A visual quality rating change of less than one point was considered to describe a "no significant impact scenario," while no change in score indicated "no impact."

The bridge over Parker Horn in Segment 1 would be close to SR 17 (approximately 150 feet). The proposed bridge would be in the foreground and would be clearly visible to travelers on SR 17 in both directions. The bridge for Alternative 1A would be located farther away from the highway (approximately 2,000 feet). While travelers on the highway would still be able to see the bridge for Alternative 1A, the proposed bridge would be in the middle ground rather than the foreground as for Segment 1, and would therefore have less of an impact on the view from the highway.

Portions of the existing rail line in Segment 3 are already visible from SR 17. The highway crosses the existing tracks at the western side of Parker Horn close to RP 4.5. An existing railroad bridge, which is not a part of the project, is clearly visible to westbound travelers on SR 17. After the highway travels eastward from its crossing with the existing rail line, the highway curves southward and away from the existing tracks. To the west of the crossing, the highway and existing rail line gradually move farther away from each other. At RP 5, they are approximately 1,800 feet apart, and by RP 6, the distance is approximately one mile.

Highway user sensitivity to change in visual quality is usually considered low when compared to that of other viewer groups, and the Build Alternative (any of the segments and alternatives) would not be expected to have significant visual quality impacts to the scenic byway. This section of SR 17 runs through the City of Moses Lake, and the land adjacent to the highway in this area is predominantly zoned for Heavy Industrial, Light Industrial, General Commercial, and Business use, with small pockets of land zoned for Multi-family Residential and Single-family Residential use.

The Coulee Corridor Scenic Byway's total length is approximately 150 miles, and only a limited section of the scenic byway would have views of the proposed project. Less than three miles of the proposed project could be seen from SR 17, and the overall visual quality of the scenic byway would remain unaltered.

### **How would the Build Alternative impact views from the SR 17 bridge over Parker Horn?**

Of the areas from SR 17 where the Build Alternative would be visible, the location with the greatest potential for visual quality impact would be the highway bridge crossing Parker Horn. As described above, the bridge for Segment 1 would be approximately 150 feet from the highway (foreground), while the bridge for Alternative 1A would be approximately 2,000 feet from the highway (middle ground).

Viewer sensitivity is partially a function of distance. Sensitivity increases as the distance between the viewer and the visual resource decreases; if the changes were the same, viewers traveling across the SR 17 bridge would be

more sensitive to changes that occurred in the foreground than in the middle ground. If the configuration of the two bridge structures were similar, a greater impact to visual quality would occur if Segment 1 was constructed than Alternative 1A due to its proximity to viewers on SR 17.

## **Operational Effects**

Minor operational impacts to visual quality might occur in localized areas adjacent to all segments of the proposed project. Because Segment 3 is an existing rail line, adding the proposed trains would not change visual quality along the segment. Along Segment 1 (or Alternative 1A), the closest residential viewers would be in the Millerville neighborhood, and the closest residence is located approximately 210 feet away from the proposed track. In Segment 2 (or Alternative 2A), there would be no residential viewers closer than 500 feet of the line. The operation of two trains per day (one round trip) would not be a significant visual impact.

In March 2008, the USEPA adopted more stringent emission standards for diesel locomotives that apply to newly manufactured locomotives and remanufactured locomotives that were originally manufactured after 1972. The USEPA estimates that the rule will cut particulate matter (PM) emissions from these engines by as much as 90 percent and nitrogen oxide (NO<sub>x</sub>) emissions by as much as 80 percent when fully implemented. Implementation of these standards begins as early as this year, 2008, with remanufactured engines and will be fully implemented by 2015. Accordingly, as these locomotives are placed into service on rail lines, it will substantially reduce locomotive emissions compared with those from locomotive engines that met the prior standards. The reduction of emissions resulting from these more stringent standards will reduce potential effects on visual impairment and regional haze.

## **Conclusion**

Because the visual impacts of the proposed construction activities would be localized and temporary, they would not be considered significant. Views from Viewpoints 2 and 4 in the common portion of Segment 1 / Alternative 1A, and Viewpoint 9 close to the Segment 1 bridge would be degraded by the addition of the proposed rail line, but this would not be a significant impact because these views already include urban and transportation elements. Views from SR 17 (part of the Coulee Corridor Scenic Byway) would not be significantly affected because that portion of SR 17 does not reflect the distinct characteristics that led it to be designated as a national scenic byway. However, it should be noted that the bridge crossing in Segment 1 would be noticeably closer to SR 17 than the bridge for Alternative 1A. Overall, SEA and WSDOT determined that there would be minimal adverse effects to the visual character of the project area, which could be mitigated by revegetation of disturbed areas (See Chapter Six).

## No Build Alternative

Under the No Build Alternative, there would be no new rail line construction within the project area. Other than temporary construction impacts that could result from any future rehabilitation of the existing rail line (Segment 3), there would be no significant impacts to visual resources within the project area.

## Water Resources

### How would the project affect water resources?

Construction and operation of the proposed rail line could alter water resource functions by impeding or diverting surface water flows or disrupting groundwater recharge and discharge. Water resources could be degraded through the discharge of pollutants or by introducing physical changes that alter natural water flows and thereby introduce additional sediments or other material to the water body.

The project team analyzed the effects of the Build Alternative on water resources and water quality, including potential effects on Parker Horn, Crab Creek, and Moses Lake. The analysis was primarily based on whether the proposed project would have any of the following impacts:

- **Increase in the amount of pollution within nearby surface water bodies** – Impact to surface waters would be considered significant if water quality standards were violated as a result of the proposed project.
- **Increase in flooding** – Impact to surface water would be considered significant if the project raised flood elevation levels of the 100-year floodplain at Parker Horn, Crab Creek or Moses Lake.
- **Change in the flow direction of surface water in the study area** – Impact to surface water would be considered significant if the flow direction or pathway of surface water was substantially changed.

## Construction Effects

Impacts to water resources during the proposed construction could include the following:

- Increased turbidity<sup>45</sup> and sediment in water downstream from the proposed project.
- Increased pH if water came into contact with curing concrete during the proposed bridge construction and was spilled into nearby surface waters.

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<sup>45</sup> Turbidity is a condition in water or wastewater caused by the presence of suspended material, resulting in scattering and absorption of light rays.

- Contamination from spills of hazardous materials used during construction.
- Increased flooding from encroachment on the floodplain at Parker Horn and Crab Creek.
- Greater peak flows from increased impervious surfaces.

### **What impacts to water quality could be generated at the proposed bridge over Parker Horn or Crab Creek?**

The location with the greatest potential for impacts to water resources during the proposed construction would be the bridge site. The bridge would cross either Parker Horn for Segment 1 or the mouth of Crab Creek for Alternative 1A. Impacts to water resources from both Segment 1 and Alternative 1A would occur in Parker Horn; Alternative 1A would not have water quality impacts to Crab Creek because the bridge would be located at the mouth of the creek and potential water quality impacts would occur downstream.

A crossing at Parker Horn or Crab Creek would be susceptible to impacts from sedimentation due to the relatively greater amounts of fill/excavation, the need for in-water work, and the presence of a natural waterway. Both bridge crossing alternatives would likely require work below the Ordinary High Water Mark, but the Alternative 1A crossing would have less potential for impacts from sedimentation and turbidity because the channel is narrower.

There would also be work over the water to construct the bridge. Because of its high pH, uncured concrete would be toxic to aquatic life if it came into contact with the receiving water during bridge and culvert construction. The mitigation measures described in Chapter Six would prevent this from occurring.

### **What other water quality impacts could result from the Build Alternative during construction?**

In addition to a new bridge at Parker Horn or at the mouth of Crab Creek, smaller bridges and culverts would be constructed to cross the irrigation canals along Segment 1 east of its divergence with Alternative 1A (**Exhibit 5.8**). In-water work associated with culvert construction could temporarily increase suspended sediment concentrations and turbidity levels downstream of the culverts.

Impacts to water resources along Segment 2 (and Alternative 2A) would not be as likely because less cut-and-fill would be required and because there are fewer water resources. The proposed project would have no effect on water resources along Segment 3 because no earthwork would be required for refurbishment of the existing line.

Construction of the proposed project would require the use of several common petroleum products (e.g., fuels, lubricants, and hydraulic fluids) that could be toxic to fish and other aquatic organisms. Small quantities of these materials might be stored along the right of way or in staging areas, in accordance with the requirements of federal, state, and local agencies.

**Exhibit 5.8  
Surface Water Bodies and Irrigation Canals Crossed  
by the Proposed Project**

No.	Water Body	Owner	Water Body Type	Reference Point (RP)	Characteristics	Proposed Structure
1	Rocky Coulee Drain	ECBID <sup>1</sup>	Wasteway Canal	1.0	Earthen open channel approx. 6 feet wide	Bridge
2	Private Irrigation Canal	Private	Irrigation Canal	1.2	Earthen open channel approx. 2 feet wide	Culvert
3	Private Canal	Private	Irrigation Canal	1.2	Earthen open channel approx. 2 feet wide	Culvert
4	Private Canal	Private	Irrigation Canal (Concrete-Lined)	1.4	Concrete open channel	Culvert
5	Canal EL 20UI	ECBID	Irrigation Canal	1.5	Earthen open channel approx. 1.5 feet wide	Culvert
6	Canal EL 20	ECBID	Irrigation Canal	2.1	Earthen open channel, approx. 10 to 12 feet wide	Bridge
7	Parker Horn at mouth of Crab Creek – north alternative (1A)	Public	Lake	4.0	Channel – approx. 170 feet wide	Bridge
8	Parker Horn – south alternative (1)	Public	Lake	4.3	Channel – approx. 500 feet wide	Bridge

<sup>1</sup> East Columbia Basin Irrigation District

Construction vehicles would be close to the water during bridge construction, and fuel, hydraulic lubricants, or engine coolant could be washed off construction equipment or spilled, although permit conditions and mitigation measures would prevent this from occurring within 200 feet of the water. Any spills of hazardous contaminants could degrade surface and groundwater, harming fish and other aquatic life if any pollutants reached the water. If the mitigation measures in Chapter Six were implemented, such impacts to water quality would be minimized or avoided. In addition, any fill placed into surface water for this proposed project would be tested for pollutants as a mitigation measure.

## Would the Build Alternative affect the floodplain at Parker Horn or Crab Creek?

Segment 1 would cross the 100-year floodplain of Parker Horn, while Alternative 1A would cross the floodplain of Crab Creek. According to the City of Moses Lake Flood Hazard Areas Code (Chapter 18.53), projects may not encroach on the floodplain unless it can be demonstrated that the project would not increase flood levels.<sup>46</sup>

The northern crossing (Alternative 1A) would be a bridge designed to minimize fill in floodplain and wetland areas. Piers and abutments to support the bridge would be necessary within the 100-year floodplain area, and would be needed within the waterway itself.

Because the area of water and 100-year floodplain would be wider for the southern crossing (Segment 1), this crossing would be a bridge combined with fill (**Exhibit 5.9**). Fill would be placed within the 100-year floodplain on the western side of Parker Horn, and piers and abutments to support the bridge would be needed within the waterway.

Any project elements within waterways or the 100-year floodplain would be designed to meet City of Moses Lake requirements. Preliminary engineering studies show that, given the size of Moses Lake and the limits of the designated floodplain, the placement of fill and piers would not create any changes in the flood elevation or increase flood potential of Moses Lake, Crab Creek or Parker Horn. The Port would be required to demonstrate this to the satisfaction of the City of Moses Lake prior to commencement of any construction activities. In addition, the U.S. Army Corps of Engineers and Ecology would address water quality impacts and permit requirements.

**Exhibit 5.9**  
**Estimated Excavation and Fill Quantities in Segments 1, 1A, 2, and 2A**

Segment	Approximate Length (Miles)	Disturbed Areas (Acres) <sup>1</sup>	Excavation (Cubic Yards)	Fill (Cubic Yards)
1	4.5	29.7	192,000	76,000
1A	4.5	29.3	190,000	88,000
2	3.1	18.4	85,000	15,000
2A	3.5	21	96,000	45,000

<sup>1</sup> Disturbed areas are the land within the proposed project that would be graded or cleared.

<sup>46</sup> City of Moses Lake. *Municipal Code Chapter 18.53 – Flood Hazard Areas*. August 2005.

## Physical Effects

### **Would there be an increase in the quantity of stormwater runoff from increased impervious (paved or hard) surfaces?**

Any ballast needed to accommodate the new track would be pervious (that is, allowing water to soak into it instead of running off). There would be no increase in impervious surface areas at the at-grade crossings since the roads are already in place. Construction of the bridge would involve placing fill for new embankments and bridge approaches and widening existing embankments; the embankments and approaches would be pervious.

Increases in the amount of impervious surface can lead to changes in hydrology, degrade water quality and habitat within streams, and reduce groundwater recharge. Stormwater runoff from impervious surfaces flows at higher velocities than runoff from natural surfaces, which can increase erosion and sedimentation to receiving waters and impede infiltration of runoff into soils. Surface water quality can be impaired because accumulated pollutants are quickly washed off during storms and rapidly delivered to the receiving water bodies. However, rail projects create minimal amounts of impervious surfaces, and the increased runoff volumes and pollutant loading to receiving waters are considered to be negligible.

Along most of the proposed rail line, stormwater would run off from the rails and ties and flow into the ballast or ground adjacent to the line, and would be absorbed into these pervious surfaces. Water might infiltrate through the ground to irrigation canals or to Parker Horn. Because the bridge for Alternative 1A would be located at the mouth of Crab Creek, water infiltration effects would not be found in the creek. However, infiltration could occur downstream from the bridge in Parker Horn.

Where the proposed rail line would cross directly over irrigation canals with bridges, stormwater might run directly from the rails, ties, and bridge structure into the water below. However, the quantity of stormwater runoff flowing directly into canals would be minimal, and would be no different from existing rail structures crossing the irrigation canals in the vicinity. The bridge over Parker Horn for Segment 1 (or the bridge at the mouth of Crab Creek for Alternative 1A) would be designed to prevent runoff into that water body.

## Operational Effects

Operation of the Build Alternative would not cause any significant impacts to water resources. Contingency plans developed by the Port of Moses Lake and the operator of the rail line would include actions to follow in the event of a hazardous materials spill near or in surface water.

## **Conclusion**

The proposed construction activities have the potential to impact water quality. In comparison with the Segment 1 bridge crossing, the Alternative 1A bridge crossing would result in fewer impacts to floodplain and wetland areas and would have fewer impacts to water quality.

To minimize or avoid potentially adverse impacts to water quality, SEA and WSDOT incorporated the mitigation measures described in Chapter Six. For example, while the effects of stormwater runoff to the irrigation canals would be considered minimal, the bridge over Parker Horn for Segment 1 (or the bridge over Crab Creek for Alternative 1A) would be designed to prevent stormwater runoff and would be designed to avoid impacts to the 100-year floodplain. In addition, prior to commencement of any construction activities, the Port would be required to consult with the Corps, Ecology and the City of Moses Lake to address potential impacts to waters of the U.S. and permit requirements.

## **No Build Alternative**

Under the No Build Alternative, there would be no new rail line construction. Accordingly, there would be no water quality impacts to Parker Horn, Crab Creek, or other waters in the project area.

## **Wetlands**

### **How would the Build Alternative affect wetlands?**

Impacts to wetlands and streams would occur only in Segment 1 or Alternative 1A. The majority of impacts would occur where the proposed rail line would cross Parker Horn (Segment 1) or Crab Creek (Alternative 1A) and where the proposed rail line would traverse wetland areas between Road 4 NE (Cherokee Road) and Wheeler Road (Road 3 NE). Other impacts to aquatic resources would occur south of Wheeler Road (Road 3 NE) where the proposed rail alignment would cross several irrigation ditches and canals.

## **Construction Effects**

Construction effects include those temporary impacts that would occur only during and immediately after earth disturbance. Permanent impacts, such as permanent placement of fill in wetlands, are discussed in Physical Effects, below.

All construction activities would occur within the right of way or in nearby areas that have previously been disturbed. In addition to impacts from placement of fill in wetlands (discussed below), impacts to wetlands might result from sediment being eroded or washed into wetlands from disturbed

areas during construction. Mitigation measures included in Chapter Six would minimize impacts to wetlands.

## Physical Effects

Permanent physical impacts are described as either:

- Permanent direct impacts from the filling or excavating of wetlands to construct the proposed project or from permanent new shading of streams or other waters; or
- Permanent indirect impacts to wetlands resulting from habitat fragmentation or degradation of the existing hydrologic regime.

Wetlands and other waters within the right of way would be affected by the proposed project, as listed in **Exhibit 5.10**. Impacts to wetlands within the proposed right of way but outside the area of actual construction activities might not result in the complete loss of function and are, therefore, considered separately from impacts associated with wetland filling.

All or part of up to six wetlands would be permanently lost as a result of the proposed project, depending on which alternative (Segment 1 or Alternative 1A) was selected, as shown in **Exhibit 5.11**. As a result of filling wetlands to construct the Build Alternative, a total of approximately 3.02 acres for Segment 1 (or approximately 2.14 acres for Alternative 1A) would be directly impacted.

In addition to direct permanent effects, the crossing over Parker Horn for Segment 1 or the crossing at the mouth of Crab Creek for Alternative 1A would result in indirect effects where the wetland would be affected to such an extent that the remainder would suffer a loss of some of its functions. These effects could be related to fragmentation, where the proposed project would divide a wetland into two parts, or shading, where the bridge would not require direct fill into a wetland but would shade the vegetation during some or all of the day. Minimization of the bridge footprint during design would reduce shading impacts.

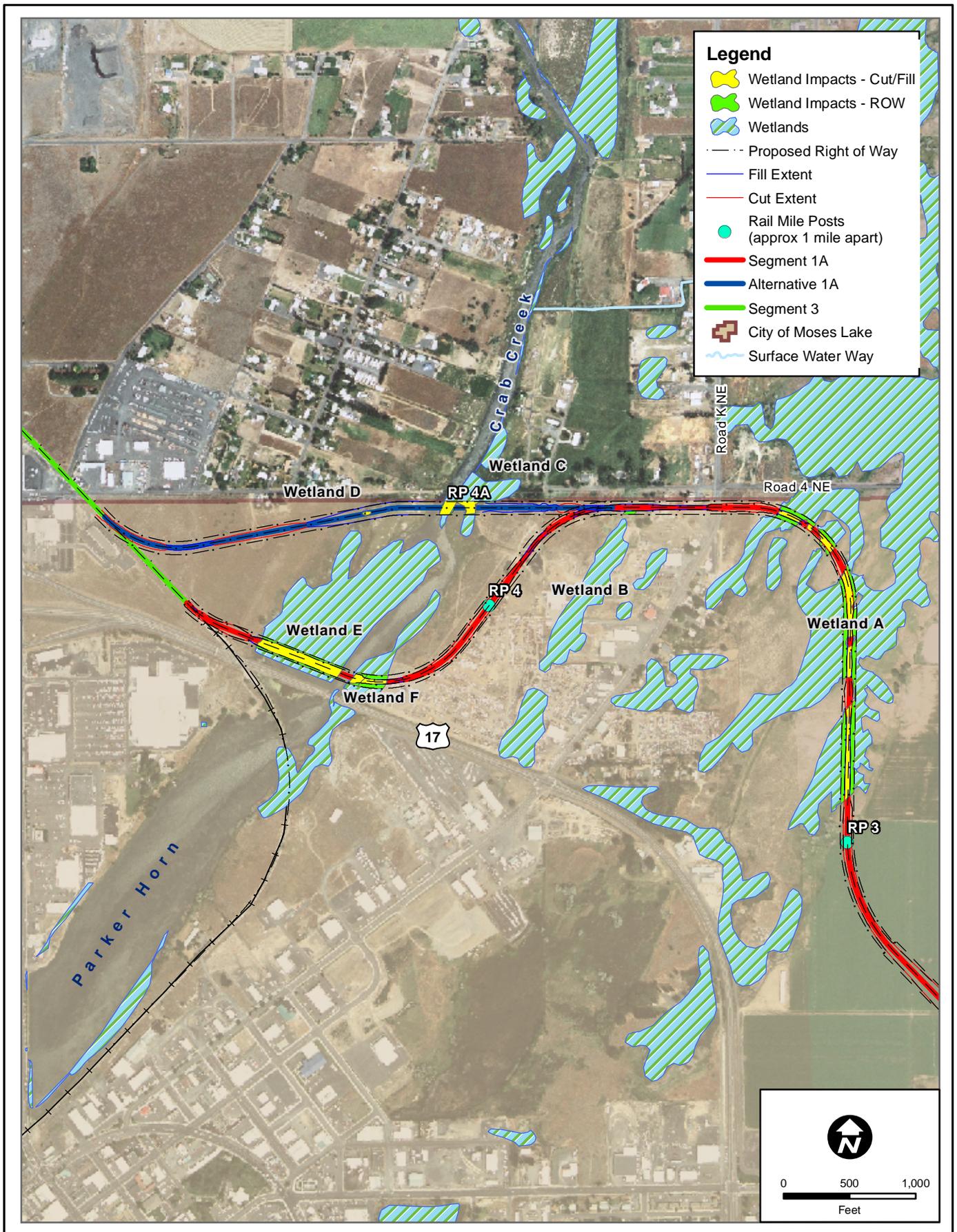
## Operational Effects

Effects to wetlands from the proposed rail line operation and maintenance would be indirect but could limit their function. These effects would occur within 50 feet of the centerline of the proposed rail line. This area is equivalent to the 100-foot-wide right of way, which would be maintained for safety and efficiency, possibly including vegetation removal close to the tracks. In addition to vegetation removal, wetlands within 50 feet of the proposed track would be subject to potential introduction of weeds, incidental litter, and fluid leakage from train traffic and operation. Vegetation removal, if required, would contribute to habitat fragmentation by potentially widening the

gaps between various habitats. All the above-described activities might affect the function of wetlands. The total area of wetlands within 50 feet of the proposed track that might suffer indirect effects is approximately 3.25 acres for Segment 1 and 2.514 acres for Alternative 1A.

**Exhibit 5.10  
Wetland and Water Impact Summary (Physical Impacts)**

<b>Wetland/ Water Body</b>	<b>Direct Impacts (Fill)</b>	<b>Type of Indirect Impacts</b>	<b>Indirect Impacts and Area within 50 Feet of Track</b>	<b>Direct + Indirect Impacts</b>
<b>Segment 1</b>				
Wetland A	1.67 acres	Fragmentation	2.46 acres	4.13 acres
Wetland B	0.01 acres	None	0.05 acres	0.06 acres
Wetland E	1.07 acres	Fragmentation	0.42 acres	1.49 acres
Wetland F	0.27 acres	Fragmentation	0.32 acres	0.59 acres
Parker Horn/ Crab Creek	None	Shading	None	None
Stream C	None	None	None	None
Ditches/Canals	None	None	None	None
<b>Impact Total</b>	<b>3.02 acres</b>		<b>3.25 acres</b>	<b>6.27 acres</b>
<b>Alternative 1A</b>				
Wetland A	1.67 acres	Fragmentation	2.46 acres	4.13 acres
Wetland B	0.01 acres	None	0.05 acres	0.06 acres
Wetland C	0.43 acres	Fragmentation	0.004 acres	0.434 acres
Wetland D	0.03 acres	None Identified	None	0.03 acres
Crab Creek	None	Shading	None	None
Stream C	None	None	None	None
Ditches/Canals	None	None	None	None
<b>Impact Total</b>	<b>2.14 acres</b>		<b>2.514 acres</b>	<b>4.654 acres</b>



## Conclusion

Construction of the proposed project would impact wetlands in the project area. Segment 1 would have a direct or indirect effect on approximately 6.27 acres of wetlands and Alternative 1A would have a direct or indirect effect on approximately 4.654 acres of wetlands. Accordingly, Alternative 1A would have substantially fewer impacts on wetlands. Measures implemented during the proposed rail line construction, including the restoration of wetlands, would mitigate construction impacts. Wetlands in the right of way might also suffer from operational impacts; these impacts are included in the indirect effects described above. Any major impacts to wetlands resulting from physical impacts would be mitigated as outlined in Chapter Six and pursuant to requirements of the U.S. Army Corps of Engineers and Ecology.<sup>47</sup>

## No Build Alternative

Under the No Build Alternative, there would be no impacts to wetlands or other jurisdictional waters. If the existing rail line in Segment 3 was refurbished at some point in the future, there would be no impacts because there are no wetlands in Segment 3.

## Cumulative Effects

The Council on Environmental Quality's (CEQ's) regulations for implementing NEPA require agencies to consider three types of impacts: direct, indirect, and cumulative. Direct and indirect impacts are caused by an action either in the present or future,<sup>48</sup> whereas a cumulative impact is "the impact on the environment which results from the incremental impact of an action when added to past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such other actions." Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.<sup>49</sup>

Cumulative impacts result when the impacts of different actions combine to cause greater impacts on a particular resource than the impacts that would be caused solely by the proposal before the agency. While project effects may be minor when viewed in the individual context of direct and indirect effects, they can add to the effects of other actions and eventually lead to a measurable environmental change. Because cumulative effects can be separated from a proposed project in time and location, their measurement can be more difficult

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<sup>47</sup> In Washington State, the USEPA has delegated responsibility for water quality standards to the Washington State Department of Ecology.

<sup>48</sup> See 40 CFR 1508.8, Protection of Environment, Council on Environmental Quality.

<sup>49</sup> See 40 CFR 1508.7, Protection of Environment, Council on Environmental Quality, Cumulative Impact.

to quantify and assess. CEQ recommends that a cumulative effects analysis accomplish the following:<sup>50</sup>

- Focus on the effects and resources within the context of the proposed action.
- Present a concise list of issues that have relevance to the anticipated effects of the proposed action or eventual decision.
- Reach conclusions based on the best available data at the time of the analysis.
- Rely on information from other agencies and organizations on reasonably foreseeable projects or activities that are beyond the scope of the analyzing agency's purview.
- Correlate the analysis to the geographic scope of the proposed project.
- Correlate the analysis to the time period of the proposed project.

A proposed project can affect certain environmental resources negatively, and other resources positively. Cumulative effects can also have a positive or negative effect, depending on the environmental resource being evaluated.

### **What geographic boundaries and time period are considered in this cumulative effects analysis?**

When evaluating cumulative or combined effects, the project team must consider expanding the geographic area beyond the proposed project and expanding the time limits to consider past, present, and future actions that may affect the environment.

Wetlands, stormwater, and greenhouse gases (GHGs) are included in this cumulative effects analysis.<sup>51</sup> Impacts to wetlands and stormwater runoff are addressed for proposed projects where proximity might result in cumulative impacts to wetlands or the natural flow regimen. Greenhouse gases are addressed because of concern over cumulative increases in GHGs in the area, Washington State, and throughout the world.

### **Geographic Boundaries**

The geographic boundaries for the cumulative effects analysis are based on the length and linear nature of the proposed project, agency consultations, and the potential for freight hauling to affect the global climate. The geographic

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<sup>50</sup> Council on Environmental Quality, Executive Office of the President. *Considering Cumulative Effects Under the National Environmental Policy Act*. 1997.

<sup>51</sup> None of the other elements of the environment are expected to cause a combined, adverse effect to the environment and are therefore not considered in this section.

boundaries for the wetlands and surface waters analyses were set at 0.5 miles from the track. The GHG analysis considers the entire central Washington area.

### **Time Period**

The time period is determined by identifying time limits that are both relevant to the project and reasonable. Although the proposed Northern Columbia Basin Railroad (NCBR) Project is expected to operate beyond the foreseeable future, the cumulative effects analysis sets the time period from present through 2030 as a reasonable time frame for the evaluation. Beyond 2030, planning level data loses accuracy and becomes speculative.

### **What projects are included in the cumulative effects analysis?**

There are three projects in the vicinity of the proposed NCBR Project (See Project Vicinity map, **Exhibit 5.12**) that are reasonably foreseeable and could affect one or more of the environmental resources examined in the cumulative effects analysis:

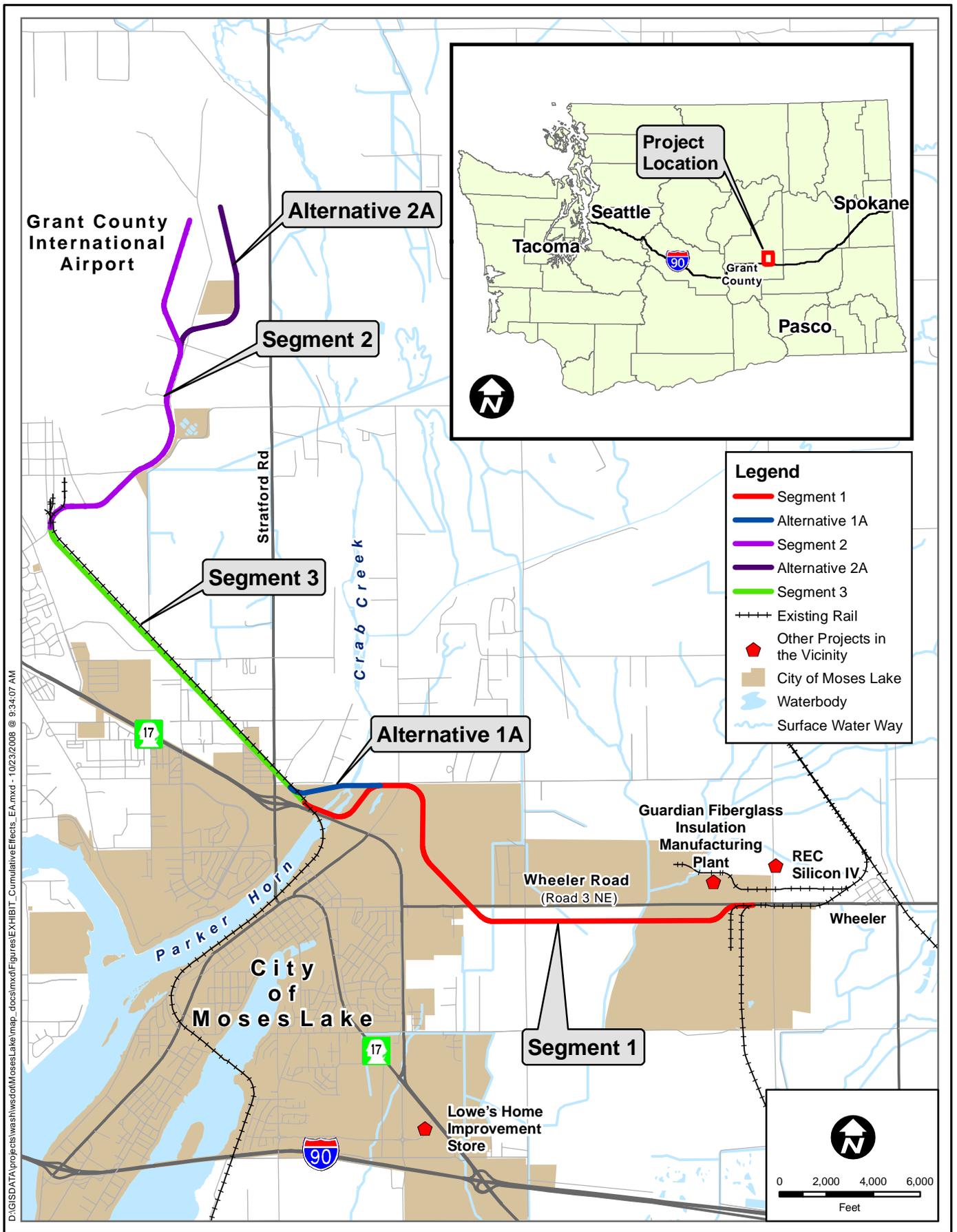
- Lowe's Home Improvements Store
- Guardian Fiberglass Insulation Manufacturing Plant
- REC Silicon IV

Two of these projects (Guardian Fiberglass Insulation Manufacturing Plant and REC Silicon IV) are within one-half mile of the proposed NCBR Project and are considered part of this cumulative effects analysis. The Lowe's Home Improvement Store is beyond the boundary for this cumulative effects area and is not considered in this analysis.<sup>52</sup>

The recently completed Guardian Fiberglass Insulation Manufacturing Plant project consists of construction of 620,000 square feet of manufacturing space in multiple buildings. Approximately 100,000 cubic yards of material were graded on the site. Although there are several wetlands on the site, none of the buildings or parking lots is closer than 200 feet to a wetland or within 150 feet of a wetland buffer. The project is located north of Wheeler Road (Road 3 NE) and east of Road N. The City of Moses Lake issued a state environmental determination that concluded that an in-depth study of potential environmental impacts was not required for the Guardian Fiberglass Insulation Manufacturing Plant project. The City did require that the project include measures to address the type of fill material to be used on the project site, and replanting requirements where the soil was exposed. The REC Silicon IV project is under construction and expected to be completed in 2008. The REC Silicon IV project expands the existing REC Silicon plant located at 3322 Road N. The

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<sup>52</sup> The Lowe's store is currently under construction and is scheduled to open in December 2008.



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expansion includes grading earth; constructing new buildings, including a temporary lunchroom building; and relocating 12 office trailers. The City of Moses Lake issued a state environmental document that concluded that an in-depth evaluation would not be required for the proposed REC Silicon IV project. The City did require that the project not put water into the U.S. Bureau of Reclamation treatment facilities, and that erosion be controlled.

## **What impacts are associated with the projects in the cumulative effects analysis?**

### **Stormwater and Wetlands**

Stormwater control is a primary concern for the three projects (the NCBR Project, Guardian Fiberglass Insulation Manufacturing Plant project, and the REC Silicon IV project) addressed in this cumulative effects analysis. The state document for the Guardian Fiberglass plant identified wetlands on the site, but concluded that there would be no effect to wetlands or wetland buffers. Wetlands are not present at the REC Silicon IV site. The proposed NCBR Project, as well as the Guardian Fiberglass Insulation Manufacturing Plant and REC Silicon IV, would need to comply with current stormwater regulations to ensure little or no negative effect. REC Silicon IV and the Guardian Fiberglass Insulation Manufacturing Plant appear to be hydrologically connected to the proposed NCBR Project. However, stormwater runoff does not appear to be a significant cumulative effect.

The proposed NCBR Project would increase the amount of impervious surface, including the surface of a proposed bridge over Parker Horn. Stormwater would be managed through implementation of Best Management Practices and permit conditions.<sup>53</sup> At the bridge over Parker Horn for Segment 1 (or the bridge over Crab Creek for Alternative 1A), stormwater would be captured and prevented from running directly from the rails, ties, and bridge structure into the water below. In addition, a bridge maintenance plan would be developed in compliance with FRA regulations.

Some of the alignment would occur in wetlands, as detailed in other sections in this chapter. Mitigation measures for effects to wetlands and water resources are described in Chapter Six.

### **Climate Change and Greenhouse Gas Emissions**

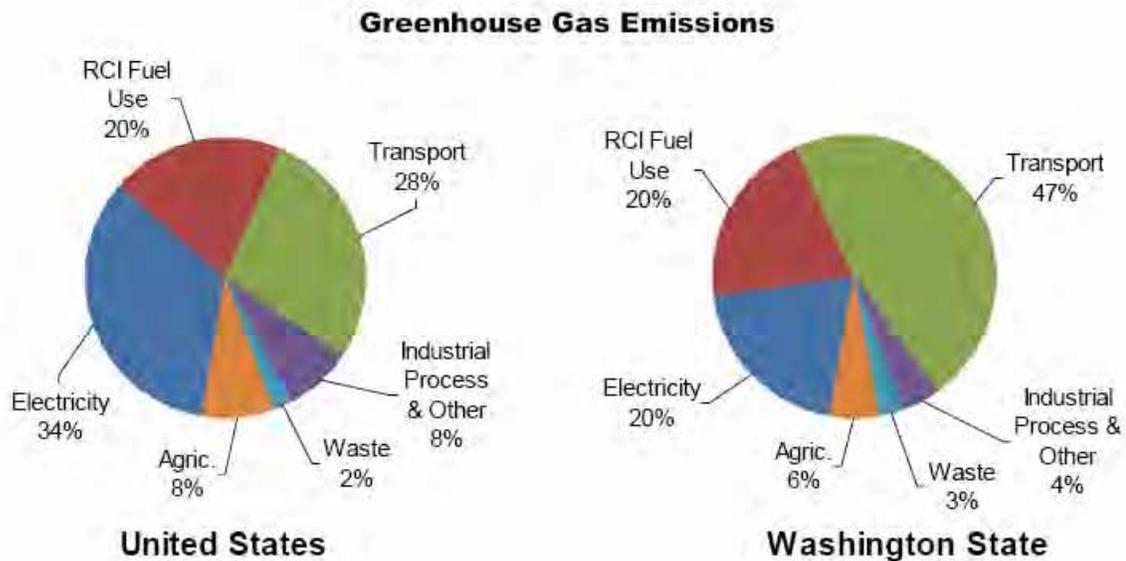
Greenhouse gases come in several forms. The gases associated with transportation are mainly water vapor, carbon dioxide (CO<sub>2</sub>), methane (also known as “marsh gas”), and nitrous oxide. Carbon dioxide makes up the bulk of the GHG emissions from transportation sources. Any process that burns fossil fuel releases carbon dioxide into the air.

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<sup>53</sup> Stormwater mitigation measures are detailed in Chapter Six and in the *Water Resources Technical Memorandum*. The *Water Resources Technical Memorandum* may be obtained from the WSDOT Rail & Marine Office. Contact information is provided on the back of the title page.

Motor vehicles are a significant source of GHG emissions and contribute to global climate change primarily through the burning of gasoline and diesel fuels. Transportation sources account for nearly half of the GHG emissions in Washington State.<sup>54</sup> Other large contributors to GHG emissions in Washington are fossil fuel combustion in the Residential, Commercial, and Industrial (RCI) sectors and in electricity production. **Exhibit 5.13** below shows the gross GHG emissions by sector, nationally and in Washington State.

**Exhibit 5.13**  
**GHG Emissions by Sector, 2005, U.S. and Washington State<sup>55</sup>**



**What efforts are underway to reduce GHG emissions in Washington State?**

In February 2007, the Governor of Washington State issued Executive Order 07-02 requiring state agencies to find ways to reduce GHG emissions and adapt to the future that climate change may create.

On May 3, 2007, the Washington State Legislature passed Senate Bill 6001 which, among other things, adopted the Governor’s climate change goals as state law. The law aims to achieve 1990 GHG levels by 2020, a 25 percent reduction below 1990 levels by 2035, and a 50 percent reduction by 2050.

While the goals are clear, the technical guidance and regulations to implement these goals are currently in development and will not be sufficiently

<sup>54</sup> GHG emissions for power generation are lower than in other states due to Washington’s use of hydropower.

<sup>55</sup> Ecology (Washington State Department of Ecology). 2008. *Leading the Way on Climate Change: The Challenge of Our Time*. Publication #08-01-008. February 2008.

determined before project environmental documentation is completed for this proposed project.

At this time, the main way to reduce GHG emissions resulting from transportation is to reduce the amount of fuel consumed by motor vehicles. This can be achieved by:

- Creating more efficient driving conditions (reducing traffic congestion),
- Introducing more fuel-efficient vehicles, and
- Reducing the amount of driving (through a variety of methods including telecommuting, public transit options, carpooling, and more efficient movement of goods and services).

Washington State has made some progress toward each of the three efforts listed above. The Governor and Legislature funded a 16-year plan to meet Washington State's most critical transportation needs, most of which are focused on roads, highways, and cars or trucks. WSDOT and its transportation partners, including federal, city, county, and transit agencies, are in various stages of developing a specific list of projects to move people and goods more efficiently.

### **How would operation of the proposed project change GHG emissions?**

The proposed project would provide a link between the existing rail system and land zoned for industrial development in the City of Moses Lake and Grant County. The proposed project would allow the use of freight trains to transport materials to and from existing and future industrial facilities, and would be expected to reduce the number of trucks on the local roadway network. This shift would reduce the amount of roadway traffic and improve the efficient movement of goods and services. In the national rail system, freight trains emit approximately one-fourth the amount of GHGs that diesel trucks emit for each ton of freight moved.<sup>56</sup> Although the specific quantity of reduction is not known for a short train such as the 10-car trains proposed for the project, the proposed project would generate fewer emissions than if the same amount of freight were hauled by truck. An estimate of these reductions is provided in **Exhibit 5.14**.

Operation of the proposed rail line would be expected to reduce CO<sub>2</sub> emissions by approximately 1,854 tons per year compared with shipping the same amount of materials by truck. This calculation is a “ballpark” estimate of project-related energy consumption and GHG emissions. There is no single, industry-accepted, universal conversion factor, and actual fuel consumption and GHG emissions are highly dependent upon specific operational practices of freight and trucking companies. The emission conversion factor used in this analysis comes from the American Association of Railroads, an industry trade

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<sup>56</sup> AAR News, *Railroad Fuel Efficiency Sets New Record*, May 21, 2008.

group that represents major railroads in the U.S., Canada, and Mexico. This estimate does not include construction effects, nor does it consider the possibility that trucks might be needed to move goods between the end of the line and individual businesses.

**Exhibit 5.14  
Change in Potential Emissions of Carbon Dioxide (CO<sub>2</sub>)**

Description of Activity	Annual Fuel Used (gallons)	Annual Energy Used (MBtu <sup>1</sup> )	Emission Factor Diesel Fuel Input (lbs/MBtu)	Annual CO <sub>2</sub> Emissions (tons)
Freight Trains Current Route (2 trains/month) <sup>2</sup>	2,954	405	164	33
Freight Trains Proposed Route (2 trains/day) <sup>2</sup>	57,960	7,940	164	651
Freight Trains Net Increase	N/A	N/A	N/A	618
Savings From Avoided Trucking <sup>3</sup>	N/A	N/A	N/A	2,472
<b>Total Net Savings</b>	N/A	N/A	N/A	1,854

<sup>1</sup> Million British thermal units

<sup>2</sup> Operation-related emissions do not include any maintenance activities.

<sup>3</sup> Based on a 4.0 multiplier obtained from AAR News, *Railroad Fuel Efficiency Sets New Record*, May 21, 2008.

### **How would emissions be minimized during project construction?**

Emissions during construction would generally be consistent with those currently present in the project area, such as windblown dust and vehicle emissions. Emissions would be minimized through the measures described in Chapter Six, including fugitive dust suppression controls, revegetation of disturbed areas, and reduced idling.

Construction of the rail line would not adversely affect traffic flow, except for short-term effects during construction of the at-grade crossings. Construction areas, staging areas, and material transfer sites would be designed in a way that reduced standing wait times for equipment, engine idling, and the need to block the movement of other activities on the site. These measures would reduce fuel consumption by reducing wait times and ensuring that construction equipment operated at more efficient levels.

## What changes to project design would be needed to minimize impacts that contribute to climate change?

The Governor of Washington committed the state to preparing for and adapting to the impacts of climate change as part of Executive Order 07-02.<sup>57,58</sup> Key areas in which Washington State is likely to experience changes over the next 50 years include:

- Increased temperature (heat waves and poor air quality);
- Changes in volume and timing of precipitation (reduced snow pack, increased erosion, and flooding);
- Ecological effects of change (spread of disease, altered plant and animal habitats, and human health and well-being); and
- Rising sea levels and coastal erosion.

Expected temperature increases for Grant County and Central Washington range from roughly 1 to 2.5 degrees Fahrenheit (F) by 2029. Although exact information is not available, indications are that spring runoff would occur earlier and river levels would be higher. Summer flows are expected to be lower due to a lack of snow pack. The elevation of Moses Lake is not expected to be an issue because the lake level is managed and not subject to the fluctuations of a natural system.

The Moses Lake area is in the Central Basin Climate Division within Washington State. The period of record precipitation and temperature plots for this Division, as obtained from the Western Regional Climate Center (WRCC) website are provided below in **Exhibits 5.15 and 5.16**. The red lines represent 12-month mean values (one value plotted per year) and the blue dots represent the 10-year running mean. A 10-year mean is used to describe the normal, yearly changes in precipitation. The green lines represent one standard deviation above and below the period of record mean and show the expected variation in rainfall between years.

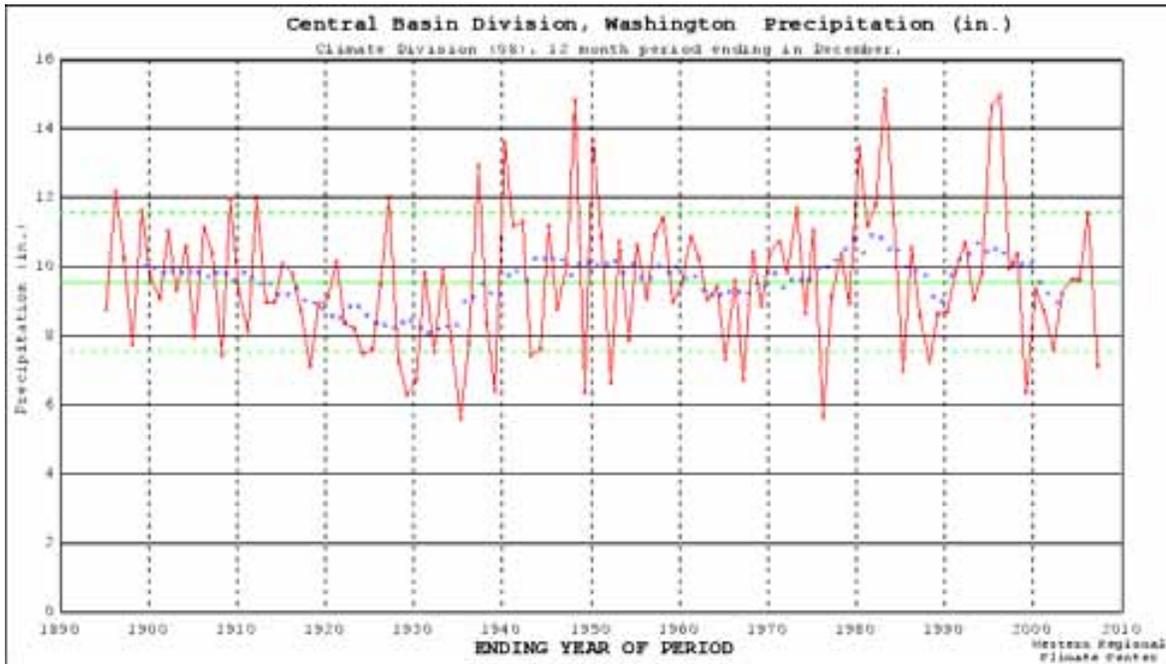
The temperatures show that there may be a recent slight increase in average temperature (up to 0.5 degrees F) above the maximums in earlier high temperature cycles, based on the 10-year running means. However, the information for the past 30 years may also be skewed slightly by urban developments near some of the sensors, which can increase temperature. The

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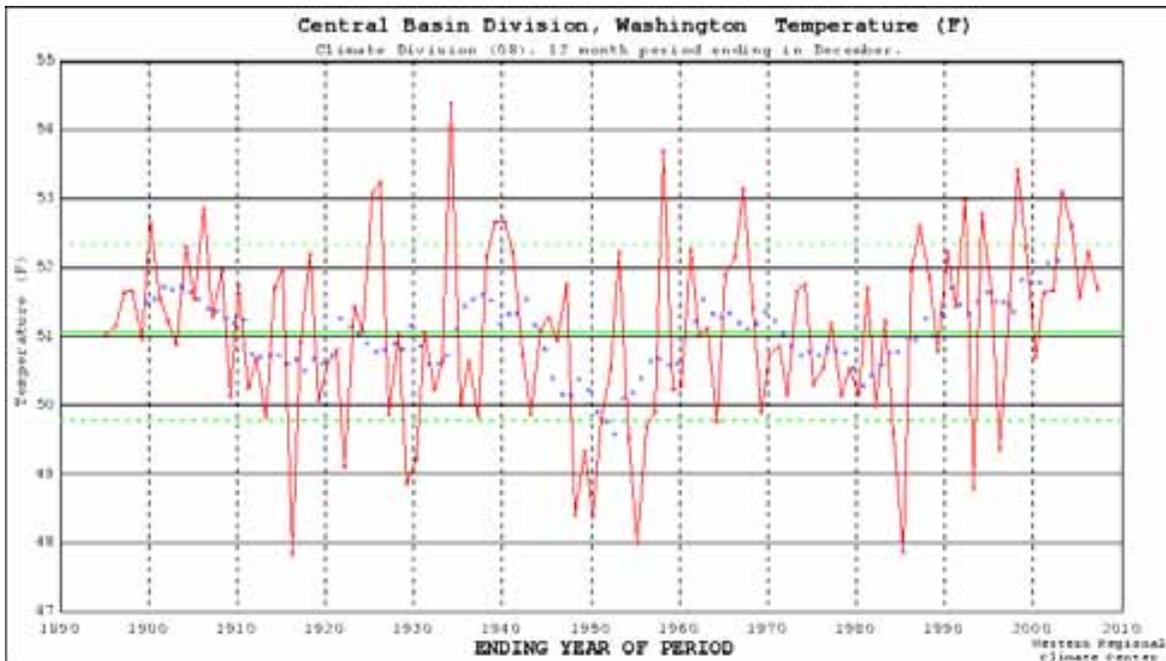
<sup>57</sup> A new focus sheet entitled “Preparing for Impacts” is available online at <http://www.ecy.wa.gov/climatechange/index.htm>.

<sup>58</sup> The United Nations’ recent Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report, *IPCC Fourth Assessment Report: Climate Change 2007*, (<http://www.ipcc.ch/ipccreports/assessments-reports.htm>), defines adaptation as the “adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.” The effectiveness of any specific adaptation requires consideration of the expected value of the avoided damages against the costs of implementing the adaptation strategy.

**Exhibit 5.15**  
**Average Precipitation in the Central Basin (vicinity of Moses Lake)<sup>59</sup>**



**Exhibit 5.16**  
**Average Temperature in the Central Basin (vicinity of Moses Lake)<sup>60</sup>**



<sup>59</sup> Western Regional Climate Center (WRCC) website. [http://www.wrcc.dri.edu/cgi-bin/divplot1\\_form.pl?2102](http://www.wrcc.dri.edu/cgi-bin/divplot1_form.pl?2102).

<sup>60</sup> Western Regional Climate Center (WRCC) website. [http://www.wrcc.dri.edu/cgi-bin/divplot1\\_form.pl?2102](http://www.wrcc.dri.edu/cgi-bin/divplot1_form.pl?2102).

rainfall plot shows no major recent trend, although a drought during the 1920s and 1930s is plainly evident.

Rail lines can be viewed as “permanent” structures expected to last indefinitely with appropriate maintenance. The proposed NCBR Project is designed to last at least 70 years. The proposed project has incorporated features, as part of its standard design, which would provide greater resilience and function with the potential effects brought on by climate change. These features include increasing the capacity of the on-site stormwater treatment system to handle increased stormwater runoff. The project must also comply with temporary stormwater design and treatment procedures required by the National Pollutant Discharge Elimination System guidelines, which are administered by Ecology. The project must comply with the Ecology *Stormwater Management Manual for Eastern Washington*.<sup>61</sup> WSDOT procedures require approval of a Stormwater Site Plan and a Temporary Erosion and Sediment Control Plan (TESC) prior to construction.

Given the year-to-year variability of temperature and precipitation, and a modest trend of increasing temperatures and higher peak stormwater runoff, it does not appear that the project design would need to be modified for “climate adaptation” purposes. This is conditioned on adequately designing the project for the variable temperature and precipitation conditions observed in the region over the past century.

### **How would the project contribute to cumulative GHG emissions?**

The projects included in this cumulative effects analysis are being planned as a result of increased human activity in Grant County and Central Washington State, and SEA and WSDOT have determined that the construction and operation of the three projects would each contribute to GHG emissions. Although the proposed construction and operation of the NCBR Project would produce GHG, the project would result in fewer emissions compared with shipping the same amount of freight by truck. As stated in Chapter Two, the purpose of the proposed NCBR Project is to enhance opportunities for economic development and to attract new rail-dependent businesses to lands designated for industrial development in the northern part of the City of Moses Lake as well as to the south and east of GCIA, and any future development of the area would be expected to contribute incrementally to the cumulative GHG emissions in the region.

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<sup>61</sup> Ecology (Washington State Department of Ecology). *Stormwater Management Manual for Eastern Washington*.

This chapter describes the preliminary recommendations of the Surface Transportation Board's (STB) Section of Environmental Analysis (SEA) and the Washington State Department of Transportation (WSDOT) for environmental mitigation. SEA and WSDOT developed the mitigation measures identified below based on an independent analysis of the project and a review of all information available to date, including comments from various federal, state, and local agencies; the public; and other interested parties.

If construction and operation of the proposed project is authorized, SEA and WSDOT recommend that such authority be subject to the mitigation measures identified below. If there are conflicts between the measures in the Environmental Assessment (EA) and any federal, state or local requirement or permit issued for the proposed project, such federal, state or local requirement shall prevail and supersede the measures of this EA.

### **Air Quality**

1. The Port of Moses Lake (Port)<sup>1</sup> shall implement best management practices and appropriate fugitive dust suppression controls, such as spraying water on haul roads adjacent to construction sites and exposed soils, street sweeping, covering loaded trucks, and washing haul trucks before they leave the construction site.
2. The Port shall comply with the requirements of all applicable federal, state, and local regulations regarding open burning and the control of fugitive dust related to rail line construction activities.
3. The Port shall revegetate areas disturbed during construction with native grasses or other appropriate native habitat as soon as possible after construction activities are completed to minimize windblown dust.
4. The Port shall shut off construction equipment when it is not in direct use to reduce idling emissions.
5. The Port shall verify that construction equipment is properly maintained and regularly inspected and that required pollution control devices are in good working condition.

### **Cultural, Historic, and Archaeological Resources**

6. The Port shall ensure that any sites that are eligible for the National Register of Historic Places are not disturbed prior to completion of the

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<sup>1</sup> It is understood that the Port may utilize contractors, in which case the Port shall ensure that its contractors implement the mitigation measures in this chapter.

Section 106 review process of the National Historic Preservation Act, 16 U.S.C. 470f.

7. A Programmatic Agreement (PA) shall be developed by the STB's Section of Environmental Analysis, WSDOT, and the Washington State Department of Archaeology and Historic Preservation (State Historic Preservation Office or SHPO), and the Port shall be a signatory to the PA. The PA shall require that areas within the limits of the project disturbance that have not been surveyed be surveyed prior to construction and shall guide potential mitigation if it is determined that the proposed project would have any adverse effects on historic, cultural or archaeological resources.
8. In the event that any unanticipated historic or cultural properties, archaeological sites, human remains, funerary items, or assorted artifacts are discovered during the proposed construction, the Port shall immediately cease all work and notify the Washington State Department of Archaeology and Historic Preservation (State Historic Preservation Office or SHPO), the Surface Transportation Board's Section of Environmental Analysis, the Washington State Department of Transportation, interested federally-recognized Tribes, and consulting parties, if any, to determine if additional consultation and mitigation is necessary. In the event that human remains are discovered, the Port shall also notify appropriate law enforcement agencies.

### **Fish, Wildlife, and Vegetation**

9. The Port shall abide by construction timing and guidelines stipulated by the Washington Department of Fish and Wildlife through the Hydraulic Project Approval (HPA). If there are differences between the measures in this Environmental Assessment and the conditions of the HPA, the HPA criteria shall apply.
10. The Port shall consult with the Washington Department of Fish and Wildlife and comply with its applicable laws and regulations so that project-related construction activities are conducted in a manner that avoids or minimizes impacts to birds and bats (roosting bald eagles, overwintering waterfowl, migrating shorebirds, foraging bats, and nesting birds).
11. To minimize disturbance to wildlife and vegetation to the maximum extent possible, the Port shall limit construction activities, including staging areas, and vehicle turnaround areas, to the right of way or within previously disturbed areas. Existing vegetation shall be preserved to the maximum extent possible.
12. To preserve water quality in aquatic or wetland habitat, the Port shall implement measures to prevent uncured concrete from coming into

contact with surface waters, and all refueling shall occur more than 200 feet from a water body or wetlands.

13. The Port shall minimize the impacts that could result from over-water structures, such as the structure crossing Parker Horn or Crab Creek. To minimize or avoid impacts to walleye spawning, the Port shall avoid work within the waters of Crab Creek/Parker Horn between April 1 and May 30.
14. To minimize or avoid impacts to nesting burrowing owls, the Port shall avoid new construction work in areas within 0.5 miles of identified nesting areas close to Segment 1, Alternative 1A, Segment 2, and Alternative 2A between February 15 and September 25. If construction activities take place during this period, then the Port shall consult with the Washington Department of Fish and Wildlife to ensure that construction activities are conducted in a manner that avoids or minimizes impacts to burrowing owls.
15. To minimize or avoid impacts to bald eagle roost trees, the Port shall locate the project alignment and support areas, such as staging areas, away from roost trees. If clearing of any roost trees is required, the Port shall create artificial roosts in an appropriate site near the existing roost.
16. To preserve existing aquatic and moist site vegetation habitats for the northern leopard frog to the maximum extent possible, the Port shall minimize clearing activities and locate equipment staging areas in previously disturbed areas, to the extent possible.
17. To minimize or avoid impacts to Yuma myotis and Townsend's big-eared bats, the Port shall install bat boxes (alternative bat roosting structures) to allow bat roosting near the Crab Creek/Parker Horn crossing.

### **Hazardous Materials**

18. Prior to initiating any construction activities, the Port shall consult and coordinate with the U.S. Environmental Protection Agency's Region 10 Office (USEPA) and the Washington State Department of Ecology concerning appropriate investigation, if more is needed, and mitigation, as may be required, for the sites listed below. If more investigation is needed, such investigation shall be conducted by a qualified environmental professional, as defined by ASTM International and the USEPA.
  - a. On Segment 1 and Alternative 1A, the Bernard Cattle Company site at the southwest corner of Broadway and Road 4 NE (Cherokee Road).
  - b. On Segment 1, the Grant County Road District No. 2 facility on the south side of Wheeler Road (Road 3 NE) between RP 1 and RP 2.

- c. On Segments 2 and Alternative 2A, the Randolph Road Base Dump (14A – EPA Site No. 8), and the Paint Hangar Leach Pit (14B – EPA Site No. 22).
  - d. On Segment 2, the Boeing polychlorinated biphenyl cleanup area located on Tyndall Road.
  - e. On Alternative 2A, at the prior location of the Grant County Public Utility District Diesel Generating Facility located on Tyndall Road NE and the County shooting range located east of Randolph Road.
19. The Port shall coordinate with the operator of the rail line to develop a Spill Prevention Control and Countermeasures (SPCC) plan and an emergency response plan. In a manner consistent with applicable legal requirements, the SPCC plan and emergency response plan shall address the following:
- a. Definition of what constitutes a reportable spill.
  - b. Requirements and procedures for reporting spills to appropriate government agencies.
  - c. Equipment available to respond to spills and where the equipment will be located.
  - d. Training of personnel and training records.
  - e. List of government agencies and response personnel to be contacted in the event of a spill.
  - f. Measures to address the transport of hazardous materials by rail.
20. The Port shall observe the requirements of the Federal Railroad Administration and other federal, state and local applicable requirements concerning the handling and disposal of any hazardous waste or hazardous materials and clean-up in the event of a spill during construction.
21. The operator of the rail line shall observe the requirements of the Federal Railroad Administration and other federal, state and local applicable requirements concerning the handling and disposal of any hazardous waste or hazardous materials and clean-up in the event of a spill during rail operation.
22. The operator of the rail line shall ensure that locomotives associated with project operations shall be checked regularly for leaks.

## **Land Use**

23. To the maximum extent practicable, the Port shall advise businesses and the public of construction schedules in advance to minimize disruptions.
24. The Port shall abide by all requirements of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (42 U.S.C. 4601 et seq.). Relocation assistance shall be provided for any commercial properties acquired for the project.
25. To the extent practicable, the Port shall negotiate with affected property owners to minimize any project-related severance impacts.
26. The Port shall submit form 7460 (Notice of Proposed Construction or Alteration) to the Federal Aviation Administration prior to construction.

## **Noise and Vibration**

27. During construction, the Port shall ensure that manufacturer-recommended mufflers have been installed on all diesel-powered equipment used on the project and that all equipment is kept in good operating condition.
28. The Port shall ensure that construction within the boundaries of the City of Moses Lake will not occur between 10:00 PM and 7:00 AM without prior approval by the City Council.

## **Social Elements and Environmental Justice**

29. During project construction, the Port shall comply with applicable state, county and city regulations or requirements regarding detour signs and the routing of construction truck traffic. The Port shall also provide proper notification of the construction schedule to the public and the nearest fire department and emergency response units.
30. The Port or the operator of the rail line shall work with the City of Moses Lake, community organizations, and Longview Elementary School to arrange for a rail safety program, such as Operation Lifesaver,<sup>2</sup> to be offered at least once per year.
31. The Port or the operator of the rail line shall coordinate with the Moses Lake School District to help identify and implement practicable safe crossings.

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<sup>2</sup> Operation Lifesaver seeks to educate drivers and pedestrians about making safer decisions at crossings and around railroad tracks.

32. On Segment 3, the Port shall upgrade the existing crossing gate structures and signs to help provide better advance warnings of approaching trains for pedestrians and drivers.

### **Soils and Geology**

33. The Port shall construct the proposed project in accordance with the American Railway Engineering and Maintenance of Way Association guidelines.
34. The Port shall mitigate the potential liquefaction of loose or soft alluvium or other soils during an earthquake by designing foundation elements for reduced soil strength, accounting for potential ground displacements, and/or implementing ground improvements.
35. The Port shall minimize sedimentation and erosion in the project area by employing best management practices during construction.
36. The Port shall revegetate disturbed areas with native grasses as soon as practicable after project construction ends.

### **Traffic and Transportation**

37. The Port shall ensure, to the extent possible, that all truck activity associated with the construction of the proposed project occurs during daytime hours.
38. The Port shall consider school bus schedules in planning and executing the necessary road work.
39. The Port shall consult with appropriate federal, state, and local transportation agencies to determine the final design of the grade-crossings and associated warning devices.
40. The Port or the operator of the rail line shall comply with applicable Federal Railroad Administration track maintenance and inspections.

### **Visual Quality**

41. To the extent practicable, the Port shall be responsible for the following:
  - a. Ensuring that only the vegetation that needs to be cleared for construction purposes is removed.
  - b. Using native flora and vegetation when replanting disturbed areas.
  - c. Adding compost to the soil before seeding or planting in order to increase plant establishment.

- d. Ensuring that cut-and-fill slopes are blended with the form and line of the existing landscape through grading practices to enhance visual quality.
- e. Ensuring that vegetative buffers, such as trees or bushy shrubs, are located near residential areas to help screen the railroad corridor from viewers. These buffers should be located where additional vegetation would not impair visibility at road crossings.

## **Water Resources**

- 42. The Port shall ensure that any bridge constructed over Parker Horn or Crab Creek is designed such that stormwater runoff does not enter the water body.
- 43. For project-related construction, the Port shall comply with the stormwater management requirements of all federal, state and local regulations regarding stormwater management, including the *Stormwater Manual for Eastern Washington* and National Pollutant Discharge Elimination System requirements.
- 44. The Port shall prepare an approved Stormwater Site Plan and a Temporary Erosion and Sediment Control Plan (TESC) prior to construction. The temporary erosion control measures shall be inspected regularly by the Port and maintained as necessary to ensure that these measures are functioning properly.
- 45. Consistent with applicable legal requirements, the Port shall coordinate with the operator of the rail line to prepare a Spill Prevention Control and Countermeasures Plan (SPCC) to minimize any impacts associated with accidental spills of hazardous materials. The SPCC will require the development of a spill contingency plan and will provide for the implementation of containment and other countermeasures that could prevent spills from reaching navigable waters or wetlands.
- 46. The Port shall implement the following erosion and sedimentation controls:
  - a. Installing silt fencing with geotextile material along the proposed project area perimeter to filter sediment from unconcentrated surface water runoff.
  - b. Placing catch basin inserts in all new and existing catch basins receiving runoff from the disturbed areas of the project.
  - c. Placing straw bales in paths of concentrated runoff to filter sediment.
  - d. Preserving existing vegetation to the maximum extent possible.

- e. Revegetating areas disturbed during construction with native grasses, where practicable. These areas shall be reseeded as soon as practicable to prevent erosion.
  - f. Covering exposed soils with plastic or straw in the event of a major storm.
  - g. Constructing temporary ditches, berms, and sedimentation ponds to collect runoff and prevent discharge of sediment into drainages, streams, or wetlands.
  - h. Installing stabilized construction entrances and exits<sup>3</sup> for truck access to the construction site to protect existing roadways and railroad tracks.
  - i. Cleaning any storm sewer facilities affected by project construction to prevent sediment from leaving the site after construction is completed and erosion control measures are removed.
47. If the TESC measures described above are not adequate to control erosion and sedimentation, all work shall cease and the Port shall consult with Ecology regarding additional erosion control or restoration measures to protect adjacent properties.
48. To avoid or minimize impacts to water resources during construction, the Port shall implement the following measures:
- a. Consulting with the U.S. Army Corps of Engineers and complying with the requirements of the Section 404 permitting process (Segment 1 / Alternative 1A only).
  - b. Consulting with the Washington State Department of Ecology and complying with the requirements of the Section 401 Water Quality Certification process (Segment 1 / Alternative 1A only).
  - c. Locating equipment staging areas further than 200 feet from water bodies (Parker Horn, Crab Creek or wetlands).
  - d. Leaving in place erosion control measures at culvert construction sites until the permanent culvert construction process is completed.
  - e. Coordinating with farmers and/or agricultural businesses regarding drainage issues that might arise.

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<sup>3</sup> A stabilized construction entrance involves placing blacktop or gravel along the edge of the roadway to avoid erosion or displacement of soil where trucks access and leave the roadway.

- f. Applying noxious weed control measures by an appropriately-licensed contractor, using herbicides approved by the U.S. Environmental Protection Agency's Region 10 Office. Herbicides shall not be applied during periods of high wind.
49. To prevent non-sedimentation pollutants (such as hazardous materials) from entering water bodies, the Port shall implement the following measures:
- a. Handling and disposing of all pollutants used on-site during construction in a manner that does not contaminate stormwater, irrigation canals, Parker Horn, or Crab Creek.
  - b. Establishing staging areas for equipment repair and maintenance at least 200 feet from all wetlands or water bodies.
  - c. Inspecting all construction equipment regularly for any fuel, lube oil, hydraulic fluids, or antifreeze leaks. If leaks are found, the Port shall immediately remove the equipment from service and repair or replace it and remediate the spill.
  - d. Disposing any washout from concrete trucks in a manner that avoids dumping it into storm drains or onto soil or pavement.
  - e. Ensuring that thinners and solvents are used at least 200 feet from wetlands or water bodies. Capturing, containing and properly disposing of thinners and solvents.
  - f. Requiring that fuel trucks maintain a minimum distance of 200 feet from water bodies and fueling construction vehicles away from sensitive areas, such as areas of permeable soils where a spill could more easily migrate to surface water.
  - g. Designing staging areas to capture all runoff and/or spills.
  - h. Testing all fill before it is placed into surface water to ensure it is free of polluting materials.
50. The Port shall implement the following construction-related mitigation measures at the Parker Horn or Crab Creek crossing:
- a. Isolating concrete piers or abutments from water in Parker Horn or Crab Creek for seven days to allow the concrete to cure and to avoid toxicity to aquatic life. Uncured or wet concrete shall not be allowed to come into contact with flowing waters. Any isolated water that came into contact with wet concrete and that has a pH greater than nine shall be pumped out and disposed of appropriately.

- b. Consultation with the U.S. Army Corps of Engineers, the Washington State Department of Ecology and the Washington State Department of Fish and Wildlife, and compliance with the requirements of the Clean Water Act Section 404 permit, the Section 401 water quality certification, and the Hydraulic Project Approval.
51. To minimize the operational effects of the proposed project on water resources, the Port or the operator of the rail line shall implement the following railroad practices:
- a. Developing a bridge maintenance plan in compliance with Federal Railroad Administration regulations.
  - b. Regularly checking locomotives associated with the proposed operations to identify and repair fluid leaks or discharges.

## **Wetlands**

52. Prior to submittal of wetland permit applications to appropriate federal, state, and local agencies, the Port shall perform additional field work and conduct analysis for the properties that were previously unavailable for wetland assessment.
53. The Port shall avoid or minimize disturbance to wetland areas whenever possible during construction.
54. The Port shall not allow construction staging areas in wetlands, even within the project right of way.
55. The Port shall prepare a Wetland Mitigation Plan to describe measures to avoid and minimize impacts to wetlands. The following measures shall be included:
- a. Compensating for unavoidable impacts by creating, restoring or enhancing existing wetlands.
  - b. Adhering to current agency guidance on wetland mitigation, *Wetland Mitigation in Washington State*,<sup>4</sup> as well as guidance in the City of Moses Lake's Shoreline Management Master Plan and the Critical Areas Ordinance (for wetlands within the city), and complying with replacement ratios, buffer width, site selection criteria, and other criteria presented in this guidance.
  - c. Identifying a suitable off-site mitigation site.

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<sup>4</sup> Ecology (Washington State Department of Ecology), U.S. Army Corps of Engineers Seattle District, and U.S. Environmental Protection Agency Region 10. *Wetland Mitigation in Washington State*. Washington State Department of Ecology Publication #06-06-011b. Olympia, WA. March 2006.

- d. Designing bridge span widths, fill slope angles, and the alignment to minimize impacts to wetlands and other aquatic resources.
  - e. Restoring disturbed areas in native plant communities near Wetland A and in the Crab Creek or Parker Horn areas to improve habitats and buffer wetlands.
  - f. Including habitat restoration to the extent practicable in the design of the proposed Crab Creek or Parker Horn bridge to offset loss of wildlife habitats.
56. The Port shall implement the following mitigation measures specific to each Wetland Resource. The Port shall comply with additional mitigation measures, if any, required by the U.S. Army Corps of Engineers and/or the Washington State Department of Ecology:
- a. Wetland A (Segment 1 and Alternative 1A): Enhancement<sup>5</sup> of remaining wetland, off-site mitigation.<sup>6</sup>
  - b. Wetland B (Segment 1 and Alternative 1A): Off-site mitigation.
  - c. Wetland C (Alternative 1A only): Wetland creation/enhancement of Crab Creek floodplain, off-site mitigation.
  - d. Wetland D (Alternative 1A only): Wetland creation/enhancement of Crab Creek floodplain, off-site mitigation.
  - e. Wetland E (Segment 1 only): Wetland creation/enhancement of Crab Creek floodplain, off-site mitigation.
  - f. Wetland F (Segment 1 only): Wetland creation/habitat enhancement of Crab Creek / Parker Horn floodplain, off-site mitigation
  - g. Crab Creek (Alternative 1A only): Incorporate habitat structures.
  - h. Parker Horn (Segment 1 only): Incorporate habitat structures.
  - i. Ditches/Canals: Maintain or improve water quality.
57. The Port shall ensure that irrigation ditches and canals are either avoided by spanning both banks with the crossing structure, or that a culvert is installed to allow water to flow beneath the rail fill.

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<sup>5</sup> Enhancements usually involve habitat-related improvements, such as planting additional vegetation to increase plant density, or adding habitat structures like downed wood. It does not include increasing the wetland area.

<sup>6</sup> Off-site mitigation would allow the use of properties for wetland mitigation that are located outside the boundaries of the area disturbed by the project. Such properties are typically located within the same drainage basin or watershed as the impact area.

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Based on available information from all sources to date, the Surface Transportation Board's Section of Environmental Analysis and the Washington State Department of Transportation preliminarily conclude that, as currently proposed, the construction, acquisition and operation of approximately 11.5 miles of rail line in Grant County would not significantly affect the quality of the natural or human environment provided that the recommended mitigation measures, as set forth in this Environmental Assessment, are implemented. Therefore, an Environmental Impact Statement is unnecessary in this proceeding.

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### What has the project team done to ensure public involvement?

As part of the environmental review process, the Surface Transportation Board's Section of Environmental Analysis (SEA) and the Washington State Department of Transportation (WSDOT) prepared a Public Involvement Plan that explains how the project team will distribute informational materials; solicit input; develop two-way communication with the community, local citizens, and other interested parties; and document public opinions regarding the proposed project and the Preliminary Environmental Assessment (EA). Public meetings and outreach included a Public Open House held on July 19, 2007; presentations to the Moses Lake City Council and Port of Moses Lake on October 17, 2007; and website information.<sup>1</sup> A second Public Open House will be held in the City of Moses Lake during the public review period of this EA.

The purpose of the Public Open House held on July 19, 2007, was to introduce the proposed project, gather initial comments from the public, and identify any concerns the public might have about the proposed project or its impact to the human and natural environment. The Public Open House was attended by 85 people, and 45 comments were received in response to the meeting. Of those comments, 13 supported the project as proposed, two thought that the existing rail line should be refurbished and no new line constructed, and 26 requested that the project team consider a northern route that would entirely bypass the existing developed area of the City of Moses Lake. Suggested locations for a northern route varied and included constructing a rail line: (a) parallel to Road 4 NE (Cherokee Road), (b) parallel to Road 7, or (c) along the former Northern Pacific Railway Wheeler-Adrian railroad right of way.<sup>2</sup> Of the comments that suggested a northern route, 16 did not describe a specific location.<sup>3</sup>

The comments also indicated concerns about the following:

- Traffic delays at railroad crossings;
- The safety of students who attend Longview Elementary School, who may cross or trespass on the existing track (Segment 3);
- Incompatibility with an existing residential area near Segment 3;

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<sup>1</sup> WSDOT (Washington State Department of Transportation).

<http://www.wsdot.wa.gov/Projects/Rail/NorthernColumbiaBasinRR/>

<sup>2</sup> The community of Wheeler is located at the eastern end of the study area; the community of Adrian is located approximately 18 miles north of Wheeler. The Northern Pacific Railway formerly operated a rail line between the two locations. Although that line has been abandoned and no right of way retained, some of the old railroad grade remains.

<sup>3</sup> Note that numbers of comments do not match because some people made more than one suggestion.

- Noise;
- Pedestrian and bicycle safety;
- Aesthetics and community cohesion;
- Economic impacts, including the loss of land suitable for development; and
- Delays to response time of emergency vehicles.

Comments were also received in support of the proposed alignment, and in support of rail service in the City of Moses Lake. Some commenters requested that the project team consider a range of environmental and land use impacts.<sup>4</sup>

Following the Public Open House, written comments were also received from Grant County Fire District No. 5 and from the Principal of Longview Elementary School in the Moses Lake School District. Grant County Fire District No. 5 asked that the project team consider the impact of rail crossings on heavily traveled roads, specifically Wheeler Road (Road 3 NE) along Segment 1, and impacts of the Build Alternative on the ability of the Fire District to provide effective and efficient service to citizens in the area. Longview Elementary School expressed concerns about the impact of the proposed increase in the number of trains from one round trip per month to two trips (one round trip) per day on the safety of students who attend the school.

To ensure meaningful community representation and participation, the Public Involvement Plan was developed to meet specific public and project needs, incorporating the Hispanic population and Limited English Proficiency requirements of Presidential Executive Order 13166.<sup>5</sup>

The following outreach activities were conducted to be responsive to Spanish-speaking residents: (a) a bilingual fact sheet was distributed that announced the proposed project and invited the public to the Public Open House on July 19, 2007; (b) 17 announcements were aired on the La Nueva radio station, a popular Spanish-language radio station in the study area; and (c) a certified Spanish language interpreter was available during the Public Open House.

Based on input received at the Public Open House, the project team developed a project alternative that combined many of the suggestions for an alternate

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<sup>4</sup> There were several comments about the possible abandonment of an existing Columbia Basin Railroad (CBRW) line. At this time, CBRW has not filed for abandonment of that rail line. If CBRW elects to abandon any rail lines in the future, it would be required to apply to the STB for abandonment authority, and SEA would conduct an environmental review of the proposed abandonment at that time.

<sup>5</sup> Executive Order 13166 requires federal agencies to provide access to services for persons with limited English proficiency (LEP). It requires federal agencies to examine the service they provide, identify any need for services to those with LEP, and develop and implement a system by which LEP persons can meaningfully access those services consistent with, and without unduly burdening, the fundamental mission of the agency.

alignment to the north (the July Alternative), which was withdrawn from further consideration, as described in Chapter Three.

The project team presented the proposed project and the July Alternative to the Moses Lake City Council and Port of Moses Lake on October 17, 2007. A new alternative for the proposed project was developed for analysis based on these meetings (the October Alternative), but was withdrawn from further consideration. More information about the October Alternative is provided in Chapter Three.

## **Agency and Tribal Consultation and Coordination**

SEA and WSDOT contacted federal, state, and local agencies about the proposed project construction and operation, asking them to identify any issues and concerns related to the proposed project, and requesting information on permits and approvals that might be required. SEA and WSDOT also contacted Native American Tribes that may have ancestral connections to the project area. On April 2, 2007, consultation letters were sent to the following agencies, groups, and Tribes:

### **Federal Agencies**

- U.S. Army Corps of Engineers
- U.S. Bureau of Reclamation
- U.S. Bureau of Land Management
- U.S. Department of Agriculture, Natural Resources Conservation Service
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service
- NOAA Fisheries Service
- National Park Service
- Federal Railroad Administration
- Federal Aviation Administration<sup>6</sup>

### **State Agencies**

- Washington State Department of Archaeology and Historic Preservation (State Historic Preservation Office or SHPO)

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<sup>6</sup> A consultation letter was sent to the Federal Aviation Administration on June 27, 2008.

- Washington State Department of Community, Trade and Economic Development
- Washington State Department of Ecology
- Washington State Department of Fish and Wildlife
- Washington State Department of Natural Resources
- Washington State Department of Transportation, North Central Region
- Washington State Parks
- Washington State Utilities and Transportation Commission

### **Local Agencies**

- Grant County Community Development Department
- Grant County Economic Development Council
- Grant County Public Utility District
- Port of Moses Lake
- City of Moses Lake Community Development Department
- Moses Lake Irrigation and Rehabilitation District
- TransCo, via the Washington State Potato Commission
- Quad-County Regional Transportation Planning Organization

### **Tribes**

- Colville Confederated Tribes
- Confederated Tribes and Bands of the Yakama Nation
- Confederated Tribes of the Warm Springs Reservation
- Wanapum Tribe

The consultation letters described the proposed project, included a map of the study area showing the proposed rail alignment, and requested that any concerns be identified. The intent of early consultation was to provide agencies, officials, and Tribes with an opportunity to provide input at an early stage in the environmental review process, prior to the preparation of the EA.

The early notification and coordination was also intended to facilitate the timely identification, evaluation, and resolution of environmental and regulatory issues during preparation of the EA. Copies of response letters and comments that were received during the consultation process are provided in Appendices A and B.

## **How can I comment on the Northern Columbia Basin Railroad Project?**

Questions or comments about the proposed Northern Columbia Basin Railroad Project may be directed to:

Christa Dean  
Section of Environmental Analysis  
Surface Transportation Board  
395 E Street, SW, Room 1108  
Washington, DC 20423  
Phone: (202) 245-0299  
Fax: (202) 245-0454  
E-mail: [christa.dean@stb.dot.gov](mailto:christa.dean@stb.dot.gov)

Elizabeth Phinney  
WSDOT Rail & Marine Office  
P.O. Box 47407  
Olympia, WA 98504-7407  
Phone: (360) 705-7902  
Fax: (360) 705-6821  
E-mail: [phinnee@wsdot.wa.gov](mailto:phinnee@wsdot.wa.gov)

Written comments may also be filed electronically on the STB's website: <http://www.stb.dot.gov/stb/efilings.nsf>. From this link, click on "Environmental Comments" to be directed to an electronic comment form. Please reference STB Finance Docket No. 34936 in all correspondence.

All comments must be postmarked by **December 8, 2008**.

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# Chapter Nine

# List of Preparers

<b>Name</b>	<b>Project Role</b>
<b>Surface Transportation Board, Section of Environmental Analysis (LEAD FEDERAL AGENCY)</b>	
Victoria Rutson	Chief, Section of Environmental Analysis
Christa Dean	Attorney and Project Manager, Section of Environmental Analysis
<b>Washington State Department of Transportation, Rail &amp; Marine Office (LEAD STATE AGENCY)</b>	
Andrew Wood	Project Manager
Elizabeth Phinney	Environmental Manager
<b>HDR Engineering, Inc. (THIRD-PARTY CONSULTANT)</b>	
Martha Wiley	EA and Discipline Reports Manager
Marc Auten	Water Resources Analyst
Karen Behm	GIS Analyst, Exhibits
Alivia Body	Social Elements and Environmental Justice Analyst
Lora Elsom	Visual Quality Analyst
Maureen Finn	Document Production, Word Processing
Karissa Kawamoto	Energy Analyst
Ed Liebsch	Air Quality Senior Reviewer
John Meerscheidt	Cumulative Effects and Climate Change Analyst
Craig Milliken	Noise Senior Reviewer
Barbara Morson	Hazardous Materials Analyst
Jory Oppenheimer	Senior Water Resources Analyst
Curtis Overcast	Air Quality Analyst
Kurt Reichelt, PE	Senior Engineer
Josh Shippy, PE	Traffic Analyst
Carol Snead	Energy, Visual Quality, Land Use, Social Elements Senior Reviewer
Rona Spelleccy	Land Use Analyst
Mike Stimac, PE	Cumulative Effects Assessment, Senior Reviewer
Lucie Tisdale	Cultural Resources Senior Reviewer
Paul Weber, EIT	Project Engineer and Senior Reviewer
Barb Whiton	Lead Editor
<b>ATS (THIRD-PARTY CONSULTANT)</b>	
Zack Dennis, EIT	Noise Analyst
Hugh Saurenman, PE	Senior Noise Analyst
<b>Jones &amp; Stokes, Inc. (THIRD-PARTY CONSULTANT)</b>	
Chris Earle	Fish, Wildlife, and Vegetation Analyst
Brent Haddaway	Wetlands Analyst
Shane Sparks	Cultural Resources Analyst
Erin Vandehay	Fish, Wildlife and Vegetation Senior Reviewer

Name	Project Role
<b>Shannon &amp; Wilson (THIRD-PARTY CONSULTANT)</b>	
William Laprade	Soils and Geology Senior Reviewer
William Nashem	Soils and Geology Analyst

- AASHTO (American Association of State Highway and Transportation Officials). *A Policy on Geometric Design of Highway and Streets*, pp. 110-112 (2004).
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## **Appendix A**

### **Correspondence from Federal, State, and Local Agencies**



## **Appendix A**

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Appendix A contains copies of correspondence received by the Washington State Department of Transportation and the Surface Transportation Board that comment on the Proposed Action.



EI-2994

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**Phinney, Elizabeth**

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**From:** William\_Schurger@or.blm.gov  
**Sent:** Friday, April 27, 2007 8:54 AM  
**To:** Phinney, Elizabeth  
**Subject:** STB Finance Docket No. 34936 - Northern Columbia Basin Railroad Project

Dear Ms. Phinney:

This is sent in response to your letter of April 2, 2007, concerning the Northern Columbia Basin Railroad Project. Based on the alignments shown on the map included with your letter, no federal lands or resources under the jurisdiction of the Bureau of Land Management would be affected by this project. We appreciate your notification of this proposal.

Sincerely,

William Schurger  
Realty Specialist  
Bureau of Land Management  
Wenatchee Field Office  
509/665-2100

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-----Original Message-----

From: Paul.Johnson@faa.gov [mailto:Paul.Johnson@faa.gov]

Sent: Friday, August 29, 2008 6:33 AM

To: Phinney, Elizabeth

Subject: Northern Columbia Basin Railroad Project

Elizabeth,

We have reviewed your letter dated June 27, 2008 regarding Railroad links to be constructed near Grant County Airport. The proposal should be airspaced with the FAA using the attached link and should be filed as an "not located on airport property" submittal.

<https://oeaaa.faa.gov/oeaaa/external/portal.jsp>

Paul Johnson P.E.  
Seattle Airports District Office (SEA-631)  
(425) 227-2655

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**From:** Neils, Chandra - Spokane, WA [mailto:Chandra.Neils@wa.usda.gov]  
**Sent:** Wednesday, August 20, 2008 11:55 AM  
**To:** Spellecacy, Ronalee R.  
**Subject:** RE: Land use sheet 1 of 3

Hi Rona,

According to the Farmland Protection Policy Act, Subtitle 1, Section 2.(c).(1).(A)....."[Prime farmland] does not include land already in or committed to urban development or water storage." I will complete the form I have here and mail back to you for your records. I don't need any further information on this project. The form will go out in today's mail. I enjoyed working with you. If you need further assistance please contact me. Thanks,

Chandra Neils

FARMLAND CONVERSION IMPACT RATING  
FOR CORRIDOR TYPE PROJECTS

<b>PART I (To be completed by Federal Agency)</b>		3. Date of Land Evaluation Request	7/23/08	4. Sheet 1 of 1
1. Name of Project <b>Northern Columbia Basin Railroad Project</b>		5. Federal Agency Involved <b>Surface Transportation Board / Section of Environmental And</b>		
2. Type of Project <b>Construction and operation of rail line</b>		6. County and State <b>Grant County, Washington</b>		
<b>PART II (To be completed by NRCS)</b>		1. Date Request Received by NRCS 7-30-08	2. Person Completing Form Charles Neils	
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form).		YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		4. Acres Irrigated / Average Farm Size
5. Major Crop(s)	6. Farmable Land in Government Jurisdiction		7. Amount of Farmland As Defined in FPPA	
	Acres: %		Acres: %	
8. Name Of Land Evaluation System Used	9. Name of Local Site Assessment System		10. Date Land Evaluation Returned by NRCS	

<b>PART III (To be completed by Federal Agency)</b>	<b>Alternative Corridor For Segment</b>			
	<b>Corridor A</b>	<b>Corridor B</b>	<b>Corridor C</b>	<b>Corridor D</b>
A. Total Acres To Be Converted Directly	0	0	0	0
B. Total Acres To Be Converted Indirectly, Or To Receive Services	0	0	0	0
C. Total Acres in Corridor	0	0	0	0

**PART IV (To be completed by NRCS) Land Evaluation Information**

A. Total Acres Prime And Unique Farmland	
B. Total Acres Statewide And Local Important Farmland	
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	

**PART V (To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)**

<b>PART VI (To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))</b>	<b>Maximum Points</b>				
1. Area in Nonurban Use	15	0	0	0	0
2. Perimeter in Nonurban Use	10	0	0	0	0
3. Percent Of Corridor Being Farmed	20	0	0	0	0
4. Protection Provided By State And Local Government	20	0	0	0	0
5. Size of Present Farm Unit Compared To Average	10	0	0	0	0
6. Creation Of Nonfarmable Farmland	25	0	0	0	0
7. Availability Of Farm Support Services	5	0	0	0	0
8. On-Farm Investments	20	0	0	0	0
9. Effects Of Conversion On Farm Support Services	25	0	0	0	0
10. Compatibility With Existing Agricultural Use	10	0	0	0	0
<b>TOTAL CORRIDOR ASSESSMENT POINTS</b>	<b>160</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**PART VII (To be completed by Federal Agency)**

Relative Value Of Farmland (From Part V)	100				
Total Corridor Assessment (From Part VI above or a local site assessment)	160	0	0	0	0
<b>TOTAL POINTS (Total of above 2 lines)</b>	<b>260</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project: 0	3. Date Of Selection:	4. Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input type="checkbox"/>
-----------------------	--	-----------------------	--

5. Reason For Selection:

Signature of Person Completing this Part:  DATE: 7/29/08

NOTE: Complete a form for each segment with more than one Alternate Corridor

RECEIVED

E1-2988  
6



APR 09 2007  
WbuuirtAILUf~RCE

United States Department of the Interior



FISH AND WILDLIFE SERVICE

*Upper Columbia Fish and Wildlife Office  
11103 East Montgomery Drive  
Spokane, WA 99206*

April 6, 2007

Elizabeth Phinney  
WSDOT Rail Office  
P.O. Box 47407  
Olympia, WA 98504-7407

Subject: Species List for the STB Finance Docket No. 34936, Northern Columbia Basin  
Railroad Project in Grant County, WA

Dear Ms. Phinney:

This responds to your recent request for a list of threatened and endangered species. For your convenience, updated countywide species and habitat listings are now available on our website at <http://easternwashington.rvvs.eov>. To view the listings in your area of concern, select "county species lists" within the ESA programs page, and then select the county of interest. The lists available on our website are compliant with Section 7(c) of the Endangered Species Act of 1973, as amended (Act), and are the most current available listings of endangered, threatened and proposed species and critical habitats in a given area. For optional consideration, the lists also contain updated candidate species.

When you submit a request for Section 7 consultation, we request that you include your downloaded species list and the date it was downloaded, as an attachment. If applicable, please also include the United States Fish and Wildlife Service reference number on your consultation request. This will document your compliance with 50 CFR 402.12 (c).

Should your project plans change significantly, or if the project is delayed more than 90 days, you should update your species lists through our website and through the above listed agencies. Thank you for your efforts to protect our nation's species and their habitats. If you have any questions concerning the above information, please contact Suzanne Audet at (509) 893-8002, or via email at [Suzanne\\_Audet@fws.gov](mailto:Suzanne_Audet@fws.gov).

Sincerely,

A handwritten signature in cursive script that reads "Suzanne Audet".

Handwritten initials, possibly "SA", followed by the word "Supervisor".



RECEIVED

APR 11 2007  
WSDOT RAIL OFFICE

STATE OF WASHINGTON

fc:

**DEPARTMENT OF ARCHAEOLOGY & HISTORIC PRESERVATION**

*1063 S. Capitol Way, Suite 106 - Olympia, Washington 98501*  
*Mailing address: PO Box 48343 • Olympia, Washington 98504-8343*  
*(360)586-3065 • Fax Number (360) 586-3067 • Website: www.dattp.wa.gov*

2991  
CP

April 10,2007

Ms. Christa Dean  
Section of Environmental Analysis  
Surface Transportation Board  
1925 K Street NW  
Washington, DC 20423-0001

In future correspondence please refer to:

Log: 041007-02-STB  
Property: STB Docket No. 34936, Northern Columbia Basin Railway Project  
Re: More Information Needed

Dear Ms. Dean:

Thank you for contacting our office. We have reviewed the materials you provided for this project. In order to complete our review we require the following material to be provided to our office:

- Could you please provide more detailed information regarding the proposed alignment construction and/or modification? By defining your area of potential effect (APE), it allows our office to officially begin the consultation process and provide you with the guidance that you require.

We would appreciate receiving any correspondence or comments from concerned tribes or other parties that you receive as you consult under the requirements of 36CFR800.4(aX4) and the survey report when it is available.

These comments are based on the information available at the time of this review and on behalf of the State Historic Preservation Officer pursuant to Section 106 of the National Historic Preservation Act and its implementing regulations 36CFR800. Please feel free to contact me should you have any specific questions about our request and we took forward to receiving this material.

Please note that DAHP has developed a set of cultural resource reporting guidelines. You can obtain from our website. Thank you for the opportunity to review and comment. Should you have any questions, please feel free to contact me.

Sincerely,

Matthew Sterner, M.A., RPA  
Transportation Archaeologist  
(360) 586-3082  
matthew.stenier@dahp.wa.gov

Cc: Elizabeth Phinney, WSDOT, Rail Office, MS 47407



**DEPARTMENT OF ARCHAEOLOGY & HISTORIC PRESERVATION**

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STATE OF WASHINGTON

**DEPARTMENT OF ARCHAEOLOGY & HISTORIC PRESERVATION**

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Mailing address: PO Box 48343 • Olympia, Washington 98504-8343  
(360) 586-3065 • Fax Number (360) 586-3067 • Website: [www.dahp.wa.gov](http://www.dahp.wa.gov)

October 31, 2007

Ms. Christa Dean  
Section of Environmental Analysis, Surface Transportation Board  
1925 K Street NW  
Washington, DC 20423-0001

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NOV 02 2007

WSDOT RAIL OFFICE

In future correspondence please refer to:

Log: 041007-02-STB

Property: STB Docket No. 34936, Northern Columbia Basin Railway Project

Re: Archaeology - APE Concur

Dear Ms. Dean:

We have reviewed the materials forwarded to our office for the Northern Columbia Basin Railway project (STB Docket No. 34936). Thank you for your description of the area of potential effect (APE) for the project. We concur with the definition of the APE. We look forward to the results of your cultural resources survey efforts, your consultation with the concerned tribes, and receiving the survey report. We would appreciate receiving any correspondence or comments from concerned tribes or other parties that you receive as you consult under the requirements of 36CFR800.4(a)(4) and the survey report when it is available.

These comments are based on the information available at the time of this review and on behalf of the State Historic Preservation Officer in conformance with Section 106 of the National Historic Preservation Act and its implementing regulations 36CFR800. Should additional information become available, our assessment may be revised. Please note that DAHP has developed a set of cultural resource reporting guidelines. You can obtain a copy of these guidelines from our Web site. Thank you for the opportunity to review and comment. Should you have any questions, please feel free to contact me.

Sincerely,

Matthew Sterner, M.A., RPA  
Transportation Archaeologist  
(360) 586-3082  
[matthew.sterner@dahp.wa.gov](mailto:matthew.sterner@dahp.wa.gov)

Cc: Elizabeth Phinney, WSDOT Rail Office, MS 47387



DEPARTMENT OF ARCHAEOLOGY & HISTORIC PRESERVATION

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E1-9603  
CD



STATE OF WASHINGTON

**DEPARTMENT OF ARCHAEOLOGY & HISTORIC PRESERVATION**

1063 S. Capitol Way, Suite 106 • Olympia, Washington 98501  
Mailing address: PO Box 48343 • Olympia, Washington 98504-8343  
(360) 586-3065 • Fax Number (360) 586-3067 • Website: [www.dahp.wa.gov](http://www.dahp.wa.gov)

August 20, 2008

Ms. Christa Dean  
Section of Environmental Analysis, Surface Transportation Board  
1925 K Street NW  
Washington, DC 20423-0001

In future correspondence please refer to:

Log: 041007-02-STB

Property: STB Docket No. 34936, Northern Columbia Basin Railway Project

Re: Review Comments

Dear Ms. Dean:

Thank you for contacting the Washington State Department of Archaeology and Historic Preservation (DAHP) and providing a copy of the report entitled, *Northern Columbia Basin Railroad Project: Draft Cultural Resources Discipline Report*, completed by Jones and Stokes. The Northern Columbia Basin Railway project report has been reviewed on behalf of the State Historic Preservation Officer under provisions of Section 106 of the National Historic Preservation Act of 1966 (as amended) and 36 CFR Part 800. The following comments represent the combined comments of myself and Mr. Russell Holter, Built Environment Compliance Reviewer for DAHP. Our combined comments on the report are presented in no particular order.

- There is no accompanying electronic data for the historic property inventory forms.
- There is no mention of the railroad alignment itself as either a historic property or an archaeological resource. The age of the line would certainly warrant its consideration as a historic resource, yet no mention was made of its eligibility or potential impacts that might result from this undertaking.
- We will not be able to entertain an effect determination until those properties that were not evaluated as part of this study are evaluated for potential effects that might result from this undertaking. Until these access issues are resolved or dealt with programmatically, we will not be able to entertain any effect determination.
- Please justify the paucity of subsurface archaeological testing for this project. Much of the proposed alignment appears to fall within undeveloped land or land under agricultural development only. Please explain why additional testing was not conducted in these areas.
- Figures located on pages 2-15, 2-17, and 2-19 have no captions, legends, or other identifying information. The figures located on pages 2-17 and 2-19 are not listed in the front matter.



**DEPARTMENT OF ARCHAEOLOGY & HISTORIC PRESERVATION**

*Protect the Past. Shape the Future.*

Thank you for the opportunity to review and comment. We look forward to your continued oversight of this project and await additional information and determinations of eligibility and effect.

Sincerely,



Matthew Sterner, M.A., RPA  
Transportation Archaeologist  
(360) 586-3082  
[matthew.sterner@dahp.wa.gov](mailto:matthew.sterner@dahp.wa.gov)

Cc: Pam Trautman, WSDOT ESO, MS 47332





EI-2993  
CD

State of Washington  
**Department of Fish and Wildlife**

Mailing Address: 1550 Alder Street NW, Ephrata WA 98823, (509) 754-4624, TDD (360) 902-2207

April 23, 2007

WSDOT Rail Office  
Attention: Ms. Elizabeth Phinney  
P.O. Box 47407  
Olympia, WA 98504-7407

Dear Ms. Phinney

**SUBJECT: Request for Information and Preliminary Comments; STB Finance Docket No. 34936, Northern Columbian Basin Railroad Project**

The Washington Department of Fish and Wildlife (WDFW) understands that the Surface Transportation Board and Washington State Department of Transportation are proposing to both build a new rail line and improve and/or extend existing track to attract new rail dependent businesses to the Moses Lake region.

Without knowing the exact route the proposed new tracks are going to take, the comments WDFW can offer at this point are only general in nature. According to WDFW's Priority Habitat and Species (PHS) maps, the proposed new tracks between Wheeler and Parker Horn have the potential to impact wetland areas. Both temporary and long term disturbances to these wetlands will require mitigation. If the proposed new rails cross over Parker Horn, a Hydraulic Project Approval permit from the WDFW will be required.

According to the Heritage Point database, burrowing owls have been noted in the past occupying the general area proposed for the railway extension. The burrowing owl is a candidate species for the state endangered list due to their declining population numbers. The proposed railway extension route should attempt to avoid potential burrowing owl habitat and/or mitigate for unavoidable impacts.

Ms. Phinnéy  
April 23, 2007  
Page 2 of 2

If you have any questions, please contact me at 509-754-4624.

Sincerely,

*Eric D. Pentico*

Eric D. Pentico  
Habitat Program

FDP:edp



"Honsinger, Dave"  
<HonsinD@WSDOT.WA.GOV>  
V>  
05/03/2007 11:25 AM

To "Phinney, Elizabeth" <PhinneE@WSDOT.WA.GOV>, <christa.dean@stb.dot.gov>  
cc  
bcc

Subject Northern Columbia Basin Railroad Project

This email is in response to the April 2, 2007 letter from Victoria Ruston in regards to the beginning of the environmental review for the proposed rail improvement and expansion project in the Moses Lake, Washington area.

I apologize for not making your requested response date of May 2, 2007.

Regionally, WSDOT - North Central Region does not foresee any significant environmental effects that could not be either avoided or mitigated. We assume you will proceed with the standard environmental review process which will address the areas of cultural, historical, and biological issues that will be along any proposed routes. We do not foresee any negative impacts to the highway transportation system from the initial proposed routes. There could be positive impacts if any at-grade highway and railroad crossings could be eliminated.

Please keep me posted and updated on your environmental review.

-----  
**Dave Honsinger**  
North Central Region:  
Transportation Planning Manager /  
Assistant Program Manager  
WA State Dept. of Transportation  
1551 N. Wenatchee Avenue  
Wenatchee, WA 98801  
ph: 509.667.2906 fax: 509.667.2940  
e-mail: honsinD@WSDOT.WA.GOV  
-----



E1-2995

CD

STATE OF WASHINGTON  
WASHINGTON STATE PARKS AND RECREATION COMMISSION

EASTERN REGION HEADQUARTERS • OPERATIONS DIVISION  
2201 N. Duncan Drive • Wenatchee, Washington 98801-1007 • (509) 662-0420  
TDD (Telecommunications Device for the Deaf): (509) 664-3162

April 24, 2007

Ms Elizabeth Phinney  
WSDOT Rail Office  
PO Box 47407  
Olympia WA 98504-7407

RECEIVED

APR 30 2007  
WSDOT RAIL OFFICE

**RE: Northern Columbia Basin Railroad Project**

Dear Ms Phinney:

The Washington State Parks and Recreation Commission (WSPRC) has no resources that will be affected by this project.

WSPRC does not have jurisdiction over any permits or approvals that will affect the project.

WSPRC would strongly encourage project proponents to coordinate with staff from Grant County and the City of Moses Lake regarding potential cooperative efforts to develop Rails with Trails, which may enhance the regional trail system in that area. Improved non-motorized transportation corridors, and additional recreation that supports healthy lifestyles, would certainly be positive environmental impacts.

Thanks for considering these comments.

Sincerely,

A handwritten signature in black ink that reads "Jim Harris".

Jim Harris  
Region Manager

Cc: Bill Koss, Planning Program, manager  
Mark Gillespie, Parks Development Region Manager



7810 Andrews St. N.E., Suite 200  
Moses Lake, WA, USA 98837-3204

PHONE 509-762-5363

FAX 509-762-2713

E-MAIL [info@portofmoseslake.com](mailto:info@portofmoseslake.com)

WEB SITE [www.portofmoseslake.com](http://www.portofmoseslake.com)

September 16, 2008

Mr. Joseph K. Gavinski, Manager  
CITY OF MOSES LAKE  
P.O. Box 1579  
Moses Lake, WA 98837

Dear Mr. Gavinski:

This is in reference to our recent discussion regarding the "Application to Amend the Comprehensive Plan or Development Regulation" that was submitted by Mr. Odell Crittenden for property located on the south side of Road 4, NW, Moses Lake, WA. The property is identified as a portion of parcels 170542000 and 190681000. It is our understanding that approval of his request to amend the comprehensive plan would begin the process to change the land use from light industrial to residential.

We are sending this letter to go on record with the City Council that the Port of Moses Lake (Port), a municipality of the State of Washington, opposes the landowner's request and we request the City Council deny the request for the following reasons:

- 1) The Port, together with the Columbia Basin Railroad, is proposing to construct and operate a new line of rail near and across a portion of the Crittenden property. This proposed new rail will cross over the southwest portion of the property (see attached diagram). As the Council is aware, there is an ongoing regulatory proceeding before the Surface Transportation Board (STB), the Federal agency with exclusive jurisdiction over lines of rail related to interstate commerce, for a grant of construction and operational authority. The Port's plan for this rail line has been longstanding and the proposed routing has been well publicized, including a Public Open House hosted by the STB and Washington State Department of Transportation (WSDOT) on July 19, 2007; followed by a presentation to the City Council on October 23, 2007.
- 2) Reclassification of the landowner's property (which is located within the area of Segment 1 of the project) to residential is incompatible and inconsistent with the Port's plans for rail service to shippers. The purpose of the project is to provide rail service to lands designated for industrial development in the northern part of the City of Moses Lake as

"Your Partner For Progress"

Executive Manager: CRAIG L. BALDWIN • Commissioners: DELONE D. KRUEGER - MICHAEL B. CONLEY - DAVID J. PLATE

Page 2.  
CITY OF MOSES LAKE  
September 16, 2008

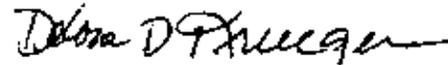
well as to the south and east of the Grant County International Airport. The Port's project thus serves an important and vital public purpose.

- 3) It would be contrary to public policy for the City Council to reclassify this land as requested by the landowner. Sound public policy suggests that areas not zoned residential should not be reclassified as residential when the City Council and planning authorities are well aware of a planned industrial use of property nearby by a governmental authority. In this instance, the Port's plans are concrete and substantial public monies have already been expended in furtherance of the project (including design and engineering, and ongoing environmental study by the STB and WSDOT). A residential use in such close proximity to planned industrial operations is clearly incompatible and should not be approved.
- 4) The Port was not given the opportunity to review the documents prior to recommendation of the City Planning Commission to the City Council. Further, the City Council at its meeting of October 23, 2007, voted to support the project, with the new route to be along the Wheeler Corridor, and keeping in mind that it would eventually remove the rail from downtown. As a follow-up, the City of Moses Lake correspondence dated February 13, 2008, supported the construction of both Segments 1 & 2 between Wheeler to Stratford Road and continuing to the east side of the Airport.

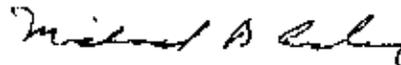
Based on the reasons above, the Port hereby urges the Council to deny the request to Amend the Comprehensive Plan or Development Regulation.

Sincerely,

PORT OF MOSES LAKE  
BOARD OF COMMISSIONERS



Delone D. Krueger, President



Michael E. Conley, Secretary



David J. Plate, Member

CC: Mayor Ron Covey  
City Council Members



GRANT COUNTY INTERNATIONAL AIRPORT  
Foreign Trade Zone #203

7810 Andrews St. N.E., Suite 200  
Moses Lake, WA, USA 98837-3204

PHONE 509-762-5363

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E-MAIL [info@portofmoseslake.com](mailto:info@portofmoseslake.com)

WEB SITE [www.portofmoseslake.com](http://www.portofmoseslake.com)

September 24, 2008

Ms. Victoria J. Rutson  
Chief, Section of Environmental Analysis  
SURFACE TRANSPORTATION BOARD  
395 E Street, S.W.  
Room 1106  
Washington, D.C. 20423

Mr. Andrew Wood  
WASHINGTON STATE  
DEPARTMENT OF TRANSPORTATION  
P. O. Box 47322  
Olympia, WA 98504-7322

Re: Finance Docket No. 34936, Northern Columbia Basin Railroad Project in Moses Lake, WA.

Dear Ms. Rutson and Mr. Wood:

As you are aware, the Port of Moses Lake (Port), an applicant in the above-captioned proceeding before the Surface Transportation Board, seeks authority to construct and operate a line of rail. The STB, through its Section of Environmental Analysis, and Washington State Department of Transportation are acting as co-leads in the preparation of environmental documentation for the proposed project.

The Port understands that SEA and WSDOT are considering a route with certain alternative segments for the project. It is customary for an applicant to identify a preferred routing.

The Board of Commissioners for the Port, at their meeting of September 22, 2008, unanimously voted to support Segment 1A, Segment 2 and Segment 3 as its preferred routes. While Segment 1 and 1A are similar in nature, we realize there are less wetlands associated with Segment 1A. Because of the lesser environmental impacts of Segment 1A, we feel this alternative is preferable. Segment 2 is preferred over Segment 2A because it lies on property already owned by the Port and provides preferred access.

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Executive Manager CRAIG L. BALDWIN • Commissioners: DELONE D. KRUEGER - MICHAEL B. CONLEY - DAVID J. PLATE

Page 2.  
STB / DOT  
September 24, 2008

We respectfully request the record the show the Port's preference on routing. Thank you for all your assistance and please do not hesitate to contact me should you have any questions.

Sincerely,

PORT OF MOSES LAKE



Craig L. Baldwin  
Executive Manager

CLB/bl  
F:\msword\bonnie\STB Rail Route Preference



6594 Patron Boulevard NE Moses Lake, WA 98837  
Ph: 509.764.6579 Fax: 509.762.5161  
www.grantedc.com

E1-2987  
CD

RECEIVED  
APR 09 2007  
WSDOT RAIL OFFICE

April 5, 2007

Ms. Elizabeth Phinney  
WSDOT Rail Office  
P.O. Box 47407  
Olympia, WA 98504-7407

RE: STB Finance Docket No. 34936, Northern Columbia Basin Railroad Project

Dear Ms. Phinney:

I am writing on behalf of the Grant County Economic Council to express our support for the development of the Northern Columbia Basin Railroad Project.

During the past ten years we have worked closely with a number of developers and clients who have required rail service for various industrial projects in the greater Moses Lake area. During that time we have seen some of those projects either go to construction or at least become vested in preparation for construction. During the same period, many of the projects have gone to other locations because adequate rail service is not available to serve the majority of the heavy industrial zoned parcels in the greater Moses Lake area.

We firmly believe that the Northern Columbia Railroad Project is needed for the future of industrial development in the Greater Moses Lake area. Today there are few available industrial use parcels with serviceable rail access. We believe that the environmental impacts of new rail construction will be no greater than those of the new SR 17 four-lane road construction currently under construction in Moses Lake between Pioneer Way and Stratford Road.

We believe that the entire, proposed Northern Columbia Basin Railroad Project will provide long term economic benefits for the community, the region and the State of Washington and therefore we fully support the project. Please contact me at the above number or via email at [tbrewer@grantedc.com](mailto:tbrewer@grantedc.com) if you have any questions regarding our organization, our mission, or our interest in this project.

Sincerely,

A handwritten signature in cursive script that reads 'Terry L. Brewer'.

Terry L. Brewer, CEcD  
Executive Director

CC: Karen Bonaudi  
Albert Anderson



6594 Patton Boulevard NE Moses Lake, WA 98837  
Ph: 509.764.6579 Fax: 509.762.5161  
www.grantedc.com

October 1, 2008

City Council Members  
City of Moses Lake  
P.O. Box 1579  
Moses Lake, WA 98837

RE: **2008 Comprehensive Plan Amendment "Odell Crittenden Zone Change Request"**

Dear Council Member:

I am writing to express concern over the recent decision by the Moses Lake Planning Commission to recommend approval of the Odell Crittenden request for a Comprehensive Plan Amendment.

It is the opinion of the Grant County Economic Development Council that changing the Zoning of 160 acres of Light Industrial Land to R-2 (Medium Density Residential) will significantly reduce the amount of undeveloped light industrial land in the city. There is a limited inventory of light industrial land in the City of Moses Lake at this time and the rezone of 160 acres of light industrial land will lessen opportunity for the development of projects that must be situated in a light industrial zone.

Furthermore, we do not believe that it is appropriate to site residential development in the middle of an already established and partially developed light industrial zone. Residential and light industrial uses are not generally considered compatible in suburban areas and future conflicts between property owners may arise and be difficult to resolve.

We also wish to point out that according to GMA, a community must be able to substantiate population growth projections in order to increase residential designations in the UGA. Moses Lake already has an adequate amount of residentially zoned property available for development.

The Grant County Economic Development Council has a long and successful history of assisting with industrial development. We have assisted with the development of a significant number of projects in the past four years that resulted in a site plan requiring more than a few acres. The change of 160 acres of light industrial property to medium density residential property will significantly lessen the opportunities for future industrial sector development in what is already an existing industrial area.

Thank you for your consideration of our concerns.

Sincerely,

Lynn Garza  
President

# GRANT COUNTY FIRE DISTRICT 5

*Serving the Community Since 1949*

August 10, 2007

Elizabeth Phinney  
Rail Environmental Manager  
WSDOT State Rail Office

Olympia, WA 98507

RE: Northern Columbia Basin Railroad Project

Dear Ms. Phinney,

Grant County Fire District No. 5 would like to take this opportunity make comments concerning the impact on public safety and emergency response within our community as it relates to the Northern Columbia Basin Railroad Project. We were unable to attend the public meeting to comment on the matter.

We have taken a great deal of consideration in this matter and reviewed the Moses Lake Railroad Taskforce Study, July 2003, and the Northern Columbia Basin Railroad Project Study, February 2006. We have also reviewed the Segment 1 and 2 maps that you provided us with on August 9, 2007. We have the following comments/recommendations based on the current project map:

1. Recommend that WSDOT review the impact of creating multiple crossings on a single route of travel – Wheeler Road NE. This impact would be reduced by keeping the rail north of Wheeler Road. If the rail is moved south of Wheeler Road it will cause a crossing of Road L and second crossing on Wheeler Road. This will cause significant delays and route response issues for emergency vehicles trying to travel into a significant portion of our Fire District.
2. If the section of the rail is moved south of Wheeler Road, congestion will be caused at the existing access point at Wheeler and Road O NE by the movement of rail cars to a from different spurs. We already have four different crossing points within a 1 square mile area.
3. Recommend the WSDOT reconsider the recommendations made in the July 2003 Taskforce study. Recommendations in this report indicated that in Scenarios 3-5 that the main portion of the Railroad be kept north and away from traveling through the more

**11058 Nelson Road NE, Moses Lake, Washington 98837-8812**

Business (509) 765-3175 ☐ Fax (509) 765-3550 ☐ e-mail: fire5@grantcounty5.net ☐ web: www.grantcounty5.net

suburban and urban areas surrounding Moses Lake as is suggested in the current plan. There are already spur lines that service the areas addressed in the Wheeler Road industrial area. These lines could be expanded without significant impact to road systems or emergency response routes.

4. Based on the July 2003 Taskforce study, movement of the route further to north on previously established rail beds would create less crossings in already congested areas of Wheeler Road, Broadway, Road K NE and Stratford Road. By moving the main route into the Port of Moses Lake further north, it will decrease the potential for delays in access to critical infrastructure and residential communities that will be significantly impacted by traveling through the proposed areas.

Along the proposed route of Segment 1 and Segment 1 Alternate there is no rail usage for shipping or receiving that we are aware of. Most of that area is zoned for residential and commercial, not industrial. There is significant potential throughout the proposed routes for crossing heavily traveled commuter roads, both city and county. Also, it creates the potential for incidents with hazardous materials on rail cars in residential areas that could be avoided.

The study conducted by the Moses Lake Railroad Taskforce Feasibility/Cost Study suggests that moving the rail north will improve potential for connection to other systems, without direct impact on more populated areas. We support this report, especially the proposed routes in Scenarios 3 through 5. These still provide improved access to the Port of Moses Lake, while minimizing the impact of rail crossings on areas requiring greater emergency response.

We urge the WSDOT to consider the impact of such a significant number of crossings on a heavily traveled area. The movement of the existing railroad to southern area of Wheeler Road NE will significantly impact the ability of the Fire District to provide effective and efficient services to the taxpaying citizens and industries that we serve in those areas. Thank you for your consideration.

Sincerely,

*Sent without signature to avoid delay.*

Roger Hansen  
Fire Chief

cc: Board of Commissioners, GCFD#5

E1-2990  
LD

**Phinney, Elizabeth**

---

**From:** Derek Pohle [dpohle@co.grant.wa.us]  
**Sent:** Monday, April 09, 2007 11:32 AM  
**To:** Phinney, Elizabeth  
**Subject:** Northern Col. Basin RR Proj.

Elizabeth,

I am responding to your request for prelim comments for NEPA/SEPA. Currently our only concerns are, extending rail further into the port will require another crossing on Randolph road, and the new alignment from Wheeler to Parker Horn will add 4 new county road crossings. We are concerned that the cost of the new crossings does not fall on the county and that they are constructed to widths of our choice. The proposed new crossings would be on roads and at locations of higher ADT than the current locations proposed to be abandoned. The effect of the new rail lines would be to decrease traffic efficiency on the county road system north of Moses Lake, but the overall benefit to the region is positive.

Derek Pohle, P.E.  
Director of Public Works/County Engineer  
509-754-6082

CITY OF MOSES LAKE  
W A S H I N G T O N



City Manager .....	766-9231	Municipal Serv.....	766-9217
City Attorney.....	766-9203	Municipal Court.....	766-9201
Community Dev.....	766-9235	Parks & Rec.....	766-9240
Finance Dept.....	766-9249	Police Dept.....	766-9230
Fire Dept.....	765-2204	Fax.....	766-9353

September 12, 2007

Andrew Wood  
Deputy Director  
Rail and Marine Freight Systems Division  
Washington State Dept. of Transportation  
P. O. Box 47300  
Olympia, WA 98504-7300

RE: Northern Columbia Basin Rail Project "Request for Comments"

Dear Mr. Wood

At the Moses Lake City Council's regular meeting held on August 28, 2007, the Council considered route options for the Northern Columbia Basin Rail Project.

After a considerable amount of discussion, it was the consensus of the Council that a letter be written and sent to the Washington State Department of Transportation regarding the Northern Columbia Basin Rail Project, stating that the City of Moses Lake would like the Washington State Department of Transportation and the Surface Transportation Board to consider a northern route, the route north of Wheeler Road for the rail project rather than the currently proposed segment 1 route that is south of Wheeler Road.

If there are any questions with regard to the city's position, please do not hesitate to contact me.

Very truly yours

  
Joseph K. Gavinski  
City Manager

JKG:jt

cc: Al Anderson, Port of Moses Lake, 7810 Andrews NE, Suite 200, Moses Lake, WA  
98837

CITY OF MOSES LAKE  
W A S H I N G T O N



City Manager .....	766-9201	Municipal Serv. ....	766-9217
City Attorney .....	766-9203	Municipal Court .....	766-9201
Community Dev .....	766-9235	Parks & Rec .....	766-9240
Finance Dept. ....	709-9249	Police Dept. ....	766-9230
Fire Dept. ....	765-2204	Fax. ....	766-9232

October 16, 2007

Andrew Wood, Deputy Director  
State Rail and Marine  
Wash. State Dept. of Transportation  
P. O. Box 47300  
Olympia, WA 98504-7300

RE: Northern Columbia Basin Rail Project "Request for Comments"

Dear Mr. Wood

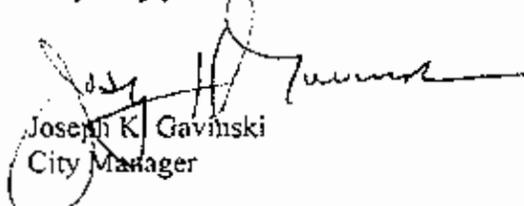
In response to your letter of September 21, 2007, the City Council's position for a new rail line is one that will follow the former Northern Pacific Railway route. The Council took the position it did, because it wished the line to be as far removed as possible from the city's current population centers now and as they are intended to exist in the future.

Since the Council elected to provide its comment, further discussions have been held with the Mayor and other Council members about a new route. After hearing from you at the October 23, 2007 City Council meeting, the Council may have further discussion and provide further comment with regard to its suggestions for a railroad route.

I hope this information provides you some additional guidance as to the City Council's position. I, city staff, and City Council look forward to hearing from you on October 23, 2007.

If you have any questions or comments, please do not hesitate to contact me.

Very truly yours,



Joseph K. Gavinski  
City Manager

JKG:jt

cc: Al Anderson, Port of Moses Lake, 7810 Andrews NE, Suite 200, Moses Lake, WA 98837

CITY OF MOSES LAKE  
W A S H I N G T O N



City Manager.....	766-8201	Municipal Serv.....	766-8217
City Attorney.....	766-8203	Municipal Court.....	766-8201
Community Dev.....	766-8205	Public Works.....	766-8844
Finance Dept.....	766-8228	Police Dept.....	766-9230
Fire Dept.....	766-8229	Public Works.....	766-8844

February 13, 2008

FEB 14 2008

IND. PARK \_\_\_\_\_  
MAINT. \_\_\_\_\_ FILE \_\_\_\_\_

Craig Baldwin  
Executive Manager  
Port of Moses Lake  
7810 Andrews Street NE, Suite 200  
Moses Lake, WA 98837

RE: Railroad

Dear Mr. Baldwin

The City of Moses Lake would like to go on record as supporting the Port of Moses Lake's efforts to improve railroad service to the industrial properties on the Port of Moses Lake's property. In order to provide improved railroad service to the Port of Moses Lake's industrial area, the city supports the construction of the "Segment 1" rail line between Wheeler to approximately Stratford Road, and the "Segment 2" rail line to the east side of the Grant County International Airport as set forth in the Northern Columbia Basin Railroad Project.

The construction of Segment 1 and Segment 2 of the project is important not only to the Port of Moses Lake but also to the City of Moses Lake inasmuch as it will provide improved rail service to the Port of Moses Lake and enhance the possibilities of industrial development on Port property but will also allow for the abandonment of the railroad line through the City of Moses Lake. The abandonment of this line will improve safety in the City of Moses Lake because it will reduce the number of railroad crossings at grade over city streets.

Very truly yours

Handwritten signature of Ronald C. Covey in black ink, enclosed in a large, hand-drawn oval.

Ronald C. Covey  
Mayor

Handwritten signature of Joseph K. Gavruski in black ink, enclosed in a large, hand-drawn oval.

Joseph K. Gavruski  
City Manager

RCC:JKG:jt



321 S. Balsam St.  
P.O. Box 1579  
Moses Lake, WA 98837-0244  
Phone: (509) 766-9214

October 20, 2008

Andrew M. Wood, Deputy Director  
Rail and Marine  
State Rail and Marine Office  
Wash. State Dept. of Transportation  
310 Maple Park Avenue SE  
P. O. Box 47407  
Olympia, WA 98504-7407

RECEIVED  
OCT 22 2008  
WSDOT RAIL OFFICE

RE: Northern Columbia Basin Rail Project

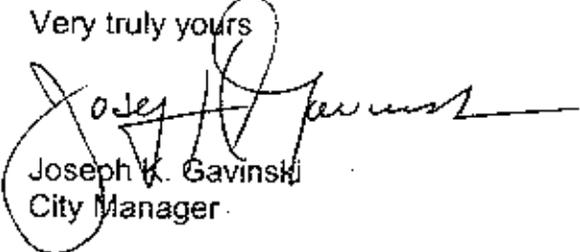
Dear Mr. Wood

On October 23, 2007 you made a presentation to the Moses Lake City Council with regard to the Northern Columbia Basin Rail Project. At that time you discussed the different routes that were proposed for the project and indicated that the northern citizen option did not meet the goals of the proposed project and would not be carried forward in the environmental assessment. If you will recall, the City of Moses Lake preferred the northern route, which would have followed the old Northern Pacific Railroad route.

There was discussion by the City Council following your presentation and because you indicated that the citizen option or northern route would not meet the goals of the proposed project and would not be carried forward in the environmental assessment, the City Council agreed that the alignment proposed by the Washington State Department of Transportation, which followed a route south of Wheeler Road was a reasonable option under the circumstances. With that in mind, the City Council endorsed that proposed alignment.

If there are further questions with regard to the City Council's position on the proposed alignment of the Northern Columbia Basin Rail Project, please do not hesitate to contact me.

Very truly yours

  
Joseph K. Gavinski  
City Manager

JKG:jt



"Phinney, Elizabeth"  
 <PhinneE@wsdot.wa.gov>  
 08/09/2007 06:39 PM

To <Christa.Dean@stb.dot.gov>, "Wood, Andrew"  
 <WoodA@WSDOT.WA.GOV>, "Gregory, Lynnette"  
 <GregorL@WSDOT.WA.GOV>, <linda@resourcenw.com>,  
 cc  
 bcc  
 Subject FW: RE:

-----Original Message-----

From: Robbie Mason [mailto:rmason@mlsd.wednet.edu]  
 Sent: Thursday, August 09, 2007 3:21 PM  
 To: Phinney, Elizabeth  
 Subject: Re: RE:

Dear Ms. Phinney,

Thank you.

I look forward to hearing from the OL presenter in our area.

I am pleased to read that the WSDOT and STB will be reviewing their route decision. I believe it would be in the best interest of our school, our students, and the surrounding neighborhood to establish a different route to support and encourage increased rail traffic.

Our school has been well-supported by the WSDOT, specifically with the award of a Safe Routes to School grant to help improve travel conditions for our students (on the north side of our grounds). I am confident that your organization truly cares about the well-being of our children and local residents, and know that the decision reached will be made with them in mind.

Sincerely,

Robbie Mason

On Aug 9, 2007, at 1:37 PM, Phinney, Elizabeth wrote:

> Dear Ms. Mason,  
 >  
 > Thank you for your comments. We very much appreciate hearing from the  
 > community about the impacts that the proposed rail project will have  
 > on neighborhoods, schools, and residents.  
 >  
 > I passed on the need for Operation Lifesaver (OL) presentations for  
 > your school. Carolyn Simmonds said that she has notified the OL area  
 > coordinator that presentations are needed for Longview Elementary,  
 > even if the proposed rail project does not get approved by the STB.  
 >  
 > Because so many community members have voiced opposition to the  
 > proposed route, both WSDOT and the STB are looking at whether an  
 > alternate route should be examined more thoroughly. That decision has  
 > not been made yet.  
 >  
 > I am looking forward to talking with you.

>  
> Sincerely,  
>  
> Elizabeth Phinney  
> Rail Environmental Manager  
>  
>  
> -----Original Message-----  
> From: Robbie Mason [mailto:rmason@mlsd.wednet.edu]  
> Sent: Tuesday, August 07, 2007 6:21 PM  
> To: Phinney, Elizabeth  
> Subject:  
>  
> Dear Ms. Phinney,  
>  
> My name is Robbie Mason. I am the principal at Longview Elementary in  
> Moses Lake. I have received a few phone calls from community members  
> with concerns about the Northern Columbia Basin Railroad Project. My  
> understanding is that this project includes (or may include) making  
> improvements to the existing railroad that runs directly behind our  
> elementary site. This railroad also runs alongside a neighborhood,  
> which includes several school-aged children who attend our school. If  
>  
> information shared with me is correct, rail traffic could increase  
> significantly over the course of time due to the proposed Columbia  
> Basin Railroad Project. Understandably, I would have concerns about  
> children crossing the tracks and their safety, not only during school  
> hours, but after our operating hours and on weekends as well. Our  
> school playground is the only place neighborhood children have to come  
>  
> and play - there are not parks or playgrounds within safe walking or  
> biking distance for area children, thus, the families that live behind  
>  
> our school (across the tracks), frequently cross the tracks to get to  
> our playground and school. We also have classrooms only yards away  
> from the railroad tracks, train traffic during school hours would  
> certainly be a disruption to learning.  
>  
> If this railroad project will result in increased traffic so close to  
> our school and neighborhood, is there an alternate route that can be  
> looked at?  
>  
> I will also try to contact you by phone.  
>  
> Sincerely,  
> Robbie Mason, Principal  
> Longview Elementary  
>



Steve Chestnut, Ed.D. Superintendent  
schestnut@mlsd.wednet.edu  
920 West Ivy Ave.  
Moses Lake, WA 98837

Barb Keilman, Exec. Assistant  
bkeilman@mlsd.wednet.edu  
(509) 766-2450  
Fax (509) 766-2678

8/9/07

To Whom It May Concern:

The Moses Lake School District supports the idea of upgrading and expanding rail service in Moses Lake. However, the district does not support the proposed route. Our paramount concern is student and staff safety. It does not seem prudent to increase the frequency and length of trains on a route that passes right by Longview Elementary School including the playground and parking lot. The route crosses the primary pedestrian route to the school. The route also passes through existing residential neighborhoods and as Moses Lake grows, more residential growth is expected along that portion of the proposed route. We have just completed a project providing a safe walking route to Longview Elementary School and increasing rail traffic on that portion of your proposed route will undermine our efforts.

We are also concerned about the impact of increased rail traffic on student learning. More frequent and longer trains undoubtedly mean more noise. One railroad crossing is very near the school and another is within a few blocks. The noise of the whistle, locomotive and trains cars is likely going to disrupt learning during the school day.

Our preference would be a route that would bypass the Longview Elementary School area entirely. However, if the proposed route is chosen and eventually built, we would expect that the design would address those concerns that we are expressing, including student and staff safety and noise abatement. It seems only reasonable that the railroad construction address the issues that it is creating. At a minimum, we would expect some sort of pedestrian bridge to the school and some mitigation to address vehicular traffic and noise.

Sincerely,

Steve Chestnut, Ed.D.  
Superintendent

EI - 2992  
CD



April 18, 2007

Ms. Elizabeth Phinney  
WSDOT Rail Office  
PO Box 47407  
Olympia, WA 98504-7407

**RE: STB Finance Docket No. 34936, Northern Columbia Basin Railroad Project**

Dear Ms. Phinney:

I am writing on behalf of TransCo, a recently formed transportation coalition of more than 80 citizens dedicated to advancing mobility in Central Washington, in reply to the request for input on the impacts of the above project.

Grant County is being called the "darling of economic development" in the State of Washington. Grant County and the central communities of Moses Lake, Ephrata, Quincy, Soap Lake and Warden are experiencing unprecedented growth with the locating of alternative fuel, ag support and information technology industries as a result of the successful recruitment efforts of the Quincy, Ephrata, Moses Lake and Warden Port Districts and the Grant County Economic Development Council.

The industrial property around the Port of Moses Lake and the other industrial parcels served by this project are of prime value to businesses seeking relocation to this growing area as well as current businesses wishing to remain and grow. The improvement of rail transportation especially will have positive impacts on the economic environment of the city of Moses Lake, Grant County and all of Central Washington. We can see no negative environmental effects of this project; alternatives have been explored, making this proposed route the most reasonable.

If I can provide any further information, please don't hesitate to contact me at 509/765-8845.

Respectfully,

Karen Bonaudi  
Chair

Cc: TransCo partners

## **Appendix B**

### **Correspondence from Citizens and Businesses**



## **Appendix B**

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Appendix B contains copies of citizen correspondence received by the Washington State Department of Transportation and the Surface Transportation Board that comment on the Proposed Action.



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**From:** Phinney, Elizabeth [PhinneE@wsdot.wa.gov]  
**To:** Finn, Maureen C.  
**Cc:** Wiley, Martha  
**Subject:** FW: Northern Columbia Basin Railroad Project (Response)  
**Attachments:** Zip Railroad Letter.pdf

F

---

**From:** B.J. Raymond [mailto:bj@ziptrucklines.com]  
**Sent:** Wednesday, July 25, 2007 1:47 PM  
**To:** Phinney, Elizabeth  
**Cc:** John - Zip; BJ - Zip  
**Subject:** Northern Columbia Basin Railroad Project (Response)

Please see the attachment for a response to the July 19, 2007, meeting regarding the Northern Columbia Basin Railroad Project.

In addition, please add us to the respective mailing list.

Name: John Wright  
Company: Zip Truck Lines, Inc.  
Address: PO Box 337, Moses Lake, WA 98837  
Email: john@ziptrucklines.com

Thank you for your time and attention to this matter.

---

B.J. Raymond



bj@ziptrucklines.com  
Tel. 509.795.9531  
Fax 509.765.9533

\*\*\* eSafe1 scanned this email and found no malicious content \*\*\*  
\*\*\* IMPORTANT: Do not open attachments from unrecognized senders \*\*\*

EI-3066  
(P)



PO Box 337  
Moses Lake, WA 98837  
Tel. 509-765-9531  
Fax 509-765-9533

July 25, 2007

WASHINGTON DEPARTMENT OF TRANSPORTATION  
FREIGHT SYSTEMS DIVISION  
PO Box 47407  
Olympia, WA 98504-7407

We would like to thank you for the opportunity on July 19<sup>th</sup> to participate in a discussion regarding the Northern Columbia Basin Railroad Project. With the recent and projected increase in business in Moses Lake, now is a good time to update the existing rail system and to consider expansion of the rail for future use.

Zip Truck Lines, Inc. has been a contributing business to the Columbia Basin for over 35 years. In June of this year, we moved into a new facility that we constructed on Road N, just south of Wheeler Road. We believe the future of our business will be tied into the future of the rail system. A successful rail system would not only be beneficial to us, but the entire business community in Moses Lake.

In response to the items discussed during the meeting, we would like to suggest the following alternative alignments and possible environmental and community impacts that we believe should be considered for the project to be successful:

1. **The proposed rail crossing on Wheeler road is too close to the SR-17 highway.** Along with the current major traffic flows, additional volumes are expected when the widening of SR-17 is completed. Because Wheeler road provides the primary access route to many of the larger business in the area, the rail crossing at the proposed location would not only interfere with the flow of traffic along Wheeler road, but also the intersection of Wheeler and SR-17.

2. **The proposed rail line parallel to Wheeler road is too costly.** Not only would this line interfere with future use of the land bordering the south side of Wheeler road (land that is potentially attractive to future business expansions), but it would place a heavy burden on Grant County by having to relocate the County service facilities, currently located near the intersection of Wheeler road and Road L. Can we afford to lose the value of this land in future decades by placing a rail road on it?
3. **The proposed rail line does not address the forecast of business expansion accurately.** Historical trends indicate that the land along the Wheeler corridor is favored for business expansion. Currently, there are several plots of land northwest of Road N that is very attractive to any large businesses seeking opportunities in Moses Lake. Any future rail system should address this potential for growth.
4. **The rail system should include a re-commission of the Adrian line.** This abandoned rail line can be used to connect businesses near the Grant County Airport to the Wheeler corridor without interfering with Wheeler road businesses, traffic flows, and residential areas. This line would connect to the existing crossing of Wheeler road (near the east end of the corridor) and head north to Road 5 NE, then west across Road L NE (north of the waste way), angle down the side of the hill to the lower plateau (near Crab Creek), cross Stratford road and connect to the existing rail system there. This route would also be cost-effective as some of it already exists, no structures require relocation, and future land value along the Wheeler corridor would not be jeopardized.

These issues are important factors that will affect the future of how and where current and future businesses operate. We need to look ahead 50 years from now in order to make the decisions we need to make now in order to ensure success of the rail system in Moses Lake.

Thank you for your time and attention to this matter. We look forward to future discussions or feedback from with you regarding the rail system. If there is anything we can do to help with the project, please feel free to contact me at any time at 509-765-9531.

John Wright  
President  
Zip Truck Lines, Inc.

EI-3098  
CD



"Phinney, Elizabeth"  
<PhinneE@wsdot.wa.gov>  
08/09/2007 08:54 PM

To <Christa.Dean@stb.dot.gov>, <RutsonV@stb.dot.gov>, "Wood, Andrew" <WoodA@WSDOT.WA.GOV>, "Gregory, Lynnette" <GregorL@WSDOT.WA.GOV>,  
cc  
bcc

Subject FW: Railroad Project-Moses Lake

**From:** JOSEPH WIBERG [mailto:JWWIBERG@DLFOUNDRY.US]  
**Sent:** Thursday, August 09, 2007 5:40 PM  
**To:** Phinney, Elizabeth  
**Subject:** Railroad Project-Moses Lake

Elizabeth,

I am the Vice President/General Manager of D&L Foundry at 12970 Wheeler Road, Moses Lake, WA. We currently must travel approximately ¼ of a mile to the nearest spur to unload/load products (primarily scrap cast iron) for use here at our foundry. Should the project continue on from that spur, on the north side of Wheeler Road, on out to the airport industrial complex, we would be able to better take advantage of the rail by bringing a spur right onto the foundry property, which would be of major benefit to us, as we ship in from all regions of the Western United States as well as from British Columbia and Alberta, Canada. Additionally, it would present the opportunity for us to ship our finished product throughout these same regional areas.

The area here along the Wheeler Road corridor is zoned heavy industrial and so we are not the only company that would greatly benefit from the continuation of the rail service passing on the north side of Wheeler Road, and north of our property, on its way to the airport. This continuation of rail service would allow current and future industry to take advantage of rail transportation and would have a great influence on industry growing out east of downtown Moses Lake as well as to the North.

The recent presentation depicted the routing to be on the south side of Wheeler Road. This is the first time that we were aware the proposed routing had been changed from proceeding on the north side of Wheeler Road to the south side of Wheeler Road. Such routing (south side of Wheeler Road) presents numerous problems and conflicts for several of the proposed property uses. Many of the current and proposed property uses on the south side of Wheeler Road do not and will not benefit from the rail passing through or near these areas on the south side of Wheeler Road and raises much concern (as I am sure you are already aware of from other's feedback).

In closing, I voice my opinion and request that the rail project continue and that it stay to the north of Wheeler Road. Thank you.

*Joseph W. Wiberg*

Joseph W. Wiberg, VP/GM  
D&L Foundry, Inc.  
12970 RD 3 NE (Wheeler Rd)  
P.O. Box 1319  
Moses Lake, WA 98837-0194  
Tel: 509-765-7952  
Fax: 509-765-8124  
Cell: 509-750-8470  
Email: [jwwiberg@dlfoundry.us](mailto:jwwiberg@dlfoundry.us)

EI-3092  
(2)



"Phinney, Elizabeth"  
<PhinneE@wsdot.wa.gov>  
08/09/2007 04:10 PM

To <Christa.Dean@stb.dot.gov>, <RutsonV@stb.dot.gov>, "Wood, Andrew" <WoodA@WSDOT.WA.GOV>, "Gregory, Lynnette" <GregorL@WSDOT.WA.GOV>,  
cc

cc

bcc

Subject FW: Northern Columbia Basin Railroad Project

**From:** Alan Heroux [mailto:alanheroux@johnlscott.com]  
**Sent:** Thursday, August 09, 2007 12:28 PM  
**To:** Phinney, Elizabeth  
**Subject:** Northern Columbia Basin Railroad Project

Elizabeth Phinney  
Rail Environmental Manager  
Washington State Department of Transportation

Dear Ms. Phinney:

This letter is to address the Northern Columbia Basin Railroad Project.

I do believe that rail service is very important to the continued economic vitality of Moses Lake and therefore support rail service to the Port of Moses Lake. I also believe that the idea of moving the rail line so that it does not go through downtown has great merit.

However, I do not agree with the current proposal to bring rail service from the Wheeler Rd. area crossing the Crab Creek along State Route 17 then joining the existing line. This proposal does eliminate the rail line coming through the heart of Moses Lake which is a huge improvement for the community. However, if this line were completed as proposed it would have several road crossings in areas that will create traffic issues, goes through residential areas, and adjoins a school which creates additional safety concerns. Although we have not had a train related accident to my knowledge, the increase in train traffic and train speed is a cause for great concern.

As a alternative I propose to take the rail service from the North end of the line at road N. N.E. in the Wheeler area, reclaiming the old right of way to the point where it crosses the Bureau of Reclamations waste way North of Rd. 5.6, then turn West along the North side of the waste way to the edge of the hill. At this point the line can turn North along the hill taking in the grade over the 1.2 miles to Road 7, then turn West again with a straight shot into the port area. The impact on traffic and property owners should be far less by staying away from more populated areas. At Road 7 Crab Creek is a creek not a large wetland area thereby having less of an environmental impact. This route takes the rail line around Moses Lake in the direction of the rail users at the Port. I recognize that this

· route is longer than the current proposal but in the long run will serve the needs of the area better.

We need to think beyond the economics of the project and put public safety as our highest concern. It just doesn't make sense to move the rail line and create a different set of problems in the process.

Please feel free to contact me if you have any questions regarding this information.

Sincerely,

Alan Heroux  
Broker/Owner  
John L. Scott Real Estate/Moses Lake

*Alan Heroux, Broker  
John L. Scott Moses Lake  
211 N. Elder  
Moses Lake, WA 98837*

*Office 509-764-4400  
Fax 509-764-4300  
Cell 509-750-0072*

<http://www.johnlscott.com/alanheroux>

----- Forwarded message -----

From: **Alan Heroux** <[alanheroux@gmail.com](mailto:alanheroux@gmail.com)>

Date: Nov 5, 2007 5:20 PM

Subject: Re: Northern Columbia Basin Railroad Project

To: "Phinney, Elizabeth" <[PhinneE@wsdot.wa.gov](mailto:PhinneE@wsdot.wa.gov)>

Dear Ms. Phinney:

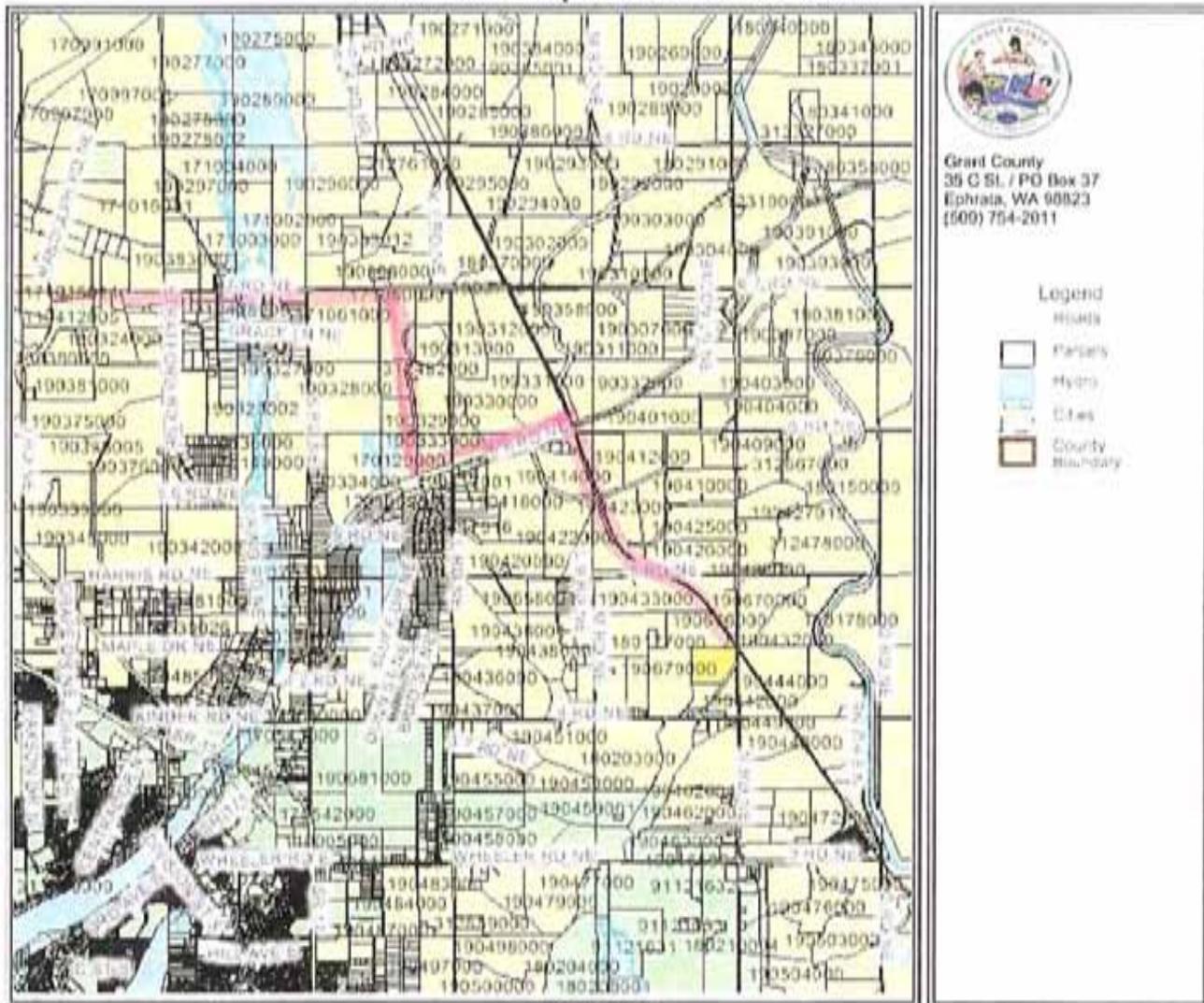
I am attaching the Northern Route which I detailed in my last message to you. There seemed to be some confusion regarding the information at the most recent meetings. Mr. Wood expressed that I should forward this information.

If you have any questions please let me know. I will make sure everyone locally knows exactly which route and the specifics of that route I'm speaking of so there will be no more confusion.

Thank You.

Alan Heroux

### The Actual Proposed Northern Route



#### Comments

Total Route App. 6.8 miles  
Grade on Hill 1.9% Height difference between Waples + S.D. R. 5'  
Very limited impact on adjacent property to Rd. 7, Limited on Rd. 7

#### DISCLAIMER

These maps should not be construed as legal advice or legal opinion on any specific facts or circumstances. The contents are intended for general information purposes only, and you are urged to consult your own lawyer concerning your own situation and any specific questions you may have. Infrastructure records, drawings, and other documents have been gathered over many decades, using differing standards for quality control, documentation and verification. All of the data provided represents current information in a readily available format. While the data is generally believed to be accurate, occasionally it proves to be incorrect, thus its accuracy is not warranted. Prior to making any property purchases or investments based in full or in part upon the material provided, it is specifically advised that you independently field verify the information contained in county records.

EI-3096 (1)



"Phinney, Elizabeth"  
<PhinneE@wsdot.wa.gov>  
08/09/2007 07:10 PM

To <Christa.Dean@stb.dot.gov>, "Wood, Andrew"  
<WoodA@WSDOT.WA.GOV>, "Gregory, Lynnette"  
<GregorL@WSDOT.WA.GOV>, <linda@resourcenw.com>,  
cc  
bcc  
Subject FW: NORTHERN COLUMBIA BASIN RAILROAD PROJECT

**From:** pete carpenter [mailto:mlawinc@yahoo.com]  
**Sent:** Thursday, August 09, 2007 4:04 PM  
**To:** Phinney, Elizabeth  
**Subject:** RE: NORTHERN COLUMBIA BASIN RAILROAD PROJECT

Dear Ms. Phinney

Attached you will find my comments on alternative Railroad alignments.

Please feel free to call me at: (509) 764-2087

Pete Carpenter  
Moses Lake Truck Sales & Leasing, Inc.

Pete Carpenter  
Moses Lake Truck Sales & Leasing, Inc.  
We Lease, Buy and Sell Trucks.  
509-764-2087  
www.moseslaketrucksales.com

\*\*\* eSafel scanned this email and found no malicious content \*\*\*  
\*\*\* IMPORTANT: Do not open attachments from unrecognized senders \*\*\*  
\*\*\*



Railroad response Revised 8-8-07.doc

**MOSES LAKE TRUCK SALES & LEASING, INC.**

3644 E. Broadway Ext.  
Moses Lake, WAY 98837  
Pete Carpenter, President

Telephone: (509) 764-2087 Fax: (509) 764-4243 email: [pete@moseslaketrucksales.com](mailto:pete@moseslaketrucksales.com)

August 8, 2007

Ms. Elizabeth Phinney, Rail Environmental Manager  
WA St. Dept. of Transportation  
Freight Systems Division  
P.O. Box 47407  
Olympia, WAY 98504-7407

Dear Elizabeth Phinney,

I am writing this in response to the proposed Northern Columbia Basin Railroad Project. The Project, as it is currently proposed, would have a great negative impact on not just my business and property, but also our community structure and future welfare. I feel that the project could be a tremendous asset to our community if planned properly with business/landowners active participation to create a win-win situation for all agencies involved. Below you will find a list of my concerns and possible solutions to the Northern Columbia Basin Railroad Project as it is now proposed

**BENEFITS OF REROUTING THE RAIL PROJECT NORTH OF  
THE MOSES LAKE STRATFORD RD & HIGHWAY 17 INTERCHANGE**

**PLAN A:**

- It would be faster to reroute north of Moses Lake towards the area of Road 10. There is less traffic, business, and crossings north out of this congested area.
- Our community is growing at an unprecedented rate and there are already existing traffic flow problems that would be greatly exacerbated if the original proposed Railroad plan is used.
- Maintenance of the Railroad would be greatly increased by using the original proposed plan due to extra turns and complications created by the course through the busy Moses Lake Stratford Road and Highway 17 Interchange area. This would increase equipment, labor, fuel, and maintenance costs.

### PLAN A (CONTINUED):

- The Northern Columbia Basin Railroad Project would save financially by using the northern route. Current Business/Landowners that have existing structures, improvements, and equipment that are in use in the proposed area will cost more to buy with the structural additions and improvements to the property that are already in place if the project uses the original proposed route. By using the route to the north the cost of real estate purchases will be greatly lessened due to the fact that there is less business usage of those properties located in that area where there is less population and traffic. The difference in the financial liability that could occur over time if the original route is used in a more populated and high traffic area compared to the northern route would be extremely appreciable.
- North of the Moses Lake Stratford Road & Highway 17 Interchange there currently is an existing system of rail berms. Most of these berms should still be usable and intact. Existing equipment, such as the berms, would save money not just on supplies, but also labor. Why pay so much additional tax payer money on construction of a new route when substantial monies could be saved by efficiently using existing Railroad routes that have existing berms in place?

### PLAN B:

- If the route along Orchard Drive and Road 4 was used, Business/Landowners would be able to participate in the project by recommending areas of their property that would be more financially suitable for all agencies involved. As a Business/Landowner it would create a major problem with my current business inventory and operations if the original route of the proposed Railroad project is pursued. Currently I have extremely large amounts of heavy equipment, established roadway infrastructures, and vehicles that are placed in the proposed path of the Railroad project.
- If the proposed original route is used it would create acute problems with my business operations, labor costs, and have a huge possible negative impact on my company by lessening my available property that I need to keep adequate inventory on site. This inventory is absolutely the main contributing factor to the success of my business.
- It would cost less for the Northern Columbia Basin Railroad Project to use the existing property along Orchard Drive and Road 4. The original proposed route will use more of the property that fronts Highway 17 and runs parallel to Crab Creek. Crab Creek frontage acreage will be much more costly to purchase as well as being an inefficient use of the property and resources for all parties involved.

**PLAN C:**

- In the event that the original proposed path of the Northern Columbia Basin Railroad Project is indeed put into effect, it would be imperative that the Railroad and all agencies involved work with all of the Business/Landowners that would be impacted by this route. As an established Business owner since 1955. I would request that the Railroad agencies work with my company for actual placement in order to cause the least possible financial damage. It is important that this community work together in order to insure the best, possible use of property.

I would like to emphasize that the project as it is now planned would have a serious negative impact on my business and property as well as our communities' future development and expansion. There are alternative routes that would make much less of an impact in all areas and all of the agencies involved. These routes are currently available for use and expansion at a much less current financial cost as well as future maintenance costs. We need to work together with the future in mind.

Please feel free to contact me at (509) 764-2087 to discuss my concerns about the Northern Columbia Basin Railroad Project.

Sincerely,

Pete Carpenter, President

dr:pjc



"Phinney, Elizabeth"  
<PhinneE@wsdot.wa.gov>  
08/10/2007 12:19 PM

To <Christa.Dean@stb.dot.gov>, "Wood, Andrew"  
<WoodA@WSDOT.WA.GOV>, "Gregory, Lynnette"  
<GregorL@WSDOT.WA.GOV>, <linda@resourcenw.com>,  
cc  
bcc

Subject FW: railroad

**From:** joe carpentier [mailto:joe\_c\_64@yahoo.com]  
**Sent:** Friday, August 10, 2007 7:14 AM  
**To:** Phinney, Elizabeth  
**Subject:** railroad

I'm am writing in reference to the railroad process proposed. i would be apposed for several reasons...

- 1- i believe that it would interfere with the traffic in the area by crossing to many main roads in a growing area. i know this because i work in that particular area and have lived in skyline acres for my whole life ( 40+ years). it would not be good for that residence are for safety or reason-ability.
- 2- The railroad and schools are not a good idea when there are so many other routes to be taken, There is a track that runs in back of the old cemetery by Wheeler that continues on taking the railroad out beyond the popular residential areas, thus keeping all that traffic flowing smoothly and safety
- 3- The area considered to be crossed (Hwy. 17) is one of the largest body of waters around having to build up trestle and such seems unfeasible at this point that has just been tampered with by the reconstruction of that highway bridge. it seem that all the turns the rail would be making would to meet up with this highway plan would make it slow and inefficient  
Please consider another route for this Railroad and let the area continue to prosper and grow residentially and economically.
- 4- i am a land owner that this will personally affect and don't think i would of heard of this proposal if i wasn't for that fact.... this is disturbing to me when our public is not informed properly about such actions and our words are not heard! The land I'm referring to(East Broadway Extended) would be divided up and most of that land rendered useless for in real estate terms and or business needs.  
Again i hope this be read and considered on this basis of safety for children at Longview School and people of Moses Lakes sake that hold interest in that area. This would ultimately be for the families and the growth of our city which continues in that particular area. There are plenty of scab lands out further that would accommodate these tracks and provide the safety needed for a high performance railroad.  
AGAIN I AM OPPOSED ON THE ROUTE CHOSEN but not on the railroad.  
Thank you for your time in reading this

**From:** Jerome Brotherton [mailto:jerome@brothertonseed.com]  
**Sent:** Friday, August 10, 2007 11:23 AM  
**To:** Phinney, Elizabeth  
**Subject:** Proposed Abandonment of Current Rail Service to Moses Lake, WA - N.Columbia Basin Railroad Project

W.S.D.O.T.

Attn: Ms. Elizabeth Phinney

Dear Ms. Phinney,

Attached is our written comments on the proposed abandonment of current rail service to Moses Lake, WA.

My understanding is that yesterday was the last day you'd accept written comments. I just returned from a business trip to Canada last night so I hope that you will allow me one extra day.

Sincerely thanking you for your consideration in this manner.

Kind regards,

*Jerome Brotherton*  
Brotherton Seed Co., Inc.  
P.O. Box 1136  
Moses Lake, WA 98837

\*\*\* eSafe2 scanned this email and found no malicious content \*\*\*  
\*\*\* IMPORTANT: Do not open attachments from unrecognized senders \*\*\*

9/26/2008

Aug. 10, 2007

Washington State Dept. of Transportation  
Attn: Ms. Elizabeth Phinney  
Olympia, WA

Re: Proposed Abandonment of Current Rail Service to Moses Lake  
Northern Columbia Basin Railroad Project

Dear Ms. Phinney,

I'm writing to represent three established businesses in Moses Lake which will be adversely affected by the loss of rail service to our companies.

Brotherton Seed Co., Moses Lake Iron & Metal, and Ferrell Gas have strong ties to our community established over several decades at our present locations. With an annual turnover in excess of \$8,000,000, we ship our products by rail in about 100 cars every year.

The proposed rail line abandonment would severely cripple or perhaps destroy our businesses. As the price of diesel increases, the alternative of truck transport becomes a growing economic hardship with environmental, safety and regulatory issues. Abandonment of this line would force Ferrell Gas to receive their product by trucks. This would add at least 110 more trucks per year, carrying hazardous material over the road and through Moses Lake. Brotherton Seed and Moses Lake Iron & Metal could not survive without rail service and would be forced to shut down or relocate.

The Columbia Basin Railroad, in conjunction with the Port of Moses Lake, Grant Co. Economic Development, The City of Moses Lake, Washington Trails Committee and others support the proposal to abandon the current rail line. Planned construction of a new line to provide heavy traffic rail service to the Port of Moses Lake, at the former Larson Air Force Base, would cross three busy four-lane arterials, cross numerous two-lane roads, cut through the Blacks Addition residential area and run alongside the Longview Elementary School.

This route would have an unfavorable impact on school children, emergency services, pedestrians and vehicle traffic.

Currently, the Port ships fewer than ten rail cars a year. We do not oppose service expansion to the port, but not at the expense of our businesses and the subsequent loss of tax revenue to the community. The Port's philosophy seems to be, "if you build it, they will come." Since outgoing cargo transport loads would show no appreciable increase until some time in the speculative future and to invest in industrial infrastructure when Columbia River water supplies may be uncertain with environmental change occurring, this philosophy is too expensive and not good planning.

The Columbia Basin Rail Road, holding ownership of the land and tracks, would incur a \$15 million cost to rehabilitate the present railroad spur serving our businesses and the Port. However, a new rail line to be built at taxpayers' expense would cost the public more than \$21 million, and the net cost to the railroad would be zero.

The proposed Northern Columbia Basin Rail Road engineering project would ultimately cost taxpayers \$69 million in state and federal funds if all phases were approved. Surface Transportation Board licensing fees and the cost of preparing state and federal environmental impact studies will cost even more. No one has addressed the issue of how these additional RR crossings of Crab Creek and Rocky Ford Creek would impact the fishery.

The Washington State Department of Transportation is the lead agency providing information on this project.

We urge your office to consider the option of rehabilitating the current line instead of building a new one. Rail service will be maintained to the Port, existing businesses will continue to prosper, and no additional disruption of traffic or safety to our children will incur.

Thank you for taking the time to evaluate this important issue.

Kind regards,

Jerome Brotherton, Brotherton Seed Co., Inc.  
Glen Dart, Moses Lake Iron and Metal, Inc.  
Aaron Gimmeson, Ferrell Gas, Inc.

EI-3090  
(P)



"Phinney, Elizabeth"  
<PhinneE@wsdot.wa.gov>  
08/08/2007 07:19 PM

To <Christa.Dean@stb.dot.gov>, "Wood, Andrew"  
<WoodA@WSDOT.WA.GOV>, <linda@resourcenw.com>,  
"Vicki King" <vking@triangleassociates.com>, "Gregory,

cc

bcc

Subject FW: Rail road comments

Updated comments from Paul Carpentier.

**From:** Paul Carpentier [mailto:pcarp@homenetnw.net]  
**Sent:** Wednesday, August 08, 2007 4:13 PM  
**To:** Steve Shinn; Robert Russell; Roger Hansen; Phinney, Elizabeth; PETE C,  
**Subject:** Rail road comments

Elizabeth Phinney  
Rail Environmental Manager  
[phinnee@wsdot.wa.gov](mailto:phinnee@wsdot.wa.gov)  
August 8, 2007

I am writing to update my original comments (included at end of this letter) submitted to you at the open house held at the Port of Moses Lake. Those original comments were prepared prior to the open house and as such need some clarification.

The Northern Columbia Basin Railroad Project Feasibility Study dated February 2006 does not include the route that was presented at the open house. Segment 1 route as presented at the open house is considerably different than the preferred Segment 1 route in the study. It may be even worse as the route would cross Wheeler Road in addition to Road L, Broadway, Stratford and several other residential roads.

I mentioned in my original comments that I felt that Exhibit C- Environmental Fatal Flaw Analysis Evaluation Matrix was fatally flawed. Segment 1, whether from the study or the new Segment 1 preferred route, is not answered appropriately for a number of questions in the matrix. Without going into minute detail (which I would be happy to do if you care to contact me) I will list a few general areas I think are misstated.

- Homes, farms or business would be displaced
- Farmland would be impacted
- It would divide the community
- It would adversely impact low-income populations
- It would deter emergency vehicles
- It would decrease pedestrian and bicycle safety
- It would be a visual distraction to nearby residents
- Air quality would deteriorate
- Homes and schools would be impacted by noise
- Valuable land and vegetation would be impacted
- Wetlands would be impacted

As a business owner and property owner who lives on Broadway I can say that those are some very busy roads that you would cross within the city limits. If this rail is built it should be done to the north of town along the route that was previously abandoned or head from the port to Soap Lake (Segment 5). Eventually completion of both would be ideal. The current preferred Segment 1 is short-sighted.

Sincerely,

Paul S. Carpentier  
3809 Broadway Ext NE  
Moses Lake, Wa 98837  
509-855-2288

**Railroad decisions are for 50 years.** Segment 1 (Wheeler to Parker Horn) break-even analysis calls for 3382 to 10145 rail cars per year. That is a lot of congestion on 4 major arterials within the city limits. Wheeler road, road L, East Broadway and Stratford road already have much automobile traffic.

Grade separated crossings should be required but are not included in any cost analysis for Segment 1. The increase in cost would require an increase in the number of rail cars to break-even. It won't get any cheaper in the future.

A map showing details of routes need to be made public. Segments 1 & 3 move through residential areas, Longview school, farm ground, wetlands and would affect anyone living north of road 4. One hundred thirteen (113) pedestrians have been killed 1998-2005 in the state of Washington (Seattle Times news source). I have no idea on how many vehicle/train fatalities occur. Safety should be a major consideration.

Segment 1 (Wheeler to Parker Horn) costs are understated. Major parcels of land are affected and many would have reduced utility after the railroad project was completed. As mentioned above all major arterials running north out of the city would be negatively impacted.

Segment 5 (North GCLA to Soap Lake) costs are overstated. This is basically a straight, level route out through rocky uninhabited land. It would not interfere with wetlands, no body of waters to cross or any other significant factor. This is where the rail should be run. The days of railroads running through prime real estate should be over.

Exhibit C- Environmental Fatal Flaw Analysis Evaluation Matrix is fatally flawed. Some questions within Segments 1(Wheeler to Parker Horn), Segment 3 (rehabilitation of Parker Horn

to GCIA) and Segment 5 (New rail to Soap Lake) are answered incorrectly or at least incompletely. The answers in Exhibit C I would question relate to Land Use and Growth, Social and Economic, Transportation/Traffic, Visual Quality and Biological Environment.

I am not by any means anti-growth. I would like to see the community grow and prosper. Segments 1 and 3 seem to be poor choices for large amounts of rail traffic. Another route needs to be found. Perhaps the state of Washington could be approached as they own several rail lines. This certainly would meet their ownership criteria of preserving or expanding rail service. A significant portion of the report addresses the congestion on the West side. Bringing new industry to the state should be a priority.

Paul Carpentier  
July 19, 2007  
509-855-2288

EI-3064  
CD



"Phinney, Elizabeth"  
<PhinneE@wsdot.wa.gov>  
07/23/2007 12:42 PM

To "Wood, Andrew" <WoodA@WSDOT.WA.GOV>,  
<kurt.reichell@hdrinc.com>, "Vicki King"  
<vking@triangleassociates.com>,  
cc

bcc

Subject FW: Northern Columbia Basin RR Project

FYI

**From:** mcneese@nctv.com [mailto:mcneese@nctv.com]  
**Sent:** Friday, July 20, 2007 10:32 AM  
**To:** Phinney, Elizabeth  
**Subject:** Northern Columbia Basin RR Project

JULY 20, 2007

Elizabeth Phinney  
Rail Environmental Manager  
"E" Mail, [phinnee@wsdot.wa.gov](mailto:phinnee@wsdot.wa.gov)

Subject: Northern Columbia Basin Railroad Project.

After attending the showing of the proposed route of the new extension though Moses Lake, I find some problems in the making. One of these problems is the breakup of many excellent properties, which could possible law suits and many years of delay. Another is the crossing of one of the most busy streets of Moses Lake, and likely to become the most.

I would propose using the "old" railroad right-of-way, which may still be legal, on the south side of Rd 4 N.E. though the Municipal Air Port and behind the new Moses Lake Maintenance shop to the closest connecting point of the old line to the Port of Moses Lake Airport. This may be done without crossing Highway 17.

Now the thought comes, but what about the Municipal Air Port ? For years people have had a great concern about the air traffic at each end of the old runway. One end has a gas station, many business and a large concentration of people at all times of the day. The other end has been building up with a forest of new, expensive homes. I believe it is now time to remove the Air Port for it's own good as well as the publics.

What to do about relocation ? I'm sure the Rail Road has other properties that a trade could be made in an area suited for Air Operation. The buildings could be moved without a high expense. There is also the Port of Moses Lake facilities, which the BBCC uses, and has a traffic tower for control, plus an all hour fire protection system.

In taking the Rd 4 N.E. route, it seems, 3/4 to a mile of "trackage" could be saved.

I thank you for allowing us to comment on the project.

Cecil R. McNeese  
(509) 361-8369

E1-3065<sub>C,D</sub>



"Phinney, Elizabeth"  
<PhinneE@wsdot.wa.gov>  
07/24/2007 06:33 PM

To "Vicki King" <vking@triangleassociates.com>,  
<linda@resourcenw.com>, <Christa.Dean@sib.dot.gov>  
cc  
bcc  
Subject FW: Inquiry from Port of Moses/Lake/Northern Columbia  
Basin RR Project Page

-----Original Message-----

From: Wood, Andrew  
Sent: Tuesday, July 24, 2007 7:18 AM  
To: Phinney, Elizabeth  
Subject: FW: Inquiry from Port of Moses/Lake/Northern Columbia Basin RR  
Project Page

Elizabeth

For you file on comments

Andrew

-----Original Message-----

From: JoAn Forsyth (mailto:jef@danielsbrown.com)  
Sent: Monday, July 23, 2007 7:35 PM  
To: Wood, Andrew  
Subject: Inquiry from Port of Moses/Lake/Northern Columbia Basin RR  
Project Page

Dear Mr. Wood,

I am a home owner in Moses Lake. Our home is located on the cliff above the railroad track in the Montlake Area. Would this area be affected? We have enjoyed the occasional trains that go below our home, however, we can feel it and hear it coming for a long time before it gets to our home. We are concerned that heavier and more frequent traffic could actually cause damage to our homes because of the vibration.

I do think there is a need for more rail service but I would hope it could be directed to the outlying areas and would avoid the down town area.

As this study proceeds, I would like to be informed.

JoAn Daniels-Brown Forsyth



"Phinney, Elizabeth"  
<PhinneE@wsdot.wa.gov>

07/24/2007 06:34 PM

To "Vicki King" <vking@triangleassociates.com>,  
<linda@resourcenw.com>, <Christa.Dean@stb.dot.gov>

cc

bcc

Subject FW: Inquiry from Port of Moses/Lake/Northern Columbia  
Basin RR Project Page

-----Original Message-----

From: Wood, Andrew

Sent: Tuesday, July 24, 2007 7:25 AM

To: Phinney, Elizabeth

Subject: FW: Inquiry from Port of Moses/Lake/Northern Columbia Basin RR  
Project Page

Elizabeth:

A follow up.

Andrew

-----Original Message-----

From: JoAn Forsyth [mailto:jef@danielsbrown.com]

Sent: Monday, July 23, 2007 7:47 PM

To: Wood, Andrew

Subject: Inquiry from Port of Moses/Lake/Northern Columbia Basin RR  
Project Page

Thanks for reading my concerns.

I just finished reading the "Northern Columbia Basin Railroad Project" information and that answered my question about the existing Railroad tracks below our home.

Thanks for your time,

JoAn Forsyth

EI-3067  
C.D



"Phinney, Elizabeth"  
<PhinneE@wsdot.wa.gov>  
07/27/2007 04:06 PM

To "Wood, Andrew" <WoodA@WSDOT.WA.GOV>,  
<Christa.Dean@stb.dot.gov>, "Vicki King"  
<vking@triangleassociates.com>,  
cc

bcc

Subject Moses Lake - Citizen letter to the Columbia Basin Herald

## RAIL SERVICE

Posted: Thursday, Jul 26, 2007 - 05:01:29 pm PDT

**In the long term, rail service to the Port of Moses Lake is a good idea. In the long term, the route proposed is short sighted. Railroads last a long time. You should understand the impact.**

The proposed rail line, still within the city limits of Moses Lake, will cross three busy four lane arterials: Wheeler, Broadway Extended and Stratford Road. It will cross Road L., Kinder Road, Wenatchee Drive, Maple Drive and Loring. Most concerning of all, it will pass through Blacks Addition and alongside Longview Elementary School. This will be a real freight train going up to 25 mph. It will run as frequently and carry as many cars as business dictates.

The only good thing about the proposed route is the length. It is the shortest and therefore the cheapest. Since railroads last over 50 years, why not do it right? Go north from Wheeler along the old abandoned rail line and come into the airport from the north and east, not through town. This route was rejected due to the added cost. In the long term this is the best route.

The proposed route will impact our school children, emergency vehicles, pedestrian and vehicle traffic, land values and our residential areas. Will the sound of the train whistle become a symbol of Moses Lake as familiar as the water towers? I hope not.

Be informed, send your comments to WSDOT. Otherwise, sit back and wait for the whistle.

More information is available at the Web site --

<http://www.wsdot.wa.gov/Projects/Rail/NorthernColumbiaBasinRR/>

Comments to WSDOT must be received by Thursday, Aug. 9, 2007. Send them to Elizabeth Phinney, Rail Environmental Manager, by e-mail to [phinnee@wsdot.wa.gov](mailto:phinnee@wsdot.wa.gov), fax at 360-705-6821, or mail to WSDOT, Freight Systems Division, PO Box 47407, Olympia, WA 98505-7404.

Bob Russell

Moses Lake

E1-3068  
LD



"Phinney, Elizabeth"  
<PhinneE@wsdot.wa.gov>  
07/27/2007 06:01 PM

To "Wood, Andrew" <WoodA@WSDOT.WA.GOV>,  
<Christa.Dean@stb.dot.gov>, "Vicki King"  
<vking@triangleassociates.com>,  
cc <kurt.reichelt@hdrinc.com>

bcc

Subject FW:  
[www.wsdot.wa.gov/Projects/Rail/Freight/WheelerToSoapLakeRailEngineering/](http://www.wsdot.wa.gov/Projects/Rail/Freight/WheelerToSoapLakeRailEngineering/).

FYI.

**From:** Don Hara Jr [mailto:djharf@msn.com]  
**Sent:** Friday, July 27, 2007 2:45 PM  
**To:** Phinney, Elizabeth  
**Cc:** djharf@msn.com  
**Subject:** [www.wsdot.wa.gov/Projects/Rail/Freight/WheelerToSoapLakeRailEngineering/](http://www.wsdot.wa.gov/Projects/Rail/Freight/WheelerToSoapLakeRailEngineering/),

FROM DON M HARA JR  
2126 ROAD L-NE  
MOSES LAKE, WA 98837

To ELIZABETH PHINNEY, Rail Environmental Manager.

I find it somewhat deceptive that you announce your Northern Columbia Basin Railroad Project Meeting and supply a map that does not show any of the plans east of Highway 17. Then to introduce a new route that has not been previously suggested is kind of underhanded. The new plan to route the rail south of Wheeler Road is probably the worst route of any of the proposed plans. Crossing ROAD L-NE would cause hazard to all the traffic going to and from the high school, junior high school and two elementary schools not to mention all the traffic from Highway 17. Then adding another rail crossing so close to Highway 17 when one already exists would be a great mistake because of all the traffic heading to and from all the industrial sites along Wheeler Road, plus the residential traffic to Parker Springs and other county residents. The existing crossings of Wheeler Road are already in an area of less traffic. Also placing a rail track through all of the furrow irrigated farm land is very hard to work around it would likely render over one third of the total acreage of each Unit it crosses useless.

I believe that any of the plans north of Wheeler Road is a far better choice. The WHEELER TO ROAD 7 NE plan is in my belief the best plan. My second choice would be one of the plans that pass through the industrial zoned property north of Wheeler Road since the rail is supposed to be for industrial service and supply. It would seem to me that would be a far wiser place to locate a railroad that is for industrial development.

Sincerely,

DON M HARA JR

EI-3070  
C.D



"Phinney, Elizabeth"  
<PhinneE@wsdot.wa.gov>  
07/30/2007 04:26 PM

To "Wood, Andrew" <WoodA@WSDOT.WA.GOV>,  
<Christa.Dean@stb.dot.gov>, <linda@resourcenw.com>,  
"Vicki King" <vking@triangleassociates.com>  
cc  
bcc  
Subject FW: Rail service

**From:** Dave & Carole [mailto:hopkins2@nctv.com]  
**Sent:** Monday, July 30, 2007 11:59 AM  
**To:** Phinney, Elizabeth  
**Subject:** Rail service

To whom it may concern,  
I am writing to tell you my concerns with the idea to change rail service in Moses Lake WA. I work at Longview Elementary School and am very conerened at the thought of more and faster trains going beside our school. Many times we have small children on or near this track. The neighborhood behind our school is low income and oflen parents aren't watching the children them close enough. I feel this could be a VERY DANGEROUS change!!!!  
Please don't go through with this change.  
Thank you,  
Carole Hopkins  
2021 Melody Ln  
Moses Lake WA 98837

EI-3071  
CD



"Phinney, Elizabeth"  
<PhinneE@wsdot.wa.gov>  
07/30/2007 08:17 PM

To "Wood, Andrew" <WoodA@WSDOT.WA.GOV>,  
<Christa.Dean@stb.dol.gov>, <linda@resourcenw.com>,  
"Vicki King" <vking@triangleassociates.com>, "Gregory,"  
cc  
bcc  
Subject FW: Moses Lake new rail line

**From:** Gary Mason [mailto:gemason@atnet.net]  
**Sent:** Monday, July 30, 2007 4:58 PM  
**To:** Phinney, Elizabeth  
**Subject:** Moses Lake new rail line

The purpose of this email is to express my concern with the routes chosen for the new rail lines in Moses Lake (Northern Columbia Basin RailRoad). The department's web site with the details on this project say that safety is one of the most important considerations. I believe the routes chosen do not meet this requirement. The projected routes, as I understand them, will cause the line to cross more roads, including 4-lane roads, and exist closer to homes and schools, than would a route further east and north. It could still reach the Port of Moses Lake without crossing Wheeler Road, Road 4, Broadway Extended, Stratford Road (near Longview elementary school) at points so close to more dense population areas and higher vehicle use.

It appears the least cost was the primary consideration, not the most safe. I encourage a review of this proposed route in light of the safety and traffic interruptions concerns with the proposed route.

Gary Mason  
Moses Lake

E1-30887  
(1)



"Phinney, Elizabeth"  
<PhinneE@wsdot.wa.gov>  
08/06/2007 04:25 PM

To "Wood, Andrew" <WoodA@WSDOT.WA.GOV>, "Gregory,  
Lynnette" <GregorL@WSDOT.WA.GOV>,  
<Christa.Dean@stb.dot.gov>, <linda@resourcenw.com>,  
cc  
bcc

Subject FW: Comments Rail Service to Port of ML

Another comment.

**From:** Robert Russell [mailto:bob@lakeowl.com]  
**Sent:** Monday, August 06, 2007 1:20 PM  
**To:** Phinney, Elizabeth  
**Subject:** Comments Rail Service to Port of ML

Thank you for the opportunity to comment on the proposed rail service to the Port of Moses Lake. I am for the concept of rail service to the Port, I am adamantly against the route chosen. I spoke against this route in the beginning when it was one of several being explored by the proponents. It was obvious at the first meeting years ago; this was the route which the proponent would choose. It is the shortest and therefore the cheapest. In the long run it would be disaster for the citizens of Moses Lake.

<>The reasons I am against this route have to do with public safety, especially children and emergency vehicles, noise, traffic and the fact the entire route will soon be within the city limits of Moses Lake. Our city has seen tremendous growth the last five years with no end in sight. It makes no sense to run a freight train through town and residential areas when alternatives exist. The reasons I am against the route are as follows:

<>

The preferred route crosses three busy four-lane arterials, Wheeler Rd., Broadway Extended (Rd. K), and Stratford. In the mornings and again when school is getting out, Stratford Rd. has very high traffic counts. It also crosses Rd. L, Wenatchee Dr., Kinder Dr., Maple Dr., and Loring Dr. before it reaches the airport. These are either arterials or residential streets.

<>

In addition, and perhaps most important, it passes through an old residential area and alongside Longview Elementary School. This has been the case for a number of years. The difference is now this will be a real freight train, moving at much higher speeds with far more cars.

Emergency vehicles will be impacted by the proposed route. They travel these busy streets daily.

The citizens of Moses Lake by and large are unaware of the proposed route through the city. I have spoken to many, many people and not one was aware of the route. Their almost universal comment was, "you're kidding, I didn't know that". The reason they are unaware is because the specific route has never been published. Only a meeting notice has been published, but nothing

about the route. In articles in the paper, the proponents say the route will not be through town any longer (not true), and will have fewer grade level crossings. (questionable). They fail to take into consideration segment 3 which goes through a predominately low income minority residential area and along Longview Elementary school. This is the existing segment slated to be rehabbed.

From a public safety standpoint it makes no sense to run a freight train within the city, across busy streets, through a neighborhood and along an elementary school playground when alternatives exist. Moses Lake has seen unprecedented growth in the last 5 years. I can't imagine what it will look like in fifty, yet the projected life of this rail line is 75 – 100 years. The solution is to run the line north from Wheeler on the old abandon railroad right-of-way and come into the airport from the East. Keep it outside the city limits of Moses Lake, and outside the major growth occurring around the area of the proposed route.

I believe if build on this proposed route the average citizen will be negatively impacted by this rail service. The proponents and a few landowners and industries will benefit. The few jobs created will not be enough to balance the negatives from this route. There is ample industrial land available in and around Moses Lake with rail service. If rail service is so valuable to the Port, then it is valuable enough in the long term to do right, and move it out of the city.

Thank you,

Bob Russell

4108 Rd. K.5 NE

Moses Lake, WA 98837.

EI-3089<sub>10</sub>



"Phinney, Elizabeth"  
<PhinneE@wsdot.wa.gov>  
08/08/2007 07:35 PM

To <Christa.Dean@slb.dot.gov>, "Wood, Andrew"  
<WoodA@WSDOT.WA.GOV>, "Gregory, Lynnette"  
<GregoriL@WSDOT.WA.GOV>, <linda@resourcenw.com>,  
cc

bcc

Subject FW: Routing of railroad to base area

Another comment.

**From:** Ken Jorgensen [mailto:kjorgensen@co.grant.wa.us]  
**Sent:** Wednesday, August 08, 2007 4:32 PM  
**To:** Phinney, Elizabeth  
**Subject:** Routing of railroad to base area

Why run the railroad through the "middle" of Moses Lake when there are several other alternatives? The proposed route will take the railroad through commercial and residential areas as it passes through Moses Lake. Of particular concern is where the track will parallel highway 17; railroad tracks are not esthetically pleasing. Now as we cross the creek or lake we see wild life of various kinds. Tracks in that area will diminish what little is there now. True, there is not much to look at now, but we should not be going in the wrong direction. The area has potential with the right development.

What are the alternatives? As I understand it, the objective is to provide rail service to the industrial area on the base. If the railroad proceeds along the existing abandoned tract toward Adrian from Wheeler, it would be going in a northwesterly direction. At a number of places the tracks could veer to the left and go west into the base from the side or back. The property is less expensive; part of the track base has already been built and the track is moved from its esthetically destructive location.

Ken Jorgensen

E1-3091  
CD



"Phinney, Elizabeth"  
<PhinneE@wsdot.wa.gov>  
08/09/2007 12:19 PM

To <Christa.Dean@stb.dot.gov>, <RulsonV@stb.dot.gov>,  
"Wood, Andrew" <WoodA@WSDOT.WA.GOV>, "Gregory,  
Lynnette" <GregorL@WSDOT.WA.GOV>,  
cc  
bcc

Subject FW: railroad in Moses Lake

-----Original Message-----

From: Sharyl Darlington [mailto:sharylad@gmail.com]  
Sent: Thursday, August 09, 2007 8:16 AM  
To: Phinney, Elizabeth  
Subject: railroad in Moses Lake

To Elizabeth Phinny.Railroad Environmental Mgr.

I am very much opposed to to a new rail road being built when there is one already in place that could be improved on at a much lesser cost of building a new one. It would also have no impact on the people living along your new proposed route. I think this new route is just a very costly new adventure that makes no sense what so ever!

Sincerely,

Sharyl A. Darlington

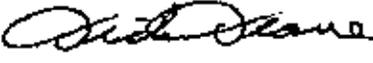
10748 Rd 4 N E

Moses Lake, Wa. 98837

E1-3099

CD

8/9/07

TO: Elizabeth Phinney Fax # 360-705-6821  
FROM: Dick Deane   
RE: Northern Columbia Basin Railroad Project

As a Moses Lake, Washington resident for the past 70 years I would like to respond to the future relocation of the railroad that presently passes through the main corridor of our city.

I grew up here, taught school for 42 years and am now retired. I serve on many community minded, development, and service organizations.

As a private citizen I am very much concerned about the possible routing of the tracks again through the heart of our town.

In about 1913 or 1914 when the first railroad was placed in our town, we were very small and the railroad some what skirted our main corridor. Now that we have grown and the railroad is looking to be re-located we need to look further out than what originally happened 100 years ago.

As I see it the proposed route is only a slight variation from the original and leaves the railroad again back in the center of our town.

I would ask you to please consider a more northern route which would allow us to continue our natural growth and not be again confronted with the same problems we are now facing.

Dick Deane  
223 W. Northshore Drive  
Moses Lake, WA  
98837

EI-3097  
CP



"Phinney, Elizabeth"  
<PhinneE@wsdot.wa.gov>  
08/09/2007 07:19 PM

To: <Christa.Dean@stb.dol.gov>, "Wood, Andrew"  
<WoodA@WSDOT.WA.GOV>, "Gregory, Lynnette"  
<GregorL@WSDOT.WA.GOV>, <linda@resourcenw.com>,  
cc

bcc

Subject: FW: Moses Lake rail relocation

**From:** Todd Rathbone [mailto:todd@rathbonesales.com]  
**Sent:** Thursday, August 09, 2007 4:15 PM  
**To:** Phinney, Elizabeth  
**Subject:** Moses Lake rail relocation

In reference to the rail relocation in the Moses Lake area:

#1- I object to the proposed 500' set back along Wheeler Rd. By bisecting properties in this corridor the city is not respecting the property owners.

#2- I believe the rail crossing of Crab Creek should parcel Rd. 4 NE, not Hwy 17.

Thank you, William Rathbone



Washington State  
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# Northern Columbia Basin Railroad Project

Grant County International Airport  
Thursday, July 19, 2007, 4 – 7 PM

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Your comments on the alternative alignments and possible environmental and community impacts of the project will be valuable input for the environmental analysis. Please leave your comments with us tonight or send them to Elizabeth Phinney, Rail Environmental Manager, by email, [phinnee@wsdot.wa.gov](mailto:phinnee@wsdot.wa.gov), by fax, (360) 705-6821, or by mail, WA St. Dept. of Transportation, Freight Systems Division, PO Box 47407, Olympia, WA 98504-7407 by Thursday, August 9, 2007.

### Please tell us what you think

IT seems to look like a good proposal.  
Improvements and upgrades on the existing  
line that intends to be used would be an  
absolute necessity.

(If you need more space, please turn the page over.)

To add your name to the mailing list, please tell us the following:

Name Joseph Blackman

Address 9998 maple drive NE # 82

City, State, Zip code Moses Lake wa 98837

Email address (to get information electronically) \_\_\_\_\_

Thank you!



Washington State  
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Please tell us what you think

I think this would be a good idea and  
would make the rail system more usable  
by all involved & future development

(If you need more space, please turn the page over.)

To add your name to the mailing list, please tell us the following:

Name Karl Beckman

Address \_\_\_\_\_

City, State, Zip code Moses Lake WASH 99037

Email address (to get information electronically) turnbe wood 410 @ Hot mail. Com

Thank you!



Washington State  
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## Please tell us what you think

I fully support the expansion of construction of the new line for the NCBRR, however not at the expense of the abandonment of the current line. As a user of the current spur I have a real vested interest in keeping

(If you need more space, please turn the page over.)

To add your name to the mailing list, please tell us the following:

Name Jerome Brotherton - Brotherton Seed Co

Address PO Box 1126

City, State, Zip code Moses Lake WA 98837

Email address (to get information electronically) jerome@brothertonseed.com

Thank you!

this line open.



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# Northern Columbia Basin Railroad Project

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### Please tell us what you think

*We need the extension as soon as possible. Currently we are planning to bring 6 to 10 rail cars a week in 2008. The project would help us grow in the Moses Lake area and facilitate our expansion plans.*

(If you need more space, please turn the page over.)

To add your name to the mailing list, please tell us the following:

Name Bruce Busher STS MFG. Inc

Address 2500 W. Co Rd B

City, State, Zip code Roseville, MN 55113

Email address (to get information electronically) Bruce@STSMFGINC.COM

Thank you!

EI-3094,



Washington State  
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Thursday, July 19, 2007, 4 - 7 PM

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Please tell us what you think

I think the Railroad should be to the north  
2 or 3 miles out of town for safety reasons  
and tie in with track going to the Port of  
Moses Lake.

I am not against the Railroad I think the crossing  
of Road 1 and Wheeler Rd. is going to tie up traffic

(If you need more space, please turn the page over.)

To add your name to the mailing list, please tell us the following:

Name Odell D. Crittenden

Address PO Box 1129 1461 Fairway Dr.

City, State, Zip code Moses Lake, WA 98837

Email address (to get information electronically) DEL.CRITTENDEN@GRANTCOUNTY  
POWER.NET

Thank you!



Washington State  
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## Please tell us what you think

I AM REQUESTING A COPY OF MAPPING  
AVAILABLE FOR THIS PROJECT. ESPECIALLY  
PHASE 1, ALONG WHEELER RD.

I FEEL THIS PROJECT WOULD BE BETTER  
PLACED TOWARD ROAD 7, INSTEAD OF ROAD  
3 & 4.

(If you need more space, please turn the page over.)

To add your name to the mailing list, please tell us the following:

Name RICK CRITTENDEN

Address 303 HANSEN RD

City, State, Zip code MOSES LAKE WA 98837

Email address (to get information electronically) RICK@MOESLAKELAND.COM

Thank you!



Washington State  
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# Northern Columbia Basin Railroad Project

Grant County International Airport  
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### Please tell us what you think

I am still concerned with the economic impact of this project on existing rail users in Moses Lake. The line can't be abandoned but if the new line goes in and there is rail to the airbase the downtown line could be abandoned. (That concerns me)

(If you need more space, please turn the page over.)

To add your name to the mailing list, please tell us the following:

Name Glenn Dart

Address 229 Commerce St.

City, State, Zip code Moses Lake, Wa.

Email address (to get information electronically) buddydart@Hotmail.com

Thank you!



Washington State  
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# Northern Columbia Basin Railroad Project

Grant County International Airport  
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**Please tell us what you think**

I support extending rail to the airport from the  
 Wheeler area. It would be nice to keep the new  
 track North of Wheeler Rd. It would be nice  
 to have more info available on the pros, cons &  
 costs of the various routes considered so far

(If you need more space, please turn the page over.)

To add your name to the mailing list, please tell us the following:

Name Jacqi Daschel - Discovery Fund & Hindu  
 Address 1140 S. Pioneer Way  
 City, State, Zip code Moses Lake WA 99037  
 Email address (to get information electronically) jacqi.daschel@discoveryfund.net

Thank you!



**Washington State  
Department of Transportation**



**Surface  
Transportation  
Board**

## Northern Columbia Basin Railroad Project

El-3063  
(1)

Grant County International Airport  
Thursday, July 19, 2007, 4 - 7 PM

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**Please tell us what you think**

*I love the idea of upgrading and expanding rail service in the Moses Lake area. The industrial area at the Port of Moses Lake warrant adequate reliable rail service. However, I am very disappointed by the proposed route. I don't understand the rationale that leaves a railroad adjacent to an elementary*

(If you need more space, please turn the page over.)

(over)

To add your name to the mailing list, please tell us the following:

Name PJ DeBenedetti

Address 3924 Thayer Rd

City, State, Zip code Moses Lake WA 98837

Email address (to get information electronically) pj.deben@mlsd.wednet.edu

Thank you!

School and residential neighborhood. IMAU area <sup>P.02/02</sup> likely to become more residential over the next 20 years. We have been working with our children to become less obese and more physically fit; why would we make their walking route to school less safe?

I am very concerned that the increase in rail traffic will make our children less safe and will also hurt their education. More frequent and longer trains undoubtedly means more noise. There are two crossings near the school; one is very near. Train whistler during the day will be a nuisance and distraction to instruction.

I would prefer a route that would bypass Longview Elementary entirely. However, if the proposed route is chosen, I would expect the developer to provide a means to provide students safe access to and from school. This may require a pedestrian bridge or tunnel, but since the proposed route is increasing risk, it should address it.

E1-3069 ID



Washington State  
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# Northern Columbia Basin Railroad Project

Grant County International Airport  
Thursday, July 19, 2007, 4 - 7 PM

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### Please tell us what you think

I definitely think a rail system is needed. But I strongly oppose the route. Moses Lake is growing rapidly and will continue to do so. It seems very short-sighted to put the route in town. Both Wheeler road and Hwy 17 are already crowded. The route needs to be further north. There is plenty of scrub land out there. It may be more (over)

To add your name to the mailing list, please tell us the following:

Name Beverly Dizon

Address 4070 RD K.5 NE

City, State, Zip code Moses Lake, WA, 98837

Email address (to get information electronically) \_\_\_\_\_

Thank you!

expensive but it needs to be done with the future of the town in mind.

This proposed route goes right by a school and a low income housing area. This is a terrible route for safety concerns.



Washington State  
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## Please tell us what you think

*I have some concerns, where the line runs through the Northwest corner of Farm Unit 89. There is a proposed cemetery going in there. I am a firm believer that the Northern Columbia Basin Railroad Project needs to move forward, not only for the industrial development & survival of the Port of M.L. but the continued economic growth in the greater Moses Lake Area. Would also love to see... ->*

(If you need more space, please turn the page over.)

To add your name to the mailing list, please tell us the following:

Name Bill ECRET

Address 1524 SOUTH JAMES AVE.

City, State, Zip code MOSES LAKE WA

Email address (to get information electronically) ECRET@HOME.NET.NW.WA

Thank you!

THE ABANDONMENT of the Columbia Basin Railroad line that runs along  
Brandenburg through downtown Moses Lake Please let me know if I  
can be of any help.

Bill Elbert  
Moses Lake City Council  
509-765-3510  
509-989-1982

VWCR FARM Unit 85  
RD 3AVE/D1



Washington State  
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### Please tell us what you think

When the new rail is built, the next project will be to abandon the line that serves Ferrellgas as well as Brotherton Seed and Moses Lake Iron. When the line is abandoned I will have to get propane shipped via trucks. This will add over 120 trucks carrying hazardous material through Moses Lake. (If you need more space, please turn the page over.) (over)

To add your name to the mailing list, please tell us the following:

Name Aaron Gimmeson - Operation Manager

Address 1325 W. Broadway Ave

City, State, Zip code Moses Lake, WA 98937

Email address (to get information electronically) aarongimmeson@ferrellgas.com

Thank you!

The ~~ng~~ majority of these shipments will come during the winter months when roads are ~~to~~ more prone to dangerous conditions. The number ~~of~~ trucks will increase, through downtown Moses Lake, carrying hazardous material every year.



Washington State  
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## Please tell us what you think

We think the Wheeler road route is impractical because of the dangerous crossings at Wheeler Road, Road E NE, and East Broadway. We think that there will be a negative impact to all property owners on the North side of Moses Lake, i.e. traffic disruption, noise, odor, & unsightly carving up the

(If you need more space, please turn the page over)

To add your name to the mailing list, please tell us the following:

Name THEO GOLTZ

Address 4136 ROAD K NE

City, State, Zip code MOSES LAKE, WA. 98837-9063

Email address (to get information electronically) \_\_\_\_\_

Thank you!

the North side of Moses Lake.

the most painless (aside from cost) might be using the old Wheeler to Adrian railway route (long since abandoned) and looping onto east of ML/Airport property. This would eliminate most unsafe conditions in the proposed <sup>route</sup>. Also this would have the least long term negative impact.

the Cost. More miles of track means more cost. But the minimal disruption of a rural Wheeler to Road 7, 8, 9, 10, 11, or 12 and looping to east would be of incredible value over the next fifty years. This is a case where "what costs more costs less" over the long term and is beneficial for all.

the issue. Choose the route that is the safest, least disruptive to vehicle traffic, is east unsightly, least nuisance to business, residence, and quality of life, away from schools & school children.



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# Northern Columbia Basin Railroad Project

Grant County International Airport  
Thursday, July 19, 2007, 4 - 7 PM

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Your comments on the alternative alignments and possible environmental and community impacts of the project will be valuable input for the environmental analysis. Please leave your comments with us tonight or send them to Elizabeth Phinney, Rail Environmental Manager, by email, [phinnee@wsdot.wa.gov](mailto:phinnee@wsdot.wa.gov), by fax, (360) 705-6821, or by mail, WA St. Dept. of Transportation, Freight Systems Division, PO Box 47407, Olympia, WA 98504-7407 by Thursday, August 9, 2007.

Please tell us what you think

*Can the realignment be moved to cross Stratford  
out further - maybe Rd 73? I'm concerned with  
heavy freight across a busy road - residential district  
and most importantly a school. Our community  
is growing so let's plan for that growth.*

(If you need more space, please turn the page over.)

To add your name to the mailing list, please tell us the following:

Name *Moses Lake Business Assoc - Sally Goodwin*

Address *PO Bx 1201*

City, State, Zip code *Moses Lake, WA 98837*

Email address (to get information electronically) *meba@moseslakebusiness.com*

Thank you!



Washington State  
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# Northern Columbia Basin Railroad Project

Grant County International Airport  
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### Please tell us what you think

Please proceed with the proposed plan ASAP. It  
is important to ~~the~~ facilitate economic growth. Keep  
in mind the route should...

1. serve the industrial zoned land in the area
2. Have the fewest environmental obstacles
3. Be the most economical route to build.

(If you need more space, please turn the page over.)

To add your name to the mailing list, please tell us the following:

Name ROBERT KINCAID

Address 2900 41. Broadway

City, State, Zip code MOSES LAKE, WA 98837

Email address (to get information electronically) RKincaid@windermere.com

Thank you!



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### Please tell us what you think

*I appreciate the effort to strengthen Moses Lake's economic development. We need the growth for our communities but I am concerned about the safety and noise and particularly the impact on the students at the elementary school that lies along*

(If you need more space, please turn the page over.)

*side the railroad tracks~*

To add your name to the mailing list, please tell us the following:

Name Deborah Lampe

Address 1639 Fairway Dr. NE

City, State, Zip code Moses Lake WA - 98837

Email address (to get information electronically) \_\_\_\_\_

Thank you!



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## Please tell us what you think

*I strongly support the new trackage system to serve Port of Moses Lake property and businesses at the Moses Lake airport. The relocation, ie segment 4, 2 & 3, plan is necessary. The existing line is a separate question whose time for abandonment is 3-5 yrs away. But the area really needs the new direct line.*

(If you need more space, please turn the page over.)

To add your name to the mailing list, please tell us the following:

Name Alan Lundberg  
Address 2013-Delta Rd NW  
City, State, Zip code Soap Lake, WA 98851  
Email address (to get information electronically) \_\_\_\_\_

Thank you!



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### Please tell us what you think

*The rail RR should parallel W. County Rd  
Rd 4 - ~~to~~ West of Rd 4 at East Broadway Extd should go  
straight across Crab Creek*

*I suggest Rebuild the exist Rail Road - lower cost & Disturbance*

**RATHBONE SALES INC.**

W. L. (Bill) Rathbone



HESSTON



MacDon



To add your name \_\_\_\_\_

Address \_\_\_\_\_

City, State, Zi \_\_\_\_\_

Email address \_\_\_\_\_

3860 E. Broadway Extd.  
P.O. Box 866  
Moses Lake, WA 99027

(509) 765-8856  
Fax (509) 766-0276  
Res. (509) 765-3196

Thank you!



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## Please tell us what you think

My concern with the railroad project is that the proposed route runs through Black's Edition and adjacent to Longview Elementary. Many young children play in that area & use the tracks as their path to school with no supervision. Their safety needs serious consideration. Please consider alternate

(If you need more space, please turn the page over.) routes for this area.

To add your name to the mailing list, please tell us the following:

Name Linda Rosnow

Address 4101 Dunn St NE

City, State, Zip code Moses Lake, WA 98837

Email address (to get information electronically) \_\_\_\_\_

Thank you!



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### Please tell us what you think

I'm not against a new railroad project, but I am totally against the proposed route, which takes the path that is connected to an elementary school, through a residential area, and other areas currently being residentially developed, please consider an alternate route

(If you need more space, please turn the page over.)

To add your name to the mailing list, please tell us the following:

Name Randy Russell  
Address 4170 Dun St  
City, State, Zip code Moses Lake, WA 98837  
Email address (to get information electronically) \_\_\_\_\_

Thank you!



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### Please tell us what you think

*I think it is great and way overdue. Grant County International airport is a tremendous asset that has been languishing for years for lack of complimentary transportation.*

*The city of Moses Lake is losing growth to Quincy & Ephrata because they have mainline rail.*

(If you need more space, please turn the page over.)

To add your name to the mailing list, please tell us the following:

Name \_\_\_\_\_

Address \_\_\_\_\_

City, State, Zip code \_\_\_\_\_

Email address (to get information electronically) \_\_\_\_\_

Thank you!

Long term growth will require this & maybe more.  
Moses Lake's interest in rocks & clocks downtown  
and boulevards across ~~sq~~ sage brush flats is premature.  
Basic infrastructure needs to be emphasized first and  
this rail project is just that. Where is the city  
of Moses Lake.



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Please tell us what you think

The railroad service is a good concept but the proposed route seems to be a bad idea with the city limits expanding every year, in 10-15 years the same problem would arise - where to run the lines without compromising traffic & safety issues. Rail lines should be run with as little affect on road →

(If you need more space, please turn the page over.)

To add your name to the mailing list, please tell us the following:

Name \_\_\_\_\_

Address \_\_\_\_\_

City, State, Zip code \_\_\_\_\_

Email address (to get information electronically) \_\_\_\_\_

Thank you!

traffic as possible & also of utmost, safety  
issues both to cars & people.

RECEIVED

JUL 27 2001

WSDOT RAIL OFFICE



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## Please tell us what you think

Sounds like a very beneficial move for the community to combine growth. My only concern is will the changes totally drop down town or if it is, can it still have access as a spur? Or possibly left as a dinner ~~train~~ train?? Or tourist use in some other way. Any way, keep moving forward

(If you need more space, please turn the page over.)

To add your name to the mailing list, please tell us the following:

Name \_\_\_\_\_

Address \_\_\_\_\_

City, State, Zip code \_\_\_\_\_

Email address (to get information electronically) \_\_\_\_\_

Thank you!



October 7, 2008

To: Joe Gavinski, Manager, City of Moses Lake

From: Brig Temple, Columbia Basin Railroad

Re: Opposition to Odell Crittenden's Application to Amend the Comprehensive Plan or Development Regulation for parcels on the south side of Road 4 NW

I am writing to you on behalf of Columbia Basin Railroad in support of the Port of Moses Lake's recent letter to the City of Moses Lake opposing Mr. Odell Crittenden's "Application to Amend the Comprehensive Plan or Development Regulation" for parcels 170542000 and 190681000, which are located on the south side of Road 4 NW, Moses Lake, WA. The request (by Mr. Crittenden) to amend the comprehensive plan would change the land use from light industrial to residential, and could jeopardize plans relating to both Segments 1 and 4 of the Northern Columbia Basin Railroad Project.

This railroad project serves an important and vital economic development and public purpose (improving freight mobility, creating jobs, etc.) in Washington State, and would do the following:

- Extend and enhance railroad access to vital industries in the Northern Columbia Basin area (around Moses Lake).
  - A new rail segment (Segment 1) would be constructed from the Grant County Int. Airport to Wheeler.
  - A new rail segment (Segment 2) would be constructed to extend rail service to the Industrial Park on the east side of the Grant County International Airport.
  - An existing rail segment (Segment 3) would be refurbished and improved.
- It would greatly improve freight mobility and economic development opportunities in the Moses Lake area and support the overall freight mobility plan of Washington State.
- It would eliminate several at-grade rail crossings within the City of Moses Lake, and open up water front property for trails and other tourism developments.
  - An existing rail segment (Segment 4) would be converted into a trail (when Segment 1 is completed).

As a result, Columbia Basin Railroad is opposed to the above mentioned rezone application (which could adversely impact the railroad project) for the following reasons:

- 1) The Port of Moses Lake is proposing to construct a new rail line (known as Segment 1 of the Northern Columbia Basin Railroad Project) near and across a portion of the southwest portion of the property (see map at right). There is currently a proposal that is being finalized by the Surface Transportation Board (STB) to approve construction and operational authority for this project. The Port's plan and the proposed routing for this rail line has been well publicized for the past couple of years, including a Public Open House hosted by the STB and Washington State Department of Transportation (WSDOT) in July of 2007, and followed by a presentation by WSDOT to the Moses Lake City Council in October of 2007.

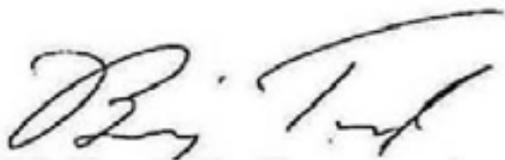


- 2) The Port of Moses Lake's plans have been well known, and significant public dollars (nearly \$2 million) have already been expended for the design, engineering, and environmental assessment by the STB and WSDOT for this project. It would be contrary to public policy for the City of Moses Lake to reclassify this land (which is located within the area of Segment 1 of the Northern Columbia Basin Railroad Project) to residential, especially when the City Council and planning authorities are well aware of a planned industrial use by the STB, WSDOT and the Port of Moses Lake. On a related note, there is already significant industrial development in this area, and a residential classification is clearly incompatible and inconsistent with current uses and future plans, and should not be approved.
- 3) We and other affected stakeholders (such as the Port of Moses Lake, Grant County EDC, etc.) were not given the opportunity to review the rezone documents prior to recent recommendation of the City Planning Commission to the City Council. In addition, in October of 2007 the City Council voted to support the Northern Columbia Basin Railroad Project, including the new route to be along the Wheeler Corridor. Furthermore, the City of Moses Lake correspondence in February of 2008 supported the construction of both Segments 1 & 2 between Wheeler to Stratford Road and continuing to the east side of the Airport.
- 4) We have met with the City of Moses Lake several times over the past three years about this project and have indicated and reiterated to the City of Moses Lake that the Segment 1 bypass route must be completed in order for the Columbia Basin Railroad to be able to lease or sell Segment 4 to the City of Moses Lake to convert into a path or trail, thus eliminating several at-grade rail crossings within the City of Moses Lake, and opening up water front property for trails and other tourism developments. If Segment 1 cannot be completed, then it will be critical that rail service continue on Segment 4 so that companies around the Grant County International Airport will not be cut off from access to rail.
- 5) With fuel prices continuing to stay relatively high, and greater concerns being expressed about climate change, having access to rail is becoming increasingly important for companies and businesses as freight trains are more than three times as fuel efficient as trucks and only produce 1/3 of the greenhouse gas emissions as trucks.

For the reasons above as well as the critical importance of having rail for economic development and creating new jobs in Moses Lake and Grant County, we strongly urge the City of Moses Lake to deny the above mentioned request to "Amend the Comprehensive Plan or Development Regulation" to change the land use from light industrial to residential for parcels 170542000 and 190681000.

Thank you for your consideration of this request.

Sincerely,



Brig Temple  
President  
Columbia Basin Railroad  
111 University Parkway, Suite 200  
Yakima, WA 98901

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