Wasco County Planning Department
"Service, Sustainability & Solutions"

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(541) 506-2560 • wcplanning@co.wasco.or.us
www.co.wasco.or.us/planning

WASCO COUNTY PLANNING COMMISSION AGENDA PACKET

FOR

Hearing Date: September 6, 2016

Hearing Time: 3:00 pm
Hearing Location: Columbia Gorge Discovery Center, Theater/Auditorium
5000 Discovery Drive
The Dalles, Oregon 97058

Action Item(s):

QUASI JUDICIAL HEARING:

PLASAR-15-01-0004

Request by Union Pacific Railroad and their land use consultants, CH2M Hill, to expand an existing railroad siding on either side of Mosier, Oregon for 4.02 miles of new second mainline track and realigned existing track; place five new equipment shelters; install drainage structures, a retaining wall, new lighting and signage, and wireless communication poles; modify existing utilities, temporary landing zones for construction; construct temporary and permanent access roads; and a property line adjustment. The request also includes off-site wetland mitigation east of the primary project site.

VOLUME #1

Wasco County Planning Department

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MEMORANDUM TABLE OF CONTENTS Volume 1

Date: August 30, 2016

To: Wasco County Planning Commission

From: Wasco County Planning Office

Subject: Submittal for Hearing dated September 6, 2016

QUASI JUDICIAL HEARING:

PLASAR-15-01-0004

Request by Union Pacific Railroad and their land use consultants, CH2M Hill, to expand an existing railroad siding on either side of Mosier, Oregon for 4.02 miles of new second mainline track and realigned existing track; place five new equipment shelters; install drainage structures, a retaining wall, new lighting and signage, and wireless communication poles; modify existing utilities, temporary landing zones for construction; construct temporary and permanent access roads; and a property line adjustment. The request also includes off-site wetland mitigation east of the primary project site.

Volume 1 of 8

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Supplemental Appendix G	PC 1	1-237

PLASAR-15-01-0004 UPRR

Application Materials

Please Note:

All *sensitive natural and cultural resource information, including correspondence that include confidential resource protection information, has been withheld to ensure ongoing resource protection. Please contact staff with any questions.*

CH2M HILL
2020 SW 4th Avenue
Suite 300
Portland, OR 97201
Tel 503-235-5000

January 9, 2015

Angie Brewer
Interim Planning Director
Wasco County Planning Department
2705 East 2nd Street
The Dalles, Oregon 97058

Subject: UPRR Second Mainline Track Project – Wasco County, Oregon
National Scenic Area Development Review Application

Ms. Brewer,

Union Pacific Railroad (UPRR) is submitting with this correspondence the attached National Scenic Area Development Review Application for UPRR's proposed Second Mainline Track Project between rail mileposts (MP) 66.98 to 72.35 on the Portland Subdivision, in Wasco County, Oregon (project).

The proposed project is located south of the Columbia River in Wasco County, and traverses through the City of Mosier (a designated Urban Area). The overall project (including portions located within a designated Urban Area) will construct approximately 4.02 miles of new second mainline track, two new bridge structures over Rock and Mosier creeks, and related signals, signal cabins, and signage.

Because a portion of the overall project is proposed within an NSA-designated Urban Area where NSA Development Review guidelines do not apply, only a portion of the proposed project is included for review in the attached application. This portion of the proposed project meets the following criteria:

1. The project components are located within the Columbia River Gorge National Scenic Area (NSA) as established under that National Scenic Area Act (U.S. Congress, 1986).
2. The project components are <u>not</u> located within an established Urban Area (that is, the City of Mosier) as designated by the U.S. Congress.

Specifically, the portion of the project that satisfy the above criteria and are included in this application for review include an approximately 3.58-mile portion of the proposed project. This area includes approximately 3.21 miles of new second mainline track, approximately 0.37 mile of realigned existing track, a single rock retaining wall, and required signal buildings, signage, signal lights and wireless signaling appurtenances.[1]

[1] All bridge construction is located within a designated Urban Area (that is, the City of Mosier); see Section 4 of the enclosed narrative for additional project description information.

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To comply with the NSA Act, the attached application contains the following documents:

- Applicable Forms (Land Use Application, National Scenic Area Application, Fire Safety Self-Certification);
- Project Narrative;
- Figures and Mapping;
- Typical Structures and Materials Data and Photographs
- Engineering Drawings;
- Conceptual Water Resources Mitigation Plan;
- Wetland Delineation Report;
- Agent Authorization Letter;
- Landowner Consent Forms;
- Wasco County Pre-Application Staff Report;
- Proof of Legal Parcels;
- Special-Status Plant Species and Habitat Mapping Report
- Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan
- Cultural Resources Report

UPRR is a "Class I" railroad under federal regulations. UPRR's system consists of roughly 31,800 route miles, principally in the western and midwestern United States. Like other Class I railroads, UPRR is not averse to working cooperatively with local authorities to resolve critical local concerns. In fact, voluntary notification of potential projects is normal practice, and discussions between railroads and local authorities resolve most local conflicts.

UPRR therefore has engaged in the Wasco County permitting process voluntarily. Ordinarily, an interstate railroad is not required to obtain state or local construction permits to build any facility that is integrally related to the railroad's transportation operations. Under the ICC Termination Act of 1995 (ICCTA), the federal Surface Transportation Board (STB) is vested with exclusive jurisdiction over interstate rail transportation (49 U.S.C. § 10501[b]). The ICCTA categorically preempts – regardless of context or rationale for the action – any form of state or local permitting that (1) could be used to deny the railroad the ability to conduct some part of its operations or (2) purports to regulate matters already regulated by the STB such as the construction of rail lines (*Village of Big Lake v. BNSF Ry. Co*., 382 S.W.3d 125, 129 [Mo. App. 2012]).

ICCTA preemption has been applied to a wide variety of local permitting and land use requirements for the construction of facilities related to rail transportation. In particular, see *Village of Big Lake v. BNSF Ry. Co*., 382 S.W.3d 125, 129 (Mo. App. 2012), specifically the holding that the ICCTA preempts the village's ordinance – promulgated pursuant to federal law – requiring the railroad to conduct a hydrological and hydraulic study, provide the results to the village, and obtain a permit from the village before starting construction on interstate rail facilities. Also see *City of Auburn v. United States*, 154 F.3d 1025, 1028-30 (9th Cir. 1998), specifically the ruling that ICCTA preempts state and local laws providing for environmental review as they relate to the construction and operation of side tracks and rail facilities.

Nevertheless, as a policy matter, UPRR routinely applies for state and local construction permits and does not invoke ICCTA preemption unless the permitting becomes unduly prolonged or conditions are imposed that are incompatible with UPRR's operating needs. Accordingly, the enclosed application is provided for your review.

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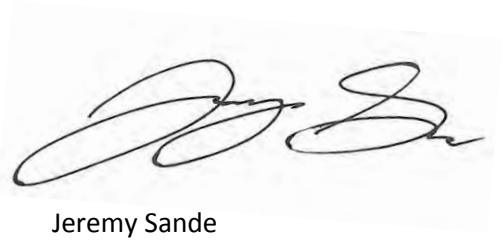
UPRR appreciates your consideration of this application. If you have any questions, please contact me at (503) 267-8870 (email: Jeremy.Sande@ch2m.com) or Debra Schafer at (402) 544-2358 (email: DebraLShafer@up.com) Thank you for your time and consideration.

Sincerely,



Jeremy Sande
Project Manager
CH2M HILL Engineers, Inc.

Enclosures

cc: Debra Schafer, UPRR

Ty Wyman, Dunn Carney Allen Higgins & Tongue LLP

Christine Roberts, CH2M HILL

Jessica Golman, CH2M HILL

Ryan Kosola, Olsson Associates

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LAND USE APPLICATION

FILE NUMBER: _____

FEE: _____

Date Received: 1/9/15 **Planner Initials:** AB **Date Complete:** **Planner Initials:**

APPLICANT INFORMATION

Name: Union Pacific Railroad (UPRR)
Address: 1400 Douglas Street, Stop 0910
City/State/Zip: Omaha NE, 68179
Phone: 402-544-2358
Email: DebraLSchafer@up.com

OWNER INFORMATION

Name: Same as Applicant
Address:
City/State/Zip:
Phone:
Email:

PROPERTY INFORMATION

Township/Range/Section/Tax Lot(s)	Acct #	Acres	Zoning
Please refer to Figures 1-3 and 4-2, and Table 4-1 of			
the application narrative for a complete list of tax			
lots and a description of zoning districts crossed			
by the proposed Second Mainline Track Project.			

Property address (or location): Please refer to Section 4.1 of the attached application narrative for a description of the project location.

Water source: N/A **Sewage disposal method:** N/A

Name of road providing access: Refer to Sections 4.1.4 and 4.2.5, and Figure 4-1 of the application narrative for description of proposed access locations.

Current use of property: Refer to Section 4.2.2 of application narrative. **Use of surrounding properties:** Refer to Table 4.1 of application narrative.

Do you own neighboring property? ☐ NO ☐ YES (description) Refer to Table 4.1 and Figure 4-2 of the application narrative.

DETAILED PROJECT DESCRIPTION (proposed use, structures, dimensions, etc.):

Union Pacific Railroad (UPRR) proposes to construct approximately 3.58 miles of second mainline track along the existing Portland Subdivision within the Columbia River Gorge National Scenic Area (NSA) and outside of the NSA-designated Urban Area between rail mileposts (MP) 66.98 and 72.35. The proposed project will develop a second set of tracks parallel to the existing track, which runs east to west on the southern shoreline of Bonneville Reservoir on the Columbia River. The proposed project will also include the realignment of portions of existing track in some areas, grading and other ground-disturbing activities, and associated facilities such as signal buildings, signage, and lighting. Please refer to Section 4 of the application narrative for a complete project description and figures.

☐ **Additional description/maps/pictures attached**

LEGAL PARCEL STATUS
Partition, Subdivision, OR
***Most Recent* Pre-9/4/1974 Deed #:** _____ **Date Filed:** _____

Current Deed #: Refer to Appendix I to the application narrative for deeds associated with the project area. **Date Filed:** _____

The deed and a map showing the property described in the deed(s) must accompany this application.

SIGNATURES
Applicant(s): _____ **Date:** _____
Debra L Schafer **Date:** 1-9-15
Property Owner(s): _____ **Date:** _____
_____ **Date:** _____
_____ **Date:** _____
_____ **Date:** _____
_____ **Date:** _____

PLEASE NOTE: Before this application will be processed, you must supply all requested information and forms, and address all listed or referenced criteria. Pursuant to ORS 215.428, this office will review the application for completeness and notify Applicant of any deficiencies within 30 days of submission. By signing this form, the property owner or property owner's agent is granting permission for Planning Staff to conduct site inspections on the property.

ALL LAND USE APPLICATIONS MUST INCLUDE:

- ☒ Application Fee – Cash or Check (credit cards now accepted with additional fee)
- ☒ Site Plan
- ☒ Elevation Drawing
- ☒ Fire Safety Self-Certification
- ☐ Other applicable information/application(s):
  - ☐ _____
  - ☐ _____
  - ☐ _____

APPLICATIONS FOR PROPERTIES IN THE NATIONAL SCENIC AREA MUST *ALSO* INCLUDE:

- ☒ Scenic Area Application/Expedited Review
- ☒ Color and Material Samples
- ☒ Landscaping Plan
- ☒ Grading Plan
- ☒ Other applicable information/application(s):
  - ☐ Please refer to attached Appendixes A
  - ☐ through L for supporting documentation.

CH2MHILL® TRANSMITTAL

To: Wasco County Planning Department
2705 East 2nd Street
The Dalles, Oregon 97058

From: Jeremy Sande/CH2M HILL on behalf of Union Pacific Railroad

Attn: Angie Brewer

Date: January 9, 2015

Re: National Scenic Area Development Review Application for the Union Pacific Railroad Second Mainline Track Project

We Are Sending You:

☐ Attached
☒ Documents
☐ Drawings

Method of shipment: In-Person Delivery

☐ Under separate cover via
☐ Copies
☐ Specifications
☐ Other:

Quantity	Description
2	Hard Copies: Wasco County National Scenic Area Development Review Application for the Union Pacific Railroad Second Mainline Track Project
2	CDs: Wasco County National Scenic Area Development Review Application for the Union Pacific Railroad Second Mainline Track Project

If the material received is not as listed, please notify us:

Jeremy Sande
Project Manager – CH2M HILL
(503) 267-8870
Jeremy.Sande@ch2m.com

Copy To:

Deb Schafer/UPRR
Ty Wyman/ Dunn Carney Allen Higgins & Tongue LLP
Christine Roberts/CH2M HILL
Jessica Golman/CH2M HILL
Ryan Kosola/Olsson Associates

RECEIVED
JAN 09 2015
WASCO COUNTY PLANNING

AB

File Number: STS-_____

FLOODPLAIN DEVELOPMENT APPLICATION

DETAILED SPECIFIC WRITTEN REQUEST

Construction of UPRR's Mosier 2nd Mainline Track project. The proposed 2nd Mainline project involves widening of the existing track embankment approximately 30-ft along the north embankment for 12,200 feet to the west between MP 66.98 to 69.54 and 10,500 feet to the south between MP 70.45 and MP 72.35 to accommodate the new mainline track and access road. In addition, the project involves the extension of four culverts, two new bridges and a new culvert at Thompson's Lake

DETAILED DEVELOPMENT INFORMATION

Proposed Improvements				
	Length	Width	Height	Square Footage/Cubic Yards
Dwelling				
Garage				
Accessory Bldg.				
Decks				
Driveway				
Agricultural Bldg				
Bridge				
Fill	1,000 ft	20-ft	15-ft	0.46 Acres/9,400 CY below BFE
Other				
Culvert 68.57	8-ft Extension	1 @ 42" CMP		
Culvert 71.84	New Culvert	2 @ 60" SSP	Added for Fish	Passage
Culvert 71.89	28-ft Extension	1 @ 42" CMP		
Existing Improvements				
Dwelling				
Garage				
Other				

REQUIREMENTS FOR ALL DEVELOPMENT IN THE FLOODPLAIN

In addition to structural development, a permit for development in the floodplain includes but is not necessarily limited to mining, dredging, filling, grading, excavating, roads, bridges, culverts, altering or relocating stream channels, storage of materials including gas or liquid storage tanks, and placement of water and septic/sewer systems.

1. Per the floodplain map, what are the following in the area of the proposed development?

   Zone A Panel Number 01 & 02 Community Number 410229 B

2. Elevation to mean sea level at proposed development site: Varies through site feet National Geodetic Vertical Datum (NGVD).
   See UPRR Track Plans

3. Base Flood Elevation to mean sea level at proposed development site: 93.0 - 94.0 feet ~~NGVD.~~-NAVD
The height of the base flood elevation can only be determined by an engineer, or architect who is authorized by law to certify flood elevation information.
Adequate documentation establishing the base flood elevation has been submitted? ☐ No ☑ Yes

4. Alteration or relocation watercourse: Does the proposal include altering or relocating any watercourse?
☑ No ☐ Yes

If yes the following information is required to be submitted:

-A description of the extent to which any watercourse will be altered or relocated as a result of proposed development must be included. This description is attached? ☐ No ☐ Yes ☑ N/A

-A description of the long term maintenance plan within the altered or relocated portion of the watercourse showing how the flood carrying capacity will not be diminished is included? ☐ No ☐ Yes ☑ N/A

-Notification to adjacent communities, Department of Water Resources, Department of Land Conservation and Development Natural Hazards Coordinator, Department of State Lands, Federal Emergency Management Agency, and the Federal Insurance Administration is required prior to any alteration or relocation. Verification of the notification to these agencies or groups is included?
☐ No ☐ Yes ☑ N/A

5. Adverse affect: The proposed development cannot adversely affect the flood carrying capacity of the special hazard. To prove this, an analysis shall be done which includes but is not necessarily limited to the following:

-Potential damage to adjacent properties because of rises in flood stages attributed to physical changes of the channel and the adjacent overbank areas; and
-Potential danger to life and property due to increased flood heights or velocities; and
-Potential danger that materials may be swept onto other lands or downstream to the injury of others.

A non-adverse affect analysis is included? ☐ No ☑ Yes

6. Why is a waterfront location required for this facility? What alternative sites are available?

The existing UPRR Mainline Track parallels to the Columbia River. No other alternatives sites are available.

7. Elevation Drawing: In addition to the general elevation requirements, the following shall also be included for all proposed development within the floodplain:
-Base flood elevation.
-Elevation of lowest floor including basement.
-Areas of ingress and egress of water through any structure.
-Elevation to which any structure will be flood-proofed (required to be 1 foot above base flood elevation).
-Elevation of water supply and sanitary facilities.
-Elevation of utilities including all heating and electrical equipment (furnace, water heater and electrical panel).
This is included? ☐ No ☑ Yes

8. Cross Section:

A Cross-Section of any area of the development site (structure, driveway and/or septic) where filling or excavation will occur showing by an elevation drawing the water table, fill and development elevations.

This is included? ☐ No ☑ Yes

9. Are other Federal, State or local permits required to be obtained?
   - -Department of State Lands/Corps of Engineers Removal Fill Permit ☐ No ☑ Yes
   - -Oregon State Parks Wild and Scenic River Permit. This may be required if the proposed development is located within ¼ mile of Deschutes River or John Day River ☑ No ☐ Yes
   - -Other: Specify_____

WATER AND SEPTIC/SEWER UTILITIES

If new or replacement water or septic/sewer utilities are proposed within the floodplain the following must be met:
New or replacement water or septic/sewer facilities are proposed within the floodplain? ☑ No ☐ Yes

1. Explain how it is not practicable to locate the new or replacement water or septic/sewer utility outside the floodplain.

   _____

   _____

   _____

2. Documentation has been included which explains how the water supply system is designed to minimize or eliminate infiltration of flood waters into the system. ☐ No ☐ Yes

3. Documentation has been included which explains how the on-site septic system will be located to avoid impairment to it or contamination from it during flooding. ☐ No ☐ Yes

4. Documentation has been included which explains how the sewage system is designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters. ☐ No ☐ Yes

NON-SUBSTANTIAL IMPROVEMENTS

Non-substantial improvements include alterations, additions, or improvements to existing structures that meet the standards below:

1. What is the estimated market value of the existing structure? $ N/A
2. What is the cost of the proposed construction? $ N/A
3. If the cost of the proposed construction equals or exceeds 50 percent of the market value of the structure then the proposal is a substantial improvement and the applicable following sections shall be filled out. If not the proposal is a non-substantial improvement and no more of this application is required to be filled out.
   Documentation validating the numbers listed above has been submitted? ☑ No ☐ Yes

RESIDENTIAL DEVELOPMENT

All residential development and non-residential development that will not be flood proofed according to the next section below shall meet the following requirements:

1. Proposed lowest floor elevation (including basement): _____ feet NGVD. This must be at or above the base flood elevation for new residential development and substantial improvements to existing residential development. It is recommended that the first floor elevation be at least one foot above the base flood elevation.

   For new manufactured homes or existing manufactured homes with substantial improvement they shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is at or above the base flood elevation.

2. Floodplain Elevation Certificate – A FEMA Elevation Certificate (Form No. 1660-0008) will be required to filled out by a registered professional engineer of architect. This form is available at the Planning Department.

   This elevation certificate has been submitted? ❒ No ❒ Yes

   If the permit application is approved, a second Elevation Certificate will be required indicating the as-built elevations.

3. Below the first floor: Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:

   -A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.
   -The bottom of all openings shall be no higher than one foot above grade.
   -Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

   Documentation has been included which shows how the proposed development meets or exceeds the requirements above? ❒ No ❒ Yes

   If no, documentation has been included by a registered professional engineer of architect showing how this standard will be met? ❒ No ❒ Yes

4. Requirements of "Additional Standards" section below must also be met.

NON-RESIDENTIAL DEVELOPMENT

If non-residential development is proposed to be located higher than the base flood elevation rather than flood-proofed, use the residential section above.

1. Elevation to mean sea level to which any non-residential structure will be floodproofed: _____ feet National Geodetic Vertical Datum (NGVD). This has to be at least one foot above base flood elevation.

2. FEMA Flood Proofing Certificate (Form No. 3067-0777) will be required to filled out by a registered professional engineer of architect. This form is available at the Planning Department.

   This flood proofing certificate has been submitted? ❒ No ❒ Yes

3. Certification by a registered professional engineer or architect that proposed flood-proofing meets the following flood-proofing criteria:

-The development is watertight with walls substantially impermeable to the passage of water to at least one foot above the base flood elevation.
-The development will have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.

This flood proofing certificate has been submitted? ❒ No ❒ Yes

If the permit application is approved, a second flood proofing Certificate will be required indicating the as-built flood proofing methods.

4. Requirements of "Additional Standards" section below must also be met.

ADDITIONAL STANDARDS

The standards included below are for all new construction and substantial improvement.

1. Anchoring: Development shall be anchored to prevent flotation, collapse, or lateral movement of the structure. For manufactured homes anchoring methods may include, but are not limited to, use of over-the-top or frame ties to ground anchors. Any alternative method of anchoring may involve a system designed to withstand a wind-force of ninety (90) miles per hour, or greater.

Documentation describing the proposed anchoring has been submitted? ❒ No ❒ Yes

2. Construction Materials and Methods: All new development shall be constructed with materials and utility equipment resistant to flood damage and using methods and practices that minimize flood damage. Electrical, heating, ventilation, plumbing, and air- conditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

Documentation describing the construction materials and methods has been submitted? ❒ No ❒ Yes

ACKNOWLEDGEMENT

By signing the front page application that goes along with this application I/we have read and understand the following:

I/we agree that all such work shall be done in accordance with the requirements of the Wasco County Floodplain Ordinance as approved through this permit and with all other applicable local, State and Federal regulations. The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This chapter does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This chapter shall not create liability on the part of Wasco County, any officer or employee thereof or the Federal Insurance Administration, for any flood damages that result from reliance on this chapter or any administrative decision lawfully made thereunder.

Wasco County Planning Department
"Service, Sustainability & Solutions"
2705 East Second St. • The Dalles, OR 97058
(541) 506-2560 • wcplanning@co.wasco.or.us
www.co.wasco.or.us/planning

LAND USE APPLICATION

FILE NUMBER: _____

FEE: _____

Date Received: **Planner Initials:** **Date Complete:** **Planner Initials:**

APPLICANT INFORMATION

Name: Union Pacific Railroad (UPRR)
Address: 1400 Douglas Street, Stop 0910
City/State/Zip: Omaha NE, 68179
Phone: 402-544-2358
Email: DebraLSchafer@up.com

OWNER INFORMATION

Name: Same as Applicant
Address:
City/State/Zip:
Phone:
Email:

PROPERTY INFORMATION

Township/Range/Section/Tax Lot(s)	Acct #	Acres	Zoning
Please refer to Figures 1-3 and 4-2, and Table 4-1 of			
the application narrative for a complete list of tax			
lots and a description of zoning districts crossed			
by the proposed Second Mainline Track Project.			

Property address (or location): Please refer to Section 4.1 of the attached application narrative for a description of the project location.

Water source: N/A **Sewage disposal method:** N/A

Name of road providing access: Refer to Sections 4.1.4 and 4.2.5, and Figure 4-1 of the application narrative for description of proposed access locations.

Current use of property: Refer to Section 4.2.2 of application narrative. **Use of surrounding properties:** Refer to Table 4.1 of application narrative.

Do you own neighboring property? ❑ NO ❑ YES (description) Refer to Table 4.1 and Figure 4-2 of the application narrative.

DETAILED PROJECT DESCRIPTION (proposed use, structures, dimensions, etc.):

Union Pacific Railroad (UPRR) proposes to construct approximately 3.58 miles of second mainline track along the existing Portland Subdivision within the Columbia River Gorge National Scenic Area (NSA) and outside of the NSA-designated Urban Area between rail mileposts (MP) 66.98 and 72.35. The proposed project will develop a second set of tracks parallel to the existing track, which runs east to west on the southern shoreline of Bonneville Reservoir on the Columbia River. The proposed project will also include the realignment of portions of existing track in some areas, grading and other ground-disturbing activities, and associated facilities such as signal buildings, signage, and lighting. Please refer to Section 4 of the application narrative for a complete project description and figures.

❑ **Additional description/maps/pictures attached**

LEGAL PARCEL STATUS
Partition, Subdivision, OR
***Most Recent* Pre-9/4/1974 Deed #:** _____ **Date Filed:** _____

Current Deed #: Refer to Appendix I to the application narrative for deeds associated with the project area. **Date Filed:** _____

The deed and a map showing the property described in the deed(s) must accompany this application.

SIGNATURES
Applicant(s): _____ **Date:** _____
Debra L Schafer **Date:** 1-9-15
Property Owner(s): _____ **Date:** _____
_____ **Date:** _____
_____ **Date:** _____
_____ **Date:** _____
_____ **Date:** _____

PLEASE NOTE: Before this application will be processed, you **must** supply all requested information and forms, and address **all listed or referenced criteria**. Pursuant to ORS 215.428, this office will review the application for completeness and notify Applicant of any deficiencies within 30 days of submission. By signing this form, the property owner or property owner's agent is granting permission for Planning Staff to conduct site inspections on the property.

ALL LAND USE APPLICATIONS MUST INCLUDE:

- ☒ Application Fee – Cash or Check (credit cards now accepted with additional fee)
- ☒ Site Plan
- ☒ Elevation Drawing
- ☒ Fire Safety Self-Certification
- ☐ Other applicable information/application(s):
  - ☐ _____
  - ☐ _____
  - ☐ _____

APPLICATIONS FOR PROPERTIES IN THE NATIONAL SCENIC AREA MUST *ALSO* INCLUDE:

- ☒ Scenic Area Application/Expedited Review
- ☒ Color and Material Samples
- ☒ Landscaping Plan
- ☒ Grading Plan
- ☒ Other applicable information/application(s):
  - ☐ Please refer to attached Appendixes A
  - ☐ through L for supporting documentation.

SHADED AREA TO BE COMPLETED BY PLANNING DEPARTMENT

Legal Parcel ❑ NO ❑ YES
Deed/Land Use Action: _____

Previous Map and Tax Lot: _____

Past Land Use Actions: If yes, list file #(s) _____ ❑ NO ❑ YES

_____

_____

Subject to previous conditions? ❑ NO ❑ YES

Assessor Property Class: _____

Zoning: _____

Environmental Protection Districts – List applicable EPDs:

❑ EPD # _____

❑ EPD # _____

❑ EPD # _____

❑ EPD # _____

Water Resources
Are there bodies of water on property or adjacent properties? ❑ NO ❑ YES

Describe: _____

❑ Fish bearing (100/50 ft buffer) ❑ Non fish bearing (50 ft buffer) ❑ Not identified (25 ft buffer)
❑ Irrigation ditch (50 ft buffer)

Access:
County or ODOT approach permit on file? ❑ NO ❑ YES, # _____

Address:
Address exists and has been verified to be correct? ❑ NO ❑ YES
Address needs to be assigned after approval? ❑ NO ❑ YES

Fire District: _____

Fees (List Review Type and Cost): _____

_____

_____

Fire Safety Standards Self Certification Form

Wasco County Planning Department
"Service, Sustainability & Solutions"
2705 East Second St. • The Dalles, OR 97058
(541) 506-2560 • cplanning@co.wasco.or.us
www.co.wasco.or.us/planning

FIRE SAFETY STANDARDS
SELF CERTIFICATION FORM

This checklist certifies that Applicant/Owner has reviewed, understands, and commits to maintain compliance with Wasco County Fire Safety Standards. The information contained in this form shall be recorded with the Wasco County Clerk.

Fire standards are listed in their entirety, with illustrations, in **Chapter 10** of the Wasco County Land Use & Development Ordinance (WC LUDO) and **Chapter 11** of the Wasco County National Scenic Area Land Use & Development Ordinance (NSA LUDO). Please confirm compliance by marking the appropriate box and providing written comment if necessary. If compliance with applicable standards cannot be certified by Applicant, please contact the Planning Department to request a modification to Fire Safety Standards.

File Number: _____

PROJECT DESCRIPTION: UPRR proposes to construct approximately 3.58 miles of second mainline track along the existing Portland Subdivision within the Columbia River Gorge National Scenic Area (NSA) and outside of the NSA-designated Urban Area between rail mileposts (MP) 66.98 and 72.35. The project will also include the realignment of portions of existing track in some areas, grading and other ground-disturbing activities, and associated facilities such as signal buildings, signage, and lighting. Please refer to Section 4 of the application narrative for a complete project description and figures.

APPLICANT INFORMATION

Name: Union Pacific Railroad (UPRR)
Address: 1400 Douglas Street, Stop 0910
City/State/Zip: Omaha NE, 68179
Phone: _____
Email: DebraLSchafer@up.com

OWNER INFORMATION

Name: Same as Applicant
Address: _____
City/State/Zip: _____
Phone: _____
Email: _____

PROPERTY INFORMATION

Township/Range/Section/Tax Lot(s)	Acct #	Acres	Zoning
Please refer to Figures 1-3 and 4-2, and Table 4-1 of			
the application narrative for a complete list of tax			
lots and a description of zoning districts crossed			
by the proposed Second Mainline Track Project.			

Property address (or location): Please refer to Section 4.1 of the attached application narrative for a description of the project location.

***SITING* 10.110/11.110** – *Please show approximate areas of steep slopes and proposed building locations relative to the slopes on the site plan. Information shall be sufficient to demonstrate the following:* **NOTE: Select either B(1) or B(2).**

A. You have identified site(s) for your building(s) that are not steeper than 40%.

■ Yes – Comment No aboveground structures are proposed on grades steeper than 40%. ☐ No, See Attached Fire Safety Plan

B(1). If your property is located in a Resource (A-1, F-1 or F-2) or Large Lot Residential Zone please show, on the site plan, that you have identified site(s) for your building(s) that are at least 50 feet back from the top of any slopes steeper than 30%;

☐ Yes – Comment No aboveground structures are proposed within 50 feet of slopes 30% or steeper. ☐ No, See Attached Fire Safety Plan

B(2). If your property is located in a Resource or Large Lot Residential Zone please show you have identified site(s) for your building(s) that are at least 30 feet back from the top of any slopes steeper than 30% on the site plan and certify that you will be implementing the structural techniques for increasing fire resistance discussed in **10.110(B)(2)/11.110(B)(2)** of the ordinance.

☐ Yes – Comment N/A ☐ No, See Attached Fire Safety Plan

***DEFENSIBLE SPACE* 10.120/11.120** – *Please show building location(s) including a boundary for the 50 foot fire fuel break boundary on the site plan. Information shall be sufficient to demonstrate the following:* **NOTE: Select either A or B.**

A. You have identified site(s) for the proposed building(s) that allow for a full 50 foot fire fuel break either on the parcel or by easement over the necessary portion of an adjoining parcel;

■ Yes – Comment Proposed signal buildings will be constructed on cleared UPRR ROW. ☐ No, See Attached Fire Safety Plan

B. Your property is located in an exception area or smaller lot residential zone and building(s) are located to accommodate a 30 foot fire fuel break where a full 50 foot fire fuel break cannot be provided for.

☐ Yes – Comment Refer to Table 4.1 and Figure 4-2 of the application narrative. ☐ No, See Attached Fire Safety Plan

***CONSTRUCTION STANDARDS* 10.130/11.130 –** *Please provide the following information about construction details you will implement to increase the fire resistance of your proposed building(s):*

A(1). Fire resistant roofing will be installed to the manufacturers' specifications. Please confirm the type of roofing and that the rating of the roof material by Underwriter's Laboratory Classification system is Class A, B, or its equivalent.

■ Yes – Comment Proposed signal buildings will be constructed of fire resistant material.

A(2). Please verify that all spark arrestors will be installed to cap all chimneys and stove pipes. (The spark arrestors must meet NFPA standards)

☐ Yes – Comment N/A

B(1). Please verify the following for all decks:

Decks will be kept clear of fire wood, flammable building material, dry leaves and needles, and other flammable chemicals.

☐ Yes – Comment N/A

Decks less than three feet above ground will be screened with noncombustible corrosion resistant mesh screening material with openings ¼" or less in size.

☐ Yes – Comment N/A

When required by standard **10.110(B)(2)/11.110(B)(2)** decks will be built of fire resistant material.

☐ Yes – Comment _____

All flammables will be removed from the area immediately surrounding the structure to be stored 20' from the structure or enclosed in a separate structure during fire season.

■ Yes – Comment No flammables will be stored in or near proposed signal buildings.

B(2). Please confirm that all openings into and under the exterior of the building including vents and louvers, will be screened with noncombustible corrosion resistant mesh screening material with openings of ¼" or less.

☐ Yes – Comment N/A

B(3). Please acknowledge that you will limb up all trees overhanging the building to 8' above the ground, as required by fire fuel break requirements, that vegetation will be trimmed back 10 feet away from any chimney or stove pipe, and that trees overhanging the building will be maintained free of all dead material.

■ Yes – Comment Proposed signal buildings will be constructed on cleared UPRR ROW.

B(4). Please verify that the utilities will:

Be kept clear along their route if your private utility service lines are not underground

■ Yes – Comment UPRR will continue to maintain a clear ROW and utility corridor.

Have a single point of access to the building if service is not provided underground.

■ Yes – Comment Signal buildings will have a single point of access.

Include a clearly marked main power disconnect switch at the pole or off grid power source for all electrical service to new buildings and structures. This has been located on the site plan.

☐ Yes – Comment N/A

B(5). Please confirm that a stand pipe will be provided 50 feet from the dwelling and any structure served by a plumbed water system. This has been located on the site plan.

☐ Yes – Comment N/A

***ACCESS* 10.140/11.140** – *Please confirm that access onto and through your property meets the following standards (Note: please show route, width, and alignment of access drives on the site plan):*

A(1). New or improved driveways will be built and maintained to all weather design standards. (2-3" of ¾ minus over 6-8" of pitrun base rock OR capable of supporting 75,000 lbs GVW)

☐ Yes – Comment N/A ☐ No, See Attached Fire Safety Plan

A(2). Minimum widths – 12' to 16', depending on number and severity of curves – will be maintained.

☐ Yes – Comment N/A ☐ No, See Attached Fire Safety Plan

B(1). Corners will meet the minimum curve radius (20' or 48') required for large vehicles.

☐ Yes – Comment N/A ☐ No, See Attached Fire Safety Plan

B(2). Average grade or slope will be 10% or less. Short sections, 100' or less, may reach 12%.

■ Yes – Comment Proposed project site has an average grade of less than 10%. ☐ No, See Attached Fire Safety Plan

B(3). Turnouts 40' long by 20' wide will be provided at least every 400'.

☐ Yes – Comment N/A ☐ No, See Attached Fire Safety Plan

C(1). Minimum clearance of 13' vertical and 14' horizontal will be maintained for emergency vehicles.

■ Yes – Comment Proposed project will be constructed within cleared UPRR ROW. ☐ No, See Attached Fire Safety Plan

C(2). Fire fuel break extending 10' both sides of driveway center line will be maintained.

☐ Yes – Comment N/A ☐ No, See Attached Fire Safety Plan

D. Driveways longer than 150' will end with a 95' diameter turnaround (or 120' hammerhead).

☐ Yes – Comment N/A ☐ No, See Attached Fire Safety Plan

E. Bridges and culverts will support 75,000 lbs gross vehicle weight.

■ Yes – Comment Culverts are designed to support greater than 75,000 lbs gross vehicle weight. ☐ No, See Attached Fire Safety Plan

F. Gates will provide minimum clearance width of 14' and will be operable by emergency responders in accordance with access standards.

■ Yes – Comment Site access gate within Memaloose State Park will provide minimum clearance width and will be operable by emergency responders.

G. Legible signs will be installed to identify parking limitations, fire lanes, on site water source, electrical service shut off, and any necessary posted weight limits. Signs will be maintained in accordance with requirements.

■ Yes – Comment All lighting and signage installed will meet the minimal amount required under federal law for the safe operation of the railroad.

H. Roads leading to the property will allow emergency response at a reasonable rate of speed with little risk of damage to equipment or roads themselves;

■ Yes – Comment Project site will be accessed from I-84 shoulder and via Memaloose State Park. ☐ No, See Attached Fire Safety Plan

OR..... The following improvements to public and private roads have been determined to be necessary:

A small, approximately 800-foot segment of road within Memaloose State Park will require minor grading, vegetation removal, and placement of crushed gravel to accommodate vehicles as they exit the existing paved road and connect to the existing ROW

All necessary improvements will be made and maintained to ensure basic access to the property.

■ Yes – Comment (See above) ☐ No, See Attached Fire Safety Plan

***ON-SITE WATER* 10.150/11.150** – *On site water requirements will be met in the following way:*
NOTE: Select either A or B. Previous requirements to install NFPA sprinkler systems have been found to conflict with State Building Codes.

A. The proposed dwelling is 3,500 SF or smaller and will be located within a fire protection district.

☐ Yes – Comment N/A ☐ No, See Attached Fire Safety Plan

B. The proposed dwelling is 3,500 SF or smaller, will be located outside a fire protection district, and will provide at least 4,000 gallons of water on site for fire protection.

☐ Yes – Comment N/A ☐ No, See Attached Fire Safety Plan

I/we acknowledge receipt of the full **WC LUDO Chapter 10/NSA LUDO Chapter 11 – Fire Safety Standards** text and illustrations applicable to the land use or building permit request at the time of application. I/we have reviewed and certify that the standards have been reviewed and understood. I/we further certify that all responses to the above questions and improvement designs and locations shown on the site plan are true and accurate, and that all planned future compliance will be achieved within one year and maintained in perpetuity.

1-9-15

Name, Title Debra L Schafer Date

General Director M/W Environmental

Name, Title Date

National Scenic Area Application Form

Wasco County Planning Department
"Service, Sustainability & Solutions"
2705 East Second St. • The Dalles, OR 97058
(541) 506-2560 • wcplanning@co.wasco.or.us
www.co.wasco.or.us/planning

FILE NUMBER: _____

NATIONAL SCENIC AREA APPLICATION

Please describe your proposed development in the National Scenic Area below. Attach additional narrative if necessary.

	LENGTH	WIDTH	HEIGHT	SQ. FT.	MATERIAL, COLOR, NAME & VENDOR (Samples Must Be Submitted)
EXISTING Development					
Dwelling	N/A				Refer to Section 4.1 of the application narrative for a description of the existing UPRR mainline track and supporting infrastructure proposed for improvement.
Garage	N/A				
Other (shed, road etc…)					
PROPOSED Improvements					
Dwelling					
Main/Body	N/A				-
Trim					-
Roof(Fire Resistant)					-
Doors					-
Windows (frame, sill & sash)					-
Window Reflectivity Specs					-
Other Building(s)					
Main/Body	Refer to Section 4.1.2 of the application narrative for a complete description of the ancillary structures proposed as part of the project. Refer to Appendix B of the application narrative for typical structure photographs and exhibits, including material details and descriptions.				-
Trim					-
Roof(Fire Resistant)					-
Doors					-
Windows (frame, sill & sash)					-
Window Reflectivity Specs					-
Decks	N/A				
Fences/Gates	See above				
Driveway	N/A				
Exterior Lighting & Hooding	Refer to Section 5.2.1 for a description of proposed lighting.				
					-
					-

ADDITIONAL INFORMATION

Your proposed development will be reviewed according to the following criteria. It is important that your proposed design takes them into consideration. Please consult *Building in the Scenic Area - Scenic Resources Implementation Handbook* for additional guidance regarding the siting and design of your proposed development.

KEY VIEWING AREAS

Check which Key Viewing Areas can be seen from the development site:

- ☒ Interstate 84, including rest stops
- ☒ Washington State Route 14
- ☒ Historic Columbia River Highway
- ☒ Columbia River
- ☐ Rowena Plateau and Tom McCall Point
- ☐ Washington State Route 142 (Lyle and Klickitat River road)
- ☒ Old Washington State Route 14 (County Road 1230)

Is property within ¼ mile of Interstate 84 or Historic Columbia River Highway (30)? ☐NO ☐YES

If YES, indicate setbacks to the paved edge of the Scenic Travel Corridors Less than 100 feet along I-84; therefore, UPRR requests a variance for the Scenic Travel Corridor setback standard contained in NSA-LUDO Section 14.300(B)(2).

Is any structure on property 50 years old or older? ☐NO ☒YES, year built: Refer to Appendix L of the application narrative for a description of the historic properties review conducted.

Is proposed development site adjacent to agricultural uses? ☐NO ☒YES, type (grazing, orchards, grain, other):

Parcels adjacent to the project site between UPRR Mileposts 70.50 and 71.30 include agricultural (primarily orchard) uses. The project is compatible with agricultural uses and will not affect or force a change in existing farm practices on surrounding lands devoted to, or available for, agricultural use.

Please describe the operational characteristics of non-residential uses/structures, including hours of operation, number of average daily trips, number of commercial events per year, etc. (attach additional pages if necessary):

UPRR typically moves 20 to 30 trains a day through the project area, and anticipates a similar number of daily trains with implementation of the proposed project. Maintenance of the project area will include periodic visual inspections of the track and related and supporting facilities. During operation, an average of one to two maintenance vehicles per month will access the project site using existing access roads along the project's corridor.

MAINTAIN TOPOGRAPHY

- ☒ The proposed development has been designed to retain the existing topography and to minimize grading activities to the maximum extent practicable.

COMPATIBILTY

- ☒ The proposed development is compatible with the general scale (height, dimensions and overall mass) of existing nearby development.

SKYLINE

- ☒ The proposed development does not break the skyline as seen from any Key Viewing Areas.

VISUAL SUBORDINANCE

- ☒ The proposed development is sited to achieve visual subordinance from Key Viewing Areas by utilizing existing topography and existing vegetation. Please explain (attach additional pages if necessary):

Please refer to the findings associated with NSA-LUDO Section 14.200, Key Viewing Areas, in the attached application narrative for a detailed visual analysis of the proposed project from all potentially visible KVAs.

APPLICATION REQUIREMENTS

In addition to the items listed on the Land Use Application and Site Plan forms, the following information must be included with all applications for development in the National Scenic Area.

MATERIAL SAMPLES

All samples of exterior colors and materials have been included with the application.

- ❑ **If visible from Key Viewing Areas:** Dark earth-tone colors found at the specific site or in the surrounding landscape and either non-reflective or minimally reflective (non-metal with low-reflectivity glass); OR
- ❑ **If not visible from Key Viewing Areas:** Earth-tone colors found at the specific site.

GRADING PLAN

All applications for structural development, except for trails in the SMA, involving more than 100 cubic yards of grading and with slopes greater than 10 percent shall include a grading plan. All proposed structural development involving more than 200 cubic yards of grading on sites visible from Key Viewing Areas shall include a grading plan.

A grading plan is required ❑NO ❑YES

If yes, a grading plan meeting the requirements below is included with the application:

- ❑ A map of the site, prepared at a scale of 1 inch equals 200 feet (1:2,400) or a scale providing greater detail, with contour intervals of at least 5 feet, including:
  - **(1)** Natural and finished grades.
  - **(2)** Location of all areas to be graded, with cut banks and fill slopes delineated.
  - **(3)** Estimated dimensions of graded areas.
- ❑ A narrative description (may be submitted on the grading plan site map and accompanying drawings) of the proposed grading activity, including:
  - **(1)** Its purpose.
  - **(2)** An estimate of the total volume of material to be moved.
  - **(3)** The height of all cut banks and fill slopes.
  - **(4)** Provisions to be used for compactions, drainage, and stabilization of graded areas. (Preparation of this information by a licensed engineer or engineering geologist is recommended.)
  - **(5)** A description of all plant materials used to revegetate exposed slopes and banks, including the species, number, size, and location of plants, and a description of irrigation provisions or other measures necessary to ensure the survival of plantings.
  - **(6)** A description of any other interim or permanent erosion control measures to be used.

COMPLETENESS

❑ I have read and understand the following:

If an application is deemed incomplete within 30 days of receipt, a letter shall be sent to the Applicant notifying him of exactly what information is missing. Applicant shall have 30 days from the date the incomplete letter is sent to submit the missing information. If the missing information is not submitted within this time frame, the application shall be deemed complete for the purposes of the review on 31st day after receipt of the application.

Due to the missing information, Wasco County will be unable to adequately review the proposal to determine if it is consistent with all applicable criteria, and landowners within the required notification area, affected agencies and other interested parties will be unable to appropriately comment on the proposal. **As a result, the proposal will be denied.** Pursuant to Wasco County National Scenic Area Land Use & Development Ordinance 2.120(D), Applicant will not be able to submit a similar application for a minimum of one year unless the denial is reversed by a higher authority.

Wasco County National Scenic Area Development Review Application for the Union Pacific Railroad Second Mainline Track Project

Prepared for

Union Pacific Railroad

Submitted to

Wasco County Planning Department

January 2015

CH2MHILL®

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Acronyms and Abbreviations

APE	area of potential effect
BMP	best management practices
CFR	Code of Federal Regulations
CIS	Committee of Indian Services
CRGNSA	Columbia River Gorge National Scenic Area
CRGC	Columbia River Gorge Commission
CWA	Clean Water Act
DSL	Department of State Lands
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
GLO	General Land Office
GMA	General Management Area
HCRH	Historic Columbia River Highway
I-84	Interstate 84
ICCTA	ICC Termination Act of 1995
JPA	Joint Permit Application
KVA	Key Viewing Area
MOU	memorandum of understanding
MP	milepost
MSA	Magnuson Stevens Fishery Conservation and Management Act
NMFS	National Marine Fisheries Service
NPDES	National Pollution Discharge Elimination System
NRHP	National Register of Historic Places
NSA	National Scenic Area
NSA Act	Columbia River Gorge National Scenic Area Act
NSA-LUDO	*National Scenic Area Land Use Development Ordinance for Wasco County Oregon*
NSA-MP	*Management Plan for the Columbia River Gorge National Scenic Area*
ODEQ	Oregon Department of Environmental Quality
ODFW	Oregon Department of Fish and Wildlife
ODOT	Oregon Department of Transportation
OPRD	Oregon Parks and Recreation Department
Project	Union Pacific Railroad Second Mainline Track Project

ROW	right-of-way
SHPO	State Historic Preservation Office
SMA	Special Management Area
STB	Surface Transportation Board
STP	shovel test probe
TPR	Oregon State Transportation Planning Rule
TSP	Wasco County Transportation System Plan
UDP	Unanticipated Discovery Plan
UPRR	Union Pacific Railroad
USACE	United States Army Corps of Engineers
USC	United States Code
USFS	United States Forest Service
USGS	United States Geological Survey

Introduction

Union Pacific Railroad (UPRR or Applicant) asks Wasco County to approve a project in which it would construct 4.02 miles of second mainline track near the City of Mosier. The project would take place between rail mileposts (MP) 66.98 and 72.35 of UPRR's Portland Subdivision (the Portland Subdivision extends east from rail yards in Portland to the Hinkle Rail Yard near Hermiston).

UPRR's existing track runs along the southern shoreline of Bonneville Reservoir on the Columbia River. The second set of tracks will run immediately parallel to them. The project will include realignment of portions of existing track, grading and other ground-disturbing activities, and construction of associated facilities such as signal buildings, signage, and lighting. Figure 1-1 (all figures are provided in Appendix A) shows the general vicinity of UPRR's Second Mainline Track Project.

The project is located within the Columbia River Gorge National Scenic Area (NSA) as established under the National Scenic Area Act. This application pertains to that portion of the project, approximately 3.58 miles in length, located outside of the designated City of Mosier "Urban Area." This area includes approximately 3.21 miles of new second mainline track and approximately 0.37 mile of realigned existing track.

Development outside of the Urban Area is generally subject to Development Review in accordance with Wasco County's *National Scenic Area Land Use Development Ordinance for Wasco County* (NSA-LUDO) (adopted May 1994). The NSA-LUDO was adopted pursuant to the *Management Plan for the Columbia River Gorge National Scenic Area* (NSA-MP), which the Gorge Commission adopted in October 1991.

UPRR's application includes the Wasco County Land Use Application Form supported by this narrative and its subsequent appendixes, which are organized as follows:

- **Section 1, Introduction**, provides a description of UPRR's Second Mainline Track Project and the regulatory context for Development Review for the portion of the project included in this narrative (e.g., located within the NSA and outside of a designated Urban Area).
- **Section 2, Purpose and Need**, describes the purpose and need for the entire project proposed by UPRR (the portions within NSA jurisdiction and outside of NSA jurisdiction), and demonstrates how improved intermodal freight transportation and passenger rail service throughout the Portland Subdivision will help meet the needs of local, regional, and national markets.
- **Section 3, Alternatives Analysis,** describes the network planning analysis conducted by UPRR for potential project alternatives.
- **Section 4, Project Description**, provides a detailed description of the construction and operation activities for the portion of the project included in this narrative.
- **Section 5, Compliance with National Scenic Area Regulations**, describes the relevant Wasco County provisions, and demonstrates how the project is consistent with these applicable provisions from the NSA-LUDO and the NSA-MP.
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- **Appendix F**: Agent Authorization
- **Appendix G**: Landowner Consent Forms
- **Appendix H:** Wasco County Pre-Application Conference Staff Report
- **Appendix I**: Proof of Legal Parcels
- **Appendix J**: Special-status Species Plant Survey and Habitat Mapping Report
- **Appendix K**: Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan
- **Appendix L**: Cultural Resources Survey Report for the Union Pacific Railroad Second Mainline Track Project, Wasco County, Oregon

1.1 Complete Project Overview

This section provides an overview of the Second Mainline Track Project. As described above, Development Review under the NSA-LUDO pertains to only a portion of the project. That portion includes up to five signal buildings, railroad lighting and signage, staging areas and access roads, drainage structures, a retaining wall, guardrail, and approximately 3.58 miles of new second mainline track and realigned existing track. The remainder of the second mainline track and other required components (including two bridges and two signal buildings) are located within the Mosier Urban Area. A detailed description of the project components that are located within the NSA and outside of a designated Urban Area is provided in Section 4.

1.1.1 Project Location

The project area begins at rail MP 66.98, east of the Wasco County line, approximately 2 miles west of the City of Mosier, and ends at MP 72.35, approximately 3 miles east of Mosier. The subdivision roughly parallels the Columbia River and Interstate 84 (I-84) for the length of the project. More specifically, the project ranges from 45°41'27.44"N; 121°26'25.13"W to 45°41'49.65"N; 121°20'8.17"W, and crosses Township 3 North, Range 12 East, Sections 31 and 32; Township 3 North, Range 11 East, Section 36; and Township 2 North, Range 11 East, Sections 1, 2, and 3. One new signal building and two signal lights are also proposed at MP 74.73, approximately 2.4 miles east of the contiguous project area. Figures 1-1A and 1-1B provide an overview map of the project, and detailed design drawings are provided in Appendix C.

1.1.2 Second Mainline Track

UPRR proposes to construct approximately 4.02 miles of second mainline track along the existing Portland Subdivision between approximately MP 66.98 and 72.35 (see Figure 1-1). Between MP 66.98 and approximately MP 69.38, the new track would be constructed to the north of the existing mainline track. At MP 69.38, the new track would tie into the existing siding track. Between MP 70.45 (at the overhead interstate bridge) and MP 70.74 (at the siding end), both the existing siding and the existing mainline track would be realigned to the south. From MP 70.74 east, the existing mainline track would become siding, and new track would be constructed south of the existing track and stop at MP 72.35.

The majority of the proposed second mainline track will be constructed at grade; however, grading for the proposed track embankment and trackside ditch will require rock excavation along segments of the project. Controlled blasting techniques will be used for this excavation to minimize disturbance to the existing mainline track and to maintain the structural integrity of the existing rock to remain in place adjacent to the proposed excavation. Cut slopes and catchment areas will be constructed in accordance with geotechnical recommendations. An approximately 170-foot long retaining wall is proposed between MP 71.27 and MP 71.30 in order to minimize the rock excavation required to construct the second mainline track. The retaining wall will be approximately 25 feet in height, and will be constructed with a basalt rock façade in order to blend the appearance of the wall with the surrounding visual setting. Refer to Detail 11 of Appendix B for an example of the proposed rock wall covering.

The second mainline track will be welded rail laid on treated timber crossties that will be embedded in angular crushed rock ballast material on a bed of ballast supported by a layer of compacted sub-ballast aggregate atop the track embankment. The track would be constructed on the proposed embankment generally at a 15-foot centerline offset.

1.1.3 Drainage Structures and Ditches

Trackside ditches will be constructed parallel to and on the same side of the existing track as the proposed track embankment to provide positive stormwater drainage away from the track. Trackside ditches will be constructed similar to track embankment construction. Trackside ditches, however, will not require subballast and will receive a cover layer of stockpiled topsoil and seeding to establish vegetative cover.

Drainage structures will be constructed to allow outlet of trackside ditches and to provide drainage under the track embankment, where required. In some cases this will require culvert taps installed to existing culverts and some culverts that connect the drainage ditches to the wetland or lake areas under the new embankment to be lengthened. One new culvert will be constructed to serve as an outlet for trackside ditches and to provide drainage under track embankment. Two new culverts will also be installed at the western end of Thompsons Lake with the objective of providing enhancements to fish passage for listed fish species that use the lake. Five existing culvert structures will be improved or extended to maintain service through the existing and proposed track embankment. Temporary diversions will not be required at culvert extensions.

1.1.4 Railroad Bridges

Railroad bridges that span Rock Creek (MP 68.84) and Mosier Creek (MP 69.36) will be widened. Bridge construction will include foundation (substructure) construction and bridge (superstructure) construction. The bridge foundation will consist of steel H-piles and reinforced concrete shaft supporting pile and abutment caps. The steel H-piles will be either drilled or driven. These piles and abutments will be capped by pre-cast and cast-in-place concrete caps. The prefabricated bridges will be placed on the foundations with cranes. Temporary crane pads will be required to facilitate cranes for the placement of the prefabricated bridges. No work will occur below the ordinary high water mark of the spanned waterways to avoid disturbance to Rock Creek and Mosier Creek. No portion of bridge construction is located within the NSA and outside of a designated Urban Area.

1.1.5 Signal Buildings

No more than seven new signal buildings will be constructed to support operations along the second mainline track, including two signal buildings proposed within an NSA-designated Urban Area. Each of these signal buildings will have a footprint that will range from approximately 6 feet by 6 feet to approximately 8 feet by 10 feet and will be approximately 9 feet in height (see Appendix B). Signal buildings will house essential circuitry and will be constructed of a non-reflective metal and will be painted with a dark earth-toned paint that matches the surrounding natural environment. All signal buildings will be located within UPRR's right-of-way (ROW). Photographs showing a typical signal building within Wasco County are included in Appendix B. Up to seven existing signal buildings will be removed from unnecessary locations along the project route resulting in no net increase in signal buildings from current conditions. In addition to signal box removal, up to two existing antenna poles will be removed from areas along the route.

1.1.6 Permanent Access Roads

Two 10-foot-wide permanent access roads will be established to provide maintenance access to the existing rail and new second mainline track. The first will be located at the western side of the project at MP 66.98 from eastbound I-84 to the proposed second mainline. A break in the guardrail will be required to facilitate this access road; however, no improvement to the road shoulder and existing ROW will be required. The second access point will be located within Memaloose State Park, at approximately MP 71.79. This complete road length will total approximately 0.6 mile, and will use an existing travel corridor for much of the route.

The majority of this road is currently paved and will not require additional upgrades to support maintenance equipment. A small, approximately 800-foot segment of the road will require minor grading, vegetation removal, and placement of crushed gravel to accommodate vehicles as they exit the existing paved road and connect to the existing ROW near Thompsons Lake.

1.1.7 Staging Areas

Several temporary staging areas are proposed within the disturbed footprint of the project grading limits. Materials to be stored at staging areas could include soil, rock, track materials (ballast, ties, rail, track hardware), construction materials (filter fabric, riprap, erosion control material, water), and construction equipment and support material. These materials will be transported to and from the staging areas primarily by truck.

1.1.8 Lighting, Signage, and Additional Components

Standard railroad signage, signal lights, and in-kind guardrail extensions along I-84 will also be constructed as part of the proposed project. Lighting will consist of twelve 22-foot-tall combination signal lights. These lights will be side-shielded to limit the amount of light directed away from the rail centerline. Signage will include Station and Control Point, Whistle Signal, Vertical Control Point, Private Property, No Dumping, Speed Restriction, and Mile Marker signage. Most signage will be non-reflective black and white signage and will be posted at an approximate height of 10 feet.

All lighting and signage installed will be the minimal amount required under federal law for the safe operation of the railroad. Additionally, up to seven wooden poles and wireless signaling appurtenances will be installed at an aboveground height of approximately 53 feet. Photographs showing proposed guardrail type, proposed retaining wall façade design, example standard railroad signage, signal lights, wooden poles and wireless signaling appurtenances are included in Appendix B.

1.2 National Scenic Area Land Use Context

The portion of the Second Mainline Track Project that will be constructed within the NSA and outside of a designated Urban Area will include approximately 3.21 miles of new second mainline track and realignment of 0.37 mile of existing track across the NSA in Wasco County starting from MP 66.98 to 68.58 (hereafter referred to as Segment 1) and again from MP 70.37 to 72.35 (hereafter referred to as Segment 2). The project alignment crosses generally west to east starting just inside the western Wasco County boundary line. The project exits unincorporated Wasco County into Urban Area-designated land associated with the City of Mosier at approximately MP 68.58. The project begins again in the NSA at MP 70.37 where it crosses underneath I-84 before terminating in Memaloose State Park at MP 72.35. One new signal building and two signal lights are also proposed at MP 74.73, approximately 2.4 miles east of the contiguous project area.

The NSA is divided into two primary areas: the General Management Area (GMA) and the Special Management Area (SMA). GMA lands are primarily devoted to agriculture, forestry, and scattered areas of residential development that are often managed less stringently than SMA lands (CRGC, 2013). SMA lands represent the NSA's most sensitive lands with respect to scenic, cultural, and natural resources and recreational concerns.

The project crosses both GMA and SMA lands within the NSA, and crosses seven NSA zoning districts in Wasco County. Table 1-1 lists the NSA zoning districts and the length and acreage of the project within each zoning district.

TABLE 1-1
NSA Zoning Districts Crossed by the Project in Wasco County

NSA Zoning District	Zoning Abbreviation	Project Component	Total Length of Zone Crossed (miles)	Total Area of Zone Crossed (acres)*
GMA Large Scale Agriculture	GMA A-1 (40)	Existing UPRR ROW Mainline Track Construction Staging Temporary Access Road	0.74	3.30
GMA Small Scale Agriculture	GMA A-2 (80)	Existing UPRR ROW Mainline Track Temporary Access Road	0.26	0.90
GMA Open Space	GMA OS	Existing UPRR ROW Mainline Track Construction Staging Temporary Access Road Permanent Access Road	1.34	6.41
GMA Water	GMA W	Temporary Construction Area	0	0.01
SMA Agriculture	SMA Ag	Existing UPRR ROW Mainline Track	0.24	1.85
SMA Open Space	SMA OS	Existing UPRR ROW Mainline Track ROW Acquisition Construction Staging	0.37	8.93
SMA Public Recreation	SMA PR	Existing UPRR ROW Mainline Track ROW Acquisition Construction Staging Permanent Access Road	0.63	9.40
TOTAL			**3.58 miles**	**30.80 acres**

* Area of zone crossed includes the proposed area of disturbance within existing UPRR ROW, the entire area of proposed ROW acquisition, and temporary construction easement. For calculation of detailed project disturbance areas, refer to Table 4-1 in Section 4.2.2.

In addition to NSA Zoning Districts, the NSA-LUDO and the NSA-MP apply specific design standards based on the designated Landscape Setting of a particular property. Landscape Settings are the combination of existing land uses, landforms, and vegetation patterns that distinguish the appearance of a specific area in the NSA.

The project crosses five distinct CRGC-designated Landscape Settings within the NSA: River Bottomlands, Gorge Walls, Canyonlands and Wildlands, Columbia River, Pastoral, and Oak Woodland. Compliance with the specific requirements related to each of these Landscape Settings is demonstrated in Section 5. Table 1-2 lists the NSA Landscape Settings and the length and acreage of the project within each Landscape Setting.

TABLE 1-2
NSA Landscape Settings Crossed by the Project in Wasco County

NSA Landscape Setting	Project Component	Total Length of Landscape Setting Crossed (miles)	Total Area of Landscape Setting Crossed (acres)
River Bottomlands	Existing UPRR ROW Mainline Track ROW Acquisition Construction Staging Construction Easement Permanent Access Road Temporary Access Road	2.21	20.79
Gorge Walls, Canyonlands and Wildlands	Existing UPRR ROW Mainline Track Construction Staging Temporary Access Road	1.05	3.96
Columbia River	Temporary Construction Area	0	0.01
Pastoral	Existing UPRR ROW Mainline Track Construction Staging	0.26	0.77
Oak Woodland	Existing UPRR ROW Mainline Track ROW Acquisition Construction Staging Construction Easement Temporary Access Road Permanent Access Road	0.06	5.27
TOTAL		**3.58 miles**	**30.80 acres**

Figure 1-3 shows the locations in Wasco County where the project crosses the seven NSA zoning districts. Figure 1-4 shows where the project crosses the five NSA Landscape Settings.

UPRR worked with staff from Wasco County to determine the land use approvals and permits applicable to the project. A pre-application conference was held with UPRR and Wasco County on February 12, 2014, that identified Wasco County staff's preliminary recommendations for the project. In addition to the information gathered during the pre-application conference, UPRR conducted a thorough review of the NSA-LUDO and NSA-MP to determine criteria applicable to the project. Table 1-3 lists the applicable Wasco County approvals associated with development in the NSA. Section 5 provides a summary of the relevant provisions from the NSA-LUDO and the NSA-MP applicable to the project and a detailed analysis how the proposed project conforms to the requirements.

TABLE 1-3
Reviews Applicable to this Scenic Area Review Narrative

Review Type	Basis for Review	Code, Statute, or Ordinance Reference	Review Procedure	Review Criteria
Development Review	All newly proposed development in the NSA that does not satisfy the exemption criteria outlined in NSA-LUDO Section 3.100 is subject to the Development Review/Approval process	NSA-LUDO; NSA-MP	Type III, Quasi-judicial*	NSA-LUDO: Chapter 3, Basic Provisions; Chapter 5, Conditional Uses; Chapter 14, Scenic Area Review Chapter 23, Sign Provisions; NSA-MP: Part I (Chapters 1-4) Part II (Chapters 1, 3, and 6)
Variance (Scenic Travel Corridor (I-84) setback; Columbia River setback; wetland buffer setback; sensitive plant buffer zone development)	A planning commission variance is required for a reduction of the required Scenic Travel Corridor, Columbia River, wetland, and sensitive plant buffers/setbacks greater than 50% of the required standard in accordance with NSA-LUDO Section 6.020(2). UPRR requests that the County grant the following variances: • Columbia River development setback standard contained in NSA-LUDO Section 14.200(G) in excess of 50% of the stated standard. • Scenic Travel Corridor (I-84) setback standard contained in NSA-LUDO Section 14.300(B)(2) in excess of 50% of the stated standard. • Wetland buffer standard contained in NSA-LUDO Section 14.600(A)(3)(c)(1-3) in excess of 50% of the stated standard. • Sensitive plant buffer zone development standard contained in NSA-LUDO Section 14.600(D)(3) in excess of 50% of the stated standard.	NSA-LUDO	Type III, Quasi-judicial	NSA-LUDO: Chapter 6, Variances from Building Heights, Slope, Setbacks and Buffers

*UPRR acknowledges that a variance request which is 50% or greater of the stated standard contained in the NSA-LUDO requires Type III Quasi-Judicial approval from the Wasco County Planning Commission. Given that the project seeks a planning commission variance to the standards listed in this table, UPRR acknowledges that all approvals requested in this application will be evaluated using the more rigorous Type III Quasi-Judicial process.

1.3 Regulatory Context

UPRR is a “Class I” railroad as defined by federal regulation. UPRR owns and operates on nearly 32,000 miles of track in 22 states. Like other Class I railroads, UPRR works cooperatively with local authorities to resolve local concerns. Voluntary notification of potential projects is the norm, and discussions between railroads and local authorities resolve most local conflicts.

UPRR therefore engages in the Wasco County permitting process voluntarily. Ordinarily, an interstate railroad is not required to obtain state or local construction permits to build any facility that is integrally related to the railroad's transportation operations. Under the ICC Termination Act of 1995 (ICCTA), the federal Surface Transportation Board (STB) is vested with exclusive jurisdiction over interstate rail transportation (49 United States Code [USC] § 10501[b]). The ICCTA categorically preempts—regardless of context or rationale for the action—any form of state or local permitting that (1) could be used to deny the railroad the ability to conduct some part of its operations or (2) purports to regulate matters already regulated by the STB such as the construction of rail lines (*Village of Big Lake v. BNSF Ry. Co*., 382 S.W.3d 125, 129 [Mo. App. 2012]). ICCTA preemption has been applied to a wide variety of local permitting and land use requirements for the construction of facilities related to rail transportation (see *Village of Big Lake v. BNSF Ry. Co*.: holding that the ICCTA preempts the village's ordinance—promulgated pursuant to federal law—requiring the railroad to conduct a hydrological and hydraulic study, provide the results to the village, and obtain a permit from the village before starting construction on interstate rail facilities; and *City of Auburn v. United States*, 154 F.3d 1025, 1028-30 [9th Cir. 1998]: ruling that ICCTA preempts state and local laws providing for environmental review as they relate to the construction and operation of side tracks and rail facilities). Nevertheless, as a policy matter, UPRR routinely applies for state and local construction permits and does not invoke ICCTA preemption unless the permitting becomes unduly prolonged or conditions are imposed that are incompatible with UPRR's operating needs. UPRR has prepared applications for the permits and approvals listed below in Table 1-4.

TABLE 1-4
Project Permits and Approvals

Agency and Contact Information	Action	Submittal or Issuance	Anticipated Receipt
Federal			
U.S. Army Corps of Engineers (USACE), Portland District	Section 404 of the Clean Water Act (CWA) Individual Permit Joint Permit Application (JPA)	11/2014 (JPA Submitted)	7/2015
National Marine Fisheries Service (NMFS)	Section 7 of the Endangered Species Act (ESA) Magnuson Stevens Fishery Conservation and Management Act (MSA)	11/2014 (Biological Evaluation submitted)	5/2015
U.S. Department of the Interior, U.S. Fish and Wildlife Service	Section 7 of the ESA Migratory Bird Treaty Act Fish and Wildlife Coordination Act	11/2014 (Biological Evaluation submitted)	5/2015
State (Oregon)			
Oregon Department of Environmental Quality (ODEQ), Water Quality Division	CWA Section 401 Water Quality Certification – JPA	11/2014	7/2015
	National Pollution Discharge Elimination System (NPDES) Construction Stormwater Discharge Permit 1200-C	4/2015	6/2015
Oregon Department of Parks and Recreation, State Historic Preservation Office (SHPO)	Section 106 Consultation State Archaeological Excavation Permit	11/2014 (Archaeological Investigation Report)	5/2015
Oregon Department of Transportation (ODOT)	Section 303(c) DOT Act (49 Code of Federal Regulations [CFR] 303)— Consultation on construction impacts to traffic	Before start of construction	Before start of construction

Purpose and Need

This section presents the purpose and need for the Second Mainline Track Project.

2.1 Project Purpose

The purpose of the project is to improve operational efficiency of train movement along UPRR's existing mainline track near the City of Mosier while maintaining safe operating conditions. Operational efficiency is improved by maintaining standard operating speed and system fluidity, improving the ability of trains to safely pass one another, reducing idling time at the short Mosier siding, and reducing barriers to the use of industry-standard train lengths.

2.2 Project Need

2.2.1 Overview

The project is needed to correct the operational constraints that result from the existing railroad infrastructure between MP 66.98 and 72.35. The specific infrastructure-based constraints that create the need for the project include the short siding between MP 69.38 and 70.72 (Mosier Siding) and the surrounding single mainline track. The segment of the Subdivision between MP 66.98 and 72.35 has the poorest operational performance and efficiency along the entire route because of the location and configuration of the Mosier Siding, which has resulted in an operational bottleneck at this location. The project will relieve this bottleneck by decreasing the number of delayed or stopped trains, reducing barriers to industry-standard train lengths, and improving the efficiency and fluidity of train movements in this area, while maintaining safe operating conditions. To meet the project need, a minimum of 5 miles of contiguous second mainline track is required to allow for trains to pass at standard operating speed. In addition, the new second mainline track must be spaced approximately 10 miles from other existing passing locations along the existing route to accommodate for the safe passage of trains traveling in opposite directions.

UPRR's movement of freight traffic, including movement through Oregon on the Subdivision, is an essential component of the nation's rail delivery infrastructure, facilitating interstate commerce. UPRR moves a wide range of commodities along the tracks in the proposed project location, and UPRR seeks to achieve operational efficiency by correcting existing infrastructure constraints to fluid freight movement.

Operational efficiency takes into account the average velocity of train movements, conditions that maximize the ability of trains traveling in opposite directions to pass one another safely and on schedule (referred to as "fluidity"), and the amount of freight transported using a single train. UPRR typically moves 20 to 30 trains a day through the project area, and anticipates a similar number of daily trains with implementation of the proposed project.

UPRR conducted an extensive network operational review to identify the nature and cause of operational inefficiencies along the route. As discussed in greater detail below, existing operational inefficiencies are directly related to the length and location of the existing Mosier Siding, including how the inefficiency of that siding results in delays throughout other parts of the route.

The Mosier Siding is the shortest siding on the entire 206-mile Subdivision and can accommodate the lengths of only about half the trains that run on the Subdivision. The short Mosier Siding does not allow for trains traveling in opposite directions to pass one another efficiently and trains traveling in one direction must move off the mainline and stop on the siding to allow the train coming from the opposite direction to pass safely and efficiently. This movement of trains off the mainline at the Mosier Siding causes a bottleneck and train delays that cascade through the 206-mile Subdivision and beyond. The primary change in

operation resulting from the new second mainline track will be that train operations through the proposed project area will be more efficient with fewer slow-moving or stopped trains.

The proposed project is not linked to the transport of any single commodity, nor is it a response to a planned rapid expansion of rail services. In fact, industry annual compound-growth rates for freight rail are estimated to be 3 percent between 2013 and 2019 (IHS Global Insight, 2014). This anticipated steady, moderate growth is not driving the overall need for the proposed project. However, it is important to note that if the infrastructure challenges in the project area are not addressed, even the moderate projected growth will increase the adverse effects of the bottleneck at the Mosier Siding and further degrade operational efficiency.

The sections below discuss in greater detail the existing operational inefficiencies of the existing Mosier Siding, the UPRR network planning to address those inefficiencies, and the site-specific operational constraints and safety issues at the Mosier Siding.

2.2.2 Existing Operational Inefficiencies

The operational inefficiencies in the vicinity of the City of Mosier are directly attributable to the short length of the Mosier Siding and the distance between the nearest sidings to the east and the west. At 7,000 feet in length, the Mosier Siding is the shortest siding on the entire 206-miles Subdivision.

The distance from the existing Mosier Siding to the next nearest siding on the east (The Dalles) and to the west (Meno) is the longest span of single mainline track on the Subdivision. As discussed below in Section 2.2.4, because the Mosier Siding is too short to accommodate industry-standard train lengths, current conditions require trains to use passing locations at either The Dalles or Meno, which are over 20 miles apart.

These factors result in a bottleneck constraining train movement, as characterized by reduced average freight fluidity and decreased ability for trains to safely pass one another without coming to a complete stop at the Mosier Siding and idling while other trains pass on the mainline track. The proposed second mainline project meets UPRR's need to address the existing congestion and operational inefficiencies resulting from the existing infrastructure in the City of Mosier.

2.2.3 Network Analysis of Operational Constraints

UPRR conducted extensive network planning and modeling to identify the source of the bottleneck and the delays observed along the Subdivision to determine the extent to which delay times and operational efficiency were affected by the existing infrastructure. That analysis reviewed existing siding locations, typical train composition, average network velocity throughout the system, and daily fluid capacity (the ability to smoothly and evenly operate trains through a given location) throughout the route. The model also considered alternate construction scenarios and locations, both singularly and coupled as multiple projects.

The analysis and operational modeling concluded that the infrastructure and operational characteristics in the vicinity of the City of Mosier yielded the lowest average train speeds and created the greatest delay times and congestion on the Subdivision, essentially identifying this segment of the route as the single greatest constraint to operational efficiency. Delay times on the Mosier Siding were evaluated for June, July, and August 2014. Results show an average daily idling time of 3 hours for trains that sit and wait on the siding while trains traveling in the opposite direction are allowed to pass safely.

Based on UPRR's operational review, the proposed second mainline track project meets the project purpose and need. Although other offsite siding and second mainline construction projects were considered, no offsite project would correct the inadequate infrastructure near Mosier and, therefore, would not effectively improve operational efficiency.

2.2.4 Mosier Siding Constraints

2.2.4.1 Operational Constraints

Operational constraints observed at the Mosier Siding can be generally grouped into two categories: 1) location-based constraints; and 2) existing infrastructure-related constraints. A discussion of the constraints present in both categories is described below.

Locational Constraints. The Mosier Siding is located on the eastern extent of the City of Mosier (see Figures 2-1 and 2-2). It is roughly midway between the city of Portland and Hinkle Rail Yard (both are centers of high-volume rail activity). As a result, trains moving east from Hinkle and west from Portland tend to converge in this general area and require passing locations.

Trains running east and west along the route have few opportunities to pass near the Mosier Siding. Passing locations near the City of Mosier are spaced roughly 10 miles apart (see Figure 2-2). The closest passing location to the west of the proposed area is the Meno Siding, roughly 10 miles west of the Mosier Siding at MP 59.4. To the east of the project area, the next available passing location is about 11 miles away in The Dalles (see Figure 2-2). This places a great deal of importance on the Mosier Siding and results in operational inefficiencies if the Mosier Siding cannot be used as a passing location. As noted, the Mosier Siding cannot be used for trains longer than 7,000 feet. The distance between Meno and The Dalles is the longest length of single mainline track on the Portland Subdivision, which makes the need for an adequate meeting and passing location near the City of Mosier vitally important.

In addition, the curvature of the alignment near Mosier requires trains to travel slower than throughout the rest of the route. Trains entering the Mosier Siding must reduce their speeds even further in order to enter the siding and to allow trains moving in the opposite direction to pass. Once in the siding, trains come to a halt and idle while waiting for other trains to pass. When the idled train is able to return to the mainline track, several miles are needed to come from a complete stop on the siding and return to standard operating speed.

Infrastructure Constraints. At a length of roughly 7,000 feet, the Mosier Siding is the shortest siding on the entire 206-mile Subdivision and can accommodate the lengths of only about half the trains that operate on the Subdivision. As a result, the Mosier Siding is too short to be an effective target location for trains to meet and pass, resulting in train delays at the siding that cascade throughout the 206-mile Subdivision and beyond.

The short Mosier Siding also results in barriers to operating more efficient, longer trains through the project area. Standard trains currently operating on the route can range in length up to 12,000 feet, and many of these standard-length trains are unable to use the Mosier Siding for passing. UPRR dispatchers must continuously monitor train movements along the route and make time-sensitive decisions of where trains will meet and pass as they proceed along the route. Determining the location of passing opportunities (or "target" locations) requires consideration of such variables as train length, priority of cargo, and the conditions (for example, length) of target locations, all of which must be assessed constantly.

With modern locomotive engine technology, long trains operate more efficiently. The advancements in locomotive engine technology provide the ability to move fewer longer trains instead of a greater number of smaller trains. The short length of the Mosier Siding (roughly 7,000 feet) restricts longer and more efficient trains from being able to pull off the single mainline track and use the siding and results in greater inefficiencies and delays at other sidings or second-mainline passing locations on the Subdivision.

Because the Mosier Siding is so short, longer trains or even multiple shorter trains, cannot use the siding at the same time. This requires trains to use the Meno Siding instead or the second mainline passing location in The Dalles. When this occurs, the duration of time that a train must to stop and idle effectively doubles compared to use of the Mosier Siding location. This is because the Meno Siding and The Dalles second

mainline are more than 20 miles apart (or twice the distance of either location to the Mosier Siding) (see Figure 2-2).

Trains that cannot meet and pass at the Mosier Siding because of its short length need to be held at the Meno Siding or The Dalles for 20 to 30 minutes until the train moving in the opposite direction passes. When trains are held thus, a ripple effect is created in which trains that follow those initial trains must also be held in sidings farther away until the train moving in the opposite direction passes. Ultimately, what could be a relatively minor delay of 20 to 30 minutes is compounded by the subsequent trains that must also be held because of the delay. The effects carry through the entire 206-mile Subdivision and beyond. Accordingly, operational constraints from the existing infrastructure create a chain reaction of delays throughout the proposed project area near the City of Mosier, the overall 206-mile Subdivision, and other interconnected segments of the larger rail network.

As a result of the short siding and the distance to other nearby passing locations, the railroad infrastructure near Mosier has the poorest operational performance and efficiency to move freight on the entire 206-mile Subdivision.

2.2.4.2 Existing Safety Concerns

The existing operational constraints of the Mosier Siding result in safety concerns near the City of Mosier. Trains idling on the existing siding pose a potential safety hazard because the public often perceives an idling train as stationed at a siding for an extended period of time. This results in increased occurrences of pedestrian and vehicle crossings in front of active trains at siding locations relative to trains moving at standard operating speed along the adjacent mainline track. In addition, unauthorized pedestrian crossings between rail cars, train boarding, and vandalism are more common at siding locations in general. Trespassers could cross the Mosier Siding to gain access to the adjacent Mosier Creek area. They may not, however, perceive idling or relatively slow moving trains entering and exiting the Mosier Siding as presenting unsafe conditions. Although trains are moving at reduced speeds or at rest in the Mosier Siding, the potential exists for those seeking unauthorized access to miscalculate the relative speed of trains and the time needed to cross the tracks safely.

In addition, the short length of the existing Mosier Siding prevents the use of longer, more efficient trains along the route, which results in the use of a greater number of shorter trains along the route. Operating fewer and longer trains reduces safety risks associated with collisions at pedestrian or vehicle crossing locations because longer trains present fewer occurrences of a train passing through a particular portion of a route.

2.2.5 Summary of Need

Because of the location and short length of the Mosier Siding, the project location between MP 66.98 and 72.35 represents the single greatest operational bottleneck in entire 206-mile Subdivision and causes ripple effects of delays and inefficient operations along the Subdivision. In combination, the above factors result in the need to address the inadequate infrastructure and safety concerns in the project location to improve operational inefficiencies that are a direct result of the inadequate infrastructure in the project area. This operational condition can be addressed only at the location of the siding. Improving infrastructure elsewhere along the route would not correct the operational bottleneck at Mosier Siding.

As discussed in Section 2.2.4, the documented delays and operational efficiencies at the Mosier Siding will only increase in the future if the proposed second mainline track is not constructed. If the proposed improvements are not made, a deteriorating trend in operational efficiencies from the existing degraded condition would occur based on freight-rail demand projections. The operational efficiency of freight movement through the project area will continue to decline unless the infrastructure near the Mosier Siding is improved.

To meet the project's purpose and correct the operational inefficiencies and safety concerns discussed above, UPRR's network planning evaluation confirmed that infrastructure improvements are needed at (and in the vicinity of) the existing Mosier Siding to improve operational efficiency by reducing the duration of train idling, maintaining standard operating speed, improving the ability of trains to safely pass one another, and reducing limitations to using efficient longer trains.

Alternatives Analysis

Based on the purpose and need to improve operational efficiency of train movement near the Mosier Siding, UPRR developed a number of criteria to analyze several on- and offsite project alternatives. These criteria include improvement of train passing and movement, maximized reuse of existing infrastructure, improvement of safety by reducing potential for injury, reduction of barriers to using industry-standard train lengths, and avoidance and minimization of disturbance to environmental resources.

UPRR also considered impacts to scenic, cultural, natural, recreational, agricultural, and forest land resources during the analysis of alternatives and the overall design of the proposed project alignment.

Note that the UPRR network planning analysis conducted for project alternatives considered the full project area, not just the portion of the project discussed in detail throughout this narrative (that is, the portion of the project that is within the NSA and outside of the designated Urban Area for the City of Mosier). Therefore, calculated disturbance areas associated with specific design considerations are discussed in the context of the full 4.02-mile project length.

3.1 Alternatives Considered and Analyzed

The following section describes the proposed alternatives considered to meet the project purpose and need. As discussed in Section 2.2.4 and below in this analysis, operational constraints that affect the operational efficiency of rail at the existing Mosier Siding can only be addressed at the existing Mosier Siding location. Although offsite alternatives are included in this analysis, improving infrastructure outside of the proposed project area would not correct the operational bottleneck at Mosier Siding, and would not satisfy the overall project purpose and need.

3.1.1 Alternative A: Reduced Impact Design Second Mainline Track (Proposed Project)

Under Alternative A (proposed project), a 4.02-mile segment of second mainline track would be constructed and the 7,000-foot Mosier Siding converted into second mainline track to establish a 5.37-mile segment of second mainline track between MPs 66.98 and 72.35. Alternative A also includes constructing two new bridges over Mosier and Rock creeks and associated signal cabins and signals. In addition to constructing the second mainline track, the siding and mainline track between MP 70.36 and 70.73 would be realigned to the south.

UPRR's operational modeling confirmed that this infrastructure improvement would achieve operational efficiencies related to trains passing and would reduce barriers to operating industry-standard train lengths. Because Alternative A would convert and incorporate the Mosier Siding into the length of second mainline track, it maximizes use of existing infrastructure. Alternative A also incorporates existing bridge infrastructure in its design to further minimize disturbances.

Converting the Mosier Siding to second mainline track and constructing 4.02-miles of additional second mainline track would reduce the need for trains idling near the City of Mosier. Reusing the existing Mosier Siding in this way would have the secondary effect of reducing noise and emissions near the City of Mosier. Trains idling on the existing siding pose a potential safety hazard because the public often perceives an idling train as stationed at a siding for an extended period of time. This results in increased occurrences of high-risk pedestrian and vehicle crossings in front of active trains at siding locations relative to trains moving at standard operating speed along the adjacent mainline track. In addition, unauthorized pedestrian crossings between rail cars, train boarding, and vandalism are more common at siding locations in general.

Trespassers are known to cross the Mosier Siding to gain access to the adjacent Mosier Creek area on 1st Avenue. They do not, however, perceive idling or relatively slow moving trains entering and exiting siding locations as presenting unsafe conditions. Although trains are moving at reduced speeds or at rest in siding locations, the potential exists for those seeking unauthorized access to miscalculate the relative speed of trains and the time needed to cross the tracks safely. Accordingly, by replacing the Mosier Siding with second mainline track, fewer trains will idle near the City of Mosier and fewer slow moving trains will pass through the city, resulting in a reduced potential for injury to trespassers. In addition, replacing the Mosier Siding with second mainline track will reduce existing constraints to operating longer, more efficient trains along the route. Operating longer trains requires fewer locomotives to meet existing market demand compared to using trains of shorter length. If fewer trains are operating, the safety risk associated with pedestrian and vehicles collisions is reduced. In addition, fewer trains require fewer instances of trains needing to pass one another, which improves the overall operational efficiency of the route. Accordingly, operating longer trains results in safety and operational benefits.

Alternative A avoids all disturbance to cultural resources and will not disturb or displace forest lands or historic or currently active agricultural lands (see findings in response to NSA-LUDO Sections 5.020[I] and [J]). The majority of Alternative A will also be constructed within the existing ROW to minimize impacts on scenic, natural, and recreational resources to the greatest extent practicable.

Alternative A also implements the following design measures to further avoid and minimize disturbance to sensitive resources:

- **Track Alignment and Centerline Offset Width Reduction.** In determining the alignment for the proposed track in the project area, UPRR reduced the centerline offset from 20 feet to 15 feet (the minimum allowable centerline offset) to significantly reduce the project footprint and avoid waters and wetlands to the north and south of the track. On the west end of the project (MP 66.98 to MP 69.38), an alignment to the north of the track was selected because it would have fewer aquatic disturbances, and avoid additional excavation of a tall rock face. On the east end of the project (MP 70.73 to MP 72.35), an alignment primarily to the south of the existing track was selected to avoid direct effects to the Columbia River. The reduction of centerline-track offsets decreased the project footprint by 2.1 acres along the 4.02 miles of new track.
- **Embankment Design Minimization.** UPRR design standards for track embankments are for a 2:1 horizontal to vertical (H:V) slope, which provides stability to the rail roadbed and incorporates safety considerations for maintenance work along the tracks. Geotechnical design options to steepen the embankment slope (standard 2H:1V slopes to vertical retaining walls) were assessed to reduce project footprint and adjacent aquatic disturbance. Based on site-specific considerations, UPRR selected 1.5H:1V slopes in waters and wetland areas to provide the greatest effective reduction in aquatic disturbance while retaining the safe functioning of the railroad. Riprap/rock fill can provide the steepest slope at 1.5H:1V achievable with natural materials.
- **Reduced Access Road and Drainage Ditches.** UPRR design standards include construction of a 10-foot-wide access road outside the tracks for ease of operation and maintenance and to construct a 10-foot-wide flat bottom drainage ditch adjacent to the track embankment in cut sections. To reduce the project footprint and associated disturbance, UPRR eliminated the access road in all but one location and reduced the widths of associated drainage ditches where compliant with UPRR-required hydraulic design guidelines. The elimination of the access road and reduced ditch width reduced the potential project footprint by roughly 5.5 acres along the 4.02 miles of new track construction.

3.1.2 Alternative B: Standard Design Second Mainline Track

Alternative B would construct a second mainline track using UPRR's standard design criteria for track spacing, embankment slopes, access roads, and bridge construction. The minimization and avoidance

measures included in Alternative A would not be included in Alternative B. Specific design components for Alternative B are:

- **Track Alignment Centerline.** The standard centerline offset of 20 feet would be incorporated for Alternative B. This centerline would result in a project footprint of 2.1 acres more than the footprint of Alternative A.
- **Embankment Design.** UPRR's design standard for track embankments with a 2:1 horizontal to vertical (H:V) slope would be used for Alternative B. This slope would be used in areas aquatic and upland areas, resulting in greater disturbance to aquatic resources as compared to Alternative A.
- **Access Road and Drainage Ditches.** UPRR design standards include construction of a 10-foot-wide access road outside the tracks for ease of operation and maintenance and to construct a 10-foot-wide flat bottom drainage ditch adjacent to the track embankment in cut sections. Construction of all planned access routes and ditches using standard widths would increase the project footprint by roughly 5.5 acres along the 4.02 miles of new track construction.

Alternative B would provide the necessary infrastructure to achieve operational efficiencies related to trains passing and would reduce barriers to use of industry-standard train lengths, allowing longer, more efficient trains to operate in and throughout the system without delay. Because Alternative B would construct the same length of second mainline track as described under Alternative A, the analysis provided above in Section 3.1.1 applies to this alternative as well, with the exception of the environmental effects-related analysis. Under Alternative B, effects on environmental resources would be greater than Alternative A because of the increased acreage footprints summarized above. A portion of the additional acreage needed for Alternative B would result in fill in wetlands, and would also require additional ROW acquisition in Memaloose State Park that was otherwise avoided by the minimization and avoidance measures implemented for Alternative A. Accordingly, Alternative B would result in greater disturbance to natural and recreational resources relative to Alternative A.

3.1.3 Alternative C: Reduced Length Second Mainline Track

Alternative C comprises two optional ways in which to construct a reduced length second mainline track in the area of the Mosier Siding. Option 1 (West Track Reduced Second Mainline, MP 66.98 to 69.38) and Option 2 (East Track Reduced Second Mainline, MP 70.73 to 72.35) are described below.

Only one of the following two options would be constructed under Alternative C:

- **Option 1 (West Track Reduced Second Mainline, MP 66.98 to 69.38)** would construct a new 2.40-mile segment of second mainline track and would convert the existing Mosier Siding into mainline track. This would result in a contiguous 3.75-mile segment of double track (2.40 miles of second mainline track and roughly 7,000 feet of existing siding) to allow trains to pass one another.
- **Option 2 (East Track Reduced Second Mainline, MP 70.73 to 72.35)** would construct a new 1.62-mile segment of second mainline track and would convert the existing Mosier Siding into mainline track. This would result in a contiguous 2.97-mile segment of double track (1.62 miles of second mainline track and roughly 7,000 feet of existing siding) to allow trains to pass one another.

Although Alternative C would reduce barriers to using longer trains, UPRR's network analysis confirm that neither Option 1 nor Option 2 of Alternative C would meet the project purpose because neither option would result in required operational efficiency. UPRR's network analysis considered whether a shorter length of second mainline track would allow trains to pass more fluidly and alleviate the current operational bottleneck at the Mosier Siding. The analysis confirmed that even the longer of the two second mainline track configurations analyzed under Alternative C would only moderately improve the existing inefficient train passage, even with the use of longer trains. UPRR's network analysis found that Option 1 of Alternative C would result in 40 percent less operational efficiency compared to either Alternative A or B. Because the

Alternative C, Option 2, is even shorter than Option 1, the operational efficiencies of this option would be even lower than Option 1.

Even though constructing a segment of second mainline track under either of the Alternative C options would result in some improvement in operational efficiency, the reduced length of second mainline track for either Option 1 or 2 would be too short to allow trains to fluidly pass one another in a safe manner. This would result in the new second mainline for Option 1 or 2 essentially serving the function of an extended siding, and would still require trains to slow, stop, and idle near the City of Mosier. As a result, the operational bottleneck that currently exists would not be effectively alleviated by either Option 1 or Option 2.

Both optional configurations of Alternative C would also result in increased idling near the City of Mosier. This is because both optional configurations would be long enough for longer, industry-standard trains to idle at, but neither configuration provides adequate length for trains to pass at standard operating speed without stopping. As a result, longer trains that currently cannot use the existing Mosier Siding for passing would be directed to this location, thereby increasing the frequency with which trains idle near the City of Mosier.

Constructing either optional second mainline-track configuration would avoid and minimize aquatic and environmental effects because the same avoidance and minimization design measures described under Alternative A would be implemented under Alternative C.

3.1.4 Alternative D: Extend Existing Mosier Siding from MP 70.73 to 72.72

Alternative D would extend the siding between MP 69.38 and MP 70.73 (roughly 7,000 feet) by 10,500 feet, for a total siding length of 3.34 miles. Extending the siding would allow longer trains or multiple short trains to be accommodated in the siding. The second mainline track configurations under Alternatives A, B or C would not be constructed.

UPRR's operational analysis confirmed that the extended siding length of 3.34 miles would not obtain the required fluidity and efficiency needed to alleviate congestion near the City of Mosier and, therefore, would not meet the purpose and need. Although Alternative D would reduce barriers for longer trains or multiple short trains to enter the siding, it would still result in the existing bottleneck at the Mosier Siding because it would accommodate longer trains but not facilitate efficient movement through the area. This alternative would simply result in a greater number of longer trains idling and contribute to increases in noise and idling emissions within Mosier.

Regarding disturbance of aquatic and environmental resources, acreage disturbance would be comparable to, although slightly higher than, those for Option 2 of Alternative C. This is because much of the extended siding between MP 70.73 and 72.35 would be located in the same areas planned for construction of the second mainline track under Alternatives A or B. The segment of extended siding between MP 72.35 and 72.72, however, would require that fill be placed in either the Columbia River or McClure Lake, both of which are high-value natural resources with cultural and recreational significance.

3.1.5 Alternative E: Hood River Second Mainline Track MP 62.20 to 66.90

Alternative E would construct approximately 4.7 miles of new second mainline track west of the existing Mosier Siding between MP 62.20 and MP 66.90 near the City of Hood River. Constructing the second mainline track between MP 62.20 and MP 66.90 would provide a longer segment of track for trains traveling in opposite directions to pass between Meno and The Dalles. The alternative configurations described under Alternatives A, B, C, and D would not be constructed.

Constructing approximately 4.7 miles of second mainline track near the City of Hood River would allow longer trains to travel and pass between MP 62.20 and MP 66.90. This increased efficiency of moving longer trains at this discrete location would not, however, alleviate the overall system congestion that occurs near the City of Mosier. To meet the overall project purpose and need, Alternative E would need to extend

approximately 0.81-mile further west to connect with the existing Meno Siding. Such an extension however, would require extensive blasting of steep rock formations adjacent to large navigable waterways.

As a result, Alternative E would be located only 0.81-miles from the existing Meno Siding. This would result in an approximately 14.7-mile length of track where trains would not be able to pass one another before they reach The Dalles, and this would not meet the project's purpose and need.

Passing locations (sidings and second mainline track) in this area are spaced at approximately 10-mile intervals along the route. This even spacing is critical to the overall fluidity of train movement that allows train operators to coordinate passing locations for trains moving in opposite directions in accordance with federal railroad operating regulations. If Alternative E were constructed, eastbound trains would regularly be required to idle at either the Meno Siding or at the Hood River second mainline track while westbound trains clear the longer 14.7-mile distance from The Dalles to allow for a passing opportunity. As a result, Alternative E would have the unintended consequence of transferring the existing congestion at the Mosier Siding to a new offsite location with an even larger population center than the City of Mosier.

In addition to not achieving the operational efficiencies required, Alternative E would also result in greater disturbances to aquatic and environmental resources than the proposed project. Areas along the Alternative E second mainline route are characterized by steep slopes, off-channel ponds, and large geologic features to the south, and the Columbia River or I-84 to the north. Constructing through such geologic and topographic areas would result in significant environmental effects associated with noise, aquatic resources including the Columbia River, and visual and biological resources.

Additionally, an existing 300-foot railroad bridge that spans the Hood River would require updates that, given the length of the span, would likely result in disturbance below the ordinary high water mark of Hood River. Rock blasting of steep slopes would also result in temporary noise and substantial permanent visual changes in the area.

3.1.6 Alternative F: Rowena Siding Activation and Extension from MP 74.70 to 78.20

Alternative F would activate power to the existing unused Rowena Siding between MP 76.00 and 77.30 and would extend the siding in both directions from MP 74.70 to 76.00 and from MP 77.30 to 78.20 for a total siding length of 3.5 miles. Extending the siding would allow longer trains or multiple short trains to be accommodated in the siding. The alternative project configurations described under Alternatives A, B, C, D, and E above would not be constructed.

Although Alternative F would reduce some barriers to operating more efficient, longer trains, it would not allow trains to pass at standard operating speed and would not correct the existing bottleneck at the Mosier Siding. Similar to Alternative E, Alternative F is not spaced at an equal distance between existing siding and second mainline track locations. Alternative F would be located only 3.4 miles from the existing second mainline in The Dalles and would leave an approximately 13.3-mile stretch of track where trains would not be able to pass one another before they reach the Meno Siding. Passing locations (sidings and second mainline track) in this area are spaced at approximately 10-mile intervals along the route. If Alternative F were constructed, westbound trains would regularly idle at either The Dalles or at the Rowena Siding while eastbound trains clear the longer 13.3-mile distance from the Meno Siding to allow for a passing opportunity. As a result, Alternative F would have the unintended consequence of transferring the existing congestion at the Mosier Siding to a new offsite location with an even larger population center than the City of Mosier.

Apart from not achieving the operational efficiencies required, Alternative F would also result in greater disturbance to aquatic and environmental resources relative to the proposed project. Much of the Alternative F siding route, in particular the segments from MP 74.70 to 74.90 and MP 76.77 to 78.20, are constrained by I-84 to the south and the Columbia River to the north. As a result, fill would be required in the Columbia River to accommodate the new second mainline track. Additionally, blasting activities would

be required immediately adjacent to the Columbia River mainstem, which could result in disturbance of sensitive aquatic species.

3.2 Alternatives Comparison Summary

The alternatives analysis conducted indicates that:

- Alternative A meets all of the analysis criteria, including meeting the purpose and need and minimizing effects on aquatic resources and other sensitive environmental resources.
- Alternative B meets most of the analysis criteria but would result in greater effects aquatic resources and other sensitive environmental resources.
- Alternative C meets most criteria except reducing safety hazards and achieving improvements to train passing and movement that define the project purpose.
- Alternative D reuses railroad infrastructure but meets no other criteria, including meeting the project purpose and need.
- Alternative E does not meet any of the analysis criteria, including meeting the project purpose and need.
- Alternative F reuses railroad infrastructure but meets no other criteria, including meeting the project purpose and need.

Alternative A, the proposed Second Mainline Track Project, is the only alternative that satisfies all of the alternative evaluation criteria, and avoids or minimizes disturbance to scenic, cultural, natural, recreational, agricultural, and forest land resources to the maximum extent practicable to meet the stated purpose and need. Alternative A will alleviate the operational inefficiencies currently experienced near the City of Mosier and at the Mosier Siding, thus meeting the purpose and need for moving trains more efficiently to relieve the existing operational bottleneck. As an ancillary benefit, Alternative A will also reduce localized emissions and noise from train congestion and improve safety.

Project Description

This section sets forth a detailed description of the portion of the Second Mainline Track Project situated outside the NSA-designated Urban Areas for the City of Mosier. That is the subject of this Development Review narrative to be reviewed by Wasco County. Proposed second mainline track and bridge construction are not included in this project description. The project and its associated construction activities are described in the following sequence:

- Section 4.1—Location and Description of Permanent Project Components
- Section 4.2—Construction Activities
- Section 4.3—Operations and Maintenance Activities

4.1 Location and Description of Permanent Project Components

The project area begins at rail MP 66.98, east of the Wasco County line, approximately 2 miles west of the City of Mosier and ends at MP 72.35, approximately 3 miles east of Mosier. The subdivision roughly parallels the Columbia River and I-84 for the length of the project. More specifically, the project ranges from 45°41'27.44"N; 121°26'25.13"W to 45°41'49.65"N; 121°20'8.17"W, and crosses Township 3 North, Range 12 East, Sections 31 and 32; Township 3 North, Range 11 East, Section 36; and Township 2 North, Range 11 East, Sections 2, and 3. One new signal building and two signal lights are also proposed at MP 74.73, approximately 2.4 miles east of the contiguous project area, replacing an existing signal building and signal lights located 150 feet to the north. Figure 1-2 provides an overview map of the project, and detailed design drawings are provided in Appendix C.

4.1.1 Second Mainline Track Route and ROW

UPRR proposes to construct approximately 3.58 miles of second mainline track in the NSA Development Review area, within established ROW for the existing mainline track to the greatest extent practicable. As shown in Figure 4-1 and in the alignment mapbook presented in Appendix C, between rail MPs 66.98 and 68.58, the proposed second mainline track would be constructed to the north of the existing track. Between rail MPs 70.37 and MP 70.74, both the existing siding and the existing main line track would be realigned to the south. From MP 70.74 east to MP 72.35, the new track would be constructed south of the existing track.

While the majority of the project work will be conducted within UPRR's ROW, there is one area along the route where ROW acquisition will be required to satisfy federal rail safety standards. Approximately 2.72 acres of new ROW will be acquired for the project in one location, affecting two parcels (see Figure 4-1). UPRR Real Estate is coordinating directly with landowners to acquire the necessary permanent ROW for safe operation of the project.

4.1.2 Proposed Structures

The majority of the project will be constructed at grade and will not require aboveground structures or appurtenances. The second mainline track will be constructed on the proposed track embankment generally at a 15-foot centerline offset. The only aboveground structures or related and supporting facilities proposed within the NSA and outside of a designated Urban Area are proposed in-kind guardrail extensions along I-84, one retaining wall approximately 170 feet in length between MP 71.27 and MP 71.30, standard railroad signage, up to twelve signal lights, up to five wooden poles and wireless signaling appurtenances, and up to five signal buildings necessary for the safe operation of the railroad. Each of these signal buildings will have a footprint that will range from approximately 6 feet by 6 feet to approximately 8 feet by 10 feet and will be approximately 9 feet in height (see Appendix B). Signal buildings will house essential circuitry and will be constructed of a non-reflective metal and will be painted with a dark earth-toned paint that matches the

surrounding natural environment. Track signals will be located at each end of the proposed second mainline track and at intermediate locations along the track. Applicable power and communications will be relocated to serve the proposed signal buildings. The preliminary location of signal buildings and lighting is shown in Figure 4-1, and all signal buildings and lighting will be located within UPRR's ROW. Photographs showing proposed guardrail type, proposed retaining wall façade design, example standard railroad signage, signal lights, wooden poles and wireless signaling appurtenances, and a typical signal building are included in Appendix B.

Drainage structures will be constructed to allow outlet of trackside ditches and to provide drainage under the track embankment, where required. In some cases this will require culvert taps installed to existing culverts and some culverts that connect the drainage ditches to the wetland or lake areas under the new embankment to be lengthened. One new culvert will be constructed to serve as an outlet for trackside ditches and to provide drainage under track embankment. Two new culverts will also be installed at the western end of Thompsons Lake with the objective of providing enhancements to fish passage for listed fish species that use the lake. Six existing culvert structures will be tapped or extended to maintain service through the existing and proposed track embankment.

4.1.3 Structures to be Removed

Up to five existing signal buildings will be removed from unnecessary locations along the project route, resulting in no net increase in signal buildings from current conditions. In addition to signal building removal, up to two existing antenna poles will be removed from areas along the route. An existing pumphouse, approximately 9 feet in height, adjacent to UPRR ROW within Memaloose Park will be relocated approximately 50 feet south of its current location to accommodate construction activities.

Public and private utilities, including overhead utility lines and underground sewer and water lines, may need to be relocated or modified in several locations along the project alignment to accommodate construction activities. It is anticipated that minimal ground disturbance will be required for utility relocation. Overhead utility removal may require backfilling of power pole holes upon removal of existing poles. No new utilities are included as part of the proposed project.

4.1.4 Permanent Maintenance Access Road

Two 10-foot-wide permanent access roads will be established to provide maintenance access to the existing rail and new second mainline track. One will be located at the western side of the project at MP 66.98 from eastbound I-84 to the proposed second mainline track. A break in the guardrail will be required to facilitate this access road; however, no improvement to the road shoulder and existing ROW will be required. The second access point will be located within Memaloose State Park, at approximately MP 71.79. This complete road length will total approximately 0.6 mile, and will use an existing travel corridor for much of the route (see Figure 4-1). The majority of this road is currently paved and will not require additional upgrades to support maintenance equipment. A small, approximately 800-foot segment of the road will require minor grading, vegetation removal, and placement of crushed gravel to accommodate vehicles as they exit the existing paved road and connect to the existing ROW near Thompsons Lake.

4.2 Construction Activities

This section describes general construction procedures and construction-related components of the project.

4.2.1 Construction Schedule

Project construction is anticipated to take approximately 12-15 months, commencing in spring 2015. Construction will occur within the recommended Oregon Department of Fish and Wildlife (ODFW) in-water work periods unless an extension of the work period is granted. Within areas located within the NSA and outside of a designated Urban Area, the project crosses jurisdictional water bodies with surface water connections to the Columbia River. ODFW requires in-water work in these lakes to follow the in-water work

windows for Bonneville Pool (French, pers. comm., 2014). The applicable in-water start and end dates for the project are July 15 to September 30.

The construction schedule will also consider best management practices to minimize potential effects to species and habitats to the maximum extent practicable. Specifically:

- Land clearing will begin between May 15 and June 1, after the end of the rainy season.
- Work timing will be coordinated with the biological needs of special-status species. For example, no tree removal or blasting in riparian areas will occur until migratory bird species have completed nesting activities, after August 15 and before April 15, unless biological surveys indicate the absence of nesting.
- Vegetation clearing will take advantage of the dry season.

4.2.2 Land Requirements

Construction of the new second mainline track is proposed within existing the UPRR ROW for the majority of the alignment. Approximately 2.72 acres of additional ROW will need to be acquired along the route. Additionally, temporary construction and staging areas outside the UPRR ROW will also be required. In total, approximately 11.35 acres of temporary construction and staging areas will be required, of which 0.73 acres will occur outside of the existing UPRR ROW.

Construction and operation of the project will occupy approximately 30.80 acres of land located within the NSA and outside of a designated Urban Area, including direct permanent disturbance of approximately 19.58 acres, and temporary disturbance of approximately 11.22 acres. Refer to Table 4-1 for a detailed description of permanent and temporary project disturbance by NSA zoning designation.

TABLE 4-1
Permanent and Temporary Project Disturbance by Zoning Designation

NSA Zoning Designation	Permanent Disturbance (acres)	Temporary Disturbance* (acres)	Total Project Disturbance (acres)
GMA Large Scale Agriculture (GMA A-1)	3.08	0.22	3.30
GMA Small Scale Agriculture (GMA A-2)	0.88	0.02	0.90
GMA Open Space (GMA OS)	6.11	0.30	6.41
GMA Water (GMA W)	0.00	0.01	0.01
SMA Agriculture (SMA Ag)	1.85	0.00	1.85
SMA Open Space (SMA OS)	2.09	6.84	8.93
SMA Public Recreation (SMA PR)	5.57	3.83	9.40
Total	**19.58**	**11.22**	**30.80**

*Temporary disturbance include construction staging areas and access roads outside of the permanent project footprint that will be restored to pre-construction conditions following project completion.

4.2.3 Water Requirements

Water will be used as necessary during construction to control fugitive dust and to provide for fire suppression in accordance with UPRR safety standards. All water will be trucked onsite from an approved authorized source. Minimal to no water will be used for operations or maintenance activities.

4.2.4 Land Ownership

The second mainline track, permanent ROW, maintenance road, temporary construction and staging areas, and construction access roads proposed for the project encompass at least a portion of seven different tax lots outside of the UPRR ROW. Table 4-2 lists the tax lots and associated landowners crossed by the project components. The table also shows that two total landowners are involved (each landowner owns more than one parcel crossed by the project).

TABLE 4-2

Landowners Outside of the Existing UPRR ROW Affected by the Project

Tax Lot No.	Owner Name	Mailing Address	City	State	Zip Code	Project Footprint Type (Permanent, Temporary)	Project Component(s) Affected	Approximate Entry Milepost	Approximate Exit Milepost
2N 11E 1 ROADS	Oregon Department of Transportation	District 9 Headquarters 3313 Bret Clodfelter Way	The Dalles	OR	97058	Temporary	Construction Access Road	70.20	70.37
2N 11E 2 ROADS	Oregon Department of Transportation	District 9 Headquarters 3313 Bret Clodfelter Way	The Dalles	OR	97058	Permanent	Track Embankment & Ditch	68.25	68.31
						Temporary	Construction Access Road	68.26	68.57
2N 11E 3 ROADS	Oregon Department of Transportation	District 9 Headquarters 3313 Bret Clodfelter Way	The Dalles	OR	97058	Temporary	Construction Access Road	66.94	66.99
						Permanent	Guardrail	67.00	67.01
						Temporary	Construction Access Road	67.46	67.52
						Temporary	Construction Access Road	67.74	67.80
						Permanent	Guardrail	67.34	67.82
2N 12E 6 ROADS	Oregon Department of Transportation	District 9 Headquarters 3313 Bret Clodfelter Way The Dalles, OR 97058	The Dalles	OR	97058	Permanent	Track Embankment	70.42	70.42
3N 12E 31 ROADS	Oregon Department of Transportation	District 9 Headquarters 3313 Bret Clodfelter Way	The Dalles	OR	97058	Permanent	Track Embankment & Ditch	70.40	71.11
						Temporary	Staging Area	70.43	70.48
						Permanent	Track Embankment & Ditch	71.41	71.90
						Temporary	Staging Area	71.43	71.45
						Temporary	Staging Area	71.53	71.64
3N 12E 0 100	Oregon Parks and Recreation Department	725 Summer Street NE Suite C	Salem	OR	97301	Temporary and Permanent	Track Embankment & Ditch	71.91	72.35
							ROW Acquisition	71.91	72.38
							Construction Easement	72.07	72.25
							Permanent Access Road	71.86	71.91
3N 12E 31 800	Oregon Parks and Recreation Department	725 Summer Street NE Suite C	Salem	OR	97301	Permanent	Track Embankment & Ditch	71.69	71.91
							ROW Acquisition	71.86	71.91
							Staging Area	71.61	71.64
							Staging Area	71.72	71.79
							Permanent Access Road	71.79	71.83

4.2.5 General Construction Procedures

In general, construction will begin with rock excavation in the eastern portion of the project area followed by construction of the retaining wall between MP 71.27 and MP 71.30. The excavation material produced will be stockpiled in a location to be identified prior to construction. Excavated material will be processed onsite to provide appropriately graded material for use elsewhere on the project as fill. Some variation in the sequencing of fill placement will occur to allow for work in jurisdictional waters during the appropriate in-water work windows. Material will be conveyed to the fill location via truck, where it will be placed as subgrade.

After the subgrade has been constructed, subballast will be placed on the new subgrade to create the new track embankment. Adjacent trackside ditches will be constructed on the same side of the existing track as the proposed track embankment to provide for stormwater drainage. Construction of the second mainline track structure will follow subballast construction and will consist of track laying, ballast placement, and signal construction. The second mainline track will be constructed on the proposed track embankment generally at a 15-foot centerline offset. Permanent seeding and stabilization measures will be placed prior to track construction and final stabilization is expected prior to the completion of track construction activities.

4.2.5.1 Construction Access

Four temporary 10-foot-wide construction access roads will be established to provide construction access to the project area. The complete length of construction roads required will total approximately 0.64 mile, will consist of crushed gravel road surfaces, and will use existing travel corridors for much of the route (see Figure 4-1). Access to temporary construction roads will be made by existing roads, including I-84 and Highway 30.

Temporary traffic impacts could occur during construction because lane closures on adjacent roadways may be required for safe ingress and egress to the project site. UPRR will implement traffic control measures in accordance with federal and state standards, and advance signage will be posted in order to minimize the effects on the travelling public.

4.2.5.2 Construction Staging and Equipment

The project will require nine construction staging areas, of which six will be located partly or entirely outside of the permanent project footprint, as shown in Figure 4-1. Materials to be stored at staging areas may include soil, rock, track materials (ballast, ties, rail, track hardware), construction materials (filter fabric, riprap, erosion control material, water) and construction equipment and support material. These materials will generally be transported to and from the staging areas by truck. Temporary staging areas will be restored as closely as practical to their original condition following construction, including replanting with native vegetation in accordance with all permit requirements.

Construction equipment could include excavators, dozers, loaders, trucks, off-road trucks, compaction rollers, geotechnical drill rigs, explosives, crushers, cranes, tampers, and various on-track equipment. Equipment will be used and staged as follows:

- Excavators, dozers, loaders, and compaction rollers will be used along the entire length of the project. The anticipated general timeframe for this equipment to be onsite will be spring 2015 through fall 2015. During non-working hours, this equipment will be parked near the location where it is to be used the next day with consideration for applicable stormwater protection best management practices (BMPs) such as cleaning of equipment and buffers from wetlands and waters for equipment parking.
- Trucks and off-road trucks will be used along the entire length of the project and for the duration of the project construction anticipated to be spring 2015 through summer 2016. During non-working hours, this equipment will be parked near the location where it is to be used the next day or offsite.

- Geotechnical drill rigs and explosives will be used at locations identified for rock excavation. The drill rigs will be used at the tops of the rock excavations and will be staged in those locations. The primary timeframe for this equipment to be onsite will be spring 2015 through summer 2015.
- Crushers will be used to break down excavated rock material. It is anticipated that they will be located near MP 71.60. The anticipated general timeframe for this equipment to be onsite will be spring 2015 through fall 2015. During non-working hours, this equipment will be parked near the location where it is to be used the next day.
- Tampers and on-track equipment will be used along the entire length of the project. The anticipated general timeframe for this equipment to be onsite will be fall 2015 through spring 2016. During non-working hours, this equipment will be parked either offsite in a rail yard or along the proposed second mainline track.

4.2.5.3 Clearing and Grading

Before any ground-disturbing activities begin, a standard utility location survey will be conducted to identify existing utility lines within the UPRR ROW. Once this survey is completed, vegetation will be cleared from the construction work area. Generally, stumps will be cut flush with the ground surface and left in place, except where removal is necessary to create a safe and level work surface. Cleared vegetation and stumps will be burned, chipped (except in wetlands), or hauled offsite to a commercial disposal facility.

4.2.5.4 Rock Excavation

Grading for the proposed track embankment and trackside ditch will require rock excavation along segments of the project. Controlled blasting techniques will be used for this excavation to minimize impacts to the existing mainline track and to maintain the structural integrity of the existing rock to remain in place adjacent to the proposed excavation. Cut slopes and catchment areas will be constructed per geotechnical recommendations. Rock excavation is anticipated in the following locations:

- MP 70.50 to MP 70.54: Rock excavation height up to 13 feet with generally little soil overburden (i.e., soil or loose rock layer above the solid rock formation that can be mechanically removed prior to controlled blasting).
- MP 71.13 to MP 71.27: Rock excavation height up to 24 feet with up to approximately 10 feet of soil overburden above rock
- MP 71.30 to MP 71.43: Rock excavation height up to 98 feet with generally little soil overburden
- MP 71.64 to MP 71.72: Rock excavation height up to 61 feet with generally little soil overburden

4.2.5.5 Construction Best Management Practices

An Erosion and Sediment Control Plan will be implemented, which will include a variety of erosion control and spill prevention measures.

Erosion control measures from the Construction Stormwater Best Management Practices Manual published by the ODEQ will be implemented at applicable locations based on existing and proposed site topography as well as construction phasing considerations.

A spill prevention plan will be implemented to reduce the risk of a potential hazardous materials spill. The plan will incorporate the following guidelines:

- All materials with hazardous properties will be stored in a secure location, under cover, when not in use.
- The minimum practical quantity of all such materials will be kept on the job site and scheduled for delivery as close to time of use as practical.
- A spill control and containment kit will be provided on the construction site.

- All products will be stored in and used from the original container with the original product label.
- All products will be used in strict compliance with instructions on the product label.
- The disposal of excess or used products will be in strict compliance with instructions on the product label.
- A spill response plan providing guidelines to be followed in the event of a hazardous material spill is included in the Stormwater Pollution Prevention Plan package.

4.2.5.6 Restoration and Cleanup

Disturbed areas will be restored as closely as practical to their original condition, permanent erosion control measures will be installed as appropriate, and revegetation measures will be implemented in accordance with federal permit requirements. Permanent seeding and stabilization measures will be placed prior to track construction and final stabilization is expected prior to the completion of track construction activities. An ODOT-recommended native grass seed mixture appropriate to the region will be used to revegetate the specified areas.

Mitigation associated with disturbance of fish habitat and loss of wetland form and function will be completed in accordance with UPRR's Mitigation Plan, included as Appendix D. This mitigation plan has been prepared to satisfy NSA-LUDO and MSA-MP standards, and has been designed through coordination with NMFS, U.S. Fish and Wildlife Service, and Oregon Department of Fish and Wildlife (ODFW).

4.2.5.7 Wetland / Water Body Crossings

As discussed in Section 1.2, UPRR is pursuing a JPA through USACE and Oregon DSL for impacts associated with wetlands and waterbodies.

Appendix E contains the Wetland Delineation Report prepared for the proposed project (including the portions of the project outside of Development Review jurisdiction). Maps provided in Appendixes A and C identify the wetlands and waterbodies that are crossed by the project, and include specific "Wetland or Lake IDs" for each resource. Figure 4-3 includes the wetlands and waterbodies located within the NSA and outside of a designated Urban Area in the vicinity of the project area, with buffer zones delineated pursuant to protocol outlined in NSA-LUDO Sections 14.600 and 14.610. Construction measures will vary slightly depending on the wetland or waterbody. At Lake 20, all fill placed will be permanent fill placed using an excavator from the top of the embankment. At Wetlands 1, 7, 11, 12, and 17, and Lakes 1 and 11, the fill will be placed in lifts, with the first lift placed in the wetlands by excavator working from the top of the existing embankment to create a ramp for additional equipment to traverse. This will allow for more efficient placement of the remaining material lifts. The permanent fill footprint in wetlands is anticipated to be the minimum necessary to create a track embankment of the necessary width.

The Bonneville dam pool on the Columbia River runs parallel to the project area, and temporary work will occur near approximately MP 71.84 during installation of two culverts proposed to mitigate for potential impacts to fish habitat. Work will be conducted within the identified in-water work windows. If dewatering is required, fish salvage will be conducted by a qualified fisheries biologist approved by USFWS and NMFS. Although not anticipated to occur, fish passage will be provided for juveniles or adults if present during construction.

A summary of permanent disturbance to wetlands and water bodies, as well as their prescribed buffers is included in Table 4-3.

TABLE 4-3
Wetland and Water Body Disturbance

Wetland ID	GMA/SMA	Approx. Milepost(s)	Total Wetland/ Waterbody Area (acres)	Open Water Permanent Disturbance (acres)	Vegetated Wetland Permanent Disturbance (acres)	Total Buffer Zone Disturbance (acres)
Wetland 1	SMA	71.82 – 71.97	0.61	0.00	0.24	1.61
Lake 1/ Thompsons Lake	SMA	71.82 – 71.92	1.59	0.24	0.00	
Wetland 3	SMA	72.21 – 72.22	0.06	0	0	1.73[1]
Wetland 4	SMA	72.24	0.02	0	0	
Wetland 5	SMA	72.24 – 72.25	0.06	0	0	
Wetland 6	SMA	72.25 – 72.33	0.24	0	0	
Wetland 7	SMA	72.28 – 72.34	0.17	0	0.17	
Wetland 9	SMA	71.46 – 71.51	0.24	0	0	1.59[1]
Lake 9B	SMA	71.47 – 71.51	1.78	0	0	
Wetland 11	GMA	70.72 – 70.95	1.15	0.00	0.25	1.01[1]
Lake 11	GMA	70.78 – 70.94	1.86	0.14	0.00	
Wetland 12	GMA	70.69 – 70.72	0.14	0	0.03	
Wetland 17	GMA	68.55 – 68.57	0.08[2]	0.00	0.06[2]	0.20[1]
Wetland 18	GMA	68.56 – 68.58	0.09[2]	0	0	
Lake 18	GMA	68.56 – 68.58	1.21[2]	0	0	
Wetland 20	GMA	66.97 – 67.12	0.15	0	0	0.55
Lake 20	GMA	66.97 – 67.12	1.66	0.02	0	
Columbia River/Bonneville Reservoir	GMA/SMA	North of project area for full project length	-	0.00[3]	0	5.58[4]
Total				**0.41**	**0.75**	**Temp: 3.52** **Perm: 8.75**

[1] The buffer zones of adjacent wetlands overlap in some cases, necessitating that buffer impacts be reported as a combined acreage.

[2] A portion of Wetlands 17 and 18 are located within the NSA-designated Urban Area; the total wetland/waterbody and impact areas provided in this table constitute only the portions within the NSA and outside of the designated Urban Area.

[3] No permanent disturbance to the Columbia River/Bonneville Reservoir will result from the project; however, approximately 0.01 acres will be temporarily affected during the installation of two culverts proposed to improve fish habitat at Thompsons Lake.

[4] Acreage excludes Columbia River buffer disturbance areas that intersect with wetland buffers accounted for in above calculations.

4.3 Operations and Maintenance Activities

Once constructed, the second mainline track will operate similar to the existing rail line, in that it will continue to move a wide array of commodities through the Columbia River Gorge. Train traffic is not anticipated to increase as a result of the second mainline track construction. UPRR typically moves 20 to 30 trains a day through the project area, and anticipates a similar number of daily trains with implementation

of the proposed project. As discussed in Section 1, the primary change in operation resulting from the new second mainline track will be to address the inadequate infrastructure and safety concerns in the project location to improve operational inefficiencies by reducing the duration of train idling, maintaining standard operating speed, improving the ability of trains to safely pass one another, and reducing limitations to using efficient longer trains. Additionally, operating fewer and longer trains will reduce safety risks associated with collisions at pedestrian or vehicle crossing locations because longer trains present fewer occurrences of a train passing through a particular portion of a route.

Maintenance of the project will include periodic visual inspections of the track and related and supporting facilities. UPRR will conduct routine surveys, as necessary, in accordance with federal requirements for rail maintenance.

Compliance with National Scenic Area Regulations in Wasco County

UPRR held a formal pre-application meeting with Wasco County on February 12, 2014. There, County staff described the applicable Scenic Area Development Review criteria. As discussed in this section, the project complies with all provisions of the NSA-LUDO (adopted May 1994) and the NSA-MP (adopted September 2011).

5.1 Background

UPRR proposes to construct approximately 3.58 miles of new and realigned second mainline track across the NSA in Wasco County in two segments: from MP 66.98 to 68.58 and again from MP 70.37 to 72.35 (see Figure 1-2). The project alignment crosses generally west to east starting just inside of the Wasco County's boundary line with Hood River County.

The project crosses seven NSA zoning districts and five NSA landscape settings (see Tables 1-1 and 1-2). The project area comprises approximately 30.80 acres.

Section 5.2 describes the existing landscape conditions in the project area and analyzes the potential impacts to visual resources.

Section 5.3 provides a summary of the applicable provisions from the NSA-LUDO as well as a discussion of findings that demonstrate the project's compliance with these regulations. The applicable NSA regulations in Wasco County are included in the NSA-LUDO and the NSA-MP.

Section 5.4 provides a summary of the applicable provisions from the NSA-LUDO as well as a discussion of findings that demonstrate the project's compliance with these regulations.

Provisions from each document that do not apply to the project are not included.

5.2 Visual Resources Overview

The information contained in this section provides context and additional supporting data relevant to the findings of fact included below in Section 5.3 of this narrative. For the purposes this visual resources analysis, the project is discussed as three landscape areas (Figure 5-1):

- Segment 1, beginning at UPRR MP 66.98, is located just inside of the western Wasco County line, and extends to MP 68.58 at the City of Mosier Urban Area boundary
- The western portion of Segment 2, begins MP 70.37, east of Mosier, at the point just before the UPRR ROW crosses under I-84; this area extends to MP 71.40 at the eastern edge of the ROW through the large rock mesa, located slightly west of the boundary of Memaloose State Park
- The eastern portion of Segment 2, extends from MP 71.40 at the eastern end of the passage through the rock mesa to MP 72.35, to a point along the banks of the Columbia River in Memaloose State Park where the project ends

The visual overview describes the existing landscape conditions, and in particular, the location, visibility, and appearance of the existing UPRR ROW in these areas. The analyses identifies the extent to which each of the analysis areas and the project alignments located within them are visible from the Key Viewing Areas (KVA) established in the NSA-LUDO and NSA-MP. Photographs are provided of representative views from the KVAs toward the project. The project-related changes that would occur in each of the analysis areas are

described, and an assessment is made of the potential effects of these changes on the views seen from the relevant KVAs.

The project, as described in Section 4, has the potential to be visible from the following designated KVAs, as shown on Figures 5-1 through Figure 5-1C in Appendix A:

- *Highway I-84*
- *Washington State Route 14*
- *Old Washington State Route 14/Klickitat County Road 1230*
- *Columbia River*
- *Historic Columbia River Highway and Trail*

The methods and data sources used to conduct this analysis included a review of the Wasco County NSA-LUDO, the CRGC NSA-MP, Google Earth aerial imagery, the NSA landscape settings and land use designations, and the descriptions of proposed changes that would be required for project construction. The analysis was also informed by observations made during field visits to the project area that took place in October 2013 and April 2014. Photographs were also collected by CH2M HILL staff on April 22, 2014, using a digital single lens reflex camera with a lens setting a focal length equivalent to that taken with a 35 mm camera using a 48 mm lens. This focal length setting produces a "normal" view that is free of the visual distortions that can be produced when telescopic or wide-angle lens settings are used.

5.2.1 Relationship of the Project to Associated Landscape Areas

As noted above, the Gorge Commission adopted the Management Plan in 1991. That plan was adopted pursuant to inventories undertaken over the prior years. One of these was a Visual Inventory, adopted in 1990. This inventory noted the following:

> *The railroad is a vital part of the transportation network of the Columbia River Gorge. Tracks run the length of the National Scenic Area on both sides of the river. While the tracks are of little consequence visually and the trains themselves are an interesting visual element, there are other elements associated with the railroad that are very discordant in this scenic landscape. Perhaps the most noticeable of these are the signal wires that run adjacent to the tracks. This corridor analysis proposes having sections of these wires put underground to greatly enhance the scenic quality of the SR14 and I-84 highway corridors*

The visual impact of the project must be evaluated within that context.

The centerline of the second mainline track within the UPRR ROW will generally be located 15 feet from the centerline of the existing single track, and the new tracks will be constructed at grade on a ballast rock base. In Segment 1, the area west of Mosier, the new tracks will be developed within the portion of the existing ROW to the north of the existing tracks. In Segment 2, to the east of the City of Mosier, the new tracks will be developed in the portion of the ROW to the south of the existing tracks. In Segment 2, a rock mesa extends to the banks of the river. An approximately 800-foot-long existing notch through the rock facilitates train movement through the rock area. To provide the necessary space for the additional mainline track, the notch will be widened by approximately 60 feet. An approximately 170-foot long retaining wall with a height of approximately 25 feet is proposed within this notch in order to minimize the rock excavation required to construct the second mainline track.

Up to five signal buildings will be constructed as part of the project, as described in Section 4.2. Because up to five existing signal buildings will be removed as part of the project, no net increase in the number of signal buildings will occur. Photographs 4, 5, and 6 in Appendix B depict the appearance of typical existing signal buildings in Wasco County. Like the existing signal buildings, the new signal buildings will be constructed of a non-reflective metal and will be painted with an earth-toned paint that matches the

surrounding natural environment, consistent with guidance provided in the CRGC's *Scenic Resources Implementation Handbook*.

Standard railroad signage, signal lights, and in-kind guardrail extensions along I-84 will also be constructed. Most signage will be non-reflective black and white signage and will be posted at an approximate height of 10 feet. Lighting will consist of approximately twelve 22-foot-tall combination signal lights similar in appearance to those seen in Photographs 1 and 2 in Appendix B. These lights will be side-shielded to limit the amount of light directed away from the rail centerline to minimize contrasts with the visual character of the area. In addition, up to two existing antenna poles will be removed from areas along the route.

All lighting and signage installed will be the minimum amount required under federal law for the safe operation of the railroad. The preliminary location of all signal lighting is shown in Figure 4-1. Signage locations will be determined in the field. Additionally, up to five wooden poles and wireless signaling appurtenances will be installed at an aboveground height of approximately 53 feet. Photographs showing proposed guardrail type, example standard railroad signage, signal lights, wooden poles and wireless signaling appurtenances are included in Appendix B. Lighting will be directed to prevent projection onto adjacent properties, roadways, and the Columbia River as well as preventing the lighting from being highly visible from KVAs.

The project will require nine construction staging areas, of which six will be located partly or entirely outside of the permanent project footprint. The largest of these six staging areas, whose location is indicated on Figure 5-1C, would be sited in Segment 2 East immediately to the east of the cut through the rock mesa at approximately MP 71.53. This staging area would be developed on an approximately 6.62-acre site between the existing UPRR ROW and the rock cliffs to the south. Construction of this staging area will require removal of the trees now located in this area as well as grading of the sloped terrain.

5.2.2 Segment 1

Segment 1 encompasses the segment of the project that extends from a point just east of the Wasco County line near I-84 MP 67.8 to a point located at the western limits of the city of Wasco near I-84 MP 69.4 (see Figure 5-1A).[1] In this area, the UPRR ROW is located along the south side of I-84, at the same elevation as the interstate and at the base of the hillsides and rock cliffs that frame the south side of the gorge. The western portion of this segment lies in an area that is classified in the NSA-LUDO as a River Bottomlands landscape setting. The eastern portion (from I-84 MP 68.6 eastwards to the edge of the City of Mosier Urban Area) includes an area classified as a Gorge Walls, Canyonlands, and Wildlands landscape setting. The majority of the area along this segment is zoned as GMA Open Space. The exception is an approximately 0.25-mile segment that lies between UPRR mileposts 68.03 and 68.28 that is zoned GMA A-2, Small Scale Agriculture. In terms of visibility from NSA KVAs, in this segment the project has the potential to be visible from I-84, the Columbia River, Washington State Route 14 (SR-14), and Old Washington State Route 14/Klickitat County Route 1230. Although the Historic Columbia River Highway and Trail KVA is located 0.2 mile or less to the south of the UPRR ROW, the project will not be visible from this highway corridor; because of the highway's location on an elevated escarpment above the UPRR ROW, views from the highway look out over the highway and not down toward it. In addition, because of the heavy tree cover between the highway and the edge of the escarpment, views in the direction of the UPRR ROW are completely screened.

The UPRR ROW is visible from the eastbound lanes of I-84 for the entire length of Segment 1. Figure 5-2 provides a typical view toward the UPRR ROW from eastbound I-84 in this segment; the photograph was taken from Viewpoint 1, located near I-84 MP 68.2. As this photograph indicates, eastbound travelers on

[1] In addition to referring to mileposts along the UPRR ROW, in discussions related to locations along I-84, reference is also made where appropriate to I-84 mileposts established by the ODOT.

I-84 experience expansive views looking up the river and gorge, as well as close-at-hand views of the rock cliffs and the forests that define the Columbia River Gorge's southern edge. The UPRR ROW with its existing single track can be seen in this view in the area between the edge of the I-84 roadway and the base of the cliffs. Approximately 500 feet up the road from this viewpoint, a small brown signal building can be seen in the area between the edge of the freeway and the railroad bed. With development of the project, an additional ballasted rail bed and a set of rails would be added in the area between the existing rails seen in this view and the grassy area that fringes the right edge of the interstate. The overall level of visual change to this view would be minor. The additional rail bed would be visible in the immediate foreground area, and would appear somewhat closer to the paved roadway than the existing rail bed, but would not attract much attention because it would be low to the ground and similar in form, line, color, and visual character to the rail bed that already exists in the ROW. Because the signs and guard rails, and signal building that would be installed in this area as part of the project would be small in scale and would be similar in appearance to features already in the ROW, they would be unlikely to create a particularly noticeable level of visual change. The most important observation is that in the eastbound views from I-84 in Segment 1, the project would have no direct or indirect effects on the most important features of the views from the I-84 KVA, that is, the views out over the Columbia River and up the gorge, and the views toward the rock walls and forest that define the gorge to the south. Overall, the visual changes brought about by the proposed project would be visually subordinate in the views from eastbound I-84 in Segment 1, consistent with the definition provided in NSA-LUDO Section 1.200.

Figure 5-3 presents the view looking westbound from I-84 at Viewpoint 2, a point on the interstate's westbound lanes located near I-84 MP 68.6. This view is typical of westbound views along nearly the entire length of I-84 through Segment 1. In this view, the roadbed of the UPRR ROW, which is located at the base of the cliff on the left side of the view, is hidden by the barrier that runs down the center of the highway. The only indicator of the presence of the railroad ROW is the wooden utility poles that line the ROW and are visible above the barrier in the highway's median. When the project is developed, the changes to the rail bed would be completely hidden, and the signal lights, guard rails, and signal building that will be installed as part of the project would be small in scale, and would, to varying degrees, be screened by the barrier walls. As a consequence, the project will not be visually evident and will have little to essentially no effect on views from the westbound lanes of I-84 in Segment 1.

Figure 5-4 presents the view from SR-14 at Viewpoint 3, which is located on the opposite side of the Columbia River from Segment 1, approximately 1 mile north of the UPRR ROW along I-84. This view is typical of views from the SR-14 KVA toward the portion of the UPRR ROW in Segment 1. As review of this photograph indicates, from the SR-14 KVA, the UPRR ROW is not readily visible because of the 1-mile distance, and because the flat rail bed is hidden behind the concrete barrier in the median of I-84. Because of these visual conditions, the proposed project will have essentially no effect on views from SR-14. The widened rail bed will not be visible, and to the extent to which the signs, signal lights, guard rails, and signal buildings that might be installed as part of the project in Segment 1 would extend above the barrier in the interstate's median, they would be barely detectable because they would be small-scale features seen at a 1-mile distance and because they would tend to be visually absorbed into the highly textured and often-shadowed backdrop. As a consequence, in views from SR-14, the portion of the proposed project in Segment 1 will not be visually evident.

The area in which Segment 1 is located has limited potential for being seen from the higher-elevation areas along the Old Washington State Route 14/Klickitat County Route 1230 KVA. From these road segments, located 2.4 to 3.7 miles to the east of Segment 1, given the viewing distance, the oblique nature of the view, and the presence of intervening vegetation, the project's elements in Segment 1 would not be visually evident.

Figure 5-4 is also useful in considering the potential effects of the portion of the project in Segment 1 on views from the Columbia River KVA. Viewpoint 3, from which the Figure 5-4 photograph was taken, is located adjacent to the Columbia River, and is generally representative of what views from the northern

edges of the river toward Segment 1 would look like. As is the case in the views from SR-14, in the views from the northern edges of the river, the surface of the UPRR ROW and any track-related changes to it would not be visible, and to the extent that any vertical elements of the project would be visible, they would be minor elements in the view that would be visually absorbed into the landscape backdrop. In views located in the center of the river and closer to the river's southern edge, the UPRR ROW would be even less visible because of the angle of the view. From these areas, the banks of the river would be dominant elements in the view, and features like the railroad ROW that are located on the flat area on top of the banks would not be visible. Because of these visual conditions, the portion of the proposed project in Segment 1 would not be visually evident from, and would have no potential to create adverse visual effects on views from the Columbia River KVA.

5.2.3 Segment 2 West

Segment 2 West is located in the area along the river east of the City of Mosier Urban Area. As shown in Figure 5-1B, it begins at a point slightly west of where I-84 crosses over the existing UPRR-owned ROW, and extends to the point approximately 1 mile to the east at MP 71.40 where the UPRR ROW emerges from a cut through a large rock mesa. A retaining wall approximately 170 feet in length and 25 feet in height, needed to minimize the rock excavation required for the project, is proposed between MP 71.27 and MP 71.30, approximately 600 feet west of the eastern opening of the cut notch. In most of this segment, the UPRR ROW is located on the flat terrace along the shoreline of the Columbia River. In an approximately 0.1-mile area at the east end of this segment, the UPRR ROW passes through a cut in a rock mesa that, in this area, extends to the river's edge. The western portion of this segment, extending to a point approximately 0.2 mile east of the I-84 crossing of the UPRR ROW, lies in an area that the NSA has classified as a Pastoral landscape setting. The rest of this segment lies in an area that the NSA has classified as a River Bottomlands landscape setting. The western two-thirds of this segment is within an area that is zoned GMA A-1, Large-Scale Agriculture. Most of the area adjacent to the existing UPRR ROW in the cut notch area is zoned SMA Agriculture. The easternmost 0.08-mile segment of the adjacent to the UPRR ROW through the notch is zoned SMA Open Space. Because of this segment's location along the river and away from I-84 and other roads and places that provide publicly accessible views toward the rail corridor, this segment's visibility from nearby viewing areas is very limited.

The only views toward this segment from the I-84 KVA would be those that might be seen by motorists as they travel the very short segment of I-84 that crosses over the existing UPRR ROW at the western end of this segment. Because of the high travel speeds, the fact that the views into the ROW are seen at an oblique angle to the direction of travel, and the presence of safety fencing along the edge of the roadway that partially obscures the views, existing views of the UPRR ROW in this area are limited and fleeting. Given the limited visibility of the ROW in the areas near the I-84 overcrossing, it is unlikely that the installation of an additional set of rails and related appurtenances in this area will attract the attention of motorists using this overcrossing or have any effect on their overall experience of the area's aesthetic qualities. For this reason, views of the project components from I-84 in this would not be visually evident.

Segment 2 West is currently most visible in views from the SR-14 KVA along the north side of the river in Washington. Figure 5-5 presents a photograph of a view from SR-14 at Viewpoint 4, which is located on the opposite side of the Columbia River from Segment 2 West, approximately 0.5 mile to the north of the existing UPRR ROW that borders the banks of the river. At the right side of this photograph, the existing I-84 railroad overcrossing structure can be seen. The existing UPRR rail line is also currently visible in a portion of the area along the river in the right half of the photograph. Further to the east, in the left portion of the photograph, the view of the rail corridor, including the proposed retaining wall location, are shielded by the topography and vegetation between it and the banks of the river. Figure 5-6 is a photograph of a view from Viewpoint 4 toward the railroad segment located in the area to the east of the segment visible in Figure 5-5. At the right side of Figure 5-5, the existing railroad corridor is shielded by the topography between it and the river. In the area just to the right of the center of this photograph, where the large rock mesa extends to the

edge of the river, the top of the existing notch through the mesa can be seen. In the center of the photograph, the UPRR ROW emerges from the notch and continues along the top of the river bank. The portion of the rail line currently visible in the area to the east of the rock mesa lies within Segment 2 East.

In the segments of the existing rail corridor visible from this viewpoint and similar areas along the SR-14 KVA, the proposed project will have little to no visual effects. In the areas where the existing rail corridor is visible, because the new railroad tracks will be built in the area to the south of the existing tracks, they will not be visible and, thus, will have no effect on the view. Signs, signal lights, and signal buildings installed in the portions of the rail corridor not screened by intervening topography and vegetation would be barely detectable because they would be small-scale features seen at a distance of a 0.5-mile or greater, and because they would visually blend into the highly textured backdrop. In these areas, the project would not be visually evident. In the area where the rail corridor is located in the existing notch through the rock mesa seen in Figure 5-6, the only visible change will be an expansion in the width of the notch by cutting an additional approximately 60 feet into the south side of the rock wall. The area affected by the widened cut will be relatively small, and the form and line of the expanded cut will be the same as that of the cut that now exists. Furthermore, any area of newly exposed rock is not anticipated to have a discernably different appearance from the existing rock cut through this area. This is because the existing rock cut area where the railroad currently passes through was itself constructed by blasting. As a result, views of this area from both the north and the south are expected to be unchanged following the widening of the rail corridor. In the area where the rock cut will occur, the changes will be no be visually evident in the overall existing view.

Segment 2 West is located directly across the river from the portion of Old Washington State Route 14/Klickitat County Route 1230 that travels around Rowland Lake. This section of the road is located in the range of 0.6 to 0.9 mile from this segment of the project. Because this section of the road is located at elevations ranging from 90 to 100 feet, placing it below the 103-foot elevation of the proposed second mainline track, the changes occurring along the existing UPRR track embankment will not be visually evident in views from this area. In the section of the road located at higher elevations further to the east, the changes in the area on and along the UPRR track embankment are also not likely to be visually evident because of the distance (0.9 to 2.0 miles away) and intervening topographic and vegetative screening. However, from these areas, which range from 250 to 400 feet in elevation, there will be views down onto the top of the rock mesa area, which ranges in elevation from 140 to 180 feet, where the widened trench the project requires will be visible. Although the 0.3-mile-long segment of widened trench will be visible at distances ranging from 0.65 to 1.5 miles, it will be similar in form and line to the existing cut notch, and it will be a small element of a large panoramic view, and, therefore, will not be visually evident. The retaining wall proposed in this area (between MP 71.27 and MP 71.30) will also not be visible from Old Washington State Route 14/Klickitat County Route 1230; the wall would be located approximately 600 feet west of the opening of the cut notch and would be fully screened by topography to the north. Additionally, the wall will be constructed with a basalt rock façade in order to blend the appearance of the wall with the surrounding visual setting. Furthermore, any area of newly exposed rock is not anticipated to have a discernably different appearance from the existing rock cut through this area. This is because the existing rock cut area where the railroad currently passes through was itself constructed by blasting. As a result, views of this area from both the north and the south are expected to be unchanged following further widening of the rail corridor.

Figures 5-5 and 5-6 also provide a basis for considering the potential effects of the portion of the project in Segment 2 West on views from the Columbia River KVA. Viewpoint 4 (see Figure 5-5 and 5-6) is located adjacent to the Columbia River and is generally representative of what views from the northern edges of the river toward Segment 2 West would look like. As is the case in the views from SR-14, in the views from the river, the track-related changes to the existing UPRR ROW will not be visible because they will be located behind the existing rail bed. In addition, to the extent that any vertical elements of the project would be visible from the river, they would be minor elements in the view that would be visually absorbed into the landscape backdrop. Thus, in the areas of Segment 2 West where the existing rail line is visible, the project will not be visually evident. Because of the lower viewing angle, the visual change created by the widening

of the cut through the rock mesa will be less visible from the Columbia River than from SR-14. In views from the northern edge of the river, it is possible that the widened cut location in the rock mesa will be visually evident. Although project construction would expand the width of this cut, the visual effects on this view would be very limited. The south side of the opening to the notch seen in this view would be brought approximately 60 feet further to the south, slightly increasing the view into the notch. In views from areas in the center or the river and closer to the river's southern edge, because of the more acute viewing angles, less of the widened cut location through the rock would be visible. As a consequence, the proposed project will not be visually evident.

Overall, the existing UPRR ROW is not visible from the Historic Columbia River Highway and Trail KVA. This highway is located on the plateau to the south of the UPRR ROW, at an elevation that is approximately 400 feet above that of the rail corridor. Views toward the ROW are blocked by intervening terrain and vegetation. The only place within this KVA from which the UPRR ROW is visible is from the Memaloose Overlook, at the end of a stub road that extends north from the highway to the edge of the bluff at a location directly south of Memaloose State Park. This location is identified as Viewpoint 5 in Figure 5-1. The view from this overlook is captured by the photograph presented in Figure 5-7. In this view, the UPRR ROW itself is not visible, but what can be seen is the east opening of the cut in the rock mesa along the existing ROW. Project construction would expand the width of this cut, but the visual effects on this view would be very limited. The left side of the opening to the notch seen in this view would be brought approximately 60 feet further to the south, slightly increasing the view into the notch and exposing slightly more of the notch's northern walls to view. Because the portions of the wall that will be removed are on the south side of the notch, areas of newly exposed rock would not be visible in this view. It is possible that widening the railroad cut could result in removal of some of the trees that grow in a straight line in the area on top of the mesa along the southern edge of existing cut. Given the fact that the trees in this area grow in a wide band and that only those trees closest to the top of the cut may need to be removed, the existing tree line now seen on the mesa is not likely to be substantially altered. Therefore, the project-related changes will not be visually evident in this view.

5.2.4 Segment 2 East

Segment 2 East extends from the east end of the cut through the rock mesa near MP 71.40 and extends to the eastern end of the project area at MP 72.35, as shown in Figure 5-1C. In this segment, the existing UPRR ROW is located on the flat terrace along the shoreline of the Columbia River. The entire segment is within an area that the NSA classifies as a River Bottomlands landscape setting. The western half of this segment passes through an area that is zoned SMA Open Space, and the eastern half is zoned SMA Public Recreation. Much of the UPRR ROW in this segment is bounded to the north and south by Memaloose State Park. Because of this segment's location along the river and away from I-84 and other roads and places that provide publicly accessible views toward the rail corridor, this segment's visibility from nearby KVAs is very limited.

Because I-84 is located on the top of the mesa, 0.1 mile and further to the south of the UPRR ROW, and because views toward the rail corridor are screened by intervening topography and vegetation, the rail corridor is not visible from I-84, and thus the project has no potential to have an impact on views from the I-84 KVA.

In Figure 5-6, the photograph of a view from SR-14 KVA at Viewpoint 4, the western end of the Segment 2 East, the existing UPRR ROW can be seen in the area along the edge of the river to the left of the area where the rail line emerges from the cut through the rock mesa. In this view, the existing ballasted rail bed and the utility poles along the rail corridor are detectable, but do not attract much attention. In this view and in views from similar areas along the SR-14 KVA, the proposed project will have little to no visual effect on the existing rail corridor seen on the opposite side of the river. Because the new railroad tracks will be built in the area to the south of the existing tracks, they will not be visible and thus will have no effect on the view. To the extent that signs, signal lights, or signal buildings would be installed in this area of the of the project,

they would be barely detectable because they would be small-scale features seen at a 0.5-mile distance and would be visually absorbed into the highly textured backdrop. The area seen in this view also includes the location of three temporary construction staging areas. The largest of these temporary staging areas (see Figure 5-1C) would be located to the east of the cut through the mesa and would be located in the area between the existing UPRR ROW and the rock cliffs to the south. Construction of this staging area will require removal of the trees now located in this area and grading of the sloped terrain. While temporary visual change may occur as a result of vegetation removal at the staging area in Segment 2 East, replanting and restoration following construction would restore the area to pre-construction conditions, ensuring no permanent visual change. Although the standard of visual evidence does not explicitly address or regulate temporary visual change, UPRR will attenuate the temporary visual change that would occur in these areas. This will be accommodated by retaining a band of existing trees along the northern portion of the proposed staging area between MPs 71.52 and 71.64 and replanting and restoring disturbed portions of this staging area. Therefore, from the SR-14 KVA, the new rail line, staging areas, and appurtenant facilities will not be visually evident.

From the section of Old Washington State Route 14/Klickitat County Route 1230 located at higher elevations further to the east of Rowland Lake, Segment 2 East is visible across the river at distances ranging from approximately 0.75 to 1.4 miles. Because of the limited nature of the visual changes, the viewing distance, and intervening vegetation, project-related visual effects to the area on and along the UPRR rail corridor are not likely to be visually evident. The 6.62-acre temporary staging area between the existing UPRR ROW and the rock cliffs to the south will require tree removal and grading of the sloped terrain. While temporary visual change may occur as a result of vegetation removal at the staging area in Segment 2 East, replanting and restoration following construction would restore the area to pre-construction conditions, ensuring no permanent visual change. Although the standard of visual evidence does not explicitly address or regulate temporary visual change, UPRR will attenuate the temporary visual change that would occur in these areas. This will be accommodated by retaining a band of existing trees along the northern portion of the proposed staging area between MPs 71.52 and 71.64 and replanting and restoring disturbed portions of this staging area. Therefore, the new rail line, staging areas, and appurtenant facilities will not be visually evident in views from the Old Washington State Route 14/Klickitat County Route 1230 KVA.

Figure 5-6 also provide a basis for considering the potential effects of the portion of the project in Segment 2 East on views from the Columbia River KVA. Viewpoint 4, from which the Figure 5-6 photograph was taken, is located adjacent to the Columbia River, and is generally representative of what views from the northern edges of the river toward Segment 2 East would look like. As is the case in the views from SR-14, in the views from the northern edges of the river, the track-related changes to the existing rail corridor would not be visible because they would be located behind the existing rail bed. In addition, to the extent that any vertical elements of the project would be visible, they would be minor elements in the view that would be visually absorbed into the landscape backdrop. While temporary visual change may occur as a result of vegetation removal at the primary staging area in Segment 2 East, replanting and restoration following construction would restore the area to pre-construction conditions, ensuring no permanent visual change. Although the standard of visual evidence does not explicitly address or regulate temporary visual change, UPRR will attenuate the temporary visual change that would occur in these areas. This will be accommodated by retaining a band of existing trees along the northern portion of the proposed staging area between MPs 71.52 and 71.64 and replanting and restoring disturbed portions of this staging area. Therefore, from the northern and middle areas of the Columbia River, the new rail line, staging areas, and appurtenant facilities located in Segment 2 East will not be visually evident From the areas of the river closer to its southern banks, the new rail-related facilities will not be visually evident, neither will the construction staging areas because of the acute angle of view the visual changes.

The only area along the Historic Columbia River Highway and Trail KVA from which the rail corridor in this segment is visible is from Viewpoint 5 at the Memaloose Overlook, where the Figure 5-7 photograph was

taken. Figure 5-8 is a view from the same location that is oriented more toward the east to capture a portion of the existing rail corridor in Segment 2 East.

In the Figure 5-7 view, the existing rail line is barely visible in the area just to the right of the notch in the rock mesa through which the UPRR ROW passes. Temporary visual change will occur within Segment 2 East from this viewpoint where a 6.62-acre construction staging area will be developed. In this area, while no permanent visual change is anticipated, temporary visual change may be evident from the Memaloose Overlook in the Historic Columbia River Highway KVA. Although the standard of visual evidence does not explicitly address or regulate temporary visual change, UPRR will attenuate the temporary visual change that would occur in this area. This will be accommodated by retaining a band of existing trees along the northern portion of the proposed staging area between MPs 71.52 and 71.64 and replanting and restoring disturbed portions of this staging area. As a consequence, in the view looking northwest from the Memaloose Overlook in the Historic Columbia River Highway and Trail KVA, the permanent project modifications to the rail corridor would not be visually evident.

In the Figure 5-8 view, the existing rail line can be seen along the river at the base of the escarpment on which the overlook is located. In this view, the proposed project would be seen as an additional ballasted rail bed and tracks installed on the south side of the existing rail bed. Assuming that the sides of the expanded rail embankment are planted to be similar in appearance with the sides of the existing embankment, and the color of the ballast used for the new rail bed is similar to that of the existing rail bed, the resulting visual changes would be subtle and not necessarily noticeable to the casual observer. To the extent to which signs, signal lights, and signal buildings would be installed as part of the project in this area, they would be unlikely to attract much attention because they would be small-scale features seen in the distance in the midst of a rail corridor that already has a developed character. As a consequence, in the view looking northeast from the Memaloose Overlook in the Historic Columbia River Highway and Trail KVA, the project modifications to the rail corridor would not be visually evident.

5.3 National Scenic Area Land Use and Development Ordinance

The following NSA-LUDO chapters contain provisions that are relevant for review of the project. Relevant provisions were identified by Wasco County staff during the February 12, 2014 pre-application conference and through a detailed independent review of the NSA-LUDO. The applicable chapters are summarized as follows:

- Chapter 1, Introductory Provisions, provides definitions for selected terms and information on the legal construct of the code.
- Chapter 2, Development Approval Procedures, establishes the procedures for approval of development required by the NSA-LUDO, and describes the process of appeals and review of any decision by a higher authority.
- Chapter 3, Basic Provisions, identifies the NSA zoning districts, the types of land uses that are permitted in each zoning district, and the standards for development within the zone.
- Chapter 4, Supplemental Provisions, described additional standards applicable to development in all zoning districts within the NSA.
- Chapter 5, Conditional Use Review, describes the process by which a classified conditional use is permitted.
- Chapter 6, Variances from Building Heights, Slope, Setback and Buffers, describes the development criteria for which a variance is required, and the process by which a variance is granted.

- Chapter 14, Scenic Area Review, provides all the applicable requirements and procedures for obtaining development approval within the NSA.
- Chapter 23, Sign Provisions, includes the specifications for signage within the NSA.

This section provides the provisions that are relevant to the proposed project, and includes findings for each demonstrating the project's compliance with these provisions.

5.3.1 Chapter 1—Introductory Provisions

Chapter 1 in the NSA-LUDO contains general provisions, as well as specific definitions that relate directly to the Development Review process.

Section 1.080 Compliance Required

No structure or premises in the Columbia River Gorge National Scenic Area portion of Wasco County shall hereafter be used or occupied and no part or structure or part thereof shall be erected, moved, reconstructed, extended, enlarged, or altered contrary to the provisions of this Ordinance.

A. This Ordinance shall protect treaty and other rights of Indian tribes. Nothing in this Ordinance may interfere with the exercise of those rights.

Finding: UPRR's project proposes no structures or activities that would interfere with the rights of Indian tribes. Therefore, the project complies with this provision.

B. Lands held in trust by the Secretary of the Interior for Indian tribes or for individual members of Indian tribes, and lands acquired by the U.S. Army Corps of Engineers and administered by the Secretary of the Interior for the benefit of Indian tribes or of individual members of Indian tribes, shall be exempt from regulation under the Management Plan or this Ordinance. This exemption shall extend to lands selected by the U.S. Army Corps of Engineers as "in lieu" fishing sites pursuant to Public Law 11-581 before or after the effective date of the Management Plan. For those "in lieu" sites chosen after the effective date of the Management Plan, the exemption shall commence upon selection by the U.S. Army Corps of Engineers.

Finding: The project area does not include lands held in trust for Indian tribes or for individual members of Indian tribes, lands acquired for the benefit of Indian tribes or individual members of Indian tribes, or USACE in lieu fishing sites (CRITFC, 2014). Therefore, this exemption does not apply to the project.

5.3.2 Chapter 2—Development Approval Procedures

This section demonstrates compliance with relevant application and review procedures from the NSA-LUDO Chapter 2.

Section 2.040 Coordination of Development Approval

A. The Director shall be responsible for the coordination of a development application and decision-making procedures and shall approve developments when proper application is made and the proposed development is in compliance with the provisions of this Ordinance, the Wasco County Comprehensive Plan, and the Management Plan for the Columbia River Gorge National Scenic Area.

B. The coordination of development application shall include the opportunity for the applicant to apply for all permits necessary for a development project at one time. The consolidated procedure shall be subject to the time limitations set out in this chapter.

C. After an application has been submitted, no building permit application for the proposed use shall be signed until final action has been taken and all required conditions have been met. Following final action on the application, the issuance of zoning approval on a building permit application shall be in conformance with the zoning regulations of this Ordinance, and any conditions of development approval.

Section 2.050 Wasco County Application Authority

The following includes only the Wasco County Application Authority. All quasi–judicial appeals and legislative actions decided upon by the Columbia River Gorge Commission shall be governed by the Management Plan for the Columbia River Gorge National Scenic Area.

A. The Director shall have the authority to review the following applications for Type II Administrative Actions, and shall follow the procedure provided by this Ordinance to accomplish such review.

3. Uses permitted Subject to Additional or Referenced Standards (Chapter 3)
4. Conditional Use Reviews (Chapter 5)
5. Administrative Variances (Chapter 6)
6. Temporary Use Permits (Chapter 8)
8. Scenic Area Reviews (Chapter 14)
11. Permitted uses which require the interpretation or the exercise of policy or legal judgment.

B. The following applications for Type III and Type IV Quasi Judicial and Legislative Actions shall be heard by the Planning Commission, pursuant to Sections 2.100, 2.180, 2.190, 2.200, 2.210, and 2.220 of this Ordinance:

Type III Actions

4. Variances (Chapter 6)

C. The following application for Type III and Type IV Quasi Judicial and Legislative Actions shall be heard by the County Governing Body, pursuant to Sections 2.100, 2.180 2.190, 2.200, 2.210, and 2.220 of this Ordinance:

Finding: UPRR recognizes that the work described in this application generally requires approval pursuant to: (a) the criteria set forth in the foregoing NSA-LUDO provisions pursuant to standards contained in NSA-LUDO and (b) a Type III Quasi-Judicial process before the Planning Commission. For the reasons set forth above in Section 1.3, UPRR requests such approval voluntarily.

Section 2.060 Who May Apply

A. Development request may be initiated by one or more of the following:

1. All owner(s) of the property which is the subject of the application; or

2. The purchaser(s) of such property who submits a duly executed written contract, or copy thereof, which has been recorded with the Wasco County Clerk; or

Any of the above may be represented by an agent who submits written authorization by his principal to make such application.

Finding: This application is submitted by UPRR, with CH2M HILL acting as its agent. Written authorization for CH2M HILL to act as UPRR's agent is in Appendix F to this submittal. The various properties and landowners crossed by the project are identified in Figure 4-2. Two additional landowners, Oregon Department of Transportation (ODOT) and Oregon Parks and Recreation Department (OPRD), own property within the proposed project area. UPRR is currently negotiating agreements for temporary construction use and permanent ROW acquisition with these public agencies. While this process is ongoing, UPRR will provide Wasco County with copies of this agreement prior to project construction. Therefore, the Applicant will comply with this provision.

Section 2.070 Pre-Application Conference

An applicant may request a pre-application conference prior to submitting a request for development approval. The purpose of the conference shall be to acquaint the applicant with the substantive and procedural requirements of this Ordinance, provide for an exchange of information regarding applicable elements of the Comprehensive Plan, the Management Plan for the Columbia River Gorge National Scenic

Area, and development requirements, arrange such technical and design assistance as will aid the applicant, and to identify policies and regulations that create opportunities or pose significant constraints for the proposed development.

Finding: A pre-application conference was held on February 12, 2014, with attendees from Wasco County Planning, UPRR, and UPRR consultants. The Pre-application Conference Report prepared by Wasco County staff and discussed during the meeting is included as Appendix H to this submittal. Therefore, this provision has been met.

Section 2.080 Completeness

A. Complete Application Required:

Any proposed use, development or structure, including expedited review uses, shall be reviewed according to the standards in effect on the date an applicant submitted a complete land use application. A complete application is one the Director determines contains:

1. *A complete application form, including all applicable information and review criteria listed on the application form, the Complete Application Submittal requirements of Section 14.020, and any additional information indicated throughout this ordinance; and*
2. *The required fee, pursuant to Section 2.090.*

Finding: This application package includes a complete land use application form and meets applicable Complete Application Submittal procedures described in Section 14.020 of the NSA-LUDO. UPRR has negotiated a cost reimbursement structure in accordance with a Memorandum of Understanding (MOU) for large projects. All fees for processing this application will be paid in accordance with the terms of the MOU. Therefore, UPRR has complied with this provision.

B. Quasi Judicial Time Limitations

After deeming a quasi judicial application listed in Section 2.050 complete, the Director shall act on or cause a hearing to be held on the application within the time requirements of ORS. 215.427 unless such time limitation is extended with the consent of the applicant.

Finding: UPRR acknowledges the quasi-judicial time requirements and will coordinate with the Wasco County Planning Department Director regarding a hearing date, in compliance with ORS. 215.427, unless such time limitation is extended with the consent of UPRR. In doing so, UPRR will comply with this provision.

Section 2.090 Filing Fees

Finding: Wasco County Planning Department staff confirmed during the project pre-application conference that a fee-based line item in the Wasco County Planning Department fee schedule is not the appropriate format for documenting filing fees for this project (see Appendix H). Accordingly, UPRR and Wasco County entered into a cost reimbursement agreement on August 26, 2014 to satisfy required filing fees associated with review of the application. Accordingly, the project complies with this provision.

Section 2.100 Notice Requirements

Finding: UPRR acknowledges that the County will handle noticing of the application as described in Section 2.100. The project complies with this provision.

Section 2.240 Expiration of Approvals

A. Notice Not Required: Expiration of any land use approval issued pursuant to this ordinance shall be automatic. Failure to give notice of expiration shall not affect the expiration of a land use approval.

B. Land Use Approvals without Structures: Any land use approval issued pursuant to this Ordinance for a use or development that does not include a structure shall expire two years after the date the land use approval was granted, unless the use or development was established according to all specifications and

conditions of approval in the land use approval. For land divisions, "established" means the final deed or plat has been recorded with the county recorder or auditor. The expiration date for the validity of a land use approval is from the date of the expiration of the appeal period and not the date the decision was issued.

C. Land Use Approvals with Structures: Any land use approval issued pursuant to this Ordinance for a use or development that includes a structure shall expire as follows:

1. When construction has not commenced within two years of the date the land use approval was granted, or;

2. When the structure has not been completed within two years of the date of commencement of construction.

The expiration date for the validity of a land use approval is from the date of the expiration of the appeal period and not the date the decision was issued.

D. Commencement of Construction: As used in C(1) above, commencement of construction shall mean actual construction of the foundation or frame of the approved structure. For utilities and developments without a frame or foundation, commencement of construction shall mean actual construction of support structures for an approved above ground utility or development or actual excavation of trenches for an approved underground utility or development. For roads, commencement of construction shall mean actual grading of the roadway.

E. Completion of Structure: As used in C(2) above, completion of the structure shall mean:

1. Completion of the exterior surface(s) of the structure and

2. Compliance with all conditions of approval in the land use approval.

F. Vested Rights: Pursuant to Part II Chapter 7 Guideline 7 of Standards for Applications, Expiration of Approvals, Vested Rights of the Management Plan for the Columbia River Gorge National Scenic Area, the laws of the state of Oregon concerning vested rights are superseded by the provisions of the Management Plan as authorized in the National Scenic Area Act. A person has a vested right for as long as the land use approval does not expire.

Finding: UPRR acknowledges the policies for the expiration of land use approvals with structures as provided in Section 2.240 of the NSA-LUDO. UPRR plans to begin construction on the project within 2 years of the completion of the Development Review process and will complete the development within 2 years from the date of the commencement of construction.

UPRR acknowledges that notice is not required to identify the expiration of land use approvals. Expiration of any land use approval issued pursuant to policies of the NSA-LUDO will be automatic, and failure to give notice of expiration will not affect expiration of the land use approval. Additionally, UPRR acknowledges that laws of the state of Oregon concerning vested rights are superseded by the provisions of Chapter 7 Guideline 7 of the NSA-MP as authorized in the NSA Act. Therefore, UPRR acknowledges the applicable expiration of approvals policies and will comply with this provision.

Section 2.250 Extension of Validity of Land Use Approvals

A request for extension of the time frames in 2.240(B), C(1) or C(2) above, shall be submitted in writing before the applicable expiration date. The expiration date for the validity of a land use approval is from the date of the expiration of the appeal period and not the date the decision was issued.

A. The Director may grant one 12-month extension to the validity of a land use approval if they determine that events beyond the control of the applicant prevented commencement of the use or development (applicable to 2.240(B) above) or commencement of construction (applicable to 2.240(C)(1) above) within the original two-year time frame.

B. The Director may also grant one 12-month extension if they determine that events beyond the control of the applicant prevented completion of the structure (applicable to 2.240C(2) above) within the original two-year time frame.

C. A request for extension shall state the reason why events beyond the control of the applicant warrant an extension.

D. Approval or denial of a request for extension shall be considered an administrative decision.

Finding: UPRR acknowledges the expiration date for the validity of a land use approvals as provided in Section 2.250 of the NSA-LUDO. If necessary, UPRR will submit requests for the extension of validity for land use approvals.

5.3.3 Chapter 3—Basic Provisions

Section 3.020 Compliance Required

A legal parcel may be used and a legal structure or part of a legal structure may be constructed, moved, occupied, or used only as this Ordinance permits.

Finding: The project crosses 13 Wasco County tax lots. Proof of legal parcel, by way of the last deeds of record for parcels crossed by the project, are included as Appendix I. Therefore, the project complies with this provision.

Section 3.050 Boundaries of Zones

Boundaries of plan designations are established by the Gorge Commission and Forest Service in accordance with the Columbia River Gorge National Scenic Area Management Plan and Columbia River Gorge National Scenic Area Act (Public Law 99-663). These boundary lines have been transposed onto Wasco County tax lot maps for use in implementing this ordinance.

Original Scenic Area Maps and Land Use Designation maps are on file at the offices of the USDA Forest Service, National Scenic Area Office, Hood River Oregon and the Gorge Commission Office, White Salmon, Washington.

A. When it is necessary to pinpoint the location of a boundary line on the ground an applicant shall consult with the Gorge Commission and Forest Service regarding the specific location of the boundary.

B. Where a discrepancy exists, the applicant shall work with the Gorge Commission and Forest Service staff to resolve the discrepancy.

Finding: UPRR acknowledges the data sources that are acceptable for use and the process by which data discrepancies should be resolved. UPRR has used NSA land use data for figures and associated calculations included in this application that have been provided by CRGC and Wasco County, as referenced in the text. Therefore, this provision has been met.

Section 3.100 Uses Permitted without Review

The proposed project includes several components that, if pursued separately, would be exempt from Development Review. UPRR acknowledges that, although these individual uses are considered uses permitted without review, the project will be evaluated as a whole under the NSA-LUDO. This section describes these proposed components, excluding those that will be located in the GMA and SMA Open Space zones, which are addressed under Section 3.180.

The following uses may be allowed without review in all GMA and SMA land use designations, except GMA and SMA Open Space and Agriculture Special, subject to the applicable property development standards:

H. The following transportation facilities:

7. In the General Management Area, replace and/or expand existing culverts, provided the entity or person owning or operating the culvert shall obtain all necessary federal and state permits that protect water quality and fish and wildlife habitat before construction.

8. In the Special Management Area, replace and/or expand existing culverts for ephemeral streams or ditches, provided the visible ends of culverts shall be dark and non-reflective.

Finding: The project will install one new culvert to serve as an outlet for trackside ditches and to provide drainage under track embankment. In addition, two new five-foot diameter culverts will be installed at the western end of Thompsons Lake with the objective of providing enhancements to fish passage for listed fish species. Finally, a tap connection and/or extension will be installed for up to six culverts to augment drainage to the trackside ditches located along the project alignment. Although the culverts that are part of the overall project would be uses permitted without review under this section, the entire project (including culverts) is being evaluated in the Clean Water Act Section 404 permit for the project, including Endangered Species Act Section 7 consultation under the project's Clean Water Act Section 404 permit.

10. Apply dust abatement products to non-paved road surfaces.

Finding: UPRR acknowledges that although proposed dust abatement activities are considered a use permitted without review, the project will include standard construction best management practices, including dust abatement.

11. Grade and gravel existing road shoulders, provided the activity does not

a. Increase the width of a road,
b. Disturb the toe of adjacent embankments, slopes or cut banks, or
c. Change existing structures or add new structures.

Finding: As noted above, the minor grading for project-related road improvements will be evaluated relative to impacts of the defined second mainline project and, therefore, UPRR is not requesting the road improvements be considered separately as a use not requiring review.

I. The following underground utility facilities:

1. *Replace or modify existing underground utility facilities located inside road, utility or railroad rights-of-way or easements that have been disturbed in the past or collocate new underground utility facilities with existing underground facilities located inside road, utility or railroad rights-of-way or easements that have been disturbed in the past, provided no excavation would extend beyond the depth and extent of the original excavation.*

2. *Replace or modify existing underground utility facilities located inside road, utility or railroad rights-of-way or easements that have been disturbed in the past or collocate new underground utility facilities with existing underground facilities located inside road, utility or railroad rights-of-way or easements that have been disturbed in the past, provided:*

   a. No excavation would extend more than 12 inches beyond the depth and extent of the original excavation,

   b. No ditch for linear facilities would be more than 24 inches wide,

   c. No excavation for non-linear facilities would exceed 10 cubic yards, and

   d. No recorded archaeological site is located within 500 feet of the development. To comply, the entity or person undertaking the development shall contact the Oregon State Historic Preservation Office and obtain a letter or other document stating no recorded archaeological site is located within 500 feet of the development.

Finding: The relocation or modification of public and private utilities (including underground sewer and water lines in several locations along the project alignment) will be evaluated relative to impacts of the defined second mainline project and, therefore, UPRR is not considering the utilities separately as a use not requiring review. Underground utilities will generally be placed within 12 inches of their existing depth and trenches will generally not exceed a width of 24 inches. Construction of the project will not require the replacement or modification of any non-linear underground facilities.

J. The following aboveground and overhead utility facilities:

1. Replace existing aboveground and overhead utility facilities including towers, pole/tower-mounted equipment, cables and wires, anchors, pad-mounted equipment, service boxes, pumps, valves, pipes, water meters, and fire hydrants, provided the replacement facilities would have

a. The same location and size as the existing facilities and
b. The same building materials as the existing facilities, or building materials that are dark brown with a flat, non-reflective finish, or building materials consistent with the Historic Columbia River Highway Master Plan for the Historic Columbia River Highway or a scenic highway corridor strategy for Interstate 84 prepared according to the GMA policies in the section of the Scenic Resources chapter of the Management Plan titled "Scenic Travel Corridors."

2. Replace existing utility poles, provided the replacement poles are

a. Located within 5 feet of the original poles,
b. No more than 5 feet taller and 6 inches wider than the original poles, and
c. Constructed of natural wood, weathering steel (e.g., Corten), materials that match the original poles, or materials that are dark brown with a flat, nonreflective finish.

Finding: The relocation or modification of public and private utilities (including aboveground utilities) will be evaluated relative to impacts of the defined second mainline project and, therefore, UPRR is not considering the utilities separately as a use not requiring review. The project will include the relocation or modification of public and private utilities including overhead utility lines in several locations along the project alignment to accommodate construction activities. Overhead utilities will generally be replaced at or within 5 feet of their existing locations, installed at an equivalent height, and will be constructed from approved nonreflective materials. UPRR acknowledges that although the proposed overhead utility replacement and modifications are considered a use permitted without review, the project will be evaluated as a whole.

Section 3.120 "A-1" Large Scale Agriculture (GMA & SMA)

The project will cross through GMA A-1 and SMA Ag zones (see Figure 1-3 in Appendix A) and is characterized under separate conditional uses categories for each zone. As summarized in Table 1-1, the total length of the proposed second mainline track that crosses the GMA A-1 zone will be approximately 0.74-mile and is located between approximately MP 70.36 and MP 71.10. The total length of the proposed second mainline track that crosses the SMA Ag zone will be approximately 0.24 mile and is located between approximately MP 71.10 and MP 71.34.

D. Uses Permitted Subject to Review

The following uses and activities may be allowed on a legal parcel designated Large-Scale Agriculture subject to Subsection G – Property Development Standards, Chapter 11 – Fire Safety Standards & Chapter 14 – Scenic Area Review, as well as all other listed or referenced standards.

17. Construction, reconstruction, or modifications of roads not in conjunction with agriculture if designated in the Adopted Wasco County Transportation System Plan or designed and constructed as part of an approved, active development order. (GMA Only).

Finding: As summarized in Table 1-1, temporary access to the project site within the GMA A-1 zone will be via an existing graded road from the shoulder of I-84 adjacent to MP 70.20. No road construction,

reconstruction, or modifications are proposed within the GMA A-1 zone. Therefore, this provision is not applicable to the project in areas where it crosses the GMA A-1 zone.

18. Resource Enhancement Projects for the purpose of enhancing scenic, cultural, recreation and/or natural resources subject to the Resource Enhancement standards prescribed in Chapter 10: (GMA & SMA)

Finding: As summarized in Table 4-1, construction of the project will result in approximately 0.22 acres of temporary impacts and 3.08 acres of permanent impacts within the GMA A-1 zone, and 1.85 acres permanent impacts within the SMA Ag zone. All temporary impacts along the project alignment will be mitigated onsite through restoration in-place and in-kind. All permanent impacts to wetland areas resulting from the project will be mitigated through onsite or offsite habitat restoration or enhancement, as determined through the USACE Section 404 Individual Permit process. Resource enhancement activities associated with the proposed project will, therefore, be allowed as a permitted use subject to review within the GMA A-1 and SMA Ag zones, pursuant to NSA-LUDO 3.120(D)18.

E. Uses Permitted Conditionally

The following uses and activities may be allowed with conditions on a legal parcel designated Large Scale Agriculture subject to Subsection G – Property Development Standards, Chapter 5 – Conditional Use Review, Chapter 11 – Fire Safety Standards & Chapter 14 – Scenic Area Review, as well as any other listed or referenced standards.

18. Road and railroad construction and reconstruction. (SMA Only)

Finding: The project consists of infrastructure improvements to an existing railroad mainline track, and includes installation of a retaining wall, ancillary structures, lighting, and signage within the SMA Ag zone as necessary to satisfy federal rail safety standards. The project is allowed as a conditional use in the SMA Ag zone pursuant to NSA-LUDO 3.120(E)18.

19. Construction, reconstruction, or modifications of roads not in conjunction with agriculture if not designated in the Adopted Wasco County Transportation System Plan or not designed and constructed as part of an approved, active development order. (GMA Only)

Finding: As summarized in Table 1-1, the project site within the GMA A-1 zone will be temporarily accessed using an existing graded road from the shoulder of I-84 adjacent to MP 70.20. The project does not propose road construction, reconstruction, or modifications within the GMA A-1 zone. Therefore, this provision is not applicable to the project in areas where it crosses the GMA A-1 zone.

20. Utility facilities and railroads necessary for public service upon a showing that: (GMA & SMA)

a. There is no practicable alternative location with less adverse effect on the scenic, cultural, natural, recreational, agricultural or forest lands; and

b. The size is the minimum necessary to provide the service.

Finding: Sections 1 through 4 of this narrative describe:

1. Scenic, cultural, natural, recreational, agricultural and forest land effects of the project;
2. The purpose of the project;
3. Alternative locations for the project; and
4. The impracticability of those alternatives.

The project will not result in impacts to cultural resources and will not disturb or displace forest lands or historic or currently active agricultural lands (see Appendix L and Figure 1-2). The majority of the project proposed within the GMA A-1 and SMA Ag zones will be constructed within the existing ROW to minimize impacts on scenic, natural, and recreational resources.

As discussed in Section 2 of this narrative, due to the nature of the railroad as a pre-existing, interstate transportation system, the purpose of the project cannot be satisfied using other rail or non-rail sites in the vicinity. Heavy rail train routes are very sensitive to grade, far more so than highways. Whereas, interstate freeways are built on grades up to 6 percent, railroads can operate at a grade of no more than 2 percent. As such, it is essential for the project to continue to follow the river grade, which is far more gradual than the grades on the surrounding landscape. The proposed second mainline track expansion maximizes use of existing infrastructure to reduce impacts to natural, cultural, scenic, and recreational resources. Construction of an entirely new second mainline track of equivalent length in another location, not directly adjacent to the existing mainline track, cannot achieve the basic purpose of the project use and avoid or result in less adverse effects.

Based on that description, the project meets the conditional use provisions of the GMA A-1 zone pursuant to NSA-LUDO 3.120(E)(20) and is allowed as a conditional use.

G. Property Development Standards

2. General Setbacks – All structures, other than approved signs and fences shall comply with the following general setback standards:

Front Yard	*25 feet*
Side Yard	*25 feet*
Rear Yard	*40 feet*

Finding: The project consists of infrastructure improvements to an existing track primarily within existing railroad ROW. Setback provisions are generally put in place to address residential, commercial, and industrial development, and are not consistent with the nature of road, railroad, or utility ROWs. All structures associated with the proposed project, including mainline track, signal buildings, and lighting, will be located greater than 25 feet from property boundaries in order to satisfy federal rail safety standards. Therefore, the project will comply with this provision.

5. Floodplain: Any development including but not limited to buildings, structures or excavation, proposed within a FEMA designated flood zone, or sited in an area where the Planning Director cannot deem the development reasonably safe from flooding shall be subject to Section 3.240, Flood Hazard Overlay.

Finding: Segments of the project are located in flood-prone areas. Figure 5-9 (see Appendix A) shows the locations where the proposed second mainline track will cross floodplains. The project does not cross a floodplain within the GMA A-1 zone. Therefore, this provision is not applicable to the project in areas where it crosses the GMA A-1 zone.

6. Height – Maximum height for all structures shall be thirty-five (35) feet unless further restricted in accordance with Chapter 14 – Scenic Area Review.

Finding: Up to five new signal buildings will be constructed to support operations along the second mainline track, one of which will be located within the GMA A-1 zone. Each of these signal buildings will be approximately 9 feet in height. The project will also include installation of standard railroad signage and signal lights in this zone. Signage will generally be posted at an approximate height of 10 feet. Lighting will consist of approximately ten 22-foot-tall combination signal lights. No additional aboveground structures are proposed. Therefore, the project will comply with this provision.

Section 3.130 "A-2" Small Scale Agriculture (GMA Only)

The project will cross through the GMA A-2 zone (see Figure 1-3 in Appendix A). As summarized in Table 1-1, the total length of the proposed second mainline track that crosses the GMA A-2 zone will be approximately 0.26 mile and is located approximately between MP 68.02 and MP 68.28.

D. Uses Permitted Subject to Review

The following uses and activities may be allowed on a legal parcel designated Small Scale Agriculture subject to the Subsection G – Property Development Standards, Chapter 11 – Fire Safety Standards & Chapter 14 – Scenic Area Review, as well as any other listed or referenced standards.

12. Construction, reconstruction, or modifications of roads not in conjunction with agriculture if designated in the Adopted Wasco County Transportation System Plan or designed and constructed as part of an approved, active development order.

Finding: As summarized in Table 1-1, temporary access to the project site within the GMA A-2 zone will be via an existing graded shoulder I-84 adjacent to MP 68.39. However, no road construction, reconstruction, or modifications are proposed within the GMA A-2 zone. Therefore, this provision is not applicable to the project in areas where it crosses the GMA A-2 zone.

13. Resource Enhancement Projects for the purpose of enhancing scenic, cultural, recreation and/or natural resources, subject Resource Enhancement standards prescribed in Chapter 10.

Finding: As summarized in Table 4-1, construction of the project will result in approximately 0.02 acres of temporary impacts and 0.90 acres of permanent impacts within the GMA A-2 zone. All temporary impacts along the project alignment will be mitigated onsite through restoration in-place and in-kind. No wetland impacts will occur with the GMA A-2 zone. Resource enhancement activities associated with the proposed project will, therefore, be allowed as a permitted use subject to review within the GMA A-2 zone, pursuant to NSA-LUDO 3.130(D)(13).

E. Uses Permitted Conditionally

The following uses and activities may be allowed with conditions on a legal parcel designated Small Scale Agriculture subject to Subsection G – Property Development Standards, Chapter 5 – Conditional Use Review, Chapter 11 – Fire Safety Standards & Chapter 14 – Scenic Area Review, as well as any other listed or referenced standards.

14. Utility facilities and railroads necessary for public service upon a showing that:

a. There is no practicable alternative location with less adverse effect on agricultural or forest lands; and

b. the size is the minimum necessary to provide the service.

Finding: The project is a railroad use that constitutes a necessary public service. As discussed below, the project satisfies the requirements of NSA-LUDO 3.130(E)(14)(a) and (b), as well as other applicable criteria and is, therefore, allowed as a conditional use in the GMA A-2 zone.

The project is locationally dependent and cannot be constructed elsewhere and still satisfy the identified purpose and need. As described in Section 2 of this narrative, the purpose of the project is to improve operational efficiency of train movement along UPRR's existing mainline track near the City of Mosier while maintaining safe operating conditions. The project is needed to correct the operational constraints that result from the existing railroad infrastructure between MP 66.98 and 72.35. This is because the Mosier Siding, which is located within the project area, is the shortest siding on the entire 206-mile Portland Subdivision and can accommodate the lengths of only about half the trains that run on the Subdivision. The short Mosier Siding does not allow for trains traveling in opposite directions to pass one another efficiently and trains traveling in one direction must move off the mainline and stop on the siding to allow the train coming from the opposite direction to pass safely and efficiently. The project will relieve this bottleneck by decreasing the number of delayed or stopped trains, reducing barriers to industry-standard train lengths, and improving the efficiency and fluidity of train movements in this area, while maintaining safe operating conditions.

As discussed in Section 2 of this narrative, due to the nature of the railroad as a pre-existing, interstate transportation system and the specific infrastructure-related inefficiencies experienced at the Mosier Siding, the purpose of the project cannot be satisfied using other rail or non-rail sites in the vicinity. Heavy rail train routes are very sensitive to grade, far more so than highways. Whereas interstate freeways are built on grades up to 6 percent, railroads can operate at a grade of no more than 2 percent. As such, it is essential for the project to continue to follow the river grade, which is far more gradual than the grades on the surrounding landscape. It is also essential for the proposed infrastructure improvements to be located where proposed in order to correct the existing operational inefficiencies observed along this specific stretch of track. Accordingly, there is no practicable alternative location for the project. Additional analysis related to alternative project configurations and offsite locations considered and dismissed is included in Section 3 of this narrative.

Apart from being locationally dependent, the project was also designed to minimize disturbance to the greatest extent practicable. The project has been sited in such a way as to avoid the loss of forest or agricultural land suitable for the production of crops or livestock and to avoid the chance of interference to accepted farm or forest practices on surrounding lands devoted to, or available for, farm or forest use. The project will not cross any existing forest land or land zoned for forest uses. The project will temporarily disturb 0.24 acre and permanently disturb 6.05 acres of land zoned for agricultural uses; however, the entirety of this area consists of existing, disturbed railroad ROW, not currently or historically used for agricultural cultivation. Existing agricultural practices will be allowed to continue adjacent to the UPRR ROW following construction. The proposed second mainline track expansion also maximizes use of existing infrastructure to reduce impacts to natural, cultural, scenic, and recreational resources. Furthermore, UPRR has incorporated additional design considerations in order to reduce the project footprint and its disturbance to the greatest extent practicable. These measures include:

- **Track Alignment and Centerline Offset Width Reduction.** In determining the alignment for the proposed track in the project area, UPRR reduced the centerline offset from 20 feet to 15 feet (the minimum allowable centerline offset) to significantly reduce the project footprint and avoid waters and wetlands to the north and south of the track. On the west end of the project (MP 66.98 to MP 69.38), an alignment to the north of the track was selected because it would have fewer aquatic impacts, and avoid additional excavation of a tall rock face. On the east end of the project (MP 70.73 to MP 72.35), an alignment primarily to the south of the existing track was selected to avoid direct impacts to the Columbia River. The reduction of centerline-track offsets decreased the project footprint by 2.1 acres along the full 4.02 miles of new track.
- **Embankment Design Minimization.** UPRR design standards for track embankments are for a 2:1 horizontal to vertical (H:V) slope, which provides stability to the rail roadbed and incorporates safety considerations for maintenance work along the tracks. Geotechnical design options to steepen the embankment slope (standard 2H:1V slopes to vertical retaining walls) were assessed to reduce project footprint and adjacent aquatic impacts. Based on site-specific considerations, UPRR selected 1.5H:1V slopes in waters and wetland areas to provide the greatest effective reduction in aquatic impacts while retaining the safe functioning of the railroad. Riprap/rock fill can provide the steepest slope at 1.5H:1V achievable with natural materials.
- **Reduced Access Road and Drainage Ditches.** UPRR design standards include construction of a 10-foot-wide access road outside the tracks for ease of operation and maintenance and to construct a 10-foot-wide flat bottom drainage ditch adjacent to the track embankment in cut sections. To reduce the project footprint and associated disturbance, UPRR eliminated the access road in all but one location and reduced the widths of associated drainage ditches where compliant with UPRR-required hydraulic design guidelines. The elimination of the access road and reduced ditch width reduced the potential project footprint by roughly 5.5 acres along the full 4.02 miles of new track construction.

Therefore, the project meets the conditional use provisions of the GMA A-2 GMA zone pursuant to NSA-LUDO 3.130(E)(14)(a) and (b) by being both locationally-dependent and being designed to minimize the project's footprint of disturbance to the greatest extent practicable.

G. Property Development Standards

2. General Setbacks – All structures, other than approved signs and fences shall comply with the following general setback standards:

Front Yard	*25 feet*
Side Yard	*25 feet*
Rear Yard	*40 feet*

Finding: The project consists of infrastructure improvements to an existing track primarily within an existing railroad ROW. Setback provisions are generally put in place to address residential, commercial, and industrial development, and are not consistent with the nature of road, railroad or utility ROWs. All structures associated with the proposed project, including second mainline track, signal buildings, and lighting, will be located greater than 25 feet from property boundaries, to satisfy federal rail safety standards. Therefore, the project will comply with this provision.

4. Floodplain: Any development including but not limited to buildings, structures or excavation, proposed within a FEMA designated flood zone, or sited in an area where the Planning Director cannot deem the development reasonably safe from flooding shall be subject to Section 3.240, Flood Hazard Overlay.

Finding: Segments of the project are located in flood-prone areas. Figure 5-9 (see Appendix A) shows the locations where the proposed second mainline track will cross floodplains. The project does not cross a floodplain within the GMA A-2 zone. Therefore, this provision is not applicable to the project in areas where it crosses the GMA A-2 zone.

5. Height – Maximum height for all structures shall be thirty-five (35) feet unless further restricted in accordance with Chapter 14 – Scenic Area Review.

Finding: Up to five new signal buildings will be constructed to support operations along the second mainline track, one of which will be located in the GMA A-2 zone. Each of these signal buildings will be approximately 9 feet in height. The project will also include installation of standard railroad signage, signal lights, and in-kind guardrail extensions along I-84. Signage will generally be posted at an approximate height of 10 feet. Lighting will consist of approximately ten 22-foot-tall combination signal lights. No additional aboveground structures are proposed. Therefore, the project will comply with this provision.

Section 3.170 "PR" Public Recreation (GMA & SMA)

The project will cross through the SMA PR zone (see Figure 1-3 in Appendix A). As summarized in Table 1-1, the total length of the proposed second mainline track that crosses the SMA PR zone will be approximately 0.63 mile and is located between MP 71.72 and MP 72.35.

E. Uses Permitted Conditionally

The following uses and activities may be allowed with conditions on a legal parcel designated Public Recreation subject to Subsection G – Conditional Use Approval Standards, Subsection H – Property Development Standards, Chapter 5 – Conditional Use Review, Chapter 11 – Fire Protection Standards & Chapter 14 – Scenic Area Review, as well as any other listed or referenced standards.

27. Road and railroad construction and reconstruction. (SMA Only)

Finding: As summarized in Table 1-1, the project consists of an expansion to an existing railroad mainline, and includes ancillary structures, lighting, signage, relocation of a small pumphouse, and minor ROW

acquisition necessary to satisfy federal rail safety standards. The project is allowed as a conditional use in the SMA PR zone pursuant to NSA-LUDO 3.170(E)27.

31. *Resource enhancement projects for the purpose of enhancing scenic, cultural, recreation and/or natural resources, subject to the Resource Enhancement standards prescribed in Chapter 10. (GMA & SMA)*

Finding: As summarized in Table 4-1, construction of the project will result in approximately 3.83 acres of temporary impacts and 5.57 acres of permanent impacts within the SMA PR zone. All temporary impacts along the project alignment will be mitigated onsite through restoration in-place and in-kind. All permanent impacts to wetland areas resulting from the project will be mitigated through onsite or offsite habitat restoration or enhancement, as determined through the USACE Section 404 Individual Permit process. Resource enhancement activities associated with the proposed project will, therefore, be allowed as a conditional use within the GMA PR and SMA PR zones, pursuant to NSA-LUDO 3.170(E)31.

H. Property Development Standards

2. *General Setbacks – all structures other than approved signs and fences shall comply with the following general setback standards:*

Front Yard	*25 feet*
Interior Side Yard	*15 feet*
Exterior Side Yard	*20 feet*
Rear Yard	*20 feet*

Finding: The project consists of infrastructure improvements to an existing track primarily within existing railroad ROW. Setback provisions are generally put in place to address residential, commercial, and industrial development, and are not consistent with the nature of road, railroad or utility ROWs. All structures associated with the proposed project, including mainline track, signal buildings, and lighting, will be located greater than 25 feet from property boundaries, in order to satisfy federal rail safety standards. Therefore, the project will comply with this provision.

4. *Height – Maximum height for all structures shall be thirty-five feet (35') unless further restricted in accordance with Chapter 14 – Scenic Area Review.*

Finding: Up to five new signal buildings will be constructed to support operations along the second mainline track, one of which will be located in the SMA PR zone. Each of these signal buildings will be approximately 9 feet in height. The project will also include installation of standard railroad signage and signal lights in this zone. Signage will generally be posted at an approximate height of 10 feet. Lighting will consist of approximately ten 22-foot-tall combination signal lights. An existing pumphouse within Memaloose Park approximately 9 feet in height will be relocated approximately 50 feet south of its current location No additional aboveground structures are proposed. Therefore, the project will comply with this provision.

5. *Floodplain: Any development including but not limited to buildings, structures or excavation, proposed within a FEMA designated flood zone, or sited in an area where the Planning Director cannot deem the development reasonably safe from flooding shall be subject to Section 3.240, Flood Hazard Overlay.*

Finding: Segments of the project are located in flood-prone areas. Figure 5-9 (see Appendix A) shows the locations where the proposed second mainline track will cross floodplains. The project includes approximately 0.43 mile located within the floodplain in the SMA PR zone. The project will therefore comply with Section 3.240, Flood Hazard Overlay.

Section 3.180 "OS" Open Space (GMA & SMA)

The project will cross through the GMA OS and SMA OS zones (see Figure 1-3 in Appendix A). As summarized in Table 1-1, the total length of the proposed second mainline track that crosses the GMA OS zone will be approximately 1.34 mile and is located between MP 66.98 and MP 68.02, and between MP 68.28 and MP

68.58. The total length of the proposed second mainline track that crosses the SMA OS zone will be approximately 0.37 mile and is located between MP 71.35 and MP 71.72. One new signal building and two signal lights are also proposed within the GMA OS zone at MP 74.73, approximately 2.4 miles east of the contiguous project area, replacing an existing signal building and signal lights located 150 feet to the north.

B. Uses Permitted Without Review

The proposed project includes several components that, if pursued separately, would be exempt from Development Review. UPRR acknowledges that, although these individual uses are considered uses permitted without review, the project will be evaluated as a whole. This section describes these proposed components located in the GMA and SMA Open Space zones.

The following uses and activities may be allowed without review on lands designated Open Space subject to the applicable property development standards. (GMA & SMA)

2. The following transportation facilities:

e. New guardrails and guardrail ends, provided the structures are (1) Located inside ROWs that have been disturbed in the past and (2) Constructed of natural wood, weathering steel (e.g., Corten), or materials consistent with the Historic Columbia River Highway Master Plan for the Historic Columbia River Highway or a scenic highway corridor strategy for Interstate 84 prepared according to the GMA policies in the section of the Scenic Resources chapter of the Management Plan titled "Scenic Travel Corridors." This category does not include jersey barriers.

Finding: The project will include installation of approximately 3,615 feet of new guardrail within the GMA Open Space zone, adjacent to I-84 from MP 67.39 to MP 67.82, and from MP 68.29 to MP 68.54. The proposed guardrail will be located entirely within existing, previously disturbed ROW and will be constructed of approved materials. UPRR acknowledges that although the guardrail is considered a use permitted without review, the project will be evaluated as a whole.

f. Replace and/or expand existing culverts, provided the entity or person owning or operating the culvert shall obtain all necessary federal and state permits that protect water quality and fish and wildlife habitat before construction. (GMA Only)

Finding: The project will include installation of one new culvert to serve as an outlet for trackside ditches and to provide drainage under track embankment, two new culverts at the western end of Thompsons Lake with the objective of providing enhancements to fish passage for listed fish species that use the lake, and tap connection to or expansion of up to six culverts to augment drainage to the trackside ditches located along the project alignment. One new proposed culvert and two culvert taps or extensions will be located within the GMA Open Space zone.

UPRR will obtain all necessary federal permits prior to construction of the proposed culverts and culvert extensions, and will abide by all permit conditions therein in order to protect water quality and fish and wildlife habitat. UPRR acknowledges that although the proposed culvert expansions are considered a use permitted without review, the project will be evaluated as a whole.

i. Apply dust abatement products to non-paved road surfaces.

Finding: The project may require the application of water or other approved dust abatement products within the Open Space zones in order avoid impacts to air quality and water quality resulting from fugitive dust during construction, particularly during grading activities. UPRR acknowledges that although the proposed dust abatement activities are considered a use permitted without review, the project will be evaluated as a whole.

3. The following underground utility facilities:

a. Replace or modify existing underground utility facilities located inside road, utility or railroad rights-of-way or easements that have been disturbed in the past or co-locate new underground

utility facilities with existing underground facilities located inside road, utility or railroad rights-of-way or easements that have been disturbed in the past, provided no excavation would extend beyond the depth and extent of the original excavation.

b. Replace or modify existing underground utility facilities located inside road, utility or railroad rights-of-way or easements that have been disturbed in the past or co-locate new underground utility facilities with existing underground facilities located inside road, utility or railroad rights-of-way or easements that have been disturbed in the past, provided:

(1) No excavation would extend more than 12 inches beyond the depth and extent of the original excavation;

(2) No ditch for linear facilities would be more than 24 inches wide;

(3) No excavation for non-linear facilities would exceed 10 cubic yards, and;

(4) No recorded archaeological site is located within 500 feet of the development. To comply with (4), the entity or person undertaking the development shall contact the Oregon State Historic Preservation Office and obtain a letter or other document stating no recorded archaeological site is located within 500 feet of the development.

Finding: The project may require the relocation or modification of public and private utilities to accommodate construction activities within the GMA Open Space and SMA Open Space zones. All underground utility replacement or modification will occur within the existing UPRR ROW. Underground utilities will generally be placed within 12 inches of their existing depth, and trenches will generally not exceed a width of 24 inches. Construction of the project will not require the replacement or modification of any non-linear underground facilities. s. UPRR acknowledges that although the proposed underground utility replacement and modifications are considered a use permitted without review, the project will be evaluated as a whole.

4. The following aboveground and overhead utility facilities:

a. Replace existing aboveground and overhead utility facilities including towers, pole/tower-mounted equipment, cables and wires, anchors, pad-mounted hydrants, provided the replacement facilities would have:

(1) The same location and size as the existing facilities and;

(2) The same building materials as the existing facilities, or building materials that are dark brown with a flat, non-reflective finish, or building materials consistent with the Historic Columbia River Highway Master Plan for the Historic Columbia River Highway or the scenic highway corridor strategy for Interstate 84 prepared according to the GMA policies in the section of the Scenic Resources chapter of the Management plan title "Scenic Travel Corridors

b. Replace existing utility poles, provided the replacement poles are

(1) Located within 5 feet of the original poles;

(2) No more than 5 feet taller and 6 inches wider than the original poles, and;

(3) Constructed of natural wood, weathering steel (e.g., Corten), materials that match the original poles, or materials that are dark brown with a flat, non-reflective finish.

Finding: The project will include the relocation or modification of public and private utilities including overhead utility lines within the GMA Open Space and SMA Open Space zones to accommodate construction activities. Overhead utilities will generally be replaced at or within 5 feet of their existing locations, installed at an equivalent height, and will be constructed from approved nonreflective materials. UPRR acknowledges that although the proposed overhead utility replacement and modifications are considered a use permitted without review, the project will be evaluated as a whole.

D. Uses Permitted Subject to Review

The following uses and activities may be allowed on a legal parcel designated Open Space subject to Chapter 14 – Scenic Area Review, Subsection G – Property Development Standards, as well as any other listed or referenced standards.

2. Repair, maintenance, operation, and improvement and expansion of existing serviceable structures, including roads, railroads, hydro facilities and utilities that provide sewer, transportation, electric, gas, water, telephone, telegraph, telecommunications. (GMA Only)

3. Changes in existing use, including reconstruction, replacement, and expansion of existing structures and transportation facilities, except for commercial forest practices. (SMA Only)

Finding: The project consists of infrastructure improvements to an existing serviceable structure consistent with the definition provided in NSA-LUDO Section 1.200, and will include ancillary structures, lighting, and signage within the GMA Open Space and SMA Open Space zones, as necessary to satisfy federal rail safety standards. Therefore, the project is allowed as a conditional use in the GMA Open Space and SMA Open Space zones pursuant to NSA-LUDO 3.180(D)2-3.

4. Resource enhancement projects for the purpose of enhancing scenic, cultural, recreation and/or natural resources, subject to subject to the Resource Enhancement standards prescribed in Chapter 10. (GMA & SMA)

Finding: As summarized in Table 4-1, construction of the project will result in approximately 0.30 acres of temporary impacts and 6.11 acres of permanent impacts within the GMA OS zone, and 6.84 acres of temporary impacts and 2.09 acres of permanent impacts within the SMA OS zone. All temporary impacts along the project alignment will be mitigated onsite through restoration in-place and in-kind. All permanent impacts to wetland areas resulting from the project will be mitigated through onsite or offsite habitat restoration or enhancement, as determined through the USACE Section 404 Individual Permit process. Resource enhancement activities associated with the proposed project will, therefore, be allowed as a conditional use within the GMA Open Space and SMA Open Space zones, pursuant to NSA-LUDO 3.180(D)4.

10. For those areas designated Gorge Walls and Canyonlands – The following uses may be authorized: (GMA Only)

c. Soil, water and vegetation activities performed in accordance with a conservation plan approved by a county conservation district;

Finding: The project area is located within the Wasco County Soil and Water Conservation District. The project will cross areas designated Gorge Walls and Canyonlands within the GMA Open Space area for approximately 0.53 mile between MP 67.03 and MP 67.18, MP 67.22 and MP 67.32, and MP 67.74 and MP 68.02. The project will require grading activities and minor vegetation removal within this area, resulting in approximately 0.08 acres of temporary impacts and 2.99 acres of permanent impacts. UPRR is coordinating with the Wasco County Soil and Water Conservation District to develop an individual conservation plan to minimize impacts in this area. The final approved conservation plan will be provided to Wasco County prior to the start of construction. Therefore, the project will comply will this provision.

E. Special Management Area – Open Space

1. The primary managing agency for open space areas for the SMA shall prepare an open space management plan. The management plan shall be completed prior to any new land uses or development, and shall be reviewed by the Forest Service.

2. The open space management plan shall include the following:

a. Direction for resource protection, enhancement, and management.

b. Review of existing uses to determine compatibility with open space values.

c. Consultation with members of the public, and agency and resource specialists.

Finding: The project consists of infrastructure improvements to a pre-existing serviceable structure consistent with the definition provided in NSA-LUDO Section 1.200, and may include lighting and signage within the SMA Open Space zone, as necessary to satisfy federal rail safety standards. The project is not considered a new land use or development, therefore will not be required to develop an open space management plan prior to construction pursuant to Section 3.180(C).

The project will, however, follow the guidelines associated with resource protection, enhancement, and management provided in the *Columbia River Gorge Management Unit Master Plan* (1994) for the portion of the project zoned SMA Open Space within the boundary of Memaloose State Park.

G. Property Development Standards

2. General Setbacks – all structures other than approved signs and fences shall comply with the following general setback standards:

Front Yard	*25 feet*
Interior Side Yard	*15 feet*
Exterior Side Yard	*20 feet*
Rear Yard	*20 feet*

Finding: The project consists of infrastructure improvements to an existing track primarily within existing railroad ROW. Setback provisions are generally put in place to address residential, commercial, and industrial development, and are not consistent with the nature of road, railroad or utility ROWs. All structures associated with the proposed project, including mainline track, signal buildings, and lighting, will be located greater than 25 feet from property boundaries, in order to satisfy federal rail safety standards. Therefore, the project will comply with this provision.

4. Height – Maximum height for all structures shall be thirty-five feet (35') unless further restricted in accordance with Chapter 14 – Scenic Area Review.

Finding: Up to five new signal buildings will be constructed to support operations along the second mainline track, one of which will be located in the GMA OS zone, and one will be located in the SMA OS zone. Each of these signal buildings will be approximately 9 feet in height. The project will also include installation of standard railroad signage, signal lights, and in-kind guardrail extensions along I-84. Signage will generally be posted at an approximate height of 10 feet. Lighting will consist of approximately ten 22-foot-tall combination signal lights. No additional aboveground structures are proposed. Therefore, the project will comply with this provision.

6. Floodplain: Any development including but not limited to buildings, structures or excavation, proposed within a FEMA designated flood zone, or sited in an area where the Planning Director cannot deem the development reasonably safe from flooding shall be subject to Section 3.240, Flood Hazard Overlay.

Finding: Segments of the project are located in flood-prone areas. Figure 5-9 (see Appendix A) shows the locations where the proposed second mainline track will cross floodplains. The project includes approximately 0.30 mile located within the floodplain in the OS SMA zone. The project will therefore comply with Section 3.240, Flood Hazard Overlay.

Section 3.200 Environmental Protection District

Section 3.210 Divisions

This district consists of several overlay divisions that provide additional development standards or special processes for development in protected areas.

A. Division 1 – Flood hazard overlay

B. Division 2 – Geological hazards overlay

Finding: Segments of the project are located in the Environmental Protection District. The Environmental Protection district consists of two divisions; Division 1 – Flood hazard overlay, and Division – 2 Geological hazards overlay. Figure 5-9 (see Appendix A) shows the locations where the proposed second mainline track will cross the Division 1 – Flood hazard overlay. The project area does not cross a Division 2 – Geological hazards overlay; the nearest geological hazard overlay areas are located approximately 300 feet south of MP 68.6, and approximately 180 feet south of the eastern signal building location. The project will therefore comply with Section 3.240, Flood hazard overlay but will not require further evaluation under Section 3.250, Division 2 – Geological hazards overlay.

Section 3.240 Division 1 – Flood Hazard Overlay

Segments of the project are located in flood-prone areas. Figure 5-9 (see Appendix A) shows the locations where the proposed second mainline track will cross the Federal Emergency Management Agency (FEMA) 100-year floodplain. Table 5-1 identifies the length of project portions within the FEMA 100-year floodplain. The total project length within the NSA and outside of the designated Urban Area (approximately 3.58 miles) includes approximately 0.78 mile located within the FEMA 100-year floodplain. The project will, therefore, comply with Section 3.240, Flood Hazard Overlay.

B. Applicability

1. *Lands to which this Chapter Applies:*

    a. *This chapter shall apply to all Areas of Special Flood Hazards within the jurisdiction of Wasco County.*

    b. *Although Wasco County holds and utilizes the official Flood Insurance Rate Maps (FIRMs) supplied by FEMA, there is no Flood Insurance Study (FIS) for the County. This FIS typically provides the detailed information and cross sections necessary to establish the Base Flood Elevation in a given area. For that reason, the Area of Special Flood Hazard as shown on the FEMA FIRMs is only an approximation of the floodplain boundary. Without the FIS, the Director may require additional information to determine that a proposed development, which may appear to be located outside of an Area of Special Flood Hazard based on the FIRMs, is in fact reasonably safe from flooding as required by Section 3.242.B – Duties and Responsibilities of the Planning Director. In a situation where the Director determines that it is unclear if a proposed development lies in or out of the Area of Special Flood Hazard, it shall be the responsibility of the applicant to provide the Base Flood Elevation for the property using FEMA approved methodologies.*

2. *Basis for Establishing the Areas of Special Flood Hazard: The Areas of Special Flood Hazards identified by the Federal Insurance Administration on its Flood Insurance Rate Map (FIRM), dated September 24, 1984, and any revision thereto, is adopted by reference and declared to be a part of this Ordinance. The Flood Insurance Rate Map is on file at the Wasco County Planning and Development Office.*

Finding: Segments of the project are located in flood-prone areas as identified in Table 5-1 and shown in Figure 5-9 (see Appendix A). Figure 5-9 and the calculations provided in Table 5-1 were determined using the official Flood Insurance Rate Maps (FIRMs) supplied by FEMA (FEMA, 1984). UPRR acknowledges that there is no Flood Insurance Study (FIS) for Wasco County and that the Area of Special Flood Hazard as shown on the FEMA FIRMs is only an approximation of the floodplain boundary. No structures proposed will be inhabited, and UPRR will continue to operate under federal rail safety standards as they apply to flood hazards. UPRR further acknowledges that the Director may require additional information to determine that the proposed project is reasonably safe from flooding as required by Section 3.242(B). Therefore, the project will comply with the applicable provisions of Section 3.240(B).

TABLE 5-1
Portions of the Project Within the 100-Year Floodplain

NSA Land Use Designation	Begin Milepost	End Milepost	Crossing Length (miles)
Open Space (SMA)	71.41	71.71	0.30
Public Recreation (SMA)	71.71	72.19	0.48
		Total	**0.78**

Source: FEMA, 1984.

5.3.4 Chapter 4—Supplemental Provisions

This section demonstrates compliance with additional standards applicable to development in all zoning districts within the NSA.

Section 4.010 Maintenance of Open Space

No lot area, yard, or other open space existing on or after the effective date of this Ordinance shall be reduced below the minimum required for it by this Ordinance, and no lot area, yard, off-street parking and loading area or other open space which is required by this Ordinance for one use shall be used as the required lot area, yard or other open space for another use. This section does not apply to area requirements reduced below the minimum as a result of the creation of cemetery lots. Any required yard shall not include any land dedicated, reserved or set aside for road, highway, street or other public purposes except as provided in this Ordinance.

Finding: The project consists of an infrastructure improvement to an existing railroad mainline, and includes a minor ROW acquisition in one area, consisting of two unique parcels along the project alignment in order to satisfy federal rail safety standards (see Figure 4-2 in Appendix A). The ROW acquisition will be added to the existing UPRR ROW and will occur along parcel edges in all instances. No new lots will be created. Required minimum open space would be maintained for all parcels affected by the proposed ROW acquisition pursuant to NSA-LUDO code provisions. Therefore, the project complies with this criterion.

TABLE 5-2
Parcels Affected by Proposed ROW Acquisition

Affected Parcel	Zoning Designation(s)	Existing Lot Size (acre)	Proposed Size of ROW Acquisition (acre)	Lot Size Following Project Acquisition (acre)
3N 12E 31 800	SMA OS SMA PR	18.35	0.19	18.16
3N 12E 0 100	SMA PR	171.47	2.53	168.94

Section 4.030 Vision Clearance

A vision clearance area shall be maintained on the corners of all property at the intersection of two streets or a street and a railroad.

A. A vision clearance area shall consist of a triangular area, two sides of which are lot lines measured from the corner intersection of the street lot lines for a distance specified in the appropriate zone, or, where the lot lines have rounded corners, the lot lines extended in a straight line to a point of intersection and so measured, and the third side of which is a line across the corner of the lot joining the non-intersecting ends of the other two sides.

B. A vision clearance area shall contain no planting, fence, wall, structure, or temporary or permanent obstruction exceeding two and one-half (2 1/2) feet in height, measured from the top of the curb or, where no curb exists, from the established street center line grade, except that trees exceeding this height may be located in this area removed to a height of eight (8) feet above the grade.

C. The following measurements shall establish vision areas:

1. In an agricultural or residential zone, the minimum distance shall be thirty (30) feet, or, at intersections including an alley, ten (10) feet.

2. In all other zones where yards are required, the minimum distance shall be fifteen (15) feet or, at intersections including alley, ten (10) feet, except that when the angle of intersection between streets, other than an alley, is less than thirty (30) degrees, the distance shall be twenty-five (25) feet.

Finding: UPRR acknowledges the vision clearance requirements and can demonstrate compliance through the final design documents for the project, which will be submitted to the County prior to initiation of construction. Therefore, the project will comply with this provision.

Section 4.120 Traffic Impact Analysis (TIA)

C. When Required – A Traffic Impact Analysis shall be required to be submitted to the County with a land use application when the following conditions apply:

1. The development application involves one or more of the following actions:

b. Any proposed development or land use action that ODOT states may result in operational or safety concerns along a state highway; and

c. The development shall cause one or more of the following effects, which can be determined by field counts, site observation, traffic impact analysis or study, field measurements, crash history, Institute of Transportation Engineers Trip Generation manual; and information and studies provided by the local reviewing jurisdiction and/or ODOT:

(1) An increase in site traffic volume generation by 200 Average Daily Trips (ADT) or more (or as required by the Wasco County Roadmaster); or

(2) An increase in intersection traffic volume by 50 Average Daily Trips (ADT) or more (or as required by the Wasco County Roadmaster); or

(3) An increase in use of adjacent roads by vehicles exceeding the 20,000 pound gross vehicle weights by 10 vehicles or more per day; or

Finding: During the project design phase, UPRR coordinated with ODOT District 9 Manager, Pat Cimmiyotti and confirmed that ODOT did not foresee any potential for operational or safety concerns associate with the project. UPRR incorporated minor changes to the project area and access adjacent to I-84 based on ODOT's comment, following which ODOT indicated they had no further concerns regarding potential increased site traffic volume, intersection traffic, or use of adjacent roads, and indicated that a TIA is not required (ODOT, Personal communication, 2014). UPRR also consulted the Wasco County Roadmaster, Marty Matherly, who indicated he had no concerns or foresaw any potential impacts to roads under the County's jurisdiction (Wasco County, Personal communication, 2014a).

During operation, an average of one to two maintenance vehicles per month will access the project site using existing access roads along the project's corridor. Two 10-foot-wide permanent access roads will be established to provide maintenance access to the existing rail and new second mainline track. The first will be located at the western side of the project at MP 66.98 from eastbound I-84 to the proposed second mainline. A break in the guardrail will be required to facilitate this access road, however, no improvement to the road shoulder and existing ROW will be required. The second access point will be located within

Memaloose State Park at approximately MP 71.79. This complete road length will total approximately 0.6 mile, and will use an existing travel corridor for much of the route (see Figure 4-1). The majority of this road is currently paved and will not require additional upgrades to support maintenance equipment. Maintenance activities will not result in an impact to the flow of traffic. Accordingly, site traffic related to operational maintenance will not exceed site traffic volumes designated in NSA-LUDO 120(C)(1)(c).

Temporary traffic delays may occur during construction along portions of I-84; however, these delays will be brief and construction flaggers will be onsite to safely direct traffic as needed. Therefore, UPRR will comply with the provisions of NSA-LUDO Section 4.120 and Section 303(c) DOT Act (49 CFR 303).

5.3.5 Chapter 5—Conditional Use Review

This section demonstrates compliance with the applicable conditional use provisions from Chapter 5 of the NSA-LUDO.

Section 5.020 Authorization to Grant or Deny Conditional Uses, and Standards and Criteria Used

Conditional uses listed in this Ordinance shall be permitted, enlarged or otherwise altered or denied upon authorization by Administrative Action in accordance with the procedures set forth in Chapter 2 of this Ordinance. In judging whether or not a conditional use proposal shall be approved or denied, the Administrative Authority shall weigh the proposal's appropriateness and desirability or the public convenience or necessity to be served against any adverse conditions that would result from authorizing the particular development at the location proposed, and to approve such use, shall find that the following criteria are either met, can be met by observance of conditions, or are not applicable.

A. The proposal is consistent with the goals and objectives of the Management Plan for the Columbia River Gorge National Scenic Area, and consistent with the provisions of the County's implementing ordinances.

Finding: This application demonstrates consistency with the applicable provisions of the County's implementing ordinances (Section 5.3 of this narrative), and the applicable goals and objectives of the Management Plan for the Columbia River Gorge National Scenic Area (Section 5.4 of this narrative).

B. Taking into account location, size, design and operational characteristics of the proposed use, the proposal is compatible with the surrounding area and development of abutting properties by outright permitted uses.

Finding: The portion of the project within the NSA and outside of a designated Urban Area is approximately 3.58 miles of second mainline track along the existing Portland Subdivision between approximately MP 66.98 and 72.35 (see Figure 1-2). This portion of second mainline track will support a pre-existing use that in many cases pre-dates surrounding area development. Furthermore, as described below, the project will not only be compatible with the surrounding area and development of abutting properties but will improve existing conditions associated with railroad operations.

As discussed in Sections 2 and 3, the location, size and design of the project are the minimum necessary to improve the operational efficiency and fluidity of train movements in this area, while maintaining safe operating conditions. The project will relieve the existing operational bottleneck by decreasing the number of delayed or stopped trains, reducing barriers to industry-standard train lengths, and improving the efficiency and fluidity of train movements in this area, while maintaining safe operating conditions. UPRR strategically selected the project location, size, and design to improve the operational efficiency of train movement through the Portland Subdivision, while minimizing impacts to environmental resources.

The project location, size, design and operational characteristics are consistent with the pre-existing mainline track and associated ROW along the same corridor and will continue to be compatible with properties abutting UPRR's existing ROW, which consist primarily of open space and agricultural land uses, as well as other transportation and utility corridors. The primary element of the proposed project is installation of a second mainline track within the UPRR ROW. The centerline of the new track will generally

be located 15 feet from the centerline of the existing single track, and the new tracks will be constructed at grade on a ballast rock base. One retaining wall approximately 170 feet in length and 25 feet in height is proposed between MP 71.27 and MP 71.30 in order to minimize the rock excavation required to construct the second mainline track. The proposed retaining wall location is not readily visible from adjacent properties or any KVAs, and will be constructed with a basalt rock façade in order to mimic the existing rock face minimize and potential visual effects. Refer to Detail 11 of Appendix B for an example of the proposed rock wall covering. No other new structures, support facilities and utilities or development materials (e.g., riprap, ballast rock, etc.) will be introduced within the NSA that are not currently included as part of the existing mainline track.

The proposed second mainline track expansion uses the existing short siding near the City of Mosier and the existing previously disturbed UPRR ROW to the greatest extent possible to reduce impacts to surrounding properties. Outright permitted uses abutting the project area can continue to occur and develop as they have with the existing mainline track and ROW. Furthermore, not only is construction of the project compatible with existing uses, it will have the added benefit of improving existing noise, emissions, and safety conditions for surrounding landowners, particularly for properties adjacent to the Urban Area boundary for the City of Mosier. This is because the project will eliminate train idling in the vicinity of the City of Mosier as described in Section 2 above. Therefore, the project complies with this provision.

C. The proposed use will not exceed or significantly burden public facilities and services available to the area, including, but not limited to: roads, fire and police protection, sewer and water facilities, telephone and electrical service, or solid waste disposal facilities.

Finding: The proposed project includes improvement of the existing rail system and will not affect public facilities and services. The project will not increase use of sewer and water facilities, telephone and electrical service, or solid waste disposal facilities. The proposed project will not burden fire and police protection any more than what is needed by the current rail line. Utility lines may need to be removed and replaced in several locations along the project alignment to accommodate construction activities. No new utility lines will be developed as a part of this project.

During construction, vehicles and equipment will mainly access the project site using existing access roads and shoulders along the project alignment. Should impacts to public roads occur, roads will be restored to their previous condition following construction. During operations, road impacts will be negligible. The project, therefore, complies with this provision.

D. The proposed use will not unduly impair traffic flow or safety in the area.

Finding: During the project design phase, UPRR coordinated with ODOT District 9 Manager, Pat Cimmiyotti, to ensure that ODOT did not foresee any potential for operational or safety concerns associate with the project. UPRR incorporated minor changes to the project area and access adjacent to I-84 based on ODOT's comment, following which ODOT indicated they had no further concerns regarding potential increased site traffic volume, intersection traffic, or use of adjacent roads, and indicated that a TIA is not required (Personal communication, ODOT, 2014). UPRR also consulted the Wasco County Roadmaster, Marty Matherly, who indicated he had no concerns or foresee any potential impacts to roads under the County's jurisdiction (Wasco County, Personal communication, 2014a).

During operation, maintenance vehicles will primarily access the project site using existing access roads along the project's corridor at an average rate of one to two vehicles per month. Two 10-foot-wide permanent access roads will be established to provide maintenance access to the existing rail and new second mainline track. The first will be located at the western side of the project at MP 66.98 from eastbound I-84 to the proposed second mainline. A break in the guardrail will be required to facilitate this access road; however, no improvement to the road shoulder and existing ROW will be required. The second access point will be located within Memaloose State Park, at approximately MP 71.79. This complete road length will total approximately 0.6 mile, and will use an existing travel corridor for much of the route (see

Figure 4-1). The majority of this road is currently paved and will not require additional upgrades to support maintenance equipment. Maintenance activities will not result in an impact to the flow of traffic. Accordingly, site traffic related to operational maintenance will not exceed site traffic volumes designated in NSA-LUDO 120(C)(1)(c).

Temporary traffic delays may occur during construction along portions of I-84; however, these delays will be brief and construction flaggers will be onsite to safely direct traffic as needed. Construction traffic will be relatively minor due to the duration of the construction schedule. This traffic will consist of the construction crews traveling to and from the construction site(s) and staging areas. More than one construction crew might be working at various locations along the project route at the same time. Construction materials will be delivered along the route by truck using access roads. Trucks, cranes, and other needed equipment will also travel to the site on a daily basis.

Construction impacts will be temporary for the period of construction. During operations, traffic impacts will be negligible. Maintenance and repair vehicles may be required to access the project along the corridor from a public roadway, but potential impacts will be isolated and temporary. Therefore, the project complies with this provision and with Section 303(c) DOT Act (49 CFR 303).

E. The effects of noise, dust and odor will be minimized during all phases of development and operation for the protection of adjoining properties.

Finding: The effects of noise, dust and odor will be minimized during all phases of construction and operation of the project for protection of adjoining properties. In Oregon, ODEQ regulates noise; however, ODEQ does not regulate construction noise per Oregon Administrative Rule (OAR) 340-035-0035(5)(g). During construction, noise will be generated from construction equipment, but noise levels will be consistent with other heavy construction projects. Any increase in noise level from construction activities will be temporary, will take place during designated construction hours, and will comply with applicable railroad standards, as federally regulated by Title 49 CFR Part 210. Noise generated during operation of the project will not be greater than noise levels currently generated by use of the existing mainline track. Railroad operations are currently and will continue to be required to meet applicable federal regulations.

Limited dust may be generated by construction equipment during construction, primarily during grading activities. Fugitive dust associated with construction vehicles will be minimized through the use of BMPs, including dust suppression and limiting the duration of exposed soil. During operations, any effects related to fugitive dust from trains and maintenance vehicles will be negligible. No significant odors will be generated during project construction or operation. Therefore, the project complies with this provision.

F. The proposed use will not significantly reduce or impair sensitive wildlife habitat, riparian vegetation along streambanks and will not subject areas to excessive soil erosion.

Finding: The project will not significantly reduce or impair sensitive wildlife habitat, riparian vegetation along streambanks and will not subject areas to excessive soil erosion. UPRR completed a Special-status Species Plant Survey and Habitat Mapping Report (see Appendix J) which includes field surveys covering all areas affected by the proposed project. Habitat and riparian vegetation affected during development of the project will be mitigated through restoration onsite and in-kind, or offsite, as described in the Mitigation Plan and the Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan, included as Appendixes D and K, respectively.

All efforts will be made to avoid disturbance to sensitive wildlife and plant areas. If disturbance cannot be avoided, efforts will be employed to minimize disturbance to the maximum extent practicable.

All appropriate BMPs will be employed throughout the construction process and will include the following:

- All tree removal activities will occur between September 1 and March 1 outside the typical nesting period for migratory birds.

- Areas for fuel storage, refueling, and servicing of construction equipment will be located in an upland location.
- Prior to use, all equipment will be cleaned to remove external oil, grease, dirt, or mud.
- Wash sites will be located in upland locations so that dirty wash water does not flow into stream channel or wetlands.
- Erosion control measures will be in place at all times during construction. Construction will not start until all temporary control devices (straw bales, silt fences, etc.) are in place downslope or downstream of project site.

Enhancement and rehabilitation measures will be implemented to compensate for unavoidable impacts to sensitive wildlife and plant areas. Areas of disturbance will be revegetated and restored to natural condition to the maximum extent possible. The purpose of the rehabilitation will be to achieve no net loss of the integrity of the wildlife areas. Revegetation and maintenance practices are addressed in Section 8 of Appendix J, Special-status Species Plant Survey and Habitat Mapping Report.

Section 8 of Appendix J also addresses erosion control. Erosion control measures will include filter bags, sediment fences, silt curtains, sediment traps, or other similar devices; impervious materials to cover stockpiles when unattended or during rainfall; and/or graveled construction access roads. Mats or pallets will be used at wetland accesses if soil compaction is a problem. Erosion control measures are to be implemented until soils are stable. Therefore, the project complies with this provision.

G. The proposed use will not adversely affect the air, water, or land resource quality of the area.

Finding: The project will not adversely affect the air, water, or land resource quality of the NSA area crossed. Limited dust and other air emissions may be present during construction. Dust and other air emissions associated with construction vehicles will be minimized through the use of BMPs including regular dust abatement and use of well-maintained, code-compliant construction equipment. Any detectable air emissions will be minimal, temporary, and related to construction. During operations, any air emissions including fugitive dust from trains and maintenance vehicles will be negligible. No air quality permit is required from ODEQ for either construction or operation of the project.

Construction and operation of the project will result in temporary and permanent impacts to wetlands and waterbodies within the project area. However, these impacts will be mitigated through restoration onsite and in-kind, or offsite, as described in Appendix D, Mitigation Plan. Water quality will also be maintained through use of BMPs described in the Mitigation Plan (Appendix D), and as required by federal permit conditions. BMPs include, but are not limited to, erosion control and spill prevention measures, and limited in-water work windows. Specific examples of erosion control and spill prevention BMPs include but are not limited to:

- Areas for fuel storage, refueling, and servicing of construction equipment must be located in an upland location.
- Prior to use, clean all equipment to remove external oil, grease, dirt, or mud.
- Wash sites must be located in upland locations so that dirty wash water does not flow into stream channel or wetlands.
- Erosion control measures will be in place at all times during construction. Construction will not start until all temporary control devices (straw bales, silt fences, etc.) are in place downslope or downstream of project site.

The project will result in approximately 11.22 acres of temporary impacts, and approximately 19.58 acres of permanent impacts within the project area. These impacts are primarily located within previously disturbed UPRR ROW, and have been minimized to the greatest extent feasible through project design. Land resource

quality in the project area will be maintained through use of BMPs and recommended mitigation described in the Mitigation Plan and the Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan, included as Appendixes D and K, respectively. Therefore, the project complies with this provision.

H. The location and design of the site and structures for the proposed use will not significantly detract from the visual character of the area.

Finding: The location and design of the site and structures for the project will not significantly detract from the visual character of the area. The proposed second mainline track project will be constructed and operated in compliance with relevant scenic review provisions from the NSA-LUDO and the NSA-MP, which are addressed as part of this narrative. The project will be consistent with existing railroad uses in the area and will not drastically contrast with the surrounding landscape.

In designing the project, UPRR has implemented a series of strategies to minimize impacts from development on visual character of surrounding areas. For example, the project was specifically routed adjacent to existing mainline track in an effort to minimize any limitations or impairment of existing adjacent properties and to minimize the expansion of the railroad's footprint. Parallel construction with existing linear ROW corridors (for example, rail and road ROWs, utility corridors, or previously developed areas) was one of the criteria used in designing the project. Parallel, or collocated construction minimizes potential impacts to additional landowners, reduces the need to clear new corridors, lessens potential environmental impact, and minimizes impacts to the visual character of the area.

The majority of the proposed second mainline project will be sited and constructed at grade along the existing Portland Subdivision between approximately MP 66.98 and 72.35 (see Figure 1-2). The proposed project consists of infrastructure improvements to an existing track and will not significantly detract from the visual character of the area. The project will be consistent with existing railroad uses in the area will not noticeably contrast with the surrounding landscape.

The visual resources analysis presented in Section 5.2 of this narrative provides a systematic review of the existing landscape conditions along the UPRR ROW where the additional track that is the primary feature of the proposed project would be developed, and also provides an assessment of the visibility and visual effects of the proposed project features. This analysis establishes that the visual changes that would be brought about by the project would have the potential to be visible in views from five KVAs (I-84, SR-14, Old Washington State Route 14/Klickitat County Route 1230, the Columbia River, and Historic Columbia River Highway and Trail). It also establishes that in many of the views from these areas, the visual changes would not be visually evident (Figures 5-3, 5-4, 5-5, and 5-8). In views in which the visual changes may be more visually evident (Figures 5-2, 5-6, and 5-7) the project features would be visually consistent with existing landscape features, would be visually subordinate to the surrounding landscape, and would not substantially detract from overall visual character of the project area. Therefore, the project complies with this provision. Further discussion of the project's effects on views from the KVAs is provided in NSA-LUDO Section 14.200(A), below.

I. The proposal will preserve areas of historic value, natural or cultural significance, including archaeological sites, or assets of particular interest to the community.

Finding: The project will preserve areas of historic value, natural or cultural significance, including archaeological sites, or assets of particular interest to the community. UPRR has implemented measures to identify, avoid, and minimize impacts to historic and archaeological sites. Specifically, UPRR complies with the Cultural Resource Reconnaissance and Historic Survey Requirements in NSA-LUDO Sections 14.500 and 14.510 by identifying and preserving areas of historic value, natural or cultural significance, including archaeological sites, or assets of particular interest to the community.

UPRR also conducted a cultural resource investigation along the proposed route through the NSA. A conservative 1-mile study corridor around the mainline track centerline was examined during a records review and all areas where grading or ground disturbance are anticipated were field surveyed on April 30

through May 1, 2013 (see study corridor in Figure 1-1 of Appendix L). All undeveloped parcels that UPRR had right-of-entry agreements to survey were examined during these cultural resource surveys. The resulting *Cultural Resources Survey Union Pacific Railroad Second Mainline Track Project Wasco County, Oregon* (Appendix L; Cultural Resources Survey Report) report concludes that because no cultural resources were uncovered in their efforts through the NSA in Wasco County, no further pre-construction archaeological work is recommended for the project. Specifically, the project area does not include cultural resources eligible for inclusion in the National Register of Historic Places (NRHP) based on criteria provide in NSA-LUDO Section 14.500(D)(a)(1-4). Three cultural resources were identified and recorded during the 2014 cultural resources surveys, however all three resources are recommended not eligible for listing in the NRHP. Therefore, it is anticipated the proposed project will have no effect on identified cultural resources or historic properties. A detailed description of the cultural resource investigation is included in the findings associated with NSA-LUDO Sections 14.500 and 14.600, as well as the Cultural Resources Survey Report provided as Appendix L.

In the event of an unanticipated discovery of prehistoric or historic period cultural materials, a standard unanticipated discovery procedure will be implemented. This will generally consist of construction within the immediate vicinity of the discovery will stop, and the area will be secured to protect the resource from damage. A qualified archaeologist will then document the find by preparing a brief written statement and taking photographs. This documentation will be submitted to the Oregon State Historic Preservation Office (SHPO), and work within the immediate vicinity of the find will not resume until a preservation plan is approved in coordination with SHPO. Therefore, the project complies with this provision.

For properties located within or adjacent to farm or forest zones, or located nearby agricultural and forest operations, the following shall apply:

J. The proposed use is compatible with agricultural uses and will not force a change in, or significantly increase the cost of accepted farm or forest practices on surrounding lands devoted to, or available for, farm or forest use.

Finding: The project is compatible with agricultural uses and will not force a change in, or significantly increase the cost of accepted farm or forest practices on surrounding lands devoted to, or available for, farm or forest use. The project will not cross any existing forest land or land zoned for forest uses. The project will temporarily impact 0.24 acres and permanently impact 6.05 acres of land zoned for agricultural uses; however, the entirety of this area consists of existing, disturbed railroad or road ROW, not currently or historically used for agricultural cultivation. The project was specifically routed to parallel the existing mainline track in an effort to limit alteration of existing land use patterns. Parallel construction primarily within the existing UPRR ROW reduces clearing of new rail corridors and avoids impacts to adjacent agricultural landowners. Existing agricultural practices will be allowed to continue adjacent to the UPRR ROW following construction. Due to the minimal amount of existing agriculturally-zoned area crossed by the project and parallel routing next to the existing mainline track, significant increases in the cost of farming practices will not occur. Therefore, the project complies with this provision.

K. The proposed use or development will be sited in such a way as to minimize the loss of forest or agricultural land suitable for the production of crops or livestock and to minimize the chance of interference and not force a change in accepted farm or forest practices on surrounding lands devoted to, or available for, farm or forest use.

Finding: The project has been sited in such a way as to avoid the loss of forest or agricultural land suitable for the production of crops or livestock and to avoid the chance of interference and not force a change in accepted farm or forest practices on surrounding lands devoted to, or available for, farm or forest use. The project will not cross any existing forest land or land zoned for forest uses. The project will temporarily impact 0.24 acres and permanently impact 6.05 acres of land zoned for agricultural uses; however, the entirety of this area consists of existing, disturbed railroad ROW, not currently or historically used for agricultural cultivation. The project was specifically routed to parallel the existing mainline track in an effort

to limit alteration of existing land use patterns. Parallel construction primarily within the existing UPRR ROW reduces clearing of new rail corridors and avoids impacts to adjacent agricultural landowners. Existing agricultural practices will be allowed to continue adjacent to the UPRR ROW following construction. Due to the minimal amount of existing agriculturally-zoned area crossed by the project and parallel routing next to the existing mainline track, interference or changes to accepted farming practices have been avoided. Therefore, the project complies with this provision.

L. The use or development will not significantly increase fire hazard, fire suppression costs or risks to fire suppression personnel.

Finding: The project will not significantly increase fire hazard, fire suppression costs, or risks to fire suppression personnel. All federal, state, and county laws, ordinances, rules, and regulations pertaining to fire prevention, pre-suppression, and suppression will be adhered to. All construction personnel will be advised of their responsibilities under the applicable fire laws and regulations. The construction contractor will notify the local fire district if a construction-related fire occurs.

The construction contractor will be responsible for any fire started by its employees or operations, whether in or out of the project area, and will be responsible for fire suppression and rehabilitation. Specific safety measures will be implemented during project construction to prevent fires and to ensure quick response and suppression in the event a fire occurs. During construction, materials will be staged appropriately for use and will not create a hazard. Any wastes generated during construction will be removed from the project area as quickly as is practicable in a manner that does not generate hazards.

During operations, no equipment or materials will be stored along the corridor. Any wastes generated during maintenance and repair activities will be removed from the project area in a manner that does not create any hazards. The proposed project will not burden fire and police protection any more than what is needed by the current rail line.

Therefore, the project complies with this provision.

M. A declaration shall be signed by the landowner and recorded into county deeds and records specifying that the owners, successors, heirs and assigns of the subject property are aware that adjacent and nearby operators are entitled to carry on accepted agriculture or forest practices on lands designated Large-Scale or Small-Scale Agriculture, Agriculture-Special, Commercial Forest Land, or Large or Small Woodland.

Finding: UPRR is and will continue to be the sole landowner for the existing ROW and new ROW used for the project. Adjacent and nearby operators on lands designated as Large-Scale or Small-Scale Agriculture, Agriculture-Special can continue to carry on with accepted agricultural practices. There are no lands adjacent to the project area that are designated as Commercial Forest Land, or Large or Small Woodland. ROW and easement agreement negotiation will ensure that adjacent landowners can continue farming or agricultural practices on appropriately designated areas. Therefore, the project will comply with this provision.

Section 5.050 Criteria for Certain Transportation Facilities and Improvements

A. Construction, reconstruction, or widening of highways, roads, bridges or other transportation facilities that are (1) not designated in the adopted Wasco County Transportation System Plan ("TSP") or (2) not designed and constructed as part of an approved, active, development order, are allowed in all zoning districts subject to the Conditional Use Review provisions of this ordinance and satisfaction of all of the following criteria:

Finding: The existing UPRR mainline track is a designated rail service in the Wasco County Transportation System Plan (TSP) adopted July 2009. The TSP is developed to anticipate and accommodate transportation system development and growth over a 20-year period. The project consists of infrastructure improvements to a pre-existing serviceable structure consistent with the definition provided in NSA-LUDO Section 1.200.

The expansions will occur along existing railroad track primarily within existing railroad ROW. The project includes ancillary structures, lighting, signage, and a minor ROW acquisition along the project alignment necessary to satisfy federal rail safety standards (see Figure 4-1 in Appendix A). The project is consistent with the existing railroad use in the area and will not be incompatible or further impact properties abutting UPRR's existing ROW. Section 5.2 provides additional detailed descriptions of the abutting properties and uses surrounding the project area.

As shown in the Wasco County TSP, Wasco County contains part of the UPRR east-west mainline track. This portion of the UPRR mainline track provides the most direct connection from the Pacific Northwest to the Overland Route via Pocatello, Idaho and Cheyenne, Wyoming (Wasco County TSP, 2009). The adopted Wasco County TSP does not identify project-specific design standards consistent with rail service in the project area. However, the Wasco County TSP states that Wasco County "is committed to working with all rail operators and recognizing future changes or opportunities needed to maintain the existing system for the next 20 years."

The purpose of State Transportation Planning Rule (TPR) is to support safe, convenient, and economic transportation systems that "Facilitate the safe, efficient and economic flow of freight and other goods and services within regions and throughout the state through a variety of modes including road, air, rail and marine transportation (OAR 660-012-0000(d))."

In addressing consistency with the TSP and the TPR, the purpose of this project is to improve operational efficiency of train movement along UPRR's existing mainline track near the City of Mosier while maintaining safe operating conditions. As discussed in Sections 2 and 3, the project is needed to correct the operational constraints that result from the existing railroad infrastructure between MP 66.98 and MP 72.35. UPRR conducted an extensive network operational review to identify the nature and cause of operational inefficiencies along the route. The Mosier Siding is the shortest siding on the entire 206-mile Subdivision and can accommodate the lengths of only about half the trains that run on the Subdivision. The short Mosier Siding does not allow for trains traveling in opposite directions to pass one another efficiently and trains traveling in one direction must move off the mainline and stop on the siding to allow the train coming from the opposite direction to pass safely and efficiently. The project will relieve this bottleneck by decreasing the number of delayed or stopped trains, reducing barriers to industry-standard train lengths, and improving the efficiency and fluidity of train movements in this area, while maintaining safe operating conditions. Upon project approval, the project will be designed and constructed as part of a Wasco County approved developed order. Therefore, the project is designated and consistent with the County's adopted TSP and with OAR 660-012-0000(d) and complies with the applicable provisions of NSA-LUDO Section 5.050(A).

5.3.6 Chapter 6—Variances from Building Heights, Slope, Setbacks and Buffers

Section 6.010 Purpose

A. When building height, setbacks, buffers or other review criteria specified in this Ordinance for protection of scenic, cultural, natural, recreational, agricultural or forestry resources overlap or conflict, building height, setbacks, or buffers should be varied in a manner to achieve, to the greatest extent possible, the overall protection of the affected resources.

Finding: UPRR acknowledges that should review criteria overlap or conflict, the chosen criteria should be that which achieves the greater degree of resource protection.

Section 6.020 Criteria for Decision

A. Authority

1. Administrative Variance

The request shall be for a variance to a building height, setback or buffer which is less than 50% of the stated standard for the building height, setback or buffer as stated in this ordinance.

2. *Planning Commission Variance*

   The request shall be for a variance to a building height, setback or buffer which is 50% or greater of the stated standard for the building height, setback or buffer as stated in this ordinance.

Finding: UPRR acknowledges that a variance request that is 50% or greater of the stated standard contained in the NSA-LUDO requires a Planning Commission variance and Type III Quasi-Judicial approval from the Wasco County Planning Commission. UPRR requests that the County grant the following variances:

1. Planning Commission variance to the Columbia River development setback standards contained in NSA-LUDO Section 14.200(G).
2. Planning Commission variance to the Scenic Travel Corridor (I-84) setback standard contained in NSA-LUDO Section 14.300(B)(2).
2. Planning Commission variance to the wetland buffer standards contained in NSA-LUDO Section 14.600(A)(3)(c).
3. Planning Commission variance to the sensitive plant buffer zones contained in NSA-LUDO Section 14.600 (D)(3).

B. When building height, setbacks or buffers specified in the standards for protection of scenic, cultural, natural, recreational, agricultural or forestry resources overlap or conflict, the building height, slope setbacks or buffers may be varied upon a demonstration that: (GMA Only)

1. *A building height, setback or buffer specified in this Ordinance to protect one resource would cause the proposed use to fall within a setback or buffer specified in this ordinance to protect another resource; and*
2. *Variation from the specified building height, setbacks or buffer would, on balance, best achieve the protection of the affected resources.*

Finding: The proposed project has been designed and sited to utilize primarily the existing, previously disturbed ROW in order to minimize the project footprint and its impacts on scenic, cultural, natural, recreational, and agricultural resources to the greatest extent feasible. Avoidance of the Scenic Travel Corridor setback of 100 feet, and the Columbia River development setback of 100 feet in the GMA and 200 feet within the SMA would require construction of an entirely new railroad corridor and result in significantly greater impacts to all resource areas and their associated buffer areas. Due to the pre-existing, linear nature of the railroad, avoidance of all wetland and sensitive plant buffer areas would render the project unbuildable and impracticable. The proposed project's use of the existing ROW for the majority of the project alignment will best achieve the protection of affected resources. Therefore, the project complies with these provisions.

D. All setbacks and buffer zones in the SMA shall remain undisturbed unless:

1. *It has been shown that no practicable alternatives exist, as evidenced by completion of a practicable alternative test; and*

Finding: The project will require temporary and permanent impacts within natural resource buffer zones in the SMA. The project meets the criteria of having no practicable alternative, as evaluated in the Findings for NSA-LUDO Section 14.610(D). Therefore, the project complies with this provision.

2. *The natural resources mitigation plan completed in accordance with Chapter 14 of this ordinance ensures that the development can be mitigated to ensure no adverse effects would result.*

Finding: A Mitigation Plan[2], and a Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan have been prepared in accordance with Chapter 14 of the NSA-LUDO, and are included as Appendix D and Appendix K, respectively. The plans includes avoidance and minimization measures to ensure no adverse effects to natural resources will occur. These measures will be employed throughout the construction process and will include the following:

- All tree removal activities will occur between September 1 and March 1 outside the typical nesting period for migratory birds.
- Areas for fuel storage, refueling, and servicing of construction equipment will be located in an upland location.
- Prior to use, all equipment will be cleaned to remove external oil, grease, dirt, or mud.
- Wash sites will be located in upland locations so that dirty wash water does not flow into stream channel or wetlands.
- Erosion control measures will be in place at all times during construction. Construction will not start until all temporary control devices (straw bales, silt fences, etc.) are in place downslope or downstream of project site.

Enhancement and rehabilitation measures will be implemented to compensate for unavoidable impacts to natural resources. Areas of disturbance will be revegetated and restored to natural condition to the maximum extent possible. The purpose of the rehabilitation will be to achieve no net loss of the integrity of the wildlife areas. Rehabilitation measures include seeding of all areas of temporary disturbance, planting of trees and shrubs for re-establishment of temporarily disturbed priority habitats and sensitive wildlife and plant habitats, replanting of special-status plant species removed for construction, and enhancement of existing vegetation communities within or immediately adjacent to the proposed project to compensate for loss of trees or priority habitats. Therefore, the project will comply with this provision.

5.3.7 Chapter 14—Scenic Area Review

Section 14.020 Complete Application Requirements for a Scenic Area Review

A. Application Form Requirements

1. *Project applicant's name and address.*
2. *Property owner's name and address if different than 1 above.*
3. *Location of the proposed use, including township, range, section, and tax lot number.*
4. *A written description of the proposed use, including details on the height, dimensions, exterior color(s), and construction materials of proposed structures.*

Finding: This narrative provides all of the plans, drawings, and information to satisfy these requirements for a complete application. Therefore, the project complies with this provision.

5. *A list of Key Viewing Areas that are visible from the proposed development site and from which the proposed use would be visible.*

Finding: The project area has the potential to be visible from the following designated KVAs, as shown on Figures 5-1 through Figure 5-1C in Appendix A:

- *Highway I-84*

[2] A final mitigation plan will be prepared as a coordinated effort with the project's Clean Water Act 404 application to USACE. This final mitigation plan will be provided to Wasco County prior to completion of the NSA Development Review process.

- *Washington State Route 14*
- *Old Washington State Route 14/Klickitat County Road 1230)*
- *Columbia River*
- *Historic Columbia River Highway and Trail*

A detailed analysis of the existing visual character of the project area and its surroundings, as well as the degree of visibility of the project area from the KVAs listed above, is provided in Section 5.2 of this narrative.

6. *Legal parcel documentation.*

Finding: The project crosses 13 unique Wasco County tax lots. Proof of legal parcel, by way of the last deeds of record for parcels crossed by the project, are included as Appendix I to this narrative. Therefore, the project complies with this provision.

7. *Legal structure documentation. Evidence that a structure was lawfully established shall include the following:*

   a. *Wasco County Assessor records verifying the structure was built prior to 4 September 1974; or*

   b. *Any one of the following:*

      (1) *a valid Oregon State Building Codes permit signed by the Wasco County Planning Department between 4 September 1974 and 17 November 1986; or*

      (2) *a valid Wasco Sherman Health Department septic permit before 1 January 1985; or*

      (3) *a valid Land Use Compatibility Statement signed by the Wasco County Planning Department between 1 January 1985 and 17 November 1986, or*

      (4) *National Scenic Area approval by either the Columbia River Gorge Commission, the USDA Forest Service, or the Wasco County Planning Department, after 17 November 1986, and a valid Oregon State Building Codes permit signed by the Wasco County Planning Department.*

Finding: The existing UPRR Portland Subdivision was constructed in 1882, and is present in Wasco County Assessor records prior to September 4, 1974. Therefore, the project complies with this provision.

8. *Signatures of the owners or authorized representatives.*

Finding: This application is submitted by CH2M HILL, acting as the agent representing UPRR. Written authorization for CH2M HILL to act on behalf of UPRR is included as Appendix F to this submittal. The properties crossed by the project and their respective landowners are identified on Figure 5-2. Two additional landowners, ODOT and OPRD, own property within the proposed project area. UPRR is currently negotiating agreements for temporary construction use and permanent ROW acquisition with these public agencies. This process is ongoing, and UPRR will provide Wasco County with copies of this agreement prior to project construction. UPRR is also obtaining signed landowner consent forms from ODOT and OPRD, and sample forms that are currently under review by ODOT and OPRD are included in Appendix G to this submittal. Complete signature forms will be provided to Wasco County prior to construction. Therefore, UPRR will comply with this provision.

B. Site Plan

A complete site plan shall be submitted for all new development, except for buildings smaller than 60 square feet in area and less than or equal to 10 feet in height, as measured at the roof peak. The site plan shall be prepared at a scale of 1" = 200' or a scale providing greater detail which clearly indicates the following information:

ALL DEVELOPMENT

1. *Boundaries, dimensions, and size of the subject parcel.*
2. *Location, size, and shape, of all existing and proposed buildings and structures on the subject parcel.*
3. *Access: Indicate all existing and proposed points of ingress and egress and whether they are public or private.*
4. *Location, dimensions and method of improvement of all roads, access drives, trails, and parking areas with individual parking spaces and internal circulation patterns.*

Access drives shall be constructed to a minimum of twelve (12) feet in width and not exceed a grade of twelve (12) percent with turnouts provided at a minimum of every five hundred (500) feet.

5. *Location of existing and proposed services, including wells or other water supplies, sewage disposal systems, telephone and power poles and lines. Telephone and power supply systems shall be underground whenever practical.*
6. *The location of the pond, stream, tank or sump with storage of not less than 1,000 gallons if the well or water system is not capable of delivering twenty (20) gallons per minute.*
7. *The location of a standpipe (water spigot) a minimum of fifty (50) feet from each flammable structure if the development includes a plumbed water system.*
8. *Location, size and dimension of all yards and setbacks and all spaces between buildings.*
9. *Lighting: General nature and location (not including interior building lighting).*
10. *Outdoor storage and activities, if permitted in the zone, showing type, location and height of screening devices, including trash and recycling storage locations and their pick up locations.*
11. *Location and depth of all proposed grading, filling, ditching and excavating unless a grading plan is required by F below.*
12. *North arrow and map scale.*
13. *Significant terrain features and landforms.*
14. *Bodies of water and watercourses.*

NON RESIDENTIAL DEVELOPMENT

15. *Signs: Locations, size, height, material and method of illumination.*
16. *Loading: Location, dimensions, internal circulation and access from public right-of-way.*
17. *General locations for all temporary facilities associated with a commercial event.*

Finding: The project is not a typical parcel development for which structures would be shown on a site plan. However, this narrative includes a number of plans and figures that provide the necessary information to demonstrate compliance with NSA-LUDO Section 14.020. The proposed second mainline track alignment sheets provided as Appendix C convey the most information. These plans show construction and operation workspaces, existing and proposed track, proposed access roads, wetland and waterbody crossings, and existing and proposed utilities, including signal lighting. Therefore, this provision is met.

C. *Material Samples – As part of a complete application, material samples for all exterior surfaces of proposed structures shall be submitted. Material samples may be paint samples, stain samples, a piece of the physical construction material, brochures, manufactures specifications, or other material or information that is adequate to represent the final exterior appearance. Samples shall be required for all exterior parts of proposed structure(s) including but not limited to:*

1. *Main*

2. *Trim or Secondary*
3. *Roof. The roof shall be constructed of fire resistant material.*
4. *Window frames, sills, and sashes*
5. *Doors, including garage doors, and*
6. *Hooding for exterior lighting*

Finding: The majority of the proposed second mainline project will be constructed at grade. Material samples showing the color and finish for proposed above-grade project component, including signal buildings, signal lights, and signage, are included in Appendix B to this narrative. Therefore, this provision is met.

D. *Landscaping Plan – A detailed plan for landscaping which shall clearly illustrate: (The landscaping plan may be included on the site plan if there is adequate detail to show all of the required information.)*

1. *The location, height and species of existing trees and vegetation. Indicate which are proposed to be removed. The landscaping plan shall include detailed information to the level of individual trees and groupings of vegetation for the proposed development area and all topographically visible corridors between the proposed development area and Key Viewing Areas. The landscaping information for the remainder of the property may be generalized.*

2. *The location, height and species of individually proposed trees and vegetation groupings.*

Finding: Mitigation of the project's effects to scenic resources, sensitive plants, and wildlife habitat in the project area will entail restoration of vegetation to natural-appearing landscape conditions. The Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan included as Appendix K provides a vegetation restoration plan that satisfies the requirements of the provision, as opposed to the kind of formal landscape plan that would be more appropriate for projects like housing developments, resorts, or commercial facilities.

A figure and list of the location, height and species of existing trees and vegetation is provided in Appendix K, Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan. A list of all potentially occurring sensitive plant species and a list of all plant species observed onsite during the field surveys is provided in Appendix J, Special-Status Species Plant Survey and Habitat Mapping Report. Three special-status plant species were identified and mapped within or adjacent to the study area: Barrett's penstemon (*Penstemon barrettiae*), currant-leaf alumroot (*Heuchera grossularifolia* var. *tenuifolia*), and broadleaf lupine (*Lupinus latifolius var. thompsonianus*). A detailed description of these three special-status plant species is provided in Appendix J.

Direct impacts will occur to three special-status plant species. It is likely that all of the identified special-status plants would be removed during project construction. Any individuals not directly affected by project activities may be indirectly affected by potential dust, pollutants, trampling by humans as a result of project construction or operation.

UPRR will make every effort to avoid disturbance to special-status species and priority habitats. If disturbance cannot be avoided, efforts will be employed to minimize disturbance to the maximum extent practicable. A Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan has been prepared to address unavoidable impacts to special-status plant species and their buffer zones, as well as priority habitats in the GMA and SMA (see Appendix J).

The Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan provides a detailed description of the rehabilitation activities necessary to address the disturbance of special-status plant species within the project area. The purpose of the rehabilitation activities is to revegetate areas of temporary disturbance, enhance altered or degraded plant and wildlife habitat, re-establish populations of special-status plant species, and offset unavoidable impacts that result from project construction activities within sensitive plant buffer zones. Rehabilitation measures include seeding of all areas of temporary disturbance, planting of

trees and shrubs for re-establishment of temporarily disturbed priority habitats and sensitive wildlife and plant habitats, replanting of special-status plant species removed for construction, and enhancement of existing vegetation communities within or immediately adjacent to the proposed project to compensate for loss of trees or priority habitats. Therefore, to the extent that they are applicable, the project complies with these provisions.

3. *Indicate the fifty (50) foot fuel break surrounding each new building and how this area will meet hazardous fuels reduction standards. Irrigated or fire resistant vegetation may be planted within the fuel break. This could include green lawns and low shrubs (less than 24 inches in height). Trees should be spaced with greater than fifteen (15) feet between the crowns and pruned to remove dead and low [less than eight (8) feet] branches. Accumulated leaves, needles, and other dead vegetation shall be removed from beneath trees.*

4. *The location of automatic sprinkler systems or other irrigation provisions to ensure survival of landscape planting for screening purposes.*

Finding: Up to five new signal buildings will be constructed to support operations along the second mainline track. Signal buildings will be located within the UPRR ROW, which will be cleared to meet hazardous fuel reduction standard. No additional new buildings are proposed. No automatic sprinkler systems or irrigation will be required or installed. Therefore, the project complies with these provisions.

E. Elevation Drawing – Elevation drawings shall show the appearance of all sides of proposed structures and shall include natural grade, finished grade, and the geometrical exterior of at least the length and width of structures as seen from a horizontal view. Elevation drawings shall be drawn to scale.

Finding: Detailed engineering and design drawings are included as Appendix C to this narrative, and include elevation drawings which meet the criteria pursuant to NSA-LUDO Section 14.020(E). Therefore, the project complies with this provision.

F. Grading Plan

1. *All applications for structural development, except for trails in the SMA, involving more than 100 cubic yards of grading with slopes greater than 10 percent shall include a grading plan.*

2. *All proposed structural development involving more than 200 cubic yards of grading on sites visible from Key Viewing Areas shall include a grading plan*

3. *All grading plans shall include the following:*

   a. *A map of the site, prepared at a scale of 1 inch equals 200 feet (1:2,400) or a scale providing greater detail, with contour intervals of at least 5 feet, including:*

      (1) *Natural and finished grades.*

      (2) *Location of all areas to be graded, with cut banks and fill slopes delineated.*

      (3) *Estimated dimensions of graded areas.*

   b. *A narrative description (may be submitted on the grading plan site map and accompanying drawings) of the proposed grading activity, including:*

      (1) *Its purpose.*

      (2) *An estimate of the total volume of material to be moved.*

      (3) *The height of all cut banks and fill slopes.*

      (4) *Provisions to be used for compactions, drainage, and stabilization of graded areas. (Preparation of this information by a licensed engineer or engineering geologist is recommended.)*

(5) A description of all plant materials used to revegetate exposed slopes and banks, including the species, number, size, and location of plants, and a description of irrigation provisions or other measures necessary to ensure the survival of plantings.

(6) A description of any other interim or permanent erosion control measures to be used.

Finding: Detailed engineering and design drawings are provided in Appendix C, and include a grading plan that meets the criteria pursuant to NSA-LUDO Section 14.020(F)(3)(a). To provide a serviceable grade for the proposed second mainline track with appropriate geotechnical properties to support train loadings, a structural fill embankment will be constructed of suitable soil and rock material taken from elsewhere on the project site or offsite, and requisite drainage swales will be constructed adjacent to the track embankment to convey stormwater away from the tracks. The construction of the embankment and swales will require approximately 95,000 cubic yards of excavation and 28,000 cubic yards of fill placement with cut slope heights up to 100 feet and fill slope heights up to 30 feet. The embankment shall be constructed so as to achieve compaction necessary to support the track structure (by use of a vibratory drum roller or other methods appropriate to the material). The final grade will be stabilized through the application of a crushed stone surfacing in some areas, placement of riprap in other areas, and establishment of vegetative cover in remaining disturbed areas (see Revegetation Plan including in Appendix K). Therefore, the project complies with this provision.

Section 14.100 Provisions for all New Development

A. All new development, except uses allowed through the expedited review process, shall be reviewed under the applicable sections of Key Viewing Areas, Scenic Travel Corridors, Landscape Settings, Natural Resources, Cultural Resources, and Recreation Resources.

Finding: This narrative demonstrates compliance with all applicable provisions associated with Key Viewing Areas, Scenic Travel Corridors, Landscape Settings, Natural Resources, Cultural Resources, and Recreation Resources, as described in this narrative. Therefore, the project complies with this provision.

Siting

B. New buildings and roads shall be sited and designed to retain the existing topography and to minimize grading activities to the maximum extent practicable.

Finding: Up to five new signal buildings will be constructed to replace five existing signal buildings within the second mainline track project area. Each of these signal buildings will have a footprint that will range from approximately 6 feet by 6 feet to approximately 8 feet by 10 feet and will be approximately 9 feet in height (see Appendix B). Minor grading may be required for the installation of new signal buildings. Proposed grading will be limited to the maximum extent practicable through project design throughout the project area.

The only new road construction that will be required will be upgrading an existing 800-foot segment of road in Memaloose State Park (see Figure 5-1). This upgrade will require minor vegetation removal or trimming, minor grading, and placement of crushed gravel. The grading undertaken to improve this road segment will be limited to the minimum extent required. The remaining access roads will utilize existing roads and highway shoulders. Given the minimal grading required for installation of new buildings and development of roads, the project complies with this provision.

Design/Color

C. New buildings shall be compatible with the general scale (height, dimensions and overall mass) of existing nearby development. Expansion of existing development shall comply with this guideline to the maximum extent practicable.

D. Unless expressly exempted by other provisions, colors of all exterior surfaces of structures on sites not visible from Key Viewing Areas shall be earth-tones found at the specific site or in the surrounding

landscape. The specific colors or list of acceptable colors shall be included as a condition of approval. The Scenic Resources Implementation Handbook will include a recommended palette of colors.

E. Additions to existing buildings smaller in total square area than the existing building may be the same color as the existing building. Additions larger than the existing building shall be of dark earth-tone colors found at the specific site or in the surrounding landscape. The specific colors or list of acceptable colors shall be included as a condition of approval. The Scenic Resources Implementation Handbook will include a recommended palette of colors.

F. Outdoor lighting shall be directed downward, sited, limited in intensity, shielded and hooded in a manner that prevents the lighting from projecting onto adjacent properties, roadways, and the Columbia River as well as preventing the lighting from being highly visible from Key Viewing Areas and from noticeably contrasting with the surrounding landscape setting. Shielding and hooding materials shall be composed of nonreflective opaque materials. There shall be no visual pollution due to the siting or brilliance, nor shall it constitute a hazard for traffic.

Finding: The proposed second mainline project is an infrastructure improvement associated with the existing track and will be compatible with the general scale (height, dimensions and overall mass) of existing development within the area. The majority of the proposed second mainline project will be constructed at grade. Steel rail lines will be installed with generally a 15-foot track center. Industry standard materials will be used for track construction in accordance with federal regulations. Ballast rock will be installed in and around the second mainline track for stabilization and to maintain a clear ROW compatible with existing railroad use. Therefore, the project will conform to the pre-existing railroad use in the area and will not noticeably contrast with the surrounding landscape. In addition, UPRR will construct the proposed second mainline within existing ROW to the greatest extent practicable.

Up to five new signal buildings will be constructed to support operations along the second mainline track. Each of these signal buildings will have a footprint that will range from approximately 6 feet by 6 feet to approximately 8 feet by 10 feet and will be approximately 9 feet in height (see Appendix B). The signal buildings will be compatible with the general scale of existing development. The preliminary location of signal buildings is shown in Appendix C, and all signal buildings will be located within the UPRR ROW.

New signal buildings will visually subordinate to the surrounding landscape, to the greatest extent practicable. Signal buildings will be constructed of a non-reflective metal and will be painted with an approved dark earth-toned paint (see Detail 10 of Appendix B). The paint will match the surrounding natural environment in conformance with the *Scenic Resources Implementation Handbook*. Furthermore, it is anticipated that this project will remove of up to five existing signal buildings from unnecessary locations along the route, resulting in no net increase in signal buildings from current conditions.

Standard railroad signage and signal lights will also be constructed as part of the proposed second mainline track project. Most signage will be non-reflective black and white signage and will be posted at an approximate height of 10 feet. Lighting will consist of approximately ten 22-foot-tall combination signal lights. These lights will be side-shielded by nonreflective opaque materials to limit the amount of light directed away from the rail centerline and to minimize contrasts with the visual character of the project area. Lighting will be directed to prevent projection onto adjacent properties, roadways, and the Columbia River as well as preventing the lighting from being highly visible from KVAs. Lighting will not constitute a hazard for traffic.

All lighting and signage installed will be the minimal amount required under federal law for the safe operation of the railroad. The preliminary location of all signal lighting is shown on Figure 4-1. Specific signage locations will be determined in the field. Additionally, up to five wooden poles and wireless signaling appurtenances will be installed at an aboveground height of approximately 53 feet. Photographs showing proposed guardrail type, example standard railroad signage, signal lights, wooden poles and wireless

signaling appurtenances are included in Appendix B. In addition, up to two existing antenna poles will be removed from areas along the route.

Project component scale, color, design, and lighting will not noticeably contrast with the surrounding landscape setting. Therefore, the project complies with these provisions**.**

Landscaping

G. *All ground disturbance as a result of site development shall be revegetated no later than the next planting season (Oct-April) with native species. The property owners and their successors in interest shall be responsible for survival of planted vegetation, and replacement of such vegetation that does not survive.*

H. *Except as is necessary for site development or fire safety purposes, the existing tree cover screening the development area on the subject parcel from Key Viewing Areas and trees that provide a back drop on the subject parcel which help the development area achieve visual subordinance, shall be retained. Additionally, unless allowed to be removed as part of the review use, all trees and vegetation within buffer zones for wetlands, streams, lakes, ponds and riparian areas shall be retained in their natural condition. Any of these trees or other trees required to be planted as a condition of approval that die for any reason shall be replaced by the current property owner or successors in interest no later than the next planting season (Oct-April) after their death with trees of the same species or from the list in the landscape setting for the property.*

   To ensure survival, new trees and replacement trees shall meet the following requirements:

   1. *All trees shall be at least 4 feet tall at planting, well branched, and formed.*
   2. *Each tree shall be braced with 3 guy wires and protected from livestock and wildlife. The guy wires need to be removed after two winters.*
   3. *The trees must be irrigated until they are well established.*
   4. *Trees that die or are damaged shall be replaced with trees that meet the planting requirements above.*

Finding: Construction of the project will require removal of approximately 12.8 acres of existing trees or shrub vegetation. However, the majority of these impacts will be in temporary impact areas required for construction staging, and will be restored in a timely manner, pursuant to NSA-LUDO provisions.

UPRR will replant trees and vegetation following construction. The Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan included as Appendix K provides a vegetation restoration plan which satisfies the requirements of this provision. Therefore, to the extent that they are applicable, the project complies with these provisions.

Section 14.200 Key Viewing Areas

The following is required for all development that occurs on parcels/lots topographically visible from Key Viewing Areas.

A. *Each development and land use shall be visually subordinate to its setting in the GMA and meet the required scenic standard (visually subordinate or visually not evident) in the SMA as seen from Key Viewing Areas. The extent and type of conditions applied to a proposed development to achieve visual subordinance shall be proportionate to its potential visual impacts as seen from Key Viewing Areas.*

   1. *Decisions shall include written findings addressing the factors influencing potential visual impact including but not limited to:*

      a. *The number of Key Viewing Areas it is visible from;*

      b. *The distance from the building site to the Key Viewing Areas it is visible from;*

c. *The linear distance along the Key Viewing Areas from which the building site is visible (for linear Key Viewing Areas, such as roads and the Columbia River);*

d. *The difference in elevation between the building site and Key Viewing Areas;*

e. *The nature and extent of topographic and vegetative back screening behind the building site as seen from Key Viewing Areas;*

f. *The amount of area of the building site exposed to Key Viewing Areas; and*

g. *The degree of existing vegetation providing screening.*

Finding: As documented in Section 5.2 of this narrative, the proposed second mainline project has the potential to be visible from five KVAs (I-84, SR-14, Old Washington State Route 14/Klickitat County Road 1230, the Columbia River, and the Historic Columbia River Highway and Trail). For each of the five KVAs, the narrative below provides the information required by NSA-LUDO Section 14.200(A) and also evaluates the extent to which the project will be consistent with the visual standards established for the areas of GMA and SMA landscape visible from the KVAs that are potentially affected by the project.

I-84

Segment 1

In Segment 1, I-84 is located adjacent to the UPRR ROW in which the second mainline track will be developed (See Figure 5-1A). In this segment, I-84 parallels the UPRR ROW for approximately 1.6 miles. In most of this area, the alignment of the new rail bed and rails lies approximately 30 feet south of edge of the pavement of I-84's eastbound lanes, well within the 0.25-mile Scenic Travel Corridor Foreground Zone the NSA has established along I-84 and other scenic routes in the NSA. Both I-84 and the railroad are at approximately the same elevation, which ranges from approximately 100 feet at the western edge of Segment 1 to 105 feet at the eastern edge at the Mosier urban limit. Although there are a few locations in Segment 1 where scattered trees occur in the area between the edge of I-84 and the railroad, most of this area has a similar appearance to the area shown on Figure 5-2. This area is completely open with no vegetative screening. As shown on Figures 5-2 and 5-3, the backdrop (also referred to as "back screening") of the project alignment seen from I-84 Segment 1 is prominent throughout this area, with a combination of steep rock faces and thick forest cover providing a continuous and highly textured backdrop capable of visually absorbing vertical project elements.

As discussed in Section 5.2.2, Figure 5-2 provides a typical view toward the UPRR ROW from eastbound I-84 in Segment 1. With development of the project, the overall level of visual change to this view would be minor. The additional rail bed would be visible in the immediate foreground area, and would appear somewhat closer to the paved roadway than the existing rail bed, but would not attract attention because it would be low to the ground and similar in form, line, color, and visual character to the rail bed that already exists in the UPRR ROW. Because the signs, signal lights, guard rails, and signal buildings that might be installed in this area as part of the project would be small in scale and would be similar in appearance to features already in the UPRR ROW and would be visually absorbed into the backdrop, they would not be likely to be particularly noticeable. Although some of the project features, particularly the ballasted rail bed and tracks, would be evident to travelers on eastbound I-84, they would be visually subordinate elements of the view and would thus be consistent with the GMA designation of this area. In the views from eastbound I-84 in Segment 1, approximately 7 acres of area affected by the new rails and roadbed will be visible. At typical travel speeds of 65 miles per hour or more, these project features would be in the view of eastbound travelers for less than 90 seconds and, accordingly, would not dominate the overall visual landscape nor alter the viewing experience.

Figure 5-3 presents a photograph that is typical of westbound views along nearly the entire length of I-84 through Segment 1. In this view, the additional rail roadbed and tracks that would be developed by the project would be completely hidden to travelers in automobiles by the safety barrier in the interstate

median. Any signal lights, guard rails, or signal buildings that might be installed as part of the project would be small in scale, and would, to varying degrees, be screened by the barrier walls and visually absorbed by the backdrop. As a consequence, the project will not be visually evident and will have little to essentially no effect on the views of travelers in automobiles in the westbound lanes of I-84 in Segment 1 and would thus be consistent with the GMA designation of areas visible from I-84 in this segment.

Segment 2 West

As review of Figure 5-1B indicates, in Segment 2 West much of the project alignment is located 0.30 mile or more to the north of I-84. Because of the topography and vegetation between I-84 and the project alignment, the project has no potential to be visible from most of the I-84 KVA in this area. The only place where views toward the project from I-84 may be at all possible would be at the point approximately 0.6 mile east of Mosier where I-84 crosses over the UPRR ROW. In this area, for a distance of approximately 500 feet along I-84, it may be possible to look down into the railroad cut the interstate crosses over and see a short segment of the realigned double track within the existing cut. In this area, the bottom of the railroad cut lies approximately 40 feet below the elevation of the I-84 roadway. The portions of the track that may have the potential to be visible would be those within the several hundred feet of the interstate crossing. Approximately 0.3 acre affected by the realigned rails and track embankment has the theoretical potential to be visible from the I-84 KVA. Because of the high travel speeds, the fact that the views into the UPRR ROW are seen at an oblique angle to the direction of travel, and the presence of safety fencing along the edge of the roadway that partially obscures the views, any views into the project area are limited and would last for a brief duration of time. In addition, to the extent that the realigned rails would be visible, they would be seen as visually consistent with the development pattern that already exists within the UPRR ROW. Given the limited visibility of the ROW in the areas near the I-84 overcrossing, it is unlikely that the addition of an additional set of rails and related appurtenances in this area will attract the attention of motorists using this overcrossing or have any effect on their overall experience of the area's aesthetic qualities. Thus, from this location on I-84, it can be concluded that the project would be classified as not visually evident, according to the definition provided in NSA-LUDO Section 1.200, and would therefore be consistent with the GMA designations for this segment.

Segment 2 East

The relationship between I-84 and the proposed project alignment in Segment 2 East is shown in Figure 5-1C. In this segment, the project will not be visible from the I-84 KVA because of the intervening topographic conditions and vegetation. Accordingly, this project segment will have no effect on views from this KVA.

Washington State Route 14

The Figure 5-1A map depicts the physical relationship between the proposed project and SR-14, which is a linear KVA located on the north side of the Columbia River in the State of Washington, 0.5 mile to 1 mile away from the proposed project alignment. The potential visibility of each of the segments of the project from this KVA is described below.

Segment 1

Figure 5-4 is a view from SR-14 at Viewpoint 3, which is located on the opposite side of the Columbia River from Segment 1, approximately 1 mile to the north of the UPRR ROW along I-84, and is typical of views from the SR-14 KVA toward the portion of the UPRR ROW in Segment 1. This viewpoint is at an elevation of 109 feet, 7 feet higher than the 102-foot elevation of the UPRR ROW across the river. In this view, the UPRR ROW is not readily visible because of the 1-mile distance and because the flat railroad bed is hidden behind the concrete barrier in the median of I-84. Because of these visual conditions, the proposed project will have essentially no effect on views from SR-14. The widened railroad roadbed will not be visible, and to the extent to which the signs, signal lights, and signal buildings that will be installed as part of the project in Segment 1 would extend above the barrier in the interstate's median, they would be barely detectable

because they would be small-scale features viewed from a distance of approximately 1 mile. Additionally, these features would tend to be visually absorbed into the highly textured and often-shadowed backdrop. As a result, the portion of the proposed project in Segment 1 would not be visually evident in views from SR-14, and would therefore be consistent with the GMA visual requirements for the landscapes in which Segment 1 is located.

Segment 2 West

Figure 5-5 provides a view from SR-14 at Viewpoint 4, which is located on the opposite side of the Columbia River from Segment 2 West, approximately 0.5 mile to the north of the UPRR ROW on the river's southern banks. This viewpoint is at an elevation of 119 feet, 17 feet higher than the 102-foot elevation of the portion of the UPRR ROW visible across the river. Figure 5-5 shows a view toward the southwest. At the right side of this photograph, the I-84 railroad overcrossing structure can be seen. The existing UPRR mainline is visible in a portion of the area along the river in the right half of the photograph. Further to the east, in the left portion of the photograph, the rail corridor is screened by topography, and vegetation is present between the mainline and the banks of the river. Figure 5-6 shows an alternate view from Viewpoint 4, looking south-southeast toward the railroad segment just east of the view shown in Figure 5-5. At the right side of this photograph, where the large rock mesa extends to the edge of the river, the top of the railroad cut through this mesa can be seen. The area to the east of the mesa where the UPRR ROW emerges from the cut through the rock and continues along the top of the river bank lies within Segment 2 East.

In the approximately 0.3-mile section of existing UPRR ROW along the south bank of the river that is visible in the Figure 5-5 view, the new railroad tracks will be built to the south of the existing tracks, where they will not be visible and will have no effect on the view. To the extent to which signs, signal lights, and signal buildings that will be installed as part of the project in the portions of the rail corridor visible in this view that are not screened by intervening topography and vegetation, they would be barely detectable because they would be small-scale features seen at a half-mile's distance, and because they would tend to be visually absorbed into the highly textured backdrop. Because of these conditions, the portions of the project located in the Segment 2 West landscapes seen in Figure 5-5 would not be visually evident and would thus be consistent with the visual standard applicable to the NSA GMA landscape zones designated in that area.

In the approximately 700-foot-long area where the rail corridor is located in the cut through the rock mesa seen in Figure 5-6, the visible changes will include expansion in the width of the cut by an additional 60 feet into the wall on the cut's south side, as well as associated vegetation removal and ground disturbance. The area affected by the widened cut will be relatively small (approximately 0.93 acre in total), and the form and line of the expanded cut will be the same as that of the cut that now exists. Furthermore, any area of newly exposed rock is not anticipated to have a discernably different appearance from the existing rock cut through this area. This is because the existing rock cut area where the railroad currently passes through was itself constructed by blasting. As a result, views of this area from both the north and the south are expected to be unchanged following the widening of the rail corridor. As a result, in the 700-foot segment where the cut through the rock mesa will be widened, the visual changes would not be visually evident and, as a consequence, would be consistent with the visual standard applicable to the NSA SMA landscape zones designated in that area.

The retaining wall that is proposed between MP 71.27 and MP 71.30 within Segment 2 West will not be visible from SR-14; the wall would be located approximately 600 feet west of the opening of the cut notch and would be fully screened by topography to the north. As shown on Figure 4-1 and Figure 5-6, views of the retaining wall location from the north are screened by the intervening topography of the rock outcropping. Additionally, the wall will constructed with a basalt rock façade in order to minimize potential for visual effects (see Detail 11 of Appendix B). Therefore, the proposed retaining wall would not be visually evident and would thus be consistent with the visual standard applicable to the NSA SMA landscape zones designated in that area.

Segment 2 East

Figure 5-6, the second photograph from Viewpoint 4, looks south-southeast toward the railroad segment that travels through a notch in the rock mesa and the area to the east of the notch where the UPRR ROW enters Segment 2 East and travels along the river's southern bank. In this view, the ballasted rail bed and the utility poles along the rail corridor are detectable, but do not dominate views. In this view and in views from similar areas along the SR-14 KVA, the proposed project would have little to no visual effect on the existing rail corridor seen 0.6 mile away on the opposite side of the river. The second mainline track will be built in the area to the south of the existing tracks where it will not be visible in this view and thus would have no effect on it. To the extent to which signs, signal lights, and signal buildings would be installed as part of the project they would be barely detectable because they would be small-scale features seen at a half-mile's distance and would tend to be visually absorbed into the highly textured backdrop. Because of these conditions, the portions of the project sited in the approximately 0.35 mile of UPRR ROW located in the Segment 2 East landscapes visible in Figure 5-5 would not be visually evident, and would thus be consistent with the visual standard applicable to the NSA SMA landscape zones designated in that area.

The area seen in this view also includes the location of three construction staging areas. The primary staging area, whose location is indicated on Figure 5-1C, would be sited to the immediate left of the cut through the mesa and would be located in the area between the existing UPRR ROW and the rock cliffs to the south. Construction of the staging area will require removal of existing trees and grading of the sloped terrain. While temporary visual change may occur as a result of vegetation removal at the staging area in Segment 2 East, replanting and restoration following construction would restore the area to pre-construction conditions, ensuring no permanent visual change. Although the standard of visual evidence does not explicitly address or regulate temporary visual change, UPRR will attenuate the temporary visual change that would occur in these areas. This will be accommodated by retaining a band of existing trees along the northern portion of the proposed staging area between MPs 71.52 and 71.64 and replanting and restoring disturbed portions of this staging area. Therefore, from the SR-14 KVA, this primary staging area will not be visually evident, and will, therefore, be consistent with the visual standard applicable to the NSA SMA landscape zones designated in that area.

Old Washington State Route 14/Klickitat County Route 1230

Old Washington State Route 14/Klickitat County Route 1230 branches off from SR-14 at Rowland Lake and passes around the north side of the lake before traveling eastward up the slope that defines the north side of the river valley. The highway then continues eastward along the side of the slope, generally paralleling SR-14, but at elevations that range from approximately 120 to 170 feet above it. The location of Old Washington State Route 14/Klickitat County Route 1230 is depicted on the Figure 5-1A map, which also shows the physical relationship between it and the proposed project. The potential visibility of each of the segments of the project from this KVA is described below.

Segment 1

The area where Segment 1 is located would not be visible from the portion of Old Washington State Route 14/Klickitat County Route 1230 that travels around Rowland Lake because of view blockage by intervening topography. The Segment 1 area has some potential for visibility from the section of the road farther to the east that is at a higher elevation. From this part of the road, the Segment 1 area would be visible 2.4 to 3.7 miles away in oblique views down the river valley. Given the minimal nature of the project-related changes that will be occurring in Segment 1, the viewing distance, the oblique nature of the view, and the presence of intervening vegetation, the portion of the proposed project in Segment 1 would not be visually evident in views from this KVA and would thus be consistent with the GMA visual requirements for the landscapes in which Segment 1 is located.

Segment 2 West

Segment 2 West is located directly across the river from the portion of Old Washington State Route 14/ Klickitat County Route 1230 that travels around Rowland Lake. This section of the road is located in the range of 0.6 to 0.9 mile from this segment of the project. Because this section of the road is located at elevations ranging from 90 to 100 feet, placing it below the 103-foot elevation of the proposed second mainline track, the changes occurring along the existing UPRR roadbed will not be not be visually evident in views from this area. In the section of the road located at higher elevations farther to the east, the changes in the area on and along the UPRR roadbed are also not likely to be visually evident because of the distance (0.9 to 2.0 miles away) and intervening topographic and vegetative screening. However, from these areas, which range from 250 to 400 feet in elevation, there will be views down onto the top of the rock mesa area, which ranges in elevation from 140 to 180 feet, where the widened trench location may be visible. However, the 0.3-mile-long segment of widened trench is not expected to be visible at distances ranging from 0.65 to 1.5 miles due to the straight-on viewing angle, and because the form and line of the expanded cut will be the same as that of the cut that now exists, therefore, is not likely to be visually evident to casual viewers. Furthermore, any area of newly exposed rock is not anticipated to have a discernably different appearance from the existing rock cut through this area. This is because the existing rock cut area where the railroad currently passes through was itself constructed by blasting. As a result, views of this area from both the north and the south are expected to be unchanged following the widening of the rail corridor.

The retaining wall that is proposed between MP 71.27 and MP 71.30 within Segment 2 West will also not be visible from Old Washington State Route 14/Klickitat County Route 1230; the wall would be located approximately 600 feet west of the opening of the cut notch and would be fully screened by topography to the north. As shown on Figure 4-1 and Figure 5-6, views of the retaining wall location from the north are screened by the intervening topography of the rock outcropping. Additionally, the wall will be constructed with a basalt rock façade to minimize the potential for visual effects (see Detail 11 of Appendix B). Therefore, the proposed retaining wall would not be visually evident and would be consistent with the visual standard applicable to the NSA SMA landscape zones designated in that area.

Segment 2 East

Segment 2 East is not visible from the portion of Old Washington State Route 14/Klickitat County Route 1230 that travels around Rowland Lake because the line of sight from this area toward Segment 2 East is obstructed by the rock mesa area at the east end of Segment 2 West. From the section of the road located at higher elevations farther to the east, the area in which Segment 2 East is located is visible across the river at distances ranging from approximately 0.75 to 1.4 miles. Because of the limited nature of the visual changes, the distance and intervening vegetation, project-related visual effects to the area on and along the UPRR corridor are not likely to be visually evident.

The view toward Segment 2 East seen from the higher elevation areas of this KVA encompasses the locations of three construction staging areas. The primary staging area, whose location is indicated on Figure 5-1C, would be sited to the immediate left of the cut through the mesa and would be located in the area between the existing UPRR ROW and the rock cliffs to the south. Construction of the staging area will require removal of existing trees and grading of the sloped terrain. While temporary visual change may occur as a result of vegetation removal at the staging area in Segment 2 East, replanting and restoration following construction would restore the area to pre-construction conditions, ensuring no permanent visual change. Although the standard of visual evidence does not explicitly address or regulate temporary visual change, UPRR will attenuate the temporary visual change that would occur in these areas. This will be accommodated by retaining a band of existing trees along the northern portion of the proposed staging area between MPs 71.52 and 71.64 and replanting and restoring disturbed portions of this staging area. Therefore, from the Old Washington State Route 14/Klickitat County Route 1230 KVA, this primary staging area will not be visually evident, and will, therefore, be consistent with the visual standard applicable to the NSA SMA landscape zones designated in that area.

Columbia River

All Segments

As Figure 5-1 indicates, the entire 3.58-mile project alignment is paralleled by the Columbia River to the north. In Segment 1, I-84 lies between the UPRR ROW and the river, and in most of Segment 1, the project alignment is approximately 200 feet south of the river's edge (Figure 5-1A). Near the start of Segment 2 West, I-84 shifts to the south side of the UPRR ROW; from this point eastward, there are no highways or other major built features between the UPRR ROW and the river. In most of Segment 2 West, the UPRR ROW lies 80 to 200 feet south of the river; in Segment 2 East, it lies within 50 to 70 feet of the river (Figures 5-1B and 5-1C). The existing UPRR rail bed is at an elevation of approximately 102 feet while the river's elevation is 80 feet, creating a difference in elevation of 22 feet.

As described in Section 5.2, Figures 5-4, 5-5, and 5-6, which present views looking toward the project alignment from SR-14 on the north bank of the Columbia River, provide relevant views for evaluating the project's potential visual effects on views from the Columbia River itself. As is the case in the views from SR-14, in the views from the northern edges of the river, the track-related changes to the existing rail corridor would not be visible because they would be located behind the existing rail bed. In addition, to the extent that any vertical elements of the project would be visible, they would be minor elements in the view that would be visually absorbed into the landscape backdrop.

In the area where the rail corridor is located in the existing notch through the rock mesa seen in Figure 5-6, the only potential visible change will be an expansion in the width of the notch by cutting an additional approximately 60 feet into the south side of the rock wall. However, the area affected by the widened cut will be relatively small, and the form and line of the expanded cut will be the same as that of the cut that now exists. Furthermore, any area of newly exposed rock is not anticipated to have a discernably different appearance from the existing rock cut through this area. This is because the existing rock cut area where the railroad currently passes through was itself constructed by blasting. As a result, views of this area from both the north and the south are expected to be unchanged following the widening of the rail corridor.

The retaining wall that is proposed between MP 71.27 and MP 71.30 within Segment 2 West will also not be visible from the Columbia River; the wall would be located approximately 600 feet west of the opening of the cut notch and would be fully screened by topography to the north. As shown on Figure 4-1 and Figure 5-6, views of the retaining wall location from the north are screened by the intervening topography of the rock outcropping. Additionally, the wall will constructed with a basalt rock façade to minimize the potential for visual effects (see Detail 11 of Appendix B).

While temporary visual change may occur as a result of vegetation removal at the primary staging area at Segment 2 East, replanting and restoration following construction would restore the area to pre-construction conditions, ensuring no permanent visual change. A band of trees to the north of the staging area will also be maintained during construction to provide visual screening from the river. In addition, permanent project features including the second mainline track would be screened from views along the river by intervening topography and vegetation. Accordingly, the project would not be visually evident in views from this KVA and would thus be consistent with the GMA and SMA visual requirements for the landscapes in which the entire project (that is Segment 1, Segment 2 West, and Segment 2 East) are located.

Historic Columbia River Highway and Trail (Route 30)

Segment 1

The physical relationship between the Historic Columbia River Highway and Trail and the proposed project alignment in Segment 1 can be seen in Figure 5-1A. In this area, the historic highway is located on top of the bluff, at elevations from 200 to over 400 feet above the elevation of the UPRR ROW. Because of the

topographic conditions and screening vegetation in Segment 1, the proposed project will not be visible from the Historic Columbia River Highway and Trail KVA.

Segment 2 West and Segment 2 East

In Segment 2 West, the Historic Columbia River Highway is located approximately 0.5 to 0.7 mile south of the proposed project route, and in Segment 2 East, this KVA is located approximately 0.3 to 0.6 mile south of the project route. Because of the distance of the Historic Columbia River Highway from the project route, only small stretches of this highway are visible on the Segment 2 West (Figure 5-1B) and Segment 2 East (Figure 5-1C) maps. From all but one location along the Historic Columbia River Highway, views toward Segment 2 West and Segment 2 East are screened by topographic conditions and vegetation. The only location along this KVA where the project may be potentially visible is from a location identified on Figures 5-1B and 5-1C is Viewpoint 5. This viewpoint is at the Memaloose Overlook, at the end of a stub road that extends north from the highway to the edge of the bluff at a location that overlooks the portion of Memaloose State Park. This viewpoint lies approximately 0.3 mile to the south of the closest portion of the project alignment, and is at an elevation that is approximately 425 feet higher than the existing UPRR ROW. Figure 5-7 captures the view from this area toward the rock mesa at the eastern end of Segment 2 West through which the UPRR ROW travels in a deep cut through the rock. Figure 5-8 captures a view from the same location that is oriented more toward the east to take in a portion of the existing rail corridor in Segment 2 East.

With development of the project, the width of the cut through the mesa visible in Figure 5-7 would be expanded, but the visual effects on this view would be limited. The left side of the opening to the notch seen in this view would be brought 60 feet further to the south, slightly increasing the view into the notch and exposing slightly more of the notch's northern walls to view. Because the portions of the wall that will be removed are on the south side of the notch, areas of newly exposed rock would not be visible in this view. Furthermore, any area of newly exposed rock is not anticipated to have a discernably different appearance from the existing rock cut through this area. This is because the existing rock cut area where the railroad currently passes through was itself constructed by blasting. As a result, views of this area from both the north and the south are expected to be unchanged following the widening of the rail corridor.

The retaining wall that is proposed between MP 71.27 and MP 71.30 within Segment 2 West will also not be visible from Historic Columbia River Highway and Trail because it will be constructed on the south side of the notch, completely screened by the intervening topography of the rock mesa.

While temporary visual change may occur as a result of vegetation removal at the staging area at Segment 2 East, replanting and restoration following construction would restore the area to pre-construction conditions, ensuring no permanent visual change. The changes to this view related to the widening of the notch through the rock mesa and the creation of the construction staging area would not be visually evident in the overall panorama.

In the view toward Segment 2 East in Figure 5-8, the existing rail line can be seen along the river at the base of the escarpment on which the overlook is located. In this view, the proposed project would be seen as an additional ballasted rail bed and tracks installed on the south side of the existing rail bed. These changes could affect approximately 0.5 acre of the area potentially visible in this view. The resulting visual change would be subtle and not necessarily noticeable to the casual observer. To the extent to which signs, signal lights, and signal buildings will be installed as part of the project in this area, they would be unlikely to attract attention from viewers because they would be small-scale features seen in the distance in the midst of a rail corridor that already has a developed character.

As discussed above, project features will not be visually evident from the view from the Memaloose Overlook in the Historic Columbia River Highway and Trail KVA. While temporary visual change may occur as a result of construction, vegetation will be replanted and restored to pre-construction conditions.

Siting

B. *New development shall be sited to achieve visual subordinance from Key Viewing Areas, unless the siting would place such development in a buffer specified for protection of wetlands, riparian corridors, endemic and listed plants, sensitive wildlife sites or conflict with standards to protect cultural resources. In such situations, development shall comply with this standard to the maximum extent practicable. (GMA Only)*

Finding: The proposed project consists of infrastructure improvements to an existing track and will not significantly alter the existing visual character of the area. The majority of the proposed second mainline project will be sited and constructed at grade along the existing Portland Subdivision between approximately MP 66.98 and MP 72.35.

As the analyses in Section 5.2 of this narrative and in response to NSA-LUDO Section 14.200(A) document, in views from most KVAs, the project will not be visually evident, and in the limited situations in which the project changes may be visually evident, they will be visually subordinate. Therefore, the project complies with this provision.

C. *New development shall be sited to achieve visual subordinance utilizing existing topography, and/or existing vegetation as needed in the GMA and meet the required scenic standard (visually subordinate or visually not evident) in the SMA from Key Viewing Areas.*

Finding: As the analyses in Section 5.2 of this narrative and in response to NSA-LUDO Section 14.200(A) document, the project will meet the visual standard in all GMA and SMA landscapes (visually not evident or visually subordinate in views from KVAs). Temporary visual change will occur within Segment 2 East between MPs 71.52 and 71.64 where a 6.62-acre construction staging area will be developed (refer to area shown in Figure 5-6). In this area, while no permanent visual change is anticipated, temporary visual change may be evident from SR-14, Old Washington State Route 14/Klickitat County Route 1230, the Columbia River, and the Memaloose Overlook in the Historic Columbia River Highway KVA. Although the standard of visual evidence does not explicitly address or regulate temporary visual change, UPRR will attenuate the temporary visual change that would occur in these areas. This will be accommodated by retaining a band of existing trees along the northern portion of the proposed staging area between MPs 71.52 and 71.64 and replanting and restoring disturbed portions of this staging area. Therefore, with vegetation avoidance, replanting, and restoration, the project complies with this provision.

D. *Driveways and buildings shall be designed and sited to minimize visibility of cut banks and fill slopes from Key Viewing Areas.*

E. *The silhouette of new buildings shall remain below the skyline of a bluff, cliff or ridge as seen from Key Viewing Areas. A variance in the General Management Area may be granted according to Chapter 6 if application of the guidelines would leave the owner without a reasonable economic use. The variance shall be the minimum necessary to allow the use and may be applied only after all reasonable efforts to modify the design, building height and site to comply with the criteria have been made.*

Finding: Driveways are not included in the design or development of this project. The only buildings that will be constructed as a part of the project will be the five small signal buildings. Each of these signal buildings will have a footprint that will range from approximately 6 feet by 6 feet to approximately 8 feet by 10 feet and will be approximately 9 feet in height. Photographs showing a typical signal building within Wasco County are included in Appendix B. These small signal buildings are common throughout the National Scenic Area and are essential for safe rail operations. As demonstrated in Appendix B, the small size and natural earth-tone color of signal buildings greatly minimize their overall appearance within the existing landscape.

The location of signal buildings is shown in Figure 4-1 and Appendix C, and all signal buildings will be located within UPRR's ROW, which has a slope of approximately 0 percent. Construction of the signal buildings will not require cut banks or fill slopes and therefore cut banks and fill slopes will not be visible from KVAs in

relation to the five small signal building. The silhouette of each new signal structure will remain well below and not visually evident from the skyline of a bluff, cliff, or ridge as seen from KVAs.

It is important to note that the project will also result in removal of up to five existing signal buildings from locations along the route where they are no longer necessary, and will therefore not create a net increase in the number of signal buildings in the project area. Signal buildings installed as part of the project will be small in scale, will be similar in appearance to features already in the ROW, and will be unlikely to create a particularly noticeable level of visual change. Throughout the project area, signal buildings will range in visual presence from not visually evident to barely detectable because they would be small-scale features visually absorbed into the backdrop. Therefore, the project complies with the provision of NSA-LUDO Section 14.200(D-E) and no variance is necessary to meet these development criteria.

G. Except for water-dependent development and for water-related recreation development, development shall be set back 100 feet from the ordinary high water mark of the Columbia River below Bonneville Dam, and 100 feet from the normal pool elevation of the Columbia River above Bonneville Dam, unless the setback would render a property unbuildable. In such cases, variances to this guideline may be authorized according to Chapter 6 of this Ordinance. In the SMA the setbacks described above shall be 200 feet.

Finding: The project includes infrastructure improvements to the existing mainline track and installation of accessory structures including signal buildings, standard railroad signage, signal lights, and in-kind guardrail extensions. In several areas along the project alignment, both the pre-existing mainline track and the proposed second mainline track are located within 100 feet of the normal pool elevation of the Columbia River in the GMA or within 200 feet of the river in the SMA, therefore, complying with this setback requirement would render the project unbuildable.

The question of water dependency arises as to a number of NSA-LUDO criteria. To be clear, existing railroad operation is not water dependent. However, the location of the existing railroad depends directly on proximity to the Columbia River.

Prior to the advent of diesel locomotives in the 1920s, steam locomotives were required to take frequent fuel and water stops along the route, requiring the railroad to be in close proximity to water (Huftstetler and Bedeau, 1998). As diesel locomotives replaced steam engines, the requirement for the railroad's proximity to water diminished. However, because the project is locationally bound by the historical location of the Portland Subdivision (which was driven in part by its dependency on water), the project is a minor expansion of a historically water-dependent use.

Also, heavy rail train routes are very sensitive to grade, far more so than highways. Whereas interstate freeways are built on grades up to 6 percent, railroads can operate at a grade of no more than 2 percent. As such, it is essential for the project to continue to follow the river grade, which is far more gradual than the grades on the surrounding landscape.

The project has been sited within existing UPRR ROW in order to minimize impacts to both adjacent wetlands and the Columbia River, therefore UPRR seeks approval of a variance to this provision pursuant to NSA-LUDO Chapter 6.

H. New buildings shall not be permitted on lands visible from Key Viewing Areas with slopes in excess of 30 percent. Variances to this guideline may be authorized according to Chapter 6 of this Ordinance if its application would render a property unbuildable. In determining the slope, the average percent slope of the proposed building site shall be utilized.

Finding: The only buildings that will be constructed as a part of this project will be the five small signal buildings. These buildings will be located along the rail ROW (see Appendix C), which has a slope of approximately 0 percent. Therefore, the project complies with this provision.

Design/Color

I. *Unless expressly exempted by other provisions in this chapter, colors of all exterior surfaces of structures visible from Key Viewing Areas shall be dark earth-tones found at the specific site or in the surrounding landscape. The specific colors or list of acceptable colors shall be included as a condition of approval. The Scenic Resources Implementation Handbook will include a recommended palette of colors.*

J. *The exterior of buildings in the GMA and structures in the SMA on lands seen from Key Viewing Areas shall be composed of nonreflective materials or materials with low reflectivity, unless the structure would be fully screened from all key viewing areas by existing topographic features. The Scenic Resources Implementation Handbook will include a list of recommended exterior materials. These recommended materials and other materials may be deemed consistent with this criterion, including those where the specific application meets recommended thresholds in the "Visibility and Reflectivity Matrices" in the Implementation Handbook (once they are created). Continuous surfaces of glass unscreened from Key Viewing Areas shall be limited to ensure visual subordinance. Recommended square footage limitations for such surfaces will be provided for guidance in the Implementation Handbook.*

Finding: The only buildings that will be constructed as a part of the project will be the five small signal buildings. The exteriors of these buildings will be designed to be in compliance with the guidance provided in the *Scenic Resources Implementation Handbook,* and will use non-reflective materials and dark earth-tone colors (see Detail 10 of Appendix B). These small signal buildings are common throughout the National Scenic Area and are essential for safe rail operations. It is also important to note that the project will also result in removal of up to five existing signal buildings from locations along the route where they are no longer necessary, and will therefore not create a net increase in the number of signal buildings in the project area. Accordingly, the project complies with these provisions.

Landscaping

K. *The following criteria shall apply to new landscaping used to screen development from Key Viewing Areas:*

   1. *New landscaping (including new earth berms) shall be required only when application of all other available guidelines in this chapter is not sufficient to make the development visually subordinate in the GMA and meet the required scenic standard (visually subordinate or visually not evident) in the SMA from Key Viewing Areas. Alternate sites shall be considered prior to using new landscaping to achieve visual subordinance. Development shall be sited to avoid the need for new landscaping wherever possible.*

   2. *If new landscaping is required to make a proposed development visually subordinate in the GMA and meet the required scenic standard (visually subordinate or visually not evident) in the SMA from Key Viewing Areas, existing on-site vegetative screening and other visibility factors shall be analyzed to determine the extent of new landscaping, and the size of new trees needed to achieve the standard. Any vegetation planted pursuant to this criterion shall be sized to provide sufficient screening to make the development visually subordinate within five years or less from the commencement of construction.*

   3. *Unless as specified otherwise by provisions in this chapter, landscaping shall be installed as soon as practicable, and prior to project completion.*

   4. *Conditions regarding new landscaping or retention of existing vegetation for new developments shall meet both scenic guidelines and the fuel break guidelines listed in the fire protection standards for each zone.*

Finding: As discussed in the findings for NSA-LUDO Section 14.200, the entirety of the proposed project will be in compliance with scenic standards (i.e., will not be visually evident in KVA views of SMA zones, and will be visually subordinate in KVA views of GMA zones).

While temporary visual change may occur as a result of vegetation removal at the staging area in Segment 2 East, replanting and restoration following construction would restore the area to pre-construction conditions, ensuring no discernable permanent visual change. Although the standard of visual evidence does not explicitly address or regulate temporary visual change, UPRR will attenuate the temporary visual change that would occur in these areas. This will be accommodated by retaining a band of existing trees along the northern portion of the proposed staging area between MPs 71.52 and 71.64 and replanting and restoring disturbed portions of this staging area. Because the project this area will entail restoration of natural-appearing landscape conditions, a vegetation restoration plan is provided in Appendix K, as opposed to the kind of formal landscape plan that would be more appropriate for projects like housing developments, resorts, or commercial facilities. Therefore, the project complies with this provision.

Miscellaneous

L. Determination of potential visual effects and compliance with visual subordinance policies shall include consideration of the cumulative effects of proposed developments.

Finding: To evaluate the possibility of cumulative visual effects resulting from the project, account was taken of the potential future development that might occur along the project corridor or in nearby areas of the project viewshed. The spatial boundary for the cumulative effects assessment included all non-urban lands within the NSA in the area that extends from the western boundary of the project corridor to the eastern end of the corridor and north and south to encompass the areas seen in views toward the project corridor from I-84, the Historic Columbia River Highway, the Columbia River, SR-14, and Old Washington State Route 14. This spatial boundary is consistent with approved equivalent development projects within the NSA, based consultation with Wasco County staff (Wasco County, Personal communication, 2014b). Within this area, an effort was made to identify all proposals for major development that have the potential to take place during the next 10 years. Ten years was selected as the time period for the analysis because it represents the maximum time frame for identifying public and private development projects that could be considered to be reasonably foreseeable. The cumulative effects analysis did not include an analysis of past actions. This is because current conditions have been disturbed by innumerable actions over the last century (and beyond), and trying to isolate the individual actions that continue to have residual impacts would be nearly impossible. Focusing on individual actions would be less accurate than looking at existing conditions, because there is limited information on the environmental impacts of individual past actions, and one cannot reasonably identify each and every action over the last century that has contributed to current conditions. Additionally, focusing on the impacts of past human actions risks ignoring the important residual effects of past natural events, which may contribute to cumulative effects just as much as human actions. The current conditions serve as an aggregate of all past actions, so by looking at current conditions, we can assess the residual effects of past human actions and natural events, regardless of which particular action or event contributed those effects.

Based on consultation with the Wasco County Planning Department in Oregon and review of planned development listed on the Klickitat County Planning Department website in Washington (directly north of the project area), no plans were identified for major projects to occur within the next ten years in the viewsheds from the nearby KVAs within which the proposed second mainline project has the potential to be visible. Additionally, no planned major highway, road, or rail infrastructure projects were identified within the project area during this review. Although no major development is planned to occur within these viewsheds, it is reasonable to assume that there could be a small amount of incremental landscape change within these viewsheds that is related to modifications of existing agricultural operations and residential properties and potentially, the development of a small number of individual residences on scattered sites. Should any of these landscape modifications occur, they would be implemented in a way that is in conformance with NSA policies to minimize visual contrast and appearance. Accordingly, the potential for substantial visual change related to other projects that could occur within the viewsheds of the KVA from which the proposed second mainline project will be seen is very low. As a consequence, it is unlikely that there would be any cumulative changes in the viewsheds that would combine with the visually subordinate

and not visually evident effects of the project to create changes to the landscape that would be visually dominant.

M. *New main lines on lands visible from Key Viewing Areas for the transmission of electricity, gas, oil, other fuels, or communications, except for connections to individual users or small clusters of individual users, shall be built in existing transmission corridors unless it can be demonstrated that use of existing corridors is not practicable. Such new lines shall be underground as a first preference unless it can be demonstrated to be impracticable.*

Finding: No new utility lines will be developed as a part of this project, although overhead utility lines may need to be removed and replaced in several locations along the project alignment to accommodate construction activities. Therefore, this provision is not applicable. It should be noted, however, that the focus and intent of this provision is on collocating linear projects within existing corridors. The NSA-LUDO recognizes and encourages necessary development like the proposed project to minimize disturbance through collocation and utilization of existing infrastructure or ROW. As discussed in Section 3 of this narrative, a key component of project design was utilizing existing infrastructure and routing the proposed project within existing UPRR ROW to the greatest extent practicable.

R. *In addition to the GMA standards, the following will be required in the SMA.*

1. *In all landscape settings, scenic standards in Table below shall be met by blending new development with the adjacent natural landscape elements rather than with existing development.*

TABLE 5-3
Relevant Required SMA Scenic Standards

Landscape Setting	Land Use Designation	Scenic Standard
Oak-Pine Woodland	Open Space	Not Visually Evident
River Bottomlands	Open Space	Not Visually Evident
Oak-Pine Woodland	Agriculture, Public Recreation	Visually Subordinate
River Bottomlands	Public Recreation	Visually Subordinate

Finding: The only portion of the project that crosses the SMA and is subject to the SMA Scenic Standards is at UPRR MP 71.10 to MP 72.35. The following provides a summary of the specific landscape settings throughout these areas and an assessment of the project's compliance with the applicable scenic standard

From UPRR MP 71.10 to 71.35, where the existing cut through the rock mesa will be expanded 60 feet to the south, the project alignment is located in a SMA Agriculture zone with a combination of River Bottomlands and Oak Woodlands landscape settings. For this area, the scenic standard identified in Table 5-3 is "visually subordinate". As the analysis presented in Section 5.2 of this narrative and the finding in response to NSA-LUDO Section 14.200(A) indicate, the project will meet this standard in this area.

From UPRR MP 71.35 to 71.42, the expansion of the rock cut is located in Open Space zone in an Oak Woodlands landscape setting. Any area of newly exposed rock is not anticipated to have a discernably different appearance from the existing rock cut through this area. This is because the existing rock cut area where the railroad currently passes through was itself constructed by blasting. As a result, views of this area from both the north and the south are expected to be unchanged following the widening of the rail corridor. Therefore, in this area, the project will be consistent with the "not visually evident" scenic standard.

From UPRR MP 71.42 to UPRR milepost 71.71, the area that will be used for development of the second rail is located in an SMA Open Space zone in a River Bottomlands landscape setting where the "not visually evident" scenic standard applies. As the analysis in Section 5.2 of this narrative and the finding in response to NSA-LUDO Section 14.200(A) indicate, the project will meet this standard in this area.

From UPRR MP 71.71 to UPRR milepost 72.35, the area that will be used for development of the second mainline track is located in a Public Recreation Zone in a River Bottomlands landscape setting where the "visually subordinate" scenic standard applies. As the analysis in Section 5.2 and the finding in response to NSA-LUDO Section 14.200(A) substantiate, the project will meet this standard in this area.

The 6.62-acre construction staging area proposed south of the railroad between MP 71.52 to 71.64 is located in the SMA Open Space zone in an Oak Woodlands landscape setting where the scenic standard is "not visually evident." The temporary staging area between the existing UPRR ROW and the rock cliffs to the south will require tree removal and grading of the sloped terrain. While temporary visual change may occur as a result of vegetation removal at the staging area in Segment 2 East, replanting and restoration following construction would restore the area to pre-construction conditions, ensuring no permanent visual change. Although the standard of visual evidence does not explicitly address or regulate temporary visual change, UPRR will attenuate the temporary visual change that would occur in these areas. This will be accommodated by retaining a band of existing trees along the northern portion of the proposed staging area between MPs 71.52 and 71.64 and replanting and restoring disturbed portions of this staging area. Therefore, in this area, the project will be consistent with this scenic standard.

2. *Structure height shall remain below the average tree canopy height of the natural vegetation adjacent to the structure, except if it has been demonstrated that meeting this criterion is not feasible considering the function of the structure.*

Finding: The only buildings that will be developed as a part of the project will be up to five small signal buildings that will replace five existing signal buildings. These buildings will be approximately 9 feet in height, which is lower than the prevailing tree height in forested areas along the project route.

Other structures will include single poles that will support signage, signal lights, and wireless appurtenances. These poles will be approximately 53 feet in height, which will make them lower in height than the prevailing tree height in adjacent vegetated areas.

4. *Proposed developments or land uses shall be sited to achieve the applicable scenic standard. Development shall be designed to fit the natural topography, to take advantage of landform and vegetation screening, and to minimize visible grading or other modifications of landforms, vegetation cover, and natural characteristics. When screening of development is needed to meet the scenic standard from key viewing areas, use of existing topography and vegetation shall be given priority over other means of achieving the scenic standard such as planting new vegetation or using artificial berms.*

Finding: As discussed in the findings for NSA-LUDO Section 14.200, the entirety of the proposed project will be in compliance with scenic standards (i.e., will not be visually evident in KVA views of SMA zones, and will be visually subordinate in KVA views of GMA zones).

While temporary visual change may occur as a result of vegetation removal at the staging area in Segment 2 East, replanting and restoration following construction would restore the area to pre-construction conditions, ensuring no permanent visual change. Although the standard of visual evidence does not explicitly address or regulate temporary visual change, UPRR will attenuate the temporary visual change that would occur in these areas. This will be accommodated by retaining a band of existing trees along the northern portion of the proposed staging area between MPs 71.52 and 71.64 and replanting and restoring disturbed portions of this staging area. Therefore, the project complies with this provision.

Section 14.300 Scenic Travel Corridors

B. The Historic Columbia River Highway and Interstate 84 are designated as Scenic Travel Corridors. Development along these corridors shall be subject to the following standards:

1. For the purposes of implementing this section, the foreground of a Scenic Travel Corridor shall include those lands within one-quarter mile of the edge of pavement of the Scenic Travel Corridor roadway.

2. All new buildings and alterations to existing buildings shall be set back at least 100 feet from the edge of pavement of the Scenic Travel Corridor roadway. A variance to this setback requirement may be granted pursuant to Chapter 6. All new parking lots and expansions of existing parking lots shall be set back at least 100 feet from the edge of pavement of the Scenic Travel Corridor roadway, to the maximum extent practicable.

Finding: The only new buildings that would be located within 100 feet of the edge of the pavement of a National Scenic Highway would be two of the five small signal buildings that are required for safe rail operations. Of the five total signal buildings that will be installed as a result of the project, five existing signal buildings will be removed. This results in no net increase of structures throughout the project area. Each of these signal buildings will have a footprint that will range from approximately 6 feet by 6 feet to approximately 8 feet by 10 feet and will be approximately 9 feet in height (see Appendix B). Because it is necessary for two of these buildings to be located within 100 feet of the pavement for I-84, UPRR will obtain a setback variance pursuant to NSA-LUDO Chapter 6.

5. When evaluating which locations to consider undergrounding of signal wires or powerlines, railroads and utility companies shall prioritize those areas specifically recommended as extreme or high priorities for undergrounding in the Columbia River Gorge National Scenic Area Corridor Visual Inventory, prepared in April, 1990.

Finding: The project is an infrastructure improvement to an existing facility rather than development of an entirely new facility. The project may require the minor relocation of overhead signal wire or powerlines; however, no new lines are planned as a part of the project. Therefore, this provision is not applicable.

C. In the SMA the following additional criteria shall to development [sic] *within the immediate foregrounds of Key Viewing Areas. Immediate foregrounds are defined as within the developed prism of a road or trail KVA or within the boundary of the developed area.*

Finding: In the SMA, no project segments will be visible within the immediate foreground of a KVA, as defined in this provision, discussed in Section 5.2 of this narrative and the finding in response to NSA-LUDO Section 14.200(R). Therefore, this provision does not apply.

Section 14.400 Landscape Settings

Landscape settings are the combination of land uses, landforms and vegetation patterns which distinguish an area in appearance and character from other portions of the National Scenic Area.

Landscape Setting goals, policies and guidelines, as defined and identified in the Management Plan, represent a long-term vision of scenic protection as expressed in the landscape. The following design standards are provided to ensure that new developments are compatible with and maintain the character of their settings. These standards are not intended to limit imagination, variety or creative design solutions. The Scenic Resources Implementation Handbook shall include recommended species for each landscape setting and minimum recommended sizes of new trees planted (based on average growth rates expected for recommended species).

Finding: This narrative demonstrates compliance with all applicable provisions associated with Landscape Settings pursuant to NSA-LUDO Section 14.400. UPRR acknowledges and will comply with the Landscape Setting goals, policies and guidelines, as defined and identified in the NSA-MP and NSA-LUDO, to ensure that project development is compatible with and maintains the character of landscape settings within the project

area. In addition, any revegetation of project areas that may be required will follow guidance provided in the *Scenic Resources Implementation Handbook*. Therefore, the project will be compliant with the criteria provided in NSA-LUDO Section 14.400.

A. Pastoral Landscape Setting

GMA Only

1. *Accessory structures, outbuildings and accessways shall be clustered together as much as possible, particularly towards the edges of existing meadows, pastures and farm fields.*
2. *In portions of this setting visible from Key Viewing Areas, the following standards shall be employed to achieve visual subordinance for new development and expansion of existing development:*
    a. *Vegetative landscaping shall, where feasible, retain the open character of existing pastures and fields.*
    b. *At least half of any trees planted for screening purposes shall be species native to the setting or commonly found in the area. Such species include fruit trees, Douglas fir, Lombardy poplar (usually in rows), Oregon white oak, bigleaf maple, and black locust (primarily in the eastern Gorge).*
    c. *At least one-quarter of any trees planted for screening shall be coniferous for winter screening.*

Finding: The project area crosses the Pastoral landscape setting from MP 70.37 to MP 70.62 in Segment 2 West where I-84 crosses over the rail corridor. The only KVA from which this 0.25-segment has the potential to be seen would be I-84. As described in Section 5.2.3 and in the response to NSA-LUDO Section 14.200(A), the visibility of any project-related changes in this area will likely be limited given the location of the rail corridor in a trench 30 feet or more below the overcrossing and the presence of obstructions to views from the roadway, and are likely to be fleeting given the speeds of the vehicles on the interstate.

One of the five new signal buildings is proposed within the Pastoral landscape setting. Because of its small dimensions and its surface textures and colors that would conform to the specifications set out in the *Scenic Resources Implementation Handbook*, the structure would be visually subordinate. Additionally, because of the limited visibility from I-84 into this area along the track, it is unlikely that screening landscaping would be necessary. Should a determination that landscaping of the area around any signal building located in this area be required, UPRR will provide landscaping that will be consistent with the provisions of NSA-LUDO Section 14.400(A)(2) and will use the recommended species for the Pastoral Landscape setting as provided by the *Scenic Resources Implementation Handbook*. Therefore, the project will comply with the applicable provisions of NSA-LUDO Section 14.400(A).

C. Oak-Pine Woodland Landscape Setting

SMA Only

3. *Woodland areas should retain the overall appearance of a woodland landscape. New developments and land uses shall retain the overall visual character of the natural appearance of the Oak/Pine Woodland landscape.*
    a. *Use of plant species native to the landscape setting shall be encouraged. Where non-native plants are used, they shall have native appearing characteristics.*
    b. *Buildings shall be encouraged to have horizontal overall appearance.*

Finding: The project includes an area of the Oak-Pine Woodland Landscape in the segment from MP 71.16 to MP 71.48 at the eastern end of Segment 2 West, where the UPRR alignment passes through a cut in the rock mesa that extends to the edge of the river in this area. In addition, the three staging areas that will be located south of the alignment segment from UPRR MP 71.53 to MP 71.79 include portions of the Oak-Pine Woodland landscape setting. None of the proposed five signal buildings will be installed in the area of Oak-

Pine Woodland Landscape between MP 71.16 and 71.48. The excavation required for widening of the cut through the rock mesa to accommodate the new track may result in clearing of vegetation in the area of Oak-Pine Woodland Landscape on the top of the mesa along the southern end of the cut. In addition, installation of the construction staging area will require some clearing of vegetation in Oak-Pine Woodland Landscape area. After construction of the project is complete, the cleared construction staging areas along the southern edge of the cut will be replanted, and all of the cleared areas that lie within the Oak-Pine Woodland Landscape will be replanted with the species specified for this landscape area in the *Scenic Resources Implementation Handbook.* Because of these measures, the project will be compliant with the applicable provisions of NSA-LUDO Section 14.400(C).

H. River Bottomlands Landscape Setting

GMA Only

1. *In portions of this setting visible from Key Viewing Areas, the following standards shall be employed to achieve visual subordinance for new development and expansion of existing development:*
    a. *At least half of any trees planted for screening purposes shall be species native to the River Bottomland setting. Public recreation developments are encouraged to maximize the percentage of planted screening vegetation native to this setting. Such native species include: black cottonwood, bigleaf maple, red alder, Oregon white ash, Douglas fir, western red cedar and western hemlock (west Gorge) and various native willow species.*
    b. *At least one-quarter of any trees planted for screening purposes shall be coniferous for winter screening.*

Finding: In Segment 1, the project alignment crosses areas of GMA-zoned River Bottomlands Landscape from MP 66.98 to 67.04, 67.18 to 67.22, and 67.34 to 67.75 along I-84. In Segment 2 West, the alignment travels through a GMA-zoned area of River Bottomlands Landscape from UPRR MP 70.62 to 71.27. In Segment 2 East, there are some areas of River Bottomlands Landscape, but because all of Segment 2 East lies in an area that has an SMA designation, they are not governed by this provision.

As established in Section 5.2.2 and in the response to NSA-LUDO Section 14.200(A), project changes in the River Bottomlands Landscape areas within Segment 1 along I-84 will be visually evident but not visually dominant in views from eastbound I-84, and will not be visually evident in views from the westbound I-84, SR-14, and Columbia River KVAs. In Segment 2, project features will not be visually evident in views from the SR-14 and Columbia River KVAs of the River Bottomlands Landscape areas.

Given that the project will be either not visually evident or will be visually subordinate in all views from KVAs within the GMA-zoned River Bottomlands Landscapes, this provision does not apply.

SMA Only

2. *River bottomlands shall retain the overall visual character of a floodplain and associated islands:*
    a. *Buildings shall have an overall horizontal appearance in areas with little tree cover.*
    b. *Use of plant species native to the landscape setting shall be encouraged. Where non-native plants are used, they shall have native-appearing characteristics.*

Finding: In Segment 2 East (MP 71.43 to MP 72.35), the alignment is located within an SMA-zoned River Bottomlands Landscape area, as are the three proposed construction staging areas. As established in Section 5.2.4 and in the response to NSA-LUDO Section 14.200(A), in the River Bottomlands Landscape of Segment 2 East, the second mainline track and associated facilities will not be visually evident in views from KVAs. As a consequence, development of the second mainline track will be consistent with this provision. Installation of the construction staging areas will require removal of existing vegetation from portions of River Bottomland Landscape area. UPRR will comply with this provision by restoring the site after completion of the project, and will plant the site with native species as specified in the *Scenic Resources Implementation Handbook.*

Therefore, the project complies with the applicable provisions of NSA-LUDO Section 14.400(H)(2).

I. Gorge Walls, Canyonlands and Wildlands Landscape Setting

GMA Only

1. *New development and expansion of existing development shall be screened so as to not be seen from Key Viewing Areas to the maximum extent practicable.*
2. *All trees planted to screen permitted development and uses from Key Viewing Areas shall be native to the area.*
3. *All buildings shall be limited in height to 1 1/2 stories.*
4. *The exteriors of structures shall be non-reflective.*
5. *Signage shall be limited to natural materials such as wood or stone, and natural colors (GMA only) or earth-tone colors (SMA or GMA), unless public safety concerns or federal or state highway standards require otherwise.*

Finding: The project alignment crosses areas of GMA-zoned Gorge Walls, Canyonlands and Wildlands Landscape in Segment 1 along I-84 from MP 66.90 to 67.34, and 67.75 to 68.58.

As established in the Section 5.2.2 and in the response to NSA-LUDO Section 14.200(A), in the Gorge Walls, Canyonlands and Wildlands Landscape areas along I-84, the project changes will be visually evident but not visually dominant in views from eastbound I-84, and will not be visually evident in views from westbound I-84 and from the SR-14 and Columbia River KVAs.

At present, there is little to no vegetation in the area between the southern edge of the interstate's eastbound lanes and the UPRR ROW. To conform with highway and railroad safety standards, this area will continue to be kept free of any large, woody vegetation. The only project-related structures that will be visible along the rail corridor would be two new signal buildings that will be installed in this area. Because the signal buildings will be no more than 9 feet in height, they will be well below the one and a half story height limit. The exteriors of the signal buildings will be non-reflective, and will be treated with dark colors intended to help them blend into the landscape backdrop, in conformance with the *Scenic Resources Implementation Handbook* (see Detail 10 of Appendix B).

Signage posted in this landscape area will include Station and Control Point, Whistle Signal, Vertical Control Point, Private Property, No Dumping, Speed Restriction, and Mile Marker signage. Most signage will be non-reflective black and white signage and will be posted at an approximate height of 10 feet. All signage installed will be the minimal amount required under federal law for the safe operation of the railroad and, to the extent that is consistent with safety requirements, the surfaces of sign posts will be treated with colors that are consistent with their landscape backdrop. Images of example standard railroad signage are included in Appendix B. Therefore, the project will comply with the applicable provisions of NSA-LUDO Section 14.400(I).

Section 14.500 Cultural Resources (GMA Only)

B. Applicability of the Cultural Resource Reconnaissance and Historic Survey Requirements

1. *The reconnaissance survey standards of C, Cultural Resource Reconnaissance and Historic Survey, apply until a cultural resource survey of the General Management Areas is complete.*
   a. *A reconnaissance survey shall be required for all proposed uses […]*

Finding: UPRR completed the *Cultural Resources Survey Union Pacific Railroad Second Mainline Track Project Wasco County, Oregon* (Cultural Resources Survey Report; provided as Appendix L) to comply with the applicable provisions of NSA-LUDO Section 14.500(B). The report provides an inventory of archaeological investigations conducted within 1 mile of project areas in the GMA. The inventory was compiled through a file search conducted on April 14, 2014. The search was carried out at the Oregon State Historic Preservation

Office (SHPO) in Salem. The file search was used to determine if previously recorded pre-contact and historic sites are located within or near the study area, and to determine whether any part of the study area had been surveyed previously for cultural resources. In addition to the file search, UPRR conducted a reconnaissance survey from April 30, 2014, through May 1, 2014. The Cultural Resource Survey Report, included as Appendix L, was prepared by CH2M HILL archaeologists. The research design for the project was reviewed and approved by CRGNSA Heritage Resources Director Marge Dryden on April 18, 2014 (see Appendix B of the Cultural Resources Survey Report). The results of this survey are described in Appendix L. Therefore, the project complies with the applicable provisions of NSA-LUDO Section 14.500(B)(1).

2. *A historic survey shall be required for all proposed uses that would alter the exterior architectural appearance of buildings and structures that are 50 years old or older, or compromise features of the surrounding area that are important in defining the historic or architectural character of the buildings or structures that are 50 years old or older.*

Finding: The Cultural Resources Survey Report presents the results of CH2M HILL's cultural resources and historic properties investigation for the UPRR project. CH2M HILL conducted a detailed review of historic and potentially historic properties in the vicinity of the project area in accordance with NSA-LUDO Section 14.500(B)(2). The Cultural Resources Survey Report (see Appendix L) shows that two historic properties have been recorded in the vicinity of the project area. One is the Historic Columbia River Highway (HCRH), which is listed as a National Historic Landmark, and the other is the OR&N Railroad Main Line, which has been recommended eligible for listing in the NRHP (Donovan, 1994). The Cultural Resources Survey Report also shows that one building in poor condition and five UPRR signal buildings are located in the project area. The Cultural Resources Survey Report determined that properties identified in the cultural resources survey conducted in 2014, including those listed above, are recommended not eligible for listing in the National Register of Historic Places (NRHP). The Cultural Resources Survey Report also shows that the proposed project will have no effect on historic properties. Therefore, the project complies with this criterion.

3. *The Gorge Commission will conduct and pay for all reconnaissance and historic surveys for small-scale uses in the General Management Area.*

   […]

   d. *For this Ordinance, large-scale uses include development involving:*

      (4) *public transportation facilities;*

Finding: The project qualifies as a large-scale use in accordance with NSA-LUDO Section 14.500(B)(3)(d)(4) because it involves improvements to public transportation facilities. Accordingly, UPRR does not seek funding from CRGC associated with the completion of the Cultural Resources Survey Report (see Appendix L).

4. *The primary responsibility and cost of preparing an Evaluation of Significance, D; Assessment of Affect, E; or Mitigation Plan, F, shall be borne by the project applicant.*

   a. *If the applicant has no practicable alternative, according to (5) below, Practicable Alternative Test, allowing them to avoid an affected cultural resource, or is seeking to make a change or addition to a historic resource, the Forest Service has agreed to provide services to aid in the preparation of the Evaluation of Significance, Assessment of Effect, or Mitigation Plan to the greatest extent possible.*

   b. *The responsibility for and cost of any development necessary to protect or mitigate effects on the cultural resource shall be borne by the project applicant.*

5. *All cultural resource surveys, evaluations, assessments, and mitigation plans shall be performed by professionals whose expertise reflects the type of cultural resources that are involved. Principal investigators shall meet the professional standards published in 36 Code of Federal Regulations (CFR) Part 61 and Guidelines for evaluating and Documenting Traditional Cultural Properties (Parker and King, no date).*

Finding: The enclosed Cultural Resources Survey Report (see Appendix L), prepared in consultation with CRGC, concludes that the project will not disturb cultural resources or eligible or listed historic properties identified. As a result, the project will not require an Evaluation of Significance, Assessment of Affect, or Mitigation Plan. Therefore, these criteria is not applicable.

C. Cultural Resource Reconnaissance and Historic Surveys

1. Gorge Commission/Tribal Government Notice

a. In addition to other public notice requirements that may exist, the County shall notify the Indian tribal governments when:

(1) a reconnaissance survey is required; or

(2) cultural resources that are prehistoric or otherwise associated with Native Americans exist in the project area.

b. Notices sent to Indian tribal governments shall include a site plan as stipulated in Section 14.040.

[…]

Finding: UPRR has complied with the Tribal Government Notice procedure outlined above prior to completion of its reconnaissance survey. Prior to the initiation of the cultural resources survey on April 30, UPRR provided project notification letters on April 8, 2014, requesting input and comment to the following tribes:

- Confederated Tribes and Bands of the Yakama Nation
- Confederated Tribes of the Warm Springs Reservation
- Confederated Tribes of the Umatilla Reservation
- The Nez Perce Tribe

The project notification letters were accompanied by a site plan as stipulated in NSA-LUDO Section 14.040. Further coordination with tribal governments regarding tribal consultation and ethnographic research will be coordinated by Wasco County as outlined in NSA-LUDO Sections 14.500(C), 14.800, and 14.810. UPRR has provided a copy of the project's Cultural Resources Survey Report with this narrative for consultation purposes (see Appendix L). Therefore, the project complies with this criterion.

D. Evaluation of Significance

1. Evaluation Criteria

Cultural resources are significant if one of the following criteria is satisfied.

a. The cultural resources are included in, or eligible for inclusion in, the National Register of Historic Places.

The criteria for evaluating the eligibility of cultural resources for the National Register of Historic Places appear in the "National Register Criteria for Evaluation" (36 CFR 60.4). Cultural resources are eligible for the National Register of Historic Places if they possess integrity of location, design, setting, materials, workmanship, feeling, and association. In addition, they must meet one or more of the following criteria.

(1) Have an association with events that have made a significant contribution to the broad patterns of the history of this region.

(2) Have an association with the lives of persons significant in the past.

(3) Embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic components may lack individual distinction.

(4) Yield, or may be likely to yield, information important in prehistory or history.

b. *The cultural resources are determined to be culturally significant by an Indian tribal government, based on criteria developed by that Indian tribal government and filed with the Gorge Commission.*

Finding: The Cultural Resources Survey Report (see Appendix L) discusses the results of the records review and cultural resources reconnaissance survey. As outlined in Appendix L, no significant cultural resources including archeological resources or historic properties would be disturbed as a result of the project. UPRR acknowledges that Wasco County through its coordination with SHPO and anticipates SHPO concurrence on the attached Cultural Resources Survey Report. Therefore, these criteria are not applicable.

G. Cultural Resources Discovered After Construction Begins

The following procedures shall be effected when cultural resources are discovered during construction activities.

1. *Halt Construction: All construction activities within 100 feet of the discovered cultural resource shall cease. The cultural resources shall remain as found; further disturbance is prohibited.*
2. *Notification: The project applicant shall notify the County Planning Office and the Gorge Commission within 24 hours of the discovery. If the cultural resources are prehistoric or otherwise associated with Native Americans, the project applicant shall also notify the Indian tribal governments within 24 hours.*
3. *Survey and Evaluation: The Gorge Commission will survey the cultural resources after obtaining written permission from the landowner and appropriate permits from the State Historic Preservation Office (see, ORS 358.905 to 358.955).*
   a. *The Commission will gather enough information to evaluate the significance of the cultural resources.*
   b. *The survey and evaluation will be documented in a report that generally follows the criteria in the "Reconnaissance Survey Reports--Large Scale Uses" and "Evaluation of Significance, Evaluation Criteria and Information Needs" of this chapter.*
   c. *Based on the survey and evaluation report and any written comments, the County will make a final decision on whether the resources are significant.*
   d. *Construction activities may recommence if the cultural resources are not significant.*
   e. *A mitigation plan will be prepared by the Gorge Commission if the affected cultural resources are significant.*
4. *Mitigation Plan: Mitigation plans shall be prepared according to the information, consultation, and report guidelines contained in F above, Mitigation Plans.*
5. *All survey and evaluation reports and mitigation plans shall be submitted to the County Planning Office and the State Historic Preservation Office.*
6. *Indian tribal governments also shall receive a copy of all reports and plans if the cultural resources are prehistoric or otherwise associated with Native Americans.*
7. *Construction activities may recommence when the conditions in the mitigation plan have been executed.*

Finding: UPRR acknowledges and will comply with the procedures required should cultural resources be discovered during construction activities. The Cultural Resources Survey Report includes an Unanticipated Discovery Plan (UDP) developed in coordination with CRGC that includes procedures, protocols, and contact information for the discovery of cultural materials including Human Remains, during construction (see Appendix E to the Cultural Resources Survey Report).

H. Discovery of Human Remains

The following procedures shall be effected when human remains are discovered during a cultural resource survey or during construction. Human remains means articulated or disarticulated human skeletal remains, bones, or teeth, with or without attendant burial artifacts.

1. *Halt Activities: All survey, excavation, and construction activities shall cease. The human remains shall not be disturbed any further.*
2. *Notification: Local law enforcement officials, the County Planning Office, the Gorge Commission, and the Indian tribal governments shall be contacted immediately.*
3. *Inspection: The county coroner, or appropriate official, shall inspect the remains at the project site and determine if they are prehistoric/historic or modern. Representatives from the Indian tribal governments shall have an opportunity to monitor the inspection.*
4. *Jurisdiction: If the remains are modern, the appropriate law enforcement officials will assume jurisdiction and the cultural resource protection process may conclude.*
5. *Treatment: Prehistoric/historic remains of Native Americans shall generally be treated in accordance with the procedures set forth in Oregon Revised Statutes, chapter 97.740 to 97.760.*
6. *If the human remains will be reinterred or preserved in their original position, a mitigation plan shall be prepared in accordance with the consultation and report requirements specified in F above, Mitigation Plans.*
   a. *The plan shall accommodate the cultural and religious concerns of Native Americans.*
   b. *The cultural resource protection process may conclude when the conditions set forth in F above, Mitigation Plans, are met and the mitigation plan is executed.*

Finding: UPRR acknowledges and will comply with the procedures required should cultural resources be discovered during construction activities. In the event of an unanticipated discovery of prehistoric or historic period cultural materials, a standard unanticipated discovery procedure will be implemented, which generally includes construction within the immediate vicinity of the discovery stopping, and the area being secured to protect the resource from damage. A qualified archaeologist will then document the find by preparing a brief written statement and taking photographs. This documentation will be submitted to the Oregon SHPO, and work within the immediate vicinity of the find will not resume until a preservation plan is approved in coordination with SHPO.

In addition, the Cultural Resources Survey Report includes an UDP that includes procedures, protocols, and contact information for the discovery of cultural materials including Human Remains, during construction (see Appendix E to the Cultural Resources Survey Report).

K. Reconnaissance Surveys–Large Scale Uses

Reconnaissance surveys for large-scale uses shall be designed by a qualified professional. A written description of the survey shall be submitted to and approved by the Gorge Commission's designated archaeologist.

[…]

L. Reconnaissance Survey Reports—Large Scale Uses

The results of a reconnaissance survey for large-scale uses shall be documented in a confidential report. Reconnaissance survey reports shall include:

1. *A description of the proposed use, including drawings and maps.*

2. *A description of the project area, including soils, vegetation, topography, drainage, past alterations, and existing land use.*
3. *A list of the documents and records examined during the archival research and a description of any prehistoric or historic events associated with the project area.*
4. *A description of the fieldwork methodology used to identify cultural resources, including a map that shows the project area, the areas surveyed, and the location of subsurface probes. The map shall be prepared at a scale of 1 inch equals 100 feet (1:1,200), or a scale providing greater detail.*
5. *An inventory of the cultural resources that exist in the project area, including a written description, photographs, drawings, and a map. The map shall be prepared at a scale of 1 inch equals 100 feet (1:1,200), or a scale providing greater detail.*
6. *A summary of all written comments submitted by Indian tribal governments and other interested persons.*
7. *A preliminary assessment of whether the proposed use would or would not have an effect on cultural resources. This assessment shall incorporate concerns and recommendations voided during consultation meetings and information obtained through archivic and ethnographic research and field surveys.*

M. *Historic Surveys and Reports*

Historic surveys shall document the location, form, style, integrity, and physical condition of historic buildings and structures.

1. *Historic surveys shall include original photographs and maps. Archival research, blueprints, and drawings should be used as necessary.*
2. *Historic surveys shall describe any uses that will alter or destroy the exterior architectural appearance of the historic buildings or structures, or compromise features of the site that are important in defining the overall historic character of the historic buildings or structures.*
3. *The project applicant shall provide detailed architectural drawings and building plans that clearly illustrate all proposed alterations.*

Finding: UPRR submitted the research design associated with the project's cultural resources reconnaissance survey to CRGC's designated archeologist and received concurrence on April 8, 2014 (see Appendix B of the enclosed Cultural Resources Report which is included as Appendix L of this narrative). The Cultural Resources Report, which includes an analysis of historic properties, was submitted to CRGC's designated archaeologist in June 2014 to confirm that all required components of this report were satisfied. CRGC noted that although final confirmation cannot be made until Wasco County submits this application narrative to CRGC, the survey and its associated report was appropriate in size and scale for the project. Accordingly, these criteria are satisfied.

Section 14.510 Cultural Resources (SMA Only)

[…]

B. *This section is applicable to all Federal agencies for new developments and land uses on all Federal lands, federally assisted projects and forest practices. The Forest Service will provide for completing the requirements of this Section for forest practices and National Forest system lands.*

C. *All projects that are not included for review in B above shall be reviewed under Section 14.500 of this Chapter.*

Finding: The proposed project is not federally assisted and does not occur on federal lands. As a result, the project will be reviewed under NSA-LUDO Section 14.500. Therefore, NSA-LUDO Section 14.510 is not applicable.

Section 14.600 Natural Resources (GMA Only)

A. Wetlands

2. Rules for Delineating Wetlands Boundaries

a. The approximate location and extent of wetlands in the Scenic Area is shown on the National Wetlands Inventory (U.S. Fish and Wildlife Service 1987). In addition, the list of hydric soils and the soil survey maps shall be used as an indicator of wetlands.

b. Some wetlands may not be shown on the wetland inventory or soil survey maps. Wetlands that are discovered by the County planning staff during an inspection of a potential site shall be delineated and protected unless the proposed development is clearly sited beyond the wetland buffers as stated in A(3).

c. Determining the exact location of a wetlands boundary shall be the responsibility of the project applicant.

(1) Wetlands boundaries shall be delineated using the procedures specified in the Corps of Engineers Wetlands Delineation Manual (Wetlands Research Program Technical Report Y-87-1, on-line edition, updated through March 21, 1997)

(2) All wetlands delineations shall be conducted by a professional who has been trained to use the federal delineation procedures, such as a soil scientist, botanist, or wetlands ecologist.

d. The County may verify the accuracy of, and may render adjustments to, a wetlands boundary delineation.

e. In the event the adjusted boundary delineation is contested by the project applicant, the County shall, at the applicant's expense, obtain professional services to render a final delineation.

Finding: A field investigation for wetlands and water bodies was conducted by CDM Smith scientists within the proposed project area on October 15-17, 2013. The delineation methodology conformed to the guidelines presented in the *Corps Wetlands Delineation Manual, Technical Report Y-87-1* (USACE 1987) and the *2010 USACE Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)* (USACE 2010). The results of this field investigation are presented in the *Wetland Report: Mosier Siding Project, Portland Subdivision, Wasco County, OR*, provided as Appendix E to this narrative. Delineated wetlands within the project vicinity are also shown in Figure 4-3 in Appendix A.

UPRR acknowledges that Wasco County may field-verify the accuracy of the wetland boundaries as delineated, and understands the process by which it may contest a County-requested boundary adjustment. Therefore, this project complies with these criteria.

3. Wetlands Buffer Zones

a. The width of wetlands buffer zones shall be based on the dominant vegetation community that exists in a buffer zone.

b. The dominant vegetation community in a buffer zone is the vegetation community that covers the most surface area of that portion of the buffer zone that lies between the proposed activity and the affected wetland. Vegetation communities are classified as forest, shrub, or herbaceous.

(1) A forest vegetation community is characterized by trees with an average height equal to or greater than 20 feet, accompanied by a shrub layer; trees must form a canopy cover of at least 40 percent and shrubs must form a canopy cover of at least 40 percent.

(2) A forest community without a shrub component that forms a canopy cover of at least 40 percent shall be considered a shrub vegetation community.

(3) A shrub vegetation community is characterized by shrubs and trees that are greater than 3 feet tall and form a canopy cover of at least 40 percent.

(4) A herbaceous vegetation community is characterized by the presence of herbs, including grass and grasslike plants, forbs, ferns, and nonwoody vines.

c. Buffer zones shall be measured outward from a wetlands boundary on a horizontal scale that is perpendicular to the wetlands boundary. The following buffer zone widths shall be required.

(1) Forest communities: 75 feet
(2) Shrub communities: 100 feet
(3) Herbaceous communities: 150 feet

Finding: Delineated wetlands and associated buffers in the project vicinity are shown in Figure 4-3 in Appendix A, in accordance with NSA-LUDO Section 14.600 (A)(3). Jurisdictional wetlands and waterbodies are described in Table 4.3. The vegetation communities surrounding Wetlands 11, 12, 17, and 18 delineated in the GMA zones conform to the definition of shrub communities, and therefore are shown with a 100-foot buffer zone. The area between the project area and Wetland 20 between MP 66.98 and MP 67.12 consists of previously disturbed, unvegetated area immediately adjacent to the existing mainline track embankment, and therefore does not conform to the vegetation communities defined in this provision. Accordingly, the project has complied with these criteria.

d. Except as otherwise allowed, wetlands buffer zones shall be retained in their natural condition.

e. When a buffer zone is disturbed by a new use, it shall be replanted with native plant species.

Finding: The project will result in disturbance to three delineated wetlands and five wetland buffer zones within designated GMA zones. Measures will be applied to ensure that the project results in the minimum amount of disturbance practicable to the affected wetlands and their buffers, pursuant to NSA-LUDO Section 14.600 (A)(6), and in accordance with applicable federal permit conditions. No temporary wetland disturbance will occur. Temporary impacts to wetland buffers will be mitigated through onsite, in-kind restoration and revegetation following construction. Buffer areas that are currently unvegetated, including the existing railroad track embankment, will not be revegetated. Permanent wetland impacts will be mitigated through compensatory mitigation, as described in the Mitigation Plan (see Appendix D) and through consultation with USACE. Therefore, the project complies with these provisions.

4. Modification to Serviceable Structures and Placement of Minor Water Dependent and Water-Related Structures in Wetlands

The following uses may be allowed in wetlands and wetland buffer zones, subject to (5) below, Approval Criteria for Modifications to Serviceable Structures and Minor Water-Dependent and Water-Related Structures in Wetlands, (7) below Site Plans, and the remaining applicable sections of this Chapter.

a. The modification, expansion, replacement, or reconstruction of serviceable structures, if such actions would not:

(1) Increase the size of an existing structure by more than 100 percent;
(2) Result in a loss of wetlands acreage or functions; and
(3) Intrude further into a wetland or wetlands buffer zone.

New structures shall be considered to be intruding further into a wetland or wetlands buffer zone if any portion of the structure is located closer to the wetland or wetlands buffer zone than the existing structure.

Finding: The project consists of infrastructure improvements to existing railroad mainline track, and includes ancillary structures, lighting, signage, and minor ROW acquisition necessary to satisfy federal rail safety standards. The project will result in impacts to three delineated wetlands and five wetland buffer zones within designated GMA zones. In four areas the proposed second mainline track will also be located closer to adjacent wetlands and wetland buffers than the existing mainline track. The project, therefore, does not satisfy the criteria as an allowed use pursuant to NSA-LUDO Section 14.600(A)(4), and shall demonstrate consistency with NSA-LUDO Section 14.600(A)(6), and the remaining applicable sections in NSA-LUDO Chapter 14.600(A).

6. *Other Uses and Activities Located in Wetlands or Wetland Buffer Zones. Except for uses permitted without review in Section 3.100 and 3.180(B) (Open Space) and Modifications to Serviceable Structures and Placement of Minor Water-Dependent and Water-Related Structures in Wetlands as specified in (4) above, other uses authorized by the applicable zoning designation may be allowed in wetlands and wetland buffer zones subject to (7) below, Site Plans, the remaining applicable sections of this Chapter and the following criteria:*

    a. *The proposed use is water-dependent, or is not water-dependent but has no practicable alternative as determined by E, Practicable Alternative Test.*

Finding: As explained above, the location of the existing railroad depends directly on proximity to the Columbia River. Thus, the project is a minor expansion of a historically water-dependent use. Furthermore, UPRR demonstrates in its finding to NSA-LUDO Section 14.600(E) below that the project has no practicable alternative that would result in fewer impacts to natural resources. Therefore, the project complies with this provision and those referenced therein.

    b. *The proposed use is in the public interest as determined by F, Public Interest Test.*

Finding: UPRR demonstrates in its finding to NSA-LUDO Section 14.600(F) below that the project satisfies the criteria of the Public Interest Test. Therefore, the project complies with this provision.

    c. *Measures will be applied to ensure that the proposed use results in the minimum feasible alteration or destruction of the wetland's functions, existing contour, vegetation, fish and wildlife resources, and hydrology.*

Finding: UPRR has incorporated a number of design considerations in order to reduce the project footprint and its impacts to natural resources such as wetlands (refer to finding for NSA-LUDO Section 14.600[E] below). Additional avoidance and minimization measures will be implemented, as described in the project's Mitigation Plan (see Appendix D), which will satisfy the requirements of all state and federal permits, as well as the requirements of the NSA-LUDO. BMPs and avoidance and minimization measures will include, but not be limited to:

- Areas for fuel storage, refueling, and servicing of construction equipment must be located in an upland location.
- Prior to use, clean all equipment to remove external oil, grease, dirt, or mud.
- Wash sites must be located in upland locations so that dirty wash water does not flow into stream channel or wetlands.
- Erosion control measures will be in place at all times during construction. Construction will not start until all temporary control devices (straw bales, silt fences, etc.) are in place downslope or downstream of project site.

Therefore, the project complies with this provision.

d. Groundwater and surface-water quality will not be degraded by the proposed use.

Finding: UPRR will avoid impacts to groundwater and surface water quality during construction of the project through implementation of BMPs as well as specific requirements contained within the state and federal permits listed in Table 1-4 of this narrative, which will be obtained prior to the start of project construction. BMPs will include, but not be limited to:

- Areas for fuel storage, refueling, and servicing of construction equipment must be located in an upland location.
- Prior to use, clean all equipment to remove external oil, grease, dirt, or mud.
- Wash sites must be located in upland locations so that dirty wash water does not flow into stream channel or wetlands.
- Erosion control measures will be in place at all times during construction. Construction will not start until all temporary control devices (straw bales, silt fences, etc.) are in place downslope or downstream of project site.

Therefore, the project complies with this provision.

e. Those portions of a proposed use that are not water-dependent or have a practicable alternative will not be located in wetlands or wetlands buffer zones.

Finding: As explained above, in response to NSA-LUDO Section 14.200(G), the location of the existing railroad depends directly on proximity to the Columbia River. Due to the nature of the railroad as a pre-existing, interstate transportation system, there are no portions of the proposed project which do not meet these criteria. Therefore, the project complies with this provision.

f. The proposed use complies with all applicable federal, state, and local laws.

Finding: As described in Section 1.2 of this narrative, UPRR is actively pursuing the requisite permits and approvals from federal and state agencies listed in Table 1-4 for construction and operation of the project. UPRR will abide by all required permit conditions; therefore, the project complies with this provision.

g. Areas that are disturbed during construction of the proposed use will be rehabilitated to the maximum extent practicable.

Finding: The project will result in direct impacts to three delineated wetlands and five buffer zones within designated GMA zones. Measures will be applied to ensure that the project results in the minimum amount of disturbance practicable to the affected wetlands, pursuant to NSA-LUDO Section 14.600 (A)(6), and in accordance with applicable federal permit conditions. These measures will include, but not be limited to, restoration of temporarily disturbed areas to pre-construction conditions to the greatest extent feasible. Permanent wetland impacts will be mitigated through compensatory mitigation, as described in the Mitigation Plan (see Appendix D). Therefore, the project complies with these provisions.

h. Unavoidable impacts to wetlands will be offset through the deliberate restoration, creation, or enhancement of wetlands. Wetlands restoration, creation, and enhancement are not alternatives to the guidelines listed above; they shall be used only as a last resort to offset unavoidable wetlands impacts. Wetlands restoration, creation, and enhancement shall be in accordance with Subsection (8) below, Wetlands Compensation Plans.

The following wetlands restoration, creation, and enhancement guidelines shall apply:

(1) Impacts to wetlands shall be offset by restoring or creating new wetlands or by enhancing degraded wetlands. Wetlands restoration shall be the preferred alternative.

(2) Wetlands restoration, creation, and enhancement projects shall be conducted in accordance with a wetlands compensation plan.

(3) Wetlands restoration, creation, and enhancement projects shall use native vegetation.

(4) The size of replacement wetlands shall equal or exceed the following ratios. The first number specifies the acreage of wetlands requiring replacement and the second number specifies the acreage of wetlands altered or destroyed.

(a) Restoration: 2:1
(b) Creation: 3:1
(c) Enhancement: 4:1

(5) Replacement wetlands shall replicate the functions of the wetland that will be altered or destroyed such that no net loss of wetlands function occurs.

(6) Replacement wetlands should replicate the type of wetland that will be altered or destroyed. If this standard is not feasible or practical due to technical constraints, a wetland type of equal or greater benefit may be substituted, provided that no net loss of wetlands functions occurs.

(7) Wetlands restoration, creation, or enhancement should occur within 1,000 feet of the affected wetland. If this guideline is not practicable due to physical or technical constraints, replacement shall occur within the same watershed and as close to the altered or destroyed wetland as practicable.

(8) Wetlands restoration, creation, and enhancement efforts should be completed before a wetland is altered or destroyed. If it is not practicable to complete all restoration, creation, and enhancement efforts before the wetland is altered or destroyed, these efforts shall be completed before the new use is occupied or used.

(9) Five years after a wetland is restored, created, or enhanced at least 75 percent of the replacement vegetation must survive. The project applicant shall monitor the hydrology and vegetation of the replacement wetland and shall take corrective measures to ensure that it conforms with the approved wetlands compensation plan and this guideline.

Finding: The project will result in unavoidable impacts to three delineated wetlands and five wetland buffer zones within designated GMA zones. Measures will be applied to ensure that the project results in the minimum amount of disturbance practicable to the affected wetlands, pursuant to NSA-LUDO Section 14.600 (A), and in accordance with applicable federal permit conditions. Temporary impacts to wetland buffers will be mitigated through onsite, in-kind restoration following construction. There will be no temporary impacts to wetlands. Permanent wetland impacts will be mitigated through compensatory mitigation, as described in the Mitigation Plan (see Appendix D). The final Mitigation Plan will satisfy all requirements of Section 14.600(A)(6)(h). Therefore, the project complies with these provisions.

7. Site Plans

In addition to the information required in all site plans, site plans for proposed uses in wetlands or wetlands buffer zones shall include: a site plan map prepared at a scale of 1 inch equals 100 feet (1:1,200), or a scale providing greater detail; the exact boundary of the wetland and the wetlands buffer zone; and a description of actions that would alter or destroy the wetland.

Finding: Detailed engineering and design drawings are included as Appendix C to this narrative, and include affected wetlands. Wetland buffer zones are shown in Figure 4-3, and a description of actions that will impacts wetlands is included in Section 4.2.5.7, pursuant to this provision.

8. Wetlands Compensation Plans

Wetlands compensation plans shall be prepared when a project applicant is required to restore, create, or enhance wetlands. They shall satisfy the following guidelines:

a. Wetlands compensation plans shall be prepared by a qualified professional.

b. The primary responsibility and cost of preparing wetland compensation plans shall be borne by the applicant. If the applicant has no practicable alternative, according to E below, Practicable Alternative Test, to locating within the wetland or wetland buffer area, the Forest Service has agreed to provide assistance in the preparation of the plan, to the greatest extent possible.

c. Wetland compensation plans shall provide for land acquisition, construction, maintenance, and monitoring of replacement wetlands.

d. Wetlands compensation plans shall include an ecological assessment of the wetland that will be altered or destroyed and the wetland that will be restored, created, or enhanced. This assessment shall include information on flora, fauna, hydrology, and wetlands functions.

e. Compensation plans shall also assess the suitability of the proposed site for establishing a replacement, wetland, including a description of the water source and drainage patterns, topography, wildlife habitat opportunities, and value of the existing area to be converted.

f. Plan view and cross-sectional, scaled drawings; topographic survey data, including elevations at contour intervals no greater than 1 foot, slope percentages, and final grade elevations; and other technical information shall be provided in sufficient detail to explain and illustrate:

(1) Soil and substrata conditions, grading, and erosion and sediment control needed for wetland construction and long-term survival.

(2) Planting plans that specify native plant species, quantities, size, spacing, or density; source of plant materials or seeds; timing, season, water, and nutrient requirements for planting; and where appropriate, measures to protect plants from predation.

(3) Water-quality parameters, water source, water depths, water-control structures, and water-level maintenance practices needed to achieve the necessary hydrologic conditions.

g. A 5-year monitoring, maintenance, and replacement program shall be included in all plans. At a minimum, a project applicant shall provide an annual report that documents milestones, successes, problems, and contingency actions. Photographic monitoring stations shall be established and photographs shall be used to monitor the replacement wetland.

h. A project applicant shall demonstrate sufficient fiscal, technical, and administrative competence to successfully execute a wetlands compensation plan.

(1) The Director may require the owner of the property to sign a contract with the County for enforcement of the Wetland Compensation Plan. Such contract shall be executed within thirty (30) days after approval is granted, provided, however, that the Director may grant time extensions due to practical difficulty. The Director shall have the authority to execute such contracts on behalf of the County. If a contract is required, no building permit shall be issued for the use covered by the application, nor construction commence until the executed contract is recorded on the real property records of Wasco County and filed in the County Journal. Such contract shall not restrict the power of subsequent administrative action, with or without conditions. Such contracts shall be enforceable against the signing parties, their heirs, successors, and assigns by Wasco County by appropriate action in law or suit in equity for the benefit of public health, safety and welfare.

(2) A bond, in a form acceptable to the Director or, upon appeal or review, by the Commission or County Court or a cash deposit from the property owner(s) or contract purchaser(s) in such amount as will assure compliance with the Wetland Compensation Plan may be required. Such bond or deposit shall be posted before any building permits will be issued or construction may commence.

Finding: The project will result in unavoidable disturbance to three delineated wetlands and five buffer zones within designated GMA zones. Measures will be applied to ensure that the project results in the minimum amount of disturbance practicable to the affected wetlands, pursuant to NSA-LUDO Section 14.600 (A), and in accordance with applicable federal permit conditions. No temporary wetland disturbance will occur. Permanent wetland impacts will be mitigated through compensatory mitigation, as described in the Mitigation Plan (see Appendix D). The Mitigation Plan will satisfy all requirements of NSA-LUDO Section 14.600(A)(8). Therefore, the project complies with these provisions.

B. Streams, Ponds, Lakes, and Riparian Areas

2. Stream, Pond, and Lake Buffer Zones

a. Buffer zones shall generally be measured landward from the ordinary high water-mark on a horizontal scale that is perpendicular to the ordinary high water-mark. On the main stem of the Columbia River above Bonneville Dam, buffer zones shall be measured landward from the normal pool elevation of the Columbia River. The following buffer widths shall be required:

(1) Streams used by anadromous or resident fish (tributary fish habitat), special streams, intermittent streams that include year-round pools, and perennial streams: 100 feet.

(2) Intermittent streams, provided they are not used by anadromous or resident fish: 50 feet.

(3) Ponds and lakes:

(a) The pond or lake buffer zones shall be based on the dominant vegetation community that exists in a buffer zone.

(b) The dominant vegetation community in a buffer zone is the vegetation community that covers the most surface area of that portion of the buffer zone that lies between the proposed activity and the affected pond or lake. Vegetation communities are classified as forest, shrub, or herbaceous.

(i) A forest vegetation community is characterized by trees with an average height equal to or greater than 20 feet, accompanied by a shrub layer; trees must form a canopy cover of at least 40 percent and shrubs must form a canopy cover of at least 40 percent.

(ii) A forest community without a shrub component that forms a canopy cover of at least 40 percent shall be considered a shrub vegetation community.

(iii) A shrub vegetation community is characterized by shrubs and trees that are greater than 3 feet tall and form a canopy cover of at least 40 percent.

(iv) A herbaceous vegetation community is characterized by the presence of herbs, including grass and grasslike plants, forbs, ferns, and nonwoody vines.

(c) Buffer zones shall be measured outward from a pond or lake boundary on a horizontal scale that is perpendicular to the pond or lake boundary. The following buffer zone widths shall be required.

(i) Forest communities:	*75 feet*
(ii) Shrub communities:	*100 feet*
(iii) Herbaceous communities:	*150 feet*

Finding: Delineated ponds and lakes and their associated buffers in the project vicinity are described in Table 4-3 and shown in Figure 4-3 in Appendix A, in accordance with NSA-LUDO Section 14.600(B)(2). The vegetation communities surrounding Lakes 11, 17, and 18 delineated in the GMA zones conform to the definition of shrub communities, and therefore are shown with a 100-foot buffer zone. The area between the project area and Lake 20 between MP 66.98 and MP 67.12 consists of previously disturbed, unvegetated

area immediately adjacent to the existing mainline track embankment, and therefore does not conform to the vegetation communities defined in this provision.

The Columbia River and its associated buffer zone are delineated based on the boundaries of the GMA Open Water zone, according to geospatial data provided by the CRGC. No streams, special streams, or intermittent streams are located within the project area. Therefore, the project complies with these provisions.

(d) When a buffer zone is disturbed by a new use, it shall be replanted with native plant species.

Finding: The project will result in impacts to two delineated waterbodies and three waterbody buffer zones within designated GMA zones. Temporary and permanent buffer zone disturbance will be mitigated to the greatest degree feasible through onsite, in-kind restoration following construction, including replanting with native plant species. Buffer areas that are currently unvegetated, including the existing railroad track embankment, will not be revegetated. Detailed restoration measures are described in the Mitigation Plan and the Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan, included as Appendixes D and K to this narrative, respectively. Therefore, the project complies with these provisions.

b. Determining the exact location of the ordinary high water-mark or normal pool elevation shall be the responsibility of the project applicant. The County may verify the accuracy of, and may render adjustments to, an ordinary high water-mark or normal pool delineation. In the event the adjusted boundary delineation is contested by the project applicant, the County shall, at the project applicant's expense, obtain professional services to render a final delineation.

Finding: A field investigation for wetlands and waterbodies was conducted by CDM Smith scientists within the proposed project area on October 15 to 17, 2013. The results of this field investigation are presented in the *Wetland Report: Mosier Siding Project, Portland Subdivision, Wasco County, OR*, provided as Appendix E to this narrative. Delineated wetlands and waterbodies within the project vicinity are also shown in Figure 4-3 in Appendix A.

UPRR acknowledges that Wasco County may field-verify the accuracy of the ordinary high water mark as delineated, and understands the process by which it may contest a County-requested boundary adjustment. Therefore, this project complies with this provision.

c. Except as otherwise allowed, buffer zones shall be retained in their natural condition. When a buffer zone is disturbed by a new use, it shall be replanted with native plant species.

Finding: The project will result in disturbance to two delineated waterbodies and three waterbody buffer zones within designated GMA zones. Measures will be applied to ensure that the project results in the minimum amount of disturbance to the affected waterbodies, pursuant to NSA-LUDO Section 14.600 (B), and in accordance with applicable federal permit conditions. Temporary and permanent buffer zone disturbance will be mitigated to the greatest degree feasible through onsite, in-kind restoration following construction, including replanting with native plant species. Detailed restoration measures are described in the Mitigation Plan and the Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan, included as Appendixes D and K to this narrative, respectively. Therefore, the project complies with these provisions.

3. Modifications to Serviceable Structures and Placement of Minor Water- Dependent and Water-Related Structures in Aquatic Riparian Areas.

The following uses may be allowed in streams, ponds, lakes, and riparian areas, subject to (4) below, Approval Criteria for Modifications to Serviceable Structures and Placement of Minor Water-Dependent and Water-Related Structures in Aquatic Riparian Areas, (6) below, Site Plans, the remaining applicable sections of this Chapter and the following:

a. The modification, expansion, replacement or reconstruction of serviceable structures, provided that such actions would not:

(1) Increase the size of an existing structure by more than 100 percent,

(2) Result in a loss of water quality, natural drainage, and fish and wildlife habitat, or

(3) Intrude further into a stream, pond, lake, or buffer zone. New structures shall be considered intruding further into a stream, pond, lake, or buffer zone if any portion of the structure is located closer to the stream, pond, lake, or buffer zone than the existing structure.

Finding: The project consists of infrastructure improvements to existing railroad mainline track, and includes ancillary structures, lighting, signage, and minor ROW acquisition necessary to satisfy federal rail safety standards. However, the project will result in impacts to two delineated waterbodies and three waterbody buffer zones within designated GMA zones. In one area the proposed second mainline track will also be located closer to the adjacent waterbody and the associated buffer zone than the existing mainline track. The project, therefore, does not satisfy the criteria as an allowed use pursuant to Section NSA-LUDO 14.600(B)(3), and rather will be required to comply with NSA-LUDO Section 14.600(B)(5), and the remaining applicable sections in NSA-LUDO Section 14.600(B).

5. Other Uses and Activities Located in Aquatic and Riparian Areas

Except for uses permitted without review in 3.100 and 3.180(B) (Open Space) and modifications to serviceable structures and placement of minor water-dependent and water-related structures in aquatic and riparian areas as specified in (3) above, other uses authorized by the applicable zoning designation may be allowed in aquatic and riparian areas subject to (6) below, Site Plans, the remaining applicable sections of this Chapter, and the following criteria:

a. The proposed use is water-dependent, or is not water-dependent but has no practicable alternative as determined by E below, Practicable Alternative Test of this section.

Finding: As explained above, in response to NSA-LUDO Section 14.200(G), the location of the existing railroad depends directly on proximity to the Columbia River. Furthermore, UPRR demonstrates in its finding to NSA-LUDO Section 14.600(E) below that the project has no practicable alternative that would result in fewer impacts to natural resources. Therefore, the project complies with this provision and those referenced therein.

b. The proposed use is in the public interest as determined by F below, Public Interest Test of this section.

Finding: UPRR demonstrates in its finding to NSA-LUDO Section 14.600(F) below that the project satisfies the criteria of the Public Interest Test. Therefore, the project complies with this provision.

c. Measures have been applied to ensure that the proposed use results in minimum feasible impacts to water quality, natural drainage, and fish and wildlife habitat of the affected stream, pond, lake and/or buffer zone.

As a starting point, the following mitigation measures shall be considered when new uses are proposed in streams, ponds, lakes, and buffer zones:

(1) Construction shall occur during periods when fish and wildlife are least sensitive to disturbance. Work in streams, ponds, and lakes shall be conducted during the periods specified in "Oregon Guidelines for Timing of In-Water Work to Protect Fish and Wildlife Resources" (Oregon Department of Fish and Wildlife 2000) unless otherwise coordinated with and approved by the Oregon Department of Fish and Wildlife.

(2) All natural vegetation shall be retained to the greatest extent practicable, including aquatic and riparian vegetation.

(3) Nonstructural controls and natural processes shall be used to the greatest extent practicable.

(4) Bridges, roads, pipeline and utility corridors, and other water crossings shall be minimized and should serve multiple purposes and properties.

(5) Stream channels shall not be placed in culverts unless absolutely necessary for property access. Bridges are preferred for water crossings to reduce disruption to streams, ponds, lakes, and their banks. When culverts are necessary, oversized culverts with open bottoms that maintain the channel's width and grade should be used.

(6) Temporary and permanent control measures shall be applied to minimize erosion and sedimentation when riparian areas are disturbed, including slope netting berms and ditches, tree protection, sediment barriers, infiltration systems, and culverts.

Finding: UPRR has incorporated a number of design considerations in order to reduce the project footprint and its impacts to natural resources such as streams, lakes, ponds and riparian areas (refer to finding for NSA-LUDO Section 14.600(E) below). Additional avoidance and minimization measures will be implemented, as described in the project's Mitigation Plan (see Appendix D), which will satisfy the requirements of all state and federal permits, as well as the requirements described in NSA-LUDO Section 14.600(B)(5)(c). Therefore, the project complies with these provisions.

d. Groundwater and surface-water quality will not be degraded by the proposed use.

Finding: UPRR will avoid disturbance to groundwater and surface water quality during construction of the project through implementation of BMPs as well as requirements contained in the state and federal permits listed in Table 1-4, which will be obtained prior to the start of project construction. BMPs will include, but not be limited to:

- Areas for fuel storage, refueling, and servicing of construction equipment must be located in an upland location.
- Prior to use, clean all equipment to remove external oil, grease, dirt, or mud.
- Wash sites must be located in upland locations so that dirty wash water does not flow into stream channel or wetlands.

Erosion control measures will be in place at all times during construction. Construction will not start until all temporary control devices (straw bales, silt fences, etc.) are in place downslope or downstream of project site. Therefore, the project complies with this provision.

e. Those portions of a proposed use that are not water-dependent or have a practicable alternative will be located outside of stream, pond, and lake buffer zones.

Finding: As explained above, in response to NSA-LUDO Section 14.200(G), the location of the existing railroad depends directly on proximity to the Columbia River. Furthermore, UPRR demonstrates in its finding to NSA-LUDO Section 14.600(E) below that the project has no practicable alternative that would result in fewer impacts to natural resources. Due to the nature of the railroad as a pre-existing, interstate transportation system, there are no portions of the proposed project which do not meet these criteria. Therefore, the project complies with this provision.

f. The use complies with all applicable federal, state, and local laws.

Finding: As described in Section 1.2 of this narrative, UPRR is actively pursuing the requisite permits and approvals from federal and state agencies listed in Table 1-4 for construction and operation of the project. UPRR will abide by all required permit conditions; therefore, the project complies with this provision.

g. Unavoidable impacts to aquatic and riparian areas will be offset through rehabilitation and enhancement.

Rehabilitation and enhancement shall achieve no net loss of water quality, natural drainage, and fish and wildlife habitat of the affected stream, pond, lake, and/or buffer zone. When a project

area has been disturbed in the past it shall be rehabilitated to its natural condition to the maximum extent practicable.

When a project area cannot be completely rehabilitated, such as when a boat launch permanently displaces aquatic and riparian areas, enhancement shall also be required.

The following rehabilitation and enhancement standards shall apply:

(1) Rehabilitation and enhancement projects shall be conducted in accordance with a rehabilitation and enhancement plan.

(2) Natural hydrologic conditions shall be replicated, including current patterns, circulation, velocity, volume, and normal water fluctuation.

(3) Natural stream channel and shoreline dimensions shall be replicated, including depth, width, length, cross-sectional profile, and gradient.

(4) The bed of the affected aquatic area shall be rehabilitated with identical or similar materials.

(5) Riparian areas shall be rehabilitated to their original configuration, including slope and contour.

(6) Fish and wildlife habitat features shall be replicated, including pool-riffle ratios, substrata, and structures. Structures include large woody debris and boulders.

(7) Stream channels and banks, shorelines, and riparian areas shall be replanted with native plant species that replicate the original vegetation community.

(8) Rehabilitation and enhancement efforts shall be completed no later than 90 days after the aquatic area or buffer zone has been altered or destroyed, or as soon thereafter as is practicable.

(9) Three years after an aquatic area or buffer zone is rehabilitated or enhanced, at least 75 percent of the replacement vegetation must survive. The project applicant shall monitor the replacement vegetation and take corrective measures to meet this standard.

Finding: The project will result in unavoidable impacts to two waterbodies and three waterbody buffer zones within designated GMA zones. Measures will be applied to ensure that the project results in the minimum amount of disturbance practicable to the affected waterbodies, pursuant to NSA-LUDO Section 14.600 (B), and in accordance with applicable federal permit conditions. Temporary waterbody disturbance will be mitigated through onsite, in-kind restoration following construction. Permanent waterbody impacts will be mitigated through compensatory mitigation, as described in the Mitigation Plan, included as Appendix D to this narrative. The final Mitigation Plan will satisfy all requirements of NSA-LUDO Section 14.600(B)(5)(g). Therefore, the project complies with these provisions.

6. Site Plans

In addition to the information required in all site plans, site plans for proposed uses in streams, ponds, lakes, and their buffer zones shall include: a map prepared at a scale of 1 inch equals 100 feet (1:1,200), or a scale providing greater detail; the exact boundary of the ordinary high water-mark or normal pool elevation and the prescribed buffer zone; and a description of actions that would alter or destroy the stream, pond, lake, or riparian area.

Finding: Detailed engineering and design drawings are included as Appendix C to this narrative, and include affected waterbodies. Waterbody buffer zones are shown in Figure 4-3, and a description of actions that will impacts waterbodies is included in Section 4.2.5.7, pursuant to this provision.

7. *Rehabilitation and Enhancement Plans*

Rehabilitation and enhancement plans shall be prepared when a project applicant is required to rehabilitate or enhance a stream, pond, lake, and/or buffer zone. They shall satisfy the following standards:

a. *Rehabilitation and enhancement plans shall be primarily the responsibility of the applicant. If the applicant has no practicable alternative, according to E below, Practicable Alternative Test, to locating within the stream, pond, lake, riparian zone, or buffer area, the Forest Service has agreed to provide assistance in the preparation of the plan, to the greatest extent possible.*

b. *Rehabilitation and enhancement plans shall be prepared by qualified professionals, such as fish or wildlife biologists.*

c. *All plans shall include an assessment of the physical characteristics and natural functions of the affected stream, pond, lake, and/or buffer zone. This assessment shall include hydrology, flora, and fauna.*

d. *Plan view and cross-sectional, scaled drawings; topographic survey data, including elevations at contour intervals of at least 2 feet, slope percentages, and final grade elevations; and other technical information shall be provided in sufficient detail to explain and illustrate:*

   (1) *Soil and substrata conditions, grading and excavation, and erosion and sediment control needed to successfully rehabilitate and enhance the stream, pond, lake, and buffer zone.*

   (2) *Planting plans that specify native plant species, quantities, size, spacing, or density; source of plant materials or seeds; timing, season, water, and nutrient requirements for planting; and where appropriate, measures to protect plants from predation.*

   (3) *Water-quality parameters, construction techniques, management measures, and design specifications needed to maintain hydrologic conditions and water quality.*

e. *A 3-year monitoring, maintenance, and replacement program shall be included in all rehabilitation and enhancement plans. At a minimum, a project applicant shall prepare an annual report that documents milestones, successes, problems, and contingency actions. Photographic monitoring shall be used to monitor all rehabilitation and enhancement efforts.*

f. *A project applicant shall demonstrate sufficient fiscal, administrative, and technical competence to successfully execute and monitor a rehabilitation and enhancement plan.*

(1) *The Director may require the owner of the property to sign a contract with the County for enforcement of the Rehabilitation and Enhancement Plan. Such contract shall be executed within thirty (30) days after approval is granted, provided, however, that the Director may grant time extensions due to practical difficulty. The Director shall have the authority to execute such contracts on behalf of the County. If a contract is required, no building permit shall be issued for the use covered by the application, nor construction commence, until the executed contract is recorded on the real property records of Wasco County and filed in the County Journal. Such contract shall not restrict the power of subsequent administrative action, with or without conditions. Such contracts shall be enforceable against the signing parties, their heirs, successors, and assigns by Wasco County by appropriate action in law or suit in equity for the benefit of public health, safety and welfare.*

(2) *A bond, in a form acceptable to the Director or, upon appeal or review, by the Commission or County Court or a cash deposit from the property owner(s) or contract purchaser(s) in such amount as will assure compliance with the Rehabilitation and Enhancement Plan may be required. Such bond or deposit shall be posted before any building permits will be issued or construction may commence.*

Finding: The project will result in unavoidable disturbance to two waterbodies and three waterbody buffer zones within designated GMA zones. Measures will be applied to ensure that the project results in the minimum amount of disturbance practicable to the affected waterbodies, pursuant to NSA-LUDO Section 14.600 (B), and in accordance with applicable federal permit conditions. No temporary wetland disturbance will occur. Permanent waterbody impacts will be mitigated through compensatory mitigation, as described in the Mitigation Plan, included as Appendix D to this narrative. The final Mitigation Plan will satisfy all requirements of NSA-LUDO Section 14.600(B)(7). Therefore, the project complies with these provisions.

C. Wildlife Habitat

2. Approval Criteria for Fences in Deer and Elk Winter Range

Finding: The proposed project does not include construction of new permanent fencing in deer and elk winter range. The project consists of infrastructure improvements to the existing track primarily within existing railroad ROW. The project will include in-kind guardrail extensions along I-84 constructed as part of the proposed second mainline track project. Photographs showing proposed guardrail type are included in Appendix B. The approximate height for the proposed guardrail is 2.5 feet tall. In addition, the project may include temporary silt fences for erosion control, orange safety fences, and concrete barriers for temporary traffic control during construction. However, permanent fences are not proposed for this project. Therefore, the provisions of NSA-LUDO Section 14.600(C)(2) do not apply to this project.

3. Uses and Activities Permitted within 1,000 feet of a Sensitive Wildlife Area or Site.

Except for uses permitted without review in Section 3.100 and 3.180(B) (Open Space), uses and activities authorized by the applicable designation may be allowed within 1,000 feet of a sensitive wildlife area or site subject to (4) below, Site Plans and Field Surveys, the remaining applicable sections this Chapter and the following criteria:

a. Uses that are proposed within 1,000 feet of a sensitive wildlife area or site shall be reviewed by the Oregon Department of Fish and Wildlife.

(1) The approximate locations of sensitive wildlife areas and sites are shown in the wildlife inventory.

(2) State wildlife biologists will help to determine if a new use would adversely affect a sensitive wildlife area or site.

Finding: UPRR has provided site plans (see Appendix C) and has prepared a Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan (see Appendix K) to address the applicable criteria of NSA-LUDO Section 14.600(C)(3). The Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan provides the approximate locations of sensitive wildlife areas and sites (see Appendix J). UPRR acknowledges that project components proposed within 1,000 feet of a sensitive wildlife area or site shall be reviewed by the Oregon Department of Fish and Wildlife. Therefore, the project will comply with the applicable provisions of NSA-LUDO Section 14.600(C)(3).

b. The Site plan shall be submitted to the Oregon Department of Fish and Wildlife by the County. State wildlife biologists will review the site plan and their field survey records. They will:

(1) Identify/verify the precise location of the wildlife area or site,

(2) Ascertain whether the wildlife area or site is active or abandoned,

(3) Determine if the proposed use may compromise the integrity of the wildlife area or site or occur during the time of the year when wildlife species are sensitive to disturbance, such as nesting or rearing seasons, and

(4) In some instances, state wildlife biologists may conduct field surveys to verify the wildlife inventory and assess the potential effects of a proposed use.

c. The following factors may be considered when site plans are reviewed:

(1) Biology of the affected wildlife species.

(2) Published guidelines regarding the protection and management of the affected wildlife species. The Oregon Department of Forestry has prepared technical papers that include management guidelines for osprey and great blue heron.

(3) Physical characteristics of the subject parcel and vicinity, including topography and vegetation.

(4) Historic, current, and proposed uses in the vicinity of the sensitive wildlife area or site.

(5) Existing condition of the wildlife area or site and the surrounding habitat and the useful life of the area or site.

d. The wildlife protection process may terminate if the County, in consultation with the state wildlife agency, determines:

(1) The sensitive wildlife area or site is not active, or

(2) The proposed use would not compromise the integrity of the wildlife area or site or occur during the time of the year when wildlife species are sensitive to disturbance.

e. If the County, in consultation with the State wildlife agency, determines that the proposed use would have only minor effects on the wildlife area or site that could be eliminated through mitigation measures recommended by the state wildlife biologist, or by simply modifying the site plan or regulating the timing of new uses:

(1) A letter shall be sent to the project applicant that describes the effects and measures needed to eliminate them.

(2) If the project applicant accepts these recommendations, the County will incorporate them into its development review order, and

(3) The wildlife protection process may conclude.

f. If the County, in consultation, with Oregon Department of Fish and Wildlife, determines that the proposed use would adversely affect a sensitive wildlife area or site and the effects of the proposed use cannot be eliminated through site plan modifications or project timing, the project applicant shall prepare a wildlife management plan as specified in 5, Wildlife Management Plans.

g. The County shall submit a copy of all field surveys and wildlife management plans to Oregon Department of Fish and Wildlife.

(1) The state wildlife agency will have 20 days from the date that a field survey or management plan is mailed to submit written comments to the County Planning Office.

(2) The local government shall record and address any written comments submitted by the state wildlife agency in its development review order.

h. Based on the comments from the state wildlife agency, the County will make a final decision on whether the proposed use would be consistent with the wildlife policies and guidelines.

(1) If the final decision contradicts the comments submitted by the state wildlife agency, the County shall justify how it reached an opposing conclusion.

(2) The County shall require the project applicant to revise the wildlife management plan to ensure that the proposed use would not adversely affect a sensitive wildlife area or site.

Finding: As demonstrated by UPRR in the site plans (see Appendix C) and Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan (see Appendix K) the project is consistent with the applicable criteria of NSA-LUDO Section 14.600(C)(3)(b-h). UPRR acknowledges that the site plan will be submitted to the ODFW by Wasco County and that state wildlife biologists will review the site plan and their field survey records. In addition, UPRR acknowledges that the County will solicit input from ODFW. Therefore, UPRR acknowledges the provisions of NSA-LUDO Section 14.600(C)(3)(b-h).

4. *Site Plans and Field Surveys*

   a. *In addition to the information required for all site plans, site plans for uses within 1,000 feet of a sensitive wildlife area or site shall include a map prepared at a scale of 1 inch equals 100 feet (1:1,200), or a scale providing greater detail.*

   b. *A field survey to identify sensitive wildlife areas or sites shall be required for:*

      (3) Public transportation facilities that are outside improved rights-of-way;

   c. *Field surveys shall cover all areas affected by the proposed use or recreation facility. They shall be conducted by a professional wildlife biologist hired by the project applicant. All sensitive wildlife areas and sites discovered in a project area shall be described and shown on the site plan map.*

Finding: UPRR completed a Special-status Species Plant Survey and Habitat Mapping Report (see Appendix J) which includes field surveys covering all areas affected by the proposed project. Field surveys were conducted by a professional wildlife biologist hired by the project applicant. All sensitive wildlife areas and sites discovered in the project area are described and shown on the site plan map (see Appendix J to this application narrative). The field surveys and site plan maps are consistent with the criteria provided in NSA-LUDO Section 14.600(C)(4)(a-c). Therefore, the project complies with these provisions.

5. *Wildlife Management Plans*

   Wildlife management plan shall be prepared when a proposed use is likely to adversely affect a sensitive wildlife area or site. Their primary purpose is to document the special characteristics of a project site and the habitat requirements of affected wildlife species. This information provides a basis for the project applicant to redesign the proposed use in a manner that protects sensitive wildlife areas and sites, maximizes his/her development options, and mitigates temporary impacts to the wildlife area or site and/or buffer zone.

   Wildlife management plans shall meet with the following standards:

   a. *Wildlife management plans shall be prepared by a professional wildlife biologist.*

   b. *The primary responsibility and cost of preparing wildlife management plans shall be borne by the applicant. If the applicant has no practicable alternative, according to E below, Practicable Alternative Test, to locating within 1,000 feet of a sensitive wildlife area or site, the Forest Service has agreed to provide assistance in the preparation of the plan, to the greatest extent possible.*

   c. *All relevant background information shall be documented and considered, including biology of the affected species, published protection and management guidelines, physical characteristics of the subject parcel, past and present use of the subject parcel, and useful life of the wildlife area or site.*

   d. *The core habitat of the sensitive wildlife species shall be delineated. It shall encompass the sensitive wildlife area or site and the attributes, or key components, that are essential to maintain the long-term use and integrity of the wildlife area or site.*

e. A wildlife buffer zone shall be employed. It shall be wide enough to ensure that the core habitat is not adversely affected by new uses, or natural forces, such as fire and wind. Buffer zones shall be delineated on the site plan map and shall reflect the physical characteristics of the project site and the biology of the affected species.

f. The size, scope, configuration, or density of new uses within the core habitat and the wildlife buffer zone shall be regulated to protect scenic wildlife species. The timing and duration of all uses shall also be regulated to ensure that they do not occur during the time of the year when wildlife species are sensitive to disturbance. The following standards shall apply:

(1) New uses shall generally be prohibited within the core habitat. Exceptions may include uses that have temporary and negligible effects, such as the installation of minor underground utilities or the maintenance of existing structures. Low intensity, non-destructive uses may be conditionally authorized in the core habitat.

(2) Intensive uses shall be generally prohibited in wildlife buffer zones. Such uses may be conditionally authorized when a wildlife area or site is inhabited seasonally, provided they will have only temporary effects on the wildlife buffer zone and rehabilitation and/or enhancement will be completed before a particular species returns.

g. Rehabilitation and/or enhancement shall be required when new uses are authorized within wildlife buffer zones.

(1) When a buffer zone has been altered or degraded in the past, it shall be rehabilitated to its natural condition to the maximum extent practicable.

(2) When complete rehabilitation is not possible, such as when new structures permanently displace wildlife habitat, enhancement shall also be required.

(3) Enhancement shall achieve no net loss of the integrity of the wildlife area or site.

(4) Rehabilitation and enhancement actions shall be documented in the wildlife management plan and shall include a map and text.

h. The project applicant shall prepare and implement a 3-year monitoring plan when the affected wildlife area or site is occupied by a species that is listed as endangered or threatened pursuant to federal or state wildlife lists.

(1) It shall include an annual report and shall track the status of the wildlife area or site and the success of rehabilitation and/or enhancement actions.

(2) At the end of 3 years, rehabilitation and enhancement efforts may conclude if they are successful.

(3) In instances where rehabilitation and enhancement efforts have failed, the monitoring process shall be extended until the applicant satisfies the rehabilitation and enhancement standards.

Finding: UPRR has prepared a Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan (see Appendix K) prepared by a professional wildlife biologist.

Section 6 of the Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan identifies special-status wildlife habitat within the project area. Table 1 of the Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan provides a summary of Sensitive Wildlife Areas (17 land and water areas) and Sensitive Wildlife Sites, and presence of these areas or their buffers within the proposed project area. Table 4 of the same report provides a summary of special-status wildlife species that may be present within the identified habitats on the project site.

Permanent and temporary impacts will occur within the 1,000-foot buffer zones of five identified sensitive wildlife areas as a result of the proposed project construction activities. The project will directly impact only one sensitive wildlife area designated as Shallow Water. Table 5 of the Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan summarizes those impacts.

All efforts will be made to avoid disturbance to special-status wildlife species and their habitats. If disturbance cannot be avoided, efforts will be employed to minimize disturbance to the maximum extent practicable.

All appropriate BMPs will be employed throughout the construction process and will include the following:

- All tree removal activities will occur between September 1 and March 1 outside the typical nesting period for migratory birds.
- Areas for fuel storage, refueling, and servicing of construction equipment will be located in an upland location.
- Prior to use, all equipment will be cleaned to remove external oil, grease, dirt, or mud.
- Wash sites will be located in upland locations so that dirty wash water does not flow into stream channel or wetlands.
- Erosion control measures will be in place at all times during construction. Construction will not start until all temporary control devices (straw bales, silt fences, etc.) are in place downslope or downstream of project site.

Enhancement and rehabilitation measures will be implemented to compensate for unavoidable impacts to sensitive wildlife areas and habitats and buffers. Areas of disturbance will be revegetated and restored to natural condition to the maximum extent possible. The purpose of the rehabilitation will be to achieve no net loss of the integrity of the wildlife areas. Revegetation practices are addressed in Section 8 of the Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan.

The Wildlife Management Plan for the GMA is included as Section 7 of the Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan is consistent with the standards provided in NSA-LUDO Section 14.600(C)(5)(a-h). Therefore, the project complies with the criteria provided in the provisions of NSA-LUDO Section 14.600(C)(5).

D. Rare Plants

1. Purpose

a. Ensure that new uses do not adversely affect plant species that are, according to lists kept current by the Gorge Commission:

(1) endemic to the Columbia River Gorge and vicinity,

(2) listed as endangered or threatened pursuant to federal or state endangered species acts, or

(3) listed as endangered or threatened on list (1) or list (2), by the Oregon Natural Heritage Program. (For brevity, these species will be referred to as "sensitive" plant species.)

b. Encourage the protection of plant species that are classified "Review" {list 3}, or "Watch" {list 4} by the Oregon Natural Heritage Program.

c. Enhance the natural habitat of rare plant species.

Finding: UPRR has conducted rare plant surveys to meet the purpose of the provisions provided in NSA-LUDO Section 14.600(D)(1)(a-c). UPRR has provided the results of the rare plant surveys in the Special-status Species Plant Survey and Habitat Mapping Report (see Appendix J). The purpose of the special-status plant survey was to locate all populations of special-status plants within the project area, to precisely record and

map their locations using geographic positioning system (GPS) technology with submeter accuracy, and to determine the size and phenology of each rare plant population, and its microhabitat characteristics.

The survey area included all areas where potential proposed project activities might occur. This included the footprint of the proposed project alignment and associated access roads and other facilities. Therefore, the project complies with the provisions of NSA-LUDO Section 14.600(D)(1)(a-c).

2. *Sensitive Plant Buffer Zones:*

    a. *A 200 foot buffer zone shall be maintained around sensitive plants. Buffer zones shall remain in an undisturbed, natural condition.*

    b. *Buffer zones may be reduced if a project applicant demonstrates that intervening topography, vegetation, manmade features, or natural plant habitat boundaries negate the need for a 200 foot radius. Under no circumstances shall the buffer zone be less than 25 feet.*

    c. *Requests to reduce buffer zones shall be considered if a professional botanist or plant ecologist hired by the project applicant:*

        (1) *identifies the precise location of the sensitive plants,*

        (2) *describes the biology of the sensitive plants, and*

        (3) *demonstrates that the proposed use will not have any negative effects, either direct or indirect, on the affected plants and the surrounding habitat that is vital to their long-term survival.*

        (4) *All requests shall be prepared as a written report. Published literature regarding the biology of the affected plants and recommendations regarding their protection and management shall be cited. The report shall include detailed maps and photographs.*

    d. *The County shall submit all requests to reduce sensitive plant species buffer zones to the Oregon Natural Heritage Program.*

        (1) *The state heritage program will have 20 days from the date that such a request is mailed to submit written comments to the County Planning Office.*

        (2) *The County shall record and address any written comments submitted by the state heritage program in its development review order.*

        (3) *Based on the comments from the state heritage program, the County will make a final decision on whether the reduced buffer zone is justified. If the final decision contradicts the comments submitted by the state heritage program, the local government shall justify how it reached an opposing conclusion.*

Finding: All efforts will be made to avoid disturbance to special-status species and priority habitats. If disturbance cannot be avoided, efforts will be employed to minimize disturbance to the maximum extent practicable. A Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan has been prepared to address unavoidable impacts to special-status plant species and their buffer zones, as well as priority habitats in the GMA (see Appendix J).

A list of all potentially occurring sensitive plant species and a list of all plant species observed onsite during the field surveys is provided in the Special-status Species Plant Survey and Habitat Mapping Report (see Appendix J). Three special-status plant species were identified and mapped within or adjacent to the study area: Barrett's penstemon (*Penstemon barrettiae*), currant-leaf alumroot (*Heuchera grossularifolia* var. *tenuifolia*), and broadleaf lupine (*Lupinus latifolius* var. *thompsonianus*). A detailed description of these three special-status plant species is provided in the Special Status Species Plant Survey and Habitat Mapping Report (see Appendix J).

Direct impacts may occur to three special-status plant species. It is likely that all of the identified special-status plants would be removed during project construction. Any individuals not directly affected by project activities may be indirectly affected by potential dust, pollutants, trampling by humans as a result of project construction or operation.

The proposed project will avoid and/or minimize impacts to special-status plant species or habitats as follows:

- Avoid areas of identified special-status plant populations, priority habitats, sensitive wildlife and plant areas, and their buffer areas to the maximum extent practicable.
- Implement micrositing slight relocations of proposed project facilities to avoid special-status plant populations or habitats if practicable.
- Remove and conserve plants that will be directly affected; replant following construction (see Rehabilitation below)
- Implement weed control procedures to prevent spread of noxious weeds to native plant habitats.

Section 8 of the Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan (Appendix K) provides a detailed description of the rehabilitation activities necessary to address the disturbance of special-status plant species within the project area. The purpose of the rehabilitation activities is to revegetate areas of temporary disturbance, enhance altered or degraded plant and wildlife habitat, re-establish populations of special-status plant species, and offset unavoidable impacts that result from project construction activities within sensitive plant buffer zones. Rehabilitation measures include seeding of all areas of temporary disturbance, planting of trees and shrubs for re-establishment of temporarily disturbed priority habitats and sensitive wildlife and plant habitats, replanting of special-status plant species removed for construction, and enhancement of existing vegetation communities within or immediately adjacent to the proposed project to compensate for loss of trees or priority habitats.

The sensitive plant buffer zones proposed in UPRR's Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan are consistent with the provisions included in NSA-LUDO Section 14.600(D)(2). In addition, UPRR acknowledges that the County shall submit all requests to reduce sensitive plant species buffer zones to the Oregon Natural Heritage Program and will record and address any written comments submitted by the state heritage program in its development review order. Therefore, the project complies with the applicable provisions of NSA-LUDO Section 14.600(D)(2).

3. *Uses and Activities Permitted Within 1,000 Feet of a Sensitive Plant*

   Except for uses permitted without review in Section 3.100 and 3.180(B) (Open Space) uses and activities authorized by the applicable zoning designation may be allowed within 1,000 feet of a sensitive plant subject to (4) below, Site Plans and Field Surveys, the remaining applicable sections of this Chapter and the following criteria:

   a. *Uses that are proposed within 1,000 feet of a sensitive plant shall be reviewed by the Oregon Natural Heritage Program.*

      (1) *The approximate locations of sensitive plants are shown in the rare plant species inventory.*

      (2) *State heritage staffs will help determine if a new use would invade the buffer zone of sensitive plants.*

   b. *Site plans shall be submitted to the State Natural Heritage Program by the County.*

      (1) *The State Heritage staff will review the site plan and their field survey records.*

      (2) *The State Heritage Office will identify the precise location of the affected plants and delineate a 200 foot buffer zone on the project applicant's site plan.*

(3) If the field survey records of the state heritage program are inadequate, the project applicant shall hire a person with recognized expertise in botany or plant ecology to ascertain the precise location of the affected plants.

c. The rare plant protection process may conclude if the local government, in consultation with the State Heritage Program, determines that the proposed use would be located outside of a sensitive plant buffer zone.

d. New uses shall be prohibited within sensitive plant species buffer zones, except for those uses that are allowed outright.

e. If a proposed use must be allowed within a sensitive plant buffer zone in accordance with Chapter 6, Variances, the project applicant shall prepare a protection and rehabilitation plan that complies with the standards in (7) below, Protection and Rehabilitation Plans.

Finding: The proposed project will require construction within the sensitive plant buffer zones within the GMA. UPRR completed a Special-status Species Plant Survey and Habitat Mapping Report (see Appendix J to this application narrative), which includes field surveys covering all areas affected by the proposed project. Field surveys were conducted by a professional wildlife biologist hired by the project applicant. All sensitive wildlife areas and sites discovered in the project area are described and shown on the site plan map (see Appendix J).

A list of all potentially occurring sensitive plant species and a list of all plant species observed on site during the field surveys is provided in Appendix J to this application narrative. Three special-status plant species were identified and mapped within or adjacent to the study area: Barrett's penstemon (*Penstemon barrettiae*), currant-leaf alumroot (*Heuchera grossularifolia* var. *tenuifolia*) and broadleaf lupine (*Lupinus latifolius var. thompsonianus*). A detailed description of these three special-status plant species is provided in Section 5 of the Special Status Species Plant Survey and Habitat Mapping Report (Appendix J).

Direct disturbance may occur to three special-status plant species. It is likely that all of the identified special-status plants would be removed during project construction. Any individuals not directly affected by project activities may be indirectly affected by potential dust, pollutants, trampling by humans as a result of project construction or operation.

UPRR has prepared a Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan to minimize and mitigate for impacts to sensitive plant species. The Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan has been submitted to Wasco County as Appendix K to this application for review by the State Natural Heritage Program. Section 8 of the Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan provides protection and rehabilitation measures to avoid and to minimize disturbance of sensitive plants in the GMA to the maximum extent practicable. The Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan satisfies the applicable criteria of NSA-LUDO Section 14.600 for the GMA. Therefore, the project complies with this NSA-LUDO Section 14.600(D)(3).

f. The County shall submit a copy of all field surveys and protection and rehabilitation plans to the Oregon Natural Heritage Program.

(1) The state heritage program will have 20 days from the date that a field survey is mailed to submit written comments to the County.

(2) The County shall record and address any written comments submitted by the state heritage program in its development review order.

g. Based on the comments from the State Heritage Program, the County will make a final decision on whether the proposed use would be consistent with the rare plant policies and guidelines. If the final decision contradicts the comments submitted by the state heritage program, the County shall justify how it reached an opposing conclusion.

Finding: The project is consistent with the applicable rare plant policies and guidelines in the NSA-LUDO. UPRR acknowledges that Wasco County will submit a copy of all field surveys along with the Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan to the Oregon Natural Heritage Program. UPRR acknowledges that the Oregon Natural Heritage Program has 20 days from the date the field survey is mailed to submit written comments to the County and that the County will record and address those comments in its development review order. Therefore, UPRR acknowledges and will comply with the provisions of NSA-LUDO Section 14.600(D)(3)(f-g).

4. *Site Plans and Field Surveys*

   a. *In addition to the information required in all site plans, site plans for uses within 1,000 feet of a sensitive plant shall include a map prepared at a scale of 1 inch equals 100 feet (1:1,200), or a scale providing greater detail.*

   b. *A field survey to identify sensitive plants shall be required for:*

      (3) Public transportation facilities that are outside improved ROWs;

      (4) electric facilities, lines, equipment, and appurtenances that are 33 kilovolts or greater; and

   c. *Field surveys shall cover all areas affected by the proposed use or recreation facility.*

      (1) Field surveys shall be conducted by a person with recognized expertise in botany or plant ecology hired by the project applicant.

      (2) Field surveys shall identify the precise location of the sensitive plants and delineate a 200 foot buffer zone.

      (3) The results of a field surveys shall be shown on the site plan map.

Finding: UPRR completed a Special-Status Species Plant Survey and Habitat Mapping Report (see Appendix J) that includes field surveys covering all areas affected by the proposed project. Field surveys were conducted by a recognized expert in botany hired by the project applicant. All sensitive plants discovered in the project area are described and shown on the site plan map (see Appendix J to this application narrative). The field surveys identify the precise location of the sensitive plants and delineate a 200 foot buffer zone. Field surveys and site plan maps are consistent with the criteria provided in NSA-LUDO Section 14.600(D)(4)(a-c). Therefore, the project complies with these provisions.

5. *Protection and Rehabilitation Plans*

   Protection and rehabilitation plans shall minimize and offset unavoidable impacts that result from a new use that occurs within a sensitive plant buffer zone as the result of a variance granted according to Chapter 6. All plans shall meet the following guidelines:

   a. *Protection and rehabilitation plans shall be prepared by a professional botanist or plant ecologist.*

   b. *The primary responsibility and cost of preparing protection and rehabilitation plans shall be borne by the applicant. Recognizing the limited number of situations in which an applicant will be forced to locate within a sensitive plant buffer area, the Forest Service has agreed to provide assistance in the preparation of these plans, to the greatest extent possible.*

   c. *Construction, protection, and rehabilitation activities shall occur during the time of the year when ground disturbance will be minimized and protection, rehabilitation, and replacement efforts will be maximized.*

   d. *Sensitive plants that will be destroyed shall be transplanted or replaced to the maximum extent practicable.*

(1) Replacement is used here to mean the establishment or a particular plant species in areas of suitable habitat not affected by new uses.

(2) Replacement may be accomplished by seeds, cuttings, or other appropriate methods.

(3) Replacement shall occur as close to the original plant site as practicable.

(4) The project applicant shall ensure that at least 75 percent of the replacement plants survive three years after the date they are planted.

e. Sensitive plants and their surrounding habitat that will not be altered or destroyed shall be protected and maintained. Appropriate protection and maintenance techniques shall be applied, such as fencing, conservation buffers, livestock management, and noxious weed control.

f. Habitat of a sensitive plant that will be affected by temporary uses shall be rehabilitated to a natural condition.

g. Protection efforts shall be implemented before construction activities begin. Rehabilitation efforts shall be implemented immediately after the plants and their surrounding habitat are disturbed.

h. Protection and rehabilitation plans shall include maps, photographs, and text. The text shall:

(1) Describe the biology of sensitive plant species that will be affected by a proposed use.

(2) Explain the techniques that will be used to protect sensitive plants and their surrounding habitat that will not be altered or destroyed.

(3) Describe the rehabilitation and enhancement actions that will minimize and offset the impacts that will result from a proposed use.

(4) Include a 3-year monitoring, maintenance, and replacement program. The project applicant shall prepare and submit to the local government an annual report that documents milestones, successes, problems, and contingency actions.

Finding: All efforts will be made to avoid disturbance to special-status species and priority habitats. Where disturbance cannot be avoided, efforts will be employed to minimize disturbance to the maximum extent practicable. The proposed project will require construction within the sensitive plant buffer zones within the GMA. UPRR completed a Special-status Species Plant Survey and Habitat Mapping Report (see Appendix J) which includes field surveys covering all areas affected by the proposed project. Field surveys were conducted by a professional wildlife biologist hired by the project applicant. All sensitive wildlife areas and sites discovered in the project area are described and shown on the site plan map (Appendix J).

Accordingly, UPRR prepared a Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan to address unavoidable impact to special-status plant species and their buffer zones, as well as priority habitats (see Section 8 of Appendix K to this application narrative). The Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan was prepared by a professional botanist and specifically addresses the provisions included in NSA-LUDO Section 14.600(D)(5)(a-h).

The proposed project will avoid and/or minimize impacts to special-status plant species or habitats as follows:

- Avoid areas of identified special-status plant populations, priority habitats, and sensitive wildlife and plant areas to the maximum extent practicable.
- Implement micrositing slight relocations of proposed project facilities to avoid special-status plant populations or habitats if practicable.
- Remove and conserve plants that will be directly affected; replant following construction (see Rehabilitation below)

- Implement weed control procedures to prevent spread of noxious weeds to native plant habitats.

The purpose of the rehabilitation activities is to revegetate areas of temporary disturbance, enhance altered or degraded plant and wildlife habitat, re-establish populations of special-status plant species, and offset unavoidable impacts that result from project construction activities within sensitive plant buffer zones. Rehabilitation measures include seeding of all areas of temporary disturbance, planting of trees and shrubs for re-establishment of temporarily disturbed priority habitats and sensitive wildlife and plant habitats, replanting of special-status plant species removed for construction, and enhancement of existing vegetation communities within or immediately adjacent to the proposed project to compensate for loss of trees or priority habitats.

The following methods will be used for all areas of temporary ground and/or vegetation disturbance throughout the project area:

- Removal of woody vegetation shall be the minimum necessary to achieve the project purposes. Trees that are removed will be replaced with planted stock of the same or equivalent species on a 1 for 1 basis and planted according to supplier specifications.
- Large downed wood will be stockpiled onsite and distributed throughout restoration and enhancement area upon completion of construction.
- Restoration areas will be maintained and monitored as stipulated in the monitoring and maintenance plans for the project to meet success criteria of 80% survival of planted species, and 80% cover of all disturbed soils.

In addition, Section 8 the Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan provides specific methods for seeding, seed planting methods, and habitat restoration and enhancement planting which includes guidance for site preparation, planting schedules, maintenance, tree and shrub planting, special-status plant species relocation, and erosion control.

Section 11 of the Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan provides a specific maintenance and monitoring program to guide rehabilitation and enhancement actions that will be conducted for a period of 3 years in affected project areas following final installation by a qualified botanist. Therefore, the project complies with the applicable provisions of NSA-LUDO Section 14.600(D)(5).

E. Practicable Alternative Test

An alternative site for a proposed use shall be considered practicable if it is available and the proposed use can be undertaken on that site after taking into consideration cost, technology, logistics, and overall project purposes.

A practicable alternative does not exist if a project applicant satisfactorily demonstrates all of the following:

1. *The basic purpose of the use cannot be reasonably accomplished using one or more other sites in the vicinity that would avoid or result in less adverse effects on wetlands, streams, ponds, lakes, riparian areas, wildlife, or plant areas and sites; and*

Finding: As explained in Section 2 of this narrative, the purpose of the project is to improve efficiency of train movement along UPRR's existing mainline track near the City of Mosier while maintaining safe operating conditions. The project is needed to correct the operational constraints that result from the existing railroad infrastructure between MP 66.98 and 72.35. The segment of the Portland Subdivision between MP 66.98 and 72.35 has the poorest operational performance and efficiency within that subdivision because of the location and configuration of the Mosier Siding, which creates an operational bottleneck at this location. The project will relieve this bottleneck by decreasing the number of delayed or stopped trains, reducing barriers to industry-standard train lengths, and improving the efficiency and fluidity of train movements in this area, while maintaining safe operating conditions.

As explained in Section 3 of this narrative, the proposed Second Mainline Track project, is the only alternative that satisfies all of the alternative evaluation criteria, and avoids or minimizes disturbance to environmental resources to the maximum extent practicable to meet the stated purpose and need. The proposed project will alleviate the operational inefficiencies currently experienced near the City of Mosier and at the Mosier Siding, thus meeting the purpose and need for moving trains more efficiently to relieve the existing operational bottleneck. The proposed second mainline track expansion maximizes use of existing infrastructure and the existing previously disturbed UPRR ROW to reduce impacts to natural resources such as wetlands, streams, ponds, lakes, riparian areas, wildlife, or plant areas and sites. Therefore, the project meets this criteria, demonstrating that a practicable alternative to the proposed project does not exist.

2. *The basic purpose of the use cannot be reasonably accomplished by reducing its size, scope, configuration, or density as proposed, or by changing the design of the use in a way that would avoid or result in less adverse effects on wetlands, streams, ponds, lakes, riparian areas, wildlife or plant areas and sites; and*

Finding: As discussed in Sections 2 and 3, the project is needed to correct the operational constraints that result from the existing railroad infrastructure between MP 66.98 and 72.35. To meet the project need, a minimum of 5 miles of contiguous second mainline track is required to allow for trains to pass at standard operating speed. In addition, the new second mainline track must be spaced approximately 10 miles from other existing passing locations along the existing route to accommodate for the safe passage of trains traveling in opposite directions. UPRR conducted an extensive network operational review to identify the nature and cause of operational inefficiencies along the route. As discussed in Section 2, existing operational inefficiencies are directly related to the length and location of the existing Mosier Siding, including how the inefficiency of that siding results in delays throughout other parts of the route.

As discussed in Section 3 of this narrative, the proposed Second Mainline Track project is the only alternative that satisfies all of the alternative evaluation criteria, and avoids or minimizes disturbance to environmental resources to the maximum extent practicable to meet the stated purpose and need. The proposed project will alleviate the operational inefficiencies currently experienced near the City of Mosier and at the Mosier Siding, thus meeting the purpose and need for moving trains more efficiently to relieve the existing operational bottleneck. The proposed second mainline track expansion maximizes use of existing infrastructure and the existing previously disturbed UPRR ROW to reduce impacts to natural resources such as wetlands, streams, ponds, lakes, riparian areas, wildlife, or plant areas and sites.

UPRR has incorporated additional design considerations in order to reduce the project footprint, and its impacts to natural resources including wetlands, streams, ponds, lakes, riparian areas, wildlife or plant areas and sites. These measures include:

- **Track Alignment and Centerline Offset Width Reduction.** In determining the alignment for the proposed track in the project area, UPRR reduced the centerline offset from 20 feet to 15 feet (the minimum allowable centerline offset) to significantly reduce the project footprint and avoid waters and wetlands to the north and south of the track. On the west end of the project (MP 66.98 to MP 69.38), an alignment to the north of the track was selected because it would have fewer aquatic impacts, and avoid additional excavation of a tall rock face. On the east end of the project (MP 70.73 to MP 72.35), an alignment primarily to the south of the existing track was selected to avoid direct impacts to the Columbia River. The reduction of centerline-track offsets decreased the project footprint by 2.1 acres along the full 4.02 miles of new track.
- **Embankment Design Minimization.** UPRR design standards for track embankments are for a 2:1 horizontal to vertical (H:V) slope, which provides stability to the rail roadbed and incorporates safety considerations for maintenance work along the tracks. Geotechnical design options to steepen the embankment slope (standard 2H:1V slopes to vertical retaining walls) were assessed to reduce project footprint and adjacent aquatic disturbance. Based on site-specific considerations, UPRR selected

1.5H:1V slopes in waters and wetland areas to provide the greatest effective reduction in aquatic impacts while retaining the safe functioning of the railroad. Riprap/rock fill can provide the steepest slope at 1.5H:1V achievable with natural materials.

- **Reduced Access Road and Drainage Ditches.** UPRR design standards include construction of a 10-foot-wide access road outside the tracks for ease of operation and maintenance and to construct a 10-foot-wide flat bottom drainage ditch adjacent to the track embankment in cut sections. To reduce the project footprint and associated disturbance, UPRR eliminated the access road in all but one location and reduced the widths of associated drainage ditches where compliant with UPRR-required hydraulic design guidelines. The elimination of the access road and reduced ditch width reduced the potential project footprint by roughly 5.5 acres along the full 4.02 miles of new track construction.

Therefore, the project meets this criteria, demonstrating that a practicable alternative to the proposed project does not exist.

3. *Reasonable attempts were made to remove or accommodate constraints that caused a project applicant to reject alternatives to the use as proposed. Such constraints include inadequate infrastructure, parcel size, and land use designations. If a land use designation or recreation intensity class is a constraint, an applicant must request a management plan amendment to demonstrate that practicable alternatives do not exist.*

Finding: Due to the nature of the railroad as a pre-existing, interstate transportation system, constraints associated with rejected alternatives cannot be removed. The project includes the relocation of certain utilities, but will not require additional use of existing regional infrastructure. UPRR will use existing connections to collocated transmission lines, therefore no associated constraints are anticipated for the project.

The majority of the proposed project will be constructed within the existing UPRR ROW, requiring a minor ROW acquisition between MP 71.61 and MP 72.35 in Segment 2; no constraints are anticipated associated with parcel size or orientation.

The project is a conditional use in the seven NSA zoning districts that will be crossed, pursuant to NSA-LUDO Section 3 provisions. The project's compliance is discussed in detail within the findings associated with NSA-LUDO Sections 3.120 through 3.190 of this narrative. Therefore, no constraints associated with land use designations in the project area are anticipated.

Therefore, the project meets this, and all, criteria, demonstrating that a practicable alternative to the proposed project does not exist.

F. Public Interest Test

The following factors shall be considered when determining if a proposed use is in the public interest:

1. *The extent of public need for the proposed use.*
2. *The extent and permanence of beneficial or detrimental effects that the proposed use may have on the public and private uses for which the property is suited.*
3. *The functions and size of the wetland, stream, pond, lake, or riparian area that may be affected.*
4. *The economic value of the proposed use to the general area.*
5. *The ecological value of the wetland, stream, pond, lake, or riparian area and probable effect on public health and safety, fish, plants, and wildlife.*

Finding: The proposed project serves a major public interest and satisfies the Public Interest Test included in the NSA-LUDO. UPRR currently moves a wide array of commodities through Oregon that support the regional and local economies. Grain, automobiles, lumber, cement, apparel and consumer electronics are commonly moved through this corridor. UPRR has been handling this traffic mix for years and plans to

continue moving a similar product mix in the future. UPRR has typically moved 20 to 25 trains a day through this area; with seasonal increases of shipments in commodities such as grains resulting in upwards of 30 trains using the corridor over the period of a month. Oregon is a critical part of UPRR's service to customers. UPRR has invested more than $1 billion in the state in the last 10 years to improve its rail yards and enhance railroad track, strengthening the reliability of Oregon's transportation infrastructure. The project is required to support the needs of UPRR's current customers throughout the state and region and will eliminate one of its most significant operational bottleneck in the Pacific Northwest.

In addition, the proposed second mainline track would reduce the need for trains idling near the City of Mosier. Converting the existing Mosier Siding to mainline track in this way would have the secondary effect of reducing noise and idling emissions near the City of Mosier. Trains idling on the existing siding also pose a potential safety hazard because the public often perceives an idling train as stationed at a siding for an extended period of time. This results in increased occurrences of high-risk pedestrian and vehicle crossings in front of active trains at siding locations relative to trains moving at standard operating speed along the adjacent mainline track. In addition, unauthorized pedestrian crossings between rail cars, train boarding, and vandalism are more common at siding locations in general. Operating fewer and longer trains reduces safety risks associated with collisions at pedestrian or vehicle crossing locations because longer trains present fewer occurrences of a train passing through a particular portion of a route. Accordingly, the economic and safety-related public benefits of the project outweigh the associated disturbance to aquatic and other resources. As discussed throughout this narrative and supported by the attached Mitigation Plan (Appendix D) and Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan (Appendix K), UPRR proposes to avoid, minimize and mitigate for unavoidable disturbance resulting from the proposed project.

Therefore, the project meets the public interest test required by NSA-LUDO Section 14.600(F).

Section 14.610 Natural Resources (SMA Only)

A. Water Resources (Wetlands, Streams, Ponds, Lakes, and Riparian Areas)

2. All new developments and uses, as described in a site plan prepared by the applicant, shall be evaluated using the following guidelines to ensure that natural resources are protected from adverse effects. Comments from state and federal agencies shall be carefully considered.

a. All Water Resources shall, in part, be protected by establishing undisturbed buffer zones as specified in (2)(a) and (b) below. These buffer zones are measured horizontally from a wetland, stream, lake, or pond boundary as defined below.

(1) All buffer zones shall be retained undisturbed and in their natural condition, except as permitted with a Mitigation Plan as described in E below.

(2) Buffer zones shall be measured outward from the bank full flow boundary for streams, the high water mark for ponds and lakes, the normal pool elevation for the Columbia River, and the wetland delineation boundary for wetlands on a horizontal scale that is perpendicular to the wetlands, stream, pond or lake boundary. On the main stem of the Columbia River above Bonneville Dam, buffer zones shall be measured landward from the normal pool elevation of the Columbia River. The following buffer zone widths shall be required:

(a) A minimum 200 foot buffer on each wetland, pond, lake, and each bank of a perennial or fish bearing stream, some of which can be intermittent.

Finding: Delineated wetlands, ponds, lakes, and riparian areas and their associated 200-foot buffers in the project vicinity within the SMA are described in Table 4-3 and shown in Figure 4-3 in Appendix A, in accordance with NSA-LUDO Section 14.610(A)(2). The project will result in unavoidable impacts to three delineated wetlands or waterbodies, and nine wetland or waterbodies buffer zones within designated SMA zones. Temporary waterbody impacts will be mitigated through onsite, in-kind restoration following

construction. Permanent wetland and waterbody impacts will be mitigated through compensatory mitigation, as described in the Mitigation Plan, included as Appendix D to this narrative. The final Mitigation Plan will satisfy all requirements of NSA-LUDO Section 14.610(E). Therefore, the project complies with these provisions.

(3) The buffer width shall be increased for the following:

(a) When the channel migration zone exceeds the recommended buffer width, the buffer width shall extend to the outer edge of the channel migration zone.

(b) When the frequently flooded area exceeds the recommended riparian buffer zone width, the buffer width shall be extended to the outer edge of the frequently flooded area.

(c) When an erosion or landslide hazard area exceeds the recommended width of the buffer, the buffer width shall be extended to include the hazard area.

(4) Buffer zones can be reconfigured if a project applicant demonstrates all of the following:

(a) the integrity and function of the buffer zones is maintained,

(b) the total buffer area on the development proposal is not decreased,

(c) the width reduction shall not occur within another buffer, and

(d) the buffer zone width is not reduced more than 50% at any particular location. Such features as intervening topography, vegetation, man-made features, natural plant or wildlife habitat boundaries, and flood plain characteristics could be considered.

(5) Requests to reconfigure buffer zones shall be considered if an appropriate professional (botanist, plant ecologist, wildlife biologist, or hydrologist), hired by the project applicant

(a) identifies the precise location of the sensitive wildlife/plant or water resource,

(b) describes the biology of the sensitive wildlife/plant or hydrologic condition of the water resource, and

(c) demonstrates that the proposed use will not have any negative effects, either direct or indirect, on the affected wildlife/plant and their surrounding habitat that is vital to their long-term survival or water resource and its long term function.

(6) The County shall submit all requests to re-configure sensitive wildlife/plant or water resource buffers to the Forest Service and the appropriate state agencies for review. All written comments shall be included in the project file. Based on the comments from the state and federal agencies, the County will make a final decision on whether the reconfigured buffer zones are justified. If the final decision contradicts the comments submitted by the federal and state agencies, the County shall justify how it reached an opposing conclusion.

Finding: It is not anticipated that buffer zones would be enlarged, nor does UPRR propose to reconfigure buffer areas. However, UPRR acknowledges the process by which a buffer zone may be reconfigured, as well as instances in which the buffer zone width may be increased.

b. When a buffer zone is disturbed by a new use, it shall be replanted with only native plant species of the Columbia River Gorge.

Finding: The project will result in direct impacts to three delineated wetlands or waterbodies, and nine wetland or waterbody buffer zones within designated SMA zones. Temporary and permanent buffer zone impacts will be mitigated to the greatest extent feasible through onsite, in-kind restoration following construction, including replanting with native plant species. Detailed restoration measures are described in the Mitigation Plan and the Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan, included as Appendixes D and K to this narrative, respectively. Therefore, the project complies with these provisions.

c. *The applicant shall be responsible for identifying all water resources and their appropriate buffers. (See above)*

Finding: A field investigation for wetlands and waterbodies was conducted by CDM Smith scientists within the proposed project area on October 15 to 17, 2013. The results of this field investigation are presented in the *Wetland Report: Mosier Siding Project, Portland Subdivision, Wasco County, OR*, provided as Appendix E to this narrative. Delineated wetlands and waterbodies within the project vicinity are also shown in Figure 4-3 in Appendix A. Therefore, the project complies with this provision.

d. *Wetlands Boundaries shall be delineated using the following:*

(1) *The approximate location and extent of wetlands in the Scenic Area is shown on the National Wetlands Inventory (U. S. Department of the Interior 1987). In addition, the list of hydric soils and the soil survey maps shall be used as an indicator of wetlands.*

(2) *Some wetlands may not be shown on the wetlands inventory or soil survey maps. Wetlands that are discovered by the local planning staff during an inspection of a potential project site shall be delineated and protected.*

(3) *The project applicant shall be responsible for determining the exact location of a wetlands boundary. Wetlands boundaries shall be delineated using the procedures specified in the '1987 Corps of Engineers Wetland Delineation Manual (on-line Edition)'.*

(4) *All wetlands delineations shall be conducted by a professional who has been trained to use the federal delineation procedures, such as a soil scientist, botanist, or wetlands ecologist.*

e. *Stream, pond, and lake boundaries shall be delineated using the bank full flow boundary for streams and the high water mark for ponds and lakes. The project applicant shall be responsible for determining the exact location of the appropriate boundary for the water resource.*

f. *The County may verify the accuracy of, and render adjustments to, a bank full flow, high water mark, normal pool elevation (for the Columbia River), or wetland boundary delineation. If the adjusted boundary is contested by the project applicant, the County shall obtain professional services, at the project applicant's expense, or the County will ask for technical assistance from the Forest Service to render a final delineation.*

Finding: A field investigation for wetlands and waterbodies was conducted by CDM Smith scientists within the proposed project area on October 15 to 17, 2013. The delineation methodology conformed to the guidelines presented in the *Corps Wetlands Delineation Manual, Technical Report Y-87-1* (USACE, 1987) and the *2010 USACE Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)* (USACE, 2010). The results of this field investigation are presented in the *Wetland Report: Mosier Siding Project, Portland Subdivision, Wasco County, OR*, provided as Appendix E to this narrative. Therefore, this project complies with this provision.

g. *Buffer zones shall be undisturbed unless the following criteria have been satisfied:*

(1) *The proposed use must have no practicable alternative as determined by the practicable alternative test. Those portions of a proposed use that have a practicable alternative will not be located in wetlands, stream, pond, lake, and riparian areas and/or their buffer zone.*

(2) *Filling and draining of wetlands shall be prohibited with exceptions related to public safety or restoration/enhancement activities as permitted when all of the following criteria have been met:*

(a) *A documented public safety hazard exists or a restoration/enhancement project exists that would benefit the public and is corrected or achieved only by impacting the wetland in question, and*

(b) Impacts to the wetland must be the last possible documented alternative in fixing the public safety concern or completing the restoration/enhancement project, and

(c) The proposed project minimizes the impacts to the wetland.

(5) [sic] *Unavoidable impacts to wetlands and aquatic and riparian areas and their buffer zones shall be offset by deliberate restoration and enhancement or creation (wetlands only) measures as required by the completion of a Mitigation Plan as described in E below.*

Finding: The foregoing provisions are ambiguous. Subsection (A)(2)(g)(2) generally prohibits filling of wetlands, but subsection (g)(5) prescribes a method for offsetting "unavoidable impacts" to the same. That subsections 3 and 4 of subsection (A)(2)(g) are missing highlights this ambiguity.

"Unavoidability" appears, in the context of surrounding code provisions, to relate to the practicable alternative test set forth at subsection (A)(2)(g)(1) and described at NSA-LUDO Section 14.610(D). *I.e.*, a wetland impact is unavoidable if no practicable alternative would achieve the purposes of the project with less impact. That no less impactful alternative to the project is practicable is demonstrated in response to NSA-LUDO Section 14.610(D), below. Under subsection (A)(2)(g)(5), unavoidable impacts to wetlands and aquatic and riparian areas and their buffers are allowed provided that a Mitigation Plan is prepared in accordance with NSA-LUDO Section 14.610 (E).

As to the criteria set forth in NSA-LUDO Section 14.610(A)(2)(g)(2), UPRR notes that idling trains tend to attract trespassers. Thus, by reducing (if not eliminating) the time that trains idle at this location, the project will increase public safety. Also, as described in the finding in response to NSA-LUDO Section 14.610(E), the project will enhance existing degraded wetlands and mitigate for project-related disturbance. Therefore, the project complies with these provisions.

B. Wildlife and Plants

1. Purpose

a. Protect (ensure that new uses do not adversely affect, including cumulative effects) and enhance the wildlife and plant diversity of the Gorge.

b. Encourage the protection of plant species that are classified as "List 3 (Review)" or "List 4 (Watch)" by the Oregon Natural Heritage Program.

c. Ensure that new uses do not adversely affect natural areas that are potentially eligible for the Oregon Register of Natural Heritage Resources.

Finding: UPRR is committed to ensuring that the project does not adversely affect natural areas that are potentially eligible for the Oregon Register of Natural Heritage Resources. UPRR prepared a Special-status Species Plant Survey and Habitat Mapping Report (see Appendix K) and a Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan (see Appendix J) to identify and enhance the wildlife and plant diversity of the Gorge within the project area. These plans were developed to ensure that new uses do not adversely affect natural areas that are potentially eligible for the Oregon Register of Natural Heritage Resources.

In the SMA, special-status species included plant species identified as Forest Service-Sensitive (FS-S) species in the NSA-MP. A species was determined to have potential to occur in the survey area if its known or expected geographic range includes the survey area or the vicinity of the survey area, and if its known or expected habitat is represented within or adjacent to the survey area.

Habitats were identified according to habitat types described in *Wildlife-Habitat Relationships in Oregon and Washington* (Chappell et al., 2001). Within those habitats, specific vegetation communities identified as Priority Habitats according to the NSA-LUDO Section 14.610 were also identified and mapped.

A complete list of potentially occurring plant species, including listing designations and habitat requirements in the SMA is provided in Appendix B to the Special-status Species Plant Survey and Habitat Mapping Report

(Appendix J). Specific habitat requirements and known geographic and elevation ranges were reviewed to determine species potentially occurring in the vicinity of the project area. This review identified 84 vascular plant species and 10 non-vascular plant species with potential to occur in the vicinity of the project area.

In the SMA, Wasco County identifies eleven Priority Habitats, which are sub-habitats of the general habitats types discussed above. Seven of these habitats were identified as potentially occurring within the proposed project area. Table 2 of the Special-status Species Plant Survey and Habitat Mapping Report lists these habitats and notes those habitats that may present within the proposed project area.

To the extent practicable, special-status species and priority habitats will be avoided. A Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan (Appendix K) has been prepared to address unavoidable impacts to special-status plant species and their buffer zones, priority habitats, as well as special-status terrestrial wildlife species.

The proposed project will avoid and/or minimize impacts to special-status plant species or habitats to the extent practicable during construction as follows:

- Avoid areas of identified special-status plant populations to the maximum extent practicable.
- Where possible, avoid or minimize impacts to priority habitats
- Implement micrositing slight relocations of proposed project facilities to avoid special-status plant populations if practicable.
- Implement weed control procedures to prevent spread of noxious weeds to native plant habitats.
- Implement all appropriate BMPs as outlined in the Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan.

In addition, UPRR has prepared a Mitigation Plan pursuant to the requirements of NSA-LUDO Section 14.610(E) below, included as Appendix D to this application narrative. Therefore, the project complies with the provisions of NSA-LUDO Section 14.610(B)(1)(a-c).

2. *All new developments and uses, as described in a site plan prepared by the applicant, shall be evaluated using the following guidelines to ensure that natural resources are protected from adverse effects. Comments from state and federal agencies shall be carefully considered.*

    a. *Protection of sensitive wildlife/plant areas and sites shall begin when proposed new developments or uses are within 1000 ft. of a sensitive wildlife/plant site and/or area.*

    Sensitive Wildlife Areas and endemic plants are those areas depicted in the wildlife inventory and listed in the Priority Habitats Table below, including all Priority Habitats listed in this Chapter. The approximate locations of sensitive wildlife and/or plant areas and sites are shown in the wildlife and rare plant inventory.

Finding: UPRR acknowledges that project components located in the SMA, as described in the site plan provided in Figure 4-1 (see Appendix A), will be evaluated using guidelines provided in the provisions of NSA-LUDO Section 14.610(B) to ensure that the project protects against potential adverse effects to natural resources. UPRR acknowledges that comments from state and federal agencies shall be carefully considered in this process.

UPRR prepared a Special-status Species Plant Survey and Habitat Mapping Report (see Appendix K) to identify project areas within 1,000 feet of a sensitive wildlife and plant areas. The Special-status Species Plant Survey and Habitat Mapping Report accounts for Sensitive Wildlife Areas and endemic plants in accordance with the wildlife inventory and as listed in Table 5-4, Priority Habitats. The Special-status Species Plant Survey and Habitat Mapping Report also provides the approximate locations of sensitive wildlife and plant areas along the project site as shown in the wildlife and rare plant inventory (see Appendix J). Therefore, the project complies with these provisions.

b. The County shall submit site plans (of uses that are proposed within 1,000 feet of a sensitive wildlife and/or plant area or site) for review to the Forest Service and Oregon Department of Fish and Wildlife and Oregon Natural Heritage Program for plant issues.

c. The Forest Service wildlife biologists and/or botanists, in consultation with the appropriate state biologists, shall review the site plan and their field survey records. They shall:

(1) Identify/verify the precise location of the wildlife and/or plant area or site,

(2) Determine if a field survey will be required,

(2) Determine, based on the biology and habitat requirements of the affected wildlife/plant species, if the proposed use would compromise the integrity and function of or result in adverse effects (including cumulative effects) to the wildlife or plant area or site. This would include considering the time of year when wildlife or plant species are sensitive to disturbance, such as nesting, rearing seasons, or flowering season, and

(4) Delineate the undisturbed 200 ft. buffer on the site plan for sensitive plants and/or the appropriate buffer for sensitive wildlife areas or sites, including nesting, roosting and perching sites.

(a) Buffer zones can be reconfigured if a project applicant demonstrates all of the following:

i. the integrity and function of the buffer zones is maintained,

ii. the total buffer area on the development proposal is not decreased,

iii. the width reduction shall not occur within another buffer, and

iv. the buffer zone width is not reduced more than 50% at any particular location. Such features as intervening topography, vegetation, man-made features, natural plant or wildlife habitat boundaries, and flood plain characteristics could be considered.

(b) Requests to reduce buffer zones shall be considered if an appropriate professional (botanist, plant ecologist, wildlife biologist, or hydrologist), hired by the project applicant,

i. identifies the precise location of the sensitive wildlife/plant or water resource,

ii. describes the biology of the sensitive wildlife/plant or hydrologic condition of the water resource, and

iii. demonstrates that the proposed use will not have any negative effects, either direct or indirect, on the affected wildlife/plant and their surrounding habitat that is vital to their long-term survival or water resource and its long term function.

(c) The County shall submit all requests to re-configure sensitive wildlife/plant or water resource buffers to the Forest Service and the appropriate state agencies for review. All written comments shall be included in the record of application and based on the comments from the state and federal agencies, the County will make a final decision on whether the reduced buffer zone is justified. If the final decision contradicts the comments submitted by the federal and state agencies, the County shall justify how it reached an opposing conclusion.

d. The County, in consultation with the State and federal wildlife biologists and/or botanists, shall use the following criteria in reviewing and evaluating the site plan to ensure that the proposed developments or uses do not compromise the integrity and function of or result in adverse effects to the wildlife or plant area or site:

(1) Published guidelines regarding the protection and management of the affected wildlife/plant species. Examples include: the Oregon Department of Forestry has prepared technical papers that include management guidelines for osprey and great blue heron; the Washington

Department of Wildlife has prepared similar guidelines for a variety of species, including the western pond turtle, the peregrine falcon, and the Larch Mountain salamander (Rodrick and Milner 1991).

(2) Physical characteristics of the subject parcel and vicinity, including topography and vegetation.

(3) Historic, current, and proposed uses in the vicinity of the sensitive wildlife/plant area or site.

(4) Existing condition of the wildlife/plant area or site and the surrounding habitat and the useful life of the area or site.

(5) In areas of winter range, habitat components, such as forage, and thermal cover, important to the viability of the wildlife must be maintained or, if impacts are to occur, enhancement must mitigate the impacts so as to maintain overall values and function of winter range.

(6) The site plan is consistent with the "Oregon Guidelines for Timing of In- Water Work to Protect Fish and Wildlife Resources" (Oregon Department of Fish and Wildlife 2000).

(7) The site plan activities coincide with periods when fish and wildlife are least sensitive to disturbance. These would include, among others, nesting and brooding periods (from nest building to fledgling of young) and those periods specified.

(8) The site plan illustrates that new developments and uses, including bridges, culverts, and utility corridors, shall not interfere with fish and wildlife passage.

(9) Maintain, protect, and enhance the integrity and function of Priority Habitats (such as old growth forests, talus slopes, and oak woodlands) as listed on the following Priority Habitats Table. This includes maintaining structural, species, and age diversity, maintaining connectivity within and between plant communities, and ensuring that cumulative impacts are considered in documenting integrity and function.

TABLE 5-4
Priority Habitats

Priority Habitats	Criteria	Potentially present?
Aspen stands	High fish and wildlife species diversity, limited availability, high vulnerability to habitat alteration.	No
Caves	Significant wildlife breeding habitat, limited availability, dependent species.	No
Old-growth forest	High fish and wildlife density, species diversity, breeding habitat, seasonal ranges, and limited and declining availability, high vulnerability.	No
Oregon white oak woodlands	Comparatively high fish and wildlife density, species diversity, declining availability, high vulnerability	Yes
Prairies and steppe	Comparatively high fish and wildlife density, species diversity, important breeding habitat, declining and limited availability, high vulnerability.	No
Riparian	High fish and wildlife density, species diversity, breeding habitat, movement corridor, high vulnerability, dependent species.	Yes
Wetlands	High species density, high species diversity, important breeding habitat and seasonal ranges, limited availability, high vulnerability.	Yes
Snags and logs	High fish and wildlife density, species diversity, limited availability, high vulnerability, dependent species.	Yes
Talus	Limited availability, unique and dependent species, high vulnerability.	Yes
Cliffs	Significant breeding habitat, limited availability, dependent species.	Yes
Dunes	Unique species habitat, limited availability, high vulnerability, dependent species.	Yes

e. The wildlife/plant protection process may terminate if the County, in consultation with the Forest Service and state wildlife agency or Heritage program, determines

(1) the sensitive wildlife area or site is not active, or

(2) the proposed use is not within the buffer zones and would not compromise the integrity of the wildlife/plant area or site, and (3) the proposed use is within the buffer and could be easily moved out of the buffer by simply modifying the project proposal (site plan modifications). If the project applicant accepts these recommendations, the local government shall incorporate them into its development review order and the wildlife/plant protection process may conclude.

f. If the above measures fail to eliminate the adverse effects, the proposed project shall be prohibited, unless the project applicant can meet the Practicable Alternative Test in D below, and prepare a Mitigation Plan pursuant to E below to offset the adverse effects by deliberate restoration and enhancement.

Finding: UPRR recognizes that Wasco County will submit project plans to the Forest Service, ODFW, and the Oregon Natural Heritage Program and that federal and state plant and wildlife biologists will review those plans and their field survey records. UPRR is committed to ensuring that the project does not adversely affect natural areas that are potentially eligible for the Oregon Register of Natural Heritage Resources. UPRR conducted a Special-status Species Plant Survey and Habitat Mapping Report (see Appendix J) and prepared a Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan (see Appendix K) to identify and enhance the wildlife and plant diversity of the Gorge within the project area. UPRR demonstrates in its finding to NSA-LUDO Section 14.610(D) that the project has no practicable alternative that would result in fewer impacts to natural resources. UPRR has prepared a Mitigation Plan pursuant to the requirements of NSA-LUDO Section 14.610(E), included as Appendix D to this narrative. Therefore, the project complies with this provision.

g. The County shall submit a copy of all field surveys (if completed) and mitigation plans to the Forest Service and appropriate state agencies. The County shall include all comments in the record of application and address any written comments submitted by the state and federal wildlife agency/heritage programs in its development review order.

Based on the comments from the state and federal wildlife agency/heritage program, the County shall make a final decision on whether the proposed use would be consistent with the wildlife/plant policies and guidelines. If the final decision contradicts the comments submitted by the state and federal wildlife agency/heritage program, the County shall justify how it reached an opposing conclusion.

h. The County shall require the project applicant to revise the mitigation plan as necessary to ensure that the proposed use would not adversely affect a sensitive wildlife/plant area or site.

Finding: The project is consistent with wildlife and plant policies and guidelines in the NSA-LUDO, including provisions NSA-LUDO Section 14.610(B)(2)(g-h). UPRR acknowledges that Wasco County will submit a copy of all field surveys along with the Mitigation Plan (see Appendix D) to the Forest Service and appropriate state agencies. UPRR acknowledges that Wasco County shall include all comments in the record of application and address any written comments submitted by state and federal agency programs in its development review order. In addition, UPRR acknowledges revisions may be requested to the Mitigation Plan to ensure that the project will not affect a sensitive wildlife or plant area. Therefore, UPRR acknowledges and will comply with the provisions of NSA-LUDO Section 14.610(B)(2)(g-h).

C. Soil Productivity

Soil productivity shall be protected using the following criteria:

1. A description or illustration showing the mitigation measures to control soil erosion and stream sedimentation.

2. *New developments and land uses shall control all soil movement within the area shown on the site plan.*
3. *The soil area disturbed by new development or land uses, except for new cultivation, shall not exceed 15 percent of the project area.*
4. *Within 1 year of project completion, 80 percent of the project area with surface disturbance shall be established with effective native ground cover species or other soil-stabilizing methods to prevent soil erosion until the area has 80 percent vegetative cover.*

Finding: The proposed project includes infrastructure improvements to an existing railroad track, and is not considered a new development or land use. As described in Section 4.2.5.5, UPRR will implement a variety of BMPs and mitigation measures as part of the project in order to maintain soil productivity, and control soil erosion and stormwater impacts. These measures will include but not be limited to revegetation of the temporarily disturbed project area following construction, erosion control measures from the Construction Stormwater Best Management Practices Manual published by the ODEQ, and BMPs implemented in accordance with state and federal permit requirements. Therefore, the project complies with these provisions.

D. *Practicable Alternative Test*

An alternative site for a proposed use shall be considered practicable if it is available and the proposed use can be undertaken on that site after taking into consideration cost, technology, logistics, and overall project purposes. A practicable alternative does not exist if a project applicant satisfactorily demonstrates all of the following:

1. *The basic purpose of the use cannot be reasonably accomplished using one or more other sites in the vicinity that would avoid or result in less adverse effects on wetlands, ponds, lakes, riparian areas, wildlife or plant areas and/or sites.*

Finding: As discussed in Section 2 of this narrative, the purpose of the project is improve operational efficiency of train movement along UPRR's existing mainline track near the City of Mosier while maintaining safe operating conditions. The project is needed to correct the operational constraints that result from the existing railroad infrastructure between MP 66.98 and 72.35. The segment of the Portland Subdivision between MP 66.98 and 72.35 has the poorest operational performance and efficiency along the entire route because of the location and configuration of the Mosier Siding, which has resulted in an operational bottleneck at this location. The project will relieve this bottleneck by decreasing the number of delayed or stopped trains, reducing barriers to industry-standard train lengths, and improving the efficiency and fluidity of train movements in this area, while maintaining safe operating conditions.

As discussed in Section 3 of this narrative, the proposed Second Mainline Track project, is the only alternative that satisfies all of the alternative evaluation criteria, and avoids or minimizes disturbance to environmental resources to the maximum extent practicable to meet the stated purpose and need. Alternative A will alleviate the operational inefficiencies currently experienced near the City of Mosier and at the Mosier Siding, thus meeting the purpose and need for moving trains more efficiently to relieve the existing operational bottleneck. The proposed second mainline track expansion maximizes use of existing infrastructure and the existing previously disturbed UPRR ROW to reduce impacts to natural resources such as wetlands, streams, ponds, lakes, riparian areas, wildlife, or plant areas and sites. Therefore, the project meets this criteria, demonstrating that a practicable alternative to the proposed project does not exist.

2. *The basic purpose of the use cannot be reasonably accomplished by reducing its proposed size, scope, configuration, or density, or by changing the design of the use in a way that would avoid or result in less adverse effects on wetlands, ponds, lakes, riparian areas, wildlife or plant areas and/or sites.*

Finding: As discussed in Sections 2 and 3, the project is needed to correct the operational constraints that result from the existing railroad infrastructure between MP 66.98 and 72.35. To meet the project need, a minimum of 5 miles of contiguous second mainline track is required to allow for trains to pass at standard operating speed. In addition, the new second mainline track must be spaced approximately 10 miles from other existing passing locations along the existing route to accommodate for the safe passage of trains traveling in opposite directions. UPRR conducted an extensive network operational review to identify the nature and cause of operational inefficiencies along the route. As discussed in Section 2, existing operational inefficiencies are directly related to the length and location of the existing Mosier Siding, including how the inefficiency of that siding results in delays throughout other parts of the route.

As discussed in Section 3 of this narrative, the proposed Second Mainline Track project, is the only alternative that satisfies all of the alternative evaluation criteria, and avoids or minimizes disturbance to environmental resources to the maximum extent practicable to meet the stated purpose and need. Alternative A will alleviate the operational inefficiencies currently experienced near the City of Mosier and at the Mosier Siding, thus meeting the purpose and need for moving trains more efficiently to relieve the existing operational bottleneck. The proposed second mainline track expansion maximizes use of existing infrastructure and the existing previously disturbed UPRR ROW to reduce impacts to natural resources such as wetlands, streams, ponds, lakes, riparian areas, wildlife, or plant areas and sites.

UPRR has incorporated additional design considerations in order to reduce the project footprint, and its impacts to natural resources including wetlands, streams, ponds, lakes, riparian areas, wildlife or plant areas and sites. These measures include:

- **Track Alignment and Centerline Offset Width Reduction.** In determining the alignment for the proposed track in the project area, UPRR reduced the centerline offset from 20 feet to 15 feet (the minimum allowable centerline offset) to significantly reduce the project footprint and avoid waters and wetlands to the north and south of the track. On the west end of the project (MP 66.98 to MP 69.38), an alignment to the north of the track was selected because it would have fewer aquatic impacts, and avoid additional excavation of a tall rock face. On the east end of the project (MP 70.73 to MP 72.35), an alignment primarily to the south of the existing track was selected to avoid direct impacts to the Columbia River. The reduction of centerline-track offsets decreased the project footprint by 2.1 acres along the full 4.02 miles of new track.
- **Embankment Design Minimization.** UPRR design standards for track embankments are for a 2:1 horizontal to vertical (H:V) slope, which provides stability to the rail roadbed and incorporates safety considerations for maintenance work along the tracks. Geotechnical design options to steepen the embankment slope (standard 2H:1V slopes to vertical retaining walls) were assessed to reduce project footprint and adjacent aquatic impacts. Based on site-specific considerations, UPRR selected 1.5H:1V slopes in waters and wetland areas to provide the greatest effective reduction in aquatic impacts while retaining the safe functioning of the railroad. Riprap/rock fill can provide the steepest slope at 1.5H:1V achievable with natural materials.
- **Reduced Access Road and Drainage Ditches.** UPRR design standards include construction of a 10-foot-wide access road outside the tracks for ease of operation and maintenance and to construct a 10-foot-wide flat bottom drainage ditch adjacent to the track embankment in cut sections. To reduce the project footprint and associated disturbance, UPRR eliminated the access road in all but one location and reduced the widths of associated drainage ditches where compliant with UPRR-required hydraulic design guidelines. The elimination of the access road and reduced ditch width reduced the potential project footprint by roughly 5.5 acres along the full 4.02 miles of new track construction.

Therefore, the project meets this criteria, demonstrating that a practicable alternative to the proposed project does not exist.

3. *Reasonable attempts were made to remove or accommodate constraints that caused a project applicant to reject alternatives to the proposed use. Such constraints include inadequate infrastructure, parcel size, and land use designations. If a land use designation or recreation intensity class is a constraint, an applicant must request a Management Plan amendment to demonstrate that practicable alternatives do not exist.*

Finding: Due to the nature of the railroad as a pre-existing, interstate transportation system, constraints associated with rejected alternatives cannot be removed. The project includes the relocation of certain utilities, but will not require additional use of existing regional infrastructure. UPRR will use existing connections to collocated transmission lines, therefore no associated constraints are anticipated for the project.

The majority of the proposed project will be constructed within the existing UPRR ROW, and one minor ROW acquisition is required between MP 71.61 and MP 72.35 in Segment 2; no constraints are anticipated associated with parcel size or orientation.

The project is a conditional use in the seven NSA zoning districts that will be crossed, pursuant to NSA-LUDO Section 3 provisions. The project's compliance is discussed in detail within the findings associated with NSA-LUDO Sections 3.120 through 3.190 of this narrative. Therefore, no constraints associated with land use designations in the project area are anticipated.

Therefore, the project meets this, and all, criteria, demonstrating that a practicable alternative to the proposed project does not exist.

E. Mitigation Plan

1. *Mitigation Plan shall be prepared when:*
   a. *The proposed development or use is within a buffer zone (wetland, pond, lakes, riparian areas, wildlife or plant areas and/or sites)*
   b. *There is no practicable alternative according to D below, Practicable Alternative Test.*

Finding: The project will require impacts within natural resource buffer zones. UPRR demonstrates in its finding to NSA-LUDO Section 14.610(D) that the project has no practicable alternative that would result in fewer impacts to natural resources. UPRR has prepared a Mitigation Plan pursuant to NSA-LUDO Section 14.610(E), included as Appendix D to this narrative. Therefore, the project complies with this provision.

2. *In all cases, Mitigation Plans are the responsibility of the applicant and shall be prepared by an appropriate professional (botanist/ecologist for plant sites, a wildlife/fish biologist for wildlife/fish sites, and a qualified professional for water resource sites).*
3. *The primary purpose of this information is to provide a basis for the project applicant to redesign the proposed use in a manner that protects sensitive water resources, and wildlife/plant areas and sites, that maximizes his/her development options, and that mitigates, through restoration, enhancement, and replacement measures, impacts to the water resources and/or wildlife/plant area or site and/or buffer zones.*

Finding: UPRR has prepared a Mitigation Plan and a Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan pursuant to NSA-LUDO Section 14.610(E), included as Appendixes D and K to this application narrative, respectively. The Mitigation Plan was prepared by a professional fish biologist for fish sites, and a qualified professional for water resource sites. The Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan was prepared by a professional botanist for plant sites, and a biologist for wildlife areas. The project will require impacts within natural resource buffer zones. UPRR demonstrates in its finding to NSA-LUDO Section 14.610(D) that the project has no practicable alternative that would result in fewer impacts to natural resources. The Mitigation Plan and Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan propose the mitigation of impacts to water resources, and to wildlife and

plant areas and buffer zones, through restoration, enhancement, and replacement measures. Therefore, the project complies with the provisions of NSA-LUDO Section 14.610(E)(2-3).

4. *The applicant shall submit the mitigation plan to the County. The County shall submit a copy of the mitigation plan to the Forest Service, and appropriate state agencies. If the final decision contradicts the comments submitted by the state and federal wildlife agency/heritage program, the County shall justify how it reached an opposing conclusion.*

5. *A project applicant shall demonstrate sufficient fiscal, technical, and administrative competence to successfully execute a mitigation plan involving wetland creation.*

Finding: UPRR acknowledges that Wasco County will submit a copy of the Mitigation Plan (see Appendix D) to the USFS and appropriate state agencies. UPRR acknowledges that if Wasco County's final decision contradicts the comments submitted by the state and federal wildlife agency programs, the County shall justify how it reached an opposing conclusion. The Mitigation Plan and the Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan prepared by UPRR were developed by appropriate professionals including a botanist for plant sites, a biologist for wildlife areas, a fish biologist for fish sites, and a qualified professional for water resource sites. Therefore, UPRR acknowledges and will comply with the provisions of NSA-LUDO Section 14.610(E)(4-5).

6. *Mitigation plans shall include maps, photographs, and text. The text shall:*

   a. *Describe the biology and/or function of the sensitive resources (e.g. Wildlife/plant species, or wetland) that will be affected by a proposed use. An ecological assessment of the sensitive resource to be altered or destroyed and the condition of the resource that will result after restoration will be required.*

      Reference published protection and management guidelines.

   b. *Describe the physical characteristics of the subject parcel, past, present, and future uses, and the past, present, and future potential impacts to the sensitive resources. Include the size, scope, configuration, or density of new uses being proposed within the buffer zone.*

   c. *Explain the techniques that will be used to protect the sensitive resources and their surrounding habitat that will not be altered or destroyed (for examples, delineation of core habitat of the sensitive wildlife/plant species and key components that are essential to maintain the long-term use and integrity of the wildlife/plant area or site).*

   d. *Show how restoration, enhancement, and replacement (creation) measures will be applied to ensure that the proposed use results in minimum feasible impacts to sensitive resources, their buffer zones, and associated habitats.*

   e. *Show how the proposed restoration, enhancement, or replacement (creation) mitigation measures are NOT alternatives to avoidance. A proposed development/use must first avoid a sensitive resource, and only if this is not possible should restoration, enhancement, or creation be considered as mitigation. In reviewing mitigation plans, the County, appropriate state agencies, and Forest Service shall critically examine all proposals to ensure that they are indeed last resort options.*

Finding: UPRR has prepared a Mitigation Plan and a Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan pursuant to NSA-LUDO Section 14.610(E), included as Appendixes D and K to this application narrative, respectively. The plans were prepared in accordance with the criteria required in NSA-LUDO Section 14.610(E)(6). Therefore, the project complies with this provision.

7. *At a minimum, a project applicant shall provide to the County a progress report every 3 years that documents milestones, successes, problems, and contingency actions. Photographic monitoring stations shall be established and photographs shall be used to monitor all mitigation progress.*

Finding: UPRR has prepared a Mitigation Plan and a Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan pursuant to NSA-LUDO Section 14.610(E), included as Appendixes D and K to this application narrative, respectively. In accordance with the criteria required in NSA-LUDO Section 14.610(E)(7), UPRR will, at a minimum, provide Wasco County with a progress report every 3 years documenting milestones, successes, problems, and contingency actions using photographic monitoring stations to monitor mitigation progress. Therefore, the project complies with this provision.

8. *A final monitoring report shall be submitted to the County for review upon completion of the restoration, enhancement, or replacement activity. This monitoring report shall document successes, problems encountered, resource recovery, status of any sensitive wildlife/plant species and shall demonstrate the success of restoration and/or enhancement actions. The County shall submit copies of the monitoring report to the Forest Service; who shall offer technical assistance to the County in helping to evaluate the completion of the mitigation plan. In instances where restoration and enhancement efforts have failed, the monitoring process shall be extended until the applicant satisfies the restoration and enhancement guidelines.*

Finding: UPRR has prepared a Mitigation Plan and a Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan pursuant to NSA-LUDO Section 14.610(E), included as Appendixes D and K to this application narrative, respectively. UPRR will complete and submit a final monitoring report to Wasco County for review upon completion of the restoration, enhancement, or replacement activity described in the Mitigation Plan and the Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan. The final monitoring report will meet the criteria required in NSA-LUDO Section 14.610(E)(8). UPRR acknowledges that Wasco County will submit copies of the monitoring report to the USFS, who will offer technical assistance to the County in helping to evaluate the completion of the Mitigation Plan and the Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan. In addition, UPRR acknowledges that in instances where restoration and enhancement efforts may fail, the monitoring process will be extended until UPRR satisfies the applicable restoration and enhancement guidelines. Therefore, UPRR acknowledges and will comply with this provision.

9. *Mitigation measures to offset impacts to resources and/or buffers shall result in no net loss of water quality, natural drainage, fish/wildlife/plant habitat, and water resources by addressing the following:*

    a. *Restoration and enhancement efforts shall be completed no later than one year after the sensitive resource or buffer zone has been altered or destroyed, or as soon thereafter as is practicable.*

    b. *All natural vegetation within the buffer zone shall be retained to the greatest extent practicable. Appropriate protection and maintenance techniques shall be applied, such as fencing, conservation buffers, livestock management, and noxious weed control. Within five years, at least 75 percent of the replacement vegetation must survive. All plantings must be with native plant species that replicate the original vegetation community.*

    c. *Habitat that will be affected by either temporary or permanent uses shall be rehabilitated to a natural condition. Habitat shall be replicated in composition, structure, and function, including tree, shrub and herbaceous species, snags, pool-riffle ratios, substrata, and structures, such as large woody debris and boulders.*

    d. *If this standard is not feasible or practical because of technical constraints, a sensitive resource of equal or greater benefit may be substituted, provided that no net loss of sensitive resource functions occurs and provided the County, in consultation with the appropriate State and Federal agency, determine that such substitution is justified.*

    e. *Sensitive plants that will be destroyed shall be transplanted or replaced, to the maximum extent practicable. Replacement is used here to mean the establishment of a particular plant species in*

areas of suitable habitat not affected by new uses. Replacement may be accomplished by seeds, cuttings, or other appropriate methods. Replacement shall occur as close to the original plant site as practicable. The project applicant shall ensure that at least 75 percent of the replacement plants survive 3 years after the date they are planted

f. Nonstructural controls and natural processes shall be used to the greatest extent practicable.

(1) Bridges, roads, pipeline and utility corridors, and other water crossings shall be minimized and should serve multiple purposes and properties.

(2) Stream channels shall not be placed in culverts unless absolutely necessary for property access. Bridges are preferred for water crossings to reduce disruption to hydrologic and biologic functions. Culverts shall only be permitted if there are no practicable alternatives as demonstrated by the 'Practical Alternative Test'.

(3) Fish passage shall be protected from obstruction.

(4) Restoration of fish passage should occur wherever possible.

(5) Show location and nature of temporary and permanent control measures that shall be applied to minimize erosion and sedimentation when riparian areas are disturbed, including slope netting, berms and ditches, tree protection, sediment barriers, infiltration systems, and culverts.

(6) Groundwater and surface water quality will not be degraded by the proposed use. Natural hydrologic conditions shall be maintained, restored, or enhanced in such a manner that replicates natural conditions, including current patterns (circulation, velocity, volume, and normal water fluctuation), natural stream channel and shoreline dimensions and materials, including slope, depth, width, length, cross-sectional profile, and gradient.

(7) Those portions of a proposed use that are not water-dependent or that have a practicable alternative will be located outside of stream, pond, and lake buffer zones.

(8) Streambank and shoreline stability shall be maintained or restored with natural revegetation.

(9) The size of restored, enhanced, and replacement (creation) wetlands shall equal or exceed the following ratios. The first number specifies the required acreage of replacement wetlands, and the second number specifies the acreage of wetlands altered or destroyed.

Restoration: 2: l
Creation: 3: l
Enhancement: 4: l

g. Wetland creation mitigation shall be deemed complete when the wetland is self-functioning for 5 consecutive years. Self-functioning is defined by the expected function of the wetland as written in the mitigation plan. The monitoring report shall be submitted to the County to ensure compliance.

The Forest Service, in consultation with appropriate state agencies, shall extend technical assistance to the County to help evaluate such reports and any subsequent activities associated with compliance.

h. Wetland restoration/enhancement can be mitigated successfully by donating appropriate funds to a non-profit wetland conservancy or land trust with explicit instructions that those funds are to be used specifically to purchase protection easements or fee title protection of appropriate wetlands acreage in or adjacent to the Columbia River Gorge meeting the ratios given above in

(f)(9) above. These transactions shall be explained in detail in the Mitigation Plan and shall be fully monitored and documented in the monitoring report.

Finding: UPRR has prepared a Mitigation Plan and a Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan pursuant to NSA-LUDO Section 14.610(E), included as Appendixes D and K to this application narrative, respectively. The mitigation measures included in the Mitigation Plan and the Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan to offset impacts to natural resources and buffers satisfy the applicable criteria required in NSA-LUDO Section 14.610(E)(9). Therefore, the project complies with this provision.

Section 14.700 Recreation Resources (GMA Only)

B. Recreation Intensity Classes (RIC)

The following uses are permitted in the applicable Recreation Intensity Class designation, subject to compliance with Subsections (C) Approval Criteria for Recreation Uses and (D) Facility Design Standards for all Recreation Projects.

1. *Recreation Intensity Class 1*
2. *Recreation Intensity Class 2*

Finding: The proposed project is located within GMA zones designated as Recreation Intensity Classes 1 and 2. The project, however, is not a recreational facility or use; therefore, this provision is not applicable.

F. Proposed development on properties Adjacent to Listed Recreation Sites

Recreation sites shall be protected from adjacent uses that would detract from their use and enjoyment. If new buildings or structures may detract from the use and enjoyment of established recreation sites on adjacent parcels, an appropriate buffer shall be established between the building/structure and the parcel.

Finding: The proposed project will not be located adjacent to any recreation sites within the GMA zone; therefore, this provision is not applicable.

Section 14.710 Recreation Resources (SMA Only)

The following standards apply to the lands in the Special Management Area:

B. New developments and land uses shall not displace existing recreational use.

Finding: The project consists of infrastructure improvements to a pre-existing railroad mainline, and includes ancillary structures, lighting, signage, and minor ROW acquisition necessary to satisfy federal rail safety standards. The project is not considered a new development or land use.

The proposed project will cross Memaloose State Park between approximately MP 71.61 and MP 72.35. Memaloose Park is used primarily for recreational camping; existing campsites are located approximately 200 to 300 feet south from the existing mainline track. The proposed second mainline track will be located approximately 0 feet to 15 feet closer to the closest campsites compared to the existing mainline track and will not displace or significantly impact any campsites or recreationists. There are no designated hiking or walking trails, or Columbia River access points located within the proposed expanded ROW or temporary easement areas. Therefore, the project complies with this provision.

C. Protect recreation resources from adverse effects by evaluating new developments and land uses as proposed in the site plan. An analysis of both on- and offsite cumulative effects shall be required.

Finding: The project consists of infrastructure improvements to a pre-existing railroad mainline, and includes ancillary structures, lighting, signage, and minor ROW acquisition necessary to satisfy federal rail safety standards. The project is not considered a new development or land use.

During construction, recreational uses may be temporarily affected by construction noise; however, UPRR will coordinate with the Oregon Parks and Recreation Department to minimize impacts to recreationists to

the greatest extent feasible. It is important to note that the portion of the project that will occur in Memaloose State Park is in an area that is restricted to public access, thereby greatly limiting any potential impact to recreation.

Once installed, the proposed second mainline track will be located approximately 0 feet to 15 feet closer to the closest campsites compared to the existing mainline track but will be at least 185 feet from the nearest campsite and will not directly displace any campsites or recreationists, or preclude any existing recreational uses. During operation, UPRR will periodically use the proposed permanent access road for maintenance activities, which would have no impact on recreational opportunities within the park. In communication with Wasco County project staff, no other recreational or other projects are proposed within Memaloose State Park or in its vicinity. Because no impacts to current and future park operations are anticipated related to project operations, the project will not result in cumulative impacts to recreational opportunities at Memaloose State Park, or other recreational facilities within the Columbia River Gorge. The project will, therefore, comply with this provision.

E. Mitigation measures shall be provided to preclude adverse effects on the recreation resource.

Finding: Operation of the project will not result in adverse effects to recreational opportunities at Memaloose State Park.

During construction, recreational uses may be temporarily affected by construction noise; however, UPRR will coordinate with the Oregon Parks and Recreation Department to minimize impacts to recreationists to the greatest extent feasible. It is important to note that the portion of the project that will occur in Memaloose State Park is in an area that is restricted to public access, thereby greatly limiting any potential impact to recreation.

J. Recreation resources shall be protected by limiting development and uses as per the Recreation Intensity Classes.

K. Recreation Intensity Classes – (RIC)

The following uses are permitted in the applicable Recreation Intensity Class designation.

1. Intensity Class 1
4. Intensity Class 4

Finding: The proposed project is located within SMA zones designated as Recreation Intensity Classes 1 and 4. The project, however, is not a recreational facility or use; therefore, this provision is not applicable.

M. Proposed development on properties Adjacent to Listed Recreation Sites.

Recreation sites shall be protected from adjacent uses that would detract from their use and enjoyment. If new buildings or structures may detract from the use and enjoyment of established recreation sites on adjacent parcels, an appropriate buffer shall be established between the building/structure and the parcel.

Finding: The project consists of infrastructure improvements to an existing railroad mainline, and includes ancillary structures, lighting, signage, and minor ROW acquisition necessary to satisfy federal rail safety standards. Within the SMA Open Space and SMA Public Recreation zones, the proposed project crosses Memaloose State Park between approximately MP 71.61 and MP 72.35. The project will require approximately 4.21 acres (approximate length of 3,800 feet, width ranging from 30 to 80 feet) of expanded ROW to the south of the existing track, 0.54 acre (approximate length of 950 ft., width ranging from 25 to 35 feet) of temporary easement north of the existing ROW to accommodate construction, and 0.14 acre for installation of a permanent maintenance access road within the park boundary.

Memaloose Park is used primarily for recreational camping; existing campsites are located approximately 200 to 300 feet south from the existing mainline track. The proposed second mainline track will be located approximately 0 to 15 feet closer to the closest campsites compared to the existing mainline track. There are

no designated hiking or walking trails located within the proposed expanded ROW or temporary easement areas which could be affected by project construction and operation.

During construction, there may be temporary impacts to recreational uses associated with construction noise; however, UPRR will coordinate with the Oregon Parks and Recreation Department to minimize impacts to recreationists to the greatest extent feasible. It is important to note that the portion of the project that will occur in Memaloose State Park is in an area that is restricted to public access, thereby greatly limiting any potential impact to recreation. During operation, UPRR will periodically use the proposed permanent access road for maintenance activities; which would have no impact on recreational opportunities within the park. The project will, therefore, comply with this provision.

5.3.8 Chapter 23—Sign Provisions

Section 23.020 Signs (GMA Only)

Section 23.030 Signs (SMA Only)

Finding: Standard railroad signage will be constructed as part of the proposed second mainline track project. Signage will include Station and Control Point, Whistle Signal, Vertical Control Point, Private Property, No Dumping, Speed Restriction, and Mile Marker signage. This type of warning and guidance signage is exempt from development review in accordance with NSA-LUDO Section 3.100(H)(4).

Nevertheless, the proposed signage satisfies NSA-LUDO criteria contained in NSA-LUDO Sections 23.020 and 23.030. Signage will be non-reflective and most will be black and white signage that will be posted at an approximate height of 10 feet. All signage installed will be the minimal amount required under federal law for the safe operation of the railroad, and existing signage identical to that required for the project is already common throughout the NSA. Photographs showing example standard railroad signage are included in Appendix B. Therefore, the project complies with these provisions.

5.4 Management Plan for the Columbia River Gorge National Scenic Area

The Management Plan (NSA-MP) is meant to ensure that land use in the Scenic Area is consistent with the purpose and standards of the Scenic Area Act. The NSA-MP identifies goals, objectives, policies, and guidelines for resources protection and enhancement. Wasco County, as well as other jurisdictions within the CRGNSA, have developed their respective land use and development ordinances consistent with the guidelines included in the NSA-MP. With the exception of the guidelines related to cumulative impacts analysis, each NSA-MP guideline has been previously addressed in the associated NSA-LUDO provisions and findings included in Section 5.3 of this narrative; therefore, this section focuses on verifying consistency of the proposed project with NSA-MP policies, and includes only guidelines related to cumulative impacts analysis.

5.4.1 Part I—Resource Protection and Enhancement

5.4.1.1 Chapter 1 Scenic Resources

GMA Provisions

Overall Scenic Provisions

GMA Policies

3. *New development shall be compatible with its designated landscape setting (as described in the "Landscape Settings" section of this chapter). Expansion of existing development shall be compatible with its landscape setting to the maximum extent practicable.*

Finding: All of Segment 1, and the portion of Segment 2 West that extends from Mosier to UPRR MP 71.1 at the western end of the cut through the rock mesa lie within areas governed by these GMA policies. The

proposed project consists of infrastructure improvements to the existing railroad use. As established in Section 5.2 and in the responses to NSA-LUDO Sections 14.200(A) and 14.400, within these areas, the project will be compatible with its landscape settings in that any project-related visual changes will either not be visually evident in views from KVAs, or if evident, will be visually subordinate.

5. *New development shall retain existing landforms and strive to fit into the existing topography to the maximum extent feasible.*

Finding: Because the project will consist of infrastructure improvements to an existing development as opposed to new development, this policy does not apply to the project.

Key Viewing Areas

GMA Policies

2. *Except for new production and/or development of mineral resources, new development on lands seen from key viewing areas shall be visually subordinate to its landscape setting. This policy shall not apply to specified developed settings that are not visually sensitive (as identified in the "Landscape Settings" section), rehabilitation or modifications to significant historic structures, shorelines on the main stem of the Columbia River that adjoin Urban Areas, or other developments expressly exempted from this requirement in this chapter.*

Finding: Because the project will consist of infrastructure improvements to an existing development as opposed to new development, this provision does not apply to the project. Nonetheless, as established in Section 5.2 of this narrative and in the findings to NSA-LUDO Sections 14.200(A) and 14.400, any project-related visual changes within GMA zones will either not be visually evident in views from KVAs, or if evident, will be visually subordinate within these areas.

4. *New utility transmission lines, transportation and communication facilities, docks and piers, and repairs and maintenance of existing lines, roads and facilities shall be visually subordinate as seen from key viewing areas to the maximum extent practicable.*

Finding: The project will include infrastructure improvements to an existing transportation use. As established in Section 5.2 and in the findings to NSA-LUDO Sections 14.200(A) and 14.400, the project will be compatible with its landscape settings in that any project-related visual changes will either not be visually evident in views from KVAs, or if evident, will be visually subordinate.

6. *Proposed projects involving substantial grading on lands visible from key viewing areas shall include a grading plan addressing visual impacts of grading activities. All graded areas shall be revegetated to the maximum extent practicable.*

Finding: The second mainline track will be constructed parallel and adjacent to the existing track in order to efficiently use the existing ROW and significantly reduce the grading required to widen the existing track embankment to accommodate the proposed track instead of constructing an entirely new embankment. Grading and other earthwork for the proposed track embankment and trackside ditch will include rock excavation along segments of the project. Controlled blasting techniques will be used for this excavation to minimize impacts to the existing mainline track and to maintain the structural integrity of the existing rock to remain in place adjacent to the proposed excavation. Cut slopes and catchment areas will be constructed per geotechnical recommendations. Anticipated locations of rock excavation are identified in Section 4.2.5.4.

Construction of the primary staging area in Segment 2 East will require tree removal as well as grading of the sloped terrain. While temporary visual change may occur as a result of vegetation removal at the staging area in Segment 2 East, replanting and restoration following construction would restore the area to pre-construction conditions, ensuring no permanent visual change. Although the standard of visual evidence does not explicitly address or regulate temporary visual change, UPRR will attenuate the temporary visual change that would occur in these areas. This will be accommodated by retaining a band of existing trees

along the northern portion of the proposed staging area between MPs 71.52 and 71.64 and replanting and restoring disturbed portions of this staging area. Therefore, from the SR-14 and Old Washington State Route 14/Klickitat County Route 1230 KVAs, the new rail line, staging areas, and appurtenant facilities will not be visually evident.

Detailed engineering and design drawings are included as Appendix C to this narrative, and include a grading plan that meets the criteria pursuant to this policy and to the provisions of NSA-LUDU Section 14.020(F). Disturbed areas will be restored as closely as practical to their original condition, permanent erosion control measures will be installed as appropriate, and revegetation measures will be implemented in accordance with state and federal permit requirements. Permanent seeding and stabilization measures will be placed prior to track construction and final stabilization is expected prior to the completion of track construction activities. Therefore, the project complies with this policy.

7. *Development along the shoreline of the Columbia River and on immediately adjacent lands shall be limited to water-dependent development and water-related recreation development.*

Finding: The project is a minor expansion of UPRR's long-existing mainline track through the Gorge. It connects marine terminals in Portland to those in Morrow, as well as connecting to the Burlington Northern Santa Fe (BNSF) railroad bridge at MP 95.3 on the Portland Subdivision.

This criterion does not apply because development is not proposed for either the shoreline of the river or immediately adjacent lands. Rather, the development is located landward of I-84.

Even assuming this criterion applies, the proposal would meet it. As explained above in response to NSA-LUDO Section 14.200(G), the location of the existing railroad is based on proximity to the Columbia River. Heavy rail train routes are very sensitive to grade, far more so than highways. Whereas, interstate freeways are built on grades up to 6 percent, railroads can operate at a grade of no more than 2 percent. As such, it is essential for the project to follow the river grade, which is far more gradual than the grades on the surrounding landscape.

Lastly, this NSA-MP standard is inconsistent with State and local regulation regarding water-dependent development along the Columbia River shoreline. Numerous criteria in the NSA-LUDO including Sections 14.200(G), 14.600(6)(a) and 14.610(E)(9)(f)(7) contradict this NSA-MP requirement by allowing non-water-dependent uses along the Columbia River Shoreline in both the GMA and SMA provided that the use can satisfy the Practicable Alternatives Test. As an illustrative example, NSA-LUDO Section 14.600(6)(a) states:

> *6. Except for uses permitted without review in Section 3.100 and 3.180(B) (Open Space) and Modifications to Serviceable Structures and Placement of Minor Water As -Dependent and Water-Related Structures in Wetlands as specified in (4) above, other uses authorized by the applicable zoning designation may be allowed in wetlands and wetland buffer zones subject to (7) below, Site Plans, the remaining applicable sections of this Chapter and the following criteria:*
>
> > *a. The proposed use is water-dependent,* ***or is not water-dependent but has no practicable alternative as determined by E, Practicable Alternative Test.*** (emphasis added)

Similarly, the Oregon Administrative Rules (OARs) also directly conflict with the strict interpretation of water-dependent uses provided in the NSA-MP. OAR 350-081-0560(6)(a) states:

> *6. Applications for all other Review Uses in wetlands shall demonstrate that:*
>
> > *a. The proposed use is water-dependent,* ***or is not water-dependent but has no practicable alternative*** *[…].* (emphasis added)

As outlined above, UPRR demonstrates in its finding to NSA-LUDO Sections 14.600(E) and 14.610(D) that the project has no practicable alternative in both the GMA and SMA and therefore satisfies State and local interpretation of this NSA-MP requirement.

Accordingly, UPRR asserts that the project satisfies the intent of this criterion and therefore this standard is met. However, UPRR reserves the right to challenge the consistency of this criterion with applicable OARs and NSA-LUDO standards, both of which contradict this NSA-MP criterion and provide greater flexibility with regard to development along the Columbia River shoreline.

GMA Guidelines

3. *Determination of potential visual effects and compliance with visual subordinance policies shall include consideration of the cumulative effects of proposed developments.*

Finding: To evaluate the possibility of the proposed project combining with the impacts of other nearby projects to create cumulative visual effects, account was taken of the potential future development that might occur along the project corridor or in nearby areas of the project viewshed. The spatial boundary for the cumulative effects assessment included all non-urban lands within the NSA in the area that extends from the western boundary of the project corridor to the eastern end of the corridor and north and south to encompass the areas seen in views toward the project corridor from I-84, the Historic Columbia River Highway, the Columbia River, Washington State Route 14, and Old Washington State Route 14. This spatial boundary is consistent with approved equivalent development projects within the NSA, based consultation with Wasco County staff (Wasco County, Personal communication, 2014b). Within this area, an effort was made to identify all proposals for major development that has the potential to take place during the next ten years. Ten years was selected as the time period for the analysis because it represents the maximum time frame for identifying public and private development projects that could be considered to be reasonably foreseeable.

The cumulative effects analysis did not include an analysis of past actions. Current conditions have been disturbed by innumerable actions over the last century (and beyond), and trying to isolate the individual actions that continue to have residual impacts would be nearly impossible. Providing the details of past actions on an individual basis would not be useful to predict the cumulative effects of the proposed action or alternatives. Focusing on individual actions would be less accurate than looking at existing conditions, because there is limited information on the environmental impacts of individual past actions, and one cannot reasonably identify each and every action over the last century that has contributed to current conditions. Additionally, focusing on the impacts of past human actions risks ignoring the important residual effects of past natural events, which may contribute to cumulative effects just as much as human actions. The current conditions serve as an aggregate of all past actions, so by looking at current conditions, we are sure to capture all the residual effects of past human actions and natural events, regardless of which particular action or event contributed those effects.

Based on consultation with the Wasco County Planning Department in Oregon and review of publically available data from the Klickitat County Planning Department in Washington, no plans were identified for major projects to occur within the next ten years in the viewsheds from the nearby KVAs within which the proposed project has the potential to be visible. Although no major development is planned to occur, it is reasonable to assume that there could be a small amount of incremental landscape change within these viewsheds that is related to modifications of existing agricultural operations and residential properties and potentially, the development of a small number of individual residences on scattered sites. Should any of these landscape modifications occur, they would, of course need to be implemented in a way that is in conformance with NSA policies to minimize visual contrast. The potential for substantial visual change related to other projects that could occur within the viewsheds of the KVA from which the proposed project will be seen is very low. As a consequence, it is unlikely that there would be any cumulative changes in the viewsheds that would combine with the visually subordinate effects of the project to create changes to the landscape that would be visually dominant. Therefore, the project complies with this policy guideline.

Landscape Settings

GMA Policies

1. *New developments shall be compatible with their landscape setting and maintain the integrity of that setting. Expansion of existing developments shall be compatible with their landscape setting and maintain the integrity of that setting to the maximum extent practicable.*

Finding: All of Segment 1, and the portion of Segment 2 West that extends from Mosier to UPRR MP 71.1 at the western end of the cut through the rock mesa lie within areas governed by these GMA policies. Because the project consists of infrastructure improvements to an existing development as opposed to new development, this policy does not apply to the project. Nonetheless, as established in Section 5.2 of this narrative and in the responses to NSA-LUDO Sections 14.200(A)and 14.400, within these areas, the project will be compatible with its landscape settings in that any project-related visual changes will either not be visually evident in views from KVAs, or if evident, will be visually subordinate.

Scenic Travel Corridors

GMA Policies

5. *New structural development, other than access roads, pathways, or necessary signage, shall be limited in the immediate foreground of scenic travel corridors. Expansion of existing development shall comply with this policy to the maximum extent practicable.*

Finding: The only project activity that will take place in the immediate foreground of a scenic travel corridor will occur in Segment 1, where the expanded rail corridor will closely parallel I-84 for a little under 2 miles and for a short distance in Segment 2, at the point at which the rail corridor passes under I-84. The project will constitute an infrastructure improvement to existing development, rather than a new development. The project complies with this provision in that it has been sited and designed in a way that is visually consistent with the existing use, and is evident only in brief views from I-84's eastbound lanes. Although the project will be visually evident in the views of eastbound travelers, the visual changes will be visually subordinate.

8. *New signal wires and powerlines along scenic travel corridors shall be placed underground to the maximum extent practicable in areas where above-ground facilities would be visually dominant and detract from corridor visual quality.*

Finding: The project will not entail the installation of any new power lines, and any signal lines that would be affected would be replacements of existing utility lines. In any case, the analyses in Section 5.2 of this narrative and in response to NSA-LUDO Section 14.200(A) establish that in views from I-84, any vertical facilities related to the new rail line would be visually absorbed into dark and highly textured backdrop provided by the rock walls and thick forest cover along the southern edge of the UPRR ROW. The project would not be visually evident in views from the westbound lanes of I-84, and from the eastbound lanes, although the project would be visually evident, it would be visually subordinate.

Signs

GMA Policies

2. *New signs shall be designed and sited in a manner that achieves their intended function and is compatible with their settings, to the maximum extent practicable.*

Finding: Standard railroad signage will be constructed as part of the proposed second mainline track project. Signage will include Station and Control Point, Whistle Signal, Vertical Control Point, Private Property, No Dumping, Speed Restriction, and Mile Marker signage. This type of warning and guidance signage is exempt from development review in accordance with NSA-LUDO Section 3.100(H)(4).

Nevertheless, the proposed signage satisfies NSA-MP policies for the GMA. Signage will be non-reflective black and white signage and will be posted at an approximate height of 10 feet. All signage installed will be the minimal amount required under federal law for the safe operation of the railroad and to the extent that is consistent with safety requirements, the surfaces of sign posts will be treated with colors that are

consistent with their landscape backdrop. Photographs showing proposed example standard railroad signage are included in Appendix B.

SMA Provisions

SMA Policies

1. *The appearance and character of the Landscape Settings within the SMA shall be protected. (Character is defined as the land use, landform and vegetation as described in the GMA Scenic Resources section of the MP).*

Finding: In the SMA, the project footprint is located within areas of River Bottomland and Oak Woodland Landscape settings. The analyses pertaining to these landscape settings presented in response to NSA-LUDO Section 14.400 document compliance with the provisions adopted for these landscape settings that are intended to protect their appearance and character. UPRR acknowledges and will comply with the Landscape Setting goals, policies and guidelines, as defined and identified in the NSA-MP and NSA-LUDO, to ensure that project development is compatible with and maintains the character these landscape settings. In addition, any revegetation of project areas that may be required in these landscape settings will follow guidance provided in the *Scenic Resources Implementation Handbook*.

5. *New developments and land uses occurring in the foreground of key viewing areas shall protect scenic values.*

Finding: There are no areas in the SMA where project features would be located within the foreground (0.25-mile distance zone) of KVAs, with the exception of the Columbia River. As discussed in response to NSA-LUDO Section 14.200, with implementation of visual mitigation measures, the visual changes brought about by the widened cut through the rock mesa and the development of the construction staging area will be visually subordinate from the areas of the river closer to its northern banks. From the areas of the river closer to its southern banks, the new rail-related facilities will not be visually evident, and because of the acute angle of view the visual changes brought about by construction of the construction staging area will not be visually evident as well. Therefore, the project complies with this policy.

SMA Guidelines

2. *New developments and land uses shall be evaluated to ensure that the required scenic standard is met and that scenic resources are not adversely affected, including cumulative effects, based on the degree of visibility from key viewing areas.*

Finding: From UPRR MP 71.10 to UPRR MP 71.35, where the existing cut through the rock mesa will be expanded 60 feet to the south, the project alignment located in a SMA Agriculture zone with a combination of River Bottomlands and Oak Woodlands landscape settings. For this area, the scenic standard identified in Table 5-3 of this narrative is “visually subordinate”. As the analysis presented in Section 5-2 and the response to NSA-LUDO Section 14.200(A) indicate, the project will meet this standard in this area.

From UPRR MP 71.35 to 71.42, the expansion of the rock cut is located in SMA Open Space zone in an Oak Woodlands landscape setting. Any area of newly exposed rock is not anticipated to have a discernably different appearance from the existing rock cut through this area. This is because the existing rock cut area where the railroad currently passes through was itself constructed by blasting. As a result, views of this area from both the north and the south are expected to be unchanged following the widening of the rail corridor. Therefore, in this area, the project will be consistent with the “not visually evident” scenic standard.

From UPRR milepost 71.42 to UPRR milepost 71.71, the area that will be used for development of the second rail is located in a SMA Open Space zone in a River Bottomlands landscape setting where the “not visually evident” scenic standard applies. As the analysis in the introduction to the scenic analysis and in response to NSA-LUDO Section 14.200 indicate, the project will meet this standard in this area.

From UPRR milepost 71.71 to UPRR milepost 72.35, the area that will be used for development of the second rail is located in a Public Recreation Zone in a River Bottomlands landscape setting where the

“visually subordinate” scenic standard applies. As the analysis in Section 5.2 of this narrative and the response to NSA-LUDO Section 14.200(A) substantiate, the project will meet this standard in this area.

The 6.62-acre construction staging area proposed south of the railroad between MP 71.52 to 71.64 is located in the SMA Open Space zone in an Oak Woodlands landscape setting where the scenic standard is “not visually evident.” Construction of this staging area will require removal of the trees now located in this area and grading of the sloped terrain. While temporary visual change may occur as a result of vegetation removal at the staging area in Segment 2 East, replanting and restoration following construction would restore the area to pre-construction conditions, ensuring no permanent visual change. Although the standard of visual evidence does not explicitly address or regulate temporary visual change, UPRR will attenuate the temporary visual change that would occur in these areas. This will be accommodated by retaining a band of existing trees along the northern portion of the proposed staging area between MPs 71.52 and 71.64 and replanting and restoring disturbed portions of this staging area. Therefore, in this area, the project will be consistent with this scenic standard.

To evaluate the possibility of the proposed project combining with the impacts of other nearby projects to create cumulative visual effects, account was taken of the potential future development that might occur along the project corridor or in nearby areas of the project viewshed. The spatial boundary for the cumulative effects assessment included all non-urban lands within the NSA in the area that extends from the western boundary of the project corridor to the eastern end of the corridor and north and south to encompass the areas seen in views toward the project corridor from I-84, the Historic Columbia River Highway, the Columbia River, Washington State Route 14, and Old Washington State Route 14. Within this area, an effort was made to identify all proposals for major development that has the potential to take place during the next ten years. Ten years was selected as the time period for the analysis because it represents the maximum time frame for identifying public and private development projects that could be considered to be reasonably foreseeable.

The cumulative effects analysis did not include an analysis of past actions. Current conditions have been disturbed by innumerable actions over the last century (and beyond), and trying to isolate the individual actions that continue to have residual impacts would be nearly impossible. Providing the details of past actions on an individual basis would not be useful to predict the cumulative effects of the proposed action or alternatives. Focusing on individual actions would be less accurate than looking at existing conditions, because there is limited information on the environmental impacts of individual past actions, and one cannot reasonably identify each and every action over the last century that has contributed to current conditions. Additionally, focusing on the impacts of past human actions risks ignoring the important residual effects of past natural events, which may contribute to cumulative effects just as much as human actions. The current conditions serve as an aggregate of all past actions, so by looking at current conditions, we are sure to capture all the residual effects of past human actions and natural events, regardless of which particular action or event contributed those effects.

Based on consultation with the Wasco County Planning Department in Oregon and review of publically available data from the Klickitat County Planning Department in Washington, no plans were identified for major projects within the next ten years in the viewsheds from the nearby KVAs within which the proposed project has the potential to be visible. Although no major development is planned to occur within these viewsheds, it is reasonable to assume that there could be a small amount of incremental landscape change within these viewsheds that is related to modifications of existing agricultural operations and residential properties and potentially, the development of a small number of individual residences on scattered sites. Should any of these landscape modifications occur, they would, of course need to be implemented in a way that is in conformance with NSA policies to minimize visual contrast. The potential for substantial visual change related to other projects that could occur within the viewsheds of the KVA from which the proposed project will be seen is very low. As a consequence, it is unlikely that there would be any cumulative changes in the viewsheds that would combine with the visually subordinate effects of the project to create changes to the landscape that would be visually dominant. Therefore, the project complies with this policy guideline.

5.4.1.2 Chapter 2 Cultural Resources

GMA Provisions

GMA Policies

2. *Information regarding the nature and location of archaeological resources and cultural resources associated with Native Americans shall be kept confidential to avoid unlawful, malicious, or negligent disturbance.*

Finding: UPRR completed a cultural resources survey to inventory archaeological investigations conducted within 1 mile of project areas in the GMA. The Cultural Resources Survey Report is provided as Appendix L and complies with the requirements of NSA-LUDO Section 14.500. Information regarding the nature and location of archaeological resources and cultural resources associated with Native Americans has been kept confidential to avoid unlawful, malicious, or negligent disturbance. Confidential information regarding the nature and location of cultural resources is included under separate cover. Therefore, the project complies with this policy.

3. *A four-step process shall be used to protect cultural resources: performing cultural resource reconnaissance or historic surveys before proposed uses are authorized; evaluating the significance of cultural resources discovered during surveys; assessing the effects of proposed uses on significant cultural resources; and preparing mitigation plans to avoid or minimize impacts to significant cultural resources.*

Finding: UPRR followed the four-step process used to protect cultural resources in the project area. UPRR first completed a cultural resource reconnaissance and historic survey of the project area. The archaeological inventory of survey results are provided in the Cultural Resources Survey Report in (see Appendix L). The Cultural Resources Survey Report shows that no culturally or historically significant items were discovered and properties identified in the cultural resources survey conducted in 2014 are recommended not eligible for listing in the NRHP. The Cultural Resources Survey Report also shows that the project will have no effect on historic properties. As a result, the project will not require an Assessment of Affect, or Mitigation Plan. A detailed assessment of the archaeological inventory of survey results can be found in Appendix L and in findings to NSA-LUDO Sections 14.500(C)(4)(a-c) and 14.500(D)(1) to this application narrative. Therefore, UPRR acknowledges and complies with this policy.

4. *All cultural resource surveys, evaluations, assessments, and mitigation plans shall be performed by professionals whose expertise reflects the type of cultural resources that are involved. Principal investigators shall meet the professional standards published 36 Code of Federal Regulations (CFR) Part 61 and Guidelines for Evaluating and Documenting Traditional Cultural Properties (Parker and King, no date).*

Finding: Cultural resource surveys and evaluations were performed by professionals with an expertise in investigating and reporting cultural and historical resources in the Columbia River Gorge. The principal investigators who completed the Cultural Resources Survey Report in Appendix L to this application narrative meet the professional standards published 36 CFR Part 61 and *Guidelines for Evaluating and Documenting Traditional Cultural Properties*.

Specifically, CH2M HILL's qualified archaeologist served as Principal Investigator and Field Director for the project. CH2M HILL archaeologists carried out the survey from April 30, 2014, through May 1, 2014. The Cultural Resources Survey Report was prepared by CH2M HILL. The research design for the project was reviewed and approved by CRGNSA Heritage Resources Director Marge Dryden on April 18, 2014 (see Appendix B of the Cultural Resources Survey Report. Therefore, the project complies with this policy.

5. *Cultural resource surveys, evaluations, assessments, and mitigation plans shall generally be conducted in consultation with Indian tribal governments and any person who submits written comments on a proposed use (interested person). Indian tribal governments shall be consulted if the affected cultural resources are prehistoric or otherwise associated with Native Americans.*

Finding: UPRR acknowledges and complies with the Tribal Government Notice procedure administered by Wasco County. Prior to the initiation of fieldwork to complete the cultural resources survey, UPRR provided project notification letters on April 8, 2014 requesting input and comment to the following tribes:

- Confederated Tribes and Bands of the Yakama Nation
- Confederated Tribes of the Warm Springs Reservation
- Confederated Tribes of the Umatilla Reservation
- The Nez Perce Tribe

The project notification letters were accompanied by a site plan as stipulated in Section 14.040 of the NSA-LUDO. In addition, UPRR completed the Cultural Resources Survey Report in consultation with the Indian tribal governments referenced above and with any person who submitted written comments about the project (interested person). The Cultural Resources Survey Report shows that no culturally or historically significant items were discovered and properties identified in the cultural resources survey conducted in 2014 are recommended not eligible for listing in the NRHP. The Cultural Resources Survey Report also shows that the project will have no effect on historic properties. Therefore, UPRR acknowledges and complies with this policy.

6. *The reconnaissance survey guidelines below shall apply until a cultural resource survey of the GMA is complete.*

A. A reconnaissance survey shall be required for all proposed uses, except:

(6) Proposed uses occurring in areas that have a low probability of containing cultural resources, except:

(c) Public transportation facilities that are outside improved rights-of-way.

Finding: Project construction activities in the GMA, as described in Section 4, require UPRR to complete a Cultural Resources Survey to comply with this policy. Most of the construction of the proposed project will occur within previous disturbed, existing UPRR ROW. The second mainline track will closely parallel the existing track. Portions of the project extend beyond the existing ROW into other privately and publicly-owned lands in SMA-zoned areas only.

The archaeological inventory of survey results are provided in the Cultural Resources Survey Report in (see Appendix L). The Cultural Resources Survey Report shows that no culturally or historically significant items were discovered and properties identified in the cultural resources survey conducted in 2014 are recommended not eligible for listing in the NRHP. The Cultural Resources Survey Report also shows that the project will have no effect on historic properties. Therefore, the project complies with this policy.

Areas that have a low probability of containing cultural resources shall be identified using the results of reconnaissance surveys conducted by the CRGC, USFS, public agencies, and private archaeologists.

The Gorge Commission, after consulting Indian tribal governments and state historic preservation officers, shall prepare and adopt a map showing areas that have a low probability of containing cultural resources. This map shall be adopted within 200 days after the Secretary of Agriculture concurs with the Management Plan. It shall be refined and revised as additional reconnaissance surveys are conducted. Areas shall be added or deleted as warranted. All revisions of this map shall be reviewed and approved by the Gorge Commission.

B. *A reconnaissance survey shall be required for all proposed uses within 500 feet of a known cultural resource, including those uses listed above in 6.A(1) through (6). The locations of known cultural resources are shown in the cultural resource inventory prepared by Heritage Research Associates and maintained by the USDA Forest Service for the Columbia River Gorge Commission.*

Finding: UPRR completed a cultural resource reconnaissance and historic survey to inventory archaeological investigations conducted within 1 mile of project areas in the GMA that are within 500 feet of a known cultural resource. The Cultural Resources Survey Report is provided as Appendix L to this application narrative and complies with the requirements of NSA-LUDO Section 14.500. The study area for the cultural resources investigation includes the locations where the project has the potential for ground disturbing activities and includes the location of known cultural resources as provided by the cultural resource inventory prepared by Heritage Research Associates and maintained by the USFS for the CRGC (see Tables 1 and Table 2 of the Cultural Resources Survey Report). Therefore, the project complies with this policy.

8. *The Gorge Commission shall conduct and pay for all reconnaissance and historic surveys for small-scale uses in the GMA. When archaeological resources or traditional cultural properties are discovered, the Gorge Commission also shall identify the approximate boundaries of the resource or property and delineate a reasonable buffer zone. Reconnaissance surveys and buffer zone delineations for large-scale uses shall be the responsibility of the project applicant.*

The Gorge Commission shall conduct and pay for evaluations of significance and mitigation plans for cultural resources that are discovered during construction of small-scale and large-scale uses in the GMA.

For the Management Plan, large-scale uses include residential development involving two or more new dwellings; all recreation facilities; commercial and industrial development; public transportation facilities; electric facilities, lines, equipment, and appurtenances that are 33 kilovolts or greater; and communications, water and sewer, and natural gas transmission (as opposed to distribution) lines, pipes, equipment, and appurtenances.

Finding: The project qualifies as a large-scale use in accordance with NSA-LUDO Section 14.500(B)(3)(d) and the NSA-MP. Specifically, the project most closely resembles development involving public transportation facilities. UPRR acknowledges the applicable provisions of NSA-LUDO Section 14.500 (B)(3)(d) and the NSA-MP and will pay for applicable reconnaissance and historic surveys and buffer zone delineations for project areas within the GMA. Should cultural resources be discovered during project construction in the GMA, UPRR will conduct evaluations of significance and mitigation plans as required by these provisions. Therefore, UPRR acknowledges and complies with this policy.

9. *The responsibility and cost of preparing an evaluation of significance, assessment of effect, or mitigation plan shall be borne by the project applicant, except for resources discovered during construction.*

Finding: The archaeological inventory of survey results is provided in the Cultural Resources Survey Report in Appendix L to this application narrative. The Cultural Resources Survey Report shows that no culturally or historically significant items were discovered and properties identified in the cultural resources survey conducted in 2014 are recommended not eligible for listing in the NRHP. The Cultural Resources Survey Report also shows that the project will have no effect on historic properties. As a result, the project will not require an Evaluation of Significance, Assessment of Affect, or Mitigation Plan. UPRR acknowledges and will comply with this policy.

10. *If cultural resources may be affected by a proposed use, an evaluation shall be performed to determine if they are significant. Cultural resources are significant if one of the following criteria is satisfied:*

A. *The cultural resources are included in, or eligible for inclusion in, the National Register of Historic Places.*

   The criteria for evaluating the eligibility of cultural resources for the National Register of Historic Places appear in the "National Register Criteria for Evaluation" (36 CFR 60.4). Cultural resources are eligible for the National Register of Historic Places if they possess integrity of location, design, setting, materials, workmanship, feeling, and association. In addition, they must meet one or more of the following criteria:

(1) Have an association with events that have made a significant contribution to the broad patterns of the history of this region.

(2) Have an association with the lives of persons significant in the past.

(3) Embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction.

(4) Yield, or may be likely to yield, information important in prehistory or history.

Finding: The Cultural Resources Survey Report (see Appendix L) shows that no significant cultural resources exist in the project area and that the project will not require an Evaluation of Significance consistent with the criteria of NSA-LUDO Section 14.500(D) or with the policies provided in the NSA-MP. Specifically, the project area does not include cultural resources eligible for inclusion in the National Register of Historic Places based on policies that appear in the "National Register Criteria for Evaluation" (36 CFR 60.4). A detailed assessment of the archaeological inventory of survey results can be found in the Cultural Resources Survey Report and in findings to NSA-LUDO Sections 14.500(C)(4)(a-c) and 14.500(D)(1) to this application narrative.

The Cultural Resources Survey Report shows that no culturally or historically significant items were discovered and properties identified in the cultural resources survey conducted in 2014 are recommended not eligible for listing in the NRHP. The Cultural Resources Survey Report also shows that the project will have no effect on historic properties. Therefore, the project complies with this policy.

B. The cultural resources are determined to be culturally significant by an Indian tribal government, based on criteria developed by that Indian tribal government and filed with the Gorge Commission.

Finding: UPRR acknowledges that the criteria determining cultural significance are determined based on criteria developed by that Indian tribal government and filed with the Gorge Commission. Therefore, the project complies with applicable provisions of NSA-LUDO Section 14.500(D)(1) and with this policy of the NSA-MP.

11. If a project applicant's and Indian tribal government's evaluations of significance contradict, the Cultural Advisory Committee (CAC) shall review the applicant's evaluation and Indian tribal government's substantiated concerns. The CAC will submit a recommendation to the local government as to whether affected cultural resources are significant.

Finding: The Cultural Resources Survey Report (see Appendix L) shows that no culturally or historically significant items were discovered and properties identified in the cultural resources survey conducted in 2014 are recommended not eligible for listing in the NRHP. The Cultural Resources Survey Report also shows that the project will have no effect on historic properties. A detailed assessment of the archaeological inventory of survey results can be found in Appendix L and in findings to NSA-LUDO Section 14.500(C)(4)(a-c) and NSA-LUDO Section 14.500(D)(1) to this application narrative. Therefore, the project will not require submittal of an Evaluation of Significance and the criteria of this policy does not apply to the project.

12. If cultural resources are determined to be significant, there shall be a professional assessment of the effects of the proposed use. The assessment shall be based on the criteria published in "Protection of Historic Properties" (36 CFR 800.5).

Finding: The Cultural Resources Survey Report (see Appendix L) shows that no culturally or historically significant items were discovered and properties identified in the cultural resources survey conducted in 2014 are recommended not eligible for listing in the NRHP. The Cultural Resources Survey Report also shows that the project will have no effect on historic properties. A detailed assessment of the archaeological inventory of survey results can be found in the Cultural Resources Survey Report and in findings to NSA-LUDO Sections 14.500(C)(4)(a-c) and 14.500(D)(1) to this application narrative. Therefore, the project will

not require submittal of an Assessment of Effect and the criteria published in "Protection of Historic Properties" (36 CFR 800.5) do not apply to the project. Therefore, the project complies with this policy.

13. *A mitigation plan shall be prepared if a proposed use would have an adverse effect on significant cultural resources. The criteria published in "Resolution of Adverse Effects" (36 CFR 800.6) shall be used to determine if a proposed use would have an adverse effect.*

Finding: The Cultural Resources Survey Report (see Appendix L) shows that no culturally or historically significant items were discovered and properties identified in the cultural resources survey conducted in 2014 are recommended not eligible for listing in the NRHP. The Cultural Resources Survey Report also shows that the project will have no effect on historic properties. A detailed assessment of the archaeological inventory of survey results can be found in the Cultural Resources Survey Report and in findings to NSA-LUDO Sections 14.500(C)(4)(a-c) and 14.500(D)(1) to this application narrative. Therefore, the project will not require submittal of a mitigation plan and the criteria published in "Resolution of Adverse Effects" (36 CFR 800.6) do not apply to the project.

14. *Mitigation measures shall ensure that a proposed use would have no adverse effect on significant cultural resources. Uses that would adversely affect significant cultural resources shall be prohibited.*

Finding: The Cultural Resources Survey Report (see Appendix L) shows that no culturally or historically significant items were discovered and properties identified in the cultural resources survey conducted in 2014 are recommended not eligible for listing in the NRHP. The Cultural Resources Survey Report also shows that the project will have no effect on historic properties. A detailed assessment of the archaeological inventory of survey results can be found in the Cultural Resources Survey Report and in findings to NSA-LUDO Sections 14.500(C)(4)(a-c) and 14.500(D)(1) to this application narrative. Therefore, this policy does not apply to the project.

15. *Avoidance is the preferred method of cultural resource protection. Other mitigation measures to reduce the effect of a proposed use on cultural resources shall be used only if avoidance is not practicable.*

Finding: UPRR has implemented measures to identify, avoid, and minimize impacts to historic and archaeological sites. Specifically, UPRR complied with the Cultural Resource Survey Requirements in Section 14.500 of the NSA-LUDO to identify and preserve areas of historic value, natural or cultural significance, including archaeological sites, or assets of particular interest to the community. In addition, the Cultural Resources Survey Report (see Appendix L) shows that no culturally or historically significant items were discovered and properties identified in the cultural resources survey conducted in 2014 are recommended not eligible for listing in the NRHP. The Cultural Resources Survey Report also shows that the project will have no effect on historic properties. A detailed assessment of the archaeological inventory of survey results can be found in the Cultural Resources Survey Report and in findings to NSA-LUDO Sections 14.500(C)(4)(a-c) and 14.500(D)(1) to this application narrative. Therefore, the project complies with this policy.

16. *The state historic preservation officer (SHPO) shall have an opportunity to review all cultural resource surveys, evaluations, assessments, and mitigation plans. Based on comments submitted by the SHPO and interested persons, the local government shall make a final decision on whether the proposed use would be consistent with the cultural resource goals, policies, and guidelines.*

Finding: UPRR acknowledges that a copy of the project-specific Cultural Resources Survey Report (see Appendix L) will be sent to SHPO were SHPO will have an opportunity to review the cultural resource surveys and evaluations. UPRR acknowledges that comments from SHPO and interested persons are submitted to the Wasco County Planning Office and that these written comments will inform Wasco County's final decision on whether the proposed use will be consistent with the cultural resource goals, policies, and guidelines. Therefore, UPRR acknowledges and will comply with this policy.

17. *The SHPO may delegate all or a portion of his/her responsibilities under these goals, objectives, policies, and guidelines to a local government that establishes a Certified Local Government, as provided in the National Historic Preservation Act of 1966.*

Finding: UPRR acknowledges that SHPO may delegate all or a portion of its responsibilities under these goals, objectives, policies, and guidelines to a local government, such as Wasco County, that establishes a Certified Local Government, as provided in the National Historic Preservation Act of 1966. Therefore, UPRR acknowledges this policy.

18. *If cultural resources are discovered during construction activities, all construction shall cease until the resources are inventoried and evaluated. If the resources are determined to be significant, a mitigation plan shall be prepared.*

Finding: UPRR acknowledges and will comply with the procedures required should cultural resources be discovered during construction activities. Appendix E to the Cultural Resources Survey Report (see Appendix L) includes an UDP that will include procedures, protocols, and contact information for the discovery of cultural materials including Human Remains, during construction. The UDP will conform to the standards outlined on pages 1-2-18 to 1-2-20 of the NSA-MP. The report will be submitted to project stakeholders including UPRR, USFS, the CRGC, the SHPO, the Oregon Museum of Natural and Cultural History, the Committee on Indian Services (CIS), and the tribes listed above. The report will also be provided to applicable agencies (U.S. Army Corps of Engineers and Wasco County Planning Department) following concurrence by the SHPO. Therefore, the project complies with this policy.

19. *If human remains are discovered during a cultural resource survey or during construction activities, all activities shall cease and the proper officials and governments shall be notified. Human remains shall be treated in accordance with state laws. A mitigation plan shall be prepared if the remains are reinterred or preserved in their original position.*

Finding: UPRR acknowledges and will comply with the procedures required should cultural resources be discovered during construction activities. In the event of an unanticipated discovery of prehistoric or historic period cultural materials, a standard unanticipated discovery procedure will be implemented. This will generally consist of construction within the immediate vicinity of the discovery will stop, and the area will be secured to protect the resource from damage. A qualified archaeologist will then document the find by preparing a brief written statement and taking photographs. This documentation will be submitted to SHPO, and work within the immediate vicinity of the find will not resume until a preservation plan is approved in coordination with SHPO.

Appendix E to the Cultural Resources Survey Report (see Appendix L) includes an UDP that will include procedures, protocols, and contact information for the discovery of cultural materials including Human Remains, during construction. The UDP will conform to the standards outlined on pages 1-2-18 to 1-2-20 of the NSA-MP. The report will be submitted to project stakeholders including UPRR, USFS, the CRGC, the SHPO, the Oregon Museum of Natural and Cultural History, the Committee on Indian Services (CIS), and the tribes listed above. The report will also be provided to applicable agencies (U.S. Army Corps of Engineers and Wasco County Planning Department) following concurrence by the SHPO. Therefore, the project complies with this policy.

GMA Guidelines

Determination of potential effects to significant cultural resources shall include consideration of cumulative effects of proposed developments that are subject to any of the following: 1) a reconnaissance or historic survey; 2) a determination of significance; 3) an assessment of effect; or 4) a mitigation plan.

Finding: The Cultural Resources Survey Report (see Appendix L) shows that no culturally or historically significant items were discovered and properties identified in the cultural resources survey conducted in 2014 are recommended not eligible for listing in the NRHP. The Cultural Resources Survey Report also shows

that the project will have no effect on historic properties. A detailed assessment of the archaeological inventory of survey results can be found in the Cultural Resources Survey Report and in findings to NSA-LUDO Sections 14.500(C)(4)(a-c) and 14.500(D)(1) to this application narrative. Because this project will have no effect on significant cultural resources or historic properties, cumulative effects associated with project development are not anticipated. Therefore, the project complies with this policy.

SMA Policies

1. *New developments or land uses shall not adversely affect significant cultural resources.*

Finding: The Cultural Resources Survey Report (see Appendix L) shows that no culturally or historically significant items were discovered and properties identified in the cultural resources survey conducted in 2014 are recommended not eligible for listing in the NRHP. The Cultural Resources Survey Report also shows that the project will have no effect on historic properties. A detailed assessment of the archaeological inventory of survey results can be found in the Cultural Resources Survey Report and in findings to NSA-LUDO Sections 14.500(C)(4)(a-c), 14.500(D)(1), and 14.510(G)(3) to this application narrative. Therefore, the project complies with this policy.

5. *All cultural resource information shall remain confidential, according to Section 6(a)(1)(A) of the Scenic Area Act. Federal agency cultural resource information is also exempt by statute from the Freedom of Information Act under 16 USC (United States Code) 470 aa and 36 CFR 296.18.*

Finding: UPRR will ensure that all cultural resources information will remain confidential, according to Section 6(a)(1)(A) of the Scenic Area Act. UPRR acknowledges that federal agency cultural resource information is also exempt by statute from the Freedom of Information Act under 16 USC 470 aa and 36 CFR 296.18. Information regarding the nature and location of archaeological resources and cultural resources associated with Native Americans has been kept confidential to avoid unlawful, malicious, or negligent disturbance. Confidential information regarding the nature and location of cultural resources is included under separate cover (see Appendix L). Therefore, the project complies with this policy.

6. *Principal investigators shall meet the professional standards published in 36 CFR 61.*

Finding: The principal investigators who completed the Cultural Resources Survey report in Appendix L to this application narrative meet the professional standards published 36 CFR Part 61 and Guidelines for Evaluating and Documenting Traditional Cultural Properties (Parker and King, no date).

Specifically, CH2M HILL's qualified archaeologist served as Principal Investigator and Field Director for the project. CH2M HILL archaeologists carried out the survey from April 30, 2014, through May 1, 2014. The Cultural Resources Survey Report was prepared by CH2M HILL archaeologists. The research design for the project was reviewed and approved by CRGNSA Heritage Resources Director Marge Dryden on April 18, 2014 (see Appendix B of Appendix L to this application narrative). Therefore, the project complies with this policy.

SMA Guidelines

5. *Determination of potential effects to significant cultural resources shall include consideration of cumulative effects of proposed developments that are subject to any of the following: 1) a reconnaissance or historic survey; 2) a determination of significance; 3) an assessment of effect; or 4) a mitigation plan.*

Finding: The Cultural Resources Survey Report (see Appendix L) shows that no culturally or historically significant items were discovered and properties identified in the cultural resources survey conducted in 2014 are recommended not eligible for listing in the NRHP. The Cultural Resources Survey Report also shows that the project will have no effect on historic properties. A detailed assessment of the archaeological inventory and survey results can be found in the Cultural Resources Survey Report. Because this project will have no effect on significant cultural resources or historic properties, cumulative effects associated with project development are not anticipated. Therefore, the project complies with this policy.

5.4.1.3 Chapter 3 Natural Resources

GMA Provisions

Determination of potential natural resources effects shall include consideration of cumulative effects of proposed developments within the following areas: 1) wetlands and their buffer zones; 2) streams, ponds, lakes, riparian areas and their buffer zones; 3) sites within 1,000 feet of sensitive wildlife areas and sites; and 4) sites within 1,000 feet of rare plants.

Finding: To evaluate the possibility of cumulative effects on natural resources resulting from the proposed project, account was taken of the potential future development that might occur along the project corridor or in nearby areas to the project. The spatial boundary for the cumulative effects assessment included all non-urban lands within the NSA in the area that extends from 1 mile west of the western boundary of the project corridor to 1 mile east of the eastern end of the corridor, north to the normal pool elevation of the Columbia River, and 1 mile south of the project area. A 1-mile land buffer was used as a conservative estimate for the area in which construction of a large development project would be anticipated to have a potential cumulative effect on natural resources when considered in conjunction with the proposed project. This spatial boundary is consistent with approved equivalent development projects within the NSA, based consultation with Wasco County staff (Wasco County, Personal communication, 2014b). Within this area, an effort was made to identify all proposals for major development that has the potential to take place during the next ten years. Ten years was selected as the time period for the analysis because it represents the maximum time frame for identifying public and private development projects that could be considered to be reasonably foreseeable.

The cumulative effects analysis did not include an analysis of past actions. This is because current conditions have been disturbed by innumerable actions over the last century (and beyond), and trying to isolate the individual actions that continue to have residual impacts would be nearly impossible. Focusing on individual actions would be less accurate than looking at existing conditions, because there is limited information on the environmental impacts of individual past actions, and one cannot reasonably identify each and every action over the last century that has contributed to current conditions. Additionally, focusing on the impacts of past human actions risks ignoring the important residual effects of past natural events, which may contribute to cumulative effects just as much as human actions. The current conditions serve as an aggregate of all past actions, so by looking at current conditions, we are sure to capture all the residual effects of past human actions and natural events, regardless of which particular action or event contributed those effects.

Based on consultation and review of publically available data from the Wasco County Planning Department and the Hood River County Planning Department, no plans were identified for major projects to occur within the next ten years with the cumulative effect study area. Additionally, no planned major highway, road, or rail infrastructure projects were identified within the project area during this review. In the vicinity of Segment 1 of the project, the majority of lands are within the GMA and owned by the counties or the State of Oregon. In the vicinity of Segment 2 West, lands are within both the GMA and SMA, and for the most part privately owned and used for agriculture; near Segment 2 East, lands are within the SMA and are primarily owned and managed by the state as protected recreational lands and natural areas. Although no major development is planned to occur within the cumulative effect study area, it is reasonable to assume that there could be a small amount of incremental land use change within these viewsheds related to modifications of existing agricultural operations and rural residential properties, and potentially, the development, maintenance and operation of transportation and utility projects within existing transportation and utility corridors. Current and reasonably foreseeable agricultural, residential, transportation and utility projects could also have the potential to affect natural resources due associated grazing, spread of invasive plant species, and stormwater and livestock runoff. Should any of these activities or land use modifications occur, they would need to be implemented in a way that is in conformance with

NSA policies to minimize impacts to natural resources, and would include the use of BMPs and SWPPPs during both the construction and operational phases.

The potential for substantial impact to natural resources related to other projects that could occur within the cumulative effect study area is low. As a consequence, it is unlikely that there would be any cumulative changes associated with natural resources that would combine with mitigated effects of the proposed project to create significant adverse effects to natural resources within the CRGNSA. Therefore, the project complies with this policy guideline.

Wetlands

GMA Policies

1. *The wetlands goals, policies, and guidelines in the Management Plan shall not apply to the main stem of the Columbia River. The Gorge Commission will rely on the applicable federal and state laws to protect wetlands in the Columbia River, including the U.S. Clean Water Act, Washington State Environmental Policy Act, Washington Hydraulic Code, and Oregon Removal-Fill Act.*

   The main stem of the Columbia River is depicted on the map titled "Boundary Map, Columbia River Gorge National Scenic Area," numbered NSA-001, and dated September 1986. (This map is available at county planning departments and Commission and Forest Service offices.) The boundaries of the main stem appear as a heavy black line that generally follows the shoreline. For the Management Plan, backwaters and isolated water bodies created by roads and railroads are not part of the main stem of the Columbia River.

Finding: The proposed project is located adjacent to the Columbia River in several areas along its alignment, but will not, however, result in any permanent impacts to the river. UPRR acknowledges that the NSA-MP policies do not apply to the Columbia River. Therefore, the project complies with this policy.

3. *The National Wetlands Inventory (U.S. Department of the Interior 1987) and the list of hydric soils shall be used as a general guide to the location of wetlands; additional wetlands are assumed to exist and shall be protected.*

4. *The exact location of wetlands boundaries shall be delineated using the procedures specified in Corps of Engineers Wetlands Delineation Manual (Wetlands Research Program Technical Report Y-87-1, on-line edition, updated through March 21, 1997).*

Finding: A field investigation for wetlands and waterbodies was conducted by CDM Smith scientists within the proposed project area on October 15 to 17, 2013. The delineation methodology conformed to the guidelines presented in the *Corps Wetlands Delineation Manual, Technical Report Y-87-1* (USACE, 1987) and the *2010 USACE Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)* (USACE, 2010). The results of this field investigation are presented in the *Wetland Report: Mosier Siding Project, Portland Subdivision, Wasco County, OR*, provided as Appendix E to this narrative. Delineated wetlands within the project vicinity are also shown on Figure 4-3 in Appendix A. Therefore, the project complies with these policies.

5. *An undisturbed buffer should be preserved around wetlands to protect and enhance wetlands functions and associated uplands.*

6. *Low-intensity uses may be allowed in wetlands and wetlands buffer zones without review. Uses that may impact wetlands acreage and functions may be allowed in wetlands or wetlands buffer zones, subject to compliance with guidelines for the protection of scenic, natural, cultural, and recreation resources and the approval criteria in this section.*

Finding: Delineated wetlands and associated buffers in the project vicinity are described in Table 4-3 and shown in Figure 4-3 in Appendix A, in accordance with NSA-LUDO Section 14.600 (A)(3). The project affect three delineated wetlands and five buffer zones within designated GMA zones. Measures will be applied to ensure that the project-related effects result in the minimum amount of disturbance practicable, pursuant

to NSA-LUDO Section 14.600 (A)(6), and in accordance with applicable federal permit conditions. Temporary wetland and wetland buffer impacts will be mitigated through onsite, in-kind restoration and revegetation following construction. Permanent wetland impacts will be mitigated through compensatory mitigation, as described in the Mitigation Plan, included as Appendix D to this narrative. Therefore, the project complies with these provisions.

7. *New uses that are not water-dependent or water-related shall be allowed in wetlands when less environmentally damaging practicable alternatives do not exist.*

8. *Impacts to wetlands shall be allowed only when all practicable measures have been applied to minimize those impacts that are unavoidable and in the public interest.*

Finding: As described above in response to NSA-LUDO Sections 14.600(E) and 14.600(F), the project has no practicable alternative that would result in fewer impacts to natural resources, and is in public interest. Therefore, the project complies with these policies.

9. *A project applicant shall be required to offset unavoidable impacts to wetlands that result from his/her actions by restoring, creating, or enhancing wetlands and by providing appropriate wetlands buffer zones as specified in the Management Plan.*

Finding: The project will result in unavoidable impacts to three delineated wetlands and five buffer zones within designated GMA zones. Measures will be applied to ensure that the project results in the minimum feasible impacts to the affected wetlands, pursuant to NSA-LUDO Section 14.600 (A), and in accordance with applicable federal permit conditions. No temporary wetland disturbance will occur. Permanent wetland impacts will be mitigated through compensatory mitigation, as described in the Mitigation Plan, included as Appendix D to this narrative. The final Mitigation Plan will satisfy the applicable requirements of the NSA-MP. Therefore, the project complies with these provisions.

10. *Project proposals affecting wetlands shall be coordinated with federal and state agencies that regulate new uses in wetlands.*

Finding: As described in Section 1.2, UPRR is actively pursuing the requisite permits and approvals from federal and state agencies listed in Table 1-4 for construction and operation of the project. UPRR will abide by all required permit conditions; therefore, the project complies with this policy.

Streams, Ponds, Lakes, and Riparian Areas

GMA Policies

2. *Proposed uses adjacent to streams, ponds, and lakes should preserve an undisturbed buffer zone that is wide enough to protect aquatic and riparian areas.*

3. *Low-intensity uses may be allowed outright in streams, ponds, lakes, and their buffer zones. Uses that may affect water quality, natural drainage, or wildlife habitat may be allowed in streams, ponds, lakes, and their buffer zones, subject to compliance with guidelines for the protection of scenic, natural, cultural, and recreation resources and the approval criteria in this section.*

Finding: Delineated ponds and lakes and their associated buffers in the project vicinity are described in Table 4-3 and shown in Figure 4-3 in Appendix A. The project will result in impacts to two delineated waterbodies and three waterbody buffer zones within designated GMA zones. Temporary waterbody and buffer zone impacts will be mitigated through onsite, in-kind restoration following construction, including replanting with native plant species. Detailed restoration measures are described in the Mitigation Plan and the Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan, included as Appendixes D and K to this narrative, respectively. Therefore, the project complies with these policies.

4. *New uses that are not water-dependent or water-related shall be allowed in streams, ponds, lakes, and riparian areas if they are in the public interest and less environmentally damaging practicable alternatives do not exist.*

Finding: As explained above in response to NSA-LUDO Section 14.200(G), the location of the existing railroad depends directly on proximity to the Columbia River. Furthermore, UPRR demonstrates in its finding to NSA-LUDO Sections 14.600(E) and 14.600(F) that the project has no practicable alternative that would result in fewer impacts to natural resources, and satisfies the criteria of the Public Interest Test. Therefore, the project complies with these policies.

5. *Practicable measures shall be applied to minimize unavoidable impacts to aquatic and riparian areas.*
6. *A project applicant shall offset unavoidable impacts to aquatic areas and their buffer zones that result from his/her actions by rehabilitating or enhancing aquatic and riparian areas.*
7. *When uses are authorized in degraded aquatic and riparian areas, rehabilitation shall return the project area to its natural condition to the maximum extent practicable.*

Finding: The project has been designed to minimize impacts to aquatic and riparian areas to the greatest extent feasible. Temporary waterbody and buffer zone impacts will be mitigated through onsite, in-kind restoration following construction. No temporary wetland disturbance will occur. Permanent waterbody impacts will be mitigated through compensatory mitigation. Detailed restoration measures are described in the Mitigation Plan and the Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan, included as Appendixes D and K to this narrative, respectively. Therefore, the project complies with these policies.

Wildlife Habitat

GMA Policies

1. *Newly discovered sensitive wildlife areas and sites and wildlife species that are added to federal or state wildlife lists shall be protected.*

Finding: UPRR recognizes that should new sensitive wildlife areas or sites be discovered, or wildlife species be added to federal or state lists during the permitting process, they may be required to take additional action to protect them. UPRR completed a Special-status Species Plant Survey and Habitat Mapping Report (see Appendix J to this application narrative) which includes field surveys covering all areas affected by the proposed project. Field surveys were conducted by a professional wildlife biologist hired by the project applicant. All sensitive wildlife areas and sites discovered in the project area are described and shown on the site plan map (see Appendix J). The field surveys and site plan maps are consistent with the criteria provided in NSA-LUDO Section 14.600(C)(4)(a-c).

UPRR has also prepared a Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan to address unavoidable impacts to special-status plant species and their buffer zones, as well as priority habitats in the GMA (see Appendix K). Therefore, the project complies with this policy.

5. *New and replacement fences in deer and elk winter range should be constructed so they do not present a major hazard to deer and elk.*

Finding: The proposed project does not include construction of new dwellings, permanent fencing, or land divisions in deer and elk winter range; therefore, this policy is not applicable.

7. *Proposed uses that would adversely affect sensitive wildlife areas or sites shall be prohibited. Uses adversely affect wildlife sites and areas when they compromise the integrity of an area or site, or occur during a time of the year when affected wildlife species are sensitive to disturbance.*

Finding: All efforts will be made to avoid disturbance to special-status species and priority habitats. If disturbance cannot be avoided, efforts will be employed to minimize disturbance to the maximum extent practicable. The proposed project will require construction within the sensitive plant buffer zones within the GMA. UPRR completed a Special-status Species Plant Survey and Habitat Mapping Report (see Appendix J), which includes field surveys covering all areas affected by the proposed project. Field surveys were

conducted by a professional wildlife biologist hired by the project applicant. All sensitive wildlife areas and sites discovered in the project area are described and shown on the site plan map (see Appendix J).

UPRR has prepared a Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan to minimize and mitigate for impacts to sensitive wildlife areas. Section 7 of the Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan (see Appendix K) provides protection and rehabilitation measures to avoid and to minimize disturbance of sensitive wildlife areas in the GMA to the maximum extent practicable. The Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan satisfies the applicable criteria of NSA-LUDO Section 14.600 for the GMA. Therefore, the project complies with this policy.

8. *Adequate buffer zones shall be maintained to protect sensitive wildlife areas or sites from new uses. The width of wildlife buffer zones shall be determined on a case-by-case basis and shall reflect the biology of the affected species and the characteristics of the project site and the proposed use.*
9. *The size, scope, configuration, density, and timing of new uses within wildlife buffer zones shall be regulated to protect sensitive wildlife species.*

Finding: All efforts will be made to avoid disturbance to special-status species and priority wildlife habitats. Where disturbance cannot be avoided, efforts will be employed to minimize disturbance to the maximum extent practicable. UPRR developed a Wildlife Management Plan to maintain adequate buffer zones to protect sensitive wildlife areas (see Section 7 to Appendix K).

Section 7 of Appendix K provides a detailed description of the rehabilitation activities necessary to address the disturbance of special-status plant species within the project area. Enhancement and rehabilitation measures will be implemented to compensate for unavoidable impacts to sensitive wildlife areas and habitats and buffers. Areas of disturbance will be revegetated and restored to natural condition to the maximum extent possible. The purpose of the rehabilitation will be to achieve no net loss of the integrity of the wildlife areas. Revegetation practices are addressed in Section 8 of Appendix K.

The sensitive wildlife areas proposed in UPRR's Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan are consistent with the provisions included in NSA-LUDO Section 14.600(D)(2). Therefore, the project complies with this policy.

10. *Site-specific management plans shall be required before most new uses will be allowed within wildlife buffer zones.*
11. *Rehabilitation and/or enhancement shall be required to offset unavoidable impacts to wildlife habitat that result from new uses.*

Finding: All efforts will be made to avoid disturbance to special-status species and priority habitats. Where disturbance cannot be avoided, efforts will be employed to minimize disturbance to the maximum extent practicable. A site-specific Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan has been prepared to address unavoidable impacts to wildlife buffer zones, as well as priority habitats in the GMA (see Appendix K). Section 7 of Appendix K includes enhancement and rehabilitation measures that will be implemented to compensate for unavoidable impacts to sensitive wildlife areas and habitats and buffers. Therefore, the project complies with this policy.

Rare Plants

GMA Policies

2. *The rare plant species inventory shall be used to identify possible conflicts between proposed uses and rare plant sites. Project applicants should consult the local government early in the planning process to help determine if rare plants exist in the project area.*

Finding: All efforts will be made to avoid disturbance to special-status species and priority habitats. Where disturbance cannot be avoided, efforts will be employed to minimize disturbance to the maximum extent practicable. The proposed project will require construction within the sensitive plant buffer zones within the

GMA. UPRR completed a Special-status Species Plant Survey and Habitat Mapping Report (see Appendix J to this application narrative), which includes field surveys covering all areas affected by the proposed project. Field surveys were conducted by a professional wildlife biologist hired by the project applicant. All sensitive wildlife areas and sites discovered in the project area are described and shown on the site plan map (see Appendix J). Therefore, the project complies with this policy.

3. *When new uses are proposed near a sensitive plant site that appears in the rare plant species inventory, the field survey records shall be used to determine the precise location of the plant population in relation to the proposed use. If the field survey records are inadequate, a field survey shall be conducted to delineate the boundaries of the sensitive plant population.*

Finding: The project consists of infrastructure improvements to an existing use as opposed to new development. Nonetheless, all efforts will be made to avoid disturbance to special-status species and priority habitats. If disturbance cannot be avoided, efforts will be employed to minimize disturbance to the maximum extent practicable. The proposed project will require construction within the sensitive plant buffer zones within the GMA. UPRR completed a Special-status Species Plant Survey and Habitat Mapping Report (see Appendix J), which includes field surveys covering all areas affected by the proposed project. Field surveys were conducted by a professional wildlife biologist hired by the project applicant. All sensitive wildlife areas and sites discovered in the project area are described and shown on the site plan map (see Appendix J). Therefore, the project complies with this policy.

4. *Buffer zones shall be used to ensure that new uses do not adversely affect sensitive plant species.*
5. *Except for uses allowed outright, new uses shall be prohibited within sensitive plant species buffer zones.*

Finding: The project consist of an expansion of an existing use as opposed to new development. Nonetheless, all efforts will be made to avoid disturbance to special-status species and priority wildlife habitats. Where disturbance cannot be avoided, efforts will be employed to minimize disturbance to the maximum extent practicable. The proposed project will require construction within the sensitive plant buffer zones within the GMA. UPRR completed a Special-status Species Plant Survey and Habitat Mapping Report (see Appendix J) which includes field surveys covering all areas affected by the proposed project.

A list of all potentially occurring sensitive plant species and a list of all plant species observed on site during the field surveys is provided in the Special-status Species Plant Survey and Habitat Mapping Report (see Appendix J). Three special-status plant species were identified and mapped within or adjacent to the study area: Barrett's penstemon (*Penstemon barrettiae*), currant-leaf alumroot (*Heuchera grossularifolia* var. *tenuifolia*), and broadleaf lupine (*Lupinus latifolius var. thompsonianus*). A detailed description of these three special-status plant species is provided in Section 5 of Appendix J to this application narrative.

Direct impacts may occur to three special-status plant species. It is likely that all of the identified special-status plants would be removed during project construction. Any individuals not directly affected by project activities may be indirectly affected by potential dust, pollutants, trampling by humans as a result of project construction or operation.

The proposed project will avoid and/or minimize impacts to special-status plant species or habitats as follows:

- Avoid areas of identified special-status plant populations, priority habitats, and sensitive wildlife and plant areas to the maximum extent practicable.
- Implement micrositing slight relocations of proposed project facilities to avoid special-status plant populations or habitats if practicable.
- Remove and conserve plants that will be directly affected; replant following construction (see Rehabilitation below)

- Implement weed control procedures to prevent spread of noxious weeds to native plant habitats.

Section 8 of Appendix K to this application narrative provides a detailed description of the rehabilitation activities necessary to address the disturbance of special-status plant species within the project area. The purpose of the rehabilitation activities is to revegetate areas of temporary disturbance, enhance altered or degraded plant and wildlife habitat, re-establish populations of special-status plant species, and offset unavoidable impacts that result from project construction activities within sensitive plant buffer zones. Rehabilitation measures include seeding of all areas of temporary disturbance, planting of trees and shrubs for re-establishment of temporarily disturbed priority habitats and sensitive wildlife and plant habitats, replanting of special-status plant species removed for construction, and enhancement of existing vegetation communities within or immediately adjacent to the proposed project to compensate for loss of trees or priority habitats.

Measures proposed in UPRR's Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan are consistent with the provisions included in NSA-LUDO Section 14.600(D)(2). Therefore, the project complies with this policy.

SMA Provisions

Water Resources (Wetlands, Streams, Ponds, Lakes, and Riparian Areas)

SMA Policies

1. *All wetlands, regardless of their size or functions, warrant protection from new uses that may alter or destroy wetlands functions.*

Finding: The project affect three delineated wetlands or waterbodies, and nine wetland or waterbody buffer zones within designated SMA zones. Measures will be applied to ensure that the project results in the minimum amount of disturbance practicable, pursuant to NSA-LUDO Section 14.600 (A)(6), and in accordance with applicable federal permit conditions. Temporary waterbody and buffer zone disturbance will be mitigated through onsite, in-kind restoration following construction. No temporary wetland disturbance will occur. Permanent wetland impacts will be mitigated through compensatory mitigation, as described in the Mitigation Plan, included as Appendix D to this narrative. BMPs and avoidance and minimization measures will include, but not be limited to:

- Areas for fuel storage, refueling, and servicing of construction equipment must be located in an upland location.
- Prior to use, clean all equipment to remove external oil, grease, dirt, or mud.
- Wash sites must be located in upland locations so that dirty wash water does not flow into stream channel or wetlands.
- Erosion control measures will be in place at all times during construction. Construction will not start until all temporary control devices (straw bales, silt fences, etc.) are in place downslope or downstream of project site.

Therefore, the project complies with this policy.

2. *The National Wetlands Inventory (U.S. Department of the Interior 1987) and the list of hydric soils shall be used as a general guide to the location of wetlands; additional wetlands are assumed to exist and shall be protected.*
3. *The exact location of wetlands boundaries shall be delineated using the procedures specified in the Federal Manual for Identifying and Delineating Jurisdictional Wetlands (1987 Corps of Engineers Wetland Delineation Manual, on-line edition.*

Finding: A field investigation for wetlands and waterbodies was conducted by CDM Smith scientists within the proposed project area on October 15 to 17, 2013. The delineation methodology conformed to the

guidelines presented in the *Corps Wetlands Delineation Manual, Technical Report Y-87-1* (USACE, 1987) and the *2010 USACE Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0)* (USACE, 2010). The results of this field investigation are presented in the *Wetland Report: Mosier Siding Project, Portland Subdivision, Wasco County, OR*, provided as Appendix E to this narrative. Delineated wetlands within the project vicinity are also shown on Figure 4-3 in Appendix A. Therefore, the project complies with these policies.

4. *An undisturbed buffer should be preserved around wetlands, streams, ponds, and lakes to protect and enhance their functions and associated uplands.*
5. *Uses that may impact wetland, streams, ponds, lakes, and riparian areas acreage and functions, water quality, natural drainage, or wildlife habitat may be allowed in their buffer zones, subject to compliance with guidelines for the protection of scenic, natural, cultural, and recreation resources and the approval criteria in this section.*

Finding: Delineated wetlands, waterbodies and associated buffers in the project vicinity are described in Table 4-3 and shown in Figure 4-3 in Appendix A. The project will result in impacts to three delineated wetlands or waterbodies, and nine wetland or waterbody buffer zones within designated SMA zones. Measures will be applied to ensure that the project results in the minimum amount of disturbance practicable to the affected wetlands, pursuant to NSA-LUDO Section 14.610 (A), and in accordance with applicable federal permit conditions. Temporary waterbody and buffer impacts will be mitigated through onsite, in-kind restoration following construction. No temporary wetland disturbance will occur. Permanent wetland impacts will be mitigated through compensatory mitigation, as described in the Mitigation Plan, included as Appendix D to this narrative. BMPs and avoidance and minimization measures will include, but not be limited to:

- Areas for fuel storage, refueling, and servicing of construction equipment must be located in an upland location.
- Prior to use, clean all equipment to remove external oil, grease, dirt, or mud.
- Wash sites must be located in upland locations so that dirty wash water does not flow into stream channel or wetlands.
- Erosion control measures will be in place at all times during construction. Construction will not start until all temporary control devices (straw bales, silt fences, etc.) are in place downslope or downstream of project site.

Therefore, the project complies with these policies.

6. *A project applicant shall minimize and offset unavoidable impacts to aquatic areas and their buffer zones that result from his/her actions by rehabilitating or enhancing aquatic and riparian areas or by restoring, creating, and enhancing wetlands.*
7. *When uses are authorized in degraded aquatic and riparian areas, rehabilitation shall return the project area to its natural condition to the maximum extent practicable.*

Finding: The project will result in unavoidable impacts to three delineated wetlands or waterbodies, and nine wetlands or waterbodies buffer zones within designated SMA zones. Measures will be applied to ensure that the project results in the minimum amount of disturbance practicable to the affected wetlands, pursuant to NSA-LUDO Section 14.600(A), and in accordance with applicable federal permit conditions. Temporary waterbody and buffer impacts will be mitigated through onsite, in-kind restoration following construction. No temporary wetland disturbance will occur. Permanent wetland impacts will be mitigated through compensatory mitigation, as described in the Mitigation Plan, included as Appendix D to this narrative. The final Mitigation Plan will satisfy the applicable requirements of the NSA-MP. Therefore, the project complies with these provisions.

8. *Project proposals affecting wetlands shall be coordinated with federal and state agencies that regulate new uses in wetlands.*

10. *All mitigation plans must be approved by the local government, after consultation with federal and state agencies with jurisdiction over wetlands.*

Finding: As described in Section 1.2, UPRR is actively pursuing the requisite permits and approvals from federal and state agencies listed in Table 1-4 for construction and operation of the project. UPRR will abide by required permit conditions. The Mitigation Plan included as Appendix D satisfies the applicable requirements of the NSA-MP, as well as state and federal permit conditions. Therefore, the project complies with these provisions.

13. *Proposed uses that would adversely affect water resources (wetlands, streams, ponds, lakes, and riparian areas) shall be prohibited.*

Finding: Delineated wetlands, ponds, lakes, and riparian areas and their associated 200-foot buffers in the project vicinity within the SMA are described in Table 4-3 and shown in Figure 4-3 in Appendix A, in accordance with NSA-LUDO Section 14.610(A)(2). The project will affect three delineated wetlands and waterbodies, and nine wetland buffer zones within designated SMA zones. Temporary waterbody impacts will be mitigated through onsite, in-kind restoration following construction. No temporary wetland disturbance will occur. Permanent impacts will be mitigated through compensatory mitigation, as described in the Mitigation Plan, included as Appendix D to this narrative. The final Mitigation Plan will satisfy all requirements of NSA-LUDO Section 14.610(E). Therefore, the project complies with this policy.

Wildlife and Plants

SMA Policies

1. *Natural resources existing on a site proposed for a new development or land use, and/or natural resources in danger of degradation or destruction from individual or cumulative offsite impacts, shall be protected from adverse effects.*

2. *Significant ecosystems such as natural areas, wetlands, ponds, lakes, riparian areas, old growth forests, islands, and areas of special importance such as botanical areas, sensitive wildlife and fishery habitats, or oak woodlands shall be protected from adverse effects.*

3. *Existing habitat quality, viable populations, and long-term productivity of natural resources and ecosystem diversity shall be maintained.*

Finding: UPRR is committed to ensuring that the project does not adversely affect natural resources existing on proposed project areas. UPRR conducted a Special-status Species Plant Survey and Habitat Mapping Report (see Appendix J) and prepared a Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan (see Appendix K) to identify and enhance the wildlife and plant diversity of the Gorge within the project area. These plans were developed to ensure that new uses do not adversely affect natural areas that support significant ecosystems. The plans aim to encourage the long-term productivity of natural resources and ecosystem diversity within the project area. Therefore, the project complies with this policy.

4. *County, state, and federal regulations for air and water quality and for pesticide use shall be followed.*

Finding: UPRR is committed to ensuring that the project follow applicable county, state, and federal regulations for air and water quality and for pesticide use. Therefore, the project complies with this policy.

5. *Newly discovered sensitive wildlife and plant species, areas and sites that are added to federal or state wildlife and plant lists shall be protected. Species that are deleted from federal or state wildlife and plant lists will not require further protection. Updated lists of sensitive wildlife and plant species can be found on websites for the Washington Department of Fish and Wildlife, the Wildlife Division of Oregon Department of Fish and Wildlife, and the Oregon or Washington Natural Heritage*

Programs. A list also is maintained by the USDA Forest Service – Scenic Area Office and available at the Gorge Commission office and on its website.

Finding: UPRR is committed to ensuring that the project does not adversely affect natural areas that are newly discovered sensitive wildlife and plant species and that federal and state wildlife and plant lists shall be protected. UPRR conducted a Special-status Species Plant Survey and Habitat Mapping Report (see Appendix J) and prepared a Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan (see Appendix K) to identify and enhance the wildlife and plant diversity of the Gorge within the project area. These plans were developed to ensure that new uses do not adversely affect sensitive wildlife and plant species.

In the SMA, special-status species included plant species identified as Forest Service-Sensitive (FS-S) species in the NSA-MP. A species was determined to have potential to occur in the survey area if its known or expected geographic range includes the survey area or the vicinity of the survey area, and if its known or expected habitat is represented within or adjacent to the survey area. Therefore, the project complies with this policy.

8. *Proposed uses that would adversely affect sensitive wildlife or plant areas or sites shall be prohibited. Uses adversely affect wildlife or plant sites and areas when they compromise the integrity of an area or site, or occur during a time of the year when affected wildlife or plant species are sensitive to disturbance.*

9. *Adequate buffer zones shall be maintained to protect sensitive wildlife and plant areas or sites from new uses. The width of wildlife buffer zones shall be determined on a case-by-case basis and shall reflect the biology of the affected species and the characteristics of the project site and the proposed use. The width of the plant buffer zone shall be 200 ft.*

Finding: UPRR is committed to ensuring that the project does not adversely affect natural areas that are newly discovered sensitive wildlife and plant species and that federal and state wildlife and plant lists shall be protected. UPRR conducted a Special-status Species Plant Survey and Habitat Mapping Report (see Appendix J) and prepared a Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan (see Appendix K) to identify and enhance the wildlife and plant diversity of the Gorge within the project area. These plans were developed to ensure that new uses do not adversely affect sensitive wildlife and plant species. These plans meet the requirements of this policy that ensure buffer zones shall be maintained to protect sensitive wildlife and plant areas or sites from new uses.

UPRR conducted a special-status species plant survey and habitat mapping to identify project areas within 1,000 feet of sensitive wildlife and plant areas. The Special-status Species Plant Survey and Habitat Mapping Report accounts for Sensitive Wildlife Areas and endemic plants in accordance with the wildlife inventory and as listed in Table 5-4, Priority Habitats, in accordance with the NSA-LUDO. Therefore, the project complies with this policy.

11. *Site-specific plans shall be required before most new uses will be allowed within wildlife and plant buffer zones.*

Finding: UPRR acknowledges that project components located in the SMA, as described in the site plan provided in Figure 4-1 (see Appendix A), will be evaluated using guidelines provided in the provisions of NSA-LUDO Section 14.610(B) to ensure that the project protects against potential adverse effects to natural resources.

UPRR conducted special-status species plant survey and habitat mapping to identify project areas within 1,000 feet of a sensitive wildlife and plant areas. The Special-status Species Plant Survey and Habitat Mapping Report (see Appendix J) accounts for Sensitive Wildlife Areas and endemic plants in accordance with the wildlife inventory and as listed in Table 5-4, Priority Habitats, according to the NSA-LUDO. The Special-status Species Plant Survey and Habitat Mapping Report also provides the approximate locations of

sensitive wildlife and plant areas along the project site as shown in the wildlife and rare plant inventory (see Appendix J). Therefore, the project complies with this policy.

12. *Rehabilitation and/or enhancement shall be required to offset unavoidable impacts to wildlife and plant habitat that result from new uses.*

Finding: All efforts will be made to avoid disturbance to special-status species and priority habitats. If disturbance cannot be avoided, efforts will be employed to minimize disturbance to the maximum extent practicable. A site-specific Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan has been prepared to address unavoidable impacts to sensitive plants, wildlife and plant buffer zones, as well as priority habitats in the SMA (see Appendix J to this application narrative). Section 7 and Section 8 of Appendix J includes Enhancement and rehabilitation measures that will be implemented to compensate for unavoidable impacts to sensitive plant and wildlife areas and habitats and buffers. Therefore, the project complies with this policy.

SMA Guidelines

H. Determination of potential natural resources effects shall include consideration of cumulative effects of proposed developments within the following areas: wetlands, streams, ponds, lakes, riparian areas and their buffer zones.

I. Determination of potential natural resources effects shall include consideration of cumulative effects of proposed developments within the following areas: 1) sites within 1,000 feet of sensitive wildlife areas and sites; and 2) sites within 1,000 feet of rare plants.

Finding: As discussed in response to the first provision in Section 5.4.1.3, a review of publically available data from the Wasco County Planning Department and the Hood River County Planning Department revealed that no plans are identified for major projects to occur within the next 10 years within 10 miles of the project area. Additionally, no planned major highway, road, or rail infrastructure projects were identified within the project area during this review.

In the vicinity of Segment 1 of the project, the majority of lands are within the GMA and owned by the counties or the State of Oregon. In the vicinity of Segment 2 West, lands are within both the GMA and SMA, and for the most part privately owned and used for agriculture; near Segment 2 East, lands are within the SMA and are primarily owned and managed by the state as protected recreational lands and natural areas. Although no major development is planned to occur within the cumulative effect study area, it is reasonable to assume that there could be a small amount of incremental land use change within these viewsheds related to modifications of existing agricultural operations and rural residential properties, and potentially, the development, maintenance and operation of transportation and utility projects within existing transportation and utility corridors. Current and reasonably foreseeable agricultural, residential, transportation and utility projects could also have the potential to affect natural resources due associated grazing, spread of invasive plant species, and stormwater and livestock runoff. Should any of these activities or land use modifications occur, they would need to be implemented in a way that is in conformance with NSA policies to minimize impact to natural resources, and would include the use of BMPs and SWPPPs during both the construction and operational phases.

The potential for substantial impact to natural resources related to other projects that could occur within the cumulative effect spatial boundary is low. As a consequence, it is unlikely that there would be any cumulative changes associated with natural resources that would combine with mitigated effects of the proposed project to create significant adverse effects to natural resources within the CRGNSA. Therefore, the project complies with these policy guidelines.

5.4.1.4 Chapter 4 Recreation Resources

GMA Provisions

Protection of Resources

GMA Policies

1. *Recreation resources shall be protected from adverse effects from new development on adjacent lands by establishing buffers between recreation uses and new buildings on adjacent lands. Guidelines implementing this policy are contained in "Review Uses" (Part II, Chapter 7: General Policies and Guidelines).*

Finding: The proposed project is located within GMA zones designated as Recreation Intensity Classes 1 and 2. The project, however, is not a recreational facility or use. The proposed second mainline track expansion uses the existing short siding near the City of Mosier and the existing previously disturbed UPRR ROW, to the greatest extent possible, to reduce impacts to recreational resource areas and the outright permitted uses of abutting properties. Findings provided to address NSA-LUDO Section 14.700 in this application narrative show that the project will comply with this policy.

Project development will occur directly adjacent to existing track and remains compatible with the surrounding area. Outright permitted uses abutting the project area will not be disturbed by proposed project operations any more than they are currently by existing railroad use. With one exception, the proposed project will cross Memaloose State Park between approximately MP 71.61 and MP 72.35. Memaloose Park is used primarily for recreational camping; existing campsites are located approximately 200 to 300 feet south from the existing mainline track. The proposed second mainline track will be located approximately 0 to 15 feet closer to the closest campsites compared to the existing mainline track and will not displace or significantly impact any campsites or recreationists. There are no designated hiking or walking trails, or Columbia River access points located within the proposed expanded ROW or temporary easement areas. Therefore, the project complies with this policy.

SMA Provisions

SMA Policies

2. *All new developments and land uses shall protect recreation resources.*

Finding: The project consists of infrastructure improvements to an existing railroad mainline, and includes ancillary structures, lighting, signage, and minor ROW acquisition necessary to satisfy federal rail safety standards. Within the SMA Open Space and SMA Public Recreation zones, the proposed project crosses, to the minimum extent possible, Memaloose State Park between approximately MP 71.61 and MP 72.35. The project will require approximately 2.72 acres (approximate length of 3,800 feet, width ranging from 30 to 80 feet) of expanded ROW to the south of the existing track, 0.55 acre (approximate length of 950 feet, width ranging from 25 to 35 feet) of temporary easement north of the existing to accommodate construction, and 0.14 acre for installation of a permanent maintenance access road within the park boundary.

Memaloose Park is used primarily for recreational camping; existing campsites are located approximately 200 to 300 feet south from the existing mainline track. The proposed second mainline track will be located approximately 0 to 15 feet closer to the closest campsites compared to the existing mainline track and will not displace or significantly impact any campsites or recreationists. There are no designated hiking or walking trails located within the proposed expanded ROW or temporary easement areas which could be affected by project construction and operation.

During construction, temporary disturbance to recreational uses may occur associated with construction noise; however, UPRR will coordinate with the Oregon Parks and Recreation Department to minimize this disturbance to recreational users to the greatest extent feasible. It is important to note that the portion of the project constructed in Memaloose State Park, including where the staging area and blasting location is

located, is in an area that is restricted to public access, thereby greatly limiting any potential impact to recreation. During operation, UPRR will periodically use the proposed permanent access road for maintenance activities; which would have no impact on recreational opportunities within the park. Therefore the project will comply with this policy.

3. *Recreation resources shall be protected by limiting development and uses, as designated in the recreation intensity class guidelines.*

Finding: The proposed project is located within SMA zones designated as Recreation Intensity Classes 1 and 4. The project, however, is not a recreational facility or use. Findings provided to address NSA-LUDO Section 14.710 in this application narrative show that the project will comply with this policy.

In addition, there are no designated hiking or walking trails, or Columbia River access points located within the proposed expanded ROW or temporary easement areas in the SMA. The project complies with policies provided in the NSA-MP's General Policies and Guidelines limiting development and uses, as designated in the recreation intensity class guidelines. Therefore, the project complies with this policy.

SMA Guidelines

2. Recreation resources shall be protected from adverse effects by evaluating new developments and land uses as proposed in the site plan. An analysis of both onsite and offsite cumulative effects shall be required.

Finding: As discussed in response to the first provision in Section 5.4.1.3, a review of publically available data from the Wasco County Planning Department, the Klickitat County Planning Department, and the Hood River County Planning Department revealed that no plans are identified for major projects to occur within the next ten years within ten miles of the project area. Additionally, no planned major highway, road, or rail infrastructure projects were identified within the project area during this review.

In the vicinity of Segment 1 of the project, the majority of lands are within the GMA and owned by the counties or the State of Oregon. In the vicinity of Segment 2 West, lands are within both the GMA and SMA, and for the most part privately owned and used for agriculture; near Segment 2 East, lands are within the SMA and are primarily owned and managed by the state as protected recreational lands and natural areas. Although no major development is planned to occur within the cumulative effect study area, it is reasonable to assume that there could be a small amount of incremental land use change within these viewsheds related to modifications of existing agricultural operations and rural residential properties, and potentially, the development, maintenance and operation of transportation and utility projects within existing transportation and utility corridors. Current and reasonably foreseeable agricultural, residential, transportation and utility projects are unlikely to have an impact on recreational resources. Should any of these activities or land use modifications occur, they would need to be implemented in a way that is in conformance with NSA policies to minimize impact to recreational resources.

The potential for substantial impact to recreational resources related to other projects that could occur within the cumulative effect spatial boundary is low. As a consequence, it is unlikely that there would be any cumulative changes associated with recreational resources that would combine with mitigated effects of the proposed project to create significant adverse effects to recreational resources within the CRGNSA. Therefore, the project complies with this policy guideline.

5.4.2 Part II—Land Use Designations

5.4.2.1 Chapter 1 Agricultural Land

GMA Provisions

3. *Agricultural land shall be protected from conflicts by limiting the number, size, proximity, and scale of conflicting uses on nearby lands.*

SMA Provisions

6. *Agricultural lands shall be protected by minimizing adjacent land use conflicts.*

Finding: The project will temporarily impact approximately 0.24 acres and permanently impact approximately 6.05 acres of land zoned for agricultural uses; however, the entirety of this area consists of existing, disturbed ROW, not currently or historically used for agricultural cultivation. The project will not cross any designated forest land. The project will not materially alter the overall land use pattern of the agriculturally zoned areas crossed or substantially limit the use of surrounding properties for permitted purposes. Construction and operation of the project will not force a significant change in, or increase the cost of, accepted agricultural practices.

In addition, the project was specifically routed to parallel the existing mainline track in an effort to limit alteration of existing land use patterns. Parallel construction primarily within the existing UPRR ROW avoids impacts to adjacent agricultural landowners, reduces clearing of new rail corridors, and lessens potential environmental impact. All agricultural practices will be allowed to continue adjacent to the UPRR ROW following construction. Therefore, the project complies with these policies.

10. *Structures, new dwellings, and agricultural buildings shall maintain the visual character of the landscape setting.*

Finding: An approximately 1-mile segment of the proposed project will travel through an area designated in the plan for agricultural use. This area extends from near the point where I-84 crosses the rail corridor to a point near UPRR MP 71.4 at the eastern end of the cut through the rock mesa. In this area, the additional track and appurtenant facilities will not be visually evident from any KVAs. One signal building will be located in this area. Even though this structures would not be located in areas where they would be readily visible to viewers at KVAs and will be small in size, they will have non-reflective surfaces and their exterior colors will be selected in accord with guidance provided in the *Scenic Resources Implementation Handbook*.

5.4.2.2 Chapter 3 Open Space

GMA Provisions

10. *Uses shall be allowed in areas designated Open Space that can be undertaken without adverse effect to the resources to be protected.*

Finding: The project will cross through the GMA OS zone (see Figure 1-3 in Appendix A). The total length of the proposed second mainline track that crosses the GMA OS zone will be approximately 1.34 mile and is located between MP 66.98 and MP 68.02, and between MP 68.28 and MP 68.58. The project consists of infrastructure improvements to an existing serviceable structure consistent with the definition provided in NSA-LUDO Section 1.200, and will include ancillary structures, lighting and signage, as necessary to satisfy federal rail safety standards. Therefore, the project is allowed as a conditional use in the GMA Open Space zone pursuant to NSA-LUDO 3.180(D)2-3.

The project is not considered a new land use or development, therefore will not be required to develop an open space management plan prior to construction pursuant to NSA-LUDO 3.180(C). The project will, however, follow the guidelines associated with resource protection, enhancement, and management provided in the *Columbia River Gorge Management Unit Master Plan* (1994) for the portion of the project zoned SMA Open Space within the boundary of Memaloose State Park. Therefore, the project complies with this policy.

5.4.2.3 Chapter 6 Recreation Designations

SMA Provisions

4. *All new land uses and developments shall protect the scenic, natural, cultural, and recreation resources.*

Finding: UPRR acknowledges that the proposed project will be evaluated under applicable guidelines for protection of scenic, natural, cultural, and recreation resources specified in the provisions of the NSA-LUDO and the NSA-MP. This application narrative and attached appendixes show that UPRR satisfies the applicable provisions and policies required to protect the scenic, natural, cultural, and recreation resources within the proposed project area. Therefore, the project complies with this policy.

5.4.2.4 Chapter 7 General Policies and Guidelines

Review Uses

GMA/SMA Policies

1. *Review uses are those uses subject to applicable guidelines for protection of scenic, cultural, natural, recreation, agricultural, and forestry resources and such other guidelines as are specified in the Management Plan. Conditions are often applied to new review uses.*

Finding: UPRR acknowledges that the proposed project will be evaluated under the applicable guidelines for protection of scenic, cultural, natural, recreation, agricultural, and forestry resources and other guidelines specified in the NSA-MP.

2. *Local governments shall notify the four Indian tribal governments, the appropriate state, the Gorge Commission, and the Forest Service of all land use applications that involve land divisions; residential, commercial or industrial development; or the exploration, development, or production of mineral resources.*

Finding: UPRR acknowledges that Wasco County shall notify the four Indian tribal governments, the State of Oregon, CRGC, and the Forest Service of all land use applications associated with this project.

5. *Land use applications for review uses shall include a site plan and elevation drawings that provide complete, detailed information about a proposed use.*

Finding: The project is not a typical parcel development for which structures would be shown on a site plan. However, this narrative includes a number of plans and figures that include the necessary information to demonstrate compliance with this policy and with the provisions of Section 14.020 to the NSA-LUDO. The proposed second mainline track alignment sheets provided as Appendix C to this narrative convey the applicable site plan information. These plans show construction and operation workspaces, existing and proposed track, proposed access roads, wetland and waterbody crossings, and existing and proposed utilities, including lighting.

Detailed engineering and design drawings are included as Appendix C to this application narrative, and include elevation drawings which meet the criteria pursuant to this policy and to the provisions of NSA-LUDO Section 14.020(E). Therefore, the project complies with this policy.

6. *Land use applications for review uses involving more than 100 cubic yards of grading with slopes greater than 10 percent, except trails in the SMA, shall include a grading plan.*

Finding: Detailed engineering and design drawings are included as Appendix C to this application narrative, and include a grading plan which meets the criteria pursuant to this policy and the provisions of NSA-LUDO Section 14.020(F). A narrative description of the grading plan is provided in the response to NSA-LUDO Section 14.020(F). Therefore, the project complies with this policy.

7. *Recreation sites shall be protected from adjacent uses that would detract from their use and enjoyment.*

Finding: The proposed project is located within GMA zones designated as Recreation Intensity Classes 1 and 2. The proposed project is also located within SMA zones designated as Recreation Intensity Classes 1 and 4. The project, however, is not a recreational facility or use. The proposed second mainline track expansion uses the existing short siding near the City of Mosier and the existing previously disturbed UPRR ROW, to the

greatest extent possible, to reduce impacts to recreational resource areas and the outright permitted uses of abutting properties. Findings provided to address NSA-LUDO Sections 14.700 and 14.710 in this application narrative demonstrate that the project will comply with this policy.

Project development will occur directly adjacent to existing track and remains compatible with the surrounding area. Outright permitted uses abutting the project area will not be disturbed by proposed project operations any more than they are currently by existing railroad use. With one exception, the proposed project will cross Memaloose State Park between approximately MP 71.61 and MP 72.35. Memaloose Park is used primarily for recreational camping; existing campsites are located approximately 200 to 300 feet south from the existing mainline track. The proposed second mainline track will be located approximately 0 to 15 feet closer to the closest campsites compared to the existing mainline track and will not displace or significantly impact any campsites or recreationists.

There are no designated hiking or walking trails, or Columbia River access points located within the proposed expanded ROW or temporary easement areas in the SMA. The project complies with policies provided in the NSA-MP's General Policies and Guidelines limiting development and uses, as designated in the recreation intensity class guidelines. In addition, the project complies with the guidelines for implementing this policy as provided in the NSA-MP in Part I of Chapter 4: Recreational Resources. Therefore, the project complies with this policy.

SMA Sign Provisions

SMA Policies

1. *All public signs subject to review located in the SMA must be designed and located in compliance with the standards described in the Columbia River Gorge National Scenic Area Graphic Signing System and must conform to the standards contained in the Manual for Uniform Traffic Control Devices.*
2. *New signs shall meet the minimum provisions of these guidelines in all cases where these provisions do not conflict with other regulations intended for public safety and information.*

Finding: Standard railroad signage will be constructed as part of the proposed second mainline track project. Signage will include Station and Control Point, Whistle Signal, Vertical Control Point, Private Property, No Dumping, Speed Restriction, and Mile Marker signage. This type of warning and guidance signage is exempt from development review in accordance with NSA-LUDO Section 3.100(H)(4).

Nevertheless, the proposed signage satisfies NSA-MP policies for the SMA. Signage will be designed and located in compliance with the standards described in the *Columbia River Gorge National Scenic Area Graphic Signing System* and will conform to the standards contained in the *Manual for Uniform Traffic Control Devices* to the extent allowable under Federal Railroad Administration (FRA) regulations. All signage installed will be the minimal amount required under federal law for the safe operation of the railroad. Photographs showing example standard railroad signage are included in Appendix B. Therefore, the project complies with these policies.

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June 2, 2015

Angie Brewer
Interim Planning Director
Wasco County Planning Department
2705 East 2nd Street
The Dalles, Oregon 97058

Subject: UPRR Second Mainline Track Project – Wasco County, Oregon
National Scenic Area Development Review Application – Supplemental Information

Ms. Brewer,

In response to your completeness review letter received March 13, 2015, Union Pacific Railroad (UPRR) is submitting the attached supplemental information to support the National Scenic Area Development Review Application (application) for UPRR's proposed Second Mainline Track Project between rail mileposts (MP) 66.98 to 72.35 on the Portland Subdivision, in Wasco County, Oregon (project). As we discussed on May 27, we are still working on one landowner signature. However, the remaining information is complete and with the submittal of this information, UPRR requests that Wasco County deem the application substantially complete and begin processing. We understand that the formal completeness determination under ORS 215.427(2) will be made once the final landowner signature has been provided.

UPRR appreciates your consideration of this application. If you have any questions, please contact me at (425) 895-0879 (email: Linnea.Eng@ch2m.com) or Steve Cheney at (402) 544-3227 (email: slcheney@up.com) Thank you for your time and consideration.

Sincerely,

Linnea Eng
Project Manager
CH2M HILL Engineers, Inc.

Enclosures

cc: Steve Cheney, UPRR
Luke Baatz, UPRR
Ty Wyman, Dunn Carney Allen Higgins & Tongue LLP
Christine Roberts, CH2M HILL
Ryan Kosola, Olsson Associates

Completeness Review Supplement

National Scenic Area Development Review Application for the Union Pacific Railroad Second Mainline Track Project

Prepared for

Wasco County Planning Department

Prepared by

CH2M HILL, INC

June 2015

2020 S.W. Fourth Avenue
Suite 300
Portland, OR 97201

Subject/Resource	Wasco County Planning Department Data Request	Comment/Response
Land Use	Appendix G contains unsigned landowner consent forms. Please provide documented consent (signatures) from land owners for all properties that will contain any portion of the proposed development, including temporary impacts and permanent development.	Signed landowner consent forms from the Oregon Department of Transportation (ODOT) and Oregon Parks and Recreation Department (OPRD) are included in **Attachment A** of this supplement. No other landowners have property located within the proposed project area.
Land Use	Please confirm the number of new equipment buildings. The application materials describe "up to seven" in one location and in "up to five" in several other locations.	As described in Section 1.1.5 of the application narrative, there are seven signal buildings proposed within the full project area, however two of these are located within the Mosier Urban Area, therefore there are only five signal building locations subject to Scenic Area Review. It should be noted that Section 1.1 of the application narrative includes a “Complete Project Overview”, or a description of the project components that are both within and outside of National Scenic Area Development Review jurisdiction. Section 4 of the narrative, however, describes the project components that are subject to Scenic Area Development Review.
Land Use	Please confirm all changes to existing utilities are shown on the provided site plan materials.	Existing utilities and changes to existing utilities are shown in Appendix C of the application – Engineering Drawings (60% design). In addition, one minor modification to the utility design outside of the City of Mosier Urban Area has occurred. A water line and supporting electrical service to the existing pump house at MP 72.16 will be relocated to a tie-in at the proposed pump house, approximately 40-feet to the south of its existing location. This proposed utility modifications is shown in **Attachment B** of this supplement. Note that the precise alignment of proposed water line and underground electrical line at MP 72.16 are unknown at this time, however, the larger overall area where the relocation will occur within is shown in **Attachment B**. All areas of proposed utility relocation or ground disturbance have been surveyed and included in the previously prepared and submitted cultural resources, rare plants, and sensitive habitat survey reports.
Land Use	Please confirm blasted rock materials from the "mesa" will be used onsite to build new ballast.	As described in Section 4.2.5 of the application narrative, the excavated material will be processed onsite to provide appropriately graded material for use elsewhere on the project as embankment material.
Land Use	Please confirm anticipated changes in train traffic and volume. The application materials provide conflicting statements about maintaining the same number of trains, acknowledging that they will be longer, and then later states that there will be fewer, longer, trains.	Though admittedly unclear, the referenced statements do not conflict. One addresses the extent to which completion of the project will tend to change the anticipated amount of train traffic; the other addresses the extent to which external factors (e.g., market demand) will tend to change that amount. As noted in Section 4.3 of the application narrative, at present UPRR typically operates 20 to 30 trains a day through the project area and anticipates a similar number of daily trains upon completion of the project. The narrative also notes that UPRR (1) is a common carrier, such that the number trains that actually move along this line will depend far more on the demands of shippers than on any other factor, and (2) anticipates continued steady growth in those demands. Section 2.2.1 of the application narrative explains that the project is based on this anticipated steady growth, rather than on any sudden expansion. Section 2.2.4.1 observed how the project will affect the anticipated amount of train traffic. Advancements in locomotive engine technology are allowing the

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		railroad industry to run longer trains (which increases overall fuel efficiency). The existing Mosier siding does not facilitate those longer trains, and the second mainline will do so. Running longer trains will decrease the number of trains (as compared to the number that UPRR would have to run without the project). Accordingly, the application is not inconsistent as to the anticipated changes in train traffic and volume. UPRR is likely to carry more freight on this line in the future. With completion of the project, however, it expects to accommodate that increase by running trains that are longer than those run presently, rather than by running trains of the current length more frequently.
Treaty Rights	Confirm any known traditional treaty tribe fishing access sites or traditional cultural properties, regardless of safe crossings or developed access points.	The project is not located in the vicinity of, and will not impact, any known traditional Treaty Fishing Access Sites, In-Lieu Sites, or Shared Use Sites. **Attachment C** of this supplement provides a map of these locations that was prepared by the Columbia River Inter-Tribal Fish Commission (CRITFC). The nearest Treaty Fishing Access Site, Stanley Rock, is located approximately 2 miles west of the proposed project. As described in the findings to NSA-LUDO Sections 14.500 and 14.510, and in Appendix L (Cultural Resource and Historic Survey Report), the project is not anticipated to impact any known traditional cultural properties.
Scenic	Please provide elevation drawings of the retaining wall(s) or modifications to existing bridges, outside of the Mosier urban area.	An elevation drawing for the retaining wall location can be found on page 60 of Appendix C – Engineering Drawings (60% design). There are no modifications proposed to existing bridges in the project area subject to Scenic Area Review.
Scenic	In addition to elevation drawings, please provide illustrations or photographs of the materials to be used in retaining walls. For example, will they be treated concrete or stacked stone? Please provide information about the rock source, shape or stacking configuration, and colors.	An example of the visual treatment of the proposed rock façade retaining wall is included as Detail #11 in Appendix B – Typical Structure Photographs. As described in the narrative, the retaining wall will feature a treated concrete façade to appear like Oregon Basalt. In addition, **Attachment D** of this supplement provides a photographic simulation of the proposed retaining wall, as well as a representative view of the retaining wall location from Washington State Route 14 (SR-14), illustrating that dense intervening vegetation and existing topography will screen views of the retaining wall from the Columbia River or SR-14. Additional detail describing the visibility of the proposed retaining wall is described in detail in Section 5.2.3 and in the findings to Section 14.200 of the application narrative.
Scenic	Please describe the visibility of the proposed retaining wall(s) from key viewing areas and anticipated impacts to scenic resources.	The degree of visibility of the proposed retaining wall and anticipated impacts to scenic resources is described in detail in Section 5.2.3 and in the findings to Section 14.200 of the application narrative. As summarized, the retaining wall proposed in this area (between MP 71.27 and MP 71.30) will not be visible from the Columbia River or Old Washington State Route 14/Klickitat County Route 1230; the wall would be located approximately 600 feet west of the opening of the cut notch and would be fully screened by the topography and vegetation between it and the banks of the river. The north-facing wall location would not be visible from I-85, Route 30, or any other Key Observation Point (KOP) due to viewing angle. Additionally, the wall will be constructed with a basalt rock façade in order to blend the appearance of the

Subject/Resource	Wasco County Planning Department Data Request	Comment/Response
		wall with the surrounding visual setting. The proposed retaining wall would, therefore, have no impact to scenic resources.
Scenic	Please acknowledge new guard rail along I-84 must be consistent with the safety and design requirements of the Interstate 84 Corridor Strategy (let me know if you need a copy).	The proposed guardrail along I-84 has been designed through coordination with ODOT (Contact: Patrick Cimmiyotti) and will be consistent with the existing installed guardrail in the project area as well as applicable requirements of the Interstate 84 Corridor Strategy (ODOT, 2005). ODOT has indicated that it would be appropriate to match existing adjacent non-weathering steel guardrail rather than installing weathering steel guardrail based on the following language from the *Interstate 84 Corridor Strategy* (ODOT, 2005): *Roadside guardrail should:* • *maintain a visual connection to the line, color, and texture of bridge railing and railing transitions.*
Scenic	The exterior of new buildings topographically visible from key viewing areas are subject to reflectivity guidelines. Please explain why the new equipment shelters cannot be constructed of non-metal materials. Also, please explain how the proposed shelters are treated to meet the reflectively standards of low-reflective or non-reflective (e.g. special paint).	An example of the visual treatment of the signal buildings is included as Detail #10 in Appendix B – Typical Structure Photographs. The proposed paint color and type is consistent with existing UPRR signal buildings located within the NSA. These structures house essential electronic equipment that is necessary for the safe operation of the railroad. Accordingly, it is imperative that these structures be constructed of watertight metal to regulate internal temperature of the cabins and prevent water leaks with minimal maintenance. The cabins, which are naturally highly reflective silver metal casings, are treated with dark reddish brown paint with a matte finish to satisfy low reflectivity standards. The paint used for the newly proposed signal cabins is the identical paint used for all existing signal cabins in the NSA.
Scenic	Please confirm whether a darker brown color can be used on the equipment buildings.	UPRR is unable to modify the existing approved signal cabin color used throughout the National Scenic Area. A darker color used for the cabin would absorb additional heat and could jeopardize the safe function of the electronics enclosed in the signal cabins. As a necessary safety measure, the paint color proposed for the new signal cabins will match what is provided in the application as Detail #10 in Appendix B – Typical Structure Photographs.
Cultural	Please provide a copy of the document used to solicit feedback from the four treaty tribes during preparation of the cultural resource survey and any correspondence received as a results	The letter delivered to the four treaty tribes prior to the cultural resource survey is included as **Attachment E**. No correspondence or feedback was received from the four treaty tribes.
Cultural	Please confirm all changes to existing underground utilities were reviewed as part of the cultural resource assessment.	All areas of proposed ground disturbance – including underground utility relocation and temporary disturbance areas – were surveyed during the cultural resources assessment. If on-site conditions precluded a particular area from being field-surveyed (for example, if large patches of blackberry bushes or poison oak did not allow for safe passage, this is noted in the Cultural Resources Report). See Figure 2 of the Cultural Resources Report, which shows the Area of Potential Effect that was used as the survey boundary.
Cultural	Please confirm areas of ground disturbance associated with temporary development were included in the cultural resources assessment.	All areas of proposed ground disturbance – including underground utility relocation and temporary disturbance areas – were surveyed during the cultural

Subject/Resource	Wasco County Planning Department Data Request	Comment/Response
		resources assessment. If on-site conditions precluded a particular area from being field-surveyed (for example, if large patches of blackberry bushes or poison oak did not allow for safe passage, this is noted in the Cultural Resources Report). See Figure 2 of the Cultural Resources Report, which shows the Area of Potential Effect that was used as the survey boundary.
Cultural	Please respond to Marge Dryden's request for additional information sent via email to Jeremy Sande on March 9, 2015. Note, this email is not attached due to confidentiality requirements for the protection of cultural resources.	A response to Marge Dryden was delivered on April 6, 2015 that addresses all additional information requested.
Natural	Please explain why there is no other location for construction staging outside of areas designated Open Space, including why staging cannot occur within the Mosier or The Dalles urban areas.	The staging areas located within UPRR property in the SMA Open Space zones were chosen based on the necessity to be in close proximity to the rock excavation area between MP 71.13 and MP 71.72. Potential staging areas within the Urban Areas of Mosier or The Dalles would not be able to satisfy this criteria because they are not in the immediate vicinity of rock excavation areas. Staging for other construction activities has been provided within the Mosier Urban Area to the greatest extent practicable. The staging areas in the Open Space zone have been reduced to the greatest extent practicable. Attachment F provides a revised Figure 4-1 Page 8 showing the updated staging areas. The impact from staging to areas designated Open Space has been reduced by 1.21 acres.
Natural	Please provide the acreage of impacts to each wetland and body of water. The application provides a concise description of what currently exists, but does not clearly identify volume of proposed impacts. This will be necessary to quantify mitigation requirements.	The acreage impacts to wetlands and waterbodies within the area subject to Scenic area Review, as well as their buffers is provided in Table 4-3 included in the application narrative.
Natural	Please confirm that with the exception of new culverts identified for resource mitigation and enhancement, proposed culverts will be limited to extending existing culverts.	As described in Section 1.1.3, one new culvert will be constructed to serve as an outlet for trackside ditches and to provide drainage under track embankment. Two new culverts will also be installed at the western end of Thompsons Lake with the objective of providing enhancements to fish passage for listed fish species that use the lake.
Natural	Please acknowledge that all tree removal will be coordinated with the Oregon Department of Forestry for any necessary forest practice permits and wildfire prevention, and with the Oregon Department of Fish and Wildlife to avoid any known habitat trees.	As explained in the application narrative, the Interstate Commerce Commission Termination Act (49 USC § 10501(b)(2)) vests the federal Surface Transportation Board with exclusive jurisdiction over construction, acquisition, operation, and abandonment of railroad lines. UPRR plans to coordinate tree removal with the Oregon Department of Forestry, but will obtain permits from that agency only to the extent that its jurisdiction does not conflict with that of the STB.
Natural	Please confirm any natural resource impacts resulting from crushing rock materials onsite.	There are no known permanent natural resource impacts that would result from rock crushing activities. The rock crushing process will involve short range transport of excavated rock material to a stockpile at the crushing site. Stockpiled material will be fed into a mobile crusher to be staged near the material source. Processed material will be stockpiled at the crushing site until access is available to fill locations on the project at which point the processed aggregate will be transported to those locations and used as fill.
Natural	Please confirm the source of any additional fill materials used to build up new ballast and best management practices that will be implemented to ensure invasive plant species are not introduced to the landscape.	The fill material to be used is most likely to be sourced from on site. Construction equipment shall be washed prior to transportation to the site in accordance with the project's forthcoming Stormwater Pollution Prevention

Subject/Resource	Wasco County Planning Department Data Request	Comment/Response
		Plan. Seeding to be used to stabilize disturbed areas will be of an approved native grass seed mix.
Recreation	Please identify current locations of recreation access within the UPRR right-of-way; whether or not it is legal or trespassing; and whether the proposed project will modify the current recreation use in any way.	Recreation access is not legally allowed through existing ROW and across active railroad tracks. The proposed project would not modify or impact recreational use or access, as discussed in the findings to NSA-LUDO Sections 14.700 and 14.710.
Recreation	Please identify new impacts to existing recreation resources, including direct impacts within Memaloose State Park, but also indirect impacts to recreation use occurring on the nearby Historic Columbia River Highway State Trail, recreation users on the Columbia River, and those traveling designated scenic travel corridors as a form of recreation.	The project's potential to impact existing recreational resources, including Memaloose State Park, is discussed in detailed in the findings to NSA-LUDO Sections 14.700 and 14.710. The project will have no impact on recreational users of the Columbia River or the Historic Columbia River Highway State Trail.
Recreation	Confirm the number of existing safe crossings and whether any new crossings are proposed as a result of this project. It would be helpful if this response included a description of crossings located inside the Mosier urban area.	There are three existing safe crossings within the project limits (including two within the Mosier Urban Area). Approximately nine temporary crossings will be installed for construction purposes and will be restricted to construction personnel only. Post-construction, no new crossings will be added and no existing crossings will be removed.
Miscellaneous	Please provide information that can verify existing and explain any proposed emergency response standards and plans for railroad related incidents in the project area and in general, the Columbia River Gorge as a region.	**Attachment G** of this supplement provides information on UPRR emergency response procedures within the NSA.

Attachment A
Landowner Authorization Forms

Febraury 27, 2015

Wasco County
Planning Department
2705 East 2nd Street
The Dalles, OR 97058

Regarding: Consent for Union Pacific Railroad To File Wasco County National Scenic Area Review Applications for the Proposed Second Mainline Track Project

This document serves as notice that I/we, Oregon Department of Transportation as owner(s)/authorized representatives of the real properties commonly known as, __Tax Lot Numbers 2N 11E 1 ROADS, 2N 11E 2 ROADS, 2N 11E 3 ROADS, 2N 12E 6 ROADS, and 3N 12E 31 ROADS__, and as more particularly described below (see Table 1 and attached Figure 1) expressly give my/our permission and/or authorization for Union Pacific Railroad to file National Scenic Area Review Applications with Wasco County for permits necessary for the construction and operation of the proposed Second Mainline Track Project, which would require acquisition of a temporary construction access upon my/our property. These applications include Development Approval for Conditional Uses and a Planning Commission Variance Application. **The permission and/or authorization granted herein is for land use application purposes only and is not to be construed as any sort of lease, sale or other real estate transaction or contract. Furthermore, permission and/or authorization granted herein does not include consent for any re-zoning actions and/or encumbrances on the properties described in Table 1.**

Table 1: Property Description

Tax Lot No.	Property Location	Owner Name	Mailing Address	City	State	Zip Code
2N 11E 1 ROADS	See Figure 1	Oregon Department of Transportation	District 9 3313 Bret Clodfelter Way	Salem	OR	97058
2N 11E 2 ROADS*	See Figure 1	Oregon Department of Transportation	District 9 3313 Bret Clodfelter Way	Salem	OR	97058
2N 11E 3 ROADS*	See Figure 1	Oregon Department of Transportation	District 9 3313 Bret Clodfelter Way	Salem	OR	97058
2N 12E 6 ROADS*	See Figure 1	Oregon Department of Transportation	District 9 3313 Bret Clodfelter Way	Salem	OR	97058
3N 12E 31 ROADS*	See Figure 1	Oregon Department of Transportation	District 9 3313 Bret Clodfelter Way	Salem	OR	97058

* Note: Data discrepancies exist between Union Pacific Railroad ROW deed and records, and Wasco County parcel data. Verification of this data may necessitate revisions to County data, and potentially result in the project's avoidance of Oregon Department of Transportation parcels.

Sincerely,

Legal Landowner(s)/Authorized Representative(s) Printed Name(s):

_____

_Patrick N. Cimmiyotti _____ _____

Landowner/Authorized Representative(s) Signature(s):

_____ Date: 3/30/15

_____ Date: _____

Attachment B
Utility Relocation Supplement

Columbia River

Main Trk. 1 133#

Main Trk. 1

Main Trk. 2 15'

Access Rd

Existing Pump House
to be Removed

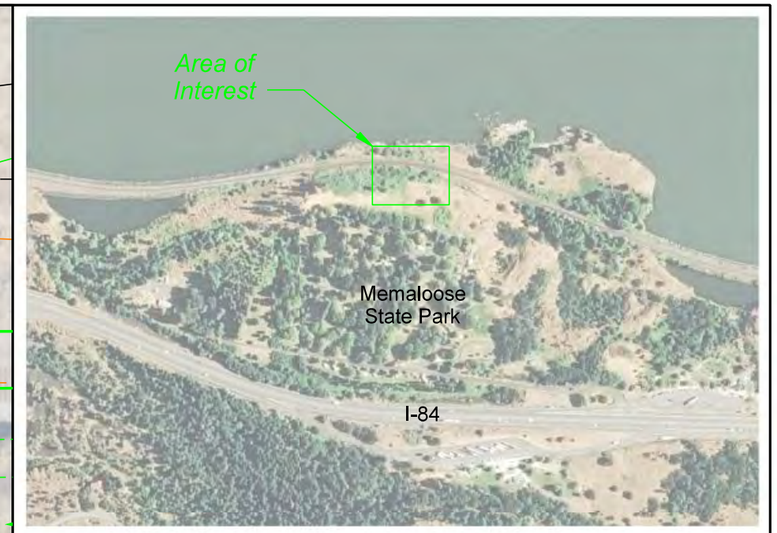
Proposed Pump House Location

To Mosier
& East Portland
Timetable West

To Crates
& Hinkle
Timetable East

40 0 40 80

SCALE IN FEET



Vicinity Map

Legend

- Limits within which additional utility trenching will occur to facilitate electrical service and water line to the proposed pump house location (0.46 ac).
- Proposed Track
- Shift Track
- Existing Right of Way
- Remove Fence
- Proposed Fence
- Proposed Unimproved Road
- Proposed Ditch Flow Line
- Proposed Cut Lines
- Proposed Fill Lines
- Existing Water Line
- Existing Overhead Power Line
- Relocate Overhead Power Line
- Relocate Underground Electric Line

OLSSON ASSOCIATES

2111 South 67th Street, Suite 200
Omaha, NE 68106-2810

TEL 402.341.1116
FAX 402.341.5895

www.olssonassociates.com

UNION PACIFIC

DRAWN BY:	BWG
CHECKED BY:	RCK
DATE:	4/2/2015
SHEET NUMBER	E 001 of 001

UNION PACIFIC RAILROAD

Office of Assistant Vice President
Engineering Design/Construction

LOCATION & DESCRIPTION:
Mosier, Oregon
Portland Subdivision MP 66.98 to MP 72.35
Construct Second Mainline

SHEET TITLE:
ADDITIONAL UTILITY WORK AREA EXHIBIT

PC 1 1-222

Color table: F:\PROJECTS\011-1345\color\UPRR.tbl
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F:\Projects\011-1345_TRNS\19_Mosier East\Design\DGN\Sheets\00_Exhibits\Additional Underground Utilities Exhibit.dgn
Default
4/2/2015

Attachment C
CRITFC Tribal Treaty Fishing Site Map

Columbia River In-lieu/Treaty Fishing Access Sites and Amenities

- In-lieu Site
- Treaty Fishing Access Site
- Shared-use site (treaty fishing and public access)
- Unimproved site (**No** services)
- 285 River mile (approx.)
- Community
- Boat ramp
- Boat dock
- Toilet facilities
- Water
- Water (hand pump)
- **No** water
- Fish cleaning table
- Camping facilities
- Shower
- **Shared-use** amenity

Attachment D
Retaining Wall Visual Resources Supplement

VICINITY MAP

LEGEND

Photograph Location

Retaining Wall

Aerial Basemap Source: ESRI, Microsoft
Location Map Data Source: ESRI

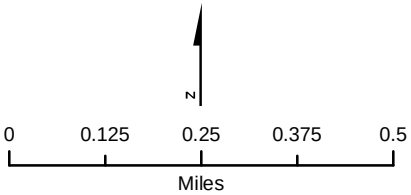

Figure 1
Retaining Wall Photograph Locations
Second Mainline Track Project
Union Pacific Railroad

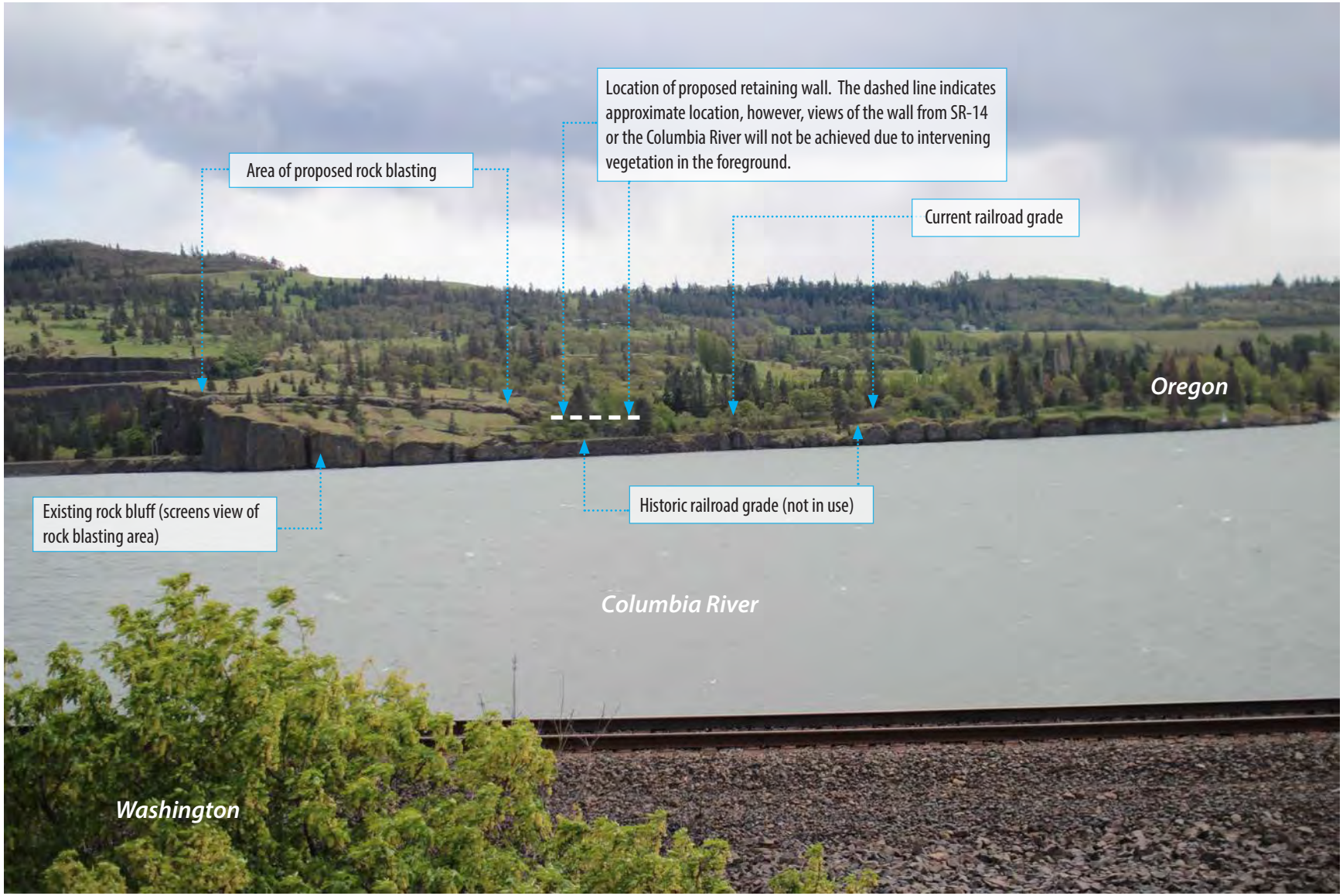

Figure 2
Photo Location 1: View of Proposed Retaining Wall Location from SR-14, Facing South
Second Mainline Track Project
Union Pacific Railroad

CH2MHILL.
\\CASTOR\PROJ\CAHIL ASSOCIATES\CA_ACTIVE FILES\UNION_PACIFIC\UNIONPACIFIC_032315.INDD

Figure 3A
Photo Location 2: Existing View of Proposed Retaining Wall Location from UPPR ROW, Facing West
Second Mainline Track Project
Union Pacific Railroad

Figure 3B
Photo Location 2: Photo Simulation of Proposed Retaining Wall Location from UPPR ROW, Facing West
Second Mainline Track Project
Union Pacific Railroad

Attachment E
Cultural Resources Survey Tribal Notification Letters

CH2M HILL
2020 South West 4th Avenue
3rd Floor
Portland, OR 97201-4958
Tel 503.235.5000
Fax 503.736.2000

April 8, 2014

Sally Bird
Warm Springs Tribe, Acting Program Manager/Cultural Resources
1233 Veteran St.
P.O. Box C
Warm Springs, OR 97761

Dear Ms. Bird:

Union Pacific Railroad proposes to construct approximately 4.02 miles of second mainline track along their existing Portland Subdivision between approximately MP 66.98 and 72.35 in Wasco County, Oregon. Figure 1 shows the boundaries of the project and the proposed extent of the cultural resources survey area. The proposed Project will include construction of additional track sections, construction of two bridges (at Mosier Creek and Rock Creek), realigning the new siding and the main track in some areas, cutting, filling, grading, and other ground disturbing activities. Additionally, new right-of-way (ROW) will be acquired for the project.

Most, but not all, of the construction of the proposed project will occur within existing Union Pacific Railroad (UPRR) ROW. The second mainline track will closely parallel the existing track. However, for the purposes of staging, and for improving curve radius, portions of the project extend beyond the existing ROW into other privately and publicly held lands. The project is not federally funded and does not occur on any federal lands. Publicly owned lands include parcels owned by the Oregon Department of Transportation (ODOT) and Oregon Department of Parks and Recreation. Archaeological permits No. 1881 and No. 1882 have been issued by the Oregon State Historic Preservation Office (SHPO) for investigations on these parcels.

The archaeological inventory will be conducted to document the presence or absence of archaeological resources within the Mosier Expansion Project and to document the nature and extent of such resources, if present. All fieldwork will be consistent with the Guidelines for Conducting Field Archaeology in Oregon issued by the Oregon SHPO (final version dated April 2007) and the provisions of the Columbia River Gorge National Scenic Area Act. Prior to conducting fieldwork, research will be conducted at the Oregon SHPO and at the Columbia River Gorge National Scenic Area office in Hood River to identify any previous investigations and previously recorded resources that may have occurred in this area. We realize that not all cultural resources are documented in these offices and ask that if you or any of your tribal members are aware of specific resources, or have specific cultural concerns about this area, that you let us know so we can properly account for them and plan accordingly. If you have any questions, or comments, please contact me at the number or email below.

Sincerely,

CH2M HILL

Robin McClintock

Robin McClintock
Cultural Resources Specialist/CH2M HILL
2020 SW 4th Ave., Portland, OR 97202
Robin.McClintock@CH2M.com
503-736-4236 (office)/503-329-2458 (mobile)
Attachment

Printed on Mohawk Via paper, which is 30% post consumer waste and manufactured with 100% wind-generated power

CH2M HILL
2020 South West 4th Avenue
3rd Floor
Portland, OR 97201-4958
Tel 503.235.5000
Fax 503.736.2000

April 8, 2014

Nez Perce Tribe
Cultural Resources Program
P.O. Box 305
Lapwai, ID 83540

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CH2M HILL
2020 South West Fourth Avenue
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Portland, OR 97201
Tel 503.235.5000
Fax 503.736.2000

CH2MHILL

April 8, 2014

Teara Farrow
Cultural Resources Confederated Tribes of the Umatilla, Program Manager
PO Box 638
73239 Confederated Way
Pendleton, Oregon 97801

Dear Ms. Farrow:

Union Pacific Railroad proposes to construct approximately 4.02 miles of second mainline track along their existing Portland Subdivision between approximately MP 66.98 and 72.35 in Wasco County, Oregon. Figure 1 shows the boundaries of the project and the proposed extent of the cultural resources survey area. The proposed Project will include construction of additional track sections, construction of two bridges (at Mosier Creek and Rock Creek), realigning the new siding and the main track in some areas, cutting, filling, grading, and other ground disturbing activities. Additionally, new right-of-way (ROW) will be acquired for the project.

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Attachment

CH2M HILL
2020 South West Fourth Avenue
3rd Floor
Portland, OR 97201
Tel 503.235.5000
Fax 503.736.2000

April 8, 2014

Johnson Meninick
Yakama Indian Nation, Cultural Resource Director
P.O. Box 151
Toppenish, WA 98948

Dear Mr. Meninick:

Union Pacific Railroad proposes to construct approximately 4.02 miles of second mainline track along their existing Portland Subdivision between approximately MP 66.98 and 72.35 in Wasco County, Oregon. Figure 1 shows the boundaries of the project and the proposed extent of the cultural resources survey area. The proposed Project will include construction of additional track sections, construction of two bridges (at Mosier Creek and Rock Creek), realigning the new siding and the main track in some areas, cutting, filling, grading, and other ground disturbing activities. Additionally, new right-of-way (ROW) will be acquired for the project.

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Sincerely,

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Robin McClintock

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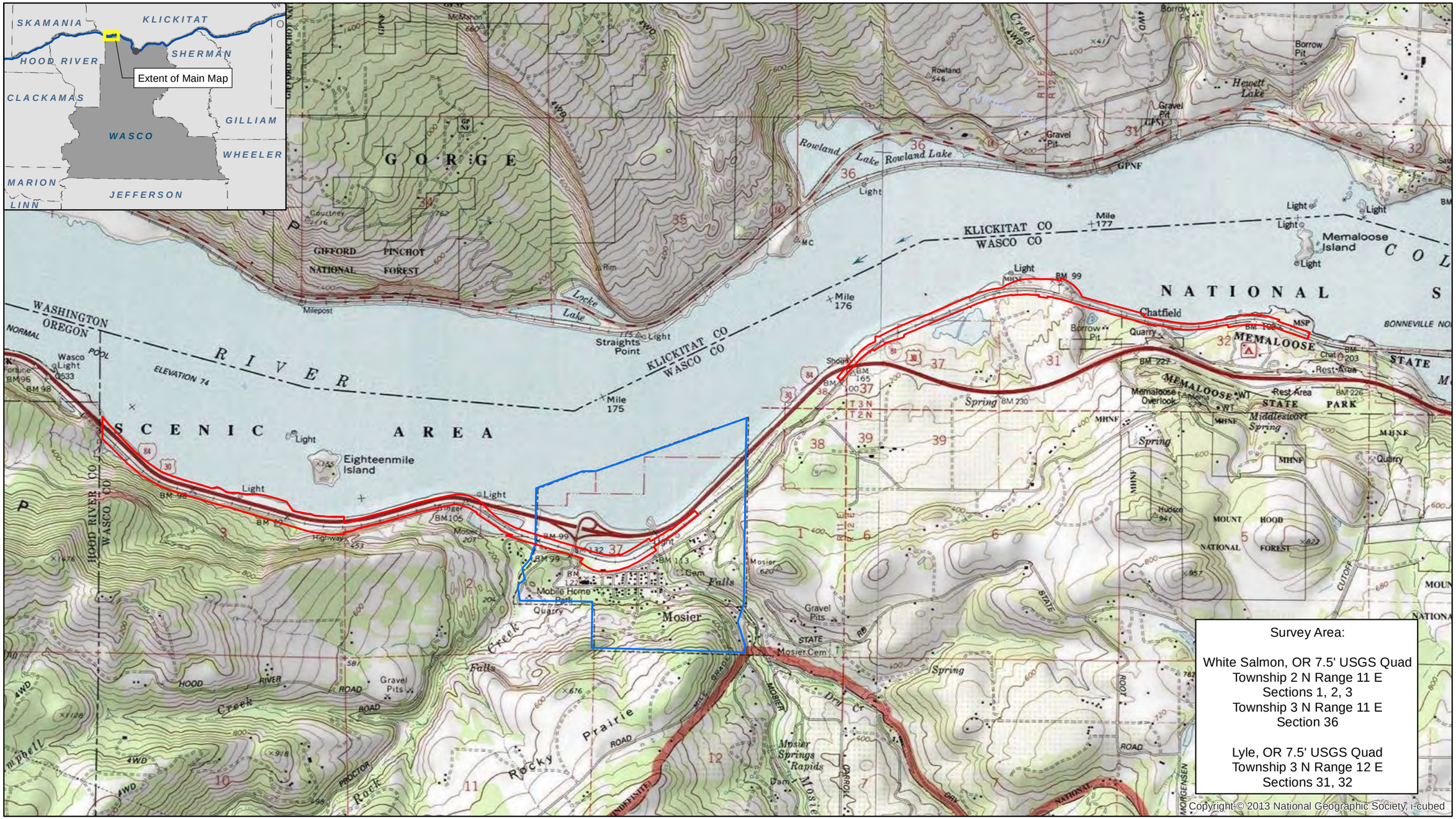
503-736-4236 (office)/503-329-2458 (mobile)
Attachment



Legend

- Survey Area
- Mosier City Limits

0 0.25 0.5 0.75 1 Miles

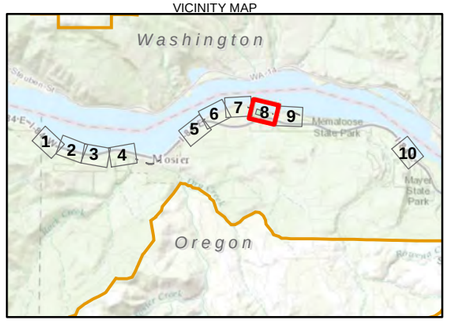
N

FIGURE 1
Area of Potential Effects (APE)
UPRR Second Mainline Track Project
Wasco County, OR

Path: C:\Users\jgolman\ArcGIS\UPRR_Mosier\Cultural\UPRR_Mosier_Fig1_APE_rev1.mxd

Attachment F
Revised Open Space Impact Figure

VICINITY MAP



LEGEND

- Existing Mainline Track
- Proposed Mainline Track
- Proposed Realigned Mainline Track
- Existing UPRR ROW
- Existing Culvert
- Proposed ROW Enhancement
- Proposed Temporary Construction Easement
- Track Mileposts

Project Features

- Signal Building
- Signal Light
- Retaining Wall
- Guardrail
- Staging Areas
- Drainage Structures
- Track Embankment
- Rock Excavations
- Trackside Ditches
- Proposed Construction Access Road
- Proposed Permanent Maintenance/ Construction Access Road
- National Scenic Area Boundary
- Designated Urban Area Boundary
- Memaloose State Park

Sources: Oregon Parks and Recreation Department (2010); Columbia River Gorge Commission (2010; 2013)

N

0 200
Feet

Figure 4-1, Page 8
Project Features
Second Mainline Track Project
Union Pacific Railroad

Attachment G
Emergency Response Procedures

Union Pacific Hazardous Materials Management Group

The Union Pacific Hazardous Materials Management Group (HMM) is made up of experts in hazardous material transportation safety, securement and response. The HMM team understands the risks associated with hazmat shipment by rail are a very real concern. We take our responsibility to ship hazmat, including crude oil and other commodities, very seriously. Providing safe and fuel efficient freight transportation is how Union Pacific is participating in America's energy evolution. We haul products related to the entire energy sector including wind, solar, coal, ethanol and crude oil. Union Pacific is a common carrier and under federal law must haul any freight that a customer delivers that is properly packaged, including crude. We take our responsibility to ship crude oil very seriously. Our goal is the same as our customers and the communities in which we operate, and that is to deliver every tank car safely while at the same time being prepared to respond in the case of an accident.

HMM is part of the Safety department at Union Pacific Railroad. The team's primary focus is the safety of all Union Pacific employees, the residents of communities where we operate trains and our customers. This team of experts has a four part mission:

Prevention - Prevent releases of hazardous materials in transportation
Preparedness - Develop internal and external assets for hazmat education, response and recovery
Response - Respond to incidents to protect health and minimize negative impact
Recovery – Restore normal operations as quickly as possible in the event of an incident

Prevention

Union Pacific's HMM team members regularly inspect tank cars moving on the Union Pacific network. In each inspection, an HMM team member examines fittings, markings, safety appliances, and waybills. Union Pacific's HMM managers annually perform thousands of these inspections. HMM conducts tank car inspection blitz programs throughout the year in which Union Pacific managers, outside contractors, Union Pacific customers and regulators work together to inspect a large number of tank cars in a defined geographic area. Beginning in 2013, high volume crude oil locations were chosen for tank car inspection blitz programs. Ten to 16 blitzes are performed annually across the Union Pacific network.

HMM is responsible for training Union Pacific employees about hazardous materials safety. All U.S. Department of Transportation-defined "hazmat employees" are required to be trained in the safe handling of

hazardous materials. Union Pacific train crews are required to carry a copy of *Instructions for Handling Hazardous Materials*, while operating a train carrying hazmat. This is a reference guide published by HMM.

If Union Pacific inspections identify a shipper with recurring issues, HMM will provide onsite training for proper tank car securement to ensure the shipper is educated in best practices for preparing hazardous materials shipments.

Preparedness

Preparation is critical to an appropriate incident response. HMM develops the Union Pacific *Hazardous Materials Emergency Response Plan* (HMERP), a performance based plan that provides guidance to the individual reporting a release as well as a list of training requirements for those responding to an incident. Each of the 21 operating divisions at Union Pacific undergoes an annual unannounced drill to ensure all aspects of the HMERP are in place and being followed by Union Pacific employees. The requirements, including drills and exercises, for specific plans for large oil storage tanks (Oil Pollution Act 1990 (OPA 90)) are managed by HMM.

Providing no-cost training to public responders is Union Pacific's most substantial preparedness effort. Having cataloged every fire department that may respond to an incident along the Union Pacific network, HMM team members reach out to fire departments on an annual basis to offer training or information to assist fire departments in their preparation for a potential incident. Training consists of classroom and hands-on activities using a specially designed training trailer or training tank car. Trainees learn how to contact the railroad during an emergency, how to read shipping documentation, derailment safety considerations, and what assets the railroad can provide in the event of an incident. HMM performs large scale training events in collaboration with Union Pacific's partners in TransCAER (Transportation Community Awareness and Emergency Response).

Response

The response process used by HMM is designed to be easily incorporated into public response incident command structure. This process requires analyzing the problem, planning the response, implementing the plan and evaluating and adjusting the response as necessary. Union Pacific's Response Management Communication Center (RMCC) is an around the clock security response center where critical call dispatchers manage calls from the public, law enforcement and others who are reporting emergencies and other incidents on Union Pacific's 32,000-mile network. RMCC follows all regulations regarding notification and local, state and federal agencies in the event of an accident and works closely with first responders throughout an incident.

Union Pacific has 30 highly trained hazardous materials responders. We rely on a network of private response contractors who are carefully vetted and audited on an annual basis to ensure a constant state of readiness. Most of these contractors are highly qualified with fire fighting or United States Coast Guard Oil Spill Recovery Organization (OSRO) certifications. OSRO certified contractors have demonstrated expertise and equipment

to handle oil spills on land and water. Contractors have access to the equipment (boats, boom, skimmers, vacuum trucks, storage tanks, heavy equipment) necessary to respond to a hazardous materials incident.

To supplement the response, HMM has air monitoring contractors who can be quickly deployed to provide real time data to public responders. Additionally, HMM can deploy contractors who are subject matter experts in toxicology, industrial hygiene, medicine, nursing and environmental protection. These specialty contractors can work in the communities impacted by an incident and in concert with first responders to ensure a safe response.

HMM invested in response equipment in the form of firefighting trailers, foam caches, air monitoring equipment and specialty tools to ensure resources are readily available.

Recovery

Once an incident has been stabilized, recovery begins. If a tank car has been damaged and cannot travel safely on the railroad, the contents must be transferred to an undamaged car. Union Pacific is the only railroad that owns and operates all of the equipment necessary to transfer any liquid or compressed gas from one tank car to another. Once the tank car is liquid free, HMM will clean and purge the damaged car to ensure it can be safely repaired or dismantled.

Once all hazardous materials have been removed from the incident site, HMM will transition the project to the Union Pacific Site Remediation Group for remediation and closure with regulatory agencies.

The final aspects of recovery include a debriefing with the public responders and an internal post incident analysis. These activities are an invaluable means of improving the group's overall capability to respond to a hazmat-related incident.