**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

# 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 #4

# Wasco County Planning Department

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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 4 of 8


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| Cultural Resources | PC 1 4-1120 |
| Natural Resources | PC 1 4-1131 |
| Wetlands | PC 1 4-1201 |
| Sensitive Wildlife | PC 1 4-1218 |
| Sensitivie Plants | PC 1 4-1230 |
| Recreation Resources | PC 1 4-1236 |
| Treaty Rights | PC 1 4-1299 |
| Comments from Gorge Specific Entities | PC 1 4-1313 |
| Substative Correspondence | PC 1 4-1447 |

PLASAR-15-01-0004 UPRR

# Application Materials

Please Note:

All s*ensitive 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.*

OLSSON ASSOCIATES

# TECHNICAL MEMORANDUM

| | |
|---|---|
| **TO:** | Wasco County Planning Department |
| **CC:** | Steve Cheney, UPRR |
| **FROM:** | Branden Strahm, PE, CFM |
| **RE:** | **UPRR's Mosier 2nd Mainline Track Project – Floodplain Application MP 66.98 to MP 72.35: Portland Subdivision** |
| **DATE:** | 20 May 2016 |
| **PROJECT #:** | 2013-0974 |

This technical memorandum (TM) has been prepared to provide supporting documentation for the floodplain development permit application for UPRR's Mosier 2nd Mainline Track project located in Wasco County, Oregon. More specifically, this TM provides documentation that the proposed project meets the no-rise condition during the 100-year event. 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. The proposed Mosier 2nd Mainline Track parallels the Columbia River along its left floodplain, with flow traversing in a southwesterly direction.

## Project Location

The Mosier 2nd Mainline Track Project is located in rural Wasco County with a section of the project going through the City of Mosier. More specifically, the project is centered at latitude 45° 41" 27" N and longitude 121° 23' 8" W. The track runs generally in an east to west direction through the study area. The area in the immediate vicinity of the project is partially located within a FEMA-designated floodplain, as shown on the Special Flood Hazard Areas (SFHA) for Wasco, Oregon (Community Number 410229 B 01/02, effective date 24, September 1984) and the City of Mosier (Map Number 410234 0001 B, effective date 17 February 1989). Based on the SFHA, the Columbia River is shown as Zone A. The UPRR tracks are parallel to flow along the Columbia River floodplain. The list of drainage structures impacted by the 2nd Mainline are shown below:

| UPRR Mile Post (MP) | Existing | Proposed Replacement Structures | Floodplain |
|---|---|---|---|
| Culvert 68.57 | 1 @ 42-inch CMP | 8-ft Extension of existing CMP | A |
| Bridge 68.88 | 90-ft long, Bridge | Maintain existing and construct a new 90-ft Bridge over Rock Creek | AE |
| Bridge 69.35 | 100-ft long, Bridge | Maintain existing and construct a new 210-ft Bridge over Mosier Creek | A |
| Culvert 70.67 | 1 @ 24-inch CMP | 16-ft Extension of existing CMP | X |
| Culvert 70.93 | 1 @ 36-inch CMP | 12-ft Extension of existing CMP | X |
| Culvert 71.84 | None | 2 @ 60-inch SSPs added for fish passage | A |
| Culvert 71.89 | 1 @ 42-inch CMP | 28-ft Extension of existing CMP | A |

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## Columbia River

Olsson's obtained the most up to date LIDAR data available from the United States Geological Survey National Map Data Server. Cross Section were obtained from the LIDAR data and importing into HEC-RAS (Pre-Project). Proposed track embankment profile were then updated into the exiting LIDAR data to incorporate UPRR's proposed 2nd Mainline Track (Post-Project). To calibrate the model Olsson's also obtained the U.S. Army Corps of Engineers' Hydrologic & River Engineering Section – Bonneville Dam & Reservoir Hydrologic & Hydraulic Analysis report, for the Columbia River System, dated October 1990. The USACE report documents the Columbia River 100-year Water Surface Elevations (WSE). The proposed Mosier 2nd Mainline Track Project is located between River Mile (RM) 173.1 and RM 178.3. For comparison purposes, Table 2 shows the UPRR Mile Post (MP), Columbia River Mile (RM), and the corresponding Pre-Project and Post- Project Columbia River 100-year WSE.

**Table 2: USACE Columbia River 100-year Water Surface Elevations (WSE) in NAVD 1988.**

| UPRR Mile Post (MP) | Columbia River Mile (RM) | Columbia River Pre-Project $WSE_{100}$ (ft) | Columbia River Post-Project $WSE_{100}$ (ft) | $\Delta$ $WSE_{100}$ |
|---|---|---|---|---|
| MP 67.48 | 173.1 | 92.49 | 92.49 | 0.00 |
| MP 68.30 | 174.0 | 92.67 | 92.67 | 0.00 |
| MP 68.90 | 174.6 | 92.83 | 92.83 | 0.00 |
| MP 69.50 | 175.2 | 92.88 | 92.88 | 0.00 |
| MP 70.65 | 176.4 | 93.24 | 93.24 | 0.00 |
| MP 70.90 | 176.6 | 93.34 | 93.34 | 0.00 |
| MP 71.30 | 177.0 | 93.39 | 93.39 | 0.00 |
| MP 71.65 | 177.4 | 93.93 | 93.93 | 0.00 |
| MP 71.95 | 177.7 | 94.02 | 94.02 | 0.00 |
| MP 72.60 | 178.3 | 94.14 | 94.14 | 0.00 |

See attached Sheets 1 - 2, showing topographic work map with the Columbia River HEC-RAS cross sections and the location of the proposed Mosier 2nd Mainline Track project. The fill required for the proposed 2nd Mainline Track does not encroach into the Columbia River channel and is located only in areas where the Columbia River Storage areas are located along the UPRR tracks, thus the amount of fill is negligible. The project was designed such that it minimizes impacts to the Columbia River and meets the no-adverse impact condition during the 100-year runoff event. Additionally, please find attached the proposed Mosier 2nd Mainline Track Plans, and the FEMA Flood Insurance Rate Map (FIRM).

## UPRR Bridge 68.88: Portland Subdivision

Presently, Bridge 68.88 consists of a 3-span, 90-ft long Steel Beam – Open Deck (BM-OD) Bridge. The proposed structure consists of maintaining existing mainline bridge and use 3 @ 30-ft spans of Prestressed Concrete Box Girder bridge, for a total length of 90 feet for the 2nd Mainline immediately upstream. A hydraulic evaluation was performed on the existing and proposed bridges. The 100-year design discharge of 1,705 cfs was taken directly from the published regulatory discharges used in the City of Mosier Flood Insurance Study (FIS) for Rock Creek.

Based on the hydrologic and hydraulic evaluation, the $WSE_{100}$ at the upstream face of the existing bridge was computed to be 94.99 ft (NAVD 1988). It is noted that the lowest low chord elevation of the existing bridge is 99.14 ft, and the lowest base-of-rail elevation is 102.99 ft. The proposed bridge low chord elevation is 99.14, equal to the existing. The corresponding computed $WSE_{100}$ associated with the proposed bridge is 94.98 ft. As such, the proposed bridge results in a 0.01' reduction in WSE, meeting the regulatory no-rise requirement during the 100-year runoff event.

## UPRR Bridge 69.35: Portland Subdivision

Presently, Bridge 69.35 consists of a 1-span, 100-ft long Through Plate Girder – Open Deck (TPG-OD) Bridge with vertical abutments. The proposed structure consists of maintain existing mainline bridge and use 2 @ 30-ft PCB Girder (east), 1 @ 120-ft TPG-BD, and 1 @ 30-ft PCB (west) bridge, for a total length of 210 feet for the 2nd Mainline immediately upstream. A hydraulic evaluation was performed on the existing and proposed bridges. The 100-year design discharge of 9,920 cfs was computed based on the State of Oregon Water Resources Department – Open File Report SW 6-001: *Estimation of Peak Discharges for rural, unregulated streams in Eastern Oregon* for Mosier Creek.

Based on the hydrologic and hydraulic evaluation, the $WSE_{100}$ at the upstream face of the existing bridge was computed to be 94.59 ft (NAVD 1988). It is noted that the lowest low chord elevation of the existing bridge is 100.06 ft, and the lowest base-of-rail elevation is 103.18 ft. The proposed bridge low chord elevation is 98.49. The corresponding computed $WSE_{100}$ associated with the proposed bridge is 94.62 ft. As such, the proposed bridge results in a 0.03' increase in WSE, meeting the regulatory requirements during the 100-year runoff event.

## Summary

In summary, the proposed Mosier 2nd Mainline Track Project which involves widening of the existing track embankment, extension of four culverts, two new bridges and a new culvert at Thompson's Lake meets the no-adverse impact condition during the 100-year runoff event along the Columbia River. In addition the new bridge at MP 68.88 over Rock Creek meets the regulatory no-rise requirement along Rock Creek.

If you have any questions concerning this project, or need additional information, please contact me at (402) 458-5015 or bstrahm@olssonassociates.com, at your earliest convenience. Please refer your future correspondence to **UPRR's Mosier 2nd Mainline Track Project.**

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OLSSON
UNION PACIFIC RAILROAD
CULVERT 67+
CULVERT 68+
CULVERT 69+
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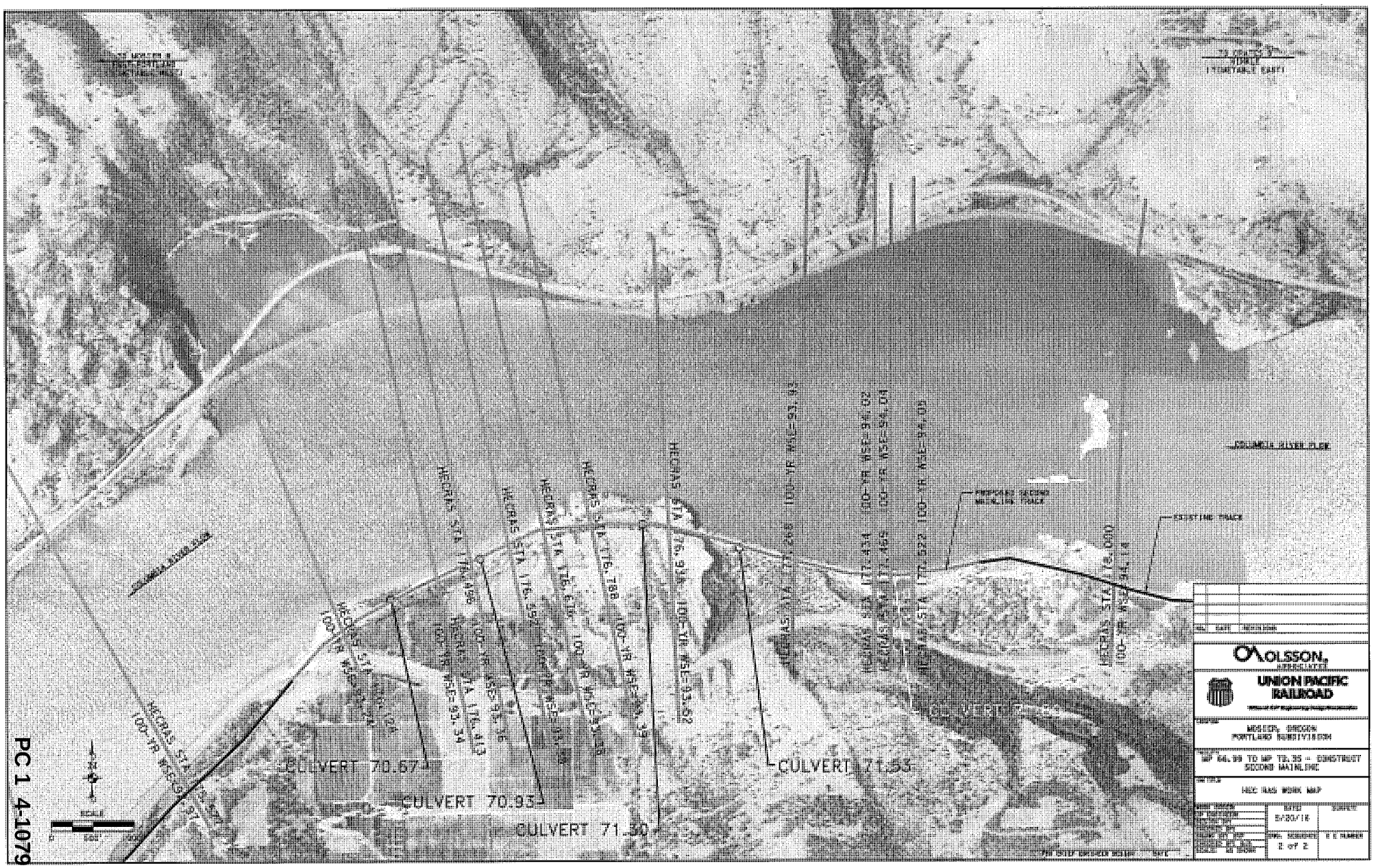

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PROPOSED SECOND MAINLINE TRACK
EXISTING TRACK
COLUMBIA RIVER FLOW
SCALE
OLSSON
UNION PACIFIC RAILROAD
MOSIER, OREGON
PORTLAND SUBDIVISION
HEC RAS WORK MAP
2 OF 2

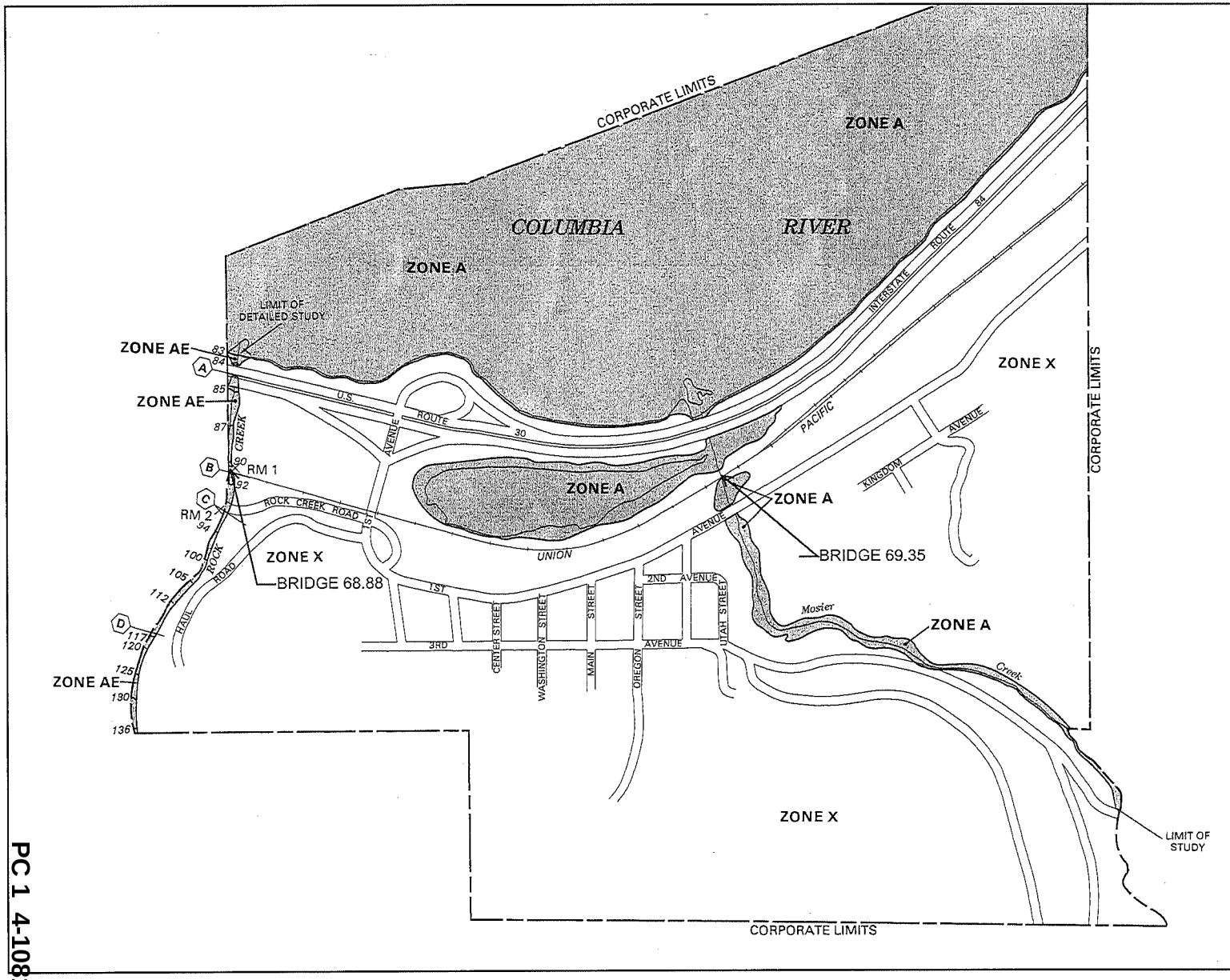

PC 1 4-1079

UPRR Mosier Second Mainline Project




PC 1 4-1080

UPRR Mosier Second Mainline Project




APPROXIMATE SCALE IN FEET
500 0 500

NATIONAL FLOOD INSURANCE PROGRAM

# FIRM
## FLOOD INSURANCE RATE MAP

CITY OF
MOSIER,
OREGON
WASCO COUNTY

ONLY PANEL PRINTED

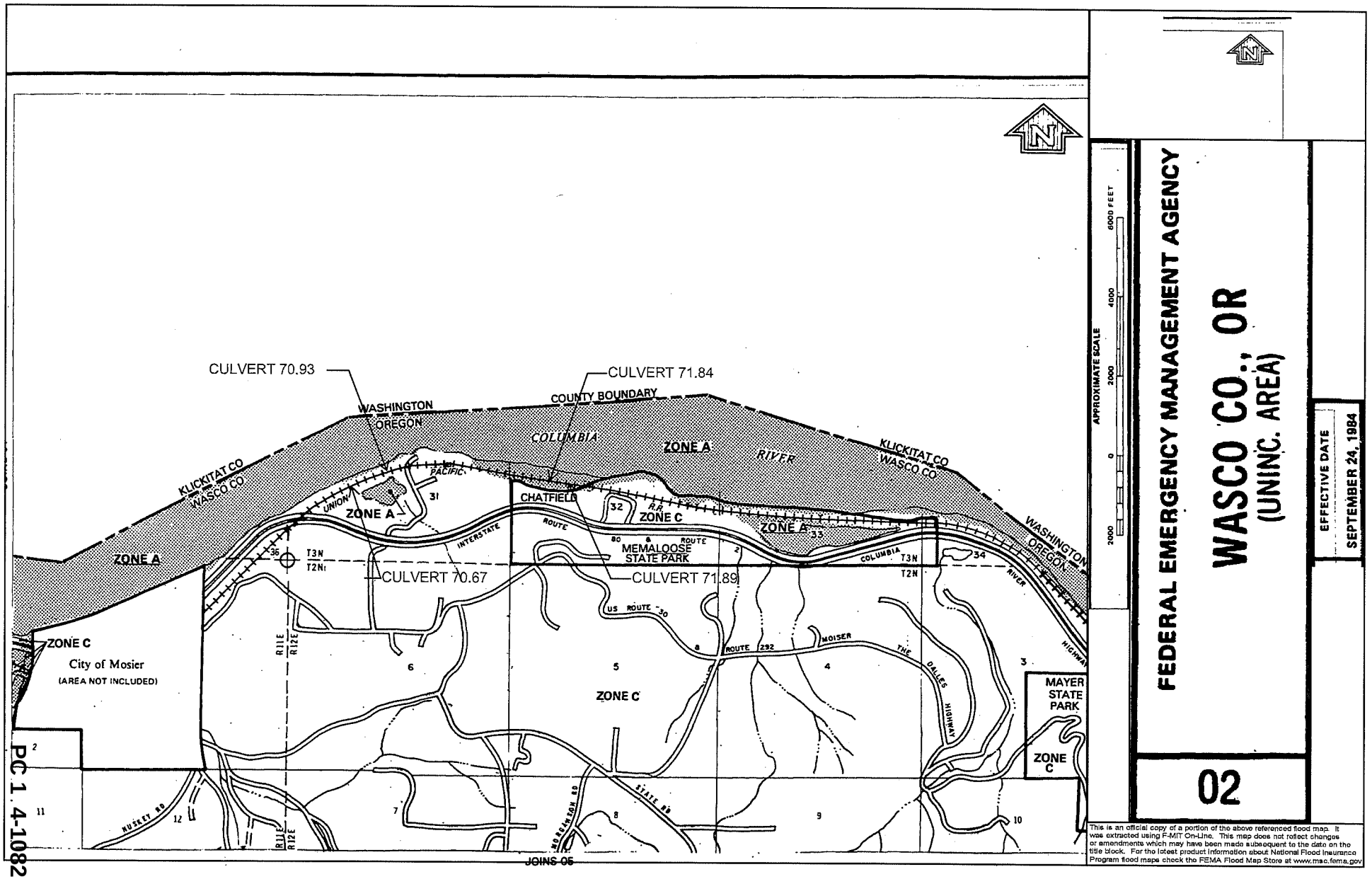
**COMMUNITY-PANEL NUMBER**
410234 0001 B

**EFFECTIVE DATE:**
FEBRUARY 17, 1989

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

PC 1 4-1081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COUNTY BOUNDARY
COLUMBIA
RIVER
ZONE A
KLICKITAT CO
WASCO CO
CHATFIELD
ZONE C
MEMALOOSE STATE PARK
CULVERT 70.67
CULVERT 71.89
ZONE C
City of Mosier
(AREA NOT INCLUDED)
MAYER STATE PARK
ZONE C
JOINS 05
APPROXIMATE SCALE
6000 FEET
4000
2000
0
2000
FEDERAL EMERGENCY MANAGEMENT AGENCY
WASCO CO., OR
(UNINC. AREA)
EFFECTIVE DATE
SEPTEMBER 24, 1984
02
This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

PC 1.4-1082

# ENGINEERING
# DESIGN/CONSTRUCTION

UNION PACIFIC

MOSIER, OREGON
PORTLAND SUBDIVISION
MILE POST 66.98 TO 72.35
CONSTRUCT SECOND MAINLINE

## 90% PLANS

NOT FOR CONSTRUCTION

LAST REVISED
3/16/2015

WORK ORDER: 19099
PROJECT NUMBER: 81791
BUDGET REFERENCE: 12CP460

# ABBREVIATIONS

## MISCELLANEOUS

| | |
|---|---|
| Ac. | Acres |
| Ave. | Avenue |
| Blvd. | Boulevard |
| Bldg. | Building |
| BNSF | BNSF Railway |
| C.Y. | Cubic Yards |
| Conc. | Concrete |
| ° | Degree (s) |
| Dia. | Diameter |
| Dr. | Drive |
| Dwg. | Drawing |
| E | East |
| Elev. | Elevation |
| Exist. | Existing |
| ' | Foot, Feet or Minute (s) |
| F.S. | Finished Surface |
| Horiz. | Horizontal |
| " | Inch, Inches or Second (s) |
| Inv. | Invert |
| Lt. | Left |
| L | Length |
| L.F. | Lineal Feet |
| Max. | Maximum |
| Min. | Minimum |
| N | North |
| NTS | Not to Scale |
| No. | Number |
| OH | Overhead |
| Prop. | Proposed |
| RR | Railroad |
| Rwy | Railway |
| R/W | Right of Way |
| Rt. | Right |
| S | South |
| S.F. | Square Feet |
| Sta. | Station |
| Std. | Standard |
| St. | Street |
| Twp. | Township |
| Typ. | Typical |
| UG | Underground |
| UPRR | Union Pacific Railroad |
| V | Velocity |
| Wt. | Weight |
| W | West |
| X-ing | Crossing |

## SIGNAL

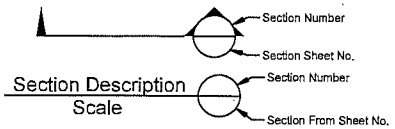
| | |
|---|---|
| ABS | Automatic Block Signal |
| ATC | Automatic Train Control |
| CTC | Centralized Traffic Control |
| DED | Dragging Equipment Detector |
| DTC | Direct Traffic Control |
| ELTO | Electric Lock Turnout |
| HBD | Hot Box Detector |
| HTTO | Hand Throw Turnout |
| HWD | High Wide Dectector |
| POTO | Power Operated Turnout |
| TWC | Track Warrant Control |
| WILD | Wheel Impact Load Dectector |

## STRUCTURES

| | |
|---|---|
| Bldg. | Building |
| Br. | Bridge |
| CB | Catch Basin |
| CPT | Concrete Pile Trestle - Ballast Deck |
| CIP | Cast Iron Pipe |
| CMP | Corrugated Metal Pipe |
| CMPA | Corrugated Metal Pipe Arch |
| CSP | Corrugated Steel Pipe |
| Culv. | Culvert |
| DI | Drop Inlet |
| DPGBD | Deck Plate Girder - Ballast Deck |
| DPGOD | Deck Plate Girder - Open Deck |
| EBW | East Backwall |
| F.L. | Flowline |
| F.F. | Finished Floor |
| GIP | Galvanized Iron Pipe |
| Hdwl | Headwall |
| NBW | North Backwall |
| PSCT | Prestressed Concrete Trestle |
| RCA | Reinforced Concrete Arch |
| RCB | Reinforced Concrete Box |
| RCP | Reinforced Concrete Pipe |
| SBW | South Backwall |
| SSP | Smooth Steel Pipe |
| SPTBD | Steel Pile Trestle - Ballast Deck |
| SPTOD | Steel Pile Trestle - Open Deck |
| SPP | Structural Plate Pipe |
| TPGBD | Through Plate Girder - Ballast Deck |
| TPGOD | Through Plate Girder - Open Deck |
| TPTBD | Timber Pile Trestle - Ballast Deck |
| TPTOD | Timber Pile Trestle - Open Deck |
| TTBD | Through Truss - Ballast Deck |
| TTOD | Through Truss - Open Deck |
| TWB | Treated Wood Box |
| VCP | Vitrified Clay Pipe |
| Viad. | Viaduct |
| WBW | West Backwall |
| WIP | Wrought Iron Pipe |

## TRACK

| | |
|---|---|
| ATR | Above Top of Rail |
| Align. | Alignment |
| BBR | Below Base of Rail |
| Cntrs. | Centers |
| CWR | Continuous Welded Rail |
| DSPD | Double Switch Point Derail |
| EOT | End of Track |
| HH | Head Hardened |
| Jtd. | Jointed Rail |
| LH | Left Hand |
| ML | Main Line |
| MM | Mile Marker |
| MP | Mile Post |
| NSC | Not Sufficient Clearance |
| OTM | Other Track Material |
| PCC | Point of Compound Curve |
| PC | Point of Curve |
| PCS | Point of Curve to Spiral |
| POC | Point on Curve |
| PF | 1/2° Point of Frog |
| PI | Point of Intersection |
| PITO | Point of Intersection of Turnout |
| PS | Point of Spiral |
| PSC | Point of Spiral to Curve |
| POS | Point on Spiral |
| PT | Point of Tangent |
| POT | Point on Tangent |
| Pt. Sw. | Point of Switch |
| PVC | Point of Vertical Curve |
| PVI | Point of Vertical Intersection |
| PVT | Point of Vertical Tangent |
| RH | Right Hand |
| SH | Second Hand |
| SSPD | Single Switch Point Derail |
| TC | Track Centers |
| T.F. | Track Feet |
| Trk. | Track |
| UXO | Universal Cross-Over |
| X-Over | Cross-Over |




## UTILITIES

- Compressed Air
- Fiber Optic Cable
- Gas Pipeline
- Overhead Power Line
- Sanitary Sewer
- Overhead Signal Line
- Underground Signal Line
- Steam Line
- Storm Sewer
- Telephone
- Underground Electric
- Water Main
- Underground Wire
- Under Drain
- Valve
- Manhole
- Catch Basin
- Fire Hydrant
- Junction Box
- Electric Meter
- Gas Meter
- Water Meter
- Monitoring Well
- Pump

## TRACK

- Existing Mainline
- Existing Siding or Spur
- Proposed
- Remove
- Shift
- Relay
- Future
- Foreign Railroad or Industry
- In Buildings or Under Structures
- Turnout
- Wheel Stop
- Bumping Post
- Earthen Bumper
- Inert Retarder
- Dowty Retarder
- Derail
- Switch Point Derail or Double Switch Point Derail

## PROPERTY

- Section Line
- Center Section Line
- Parcel or Easement Line
- Right of Way
- Former Right of Way
- Right of Way to be Acquired
- Foreign Right of Way
- Temp. Const. Easement

# SYMBOLS

## ROAD CROSSING WARNING DEVICES

- Crossbuck Sign
- Flashing Light Warning Device
- Flashing Light Warning Device with Gate
- Cantilever Flashing Light Warning Device
- Cantilever Flashing Light Signal with Gate

## SIGNAL

- Absolute Signal
- Signal Bridge
- Cantilever Signal
- ACS or CTC Signal
- Dwarf Signal
- Begin CTC
- Microwave Tower
- AEI
- Battery Box
- Dragging Equipment Detector
- Generator
- Hot Box Detector

## STRUCTURES

- Culvert
- Culvert with Headwalls
- Double Culvert
- Railroad Bridge
- Highway Overpass
- Highway Underpass
- Tunnel
- Building
- Flag Pole

## LIGHTING

- Light Pole
- Light Tower

## SIGNS

- Stop
- Yard Limit
- 1 Mile to Yard Limit
- Whistle Post
- Flanger
- Station
- Reduce Speed
- Resume Speed
- General Purpose

## FENCES

- Barbed Wire
- Chain Link
- Snow / Sand
- Cattle Guard

## ROADS

- Paved Road
- Unimproved Road
- Interstate Highway
- Federal Highway
- State Highway
- County Highway

## OTHER

- Wetlands
- River or Lake
- Ordinary High Water Mark
- Embankment
- Flow Line
- Milepost
- Milemarker
- Control Point
- Revision Number
- Revision Cloud

## CONSTRUCTION

- Note (Work by Contractor)
- Note (Work by Others)
- Cut Lines
- Fill Lines

OLSSON ASSOCIATES

| | |
|---|---|
| DRAWN BY: | BWG |
| CHECKED BY: | RCK |
| DATE: | 3/16/2015 |
| SHEET NUMBER | G004 of 005 |

**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:
ABBREVIATIONS & LEGEND

PSC 1411884

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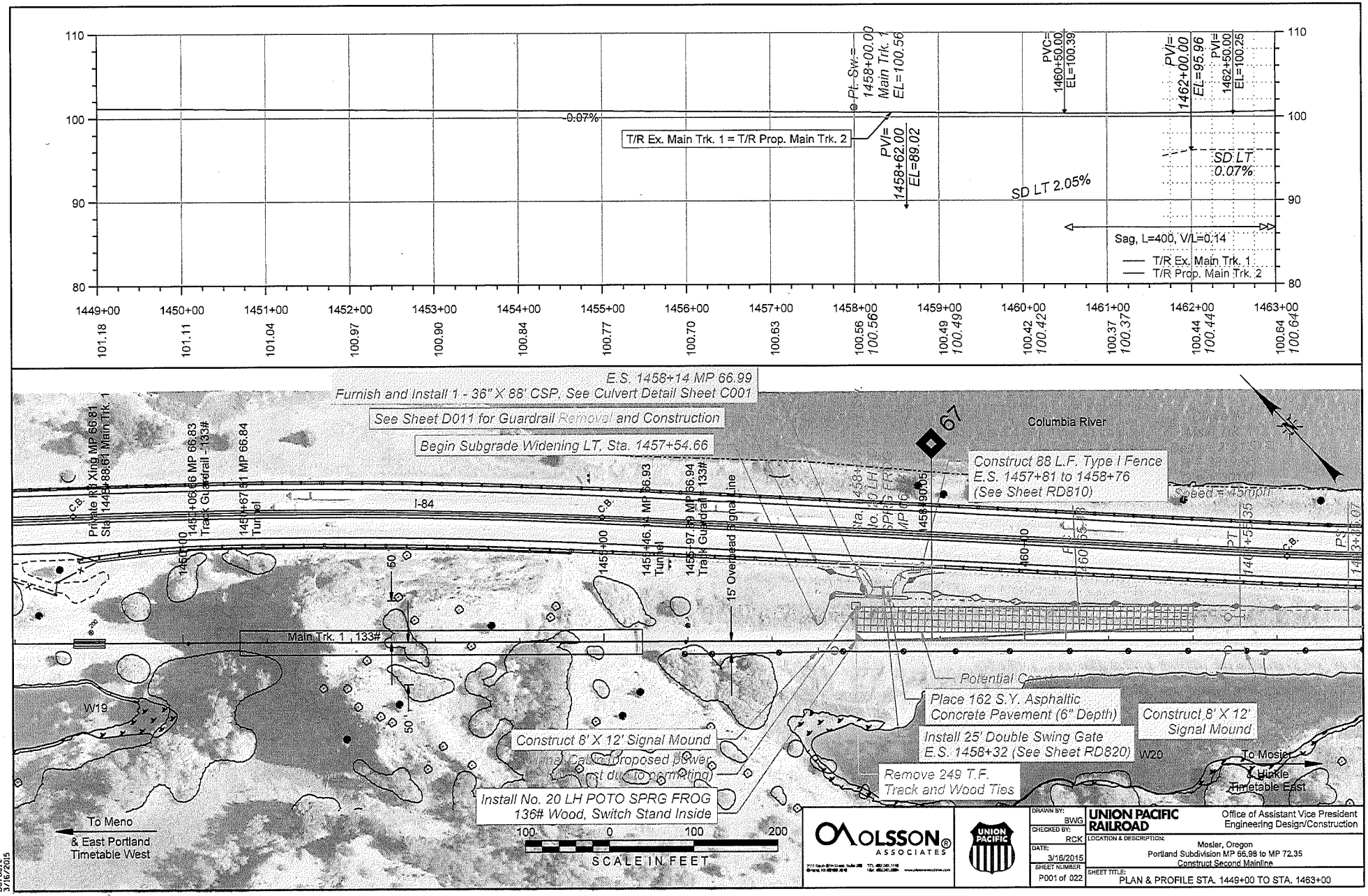

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-0.07%
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PVI= 1458+62.00 EL=89.02
PVC= 1460+50.00 EL=100.39
PVI= 1462+00.00 EL=95.96
PVI= 1462+50.00 EL=100.25
SD LT 2.05%
SD LT 0.07%
Sag, L=400, V/L=0.14
T/R Ex. Main Trk. 1
T/R Prop. Main Trk. 2
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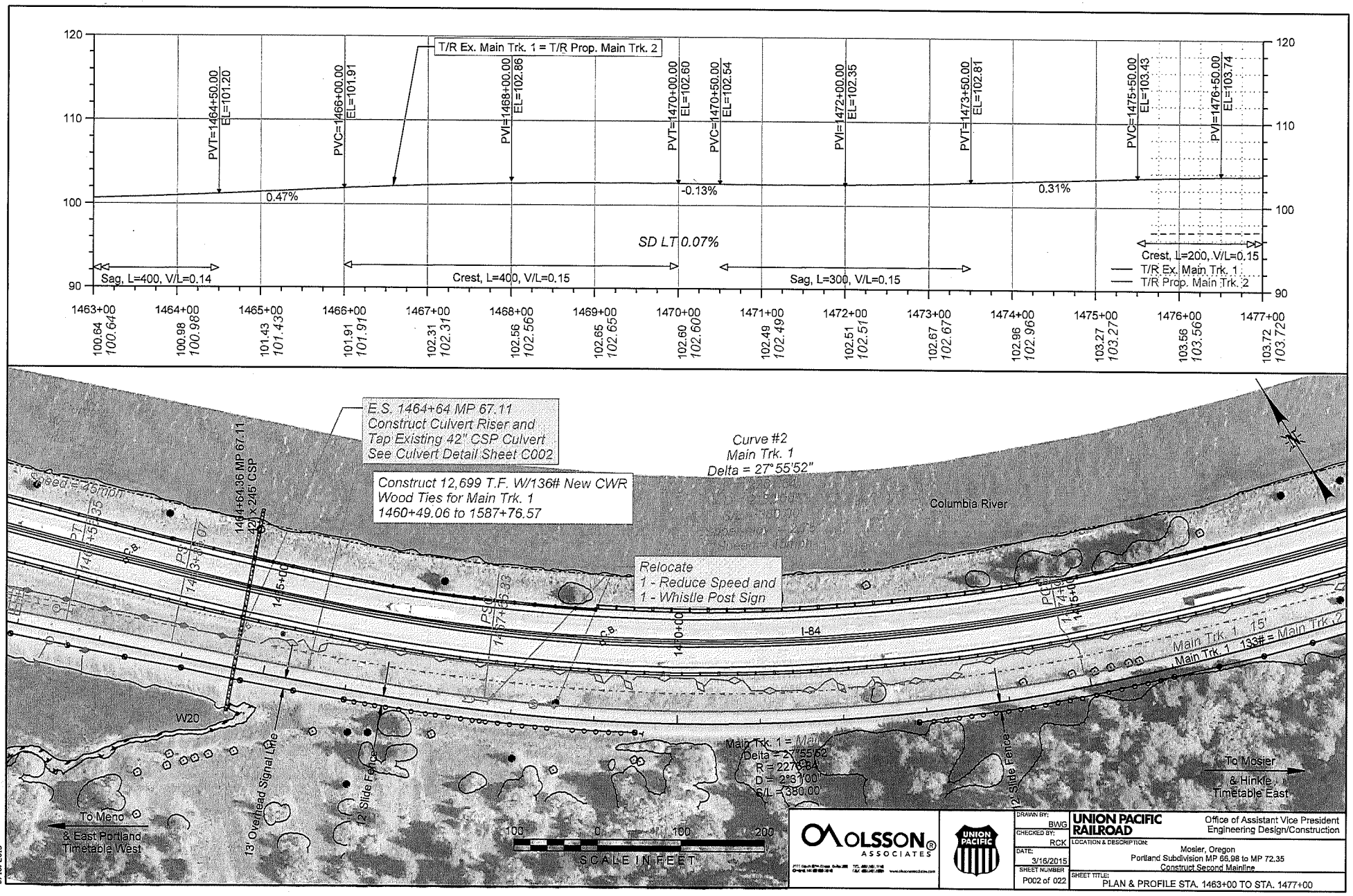
1450+00 101.11
1451+00 101.04
1452+00 100.97
1453+00 100.90
1454+00 100.84
1455+00 100.77
1456+00 100.70
1457+00 100.63
1458+00 100.56 100.56
1459+00 100.49 100.49
1460+00 100.42 100.42
1461+00 100.37 100.37
1462+00 100.44 100.44
1463+00 100.64 100.64
E.S. 1458+14 MP 66.99
Furnish and Install 1 - 36" X 88' CSP, See Culvert Detail Sheet C001
See Sheet D011 for Guardrail Removal and Construction
Begin Subgrade Widening LT, Sta. 1457+54.66
67
Columbia River
Construct 88 L.F. Type I Fence
E.S. 1457+81 to 1458+76
(See Sheet RD810)
Speed = 45mph
I-84
Main Trk. 1 , 133#
15' Overhead Signal Line
Potential Construction
Place 162 S.Y. Asphaltic Concrete Pavement (6" Depth)
Construct 8' X 12' Signal Mound
Install 25' Double Swing Gate
E.S. 1458+32 (See Sheet RD820)
Remove 249 T.F. Track and Wood Ties
Construct 8' X 12' Signal Mound
Install No. 20 LH POTO SPRG FROG
136# Wood, Switch Stand Inside
W19
W20
To Mosier & Hinkle Timetable East
To Meno & East Portland Timetable West
100 0 100 200
SCALE IN FEET
OLSSON ASSOCIATES
UNION PACIFIC
DRAWN BY: BWG
CHECKED BY: RCK
DATE: 3/16/2015
SHEET NUMBER P001 of 022
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: PLAN & PROFILE STA. 1449+00 TO STA. 1463+00


Exh. 1.4108

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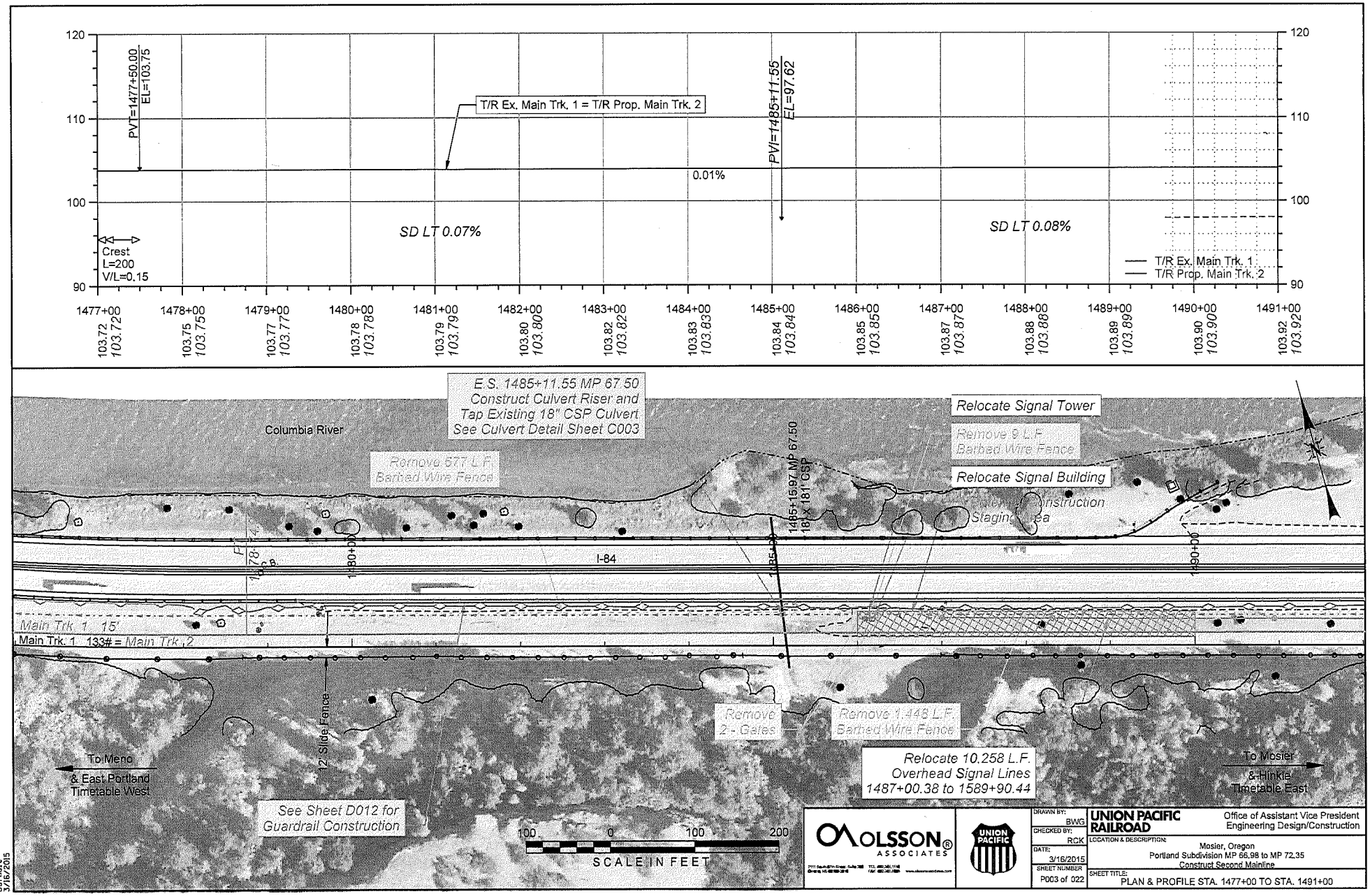
3/16/2015

PG 1-41086

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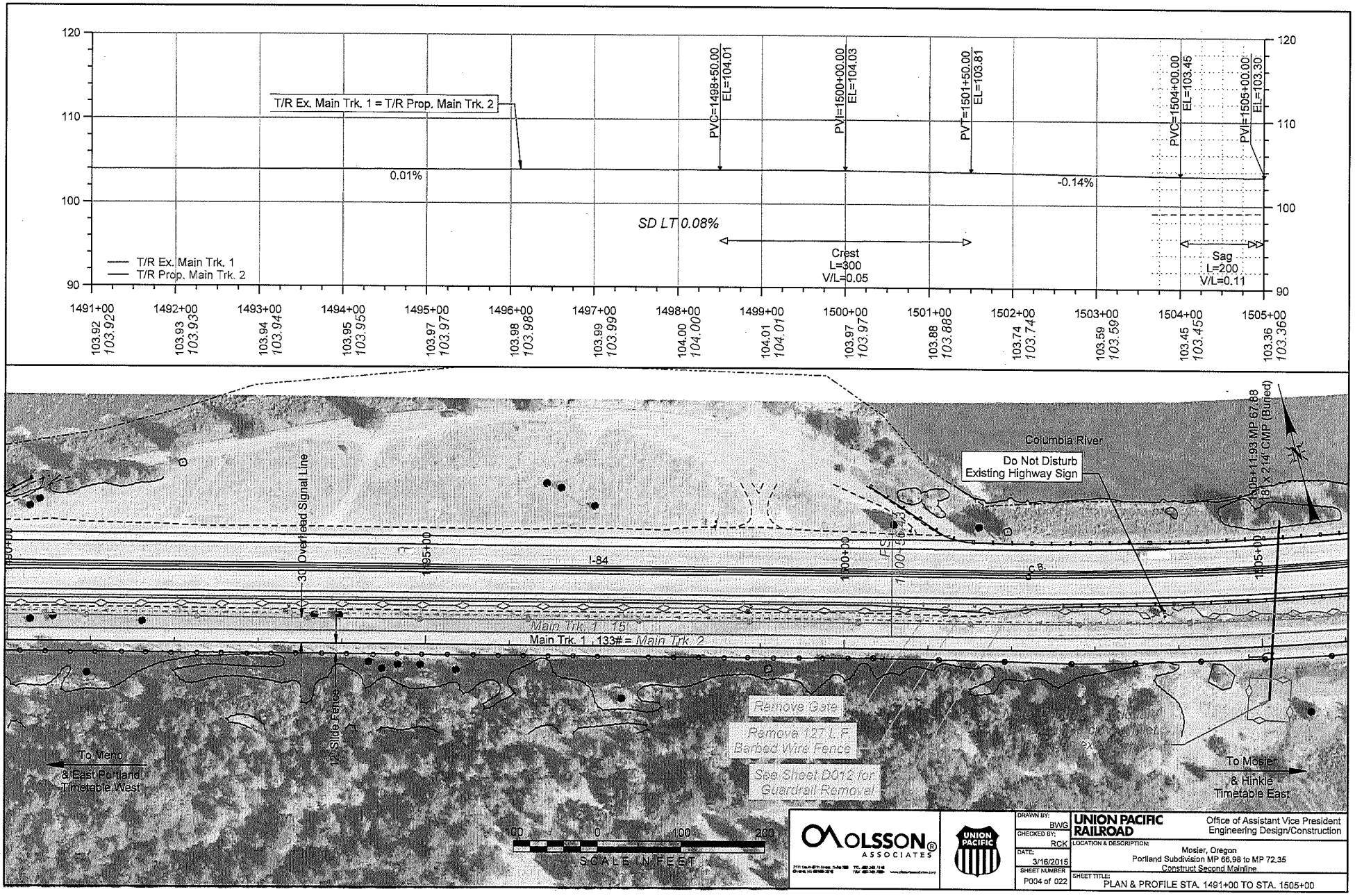
Date: 3/16/2015




PG 1 4 1088

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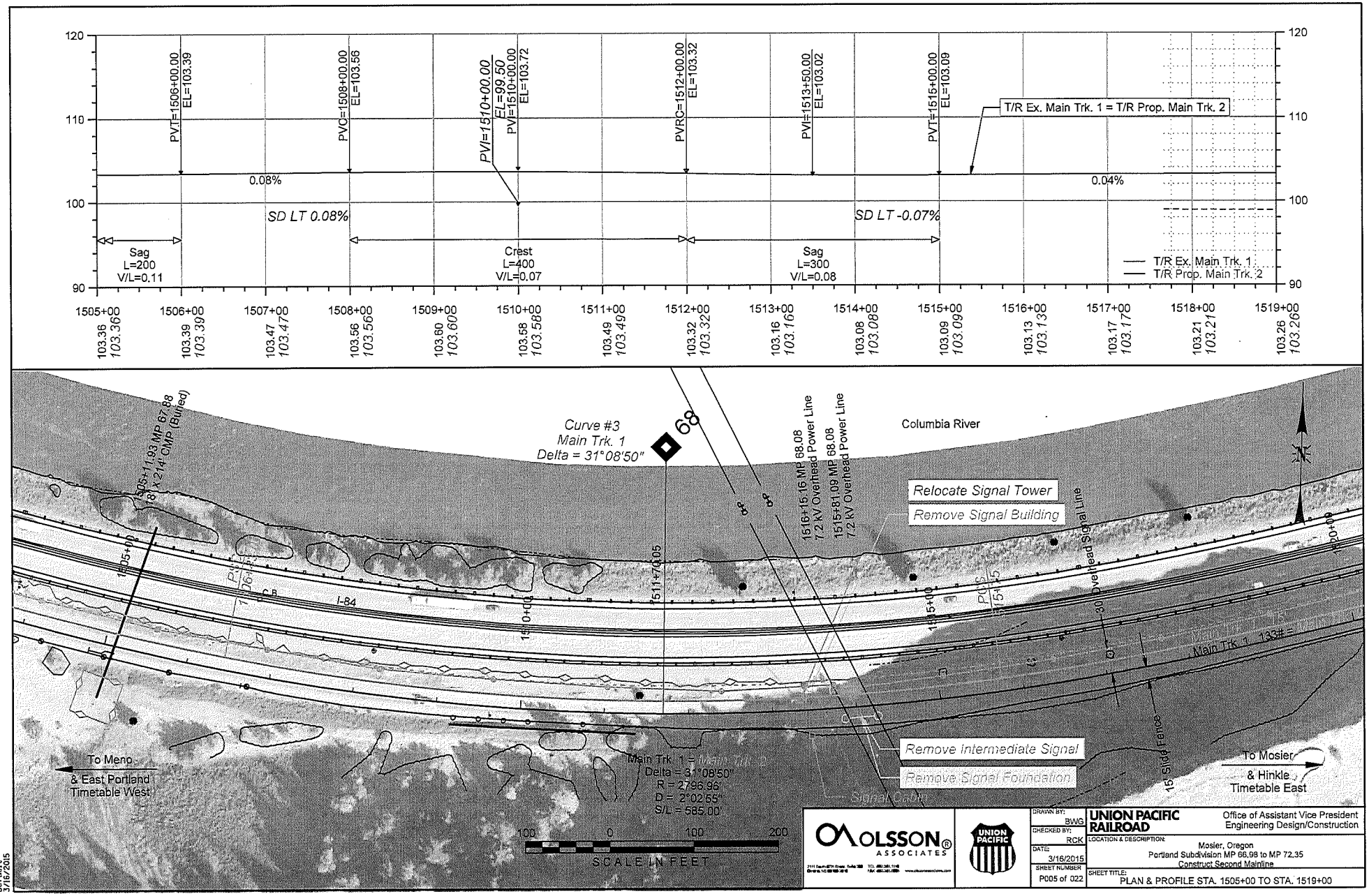
3/16/2015

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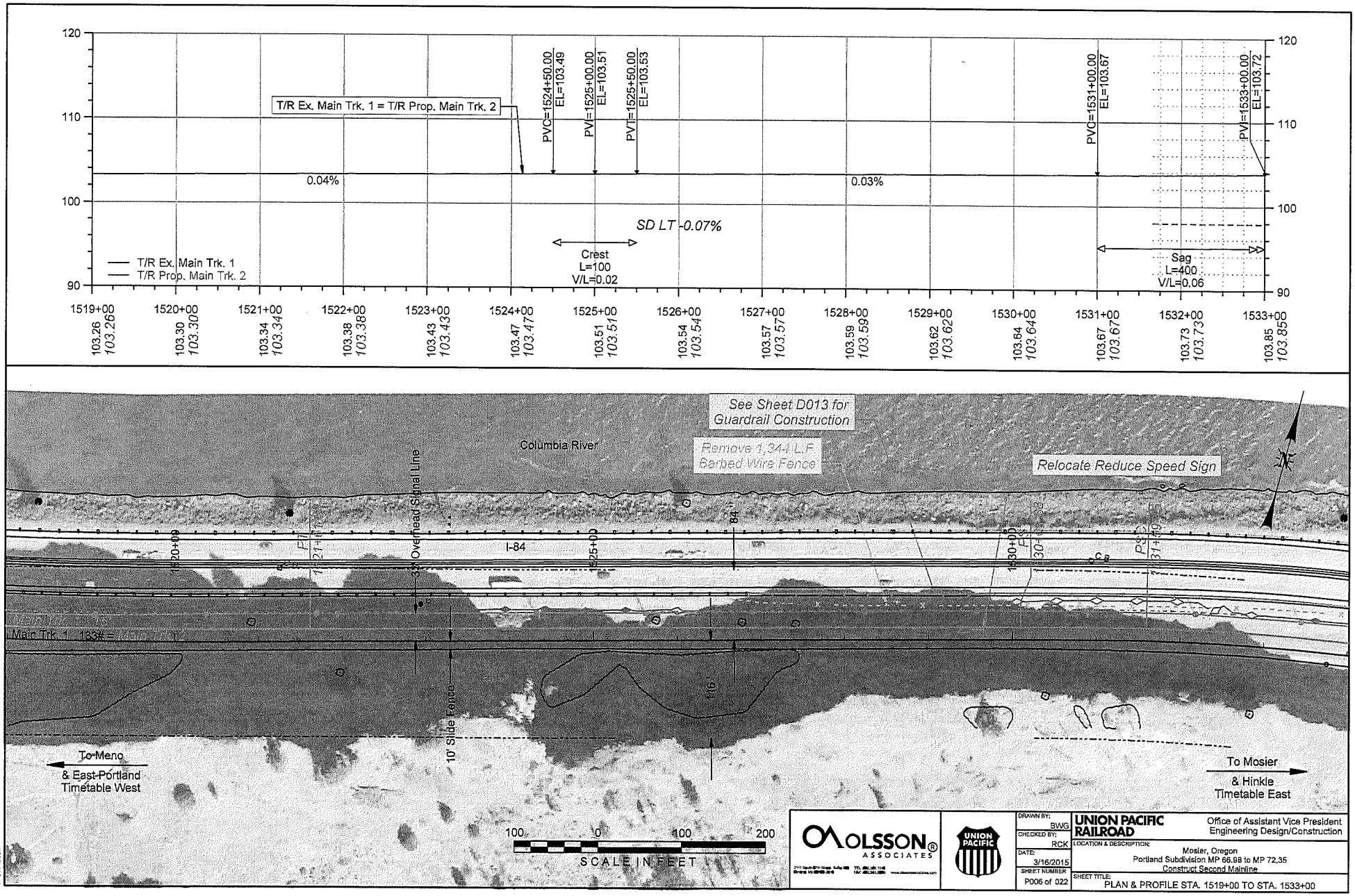
Default
3/16/2015

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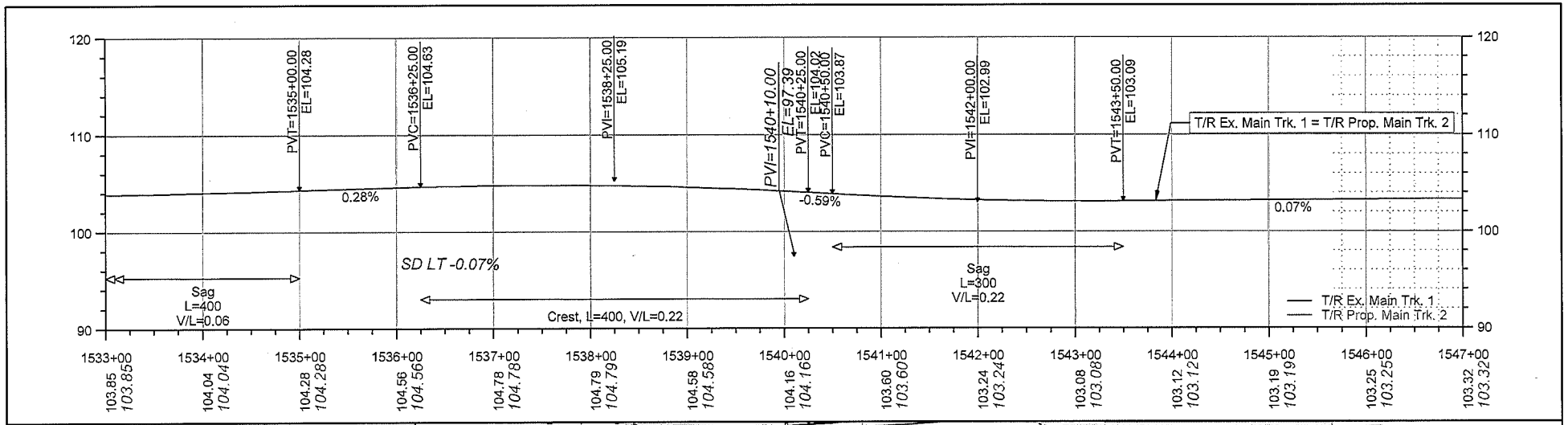
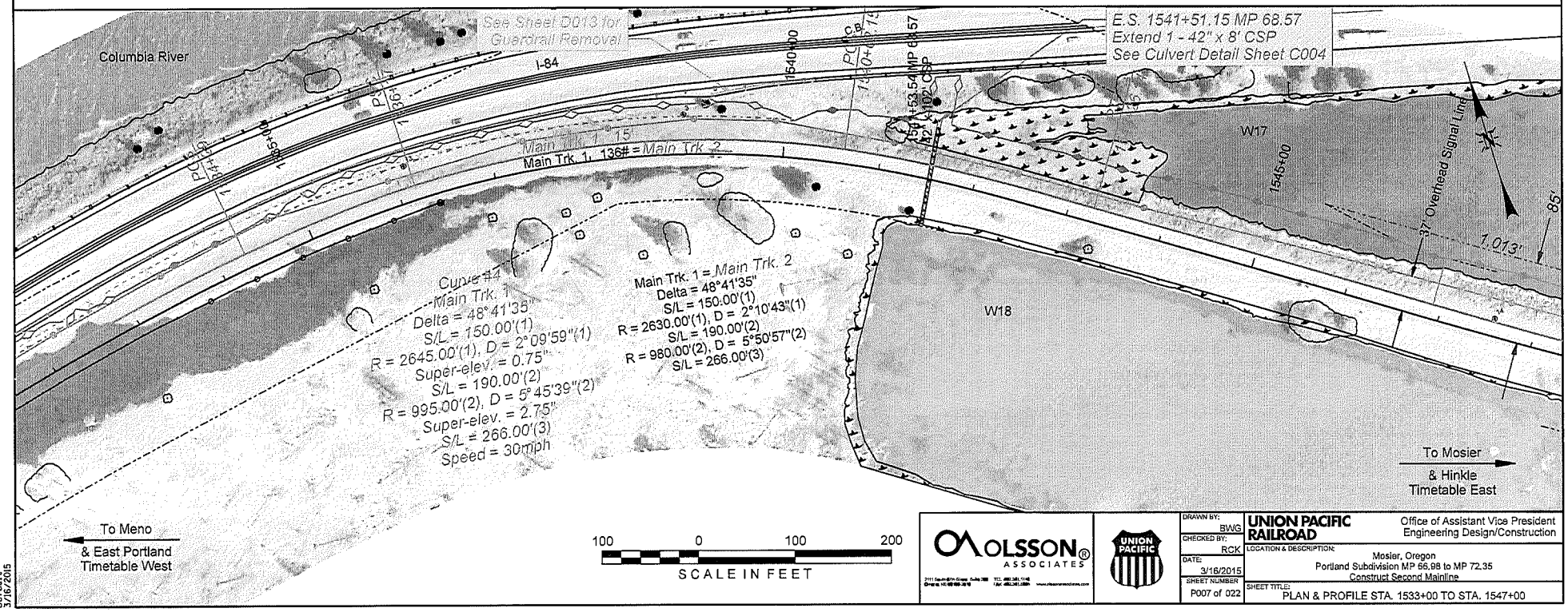
3/16/2015

PC 1 4 1090




OLSSON ASSOCIATES

UNION PACIFIC

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|---|---|
| DRAWN BY: | BWG |
| CHECKED BY: | RCK |
| DATE: | 3/16/2015 |
| SHEET NUMBER | P007 of 022 |

**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:
PLAN & PROFILE STA. 1533+00 TO STA. 1547+00

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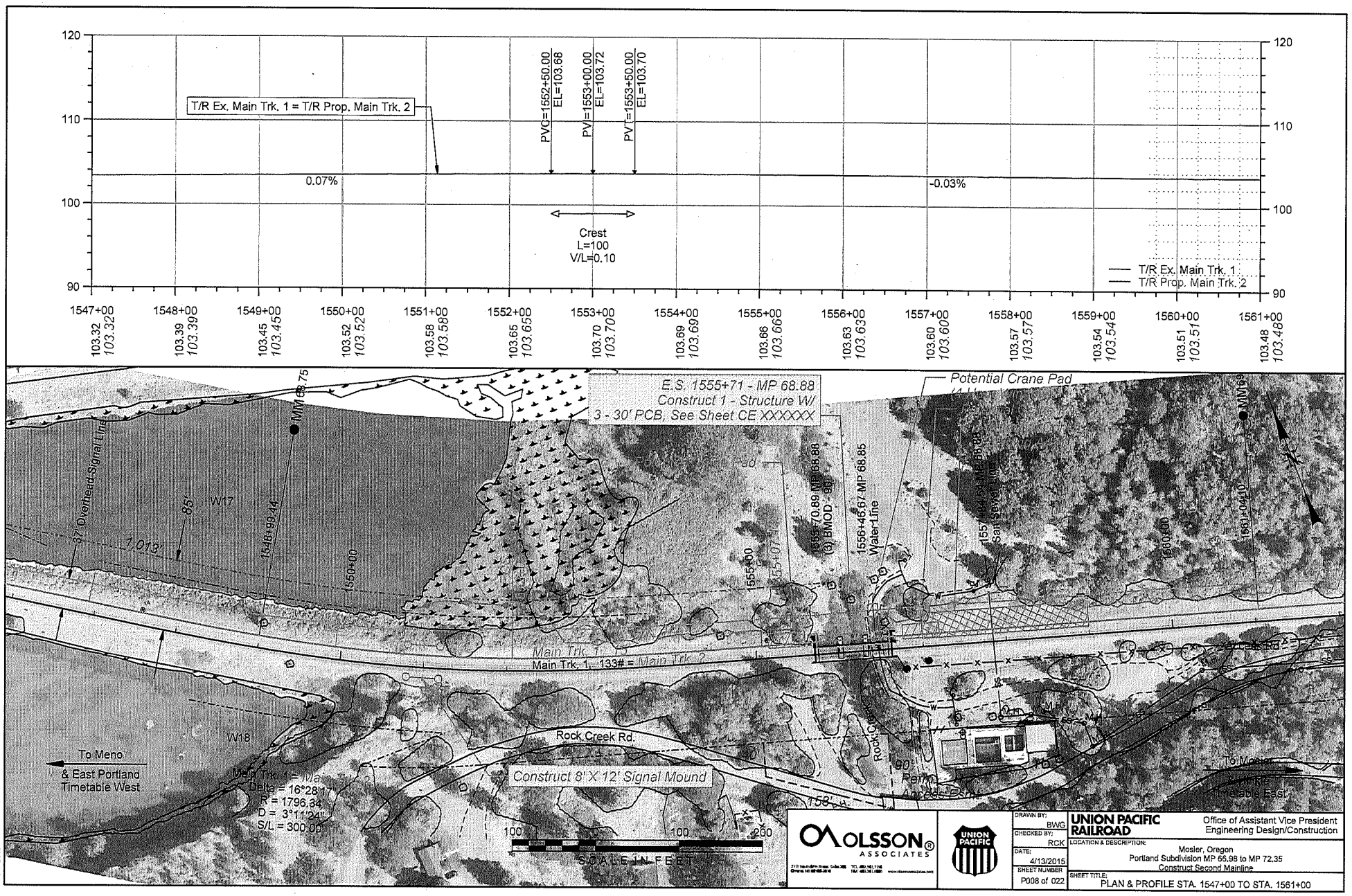
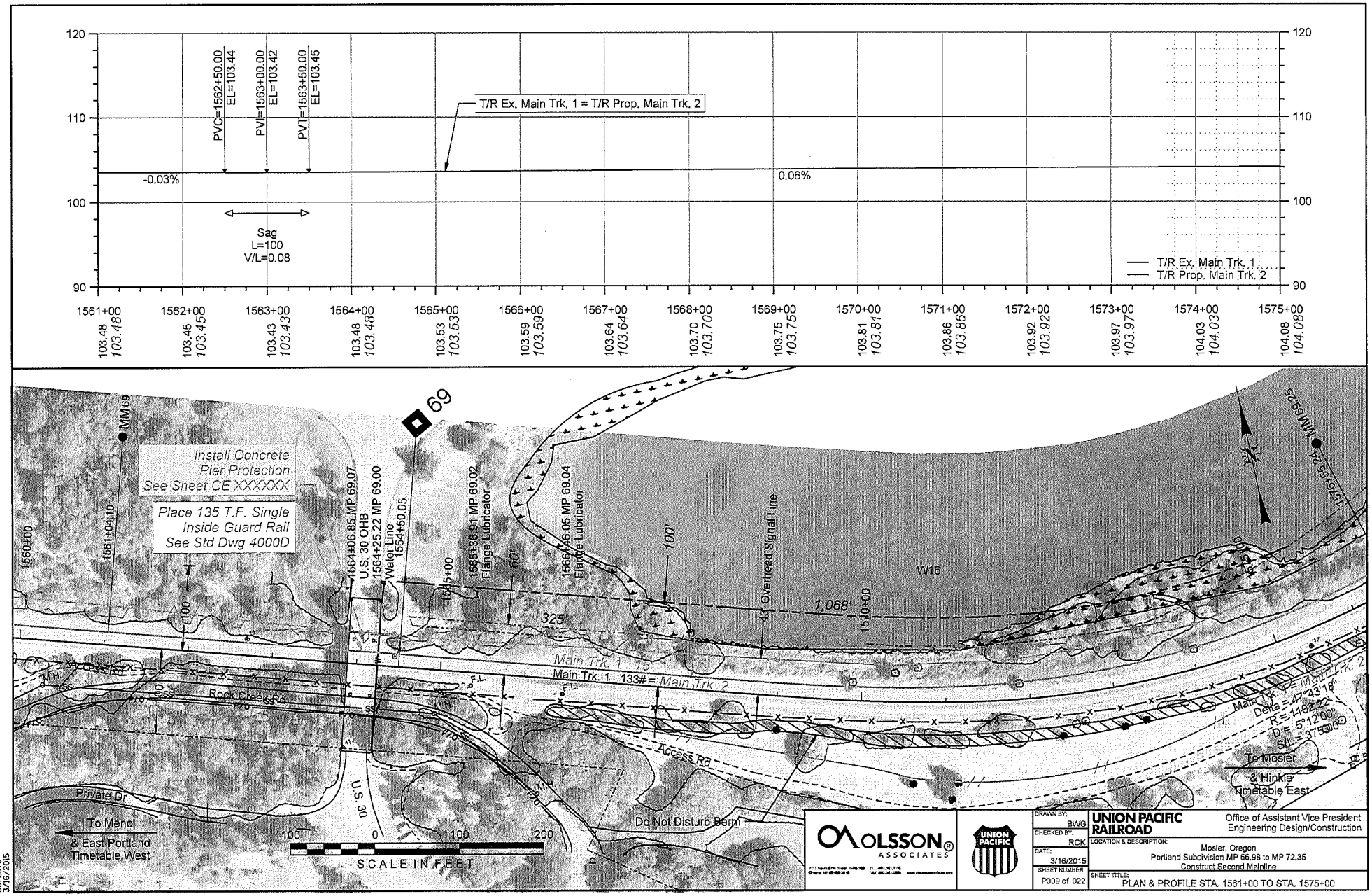
Date: 3/16/2015



T/R Ex. Main Trk. 1 = T/R Prop. Main Trk. 2
PVC=1552+50.00 EL=103.68
PVI=1553+00.00 EL=103.72
PVT=1553+50.00 EL=103.70
0.07%
-0.03%
Crest
L=100
V/L=0.10
T/R Ex. Main Trk. 1
T/R Prop. Main Trk. 2
1547+00 103.32 103.32
1548+00 103.39 103.39
1549+00 103.45 103.45
1550+00 103.52 103.52
1551+00 103.58 103.58
1552+00 103.65 103.65
1553+00 103.70 103.70
1554+00 103.69 103.69
1555+00 103.66 103.66
1556+00 103.63 103.63
1557+00 103.60 103.60
1558+00 103.57 103.57
1559+00 103.54 103.54
1560+00 103.51 103.51
1561+00 103.48 103.48
E.S. 1555+71 - MP 68.88
Construct 1 - Structure W/
3 - 30' PCB, See Sheet CE XXXXXX
Potential Crane Pad
37' Overhead Signal Line
W17
W18
1,013'
85'
1548+99.44
1550+00
1555+00
1555+70.89 MP 68.88
(3) BMOD - 90'
1556+46.67 MP 68.85
Water Line
Main Trk. 1
Main Trk. 1, 133# = Main Trk. 2
Rock Creek Rd.
Construct 8' X 12' Signal Mound
To Meno
& East Portland
Timetable West
Delta = 16°28'17"
R = 1796.34'
D = 3°11'24"
S/L = 300.00'
To Mosier
& Hinkle
Timetable East
SCALE IN FEET
OLSSON ASSOCIATES
UNION PACIFIC
DRAWN BY: BWG
CHECKED BY: RCK
DATE: 4/13/2015
SHEET NUMBER P008 of 022
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:
PLAN & PROFILE STA. 1547+00 TO STA. 1561+00


PC 1.4 1092

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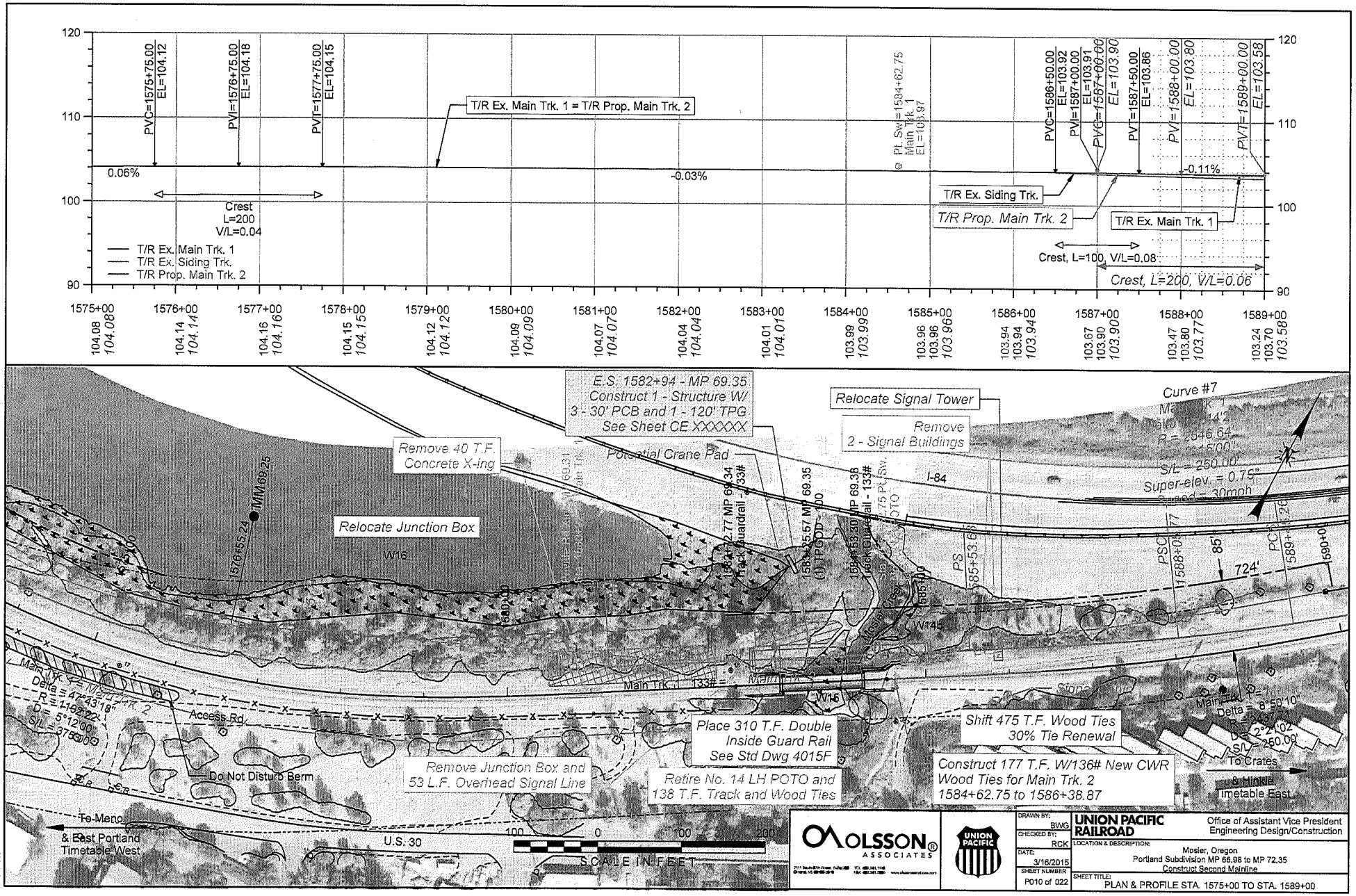
Date: 3/16/2015




OLSSON ASSOCIATES

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|---|---|
| DRAWN BY: | BWG |
| CHECKED BY: | RGK |
| DATE: | 3/16/2015 |
| SHEET NUMBER | P010 of 022 |

**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:
PLAN & PROFILE STA. 1575+00 TO STA. 1589+00

PC 1411994

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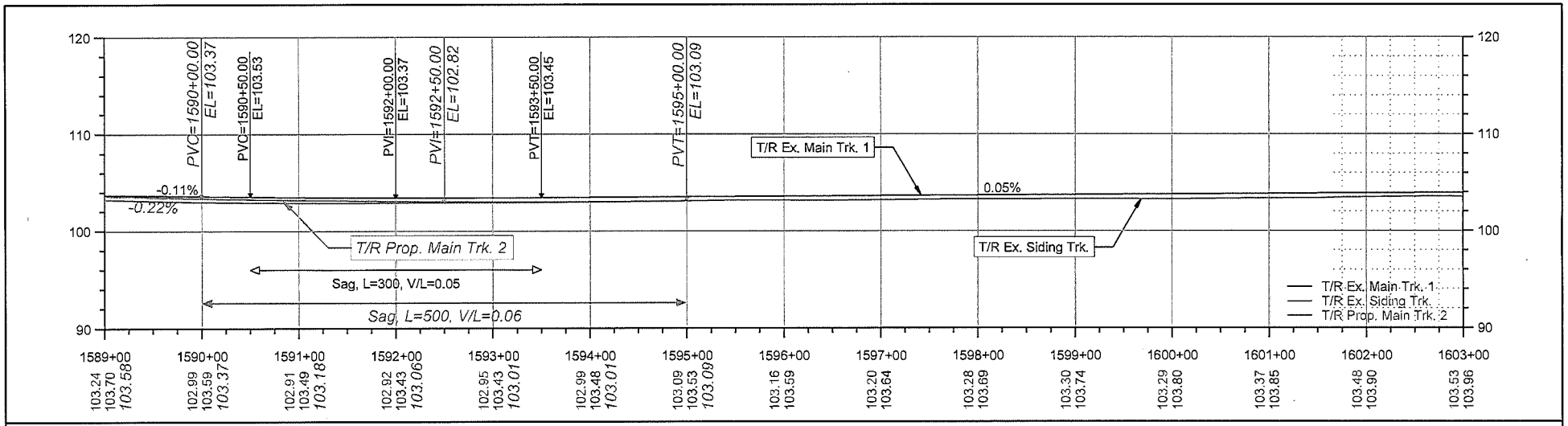
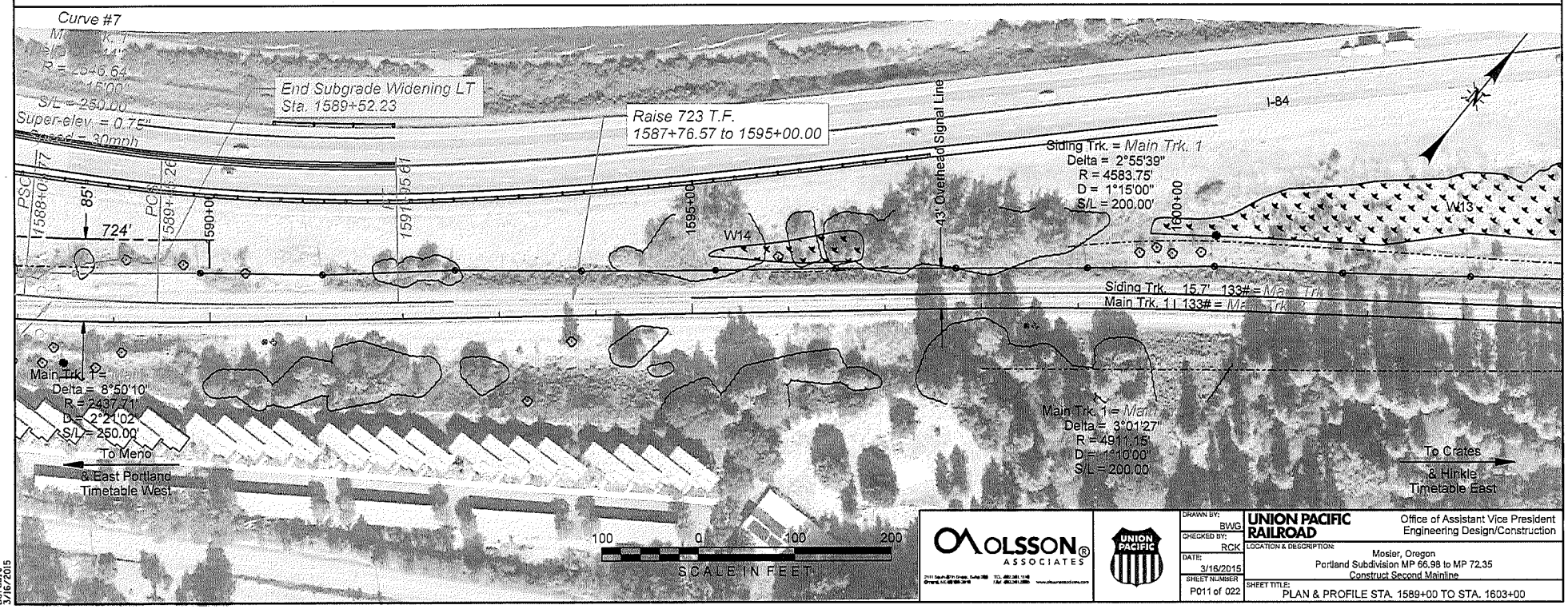
3/16/2015




OLSSON ASSOCIATES

UNION PACIFIC RAILROAD

Office of Assistant Vice President
Engineering Design/Construction

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|---|---|
| DRAWN BY: | BWG |
| CHECKED BY: | RCK |
| DATE: | 3/16/2015 |
| SHEET NUMBER | P011 of 022 |

LOCATION & DESCRIPTION:
Mosier, Oregon
Portland Subdivision MP 66.98 to MP 72.35
Construct Second Mainline

SHEET TITLE:
PLAN & PROFILE STA. 1589+00 TO STA. 1603+00

P011

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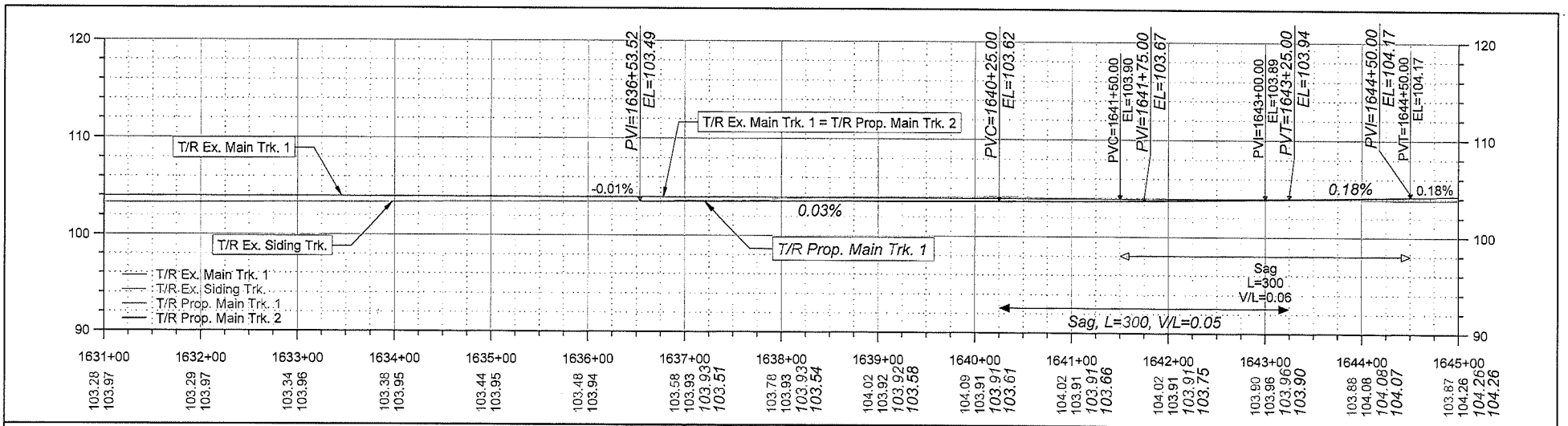


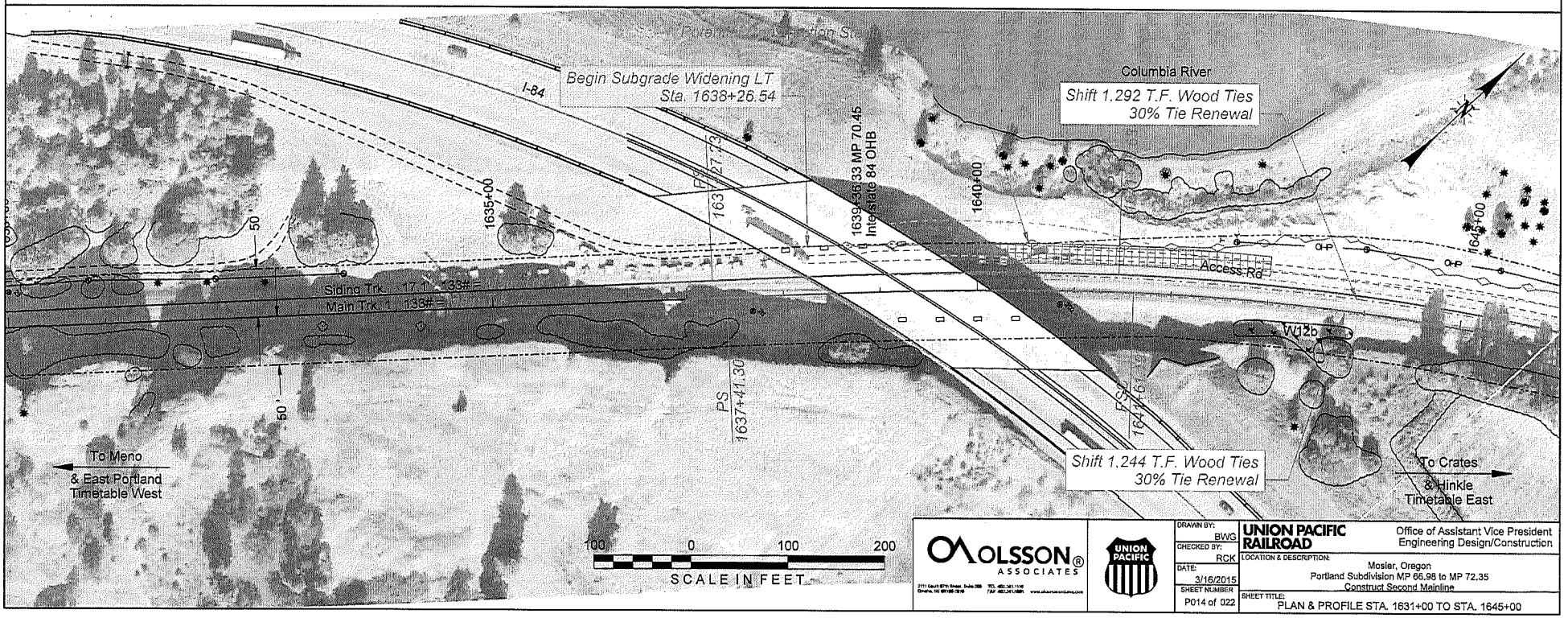


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| DRAWN BY: | BWG |
| CHECKED BY: | RCK |
| DATE: | 3/16/2015 |
| SHEET NUMBER | P014 of 022 |

**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:
PLAN & PROFILE STA. 1631+00 TO STA. 1645+00

PC 1 4 1096

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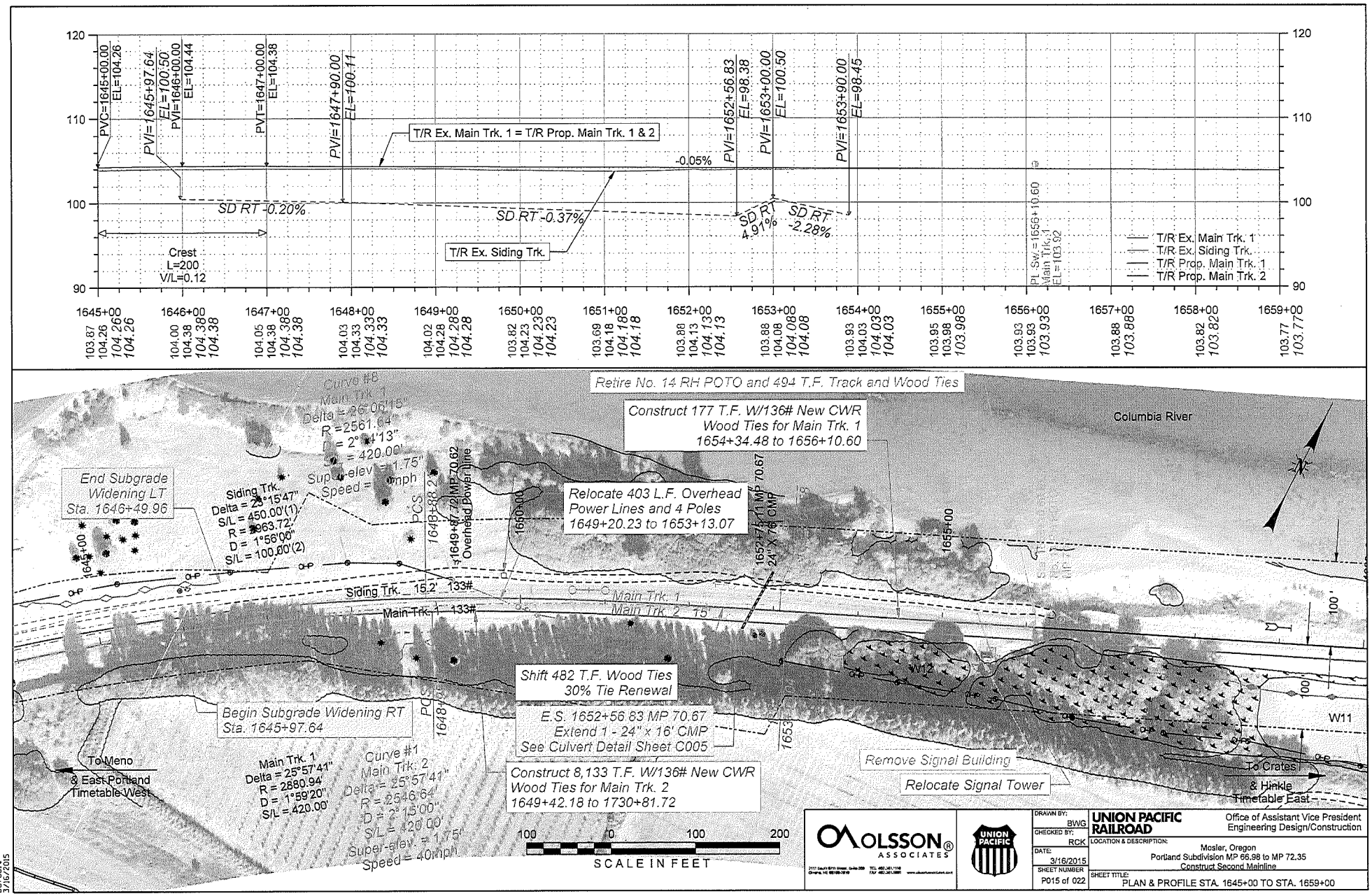
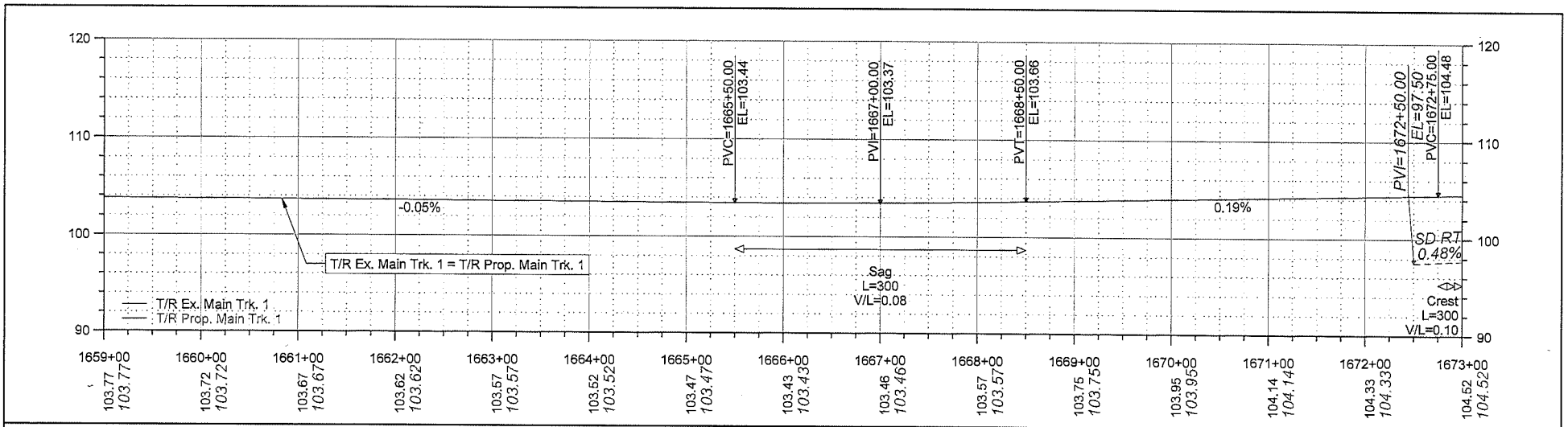
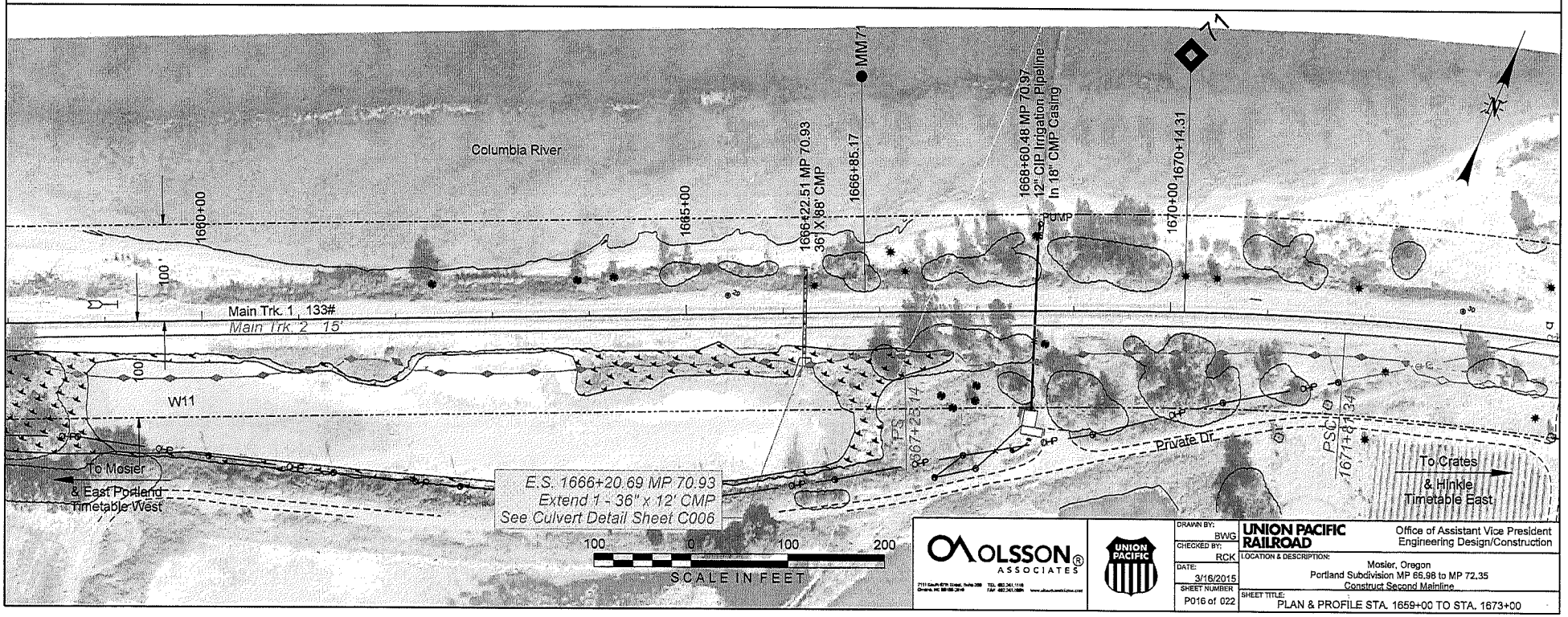
3/16/2015



PVC=1645+00.00 EL=104.26
PVI=1645+97.64 EL=100.50
PVI=1646+00.00 EL=104.44
PVT=1647+00.00 EL=104.38
PVI=1647+90.00 EL=100.11
PVI=1652+56.83 EL=98.38
PVI=1653+00.00 EL=100.50
PVI=1653+90.00 EL=98.45
T/R Ex. Main Trk. 1 = T/R Prop. Main Trk. 1 & 2
-0.05%
SD RT -0.20%
SD RT -0.37%
SD RT 4.91%
SD RT -2.28%
T/R Ex. Siding Trk.
Crest L=200 V/L=0.12
PL Sw.=1656+10.60 Main Trk. 1 EL=103.92
T/R Ex. Main Trk. 1
T/R Ex. Siding Trk.
T/R Prop. Main Trk. 1
T/R Prop. Main Trk. 2
Retire No. 14 RH POTO and 494 T.F. Track and Wood Ties
Construct 177 T.F. W/136# New CWR Wood Ties for Main Trk. 1 1654+34.48 to 1656+10.60
Columbia River
End Subgrade Widening LT Sta. 1646+49.96
Siding Trk. Delta = 23°15'47" S/L = 450.00'(1) R = 2963.72' D = 1°56'00" S/L = 100.00'(2)
Relocate 403 L.F. Overhead Power Lines and 4 Poles 1649+20.23 to 1653+13.07
Siding Trk. 15.2' 133#
Main Trk. 1 133#
Main Trk. 1
Main Trk. 2 15'
Shift 482 T.F. Wood Ties 30% Tie Renewal
Begin Subgrade Widening RT Sta. 1645+97.64
E.S. 1652+56.83 MP 70.67 Extend 1 - 24" x 16' CMP See Culvert Detail Sheet C005
Construct 8,133 T.F. W/136# New CWR Wood Ties for Main Trk. 2 1649+42.18 to 1730+81.72
Remove Signal Building
Relocate Signal Tower
To Meno & East Portland Timetable West
To Crates & Hinkle Timetable East
Main Trk. 1 Delta = 25°57'41" R = 2880.94' D = 1°59'20" S/L = 420.00'
Curve #1 Main Trk. 2 Delta = 25°57'41" R = 2546.64' D = 2°15'00" S/L = 420.00' Super-elev. = 1.75' Speed = 40mph
W11
W12
SCALE IN FEET
OLSSON ASSOCIATES
UNION PACIFIC
DRAWN BY: BWG
CHECKED BY: RCK
DATE: 3/16/2015
SHEET NUMBER P015 of 022
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: PLAN & PROFILE STA. 1645+00 TO STA. 1659+00

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UNION PACIFIC

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|---|---|
| DRAWN BY: | BWG |
| CHECKED BY: | RCK |
| DATE: | 3/16/2015 |
| SHEET NUMBER | P016 of 022 |

**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:
PLAN & PROFILE STA. 1659+00 TO STA. 1673+00

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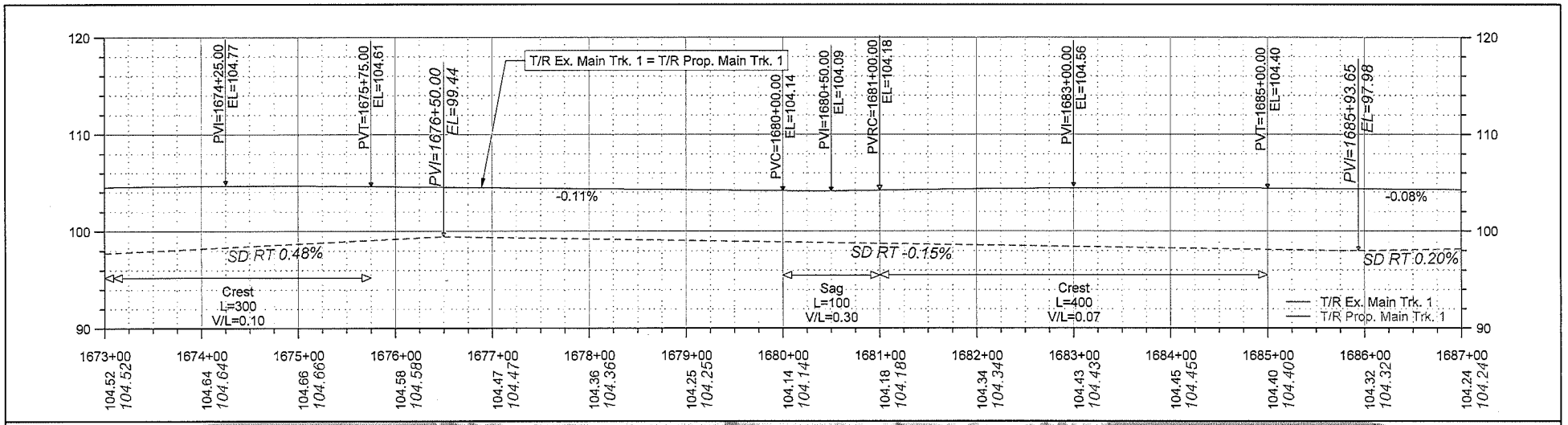
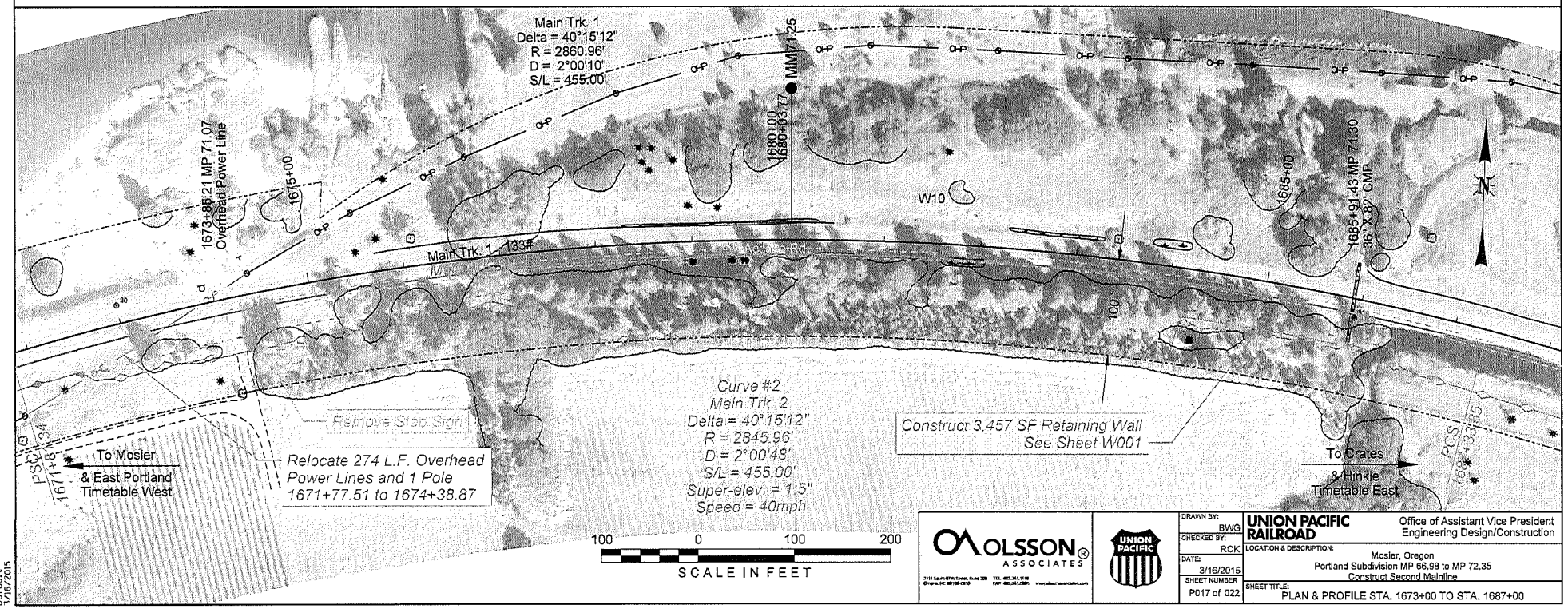
Tue Mar 17 13:45:45 2015
Mar 2015

PG 1 4 1098




OLSSON ASSOCIATES

UNION PACIFIC

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|---|---|
| DRAWN BY: | BWG |
| CHECKED BY: | RCK |
| DATE: | 3/16/2015 |
| SHEET NUMBER | P017 of 022 |

**UNION PACIFIC RAILROAD**

Office of Assistant Vice President
Engineering Design/Construction

LOCATION & DESCRIPTION:
Mosler, Oregon
Portland Subdivision MP 66.98 to MP 72.35
Construct Second Mainline

SHEET TITLE:
PLAN & PROFILE STA. 1673+00 TO STA. 1687+00

P017

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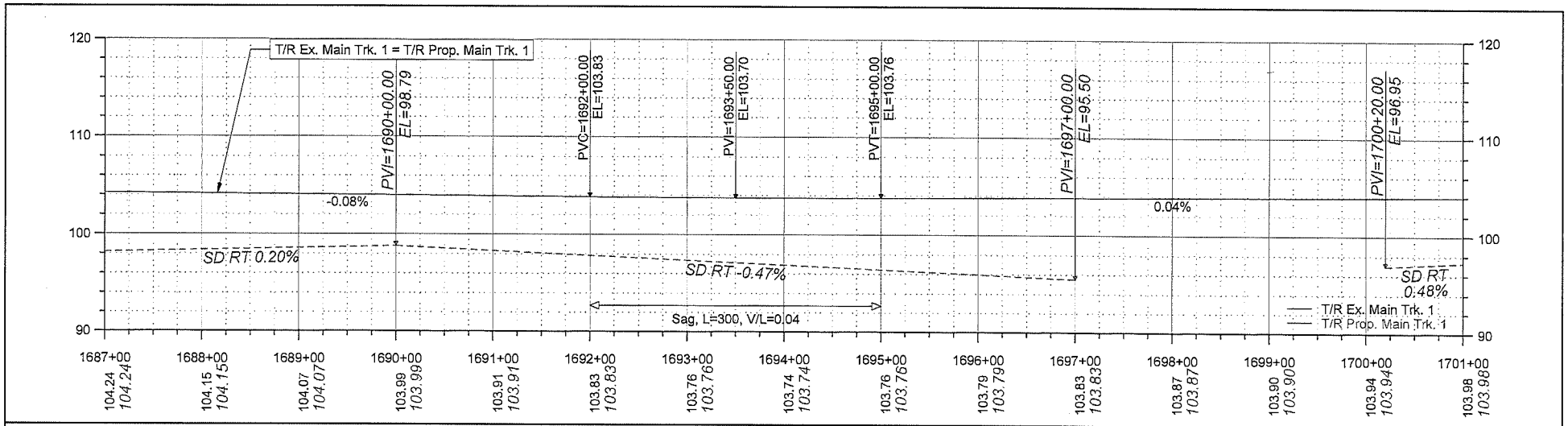
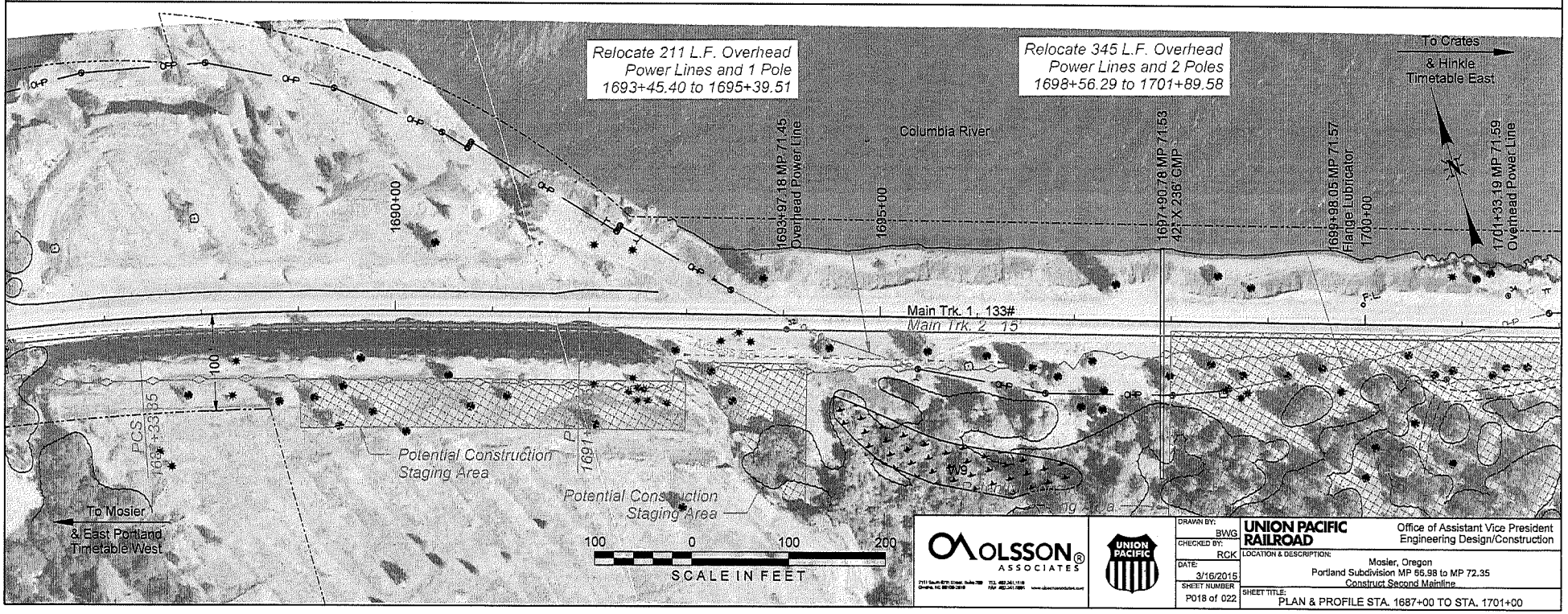
DGN Model: 3/16/2015

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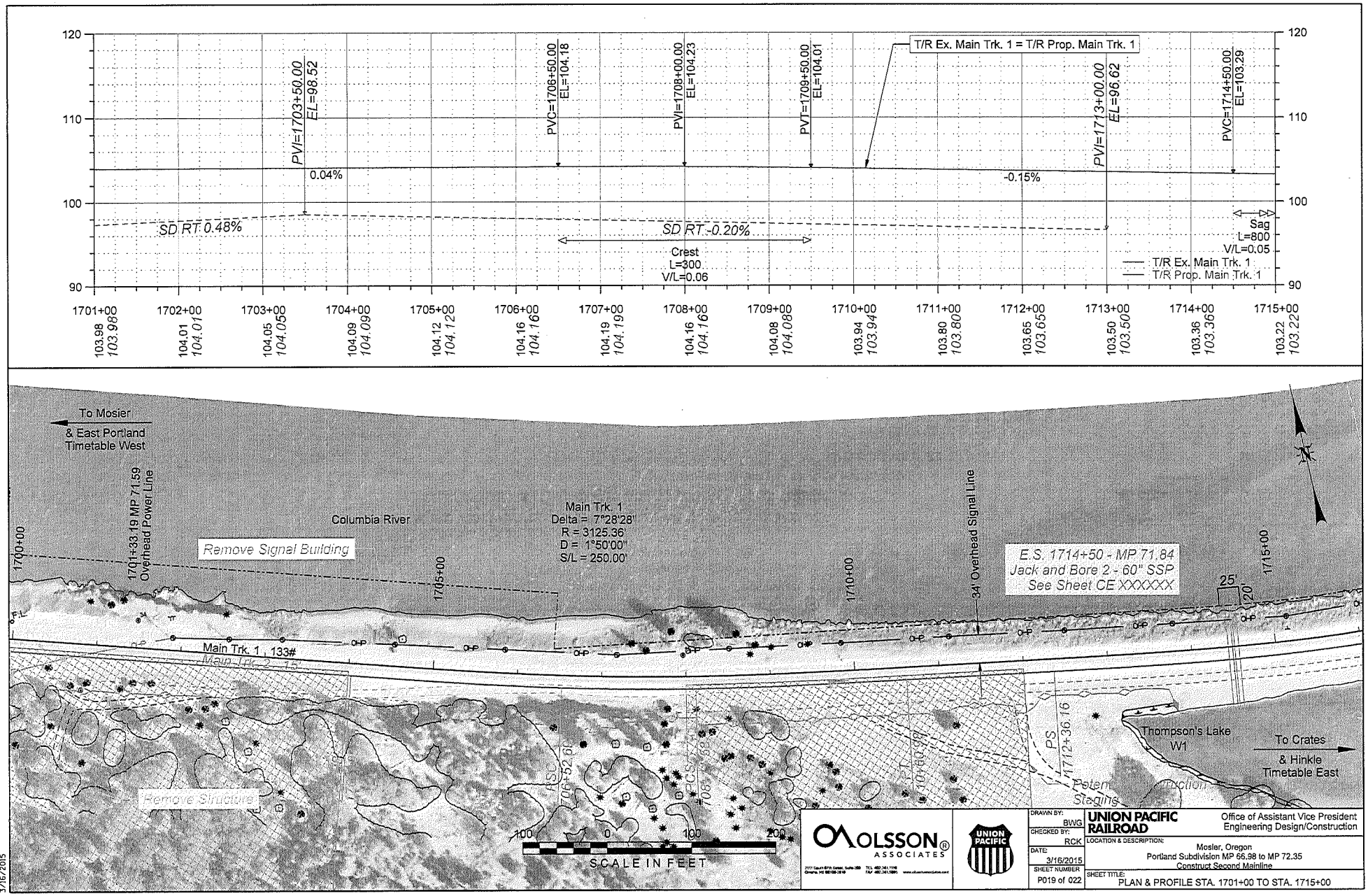
3/16/2015

PG 1 of 1100

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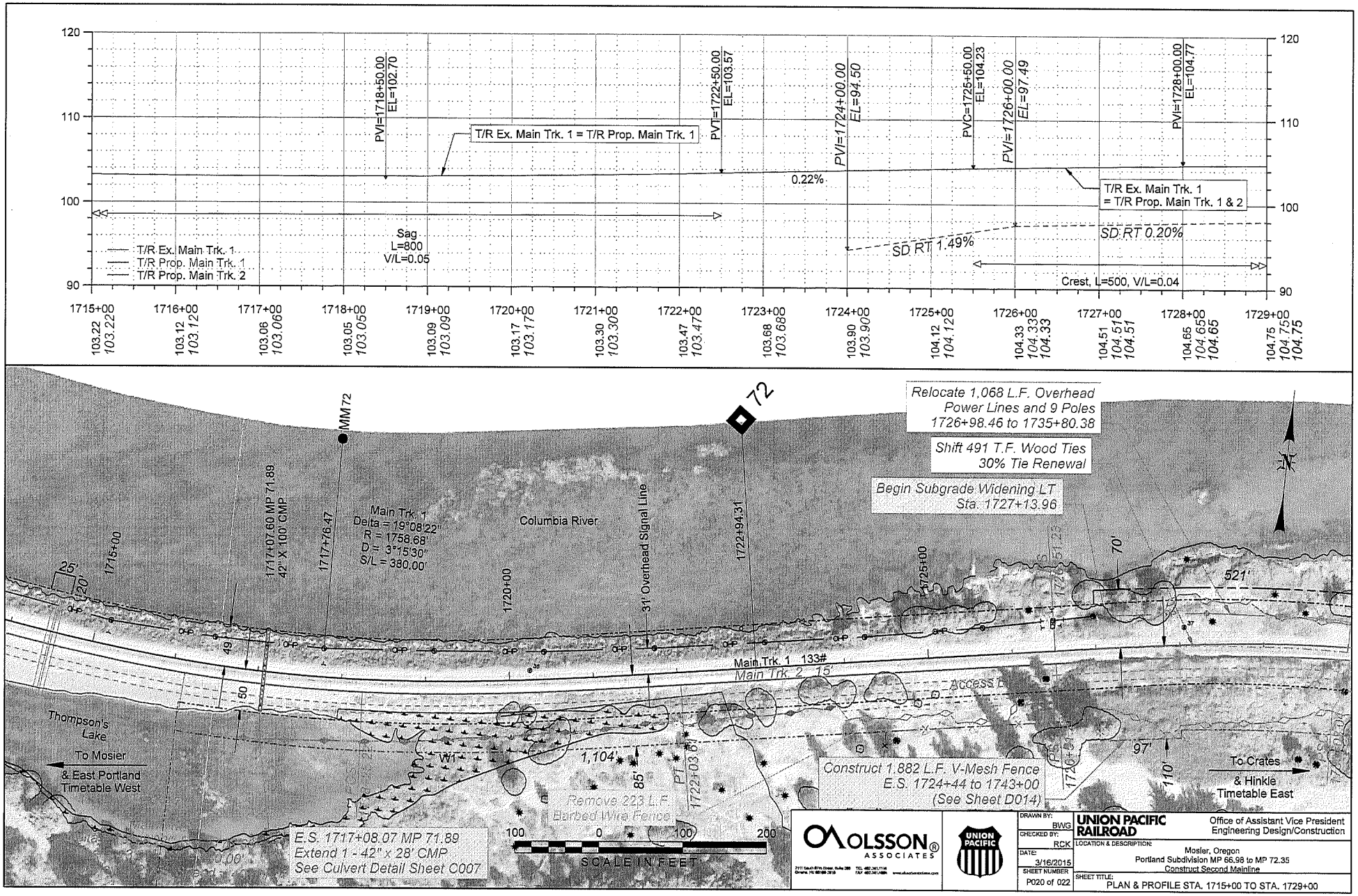
3/16/2015




PG 14 1102

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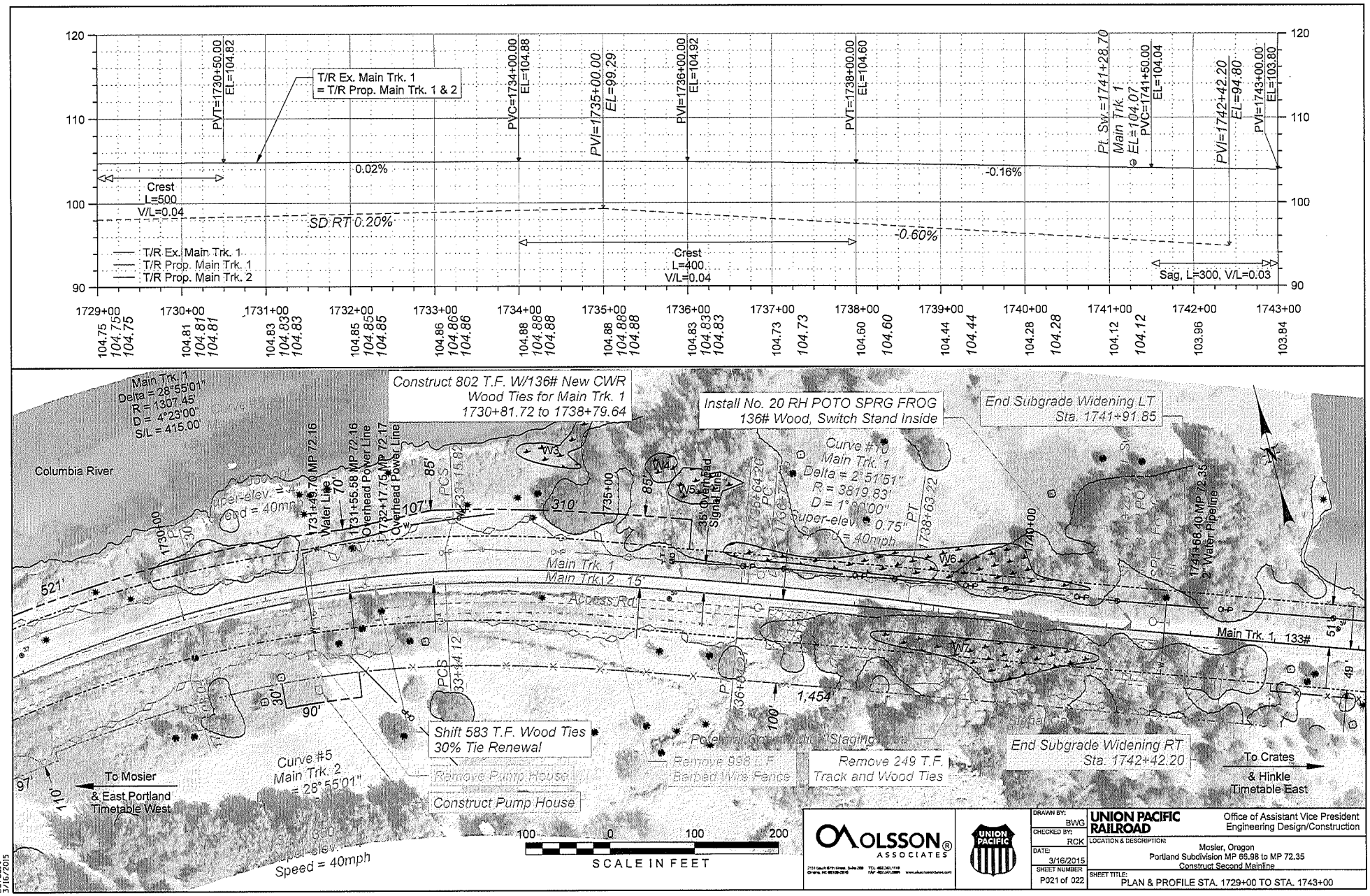
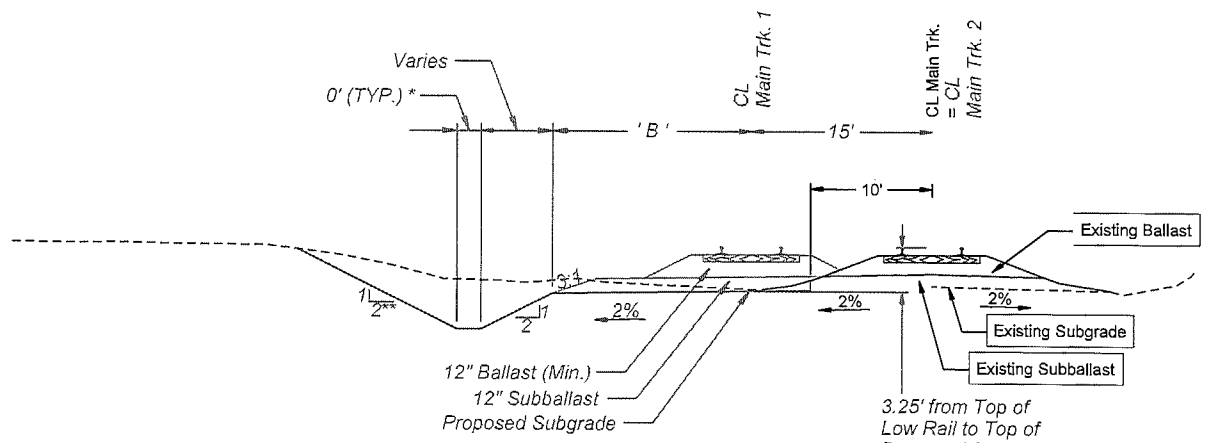
3/16/2015



T/R Ex. Main Trk. 1
= T/R Prop. Main Trk. 1 & 2
PVT=1730+50.00
EL=104.82
PVC=1734+00.00
EL=104.88
PVI=1735+00.00
EL=99.29
PVI=1736+00.00
EL=104.92
PVT=1738+00.00
EL=104.60
Pt. Sw.=1741+28.70
Main Trk. 1
EL=104.07
PVC=1741+50.00
EL=104.04
PVI=1742+42.20
EL=94.80
PVI=1743+00.00
EL=103.80
0.02%
-0.16%
Crest
L=500
V/L=0.04
SD RT 0.20%
-0.60%
Crest
L=400
V/L=0.04
Sag, L=300, V/L=0.03
T/R Ex. Main Trk. 1
T/R Prop. Main Trk. 1
T/R Prop. Main Trk. 2
1729+00
1730+00
1731+00
1732+00
1733+00
1734+00
1735+00
1736+00
1737+00
1738+00
1739+00
1740+00
1741+00
1742+00
1743+00
Main Trk. 1
Delta = 28°55'01"
R = 1307.45'
D = 4°23'00"
S/L = 415.00'
Construct 802 T.F. W/136# New CWR
Wood Ties for Main Trk. 1
1730+81.72 to 1738+79.64
Install No. 20 RH POTO SPRG FROG
136# Wood, Switch Stand Inside
End Subgrade Widening LT
Sta. 1741+91.85
Columbia River
Curve #10
Main Trk. 1
Delta = 2°51'51"
R = 3819.83'
D = 1°30'00"
Super-elev. = 0.75"
Speed = 40mph
Main Trk. 1
Main Trk. 2
Access Rd.
Main Trk. 1, 133#
Shift 583 T.F. Wood Ties
30% Tie Renewal
Remove Pump House
Construct Pump House
Remove 998 L.F.
Barbed Wire Fence
Remove 249 T.F.
Track and Wood Ties
End Subgrade Widening RT
Sta. 1742+42.20
To Mosier
& East Portland
Timetable West
To Crates
& Hinkle
Timetable East
Curve #5
Main Trk. 2
= 28°55'01"
Speed = 40mph
SCALE IN FEET
OLSSON ASSOCIATES
UNION PACIFIC
DRAWN BY: BWG
CHECKED BY: RCK
DATE: 3/16/2015
SHEET NUMBER P021 of 022
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:
PLAN & PROFILE STA. 1729+00 TO STA. 1743+00

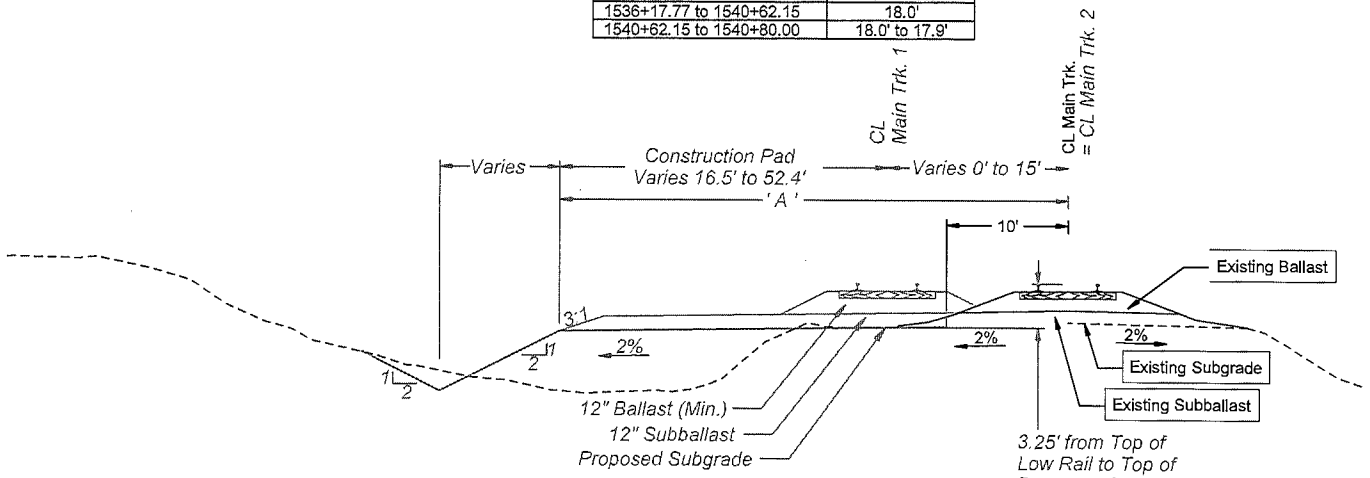

PG 1.4.1-03




# Typical Section

| STA. TO STA. | 'B' |
|---|---|
| 1464+13.50 to 1530+09.88 | 16.5' |
| 1530+09.88 to 1531+59.45 | 16.5' to 17.0' |
| 1531+59.45 to 1534+29.75 | 17.0' |
| 1534+29.75 to 1536+17.77 | 17.0' to 18.0' |
| 1536+17.77 to 1540+62.15 | 18.0' |
| 1540+62.15 to 1540+80.00 | 18.0' to 17.9' |

* 2' Flat Bottom Ditch from Sta. 1504+00.00 to Sta. 1523+00.00
** Slope Varies Over the Following Station Ranges:
Sta. 1466+33.40 to Sta. 1468+91.54
Sta. 1474+79.43 to Sta. 1477+73.47
Sta. 1501+63.21 to Sta. 1502+28.14
Sta. 1535+76.26 to Sta. 1537+83.40
See Cross Sections for Slope.




# Typical Section

| STA. TO STA. | 'A' |
|---|---|
| 1457+54.66 to 1457+91.00 | 16.5' to 52.4' |
| 1457+91.00 to 1458+44.00 | 52.4' |
| 1458+44.00 to 1464+10.00 | 35.0' |
| 1464+10.00 to 1464+13.50 | 35.0' to 31.5' |

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UNION PACIFIC RAILROAD
Office of Assistant Vice President
Engineering Design/Construction

LOCATION & DESCRIPTION:
Mosler, Oregon
Portland Subdivision MP 66.98 to MP 72.35
Construct Second Mainline

SHEET TITLE:
TYPICAL SECTIONS

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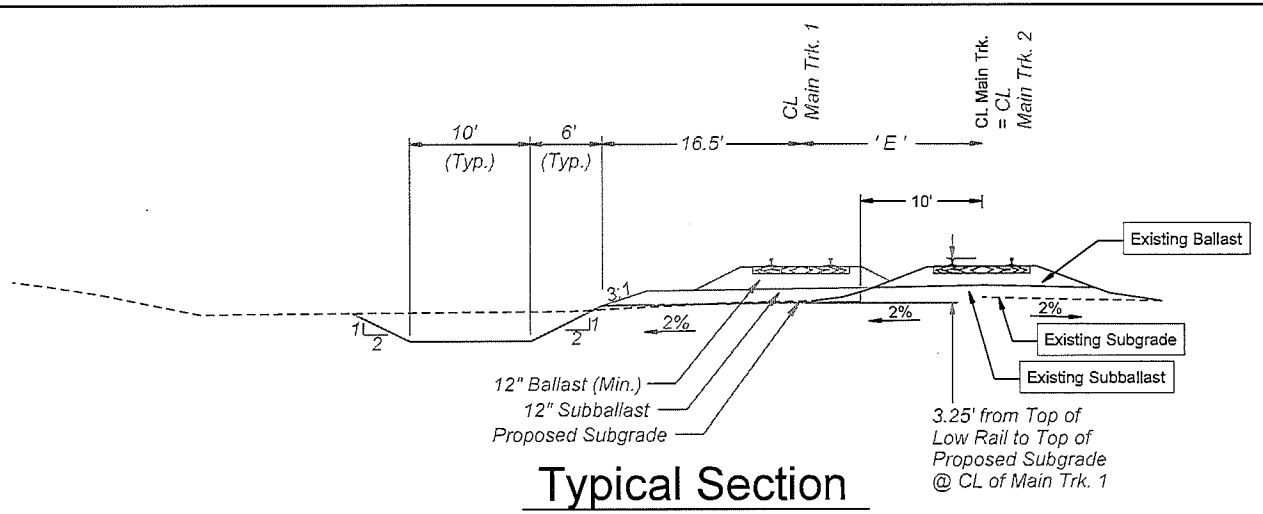
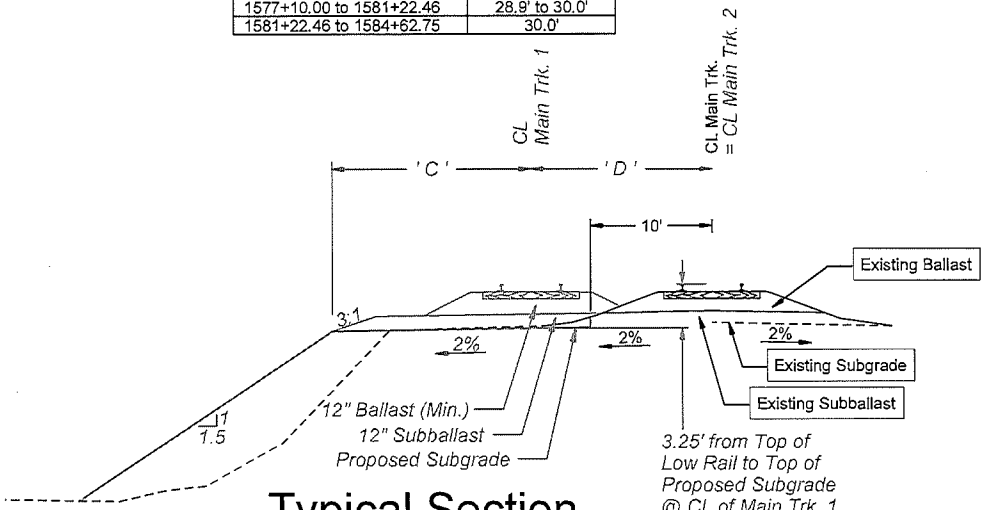
10/20/2014

PG 1 of 1




## Typical Section

| STA. TO STA. | 'E' |
|---|---|
| 1552+60.00 to 1563+00.00 | 15.0' |
| 1564+80.00 to 1565+30.00 | 15.0' |
| 1572+50.00 to 1575+00.00 | 21.5' to 26.4' |
| 1577+10.00 to 1581+22.46 | 28.9' to 30.0' |
| 1581+22.46 to 1584+62.75 | 30.0' |




## Typical Section

| STA. TO STA. | 'C' | 'D' |
|---|---|---|
| 1540+80.00 to 1543+26.14 | 17.9' to 16.5' | 15.0' |
| 1543+26.14 to 1552+60.00 | 16.5' | 15.0' |
| 1567+10.00 to 1567+97.32 | 16.5' | 15.0' |
| 1567+97.32 to 1572+50.00 | 16.5' | 15.0' to 21.5' |
| 1575+00.00 to 1577+10.00 | 16.5' | 26.4' to 28.9' |

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SHEET NUMBER: T 002 of 009

**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:
TYPICAL SECTIONS

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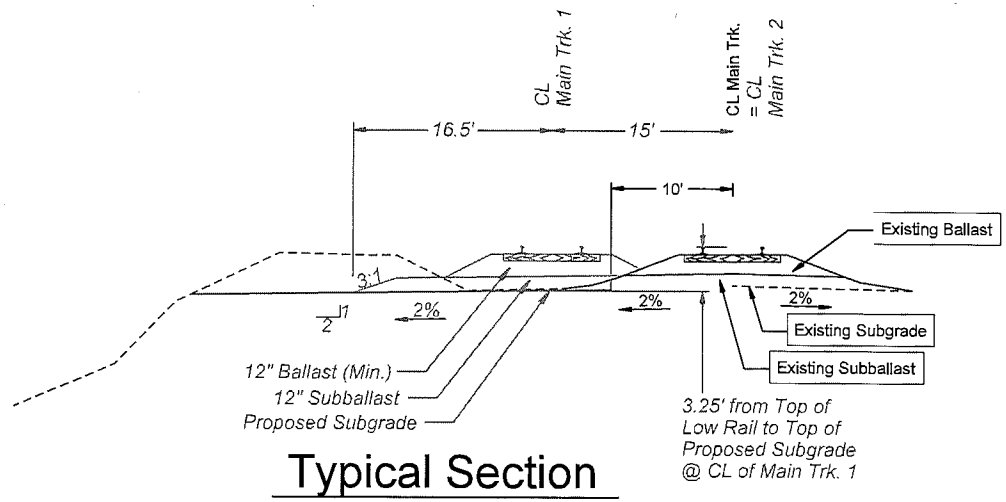
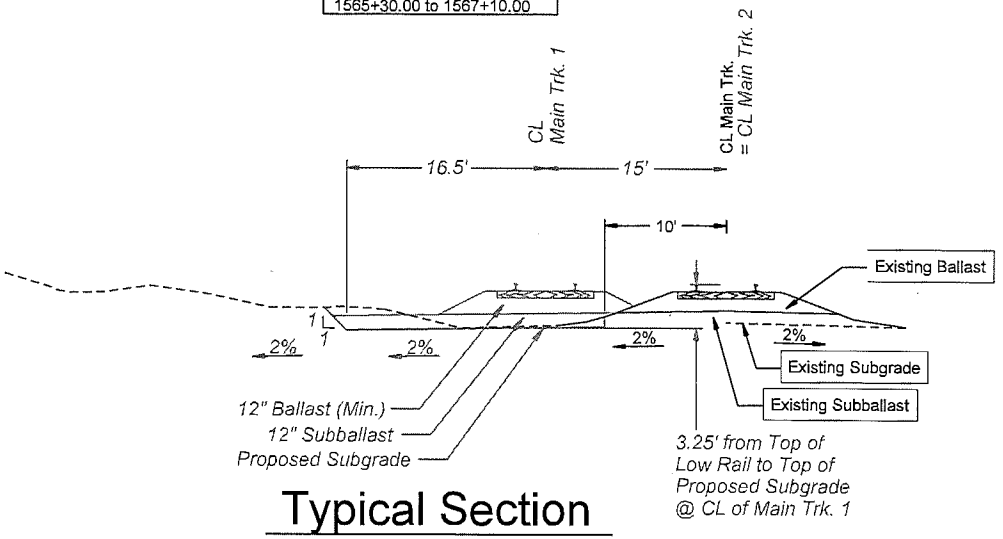
Date: 10/20/2014

PSE 11-05




# Typical Section

| STA. TO STA. |
|---|
| 1552+60.00 to 1563+00.00 |
| 1565+30.00 to 1567+10.00 |




# Typical Section

Sta. 1563+00.00 to Sta. 1564+80.00

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|---|---|
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| DATE: 10/20/2014 | |
| SHEET NUMBER: T 003 of 009 | SHEET TITLE: TYPICAL SECTIONS |

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10/20/2014

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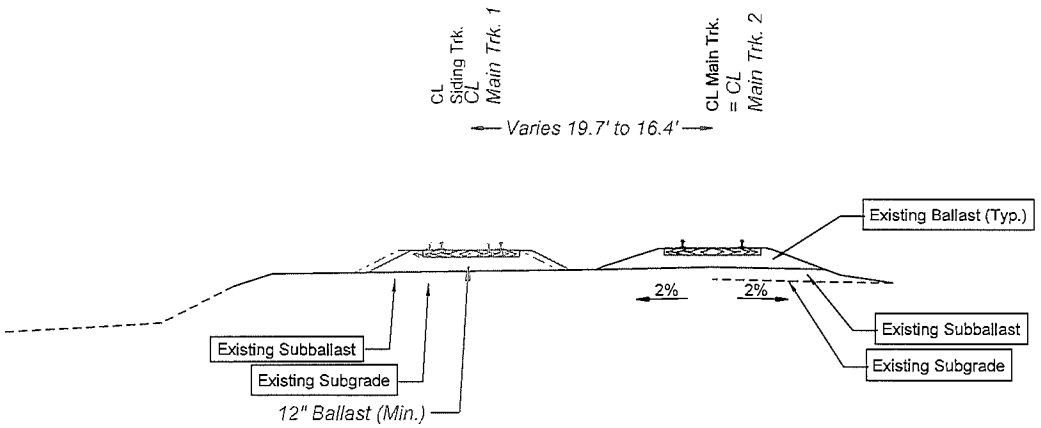
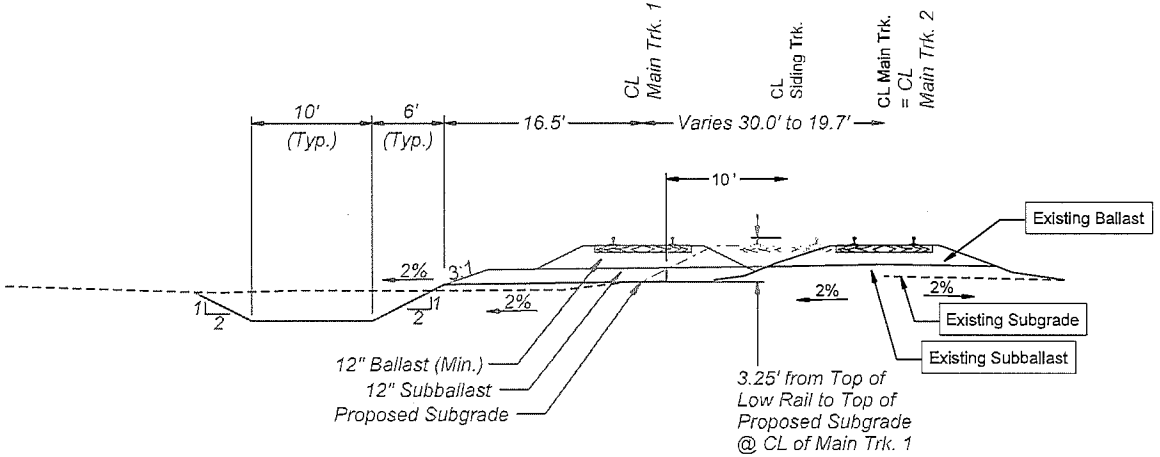



# Typical Section

## Sta. 1589+52.23 to Sta. 1592+52.72




# Typical Section

## Sta. 1584+62.75 to Sta. 1589+52.23

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|---|---|
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| DATE: | 10/20/2014 |
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**UNION PACIFIC RAILROAD**

Office of Assistant Vice President Engineering Design/Construction

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Construct Second Mainline

SHEET TITLE: TYPICAL SECTIONS

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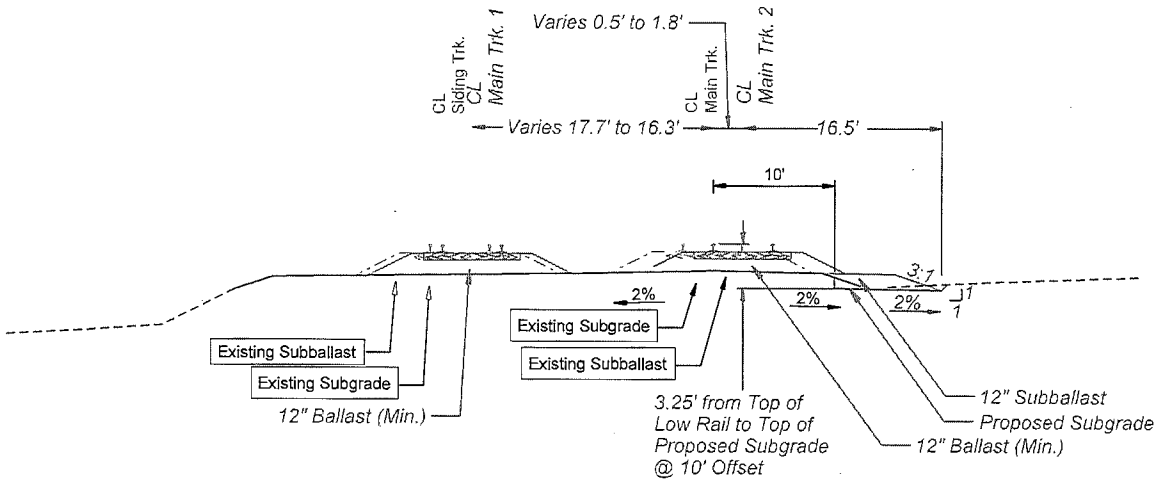
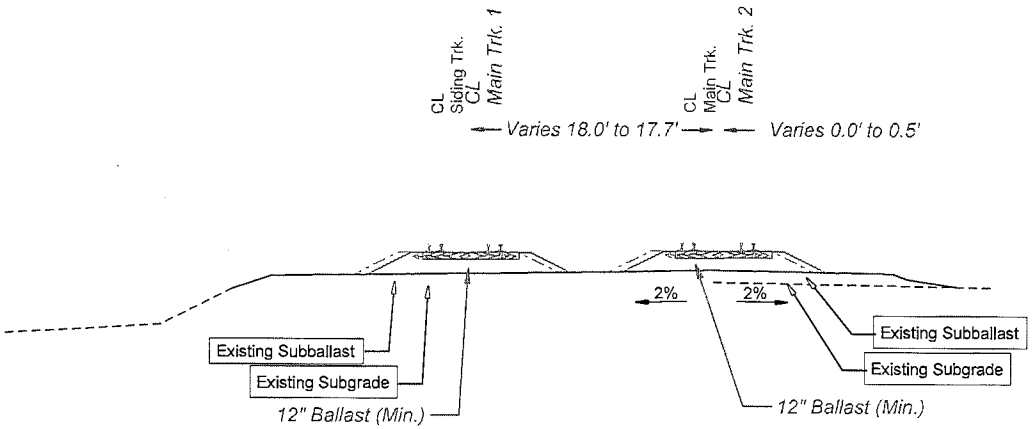



# Typical Section

Sta. 1638+84.85 to Sta. 1640+50.00




# Typical Section

Sta. 1636+53.52 to Sta. 1638+84.85

| | | | |
|---|---|---|---|
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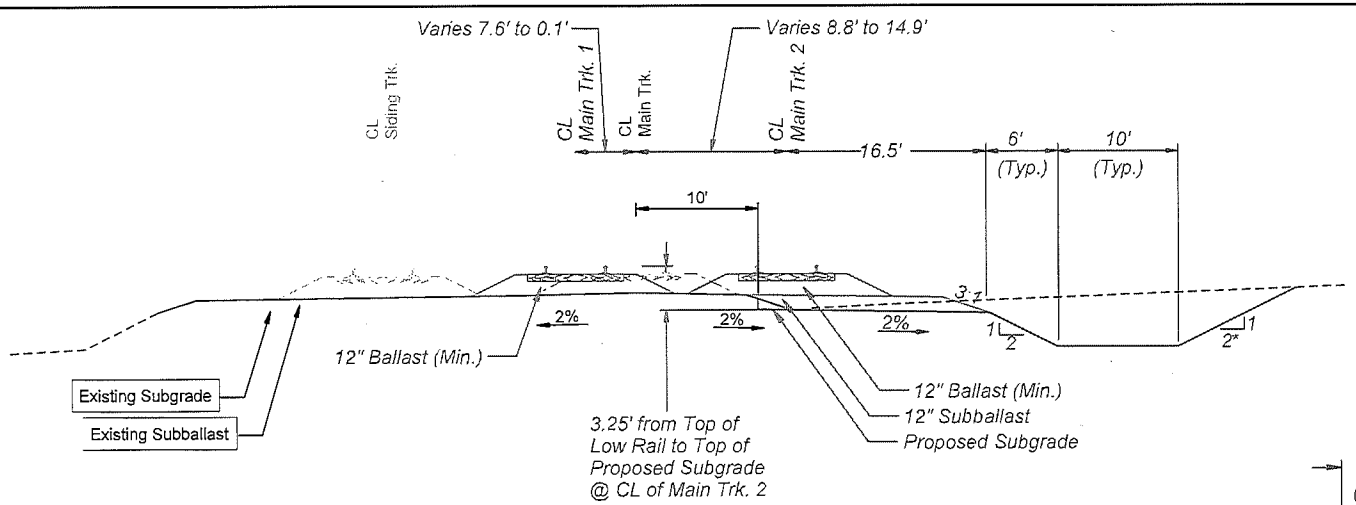
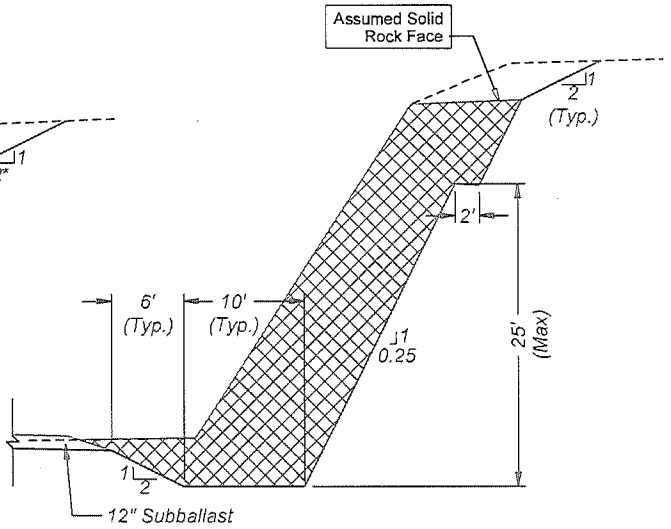


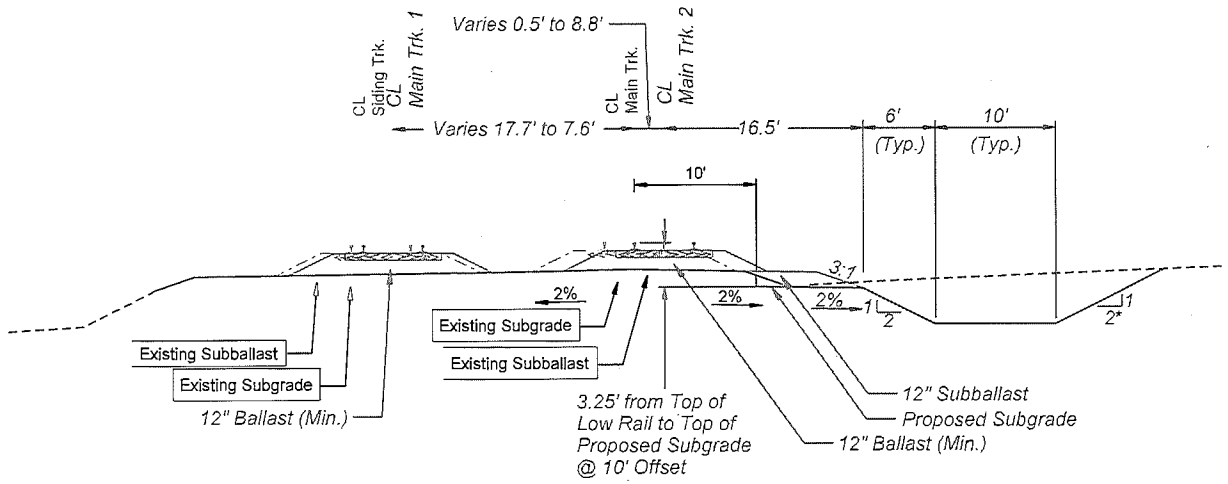

# Typical Section

Sta. 1646+76.80 to Sta. 1654+00.00




# Rock Excavation

| STA. TO STA. |
|---|
| 1643+70.00 to 1647+50.00 |
| 1677+10.00 to 1684+70.00 |
| 1686+10.00 to 1692+95.00 |
| 1704+00.00 to 1708+11.58 |
| 1726+00.00 to 1736+00.00 |




# Typical Section

Sta. 1640+50.00 to Sta. 1646+76.80

* See Rock Excavation Detail This Sheet

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|---|---|
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| DATE: 10/20/2014 | SHEET NUMBER: T 006 of 009 |
| | SHEET TITLE: TYPICAL SECTIONS |

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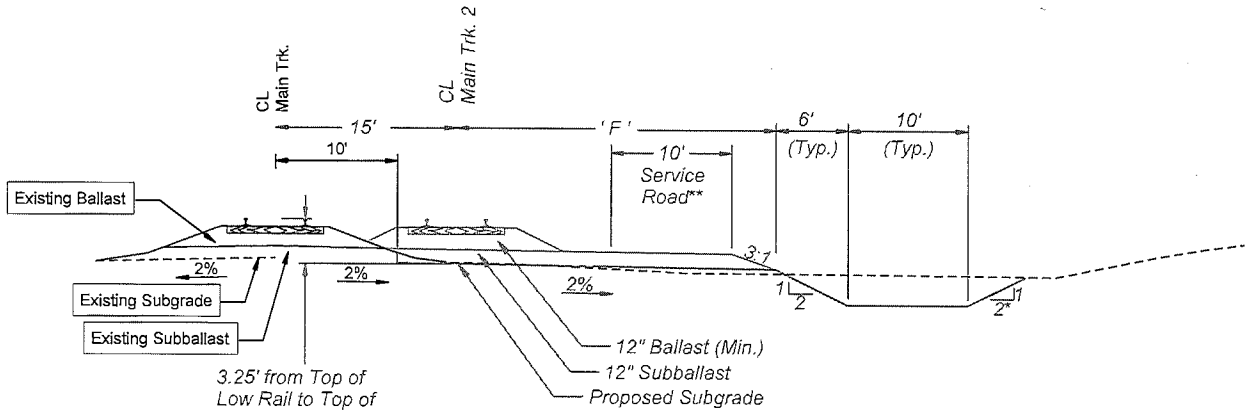
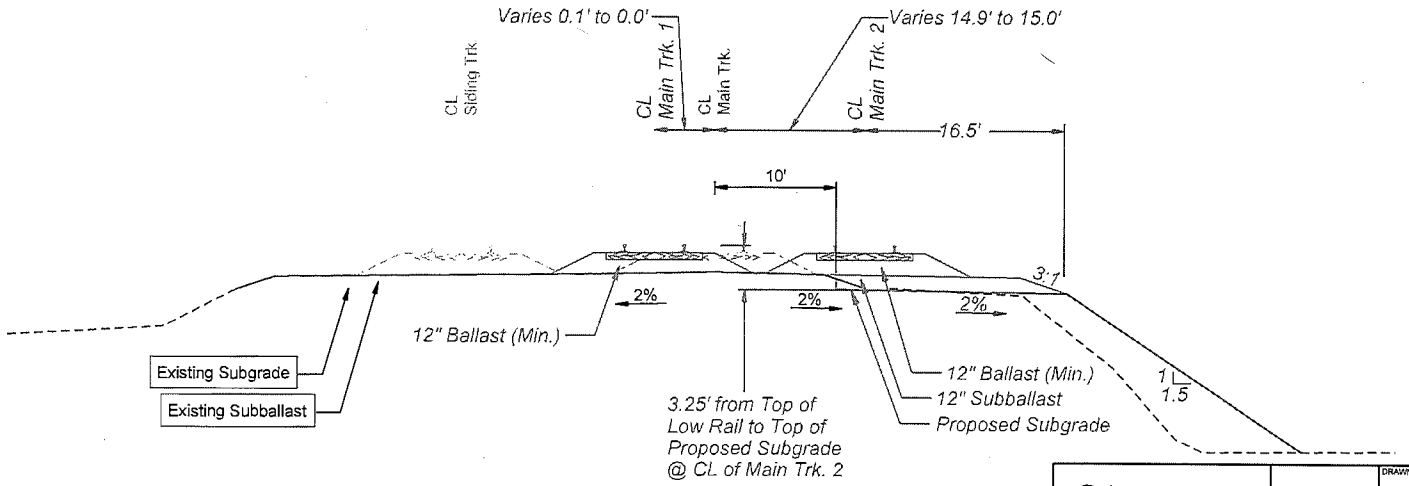



# Typical Section

| STA. TO STA. | 'F' |
|---|---|
| 1667+80.00 to 1704+03.28 | 16.5' |
| 1704+03.28 to 1706+52.69 | 16.5' to 17.5' |
| 1706+52.69 to 1708+11.58 | 17.5' |
| 1708+11.58 to 1710+60.98 | 17.5' to 16.5' |
| 1710+60.98 to 1711+80.00 | 16.5' |
| 1711+80.00 to 1711+90.00 | 16.5' to 26.5' |
| 1711+90.00 to 1712+36.16 | 26.5' |
| 1712+36.16 to 1713+60.00 | 26.5' to 27.0' |
| 1722+03.61 to 1725+91.23 | 26.5' |




# Typical Section

## Sta. 1654+00.00 to Sta. 1656+10.60

* See Rock Excavation Detail on Sheet T006
** Service Road from Sta. 1711+90.00 to 1725+91.23 only

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UNION PACIFIC RAILROAD — Office of Assistant Vice President Engineering Design/Construction

LOCATION & DESCRIPTION: Mosier, Oregon
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Construct Second Mainline

SHEET TITLE: TYPICAL SECTIONS

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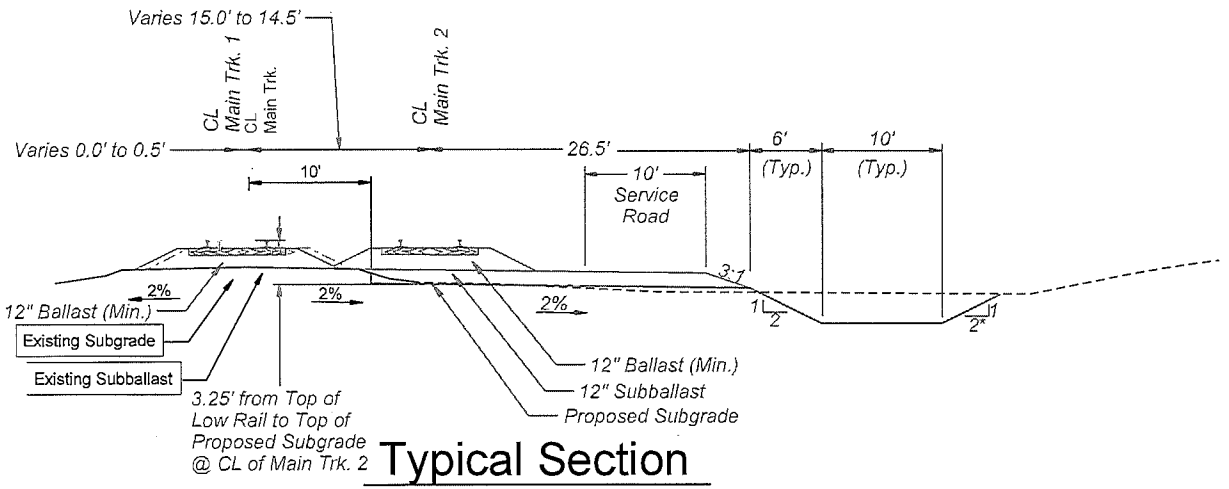
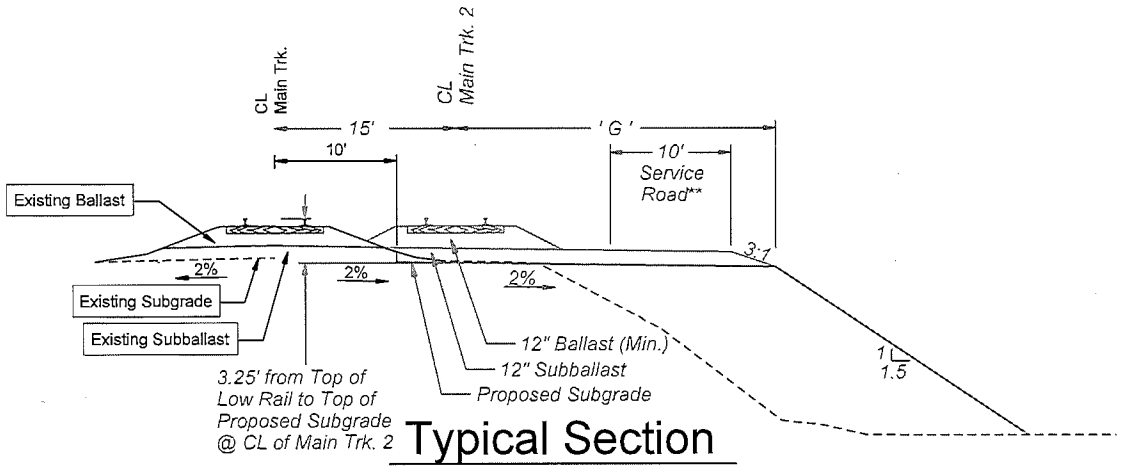



# Typical Section

## Sta. 1725+91.23 to Sta. 1727+13.96




# Typical Section

| STA. TO STA. | 'G' |
|---|---|
| 1656+10.60 to 1667+80.00 | 16.5' |
| 1713+60.00 to 1716+14.56 | 27.0' to 28.0' |
| 1716+14.56 to 1718+25.22 | 28.0' |
| 1718+25.22 to 1722+03.61 | 28.0' to 26.5' |

* See Rock Excavation Detail on Sheet T006
** Service Road from Sta. 1711+90.00 to 1725+91.23 only

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| DATE: 10/20/2014 | |
| SHEET NUMBER T 008 of 009 | SHEET TITLE: TYPICAL SECTIONS |

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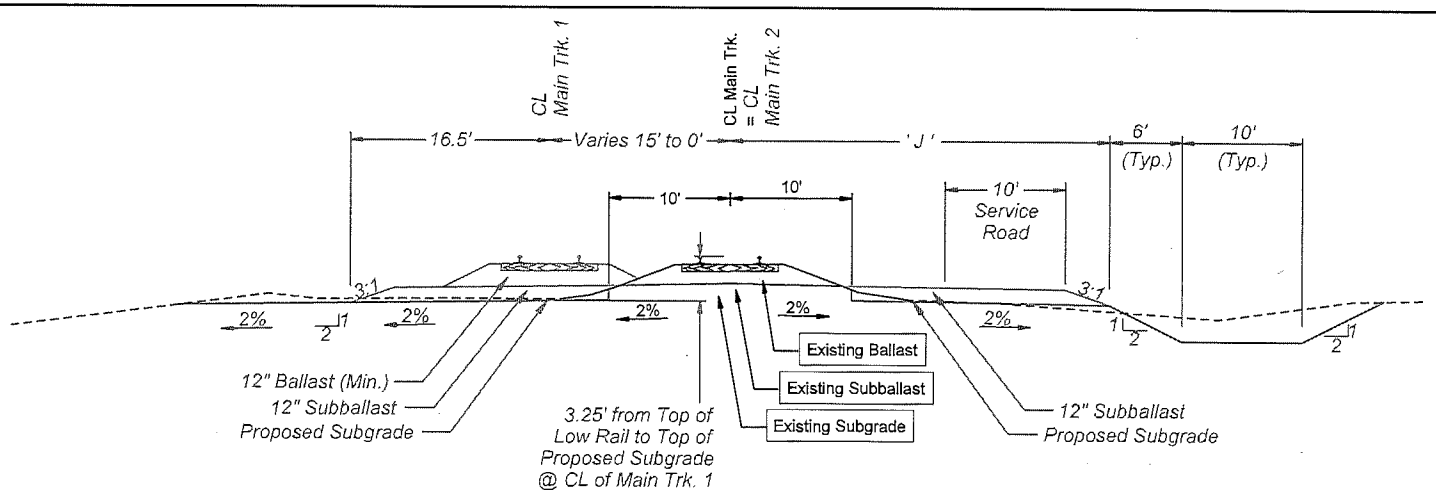
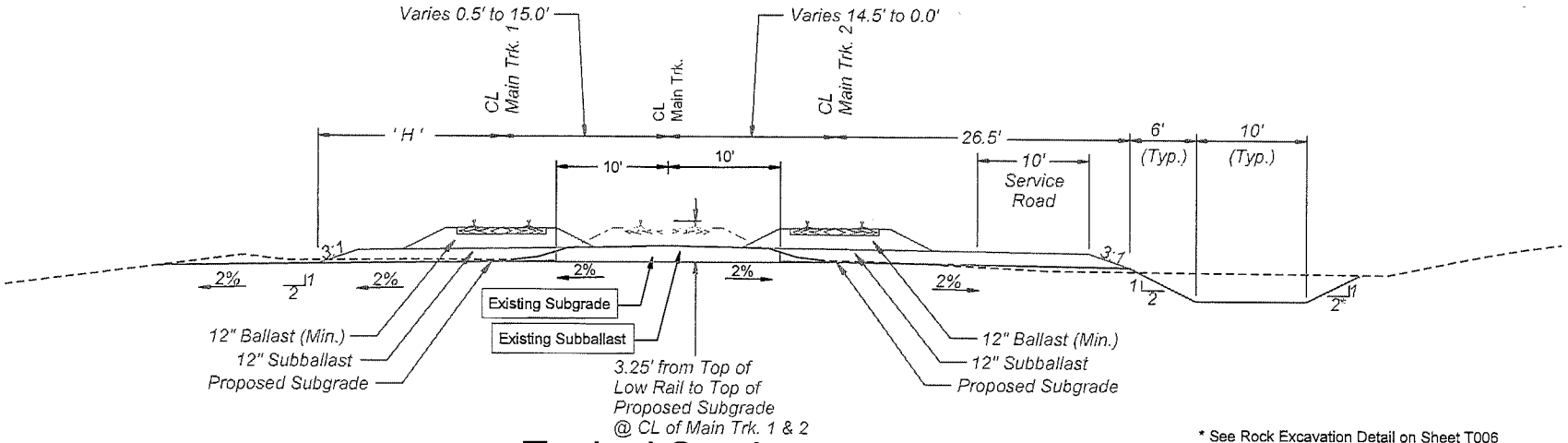



# Typical Section

| STA. TO STA. | 'J' |
|---|---|
| 1736+64.21 to 1737+61.50 | 26.5' |
| 1737+61.50 to 1738+00.00 | 26.5' to 65.0' |
| 1738+00.00 to 1741+93.70 | 65.0' |
| 1741+93.70 to 1742+42.21 | 65.0' to 16.5' |




* See Rock Excavation Detail on Sheet T006

# Typical Section

| STA. TO STA. | 'H' |
|---|---|
| 1727+13.96 to 1730+00.71 | 16.9' to 18.5' |
| 1730+00.71 to 1733+15.82 | 18.5' |
| 1733+15.82 to 1736+64.21 | 18.5' to 16.5' |

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**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:
TYPICAL SECTIONS

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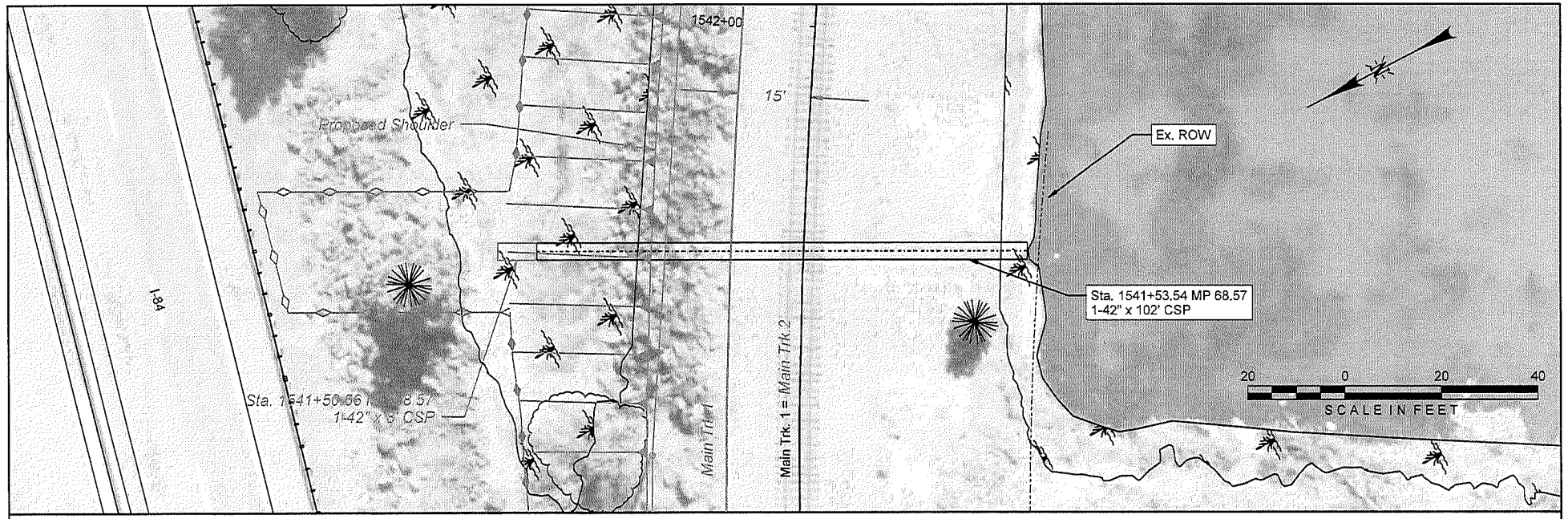


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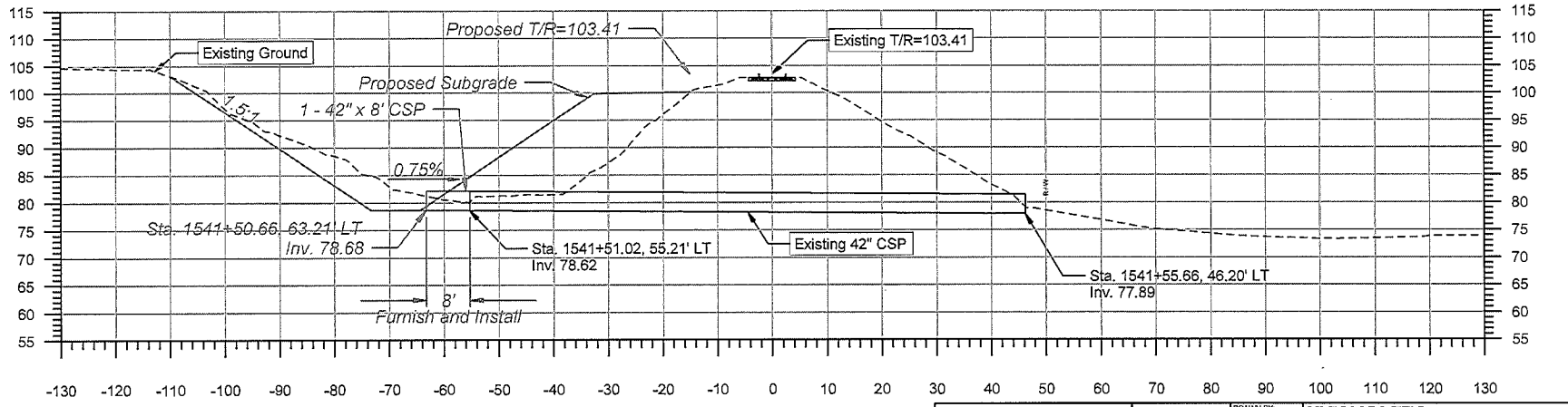
= CL Main Trk. 2




42" CSP - Sta. 1541+53.54 - MP 68.57

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2111 South 67th Street, Suite 200 Omaha, NE 68106-2915 TEL 402.341.1116 FAX 402.341.5895 www.olssonassociates.com

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| DRAWN BY: | BWG |
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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:
CULVERT STA. 1541+54 - EXTEND 42" CSP

C004

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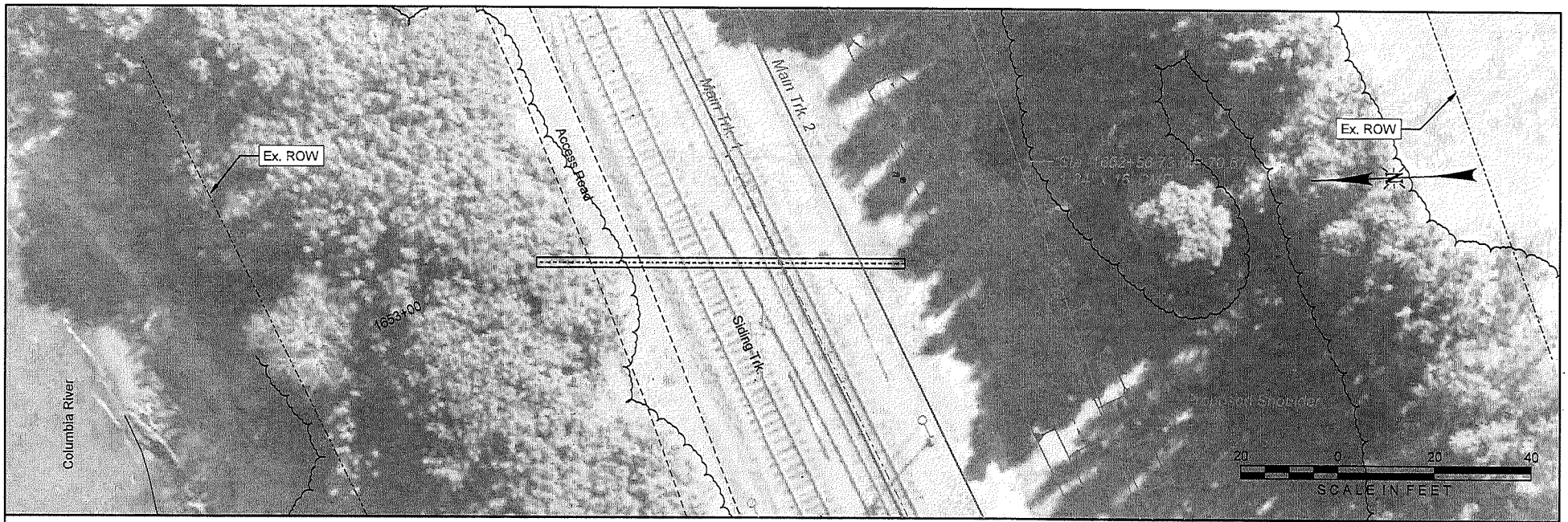


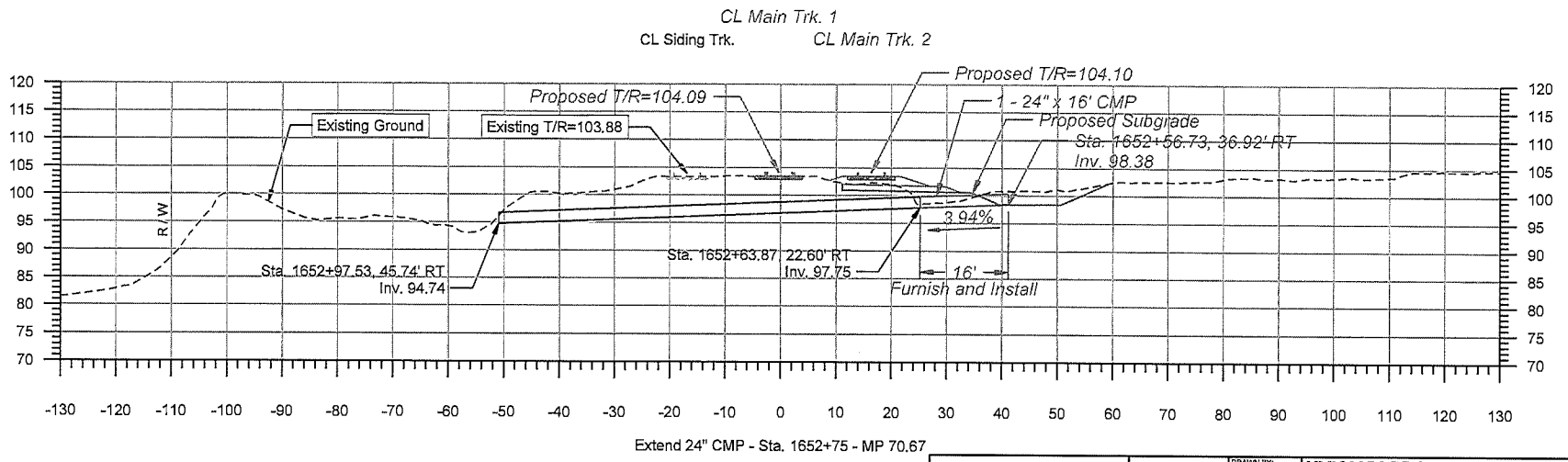


Extend 24" CMP - Sta. 1652+75 - MP 70.67

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| | |
|---|---|
| DRAWN BY: | BWG |
| CHECKED BY: | RCK |
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**UNION PACIFIC RAILROAD**

Office of Assistant Vice President
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LOCATION & DESCRIPTION:
Mosler, Oregon
Portland Subdivision MP 66.98 to MP 72.35
Construct Second Mainline

SHEET TITLE:
CULVERT STA. 1652+75.11 - EXTEND EXISTING 24" CMP

PSC1411

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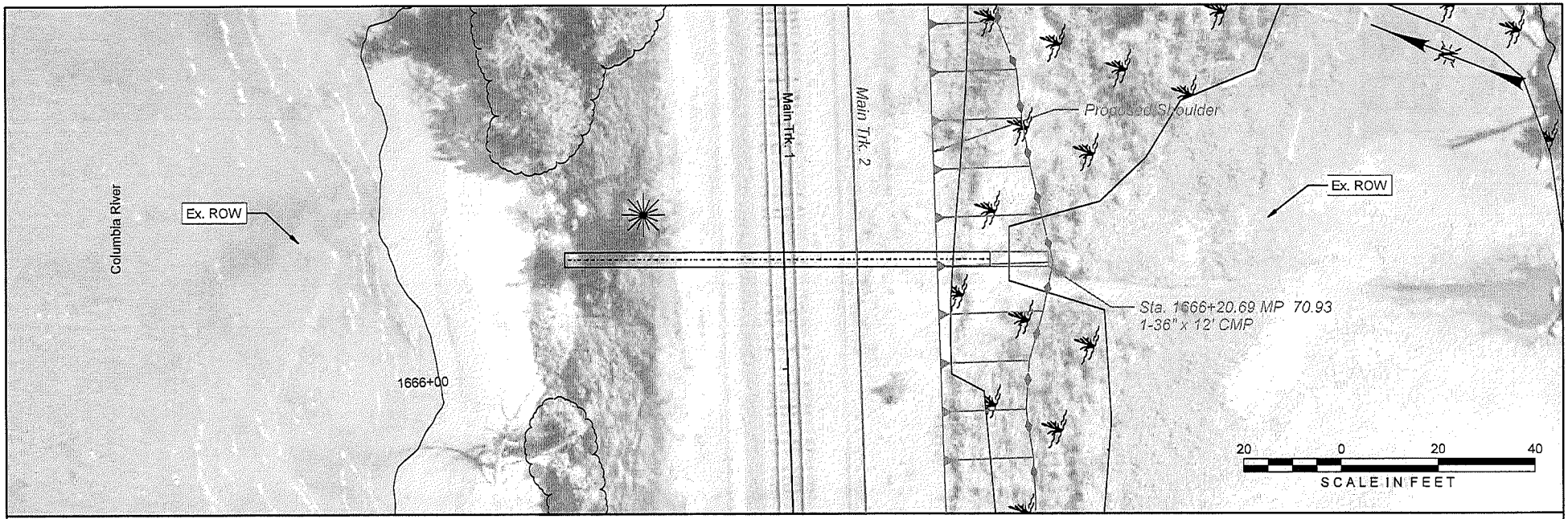
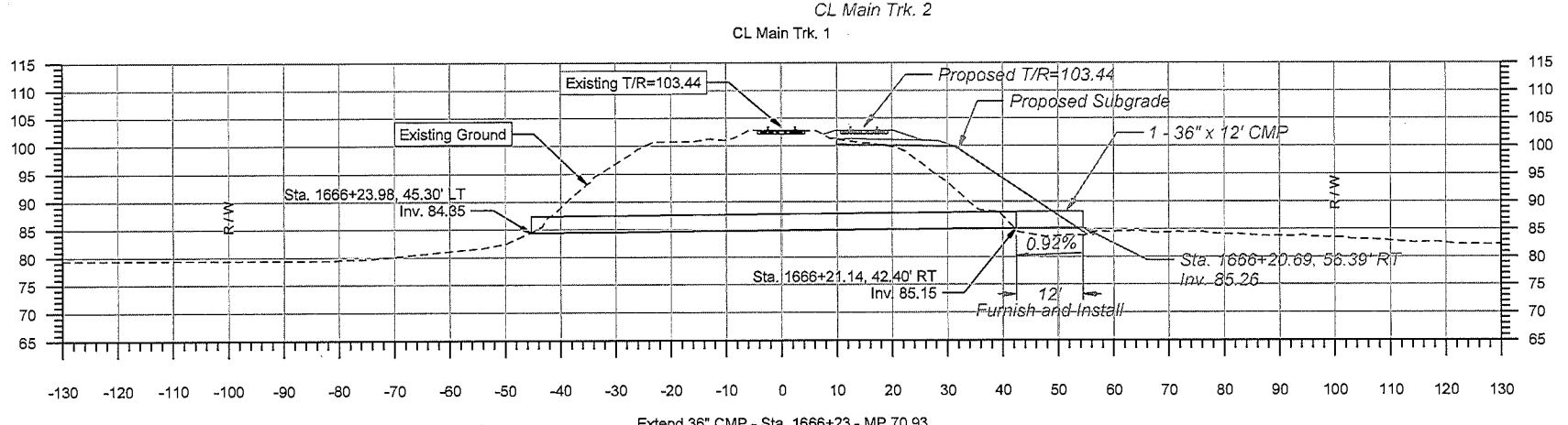
Date: 3/16/2015




Extend 36" CMP - Sta. 1666+23 - MP 70.93

OLSSON ASSOCIATES
2111 South 67th Street, Suite 200 Omaha, NE 68106-2610 TEL 402.341.1116 FAX 402.341.5895 www.olssonassociates.com

UNION PACIFIC

| | |
|---|---|
| DRAWN BY: | BWG |
| CHECKED BY: | RCK |
| DATE: | 3/16/2015 |
| SHEET NUMBER | C006 of 007 |

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:
CULVERT STA. 1666+22.51 - EXTEND EXISTING 36" CMP

C006

Color tables:F:\PROJECTS\011-1345\color\UPRR.tbl
FDOT Tables:F:\PROJECTS\011-1345_TRNSP\20_Mosier_West\PDF\Pen_Tables\UPRR_V8i_Pentable_Mosier.tbl
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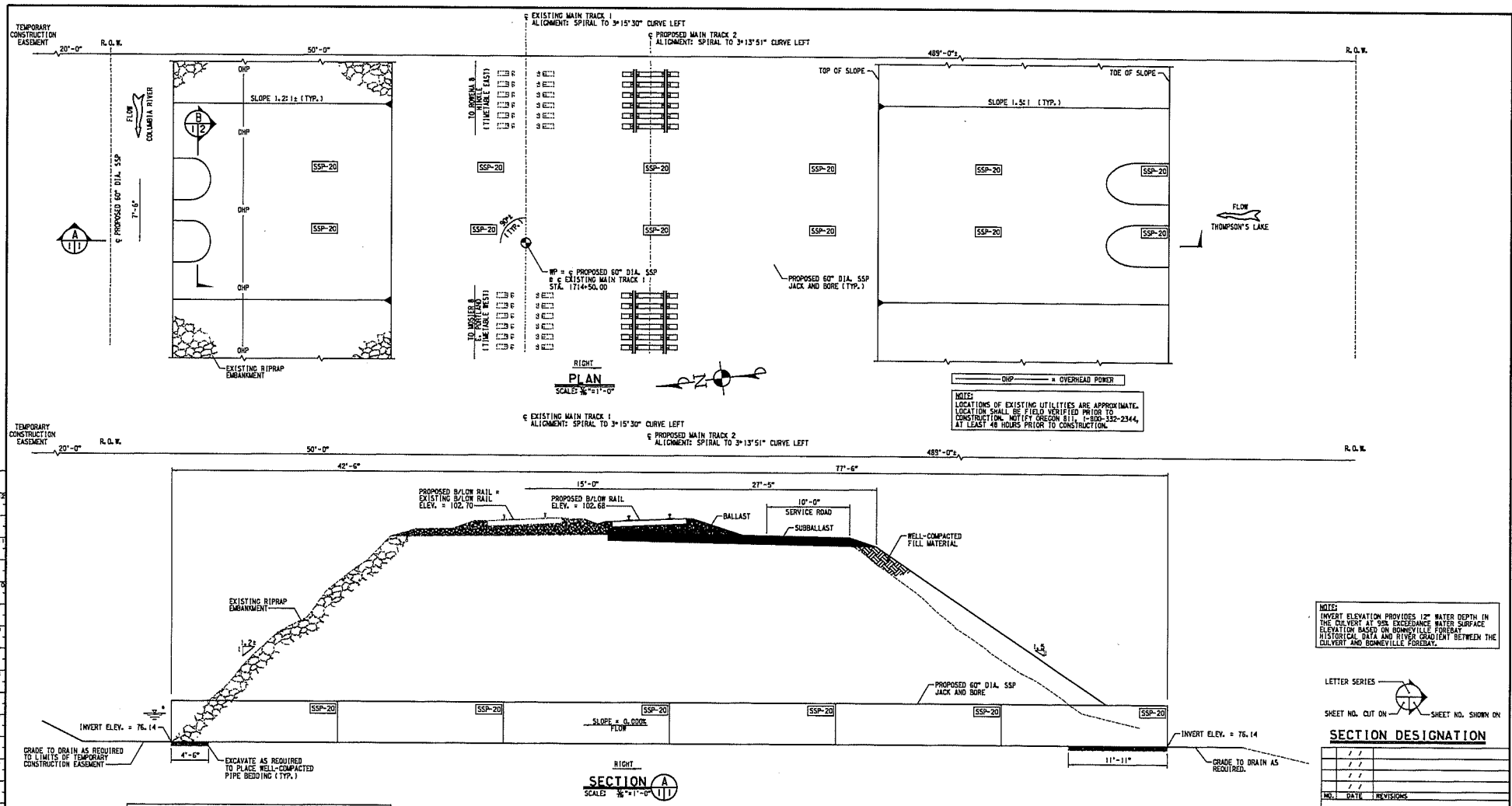
Date/Time: 3/16/2015




## DRAWING SCHEDULE

| | SHEET NO. | DESCRIPTION |
|---|---|---|
| THIS SET | 1 | GENERAL ARRANGEMENT |
| | 2 | BILL OF MATERIAL, CULVERT SECTION AND NOTES |

| | NO. | DWG. NO. | SHEET NO. | REV. NO. | DESCRIPTION |
|---|---|---|---|---|---|
| REF. | 1 | 680000 | 2 & 3 | C | GENERAL NOTES AND DETAILS FOR ROUND STEEL PIPE CULVERTS |
| | 2 | 680010 | 1 | - | CONSTRUCTION NOTES AND TABLE FOR SMOOTH STEEL PIPE CULVERTS |
| | 3 | - | P019 & P020 OF 22 | - | MOSIER, OREGON, PORTLAND SUBDIVISION MP 66.98 TO 72.35, CONSTRUCT SECOND MAINLINE, 90% PLANS, DATED 10-20-2014 |

INCHES 1 2 3 4 5 6 7 8 9 10 11 12

## POSTCONSTRUCTION COMPLIANCE

Contractor or UPRR Manager in charge of construction to provide to the office of the Director Structures Design as-built drawings confirming that the project was constructed in compliance with the plans and indicating any construction variances.

SIGNED

In Charge of Construction — Date

APPROVED FOR UNION PACIFIC RAILROAD CO. BY OLSSON ASSOCIATES

BY: K.H. Jennison

DATE: FEBRUARY 9, 2015

| NO. | DATE | REVISIONS |
|---|---|---|
| | / / | |
| | / / | |
| | / / | |
| | / / | |

OLSSON ASSOCIATES

UNION PACIFIC RAILROAD

Office of AVP Engineering Design/Construction

LOCATION: CULVERT 71.84 — PORTLAND SUB. — 1.0 MILE EAST OF MOSIER, OR

FACILITY: 2 - 60" DIA. SSP x 120' MITIGATION CULVERT

DWG TITLE: GENERAL ARRANGEMENT

| | | | |
|---|---|---|---|
| PROJECT ID: 81791 | UP ENGINEER: UP-MAB OLSSON-KNJ | LATITUDE: 45°41'54" N | |
| WORK ORDER: 19099 | | LONGITUDE: 121°21'06" W | |
| DESIGN BY: BAD | | | |
| CHECKED BY: CWT | | | |
| DRAWN BY: MDL | SHEET NO. 1 of 2 | C E NUMBER 120105 | |
| CHECKED BY: CWT | | | |
| SCALE: 3/16"=1'-0" | | | |

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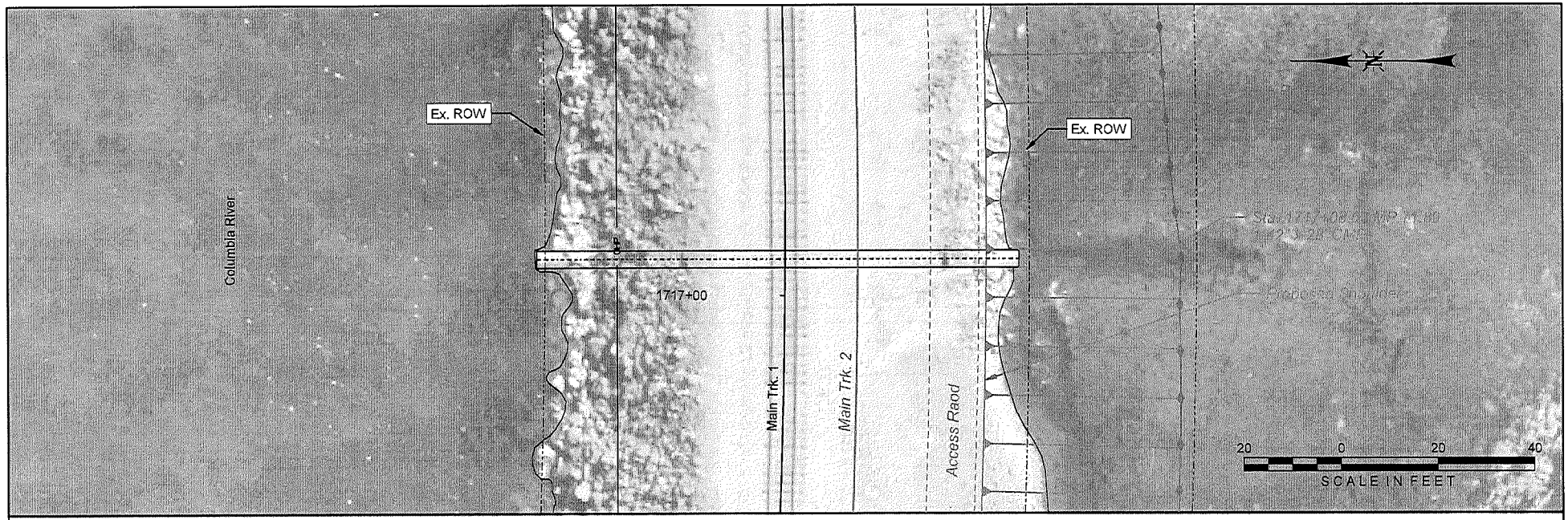
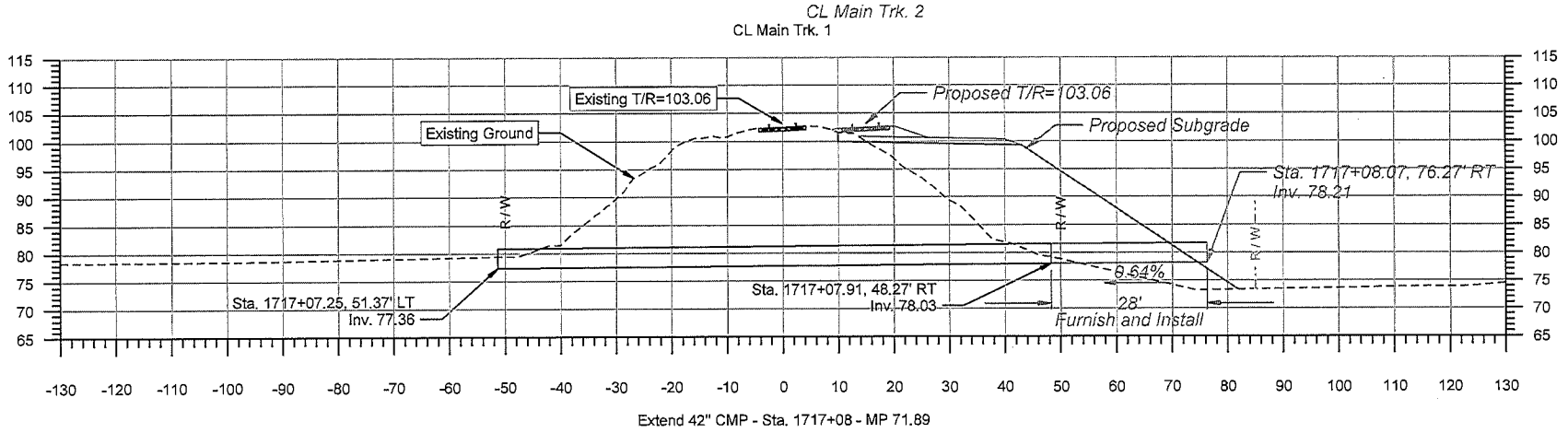
PC 1 4-1116




Extend 42" CMP - Sta. 1717+08 - MP 71.89

| | | | |
|---|---|---|---|
| OLSSON® ASSOCIATES | UNION PACIFIC | DRAWN BY: BWG<br>CHECKED BY: RCK<br>DATE: 3/16/2015<br>SHEET NUMBER: C007 of 007 | UNION PACIFIC RAILROAD — Office of Assistant Vice President Engineering Design/Construction<br>LOCATION & DESCRIPTION: Mosier, Oregon Portland Subdivision MP 66.98 to MP 72.35 Construct Second Mainline<br>SHEET TITLE: CULVERT STA. 1717+08 - EXTEND 42" CMP |

Color table: F:\PROJECTS\OH-1345\color\UPRR.tbl
F:\Projects\OH-1345_TRNS\20_Mosier West\PDF\Pen Tables\UPRR_VBL_Pentable_Mosier.tbl
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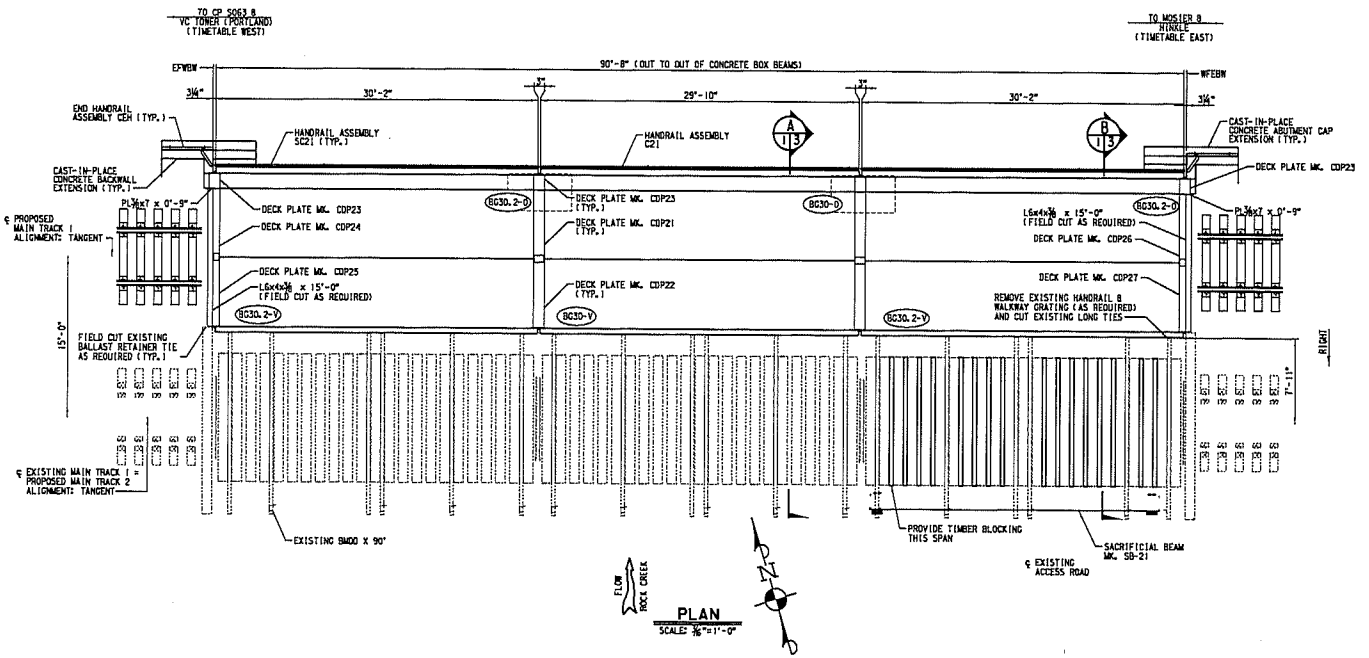
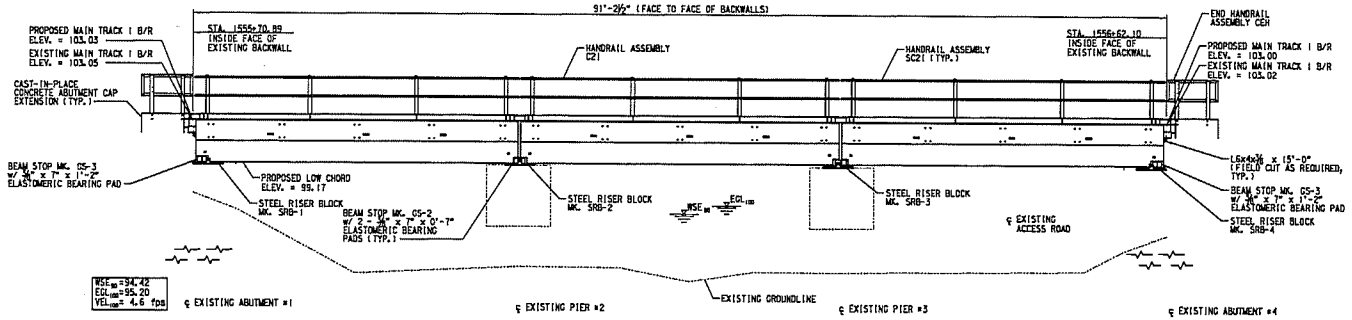
Date: 3/16/2015




## PLAN

SCALE: 3/16"=1'-0"




## ELEVATION

SCALE: 3/16"=1'-0"

(EXISTING BMOD AND SACRIFICIAL BEAM NOT SHOWN FOR CLARITY)

## BILL OF MATERIAL

| REQ'D | UNIT | DESCRIPTION | STORE ITEM NO | ORDERED BY |
|---|---|---|---|---|
| 1 | EA. | 30" x 29'-10" PRESTRESSED CONCRETE BOX BEAM MK. BG30-0, TYPE 1 w/ SLOPED CURB (REF. 3) | 511-7828 | MANAGER TRACK PROJECTS |
| 1 | EA. | 30" x 29'-10" PRESTRESSED CONCRETE BOX BEAM MK. BG30-V, TYPE 1 w/ VERTICAL CURB (REF. 3) | | |
| 2 | EA. | 30" x 30'-2" PRESTRESSED CONCRETE BOX BEAM MK. BG30.2-0, TYPE 1 w/ SLOPED CURB (PER DATA, SHEET NO. 3 & DETAILS AND NOTES, REF. 3) | | |
| 2 | EA. | 30" x 30'-2" PRESTRESSED CONCRETE BOX BEAM MK. BG30.2-V, TYPE 1 w/ VERTICAL CURB (PER DATA, SHEET NO. 3 & DETAILS AND NOTES, REF. 3) | | |
| 8 | EA. | HP14x89 x 40'-0" STEEL PILE w/ POINTS (ASTM A572 GR. 50, PLAIN) | 510-7559 | |
| 1 | EA. | STEEL RISER BLOCK MK. SRB-1 (PER DETAILS, SHEET NO. 7) | | |
| 1 | EA. | STEEL RISER BLOCK MK. SRB-2 (PER DETAILS, SHEET NO. 7) | | |
| 1 | EA. | STEEL RISER BLOCK MK. SRB-3 (PER DETAILS, SHEET NO. 7) | | |
| 1 | EA. | STEEL RISER BLOCK MK. SRB-4 (PER DETAILS, SHEET NO. 7) | | |
| 4 | EA. | BEAM STOP MK. GS-2 (REF. 5) | 510-0595 | |
| 4 | EA. | BEAM STOP MK. GS-3 (REF. 5) | 510-0596 | |
| 1 | EA. | HANDRAIL ASSEMBLY C21 FOR 29'-10" CONCRETE INTERIOR SPAN (REF. 5) | 510-0472 | |
| 2 | EA. | END HANDRAIL ASSEMBLY CEH FOR CONCRETE SPAN (REF. 5) | 513-3020 | |
| 1 | LOT | MISCELLANEOUS STEEL (PER SCHEDULE, SHEET NO. 8) | | |
| 1 | LOT | SACRIFICIAL BEAM MATERIAL (PER SCHEDULE, SHEET NO. 9) | | |
| 24 | EA. | 3/4" x 8" x 0'-10" ELASTOMERIC BEARING PAD (PER NOTES, SHEET NO. 2) | | |
| 12 | EA. | 3/4" x 10" x 1'-2" ELASTOMERIC BEARING PAD (PER NOTES, SHEET NO. 2) | | |
| 8 | EA. | 3/4" x 7" x 0'-7" ELASTOMERIC BEARING PAD | 510-3635 | |
| 4 | EA. | 3/4" x 7" x 1'-2" ELASTOMERIC BEARING PAD | 510-3637 | |
| 50 | EA. | 1/2"x28" x 6'-4" PREMOLDED EXPANSION JOINT FILLER PER ASTM D1751 | 511-8213 | |
| 23.2 | CU. YD. | 4000 PSI CONCRETE FOR CAST-IN-PLACE CONCRETE EXTENSIONS, 4.5 CU. YD. PER PIER CAP EXTENSION (2 REQ'D.), 6.0 CU. YD. PER ABUTMENT CAP EXTENSION (2 REQ'D.) AND 1.1 CU. YD. PER BACKWALL EXTENSION (2 REQ'D.) | | |
| 1 | LOT | REINFORCING STEEL FOR CAST-IN-PLACE CONCRETE PIER CAP EXTENSION (PER NOTES AND DETAILS, SHEET NO. 4) | | |
| 1 | LOT | REINFORCING STEEL FOR CAST-IN-PLACE CONCRETE ABUTMENT CAP EXTENSION (PER NOTES, SHEET NO. 4 AND DETAILS, SHEET NO. 5) | | |
| 1 | LOT | REINFORCING STEEL FOR CAST-IN-PLACE CONCRETE BACKWALL EXTENSION (PER NOTES, SHEET NO. 4 AND DETAILS, SHEET NO. 6) | | |
| 16 | EA. | 4" x 10" x 12'-0" TIMBER TIE (TIMBER BLOCKING) | | |
| 80 | EA. | 3/8" DIA. x 8" HEAVY-DUTY SPIKE (FOR TIMBER BLOCKING) | 514-6132 | |
| 1 | EA. | BRIDGE MARKER AND NO TRESPASSING SIGNS, MOUNTING POSTS AND MOUNTING HARDWARE PER ENGINEERING STANDARD DRAWINGS 0502, 0507, 0538 AND 0599 | P00-2616 | |
| 1 | LOT | PL 400 HEAVY DUTY CONSTRUCTION ADHESIVE | | |
| 6 | CU. YD. | WELL-GRADED 1½" MINUS CRUSHED ROCK | | MANAGER BRIDGE CONST. |

EST. WT. OF STEEL PILING = 28,480 LB.
EST. WT. OF STEEL RISER BLOCKS = 14,680 LB.
EST. WT. OF MISCELLANEOUS STEEL (NOT INCLUDING BOLTS) = 3,115 LB.
EST. WT. OF SACRIFICIAL BEAM STEEL (NOT INCLUDING BOLTS)= 2,570 LB.

## DRAWING SCHEDULE

| | SHEET NO. | DESCRIPTION |
|---|---|---|
| THIS SET | 1 | GENERAL ARRANGEMENT AND BILL OF MATERIAL |
| | 2 | SUBSTRUCTURE LAYOUT AND GENERAL NOTES |
| | 3 | SECTIONS, GIRDER MODIFICATION DATA AND DIVISION OF RESPONSIBILITY |
| | 4 | CAST-IN-PLACE CONCRETE PIER CAP EXTENSION DETAILS |
| | 5 | CAST-IN-PLACE CONCRETE ABUTMENT CAP EXTENSION DETAILS |
| | 6 | CAST-IN-PLACE CONCRETE BACKWALL EXTENSION DETAILS |
| | 7 | RISER BLOCKS MK. SRB-1, SRB-2, SRB-3 & SRB-4 DETAILS |
| | 8 | MISCELLANEOUS STEEL DETAILS |
| | 9 | SACRIFICIAL BEAM DETAILS |
| | 10 | BORING LOGS |

| | NO. | DWG. NO. | SHEET NO. | REV. NO. | DESCRIPTION |
|---|---|---|---|---|---|
| REF. | 1 | 530000 | A1-A7 | A | BOX AND SLAB BEAM, CONSTRUCTION PLANS |
| | 2 | 530000 | B1-B3 | A | 30" BOX BEAM, CONSTRUCTION DETAILS |
| | 3 | 500000 | BG1, BG2 | F | 30" DOUBLE BOX BEAM, FABRICATION PLANS |
| | 4 | 501000 | A1 | - | PRECAST END CAP FOR 30" BOX BEAM |
| | 5 | 502000 | 1-4 | B | STEEL HARDWARE AND HANDRAIL ASSEMBLIES |
| | 6 | - | - | - | MOSIER, OREGON - PORTLAND SUBDIVISION MP. 66.98 TO MP. 72.35 CONSTRUCT SECOND MAINLINE, 90% PLANS DATED 10/20/2014 |
| | 7 | - | - | - | MOSIER 2ND MAINLINE BRIDGE 68.88 - PORTLAND SUBDIVISION (SURVEY) DATED 2/24/2014 |

LETTER SERIES
SHEET NO. CUT ON
SHEET NO. SHOWN ON

## SECTION DESIGNATION

| EST. WT. OF PRECAST CONCRETE |
|---|
| BEAM MK. BG30-0 = 52,300 LB. EA. (26.2 TON) |
| BEAM MK. BG30-V = 48,000 LB. EA. (24.0 TON) |
| BEAM MK. BG30.2-0 = 53,300 LB. EA. (26.7 TON) |
| BEAM MK. BG30.2-V = 48,900 LB. EA. (24.5 TON) |

## POSTCONSTRUCTION COMPLIANCE

Contractor or UPRR Manager in charge of construction to provide to the office of the Director Structures Design as-built drawings confirming that the project was constructed in compliance with the plans and indicating any construction variances.

RECEIVED

In Charge of Construction — Date

| DA STRUCTURAL DESIGN QC | | |
|---|---|---|
| 12-1-14 | DESIGN | JEJ |
| 1-19-15 | DESIGN CHECK | KAS |
| . | PEER REVIEW | . |
| . | SR. ENG. | . |
| . | FINAL QC | . |

| NO. | DATE | REVISIONS |
|---|---|---|
| | / / | |
| | / / | |
| | / / | |
| | / / | |

OLSSON ASSOCIATES

UNION PACIFIC RAILROAD
Office of AVP Engineering Design/Construction

LOCATION: BRIDGE 68.88 — PORTLAND SUB.
1.9 MILES WEST OF MOSIER, OR

FACILITY: 3 - SPAN PCB x 90' 2ND MAIN LINE MATCHING 3 - SPAN BMOD x 90'

DWG TITLE: GENERAL ARRANGEMENT AND BILL OF MATERIAL

| | | | |
|---|---|---|---|
| PROJECT ID: | UP ENGINEER: | LATITUDE: 45°41'05" N |
| WORK ORDER: | UP-MAB | |
| DESIGN BY: KAS | OLSSON-KAJ | LONGITUDE: 121°24'21" W |
| CHECKED BY: MAB | | |
| DRAWN BY: JEJ | SHEET NO. | C.E. NUMBER |
| CHECKED BY: KAS | 1 of 10 | |
| SCALE: 3/16"=1'-0" | | |

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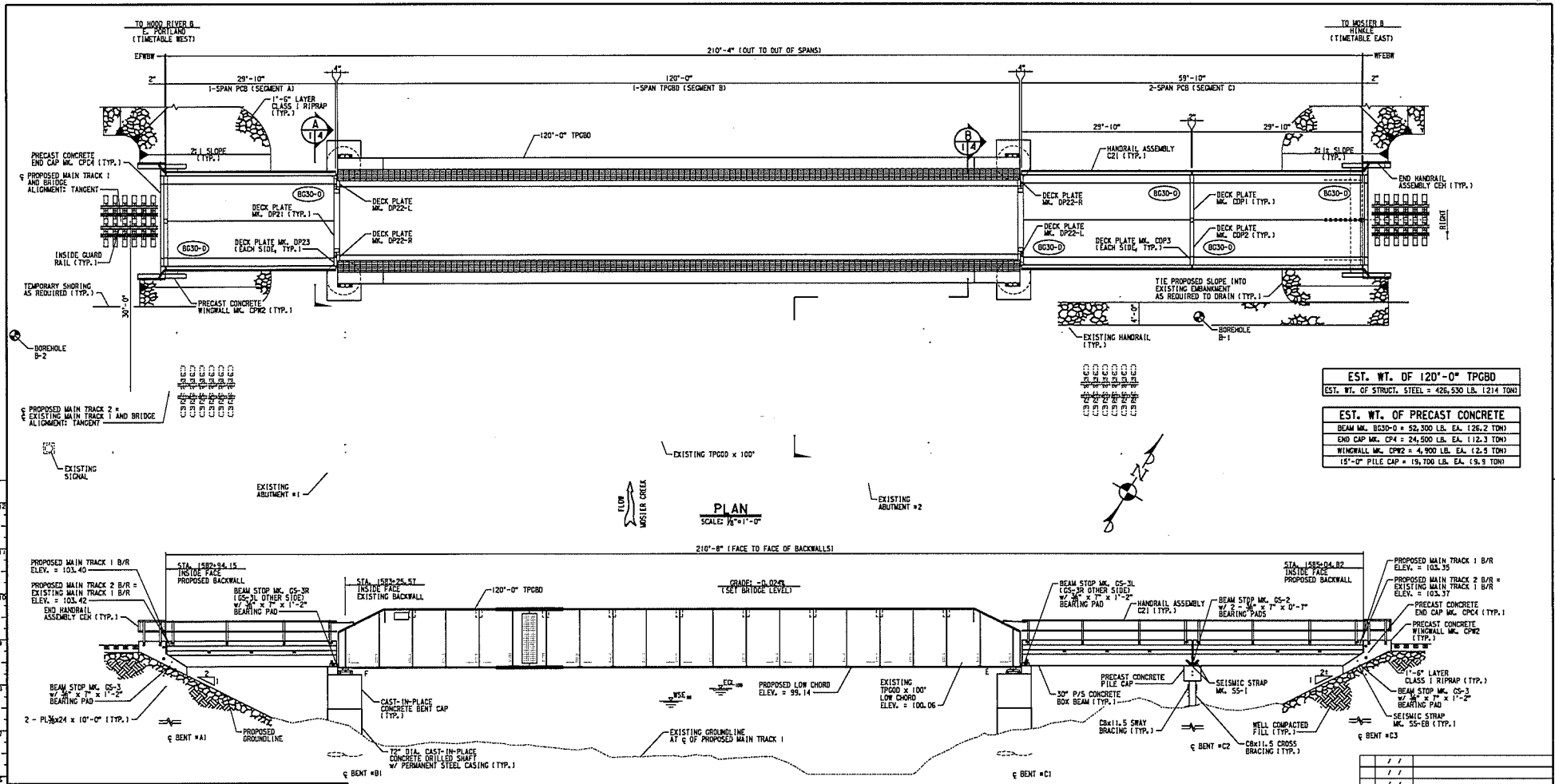
PCT 4-1118




## DRAWING SCHEDULE

| SHEET NO. | DESCRIPTION |
|---|---|
| 1 | GENERAL ARRANGEMENT |
| 2 | SUBSTRUCTURE LAYOUT |
| 3 | GENERAL NOTES AND BILL OF MATERIAL |
| 4 | TYPICAL SECTIONS AND DETAILS |
| 5 | DRILLED SHAFT CONSTRUCTION AND STRUCTURAL STEEL NOTES |
| 6 | DRILLED SHAFT DETAILS |
| 7 | CAST-IN-PLACE BENT CAP DETAILS |
| 8 | MISCELLANEOUS STEEL DETAILS |
| 9 | TPG FRAMING PLAN |
| 10 | TPG GIRDER DETAILS |
| 11 | TPG DETAILS (SHEET 1 OF 2) |
| 12 | TPG DETAILS (SHEET 2 OF 2) |
| 13 | TPG LATERAL BRACING DETAILS |
| 14 | TPG BALLAST PAN DETAILS (SHEET 1 OF 2) |
| 15 | TPG BALLAST PAN DETAILS (SHEET 2 OF 2) |
| 16 | TPG WALKWAY AND MISC. DETAILS (SHEET 1 OF 2) |
| 17 | TPG WALKWAY AND MISC. DETAILS (SHEET 2 OF 2) |
| 18 | TPG BEARING DETAILS (SHEET 1 OF 2) |
| 19 | TPG BEARING DETAILS (SHEET 2 OF 2) |
| 20 | TPG WATERPROOFING DETAILS |
| 21 | BORING LOGS |

THIS SET

## REFERENCE DRAWING SCHEDULE

REF.

| NO. | DWG. NO. | SHEET NO. | REV. NO. | DESCRIPTION |
|---|---|---|---|---|
| 1 | - | PDIG OF 0022 G005 OF 005 | - | MOSIER, OREGON - PORTLAND SUBDIVISION MP. 68.98 TO MP. 72.35 CONSTRUCT SECOND MAINLINE, 90% PLANS DATED 10/20/2014 |
| 2 | - | 1-4 | | MOSIER 2ND MAINLINE, BRIDGE 69.40 - PORTLAND SUBDIVISION (SURVEY) DATED 2/24/2014 |
| 3 | 4015F | 1-2 | - | DOUBLE GUARD RAIL FOR BALLAST DECK BRIDGES |
| 4 | 530000 | A1-A7 | B | BOX AND SLAB BEAM, CONSTRUCTION PLANS |
| 5 | 530000 | B1-B4 | A | 30" BOX BEAM, CONSTRUCTION DETAILS |
| 6 | 500000 | BG1, BG2 | F | 30" DOUBLE BOX BEAM, FABRICATION PLANS |
| 7 | 501000 | A1 | A | PRECAST END CAP FOR 30" BOX BEAM |
| 8 | 501000 | C1, C2 | A | PRECAST CONCRETE PILE CAP |
| 9 | 531010 | 1 | A | PRECAST CONCRETE PILE CAP BEARING PADS |
| 10 | 502000 | 1-4 | B | STEEL HARDWARE AND HANDRAIL ASSEMBLIES |
| 11 | 531800 | 8 | A | CAPMASTER PRECAST CONCRETE 15' PILE CAP WITH COIL INSERT DETAILS |
| 12 | 581000 | D1 | F | W36 & W40 BEAM SPAN, 31' TO 69' LENGTHS |

## POSTCONSTRUCTION COMPLIANCE

Contractor or UPRR Manager in charge of construction to provide to the office of the Director Structures Design as-built drawings confirming that the project was constructed in compliance with the plans and indicating any construction variances.

In Charge of Construction _____ Date _____

M.K. Brashear 4-7-15

APPROVED FOR UNION PACIFIC RAILROAD CO. BY OLSSON ASSOCIATES

BY: K.H. Jennison

DATE: FEBRUARY 4, 2015

LETTER SERIES

SHEET NO. CUT ON — SHEET NO. SHOWN ON

SECTION DESIGNATION

| NO. | DATE | REVISIONS |
|---|---|---|
| | | |

OLSSON ASSOCIATES

UNION PACIFIC RAILROAD

Office of AVP Engineering Design/Construction

LOCATION: BRIDGE 69.35, 1.5 MILES WEST OF MOSIER, OR — PORTLAND SUB.

FACILITY: 1-SPAN PCB x 30', 1-SPAN TPGBD x 120' & 2-SPAN PCB x 60' MATCHING 1-SPAN TPGDD x 100'

DWG TITLE: GENERAL ARRANGEMENT

| | | | |
|---|---|---|---|
| PROJECT ID= | 81781 | R/P ENGINEER: | LATITUDE= 45°41'06" N |
| WORK ORDER= | 19099 | DESIGN BY= KAS | OLSSON-KAJ |
| CHECKED BY= TMS | | | LONGITUDE= 121°23'45" W |
| DRAWN BY= JLJ | | SHEET NO. | C & E NUMBER |
| CHECKED BY= KAS | | 1 of 21 | 120086 |
| SCALE= AS NOTED | | | |

PLOTTED: 4/16/2015 12:59:26 PM

PCI 4-119

PLASAR-15-01-0004 UPRR

**Cultural Resources**

Cultural resource information and correspondence is made available only for administrative purposes to ensure ongoing resource protection. A confidential file is retained at the Wasco County Planning Department for these documents.

*Please contact staff with any questions.*

USDA United States Department of Agriculture | Forest Service | Columbia River Gorge National Scenic Area | 902 Wasco Ave., Suite 200
Hood River, OR 97031
541-308-1700
FAX 541-386-1916

**File Code:** 2360-3
**Date:** April 28, 2016

Angie Brewer
Interim Director
Wasco County Planning Department
2705 East Second St.
The Dalles, OR 97058

Dear Angie:

Union Pacific Railroad (UPRR) is proposing to construct a new second mainline tack in the Mosier vicinity (PLASAR-15-01-0004). A portion of the project occurs outside the Mosier urban area and is subject to Wasco County ordinances applicable within the National Scenic Area. I reviewed three cultural resource reports that address the cultural resource process (letters dated July 31 and August 24, 2015). Subsequent to my review, questions and concerns were submitted by archaeologists with Oregon State Parks and the Confederated Tribes of the Umatilla Reservation. Both I and the Army Corps have responded to these emails (December 13, 2015 and March 16, 2016).

I have reviewed the project record and find that, taken in combination, the three reports provided by CH2M Hill comply with the cultural resource provisions in the Management Plan and Wasco County Ordinance. The Army Corps of Engineers (ACE) is responsible for review of the project as a federally permitted undertaking under Section 106 of the National Historic Preservation Act. The ACE made the determination that there would be "**no adverse effect**" (letter to SHPO dated September 8, 2015). The Oregon State Historic Preservation Office accepted these reports and concurred that there would be "**no adverse effect**" from the implementation of the proposed project (letters dated September 21 and September 23, 2015) They affirmed these findings in an email dated April 25, 2016. As I stated in my previous letters, I concur with these findings of "**no adverse effect**".

The following reports comply with the standards set forth for large-scale undertakings under Wasco County ordinance.

Wilt, Julie, Marcia Montgomery and Robin McClintock
2015 **Cultural Resources Survey: Union Pacific Railroad Second Mainline Track Project Wasco County, Oregon.**

McClintock, Robin, Doug McFarland, David Sheldon and Marynell Nolan-Wheatley
2015 **Addendum: Cultural Resources Survey: Union Pacific Railroad Second Mainline Track Project Wasco County, Oregon.**

McClintock, Robin, and David Sheldon
2015 **Addendum II: Cultural Resources Survey: Union Pacific Railroad Second Mainline Track, Wasco County, Oregon**, Cultural Resources Survey of the Tooley Lake Wetland Mitigation Site.

It is my understanding that the ACE has requested additional information from the Confederated Tribes of the Umatilla Reservation (April 25, 2016) regarding "how this proposal may affect cultural resources and/or Tribal treaty rights". It is also my understanding that Oregon State Parks have requested that supplementary cultural resource survey/testing be conducted on Oregon State Parks land. Should either of these requests result in cultural resource concerns, I will review my findings again.

Sincerely,

/S/ Margaret L. Dryden

MARGARET L. DRYDEN
Heritage Program Manager

Cc: Robin Shoal, USFS
Chris Page, USACE

USDA United States Department of Agriculture | Forest Service | Columbia River Gorge National Scenic Area | 902 Wasco Ave., Suite 200
Hood River, OR 97031
541-308-1700
FAX 541-386-1916

**File Code:** 2360-3
**Date:** August 24, 2015

Angie Brewer
Interim Director
Wasco County Planning Department
2705 East Second St.
The Dalles, OR 97058

Dear Angie:

As part of wetland mitigation for the Union Pacific Railroad's (UPRR) new second mainline tack in the Mosier vicinity (PLASAR-15-01-0004) an addendum cultural resource report has been prepared.

The proposed wetland mitigation project area occurs outside the Mosier urban area and is subject to Wasco County ordinances applicable within the National Scenic Area. This letter will serve as my review of the project under the cultural resources section of Wasco County Ordinance. This development is being concurrently reviewed by US Army Corps of Engineer's under their 404 permitting process. The Army Corps is responsible for review of the project as a federally permitted undertaking under Section 106 of the National Historic Preservation Act.

The following addendum to the reconnaissance reports complies with the standards set forth for large-scale undertakings under Wasco County ordinance.

McClintock, Robin, and David Sheldon
2015 **Addendum II: Cultural Resources Survey: Union Pacific Railroad Second Mainline Track, Wasco County, Oregon**, Cultural Resources Survey of the Tooley Lake Wetland Mitigation Site.

No cultural resources were documented as a part of this report. I concur that there will be no effect to known cultural resources as a result of the wetland mitigation project.

Please include the cultural resources "incidental discovery" clause as a stipulation to this permit.

Sincerely,

/S/ *Margaret L. Dryden*

MARGARET L. DRYDEN
Heritage Program Manager

Cc: Robin Shoal, USFS
Chris Page, USACE



**PC 1 4-1123**

Oregon
Kate Brown, Governor

Parks and Recreation Department
State Historic Preservation Office
725 Summer St NE Ste C
Salem, OR 97301-1266
Phone (503) 986-0690
Fax (503) 986-0793
www.oregonheritage.org

September 23, 2015

Mr. Chris Page
USACOE Policy & Compliance Section
PO Box 2946
Portland, OR 97208-2946

RE: SHPO Case No. 15-0660
NWP-2014-364, PLASAR-15-01-0004, Union Pacific Railroad Project
Construct new track
Multiple Legals, Wasco County

Dear Mr. Page:

Thank you for sending the additional information contained in two addendum reports (Addendum and Addendum 2)or the project referenced above. We have completed examination of your original survey report with the added information provided in the two addendum reports (SHPO Reports 27589, 27590, 27591) and can now complete our review. We concur that the two sites containing railroad grade segments [redacted] would not be eligible for the National Register because of their condition and poor integrity. The additional information from supplemental shovel probes within the project right-of-way in the vicinity of site [redacted] and [redacted] verifies the sites do not extend into the current project area and will not be impacted by the proposed project. Avoidance flagging to insure there are no impacts to [redacted] as proposed in the reports is supported by our office.

We agree that the project activities, as described in your report, will likely have no adverse effect on these or any other known archaeological sites. Additional archaeological research is not anticipated for this project. It is our understanding that consultation with Native American groups with an interest in the area is on-going, and that if any additional information regarding site locations (Traditional Cultural Properties, or other) results from this consultation, our office will be notified. In the unlikely event archaeological features or additional sites (i.e., historic or prehistoric) are encountered, all activities should cease immediately and a professional archaeologist should be contacted to evaluate the discovery. If project impacts and the degree/type of required ground disturbance changes from that outlined in your report, further consultation with our office will be required before proceeding with the proposed activity. If you have any questions regarding any future discovery, or this letter, feel free to contact our office.

Sincerely,

Ross Curtis
SHPO Archaeologist
(503) 986-0676
ross.curtis@oregon.gov

# 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


Date: September 22, 2015

To: Dennis Griffin, Oregon State Historic Preservation Office
John Pouley, Oregon State Historic Preservation Office
Nakia Williamson, Sr., Nez Perce Tribe
Patrick Baird, Nez Perce Tribe
Elmer Ward, Confederated Tribes of Warm Springs
Roberta Kirk, Confederated Tribes of Warm Springs
Kate Sloan, Confederated Tribes of Warm Springs
Patty Perry, Confederated Tribes of Umatilla
Teara Farrow Ferman, Confederated Tribes of Umatilla
Johnson Minninick, Yakama Indian Nation
Casey Barney, Yakama Indian Nation

Copy: Marge Dryden, Columbia River Gorge National Scenic Area Heritage Program Manager
Chris Page, U.S. Army Corps of Engineers Regulatory Branch, Portland
Peter Olmstead, U.S. Army Corps of Engineers, John Day Project
Nancy Nelson, Oregon State Parks and Recreation
Robin McClintok, CH2M Hill Archaeologist

*This notice has also been shared by email to the parties named above on September 22, 2015.*

From: Angie Brewer, Wasco County Planning Department

Subject: National Scenic Area Cultural Resource Notice of Application PLASAR-15-01-0004
Applicant: Union Pacific Railroad; Applicant Consultant: CH2M Hill
**State Historic Preservation Office Case Number 15-0660.**
*Same survey and information shared with you by the USACE on 9-08-2015*

---

Greetings Heritage Program Managers and Cultural Resource Protection Specialists,

The Wasco County Planning Department has received an application from Union Pacific Railroad and their land use consultants, CH2M Hill, to expand an existing double track siding on either side of Mosier, Oregon, realign existing track in the same area, replace equipment shelters, install new lighting and signage, install wireless communication poles, and construct temporary and permanent access roads.

As shown in the attached application materials, portions of the proposed development will occur inside the city of Mosier and portions will occur outside the City, within the Columbia River Gorge National Scenic Area. Wasco County Planning has regulatory authority provided by the National Scenic Area Act to protect scenic, natural, cultural and recreation resources outside of the Mosier Urban Area.

This notice is being provided in coordination with the U.S. Army Corps of Engineers who sent a similar notice on September 8, 2015 sharing the same report, for the same project area to satisfy Section 106 requirements. To ensure a clear and coordinated review process, please watch for their notice, review the materials simultaneously and provide copies of any feedback or concerns to both agencies. The Oregon State Historic Preservation Office Case Number identified in the USACE notice is 15-0660.

Attached to this memo, please find a paper copy of the cultural resource survey and historic property reports. An email will also be provided to share this notice and the referenced documents electronically.

Cultural resource survey reports prepared for this application include:

- *Cultural Resources Survey: Union Pacific Railroad Second Mainline Track Project Wasco County, Oregon* (April 2015, CH2M Hill, Inc.)

- Addendum to *Cultural Resources Survey: Union Pacific Railroad Second Mainline Track Project Wasco County, Oregon* (July 16, 2015, CH2M Hill, Inc.)

- Addendum II to *Cultural Resources Survey: Union Pacific Railroad Second Mainline Track Project Wasco County, Oregon* (August 7, 2015, CH2M Hill, Inc.)

Marge Dryden, Heritage Program Manager for the Columbia River Gorge National Scenic Area, has been coordinated with during the preparation of this survey and report to ensure compliance with NSA survey requirements and resource protections. In addition to the NSA requirements, Ms. Dryden has coordinated her review with the USACE cultural resource program (who implements Section 106).

In her July 31, 2015 letter report, Ms. Dryden concurs with the report's assessment of "No Effect" from the proposed project and requests the County require an "incidental discovery" clause as a stipulation to the permit.

In his September 8, 2015 letter, Mr. Zinszer of the USACE Regulatory Branch makes a similar statement: "...with a condition of an inadvertent discovery plan and exclusionary filed markers near site 35WS13, the Corps has determined the proposed project will have *No Adverse Effect* on historic properties..."

Chapter 14, Sections 500 and 510 of the Wasco County National Scenic Area Land Use Ordinance contain process provisions and requirements for cultural resource protection. A **30-day cultural resource review comment period is provided by these rules.** Please note you will also receive a notice for public comment, thus providing a separate opportunity to provide additional comments and feedback not specifically related to the cultural resource protection process.

**Written comments are needed by October 22, 2015.**

The Wasco County Planning Commission will be meeting November 3, 2015 to make a decision on this application. The meeting is scheduled for 12:00pm at the Discovery Center in The Dalles, Oregon; if the hearing date, location or time changes, your office will be notified.

Thank you in advance for your coordination in this review. Please do not hesitate to contact me directly with any questions or concerns. I can be reached directly Monday through Friday, 8am to 4:30pm at (541) 506-2566 or by email at angieb@co.wasco.or.us.

Sincerely,

Angie Brewer, AICP
Planning Director

Enclosures:

- *Cultural Resources Survey: Union Pacific Railroad Second Mainline Track Project Wasco County, Oregon* (April 2015, CH2M Hill, Inc.)
- Addendum to *Cultural Resources Survey: Union Pacific Railroad Second Mainline Track Project Wasco County, Oregon* (July 16, 2015, CH2M Hill, Inc.)
- Addendum II to *Cultural Resources Survey: Union Pacific Railroad Second Mainline Track Project Wasco County, Oregon* (August 7, 2015, CH2M Hill, Inc.)
- Margaret Dryden's August 24, 2015 letter
- Margaret Dryden's July 31, 2015 letter
- Margaret Dryden's May 15, 2015 letter

Angie Brewer <angieb@co.wasco.or.us>

# NSA Cultural Resource Notice - PLASAR-15-01-0004 UPRR

1 message

**Angie Brewer** <angieb@co.wasco.or.us> Tue, Sep 22, 2015 at 4:05 PM
To: Dennis.Griffin@oregon.gov, POULEY John * OPRD <John.Pouley@oregon.gov>, nakiaw@nezperce.org, Elmer Ward <elmer.ward@ctwsbnr.org>, roberta.kirk@ctwsbnr.org, kate.sloan@ctwsbnr.org, pattyperry@ctuir.org, TearaFarrowFerman@ctuir.org, johnson@yakama.com, crp3@yakama.com, pat b <keithb@nezperce.org>
Cc: Robin.McClintock@ch2m.com, "Dryden, Margaret L -FS" <mdryden@fs.fed.us>, Nancy.Nelson@oregon.gov, "Olmstead, Peter NWS" <Peter.D.Olmstead@usace.army.mil>, "Page, Christopher NWP" <Christopher.M.Page@usace.army.mil>, Angie Brewer <angieb@co.wasco.or.us>, Brenda Jenkins <brendaj@co.wasco.or.us>

Greetings Heritage Program Managers and Cultural Resource Protection Specialists:

The Wasco County Planning Department has received an application from Union Pacific Railroad and their land use consultants, CH2M Hill, to expand an existing double track siding on either side of Mosier, Oregon, realign existing track in the same area, replace equipment shelters, install new lighting and signage, install wireless communication poles, and construct temporary and permanent access roads.

**Portions of this project are also being reviewed by the U.S. Army Corps of Engineers (USACE notice letter sent 9/8/2015) and the Oregon State Historic Preservation Officer (SHPO# 15-0660).**

Please see the attached cultural resource notice to ensure compliance with the cultural resource protection process provided by the National Scenic Area Act in Wasco County. A hard copy has been mailed to each of your offices (one copy per office). There are three surveys: a primary survey and two addendum reports. Marge Dryden has reviewed each report; her letters are also attached. The primary survey is quite large and will be sent in a separate email with read receipt to ensure your email exchange has received it.

The National Scenic Area cultural resource protection process provides a 30-day comment period. **Please provide any comments or concerns by October 22, 2015.** Comments may be provided by email or by formal letter.

Staff will be providing public notice of this application soon, and will be posting non-confidential resource information on the Wasco County Planning website. You may also receive a public notice at that time. The Wasco County Planning Commission will be meeting on November 3rd, 2015 to make a decision on the proposed development; the meeting will include a public hearing.

Thank you in advance for your time and coordination on this review. Please do not hesitate to contact me directly with any questions.

Sincerely,

Angie

**Angie Brewer, AICP**
Planning Director
Wasco County Planning Department
(541) 506-2566 direct / (541) 506-2560 main
www.co.wasco.or.us/planning/

**6 attachments**

**20150922_CulturalNotice_PLASAR-15-01-0004.pdf**
479K

**Addendum II_rev2(CH2MHill_Report).pdf**
1296K

**Addendum_CULTURAL TECHNICAL MEMORANDUM_UPRR_Second_Mainline.pdf**
3340K

**letter05_13_15_ArchPermit2049-Review_MemalooseSP.pdf**
45K

**letter07_31_15_FinalReviewUPRRproject.pdf**
76K

**letter08_24_15_FinalReviewAddendaWetlandAreaUPRRproject.pdf**
30K

Oregon
Kate Brown, Governor

Parks and Recreation Department
State Historic Preservation Office
725 Summer St NE Ste C
Salem, OR 97301-1266
Phone (503) 986-0690
Fax (503) 986-0793
www.oregonheritage.org

September 21, 2015

Mr. Chris Page
USACOE Policy & Compliance Section
PO Box 2946
Portland, OR 97208-2946

RE: SHPO Case No. 15-0660
NWP-2014-364, PLASAR-15-01-0004, Union Pacific Railroad Project
Construct new track
Multiple Legals, Wasco County

Dear Mr. Page:

We have reviewed the revised and supplemental materials submitted on the project referenced above, and we concur with the following determinations:

1. [redacted] - Not Eligible, No Effect
2. [redacted] - Not Eligible, No Effect
3. [redacted] - Eligible, No Adverse Effect

We therefore concur with the overall finding of no adverse effect for the proposed project. This letter refers to above-ground historic resources only. Comments pursuant to a review for archaeological resources, if applicable, will be sent separately.

Unless there are changes to the project, this concludes the requirement for consultation with our office under Section 106 of the National Historic Preservation Act (per 36 CFR Part 800) for above-ground historic resources. Local regulations, if any, still apply and review under local ordinances may be required. Please feel free to contact me if you have any questions, comments or need additional assistance.

Sincerely,

Jason Allen, M.A.
Historic Preservation Specialist
(503) 986-0579
jason.allen@oregon.gov

PLASAR-15-01-0004 UPRR

**Natural Resources**

Natural resource location information and correspondence is made available only for administrative purposes to ensure ongoing resource protection. The following documents have been redacted where necessary. A confidential file is retained at the Wasco County Planning Department for the original documents.

*Please contact staff with any questions.*

WASCO COUNTY

Angie Brewer <angieb@co.wasco.or.us>

# RE: Comments re PLASAR-15-01-004 - UPRR Second Mainline Track Project

1 message

**Shoal, Robin Z -FS** <rshoal@fs.fed.us> Wed, May 11, 2016 at 7:13 PM
To: Angie Brewer <angieb@co.wasco.or.us>

Hi, Angie –

Here is some additional input regarding the UPRR proposal and mitigation for the proposed 6.62 acres of staging area west of Memaloose Park, and for disturbance to other sensitive plant sites and their buffers.

The area proposed for staging is currently good quality, relatively undisturbed Oregon white oak woodland in SMA Open Space. Oregon white oak woodland is identified as both a priority habitat and as sensitive wildlife habitat in the Management Plan. Disturbance in this habitat type is long-term, and the habitat currently on the site has been present for many decades. There needs to be extremely strong rationale for clearing and grading in this location. Avoidance of the adverse effects of clearing and grading is definitely preferred to mitigation. One alternative would be to limit the grading and staging area to the area at track miles 71.7-71.8, which is already disturbed and has good access. Use of this area instead would also avoid adverse effects to the scenic resource associated with the currently proposed staging area.

Compared with some other habitat types, when oaks are removed the mitigation requirements are much more complicated because it takes so long for the oak habitat to regenerate (up to four decades for an oak to begin producing acorns). A mitigation ratio of 8:1 has been required to offset impacts to Oregon white oak woodlands. Each acre of clearing and grading would require either long-term protection of eight acres of equivalent white oak habitat, mitigation planting of eight acres of oak habitat, or a combination of those. Planting would also entail monitoring for four or more years to ensure survival.

In the mitigation plan that accompanies the application, the primary mitigation proposed for sensitive plant sites in general appears to be revegetation of the disturbed sites, and does not include mitigation for entering the 200-foot buffers. A complete mitigation plan should identify additional enhancement sites to mitigate for disturbance to sensitive plant sites and their buffers.

Feel free to call with questions for me or any of the Forest Service resource specialists.

**Robin Shoal**
**Staff Officer, Natural Resources & Planning**

**PC 1 4-1132**

**Forest Service**

**Columbia River Gorge National Scenic Area**

**office: 541-308-1716**

**fax: 541-386-1916**
**rshoal@fs.fed.us**

902 Wasco Avenue, Suite 200
Hood River, OR 97031
www.fs.fed.us

**Caring for the land and serving people**

**From:** Shoal, Robin Z -FS
**Sent:** Wednesday, May 04, 2016 9:45 AM
**To:** 'Angie Brewer' <angieb@co.wasco.or.us>
**Subject:** Comments re PLASAR-15-01-004 - UPRR Second Mainline Track Project

Hi, Angie –

Here are comments on the application for the UPRR Second Mainline Track Project, file number PLASAR-15-01-004. A hard copy will follow in the mail.

Feel free to call with any questions.

Cheers,

Robin

**Robin Shoal**
**Staff Officer, Natural Resources & Planning**

**PC 1 4-1133**

**Forest Service**

**Columbia River Gorge National Scenic Area**

**office: 541-308-1716**

**fax: 541-386-1916**
**rshoal@fs.fed.us**

902 Wasco Avenue, Suite 200
Hood River, OR 97031
www.fs.fed.us

**Caring for the land and serving people**

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WASCO COUNTY

Angie Brewer <angieb@co.wasco.or.us>

# Re: Open Space Plan

1 message

**Angie Brewer** <angieb@co.wasco.or.us> Tue, Apr 26, 2016 at 3:35 PM
To: "Shoal, Robin Z -FS" <rshoal@fs.fed.us>

Thank you Robin!

**Angie Brewer, AICP**
Planning Director
Wasco County Planning Department
(541) 506-2566 direct / (541) 506-2560 main
www.co.wasco.or.us/planning/

On Mon, Apr 25, 2016 at 5:57 PM, Shoal, Robin Z -FS <rshoal@fs.fed.us> wrote:

> Hi, Angie –
>
> Yes, the Rowena Open Space plan is the only relevant open space plan – it covers all Open Space within the proposed UPRR project area.
>
> Robin
>
> **Robin Shoal**
> **Staff Officer, Natural Resources & Planning**
>
> **Forest Service**
>
> **Columbia River Gorge National Scenic Area**
>
> **office: 541-308-1716**
>
> **fax: 541-386-1916**
> **rshoal@fs.fed.us**
>
> 902 Wasco Avenue, Suite 200
> Hood River, OR 97031
> www.fs.fed.us
>
>
> **Caring for the land and serving people**

**From:** Angie Brewer [mailto:angieb@co.wasco.or.us]
**Sent:** Saturday, April 23, 2016 4:13 PM
**To:** Shoal, Robin Z -FS <rshoal@fs.fed.us>
**Cc:** Burditt, Lynn -FS <lburditt@fs.fed.us>
**Subject:** Open Space Plan

Hi Robin,

Great to talk with you last week about the UPRR project. I'm working through the staff analysis and wanted to confirm we had all applicable open space plans for the Open Space designations the project will cross. Can you confirm for me if more than the Rowena Plan applies? If yes, can send it to me? The project will run from the Wasco County line west of Mosier to about the middle of Memaloose State Park.

Thank you for your help and please let me know if you had any comments come to mind...Other than Marge's involvement with the cultural resources, I don't have any formal comments from the Forest Service for resource impacts.

Thank you!

Angie

**Angie Brewer, AICP**
Planning Director
Wasco County Planning Department
(541) 506-2566 direct / (541) 506-2560 main
www.co.wasco.or.us/planning/

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WASCO COUNTY

Angie Brewer <angieb@co.wasco.or.us>

# UPRR track expansion application in Wasco County

1 message

**Shoal, Robin Z -FS** <rshoal@fs.fed.us> Mon, Mar 14, 2016 at 4:15 PM
To: "Carre, Brett T -FS" <btcarre@fs.fed.us>, "Dobson, Robin -FS" <rdobson@fs.fed.us>, "Hopster, Diane A -FS" <dhopster@fs.fed.us>
Cc: Angie Brewer <angieb@co.wasco.or.us>

Hi, FS Resource Specialists -

I spoke with Wasco County Planning Director Angie Brewer again about this project today. She is interested in hearing your resource specialist perspectives on this proposal, and given the turnover at her office and ours she is not sure you all received the notice and info. I'm attaching the link to the project notice that was posted to the Wasco Co website on March 10. The entire project application, including the mitigation plan, site plans, typicals, wetland delineation report, and other docs are posted there. I also have access to Appendices J, K, and L, which contain confidential resource information and were not posted to the public website.

Angie is also interested in our perspective on the clearing proposed in Open Space, apparently to the west of Mamaloose Park. I have not yet looked through the application and related materials.

Feel free to contact Angie directly with any questions, and also cc me on emails so I can stay in the loop re resource comments. Much appreciated.

The Wasco County Planning Department has new information which has been updated on the webpage. Please visit the page to view the updated information for the following files. **Please note**: This is a **Revised** Notice for a Wasco County Planning Commission Hearing Dated **May 3, 2016, 3:00 PM. Please see notice for comment requirements**

| | | | | | | |
|---|---|---|---|---|---|---|
| PLASAR-15-01-0004 | YES | UNION PACIFIC RAIL ROAD | EXPAND AN EXISTING RAILROAD SIDING ON EITHER SIDE OF MOSIER | VARIOUS SEE NOTICE OR APPLICATION | ANGIE BREWER | **Planning Commission Hearing Documents:** for hearing dated: May 3, 2016 Time: 3:00pm at Columbia Gorge Discovery Center, located at 5000 Discovery Drive The Dalles OR 97058 **Revised Notice:** |

Union Pacific Application

Wasco County Planning Website

*Robin Shoal*

*Planning & Natural Resources Staff Officer*

*Columbia River Gorge National Scenic Area*

*541-308-1716 (office)*

**From:** Shoal, Robin Z -FS
**Sent:** Monday, March 07, 2016 4:08 PM
**To:** Carre, Brett T -FS <btcarre@fs.fed.us>; Dobson, Robin -FS <rdobson@fs.fed.us>; Hopster, Diane A -FS <dhopster@fs.fed.us>; Santini, Katherine -FS <ksantini02@fs.fed.us>
**Subject:** FW: natural notices -

FYI – NOAA biological opinion and USFWS consultation documents for Union Pacific RR's proposed track expansion in Wasco County.

**PC 1 4-1137**

The County is the lead agency on the consistency review. I was involved in some interagency discussions early on (well over a year ago) about off-site wetland mitigation for this proposal. I believe UPRR was intending to acquire a private parcel in the vicinity of the project in Wasco County to use as the mitigation site.

*Robin Shoal*

*Planning & Natural Resources Staff Officer*

*Columbia River Gorge National Scenic Area*

*541-308-1716 (office)*

*971-806-7601 (cell)*

**From:** Angie Brewer [mailto:angieb@co.wasco.or.us]
**Sent:** Monday, March 07, 2016 3:28 PM
**To:** jeremy.l.thompson@state.or.us; Rod French <rod.a.french@state.or.us>; sue.vrilakas@pdx.edu; Dobson, Robin -FS <rdobson@fs.fed.us>; Shoal, Robin Z -FS <rshoal@fs.fed.us>
**Subject:** Fwd: natural notices -

Hello natural resource partners,

I shared a notice on February 20th containing resource surveys for the UPRR application received by Wasco County for Scenic Area review. I have heard from Rod that the survey documents did not open properly for him. Just in case this has occurred for each of you, I will be sending them again this afternoon using a slightly different method. In the meantime, I wanted to be sure to share the biological opinion from USFW (attached) in case it helps you in your review.

I will try to catch you all by phone this week to touch base. If anyone would prefer that we sit down and look at the maps together, please let me know and I'll schedule a meeting.

Thanks and watch for another email soon.

Angie

**Angie Brewer, AICP**
Planning Director
Wasco County Planning Department
(541) 506-2566 direct / (541) 506-2560 main
www.co.wasco.or.us/planning/

-------- Forwarded message --------
From: <Linnea.Eng@ch2m.com>
Date: Sun, Feb 21, 2016 at 11:48 AM
Subject: RE: natural notices -
To: angieb@co.wasco.or.us

Thank you, Angie – and thanks for the reminder – I went on vacation Wednesday-Friday and completely forgot about this. Here is the Biological Opinion. I think I also said I'd send you the letter from USFWS – also attached. Please let me know if you have any questions.

*Linnea*

*425-895-0879 (o)*

*425-765-3043 (c)*

**From:** Angie Brewer [mailto:angieb@co.wasco.or.us]
**Sent:** Saturday, February 20, 2016 1:23 PM
**To:** Eng, Linnea/SEA <Linnea.Eng@CH2M.com>
**Subject:** natural notices -

Hi Linnea,

Here are copies of the resource notices for your records.

Could you also send me a copy of the biological opinion you mentioned in our last call?

Thanks,
Angie

**Angie Brewer, AICP**
Planning Director
Wasco County Planning Department
(541) 506-2566 direct / (541) 506-2560 main
www.co.wasco.or.us/planning/

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USDA
Forest
Service

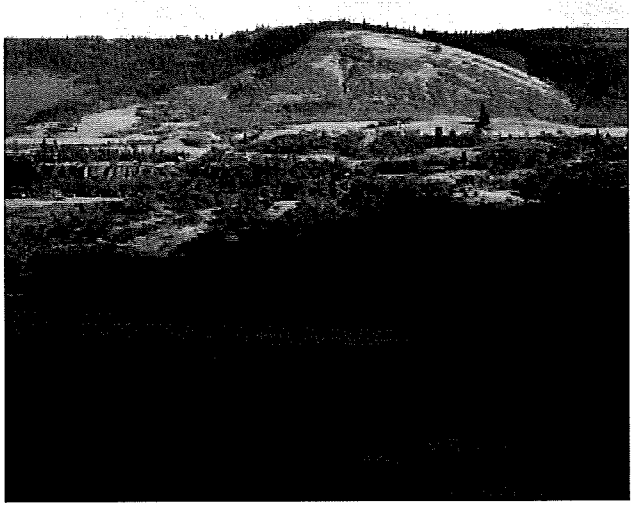
Columbia
River Gorge
National
Scenic Area

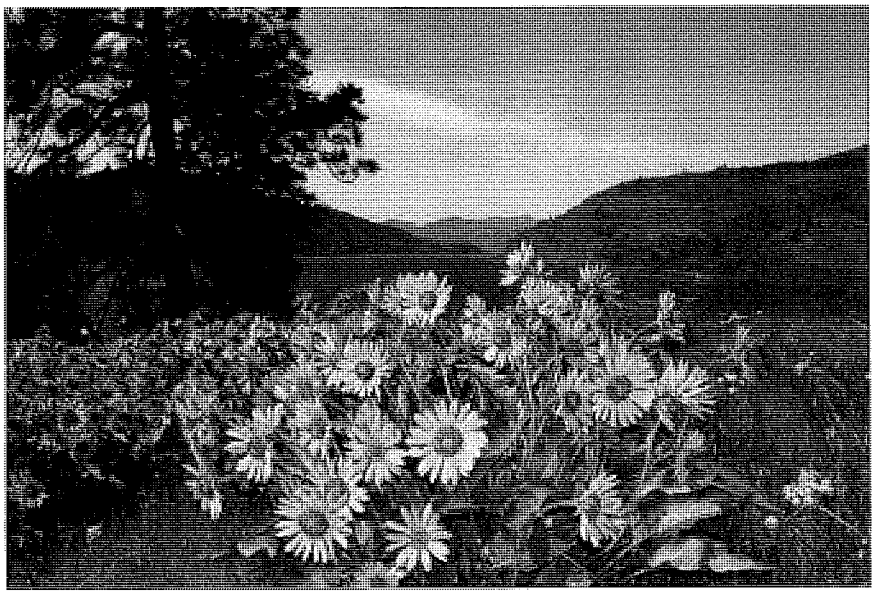
# Rowena Plan

*Columbia River Gorge National Scenic Area*

**2005**

September 2005





PC 1 4-1140

# Rowena Plan

## USDA Forest Service

*Columbia River Gorge National Scenic Area*

**September 2005**


## ABSTRACT

The Rowena Plan sets broad direction for lands in the Rowena Special Management Area (SMA) in Wasco County, Oregon. The Plan fulfills the requirements of a watershed analysis and an SMA Open Space Plan. This document compiles relevant information on the natural, scenic, cultural, recreational resources and social aspects of this area. A description of current conditions is followed by a description of 'reference' conditions (those pre-dating the arrival of Europeans). A 'syntheses' attempts to reconcile the current and reference conditions, and set the stage for a Desired Future Condition. Recommendations to achieve the Desired Future Condition, and a list of specific potential projects are provided. All proposals on non- National Forest lands are at the discretion of the landowner.


## ROWENA PLANNING TEAM


Robin Dobson – Botany/Ecology, Vegetation

Marge Dryden – Heritage Resources

Chuti Fiedler – Fish/Wildlife

Linda Fox – Special Uses

Stan Hinatsu - Recreation

Virginia Kelly -Team Leader, Writer/Editor, Land Use

Darren Kennedy – Fire/Fuels

Mark Kreiter – Watershed

Allen Morrissette – Transportation, Utilities, Structures

Diana Ross – Scenic Resources, Vegetation


The Rowena Plan meets the requirements of an Open Space Plan and a Watershed Analysis.

*/s/ Daniel T. Harkenrider*

**Daniel T. Harkenrider**
**Area Manager**

**Date: September 30, 2005**

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# INTRODUCTION

**Purpose of the Rowena Plan**

The Forest Service developed this plan for the Rowena area which:

1) fulfills the requirements of a Special Management Area (SMA) Open Space Plan for the SMA Open Space lands in all ownerships,
2) fulfills the requirements of a watershed analysis for National Forest lands in the portion of planning area within the boundaries of the Northwest Forest Plan and,
3) provides broad direction for management of all National Forest lands in the Rowena area, including all designations other than Open Space and lands outside the boundaries of the Northwest Forest Plan.

The Rowena Plan is not a "decision" document. It provides *broad* direction. Recommendations for specific proposals typically require further analysis for consistency with the Columbia River Gorge National Scenic Area (CRGNSA) Plan, either by Wasco County on non-federal lands, or by the Forest Service on federal lands, and NEPA analysis and documentation on federal lands. Activities on non-National Forest lands are at the complete discretion of the property owner. The National Scenic Area Manager reviews the Rowena Plan to ensure it meets the requirements of an Open Space Plan and of a watershed analysis.

**Location**

The Rowena Plan area consists of the Rowena Special Management Area (SMA) and National Forest lands adjacent to the Rowena SMA. It includes areas commonly referred to as "Rowena", "Memaloose" and "Seven Mile Hill." The Rowena Plan sets direction within this area for Open Space lands in all ownerships and for all National Forest lands in all land use designations (see Figure 1 next page).

**Background**

The Management Plan for the Columbia River Gorge National Scenic Area (CRGNSA Plan) requires an Open Space Plan to set overall management direction on lands designated SMA Open Space before any new land uses and developments can occur. About 2,200 acres of the planning area are designated SMA Open Space. The Rowena Plan fulfills the requirements of an Open Space Plan.

The 1994 Northwest Forest Plan requires a watershed analysis to be completed on certain National Forest lands, such as riparian reserves, before any land management activities can take place. About 1,400 acres of the planning area are within the boundaries of the Northwest Forest Plan, and a number of intermittent streams in this area have a 100 ft riparian reserve. The Rowena Plan fulfills the requirements of a watershed analysis for the lands within the boundaries of the Northwest Forest Plan. The analysis area for the Rowena Plan includes the "Rowena Creek" and "Rowena Columbia Tribs" subwatersheds.

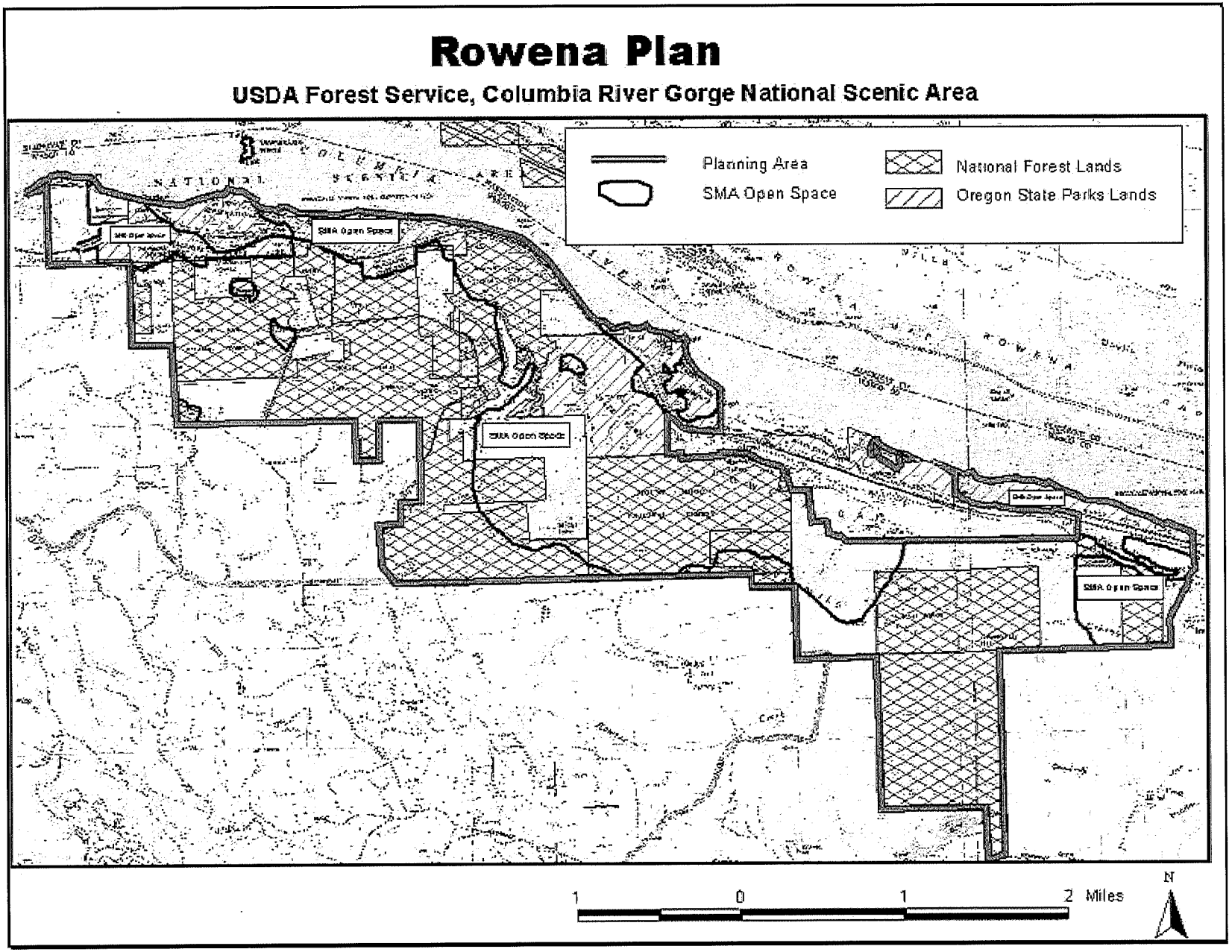


**Figure 1: Rowena Planning Area**

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Since the passage of the National Scenic Area Act in 1986, the Forest Service has acquired almost 3,000 acres in the Rowena area. While the CRGNSA Plan provides overall direction for general management, allowed uses and resource protection and enhancement, the Forest Service has no specific goals for management of National Forest lands in this area. As lands are newly acquired by the Forest Service there is no comprehensive management direction for individual parcels. The CRGNSA Plan requires an Open Space Plan to set overall management direction in Open Space area, but there is no similar CRGNSA Plan requirement for other land use designations. The Rowena Plan provides recommendations for National Forest lands in all land use designations.

**Planning Process**

The planning process incorporated the requirements of an Open Space Plan and a watershed analysis.

An Open Space Plan requires 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 with agency and resource specialists

A watershed analysis requires the following steps:

1. A "Characterization" of the watershed in terms of location, physical features, natural processes and social significance.
2. "Key Questions" and issues developed by the planning team and public comment.
3. "Current Conditions" of the watershed based on prevailing knowledge.
4. "Reference Conditions" of the watershed.
5. A "Synthesis" of events and ecological elements that affected the ecosystem.
6. "Recommendations" developed from the analysis.

Two watershed assessment documents are already available. These are:

1) The *Mosier Creek Watershed Assessment*, 2002, prepared by the Wasco County Soil and Water Conservation District for the Mosier Watershed Council. This document covers lands west from the Rock Creek and Mosier Creek watersheds east to the Rowena Creek watershed, and contains specific information for the portion of the planning area within the boundary of the Northwest Forest Plan. It satisfies the watershed analysis requirements of steps 1) characterization, 3) current conditions and 4) reference conditions.

2) The *Fifteen Mile Subbasin Plan*, draft May 24, 2004, prepared by the Wasco County Soil and Water Conservation District and Fifteen Mile Coordinating Group for the Northwest Power and Conservation Council. This document covers lands west from the Rock Creek and Mosier Creek watersheds east to the Fifteen Mile Creek watershed. The Subbasin plan augments the information of the *Mosier Creek Watershed Assessment.* It provides information pertinent to the watershed characterization, current conditions and reference conditions particularly for water resources, fish, wildlife and vegetation. The document provides very specific aquatic information for perennial streams, but none for intermittent

streams. Since the Rowena planning area has only intermittent streams, the Subbasin plan does not provide pertinent aquatic information.

The Rowena Plan builds upon the *Mosier Creek Watershed Assessment* and the *Fifteen Mile Subbasin Plan.* These documents provided the larger watershed context, and the Rowena Plan adds more site specific information for the Rowena planning area. The planning process generally follows the watershed analysis process, using the existing watershed assessments to provide most of the information for the watershed characterization, current conditions and reference conditions. The Rowena planning team focused on key questions, synthesis and desired future condition/ recommendations. The Plan provides *broad* direction, with a level of detail commensurate with defining a desired future condition and recommendations.

# ISSUES AND KEY QUESTIONS

## *Forest Service Interdisciplinary Team*

The interdisciplinary team identified the following issues/key questions.

1. Recreation Opportunities and Management

The Rowena area is popular for hiking, wildflower viewing, bicycling and driving the Historic Columbia River Highway. Few designated trails exist in the area, but informal hiking use is growing. The recently acquired National Forest lands provide opportunities for recreation users. A recreation goal of the CRGNSA Plan is to increase recreation opportunities in the east end of the CRGNSA. The CRGNSA Plan proposes a number of recreation facilities in this area, and the public has proposed additional projects. Recreation developments must consider potential conflicts with nearby residents and with sensitive resources. Key questions for this Plan include:

- What are opportunities and limitations, both physical and social, for different types of recreation uses?
- What criteria can guide future recreation projects, compatible with the land use designations and landscape compatibility?

2. Vegetation Management

The cumulative impacts of past land management practices, and suppression of fire have impacted the distribution of historic plant communities and their health. Key questions for this Plan include:

- What is the current vegetation type?
- What are the vegetation condition objectives, consistent with the CRGNSA purposes, the CRGNSA Plan and the land use designations?
- What activities are compatible with the vegetation condition objectives; and what activities are necessary to achieve the vegetation condition objectives?

3. Resource Restoration and Enhancement Opportunities (other than Vegetation Management)

Much of the Rowena area has been impacted by past land management activities such as rock quarries and introduction of noxious weeds. The key question for this Plan is:

- What scenic, cultural and natural resource restoration and enhancement opportunities exist, other than vegetation management?

## ***Public Outreach***

Over 150 parties were asked to comment on the formulation of the Rowena Plan, and particularly on the Forest Service's Key Questions. Fifteen parties responded, and many of them provided comments on the Key Questions of recreation use, vegetation management and resource restoration opportunities. The public also identified the following specific issues. These issues were considered in formulating the Rowena Plan.

Land Acquisition

Two commenters asked the Forest Service to continue land acquisition with the eventual goal of creating a large contiguous block of National Forest land for the Rowena Area.

Fire Prevention and Management

Several commenters discussed fire prevention/management, particularly near residences and asked the Forest Service to explicitly look at fire issues in this area of open space intermixed with residences.

Open Space Designation for National Forest Land

Three commenters asked the Forest Service to consider designating more National Forest land as SMA Open Space.

Planning Area Expansion

One property owner asked that three private GMA parcels be added to the planning area. The Forest Service has modified the planning area boundary to include these parcels, since they are currently used recreationally.

Private Roads and Property

Several property owners/residents of the planning area asked the Forest Service to carefully plan recreation facilities and manage its lands to minimize impacts on their property and residences. One Rowena Dell land owner asked the USFS to maintain the access road from the barn to the Historic Columbia River Highway to serve as an alternate emergency exit from the subdivision should Canyon Way become blocked near Highway 30 for any reason.

Lewis and Clark Wilderness Proposal for the Tom McCall Area

One commenter asked that the Rowena Plan not allow new uses that may be incompatible with future wilderness designation of nearly 1000 acres near Tom McCall point.

## ***Draft Rowena Plan***

A Draft Rowena Plan was available for a 30 day comment period from August 8 to September 8, 2005. Thirteen parties provided comments, most with specific remarks on aspects of the Draft Rowena Plan. The Rowena Plan has been modified in response to these comments.

# ADMINISTRATION

**Management Direction**
Several management plans provide direction for this area.

Management Plan for the CRGNSA
This Plan provides guidelines for land use and development, recreation developments, and protection of scenic cultural, natural and recreational resources. Lands in the CRGNSA are divided into the Special Management Area (SMA), General Management Area (GMA), or Urban Area. Lands are further allocated into Land Use Designations, as follows in this area:

- SMA: Open Space, Agriculture (Ag), Residential (R), and Public Recreation (PR).
- GMA: Large-scale-Agriculture (A1), Small-scale Agriculture (A2), Agriculture Special (AS).

Mount Hood Land and Resource Management Plan/as Amended by the Northwest Forest Plan
*Designations:* Administratively Withdrawn, Riparian Reserve
Standards and guidelines more protective than the CRGNSA Plan guidelines apply.

Wasco County Land Use Ordinance
Wasco County administers local land use ordinances implementing the CRGNSA Plan land use designations and resource protection guidelines on state, county and private lands.

Oregon State Parks Master Plan
Oregon Parks and Recreation Department (OPRD) manages its lands consistent with its Oregon State Parks Master Plan.

Historic Columbia River Highway Master Plan
The Oregon Department of Transportation (ODOT) manages the Historic Columbia River Highway in accordance to its Master Plan.

**Land Ownership and CRGNSA Land Use Designations**
Table 1 and Figures 2 and 3 display land ownership and CRGNSA Land Use Designations for the Rowena Planning Area.

**Table 1: Land Ownership and Land Use Designations**

| | Acres | SMA Open Space | SMA Ag | SMA PR | SMA R | GMA A-1/AS | GMA A-2 |
|---|---|---|---|---|---|---|---|
| **US Forest Service** | 2,864 | 1,099 | 1,064 | 1 | 4 | 676 | 20 |
| **Oregon State Parks/ODOT** | 780 | 622 | 22 | 136 | 0 | 0 | 0 |
| **Wasco County** | 13 | 0 | 13 | 0 | 0 | 0 | 0 |
| **Private** | 1,360 | 554 | 610 | 51 | 20 | 103 | 22 |
| **Total** | 5,017 | 2,275 | 1,709 | 188 | 24 | 779 | 42 |

**Wilderness Proposal**
Nearly 1000 acres of National Forest lands in the Tom McCall Point/Seven Mile Hill area are included in a proposed "Lewis and Clark Mount Hood Wilderness Area". This proposal has not been enacted, and the existing land management direction of the CRGNSA Plan and the Mount Hood Land and Resource Management Plan as amended by the Northwest Forest Plan apply.

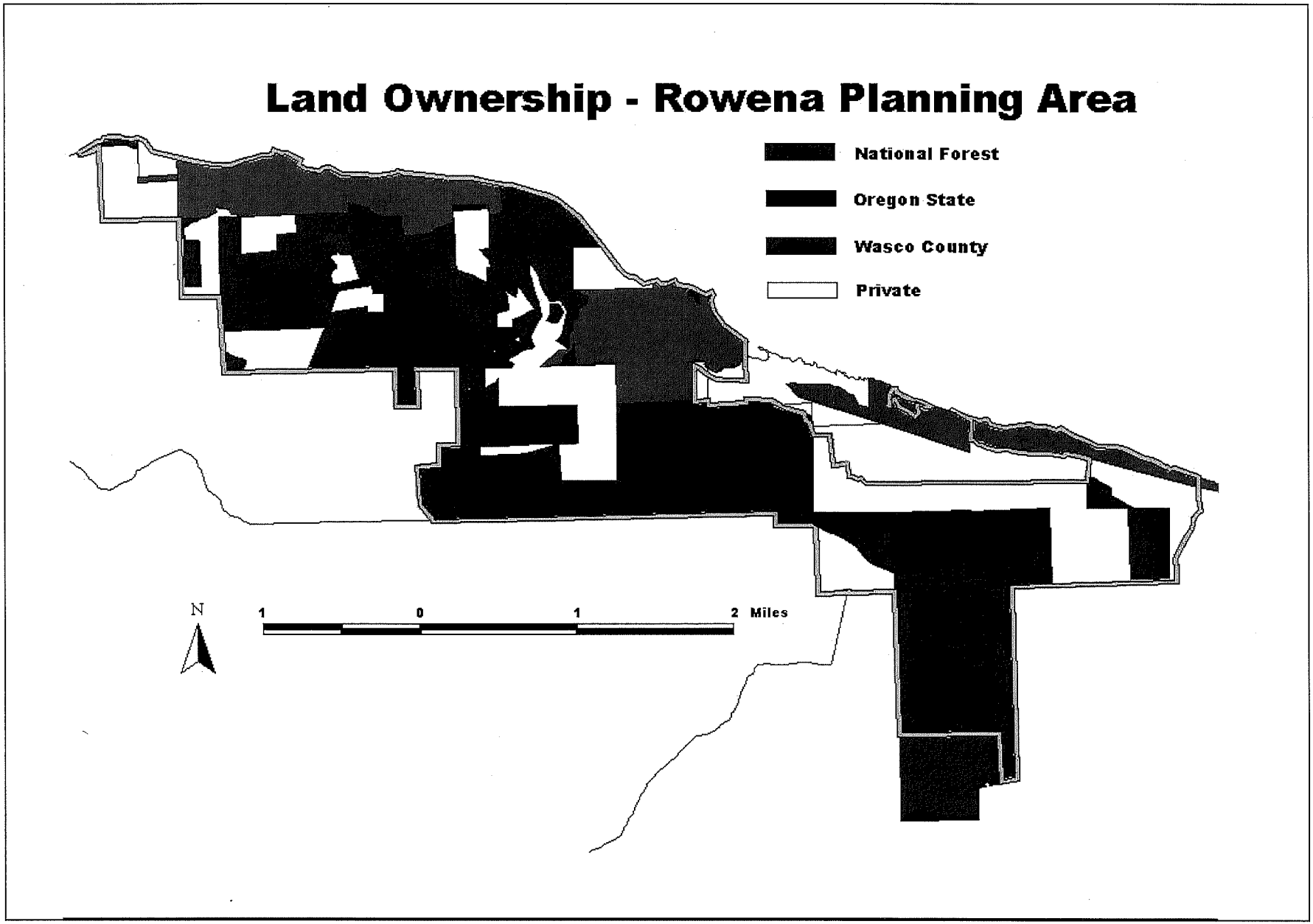


**Figure 2: Land Ownership - Rowena Planning Area**

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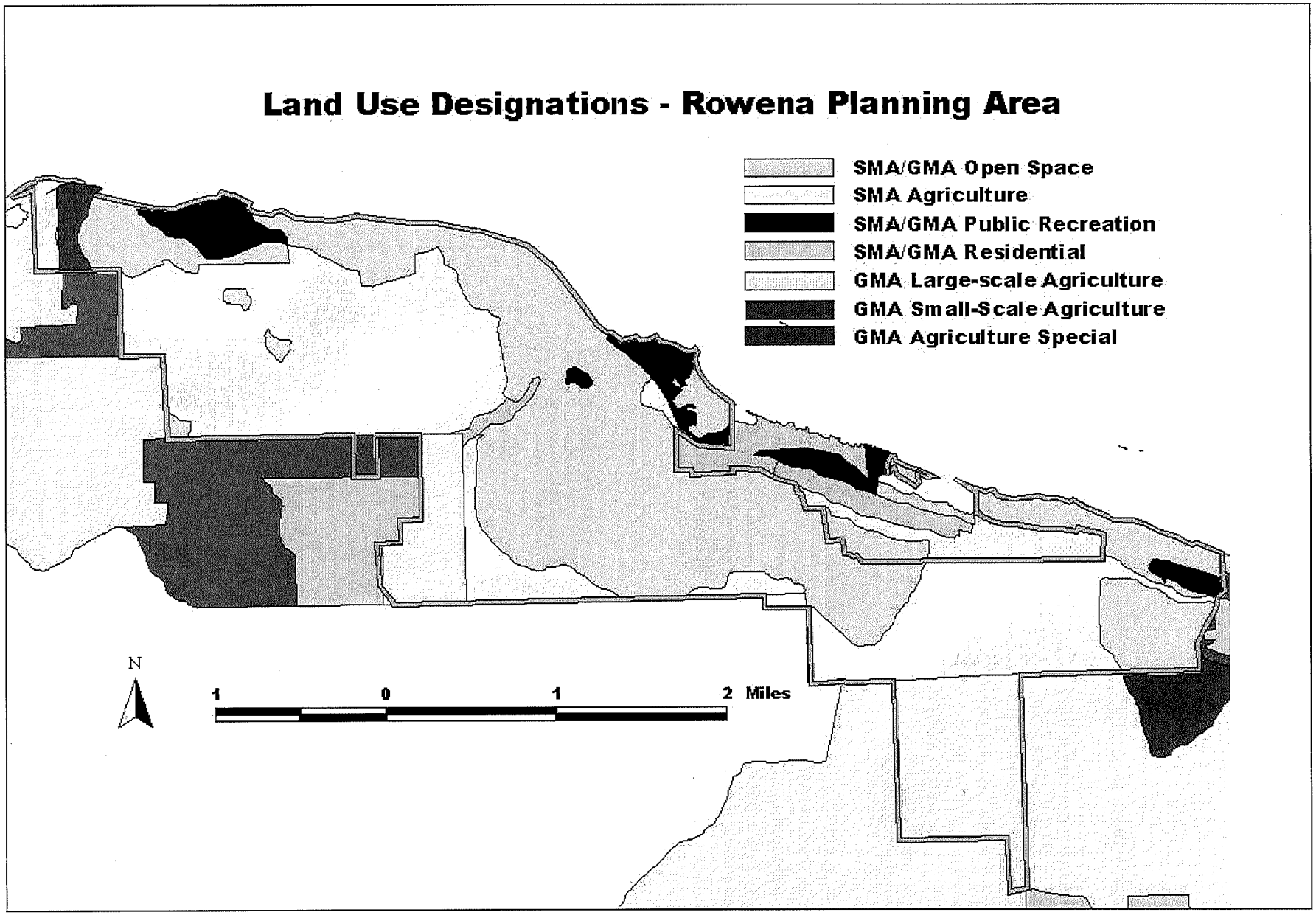


**Figure 3: Land Use Designations - Rowena Planning Area**

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# EXISTING CONDITIONS

## Watershed Description

The analysis area for the Rowena Open Space Plan is located in the "Hood River Main Stem Tribs" 5th field watershed. This analysis uses the "old" 5th and 6th field watershed boundaries in order to take advantage of several existing analyses. The majority of the planning area is located within two 6th field boundaries: "Rowena Columbia Tribs" (21XB) and "Rowena Creek" (21P) which are shown below. A small portion of the area is within the "Chenoweth Creek" 6th field (21Q). "Rowena Columbia Tribs" is 7,427 acres in size while "Rowena Creek" is 4,563 acres. Only about 435 acres of the planning area are located within the 18,261 acre "Chenoweth Creek" 6th field watershed.

A comprehensive watershed condition assessment was completed for the Mosier Creek watershed in March 2002 by the Wasco County Soil and Water Conservation District with the oversight of the Mosier Watershed Council. The document received review from a variety of individuals, agencies and organizations. The assessment includes analysis of seven 6th field watersheds that comprise the Mosier Creek watershed (see map below). "Rowena Creek" and the western portion of the "Rowena Columbia Tribs" 6th fields are among the seven watersheds analyzed.

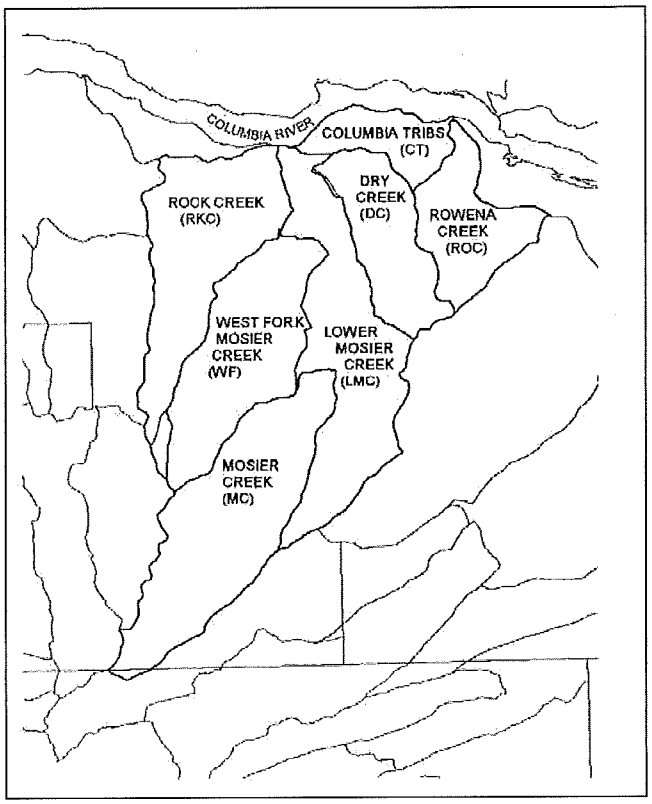


**Figure 4 – Map of 6th field watersheds analyzed in the Mosier Creek Watershed Assessment.**

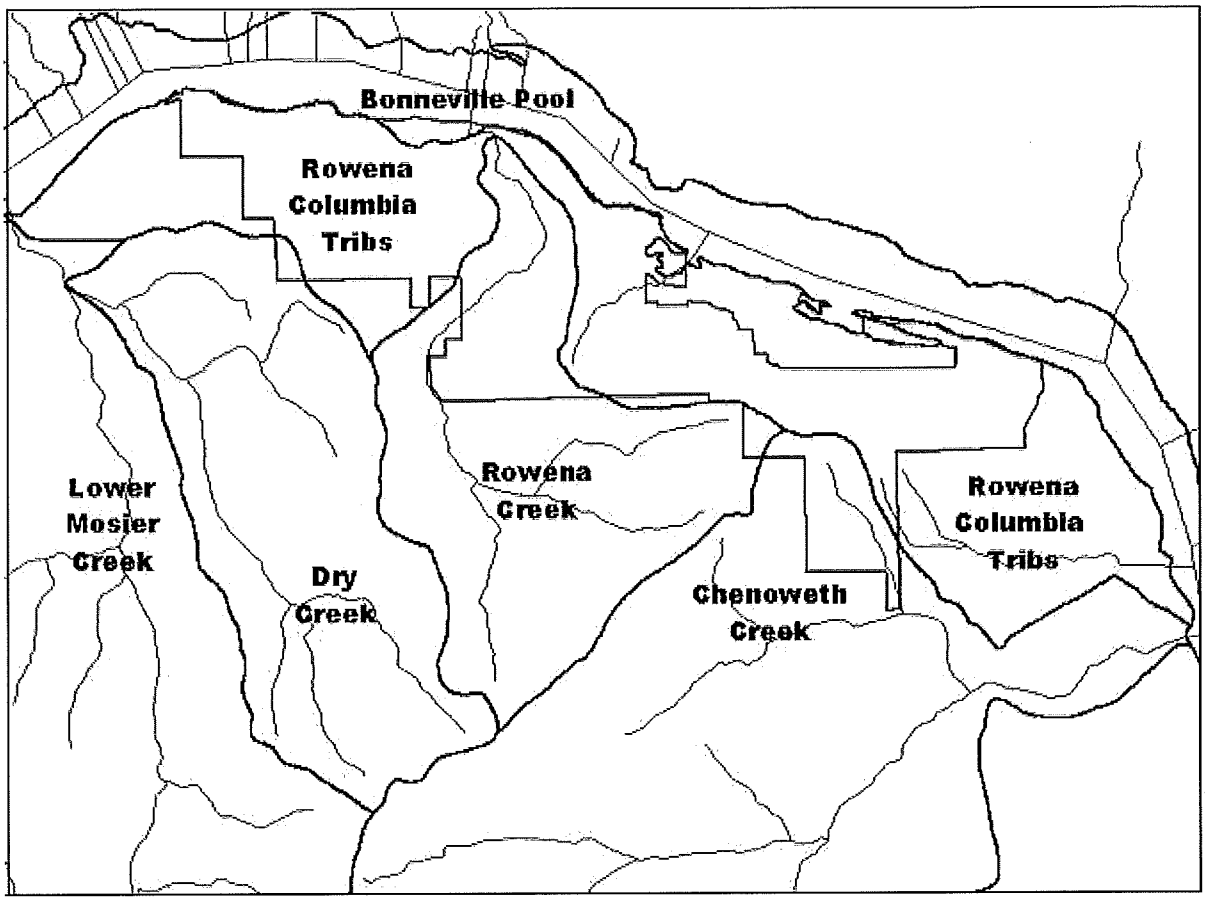


**Figure 5 – Map showing the location of the planning area (red line) in relationship with the 6th field watershed boundaries (heavy black line). Watershed names are shown as well.**

In addition, a comprehensive watershed condition assessment was completed for the Fifteenmile Subbasin in May 2004 by the Wasco County Soil and Water Conservation District and Fifteen Mile Coordinating Group. The Fifteenmile Subbasin Assessment analyzed an area from Rock Creek in the west to Fifteenmile Creek in the east. This assessment is very detailed for perennial streams, and more generalized in other aspects but does provide some applicable information.

The following discussion includes analysis from the Mosier Creek Watershed Assessment, Fifteenmile Subbasin Assessment as well as additional analysis completed for this plan.

Geology

Through the Columbia River Gorge, geology is characterized by a number of north-south oriented folds visible in the northern part of the subbasin from The Dalles westward. The areas around Mosier Valley and The Dalles represent synclines (downward folds), whereas Sevenmile Hill and Hood River Mountain (west of Mosier) represent anticlines (upward folds). The area is a dynamic system with steep terrain and active faults, and includes areas of The Dalles Formation and Bretz flood sediments.

Climate

The climate is influenced both by marine air that flows through the Columbia River Gorge from the west and by continental weather patterns that spread from the Great Basin to the east. Both summer and winter air temperatures are more extreme in the eastern portion of the subbasin. The majority of the precipitation is generally brought by winter storms blowing east from the Pacific Ocean. Only 5-10% of the precipitation falls from June through August. Because of both the seasonality of moisture and the low total precipitation, tributaries originating at lower elevations are usually not perennial.

Climate varies across the watersheds because of its transitional location between weather dominated by wet marine airflow to the west and the dry continental climate of eastern Oregon. Areas of climate and landscape similarity called eco-regions have been defined as a common framework for ecosystem management in the U.S. (Pater et al. 1998). The watersheds are within the Eastern Cascades Slopes and Foothills (9c) eco-region. The annual precipitation averages between 22 and 26 inches for these 6$^{th}$ field watersheds.

Natural Disturbance Patterns

As described in the watershed assessment, past floods, fires, mudflows and landslides have shaped the landscape in one degree or another in the Mosier Creek Watershed. The middle and upper portion of Rowena Creek is located within the rain-on-snow elevation zone, which is usually between 1200' and 3600'. Rain-on-snow flooding, landslides and debris flows can be found in the area. Large-scale events such as flooding and fires can significantly shape riparian and aquatic habitat conditions. Large woody debris and sediment can be transported to the stream adding to the in-stream habitat diversity. Less mature riparian vegetation may be found near such disturbances. Stand-replacing fires were a rare event in ponderosa pine habitat; however, frequent natural or man-made low-level fires regularly cleared underbrush and less fire-resistant species, such as younger Douglas fir.

Streams

Conditions in the creeks are controlled by the geology, climate, hydrology and land use of their surrounding drainage area from ridge-top to ridge-top.

The Rowena Creek Watershed is located on the east slope and in the eastern foothills of the Cascade Range. Rowena Creek is a short high-gradient stream approximately five-miles long, that flows west and then north into the Columbia River below the community of Rowena Dell. This short, intermittent stream drops approximately 2,000 feet in elevation from headwaters to mouth. Rowena Creek is bounded on the south by Chenoweth Creek, on the east and north by the Columbia River and on the west by Mosier Creek.

Conditions in the "Rowena Columbia Tribs" watershed are similar to those described for the "Rowena Creek" watershed, although the area contains numerous small intermittent tributary streams that flow directly into the Columbia River instead of one main stream like Rowena Creek.

*Condition Analysis*

The Mosier Creek Watershed Assessment included an in-depth analysis of a variety of metrics

that indicate overall watershed condition. These metrics were selected to specifically identify conditions of soil, water and fish in the area. Results from the analysis are shown in the summary table below. These results include all of the 6th field watersheds in the Mosier Creek Basin for comparative purposes.

**Table 2: Watershed Condition Summary**

| | Road Density (land use zone) | Summer Water Availability | % Inadequate riparian vegetation | Riparian roads mi./mi. | Channel Modification | Stream Temperature |
|---|---|---|---|---|---|---|
| **Rowena Creek** | Medium (r.r.) | No natural summer flow | 13% | 0.30 | No major channel modification | No natural summer flow |
| **Rowena Columbia Tribs** | Medium (ag) High (others) | No natural summer flow | N/A | 0.29 | No major channel modification | No natural summer flow |
| **Dry Creek** | Medium (ag) High (r.r.) | No natural summer flow | 13% | 0.62 | Residential & roads | No natural summer flow |
| **Lower Mosier** | Medium (ag) High (urban) | 69% allocated | 30% | 0.58 | Residential & roads | Exceeds state standards |
| **Upper Mosier** | Low | 16% allocated | 37% | 0.57 | Roads | Exceeds state standards |
| **West Fork** | Low | 8% allocated | 25% | 0.46 | Roads | Exceeds state standards |
| **Rock Creek** | High (urban) | Negligible natural flow | 12% | 0.46 | Mining | Exceeds state standards |

The major issues for Rowena Creek and Rowena Columbia River Tribs have to do with the density of roads and the associated effects of sedimentation and increased runoff.

Major data gaps identified in the Mosier Creek Watershed Assessment are:

- Road and culvert conditions*
- Wetlands condition
- Fish habitat surveys (outside of MHNF)
- Cropland and range erosion observations
- Rainbow v. cutthroat trout interactions
- Urban runoff and sediment analysis
- Water quality (other than temperature)*
- Fish populations

* Mosier Watershed Council currently has a plan to fill part of these data gaps within one year.

## Vegetation

The Rowena area and the Columbia River Gorge in general are very ecological diverse. The Rowena area occupies a transitional location between the wetter western forests and the drier eastern grassland. Five of the fifteen endemic species of wildflower found in the Columbia River Gorge are found in the pine-oak woodlands of this transitional location. Sensitive flora are found in the Rowena area; the main species include Hood River milk-vetch (*Astragalus hoodianus*), white meconella (*Meconella oregano*), and the locally endemic Columbia Gorge broad-leaf lupine (*Lupinus latifolius var thompsonianus*). These species have populations on both the Oregon and Washington sides of the Columbia River and are fairly well represented in the Rowena area.

As a result of past human activities, weed infestations are fairly common. Knapweeds can be found throughout the area. Yellow star thistle is not yet as prevalent as it is on the Washington side of the Columbia River. Other significant weeds include Hound's tongue (*Cynoglossum officiale*) and Rush skeletonweed (*Chondrilla juncea*), among others. Wasco County conducts an active program to control these state listed noxious weed species.

An important ecological element of this area is the presence of basalt cliffs, talus slopes, wetlands, riparian areas and associated brushy areas, which all add important habitat diversity within the oak/pine community. This habitat diversity, which is not uncommon in the Columbia River Gorge, promotes diversity in the avian and terrestrial wildlife populations.

The vegetation in the Rowena planning area is classified as Ponderosa Pine/Oregon Oak woodlands, Oregon Oak Woodlands, and East Conifer. Within this area can be found communities which are predominantly oak and open grassland while others are a more mixed oak/pine woodland. A small area on the north face of Seven Mile Hill is dominated by Douglas fir, most of them younger than 80 years and clearly encroaching on the oak/pine community. This disjunctive Douglas fir community is rather unique this far east in the Columbia River Gorge. The oak/pine woodland is in fairly good condition with scattered large oaks and pines with varying densities of younger oaks in the age cohort of about 80 to 120 years. Judging from historic conditions and from current fuel models, this vegetation is in need of thinning to bring the community into higher fire resiliency. With thinning, the existing trees could become larger and more spaced, which would create a more stable community over time.

The under-story is largely dominated by various non-native annual and perennial grasses. The shrub layer is generally spotty, with patches of native shrubs such as snowberry, ceanothus, ocean spray and mock orange. Natives and herbaceous flora, such as balsam root and lupine are lacking, although there are some native bunch grasses and a few fairly healthy communities. Much of this under-story was eliminated during decades of grazing. The historic under-story can be seen in a few areas where grazing did not eliminate the native flora.

**Existing Conditions of Pine-Oak-Douglas Fir:**

Generally, two-story stands where closed canopy has killed the third regeneration layer.

- *Overstory:* Scattered Ponderosa Pine overstory with in-growth of younger Douglas-fir overstory. Canopy is closed.
- *Understory*: Understory is largely Oregon Oak which are dying out, ponderosa pine, and Douglas-fir which are suppressed.
- *Openings*: Few openings. Very closed.
- *Shrub and Herbacious Layer:* Down wood prevalent, ground cover depauperate but shrubs such as ocean spray, hazel, snowberry and poison oak exist.

**Existing Conditions of East Conifer:**
Generally, one-story younger stands where canopy is closing and in some places causing competition with Oregon Oak and Ponderosa Pine, where present.

- *Overstory:* Stands mostly younger Douglas-fir with scattered Ponderosa Pine in some stands.
- *Understory:* Where present, understory is Oregon Oak or western dogwood with some in-growth of young Grand fir.
- *Openings:* Few openings. Moderately closed.
- *Shrub and Herbacious Layer*: Ground cover, western dogwood and ocean-spray present.

**Existing Conditions of Oak Pine Woodlands (including Savanna)**

- *Overstory:* Scattered Ponderosa Pine and Douglas-fir
- *Understory*: Understory is largely Oregon Oak that is either Oak Savanna or growing in even-age thickets. Some areas have a mixture of both.
- *Openings*: Disturbance-caused openings are rapidly re-growing with tree species. Some openings appear to be permanent based on soils or moisture content of soils.
- *Shrub and Herbacious Layer:* Poison Oak very prevalent, some areas of other shrub species, native and non-native grasses, and wildflowers.

## Fire Regimes and Condition Class

Fire regimes are the historic frequency and severity of wildland fires. The fire-regime condition class is an expression of the departure of the current condition from the historical fire regime. It is derived from the historical fire regime and the current fire severity. It is used as a proxy for the probability of severe fire effects (e.g., the loss of key ecosystem components - soil, vegetation structure, species; or alteration of key ecosystem processes - nutrient cycles, hydrologic regimes). Consequently, the fire-regime condition class is an index of ecosystem risks attributable to wildland fire. Three condition classes have been developed to describe the degree of alteration from the historic fire regime, and the relative risk of fire-caused losses of key components of the ecosystem.

The maps and tables below describe the existing vegetation, fire regimes and condition classes for the CRGNSA and the Rowena area.

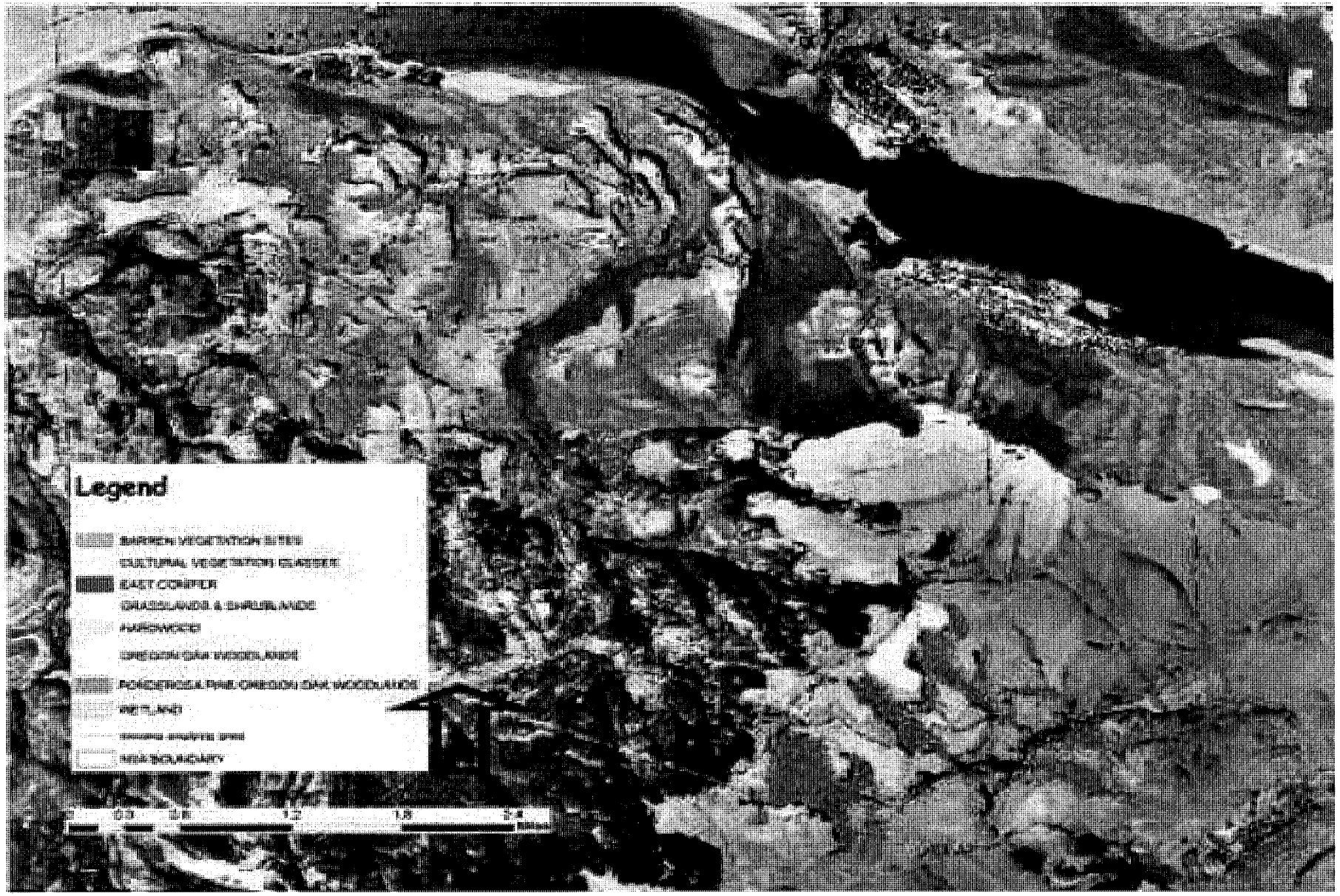


**Figure 6: Existing Vegetation**

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## Fire Regimes

The following table summarizes the possible natural fire regimes used by the interdisciplinary team to determine which fire regimes were represented in the CRGNSA. The map depicts the subset of natural fire regimes represented:

**Table 3: Natural Fire Regimes**

| Fire Regime | Frequency | Severity |
|---|---|---|
| I | 0-35 years | Low severity (underburn) |
| II | 0-35 years | High severity (stand-replacing) |
| III A | < 50 years | Mixed severity |
| III B | 50-100 years | Mixed severity |
| III C | 100-200 years | Mixed severity |
| IV B | 100+ years | High severity (stand-replacing), patchy arrangement |
| IV C | 100-200 years | High severity (stand-replacement) |
| V A | 200-400 years | High severity (stand-replacing) |
| V B | 400+ years | High severity (stand-replacing) |

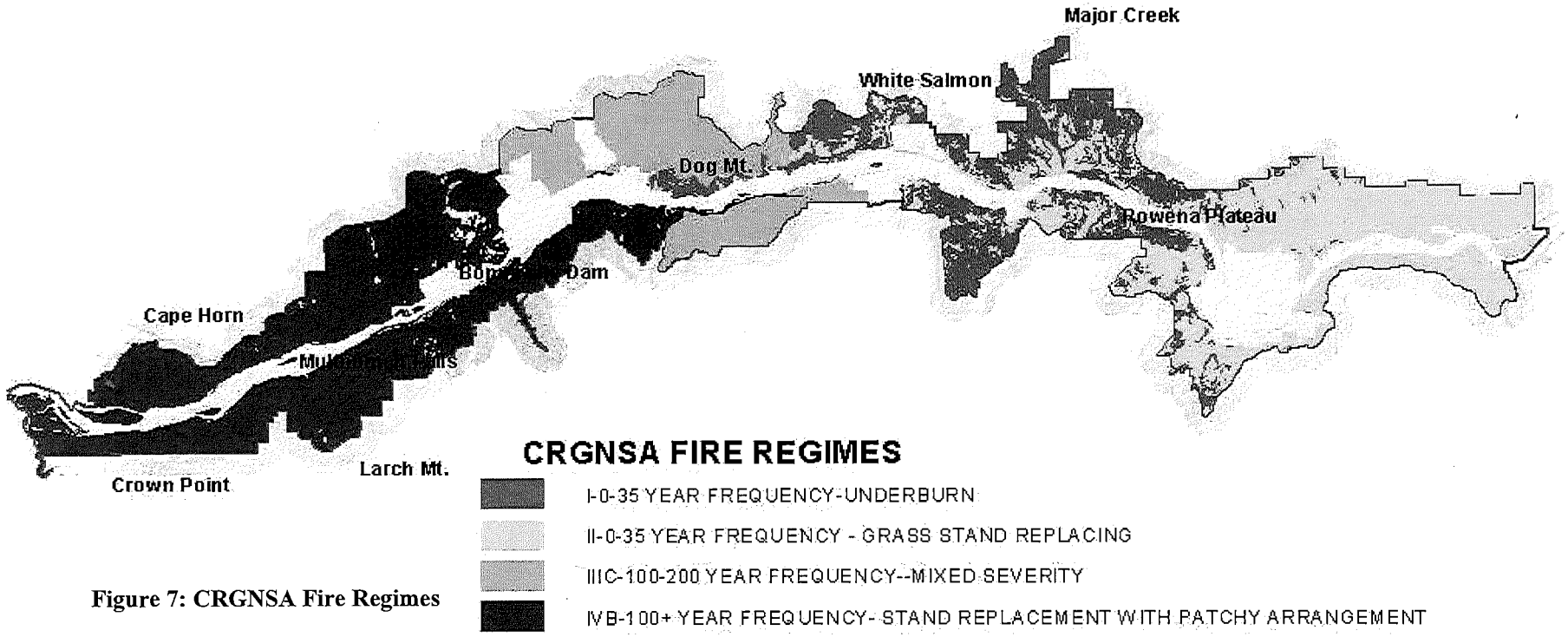


**Figure 7: CRGNSA Fire Regimes**

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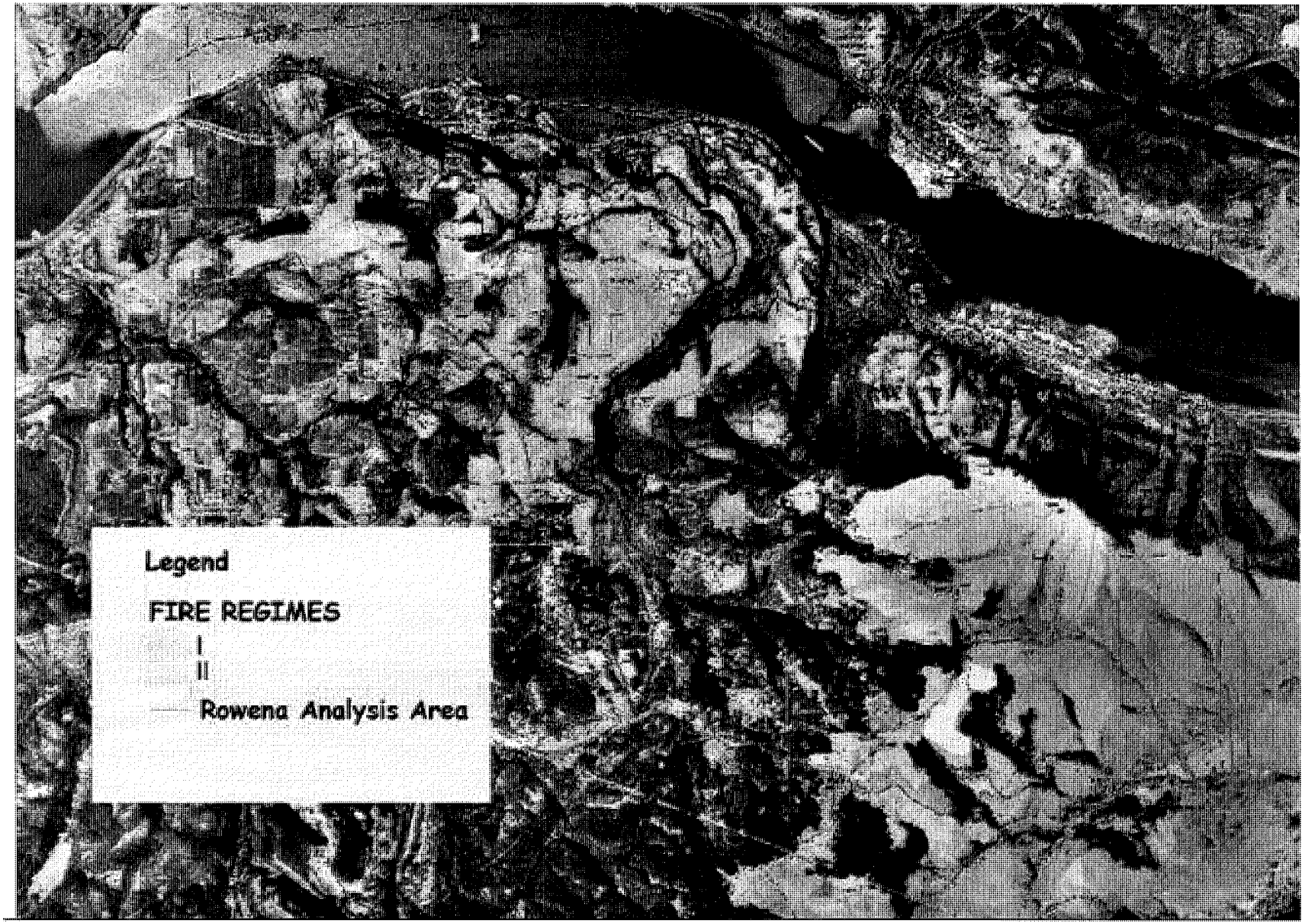


**Figure 8: Rowena Fire Regimes**

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## Fire Condition Class

The table below summarizes each fire regime, its condition class, and whether or not it is located in the wildland-urban interface: Wildland-Urban interface defined as 1.5 miles from an at-risk community as per the Healthy Forest Restoration Act (HFRA).

**Table 4: CRGNSA Fire Condition Class**

| CRGNSA NATIONAL FOREST SYSTEM LANDS AT RISK | | | |
|---|---|---|---|
| **FIRE REGIME** | **CONDITION CLASS*** | **WUI** | **ACRES at Risk** |
| I | 2 | Y | 1,572 |
| I | 3 | N | 660 |
| I | 3 | Y | 4,387 |
| IIIC | 2 | N | 9,636 |
| IIIC | 2 | Y | 4,061 |
| IVB | 1 | Y | 5,268 |
| **(TOTAL FORESTED ACRES:70,000) TOTAL AT RISK:** | | | **25,584** |

* **Condition Class 1**-Minimally altered fire regime, moderate risk for losing key ecosystem components, little change to pattern, size, frequency, or severity of fires.
**Condition Class 2**-Moderately altered fire regime, moderate risk for losing key ecosystem components, moderate change to pattern, size, frequency, or severity of fires.
**Condition Class 3**-Significantly altered fire regime, high risk for losing key ecosystem components, dramatic change to pattern, size, frequency, or severity of fires.

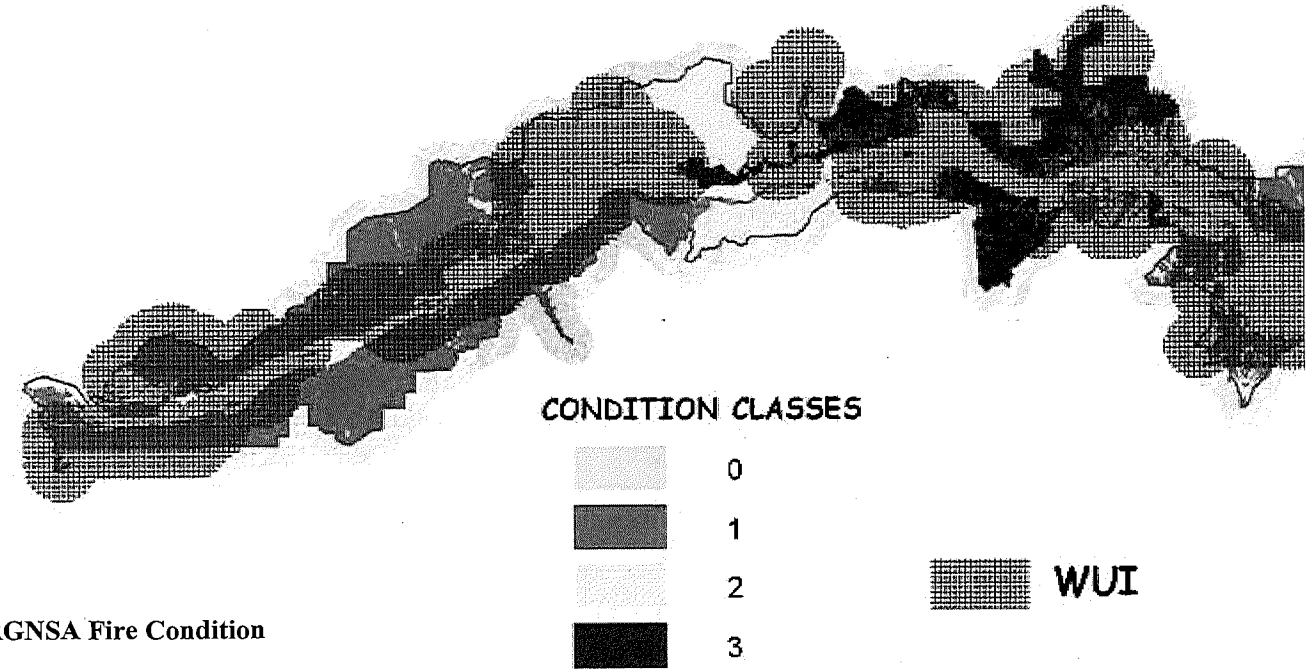


**Figure 9: CRGNSA Fire Condition**

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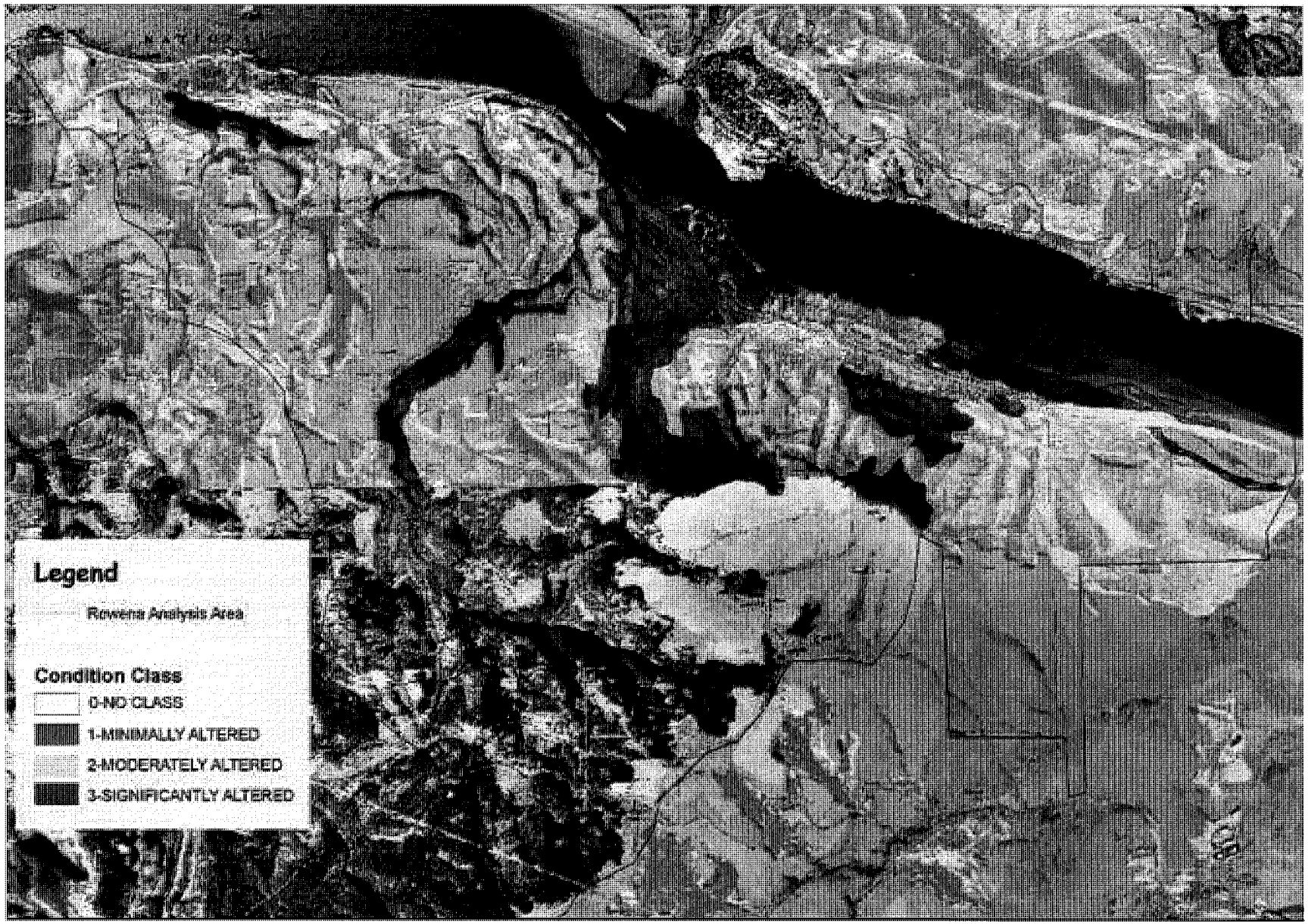


**Figure 10: Rowena Fire Condition Class**

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## Fire Occurrence

Given the slope class, flashy fuel load, predominant wind patterns and wildland/urban interface any fire within the planning area between late May and late October is potentially significant. Light flashy fuels such as cheat grass coupled with steep slopes and strong west winds combine to generate explosive fire behavior characterized by rapid rates of spread. Such fire behavior within the wildland/urban interface generates significant public and firefighter safety concerns. The Wildland-Urban interface is defined as 1.5 miles from an at-risk community as per the Healthy Forest Restoration Act (HFRA).

A review of fire statistics from 1992 through 2004 indicates that some 34 fires burned in the planning unit within that time period. These fires were all human caused and ranged in source from fireworks and cigarettes to rail road, farm equipment and power lines. Of these 34 fires, nine fires would be classified as significant (based on size and/or complexity).

## Fish and Wildlife

Aquatics

Aside from the Columbia River, the primary water features are Rowena Creek and the approximately 20 palustrine wetlands. Rowena Creek is intermittent; having surface flow largely between December and April only (OR Water Resource Dept.). Around seven of the 20 wetlands are on federal lands. The 2002 Mosier Watershed Assessment tabulated that there are a total of 6.4 acres of wetland in the Rowena watershed, with 1.3 of those acres (20%) formed naturally. The rest (80%) were constructed ponds or wetlands.

Not all wetlands have been surveyed, but known residents include sensitive species such as the western pond turtle. Refer to 1995 Pond Turtle Management Plan written by Robin Dobson for more detailed conditions and management recommendations. At least one pond has been stocked with goldfish that has become a naturalized population. These ponds are likely important local breeding habitat for amphibians, mollusks, and insects. None of the water bodies on federal land are known to harbor native fish year-round.

The Forest Service surveyed Rowena Creek for fish presence in 1995. No fish were found. The Mosier Creek Watershed Assessment (page 38) cited a Rowena Creek survey in 2001 in which no fish were found. Some fish use may occur in a short stretch of Rowena creek below an impassable waterfall near I-84 during the winter and spring months.

Terrestrial Wildlife

The Fifteen Mile Subbasin Plan identified a list of 47 potential "wildlife focal species" developed from a 250 species Deschutes Sub-basin all-species list. These species are listed on pages 69 to 72 of the Fifteen Mile Subbasin Plan. Of particular note in the Rowena planning area are occupied Peregrine falcon and bald eagle nest sites and ponds with Western pond turtle.

The oak woodland and Ponderosa Pine of the Rowena area shelter many native and sensitive species such as the Lewis' woodpecker and the western gray squirrel. Oregon white oak

provides food and cover for wildlife. Acorns are important fall and early winter food for many species of wildlife including woodpeckers, western gray squirrels, and deer. Many woodpeckers and other birds eat insects and insect eggs found in the wood or fissured bark of living and dead Oregon white oak. Oak leaves are a fair–to-good quality deer browse.

Many wildlife species nest in oak cavities or use them to avoid inclement weather or predators. Open–form oak tend to provide more cavities than closed–form oak. However, with fire exclusion many oak woodlands are dense, even-aged thickets with tall slender trees competing for sunlight. These stands range from clumps of young "closed-form" oaks to scattered older, non-reproductive trees.

Oak and pine woodlands provide key habitat for games species such as turkey and deer, both of which use the planning area. The entire planning area is deer winter range. Deer that winter in this area summer from as far away as the east flanks of Mt. Hood. The best wintering areas are identified by plots that provide cover (overhead trees or swale) and browse, as well as are located away from human residences. Good habitat for both deer and turkey would be composed of diverse woodlands with both dense areas for cover, as well as open meadows. Also important is the maintenance or retention of contiguous and undisturbed areas with large mast producers (Ponderosa pine and oaks).

## Cultural Resources

Sixty-five percent of the National Forest lands within the open-space area have been already surveyed for cultural resources. Approximately 725-acres of Forest Service lands have not yet been surveyed. About 100 acres of Mayer and Memaloose State Parks have been surveyed. It is unlikely that more than 25-acres of private lands have been surveyed.

Historic accounts affirm that Wasco people used this area. See Reference Conditions for more information. While little site-specific information is available, it is possible that there are some legendary sites within or near the planning area.

Consultation with the Confederated Tribes of the Warm Springs revealed their interest in seeking out opportunities to enhance native and culturally significant vegetation. Given the convenient geographic location of this area, opportunities may be available to enhance plants significant to the Warm Springs people. Oral history records could be further investigated to determine if there are any known root gathering areas in the Rowena vicinity.

Several significant historic buildings are located in the Rowena area and include the Rowena Barn, Rowena well house, and the W.T. McClure Farmstead (the big house, barn chicken coop and shed have been determined to be eligible for inclusion on the National Register of Historic Places). Demolition of any of these buildings would require significant mitigation, or may not be allowed at all.

The Historic Columbia River Highway also traverses part of the Rowena area. This road is a National Historic Landmark District and stringent standards apply to developments within the district and adjacent to it.

## Scenic Resources

Landscape Setting

The Rowena analysis area is located within the Oak Woodlands landscape setting described by the CRGNSA Plan below:

*Overview and Land Use:* This visually complex setting represents the climatic transition area between the lush forests of the western Gorge-and the semi-arid grasslands of the eastern Gorge. Dry oak-pine woods, Savannah areas (predominantly grassy openings with scattered trees), and grassy prairies are interspersed with scattered rural development. Such development includes residences, roads, fences, etc. In some portions of this setting, orchards and cultivated areas lend a pastoral flavor to this generally natural-appearing landscape. Most parcels are over 20 acres in size, and are frequently between 40 and 160 acres.

Most of this setting is found on gently rolling to hilly terrain. Pastures and small farm uses are interspersed in the gentler portions of this setting. Some very steep slopes and deeply incised side canyons are contained in the least developed portions of this setting.

*Vegetation*: This setting contains perhaps the most varied vegetative communities in the Gorge, adding to its visual richness. Mixed stands of Oregon white oak and ponderosa pine typify this setting. In the western portions, highest elevations, and north slopes, this community transitions into woodland vegetation patterns, with increasing numbers of Douglas-fir. Drier portions of this setting and areas with poor, thin soils are often treeless prairies. "Biscuit scablands," or patterned ground areas with little vegetation and hummocky rock outcrops, also occur. This special landscape, created by scouring of great floods, is also found in some portions of the Grassland setting.

Existing Scenic Condition

Currently, the Rowena area appears highly scenic from key viewing areas. It is viewed from viewpoints within the analysis area and from more distant viewpoints. The most important viewpoints for the purposes of this analysis are the foreground views from the Historic Columbia River Highway (HCRH) and Tom McCall point. Both of these Key Viewing Areas are within the analysis area. Visitors drive the HCRH to get out for a climb to Tom McCall Point, to enjoy the wildflowers, view the rural character, and experience the feeling of the old highway's curvy alignment. There are few discordant views along this stretch and it has an overall character of the ideal pastoral landscape. The existing scenic condition is highly intact.

Views of the area from I-84, the Columbia River, or SR-14 are less intimate and at a larger landscape level. The vegetation composition of oak-pine woodlands mixed with grassy openings and basalt outcrops is dominant. Rural development at Rowena is also apparent. It is an important area of open space between Hood River and The Dalles.

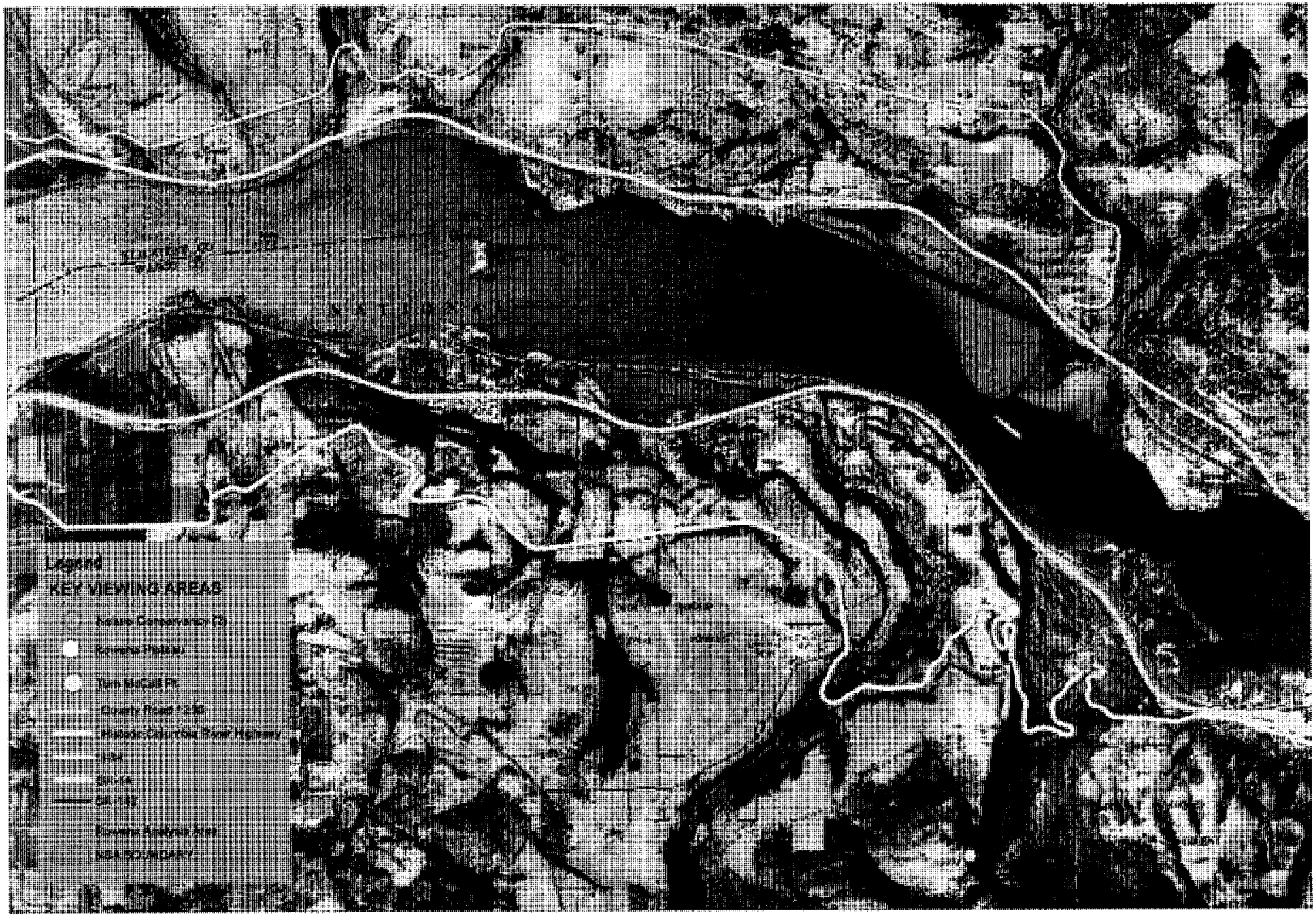


**Figure 11: Key Viewing Areas**

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**Figure 12: Important Viewscapes**

PC 1 4-1166

## Existing Land Uses

*Note: Recreation is addressed separately*

Overview, Land Use within the Planning Area

Land use in the Rowena planning area is a mix of public and private lands and uses. Public lands are primarily used for recreation, and provide open space and habitat. Private land is a mixture of residences and generally small agricultural operations. Only a few properties have "substantial" agricultural operation, such as orchard, wheat or cattle.

Within the planning area are 36 private residences, and almost half of these are in the Rowena Dell subdivision. West of Rowena Dell are 15 private residences, almost all on lots less than 20 acres. One residence was recently removed. Only a half dozen residences occur in the planning area east of Rowena Dell, and these are on lots ranging from 7 to 100 acres. A half dozen vacant properties in the planning area could be residentially developed, and four are in the Rowena Dell subdivision.

Overview, Land Use Adjacent to Planning Area

*West and South of Rowena Dell:* Land use in the GMA west and south of Rowena Dell is a mix of Large-scale and Small-scale Agriculture and Residential. There are concentrations of rural residential on lots of less than 20 acres. The small town of Mosier is a few miles west of the Rowena SMA.

*South of Tom McCall Point and Seven Mile Hill:* Land use in the GMA and outside of the CRGNSA is predominately Large-scale Agriculture, and includes parcels of hundreds of acres. The land is used for wheat and cattle, and residences are few. The Dalles is a few miles east of the Rowena SMA

*Rowena Community:* The Rowena residential area is north of the eastern portion of the SMA, and has many residences on small lots (typically less than 5 acres).

Forest Service Property Structures

A "Facilities Master Plan" completed for the CRGNSA in October, 2003 forms the basis of this discussion. Some of the data and results that apply to this planning area will be repeated here for expediency. Table 5below summarizes the current disposition of Forest Service structures within the planning area.

**Table 5. Forest Service Property Structures within the Rowena Planning Area**

| Name | Location | Access | Historical Status | Needed for Administrative Use |
|---|---|---|---|---|
| Anderson Well | T2N, R12E, SW1/4 SE1/4 SEC 10 | Sevenmile Hill Road | None | No |
| Haga Mobile Home Site | T2N, R12E, NE1/4 SE1/4 SEC 4 | 3000782 | None | No |
| Johnson / Rowena Barn | T2N, R12E, SW1/4 SW1/4 SEC 3 | 3000787 | Eligible | Yes |
| Johnson Spring House | T2N, R12E, SW1/4 SW1/4 SEC3 | 3000787 | Eligible | No |
| Moorhead/Fisher House No. 1 (hazmat) | T2N, R12E, SE1/4 NW1/4 SEC 4 | 3000778 | None | No |
| Moorhead/Fisher House No. 2 | T2N, R12E, SE1/4 NW1/4 SEC 4 | 3000778 | Eligible | No |
| Moorhead/Fisher Outbuildings | T2N, R12E, SE1/4 NW1/4 SEC 4 | 3000778 | Eligible | No |

Roads

A "Roads Analysis" completed for the CRGNSA in March, 2003 forms the basis of this discussion. The Roads Analysis did not include an analysis of third party rights. Some of the data and results that apply to this planning area will be repeated here for expediency.

The current road system within the planning area consists of public roads operated and maintained by the State of Oregon, Wasco County and adjacent property owners, along with National Forest System Roads (NFSR) and private roads. The tables below summarize the roads within these categories, including use, except for private roads not attached to NFSR and roads within the developed portions of Memaloose and Mayer State Parks. "Public" jurisdiction is a road open to the public, but not maintained by the County. They are maintained by the adjacent property owners.

Figure 13, "Roads and Potential Trailheads" (page 47) generally indicates the location of these roads within the planning area.

**Table 6. State and County Roads within the Rowena Planning Area**

| Road Name | Jurisdiction | Lanes | Surface | Estimated CADT |
|---|---|---|---|---|
| Interstate 84 | ODOT | 4 | Asphalt | 21,000 |
| US 30, Historic Columbia River Hwy. | ODOT | 2 | Asphalt | 400 |
| Marsh Cutoff | Wasco County | 2 | Asphalt | 55 |
| Dell Road | Public | 1 | Gravel | 85 |
| State Road | Wasco County | 2 | Asphalt | 400 |
| Morgensen Road | Wasco County | 1 | Gravel | 80 |
| Rowena Ferry Road | Public | 2 | Asphalt | 10 |

* CADT: Current Average Daily Traffic

**Table 7. National Forest System Roads (NFSR) and Connected Roads Other Than Table 6**

| NFSR No. | Road Name | Access other than Forest Service Administrative or Fire | Lanes/ Surface | Exist. Closure Device | Road Mgmt. | Priority for Maint. | Priority for Closure | Notes |
|---|---|---|---|---|---|---|---|---|
| 2130105 | Gravel Pit | | 1/Native | | DE | | H | Restoration EA |
| 3000775 | Quarry | County | 2/Gravel | Gate | CA | L | L | Stable |
| 3000778 | Moorhead-Fisher | | 1/Gravel | Gate | CA | M | H | Stable |
| 3000782 | Russell | | 1/Native | Gate | CD | L | H | Erosion (ruts) |
| 3000783 | Russell | | | | | | | Decommissioned (grassed in) |
| 3000785 | | State Parks; Private | 1/Native | | OH | L | | Stable; access to water tank |
| 3000787 | | Private; Electric Utility | 1/Pitrun | | OP | M | | Stable; private residential |
| 3000789 | Canyon Way | Private | 2/Asphalt 1/Gravel | | OP | M | | Stable; private residential |
| 3000789 | Canyon Way | Private | 1/Pitrun | Gate | CA | M | H | Stable; 84" culvert @ Rowena Creek |
| 3000791 | | | 1/Asphalt | Bldrs. | DE | | L | Stable |
| 3000810 | | | 1/Native | Bldrs. | CD | H | H | Erosion (ruts) |
| 3000828 | Workinger | Private | 1/Gravel | | OP | M | | Stable; private residential |
| 3078015 | | | 1/Native | Berm | CD | L | M | Stable |
| 3078081 | | Private; Electric Utility | 1/Pitrun | | OP | H | | Stable |
| 3078082 | | Private | 1/Native | | OP | M | | Stable; private residential |
| 3078083 | | Electric Utility | 1/Native | Gate | CA | L | H | Erosion (culverts) |
| 3078085 | | | 1/Pitrun | Gate | CA | H | H | Erosion (ruts, slide, culverts) |
| 3078087 | | Electric Utility | 1/Native | Gate | CA | H | H | Stable |
| 3078089 | | | | | | | | Decommissioned (grassed in) |
| 8400760 | Mayer St. Park | | 1/Gravel | Berm | CA | M | H | Stable |

# Abbreviations:

OP = open for passenger cars.
OH = open for high clearance vehicles.
CD = close with a device (berm, waterbar).
CA = close administratively (gate, sign).

DE = Decommission
L = Low
M = Medium
H = High

Rock Quarries

There are three rock quarries within the planning area as described in Table 8.

**Table 8. Rock Quarries within the Rowena Planning Area**

| Name | Owner | Location | Notes |
|---|---|---|---|
| Memaloose | Wasco County | T2N, R12E, NW 1/4 Sec 4 | Active |
| Sevenmile Hill | Forest Service | T2N, R13E, SW1/4 Sec 19 | Rehabilitate under "Restoration EA" (Decision Notice 7/14/03) |
| Rowena | ODOT/OPRD | T2N, R12E, SE1/4 Sec 3 | Rehabilitation started by Oregon Department of Transportation/Oregon Parks and Recreation |

Railroads

The Union Pacific Railroad runs along the northerly boundary of the planning area.

Power

There is an overlapping network of overhead power transmission lines owned and operated by the Wasco Electric Co-op and the Northern Wasco County PUD. Some of the lines are located along public road rights-of-way while others run cross country.

The lines are generally located north of Sevenmile Hill from the westerly boundary of the planning area to Rowena Dell and along the Historic Columbia River Highway (US 30) through the Rowena area.

Telephone

Sprint is the telephone service provider in this area. Their system is a combination of buried cable (located primarily within public road rights-of-way) and overhead lines on poles shared with the power providers (located within public road rights-of-way and running cross country). The system is located within the same overall areas as the power lines as described above.

Water

The Rowena Dell Water System is a small community water system located in Township 2 North, Range 12 East, Section 3. The system is comprised of a well, a small storage tank and distribution line.

Third Party Use of National Forest Lands

- Stiffey Pasture Permit, Sections 4 & 5, T2N, R12E: 10 year Special Use Permit issued 4/6/2005 expires 12/31/2015
- Filming permits at Johnson / Rowena Barn located in Section 3, T2N, R12E: Average 2 - 3 permits per year.

Third Party Rights on National Forest Lands

- Easements for Wasco Electric, Pacific Power & Light and Rowena Dell water system. The Forest Service is not considered a "member" of the Rowena Dell Water System
- Unknown 3rd party rights may include road access, water diversion, transmission lines, etc.

## Recreation

Characterization

The watershed is characterized by open grasslands and pine/oak woodlands on moderate to steep slopes and is dominated by the unique Rowena Plateau landform. This transition zone from the wet west side to the dry east side offers sunshine, open views, and dramatic spring wildflower displays. This breathtaking backdrop presents opportunities for day use recreation during the damp and dreary days of winter and spring. With relatively good road access as provided by the Historic Columbia River Highway (HCRH) and other public roads, opportunities for dispersed recreation activities such as hiking, hunting and mountain bike riding are abundant. There are few opportunities for developed outdoor recreation within the watershed. Only Memaloose and Meyer State Park provide those opportunities.

An estimated 2.0 million people visited National Forest in the CRGNSA in 2001 according to the National Visitor Use Monitoring Report. However, recreation use in the watershed is relatively low as compared to the popular west end of the Columbia River Gorge. It is estimated that less than 10% of the total use occurs in the watershed based on the number of recreation facilities provided. For example only 4% of all developed recreation facilities in the Gorge are located within the watershed. This is mainly due to the high concentration of private land and the distance from the Portland/Vancouver Metro area.

The majority of the watershed and recreation facilities are located within a 1-1.5 hours drive of the Portland/Vancouver Metro area. Consequently most of the visitation comes from outside the watershed, mainly from the Metro area. The majority of dispersed activity tends to occur during the spring months as visitors take advantage of the sun and dramatic wildflower displays.

Developed recreation activities (camping, picnicking etc) and sightseeing occurs mainly during the summer months as is the trend throughout the Gorge. The majority of activity tends to be day use in nature, such as sight seeing, picnicking, day hiking, fishing, wind surfing, etc. Recreation activity is generally confined to established recreation sites and travel corridors such as the HCRH. There are limited opportunities for dispersed activities such as hunting away from these sites and corridors. The high concentration of private lands limits the general public from hunting in the watershed; however, hunting by invitation and permission on private land occurs.

Sight-seeing is the most dominant form of recreation activity in the CRGNSA. 82% of all visitors who visit the Gorge participate in viewing wildlife, birds and fish, with 38% viewing natural features, such as scenery and flowers. The watershed provides numerous opportunities for both formal and informal views of the dramatic scenery and wildlife (specifically birds) along I-84, HCRH, Rowena Crest and Memaloose Overlook. Visiting historic and prehistoric areas (38%) and driving for pleasure (47%) is also a significant activity visitors participate in. Historic site visitation and driving for pleasure occur mainly along the HCRH and I-84.

Participation in day hiking is somewhat lower than sight-seeing Gorge wide, but it is significant with nearly 47% of all users participating. The majority of hiking in the watershed occurs on informal trails in the Rowena area and the managed trail system in Tom McCall Preserve.

Wind surfing is very popular in this section of the Gorge. Steady west winds in the spring and early summer months provide excellent conditions. Access points include Meyer State Park and informal access at Squally point, east of the Rowena planning area.

While fishing is not significant within the watershed, a boat ramp at Mayer State Park provides boat access to the Columbia River for salmon, walleye and steelhead fishing. Nearly 3% of all visitors to the Gorge participate in fishing.

Camping is not a significant activity in the watershed with only one campground at Memaloose State Park. There are few opportunities for dispersed camping with the mixed ownership pattern, lack of public road access to the backcountry and steep terrain.

The Columbia River Gorge National Scenic Area uses a modified version of the Recreation Opportunity Spectrum (ROS) called Recreation Intensity Class (RIC). Most RIC 1 is associated with Open Space. RIC 1 emphasizes providing semi-primitive recreation opportunities in which people can realize experiences such as solitude, tension reduction and nature appreciation. Maximum design capacity should not exceed 35 people at one time (paot) and 10 vehicles for this class. RIC 2 provides settings where people can participate in activities such as physical fitness, outdoor learning, relaxation and escape from noise and crowds. Maximum design capacity should not exceed 70 paot and 25 vehicles. RIC 3 emphasis is on facilities that are complementary to the natural landscape, yet accommodate a moderate number of people. People are able to realize experiences such as group socialization, nature appreciation, relaxation, cultural learning and physical activities. Maximum design capacity is 250 paot and 50 vehicles. The emphasis of RIC 4 is providing roaded natural, rural and suburban recreation opportunities with a high level of social interaction. Maximum design capacity is 1,000 paot and 250 vehicles. Most of the area east of Rowena Crest is classified as RIC 1. Areas west of Rowena Crest are a mix of mostly RIC 1 and RIC 2. RIC 3 and 4 are associated with existing or proposed developed recreation sites.

Four Public Recreation Zone land allocations in the watershed are located in the following areas:

1. Memaloose State Park
2. Rowena Crest
3. Mayer State Park (west and east)
4. Tooley Lake

Current Conditions

Viewing scenery and observing nature/wildlife is the most dominant form of use in the watershed. Statewide 2003-2007 Oregon Statewide Comprehensive Outdoor Recreation Plan (OR SCORP) reports a 21.4% increase in sightseeing and a 170% increase in nature/wildlife observation between 1987 and 2002. Specifically Regions 2 and 3 (Columbia, Washington, Yamhill, Polk, Marion, Clackamas, Hood River, Multnomah, Linn, Benton and Lane Counties) experienced a 68.6% increase in sightseeing and a 254% increase in nature/wildlife observation. Regions 6, 7 and 10 (Wasco, Sherman, Morrow, Umitilla, Jefferson, Deschutes, Crook, Wheeler, Wallowa, Union, Baker and Grant Counties) experienced a 33.7% increase in sightseeing and a 161% increase in nature/wildlife observation. At this time current facilities allow the informal observation from roads, trails and established viewpoint trails.

Hiking and viewing wildflowers has increased in the watershed since the designation of the CRGNSA. Significant acquisitions by the Forest Service in the Rowena and Seven Mile Hill areas have spurred recreation growth in the area. This is evidenced by the number of user made trails that have developed within the past 10 years. This general increase in use is also supported by the Nature Conservancy which manages Tom McCall preserve. The Nature Conservancy has observed increased use for over a wider time period especially on the trail leading to McCall Point. During the mid 1990's the Friends of the Columbia River Gorge collaborated with a number of interest groups to develop a *Vision for the Rowena Area*, which increased the visibility of the area to the general public. This recent trend in the watershed seems to be inconsistent with both Oregon and Washington SCORP, which indicate that statewide hiking has stayed static between 1987 and 2002.

Surprisingly, mountain bike use has not been established in the watershed. The terrain and openness seems conducive for beginning to intermediate users. Lack of use may be attributed to the lack of awareness by the mountain biking community and lack of challenge for local users, and the popularity of the Coyote Wall (Syncline) area across the Columbia River between Burdoin Mountain and Catherine Creek.

In general, developed site recreation (picnicking and camping) are confined to the two State Parks in the watershed. The OR SCORP reports that supply for developed campgrounds and picnic areas exceed current demand in Regions 2, 3, 6, 7 and 10. Between 1987 and 2002, Regions 2, 3, 6, 7 and 10 also experienced a general decline in picnicking. However, Regions 2 and 3 experienced a 48% increase in RV/Trailer camping while in Regions 6, 7 and 10, use increased by 96%.

Fishing from a boat has increased significantly over the last 5 years. Statewide OR SCORP reports an increase of 47%, Regions 6, 7 and 10 (Wasco, Sherman, Morrow, Umitilla, Jefferson, Deschutes, Crook, Wheeler, Wallowa, Union, Baker and Grant Counties) experienced an increase of 190%. The watershed does provide one developed boat ramp access to the Columbia River at Mayer State Park, where fishing seems to be the dominant boating activity. From anecdotal data this facility seems to meet current demand. Fishing should continue to see growth, however it could depend on restrictions imposed on salmon fishing season.

OR SCORP reports a decline in windsurfing of 13.6% statewide since 1987. Regions 2, 3, 6, 7 and 10 experienced nearly a 50% decline. Generally, it appears East Mayer State Park meets current demand in the watershed, however during the past couple years there has been an increase in use of the Squally Point area, further east of the Rowena planning area. Local windsurfing advocates, however, continue to express the need for more river access in the Gorge.

The area has also seen an increase in off-highway vehicles (OHV) use; most of the use appears to occur mainly from local residents adjacent to public land.

Recreation use particularly hiking, sightseeing, viewing nature/wildlife and fishing should continue to grow in the watershed. While recent statistics show statewide growth in hiking is static, anecdotal data and the development of user trails in the watershed indicate this activity should continue to grow. While OR and WA SCORP concluded that the large inventory of

recreational trails exceeds demand, WA SCORP also concluded: "most trails are not located where they are needed the most (in or near town). The majority of trails are located on remote lands above 3000 feet." The majority of trails in the Gorge is close to urban populations (within 30 minutes to 1 hours drive from the Portland/Vancouver Metro Area) and tends to be accessible year round. Recent studies also support the Washington SCORP, in that time and distance are now the main barriers to participating in outdoor recreation activities. This explains why trail use is so high in the Columbia River Gorge (48% of all visitors participating in hiking and 63% participate in walking and hiking combined) and perhaps why demand for trails in the watershed is high.

The National Survey on Recreation and the Environment (NSRE) expects a growth rate of 23% in the Pacific Region (including Oregon and Washington), however this seems a bit high for the watershed. While the area is relatively close the Portland/Vancouver Metro area, hiking in the watershed seems to very seasonal in nature with the majority of use occurring in the spring to view the dramatic wildflower displays. Summer activity is relatively low because of the very warm temperatures. While it seems reasonable to expect this use to grow, it should be lower then NSRE estimates.

The NSRE concludes sightseeing and nature activities should continue to grow at a rate of 26% and 23% respectively during the next 10 years for the Pacific Region (including Oregon and Washington). With the outstanding scenery, the proximity to the Portland/Vancouver Metro area and the opportunities to view nature and wildlife along the HCRH, I-84, Rowena Crest, and Memaloose view point it is reasonable to expect growth at or near the projected rate.

Car camping, picnicking and windsurfing should not see significant growth based on current trends. For the most part the supply of facilities for developed camping, picnicking and windsurfing should continue to meet general demand for these activities in the foreseeable future. One notable exception is RV/Trailer camping, where demand may exceed supply in the watershed based on the growth experienced since 1987 and the being on the threshold of "baby boomer" generation nearing retirement age.

Existing Sites

*Vistas and Overlooks*

There are two signed and developed viewpoints within the planning area located along the Historic Columbia River Highway (US 30). One is the Memaloose Overlook located at milepost 76.3 with a parking capacity of approximately eight (8) vehicles on a gravel surface, operated and maintained by ODOT. The other is the Rowena Crest Viewpoint described above under "Trails and Trailheads".

Informal pullouts with vistas exist along the Historic Columbia River Highway (US 30) between the Rowena Crest Viewpoint and the Interstate 84 junction at Rowena. Approximately eight (8) such locations exist with parking in total for about 16 vehicles.

*Trailheads*

The only current trailhead parking advertised to the public is at Rowena Crest Viewpoint and is associated with the Nature Conservancy's Governor Tom McCall Preserve at Rowena Plateau. The Rowena Crest Viewpoint is located at milepost 79.8 on the Historic Columbia River Highway and is operated and maintained by Oregon State Parks and Recreation. Parking capacity is approximately eight vehicles along the gravel shoulders of the asphalt entrance road; and approximately 25 vehicles around the outside of the asphalt parking loop. There is also a gravel parking area on OPRD land associated with the Preserve across the Historic Highway from the entrance to the Viewpoint. Parking capacity here is approximately four vehicles with space for approximately six additional vehicles along the nearby gravel shoulders.

*Trails*

- Tom McCall Preserve Trail System (owned OPRD and the Nature Conservancy).
- There are no Forest Service System trails in the area.
- User made trails in the Memaloose Hills, Rowena and Seven Mile Hill areas.

*Existing Roads Suitable for Recreation*

- Historic Columbia River Highway
- Dell Road
- Marsh Cut-Off
- State Road
- I-84

*Proposed Developments in the CRGNSA Plan (all SMA except where designated as GMA)*

- No. 27 Ortley View Point
- No. 28 Rowena East
- No. 29 Mayer Park - GMA
- No. 30 Mayer Park West
- No. 31 Hudson Hill (note: this hill is now named McClure Hill) - GMA
- No. 33 Memaloose Campground
- T 17 Rowena Overlook to Tooley Lake Trail (partially developed – user trails, private lands)
- T 18 Memaloose Overlook to Rowena Dell trail (partially developed – user trails)

*Other Proposals*

- *A Vision for the Rowena Area: Rich in Resources – Rich in Beauty. A Collaborative Project coordinated by Friends of the Columbia Gorge*. 1997
- Wildlife observation at wetland on State Road (Marsh Cut-off)
- Interpretive site at Fisher-Moorehead property
- Interpretive site at Rowena Barn

# Reference Conditions

## Reference Period

Reference conditions are the conditions that were likely to have been in place in a certain reference period. The Mosier Watershed Assessment (WA) provides a discussion of resource conditions at the time of European American settlement (mid 1800's). The WA discussion is summarized here; please refer to pages 8 to 13 of the WA for more detail.

## Climate

Over the last 15,000 years, the climate has changed considerably in the Pacific Northwest. The gigantic Bretz floods on the Columbia River scoured land up to 1,000 feet in elevation, and occurred at a rate of one or two every century until around 12,000 years ago. The local climate became hotter and dryer 8,500 to 5,500 years ago, then became cooler and moister again 2,500 to 500 years ago.

## Natural Disturbance Patterns

As described in the Mosier watershed assessment, past floods, fires, mudflows and landslides have shaped the landscape in one degree or another in the Mosier Creek Watershed. The middle and upper portion of Rowena Creek is located within the rain-on-snow elevation zone, which is usually between 1200' and 3600'. Rain-on-snow flooding, landslides and debris flows can be found in the area. Large-scale events such as flooding and fires can significantly shape riparian and aquatic habitat conditions. Large woody debris and sediment can be transported to the stream adding to the in-stream habitat diversity. Less mature riparian vegetation may be found near such disturbances. Stand-replacing fires were a rare event in ponderosa pine habitat; however, frequent natural or man-made low-level fires regularly cleared underbrush and less fire-resistant species, such as young Douglas fir.

## Watershed Conditions

The Mosier Creek Watershed Assessment includes descriptions of reference conditions for vegetation, riparian, wetland and stream channels. In general, the area was composed of larger trees prior to land development and settlement. Large oak trees were highly valued from the Mosier area for powering steamboats up and down the Columbia River. This loss of large trees in the watershed has led to less complexity and diversity in stream channels. The assessment states that local residents report that Rock Creek (west of Rowena Creek) was perennial all the way to the Columbia prior to the 1950's and additional anecdotal information suggests that several springs that may have contributed flow to lower Rock Creek are now diverted for domestic water sources. It is not known whether a similar situation existed in Rowena Creek as well or whether Rowena Creek has always been an intermittent stream.

The Watershed Assessment also notes that many wetlands and stream channels have been drained or diverted to reduce saturated soil conditions, and the use of drain tiles and ditches to drain wet areas for agriculture and roadways was common and continues to the present.

Before construction of the Columbia River dam system, beginning with Bonneville Dam in 1938, the shores of the Columbia River were lined with wetland habitat. A railroad was constructed on the south shore of the Columbia in the 1880's. In 1955, Interstate 84 was constructed with two lanes widened to four lanes in 1976. Together, Bonneville Pool, the railroad and Interstate 84 eliminated floodplain habitat from the banks of much of the river, creating lakes on the south side of the road.

## Vegetation

The Mosier watershed assessment reviewed records from about 1859 to 1900 and reported that Government Land Office surveys from the 1880's suggest large trees with under-story brush were found throughout the Watershed. Oak forests featured larger trees than they typically do now. Nearly the entire Watershed was listed as "Heavily timbered" or "Densely forested" depending on the surveyor. On the drier east-side of the Watershed, near Rowena, pine-oak forests were prevalent. Some areas had young or mixed age stands due to fire history. Around the time of settlement, tree species in the Watershed appear to have been similar to those present today although their relative proportions differed.

According to the *Mosier Creek Watershed Assessment*, intentional burning by Native Americans to maintain travel routes and berry patches occurred in the Eastern Gorge. Fire thinned the oak stands, creating varying-aged stands and open savannas. Fire suppressed competing vegetation and tree regeneration and promoted the development of widely-spaced, heavily-branched "open-form" oaks with thick, fire-resistant protective bark. Under current fire suppression practices, oaks grow thicker and remain smaller than historically.

While the tree species and forest types are similar to historic conditions, currently more land is cleared for agriculture and development. The Mosier watershed assessment reports that by 1914, 26,400 acres, or more than ½ of the Watershed was identified as being "Non-timber areas".

The Forest Service analysis further describes the area as historically more of a mosaic, with trees located in the drainages, with openings above. Below 800 ft in elevation, vegetation was sparse due to the Bretz floods. Above 800' most clearings are now introduced by humans.

Although the historic condition is not well understood, a representative sample can be gleaned from examining present vegetation and extrapolating back with the infusion of more frequent low intensity fires (and is based on climate conditions fairly similar to today). The resulting vegetation would have been oak/pine woodland with large trees more scattered over the area. This woodland would have been largely fire resilient. The larger oaks would have likely produced larger mast crops and the larger pines more cones.

The shrub under-story was most likely of similar species as today, but more evenly distributed

throughout the area. As a result of frequent fires, the shrub under-story would have been repeatedly kept in a state of rejuvenation providing excellent browse for deer. The herbaceous under-story would have been dominated with perennial native bunchgrasses, such as Idaho fescue, blue bunch wheat grass, and others with a very strong component of balsam root, lupine, and other herbaceous flora. This diverse flora would have been wide spread throughout creating an excellent habitat for a diverse insect component which in turn would have fostered a diverse bird community.

The Douglas fir community on Seven Mile Hill would have likely been far smaller with scattered large firs mingled with the pines and oaks. The encroachment on the oak/pine evident today would not have been evident historically except in very wet climate conditions.

The status of the sensitive flora is rather unknown. Some of these species may never have been very common. On the other hand, some of them may be fire dependent and would have been far more common. Likewise, some of the common species found today may not have been common historically.

The Forest Service team expects that the three Forest Types (Pine-Oak-Douglas Fir, East Conifer and Oak Pine Woodlands) were historically located where they are located today, and the species within each Forest Type is similar both historically and currently. However, due to fire exclusion, the relative composition of each forest type is not the same as it was historically.

## Fish and Wildlife

Large tree snags and large mast trees would have resulted in a higher prevalence of wildlife which are dependant on these components, such as cavity nesters and animals that feed on acorn crops such as the Lewis' woodpecker and western gray squirrel. Deer winter range and migration routes west of the planning area were largely intact and continuous.

Natural ponds were few (ponds were later constructed for agricultural and other purposes), and there was a large amount of estuary and riparian hardwood habitat on the Columbia River. Fish were abundant in the Columbia River.

## Native Americans

People have inhabited the interior Northwest for at least the past 11,000 years, but strong evidence of human occupation of the Columbia Gorge is weak until about 10,000 years ago. For the first half of the Holocene (the past 10,000 years), Native Americans appear to have been highly mobile. Although artiodactyls (deer and bison family) bones are the most common faunal remains in early Holocene sites, salmon bone found in sites in the Gorge and ground stone tools found in other locations indicate that the inhabitants had a diverse diet. Base on the relatively small number of early Holocene sites found to date, population densities were quite low. Starting about 5,000 years BP (before present) some interior Northwestern groups began to invest more labor in the construction of their dwellings, in facilities for plant processing and

fishing, and in storage. This marked the beginning of semi-sedentary life way encountered by European American explorers in the early nineteenth century, although it is not until about, 2000 BP that large villages began to appear.

The influx of Europeans into North American began in the 1,500s, and had dire consequences for the Native Americans, although some short-term changes, especially the use of horses, appear to have been positive. Epidemics raged throughout the hemisphere, wiping out the majority of the Indian people.

Salmon fishing along the Columbia River and its major tributaries was one of the major activities of the summer, although preparations for fishing started as early as the previous winter, when people made repairs to their fishing tools during the idle months. Many people moved to special summer fishing locations, but other groups continued to move up in elevation through the spring and summer to gather berries and hunt deer, elk, and bear.

Little information is known about the specific role of the project area in the local settlement and subsistence system. A village may have been located at the confluence of Rowena Creek and the Columbia River. It is likely that little remains of the village because of the construction of the railroad and Interstate 84.

> "The subject property lies within lands ceded by the Confederated Tribes of Warm Springs as a result of an 1855 treaty with the United States government. The area is within the traditional historic territory of the Upper Chinookan-speaking Wasco people. The Wasco village of galenicx ("it is put on or lowered down") was located at the mouth of Rowena Creek... It is not known when the village was abandoned, but was occupied in 1840 when the Methodist missionary Daniel Lee conducted revival services there (McNeal n.d.:203). Many Wasco left the general area ca. 1860-1865 to resettle on the Warm Springs Indian Reservation" (McClure: 2003:4).

## European Americans

European American settlement of the interior Northwest began slowly at first but built momentum as improvements in transportation created easier access to national and regional markets. Just like their Indian predecessors, European Americans living in the project area alternated between the wetter but colder uplands, and the drier lowlands with an earlier spring. Traditional use of project area, both Native and European American, appears to have declined after the 1950s.

# Synthesis

This section synthesizes the events and ecological elements that affect the ecosystem.

Since the time of European influence, this watershed has experienced dramatic changes. The most dramatic change has been the influx of non-native peoples and the development that has come along with this influx. This includes transportation routes and road networks as well as urban developments, damming of the Columbia, land clearing, agriculture and suppression of natural fires. These developments have dramatically altered the Columbia River lowlands. Although the composition of the flora and fauna are largely the same, many species are in serious decline due to habitat changes.

## Watershed

Pre-European settlement, stream channels had infrequent large episodic events with large inputs of woody debris. Currently, large woody material is missing in this watershed. Due to few large trees in the riparian areas and frequent road interruptions, stream events are more frequent and less significant. Sediment input from roads is more chronic, but of smaller amounts. The stream system is confined and high gradient, so streams are "feeders" for the Columbia River. In addition, the streams are feeding sediment but no longer feeding woody material. Bonneville Pool has eliminated the delta at the mouths of creeks. Sediment is no longer moving from the mouth of Rowena Creek down the Columbia River in large amounts. Sediment is moving much more slowly down river.

Road densities are high in the watershed in general, are medium in the Rowena area, and are low to moderate in riparian areas in particular.

## Vegetation

Tree species and forest types are similar to historic conditions, but currently more land is cleared for agriculture and development. The Mosier watershed assessment reports that by 1914, 26,400 acres, or more than ½ of the watershed was identified as being "Non-timber areas".

The Mosier Watershed Assessment estimated and mapped 1850's vegetation cover types and current cover types (1990's), within eight categories; 1) bare, 2) brush, 3) closed canopy , 4) open canopy, 5) grass or clearcut, 6) regrowth, 7) buildings, and 8) water. The Mosier Watershed Assessment maps indicate that in the Rowena area, closed canopy appears largely unchanged from the 1850's to the 1990's. There has been a marked increase from open canopy to grass and buildings (development).

The Fifteen Mile Subbasin Assessment (pages 73-75) mapped six presettlement wildlife habitat types; 1) interior grasslands, 2) interior mixed conifer forest, 3) interior riparian – wetlands, 4) montane mixed conifer forest, 5) ponderosa pine/interior white oak forest/woodlands, and 6) shrub-steppe.

The assessment mapped current wildlife habitat in a more detailed fourteen habitat types. The assessment concluded that for the entire subbasin "the most heavily impacted wildlife habitats in the subbasin were shrub-steppe, interior grasslands, and interior riparian habitat, in that order. Much of the shrub-steppe habitat and riparian habitat have been converted to agriculture, pasture and urban areas. Interior grassland habitats have been converted to forested habitats due to fire suppression". The assessment's maps indicate that in the Rowena area, the most notable changes occur in the Seven Mile Hill area. Habitat types west of Mc Call Point appear largely similar between current and presettlement conditions.

In addition to the changes in distribution and extent of different habitat types portrayed in both the Mosier and Fifteenmile Subbasin assessments, the condition and composition within almost all of the habitat types have changed. The under-story is largely dominated by various non-native annual and perennial grasses. There is generally a lack of natives and a lack of herbaceous flora, such as balsam root, lupine, etc. Weed infestations are fairly common within this area. Tree species appear to have been similar to those present today although their relative proportions differed.

Historically, fire thinned oak stands, creating varying-aged stands and open savannas. Trees were widely spaced, heavily branched "open-form" oaks. Under current fire exclusion practices, many oak woodlands are dense, even-aged "dog-hair" thickets with crowded tall slender trees competing for sunlight. The oaks grow thicker and remain smaller than historically. Douglas fir encroaches on oak pine woodlands.

Judging from historic conditions and from current vegetation models, the forest vegetation is in need of thinning to bring the community into higher fire resiliency. Experimental oak thinning plots have been established in the Burdoin Mountain area (Klickitat County, Washington) and Rowena area to determine how existing oak trees respond structurally to thinning; i.e., do the existing trees become larger, more heavily branched and more spaced. Such a structural response would lead over time to a more stable community with increased structural diversity and wildlife habitat value.

## Fish and Wildlife

Fish habitat has been extensively altered by changes to the Columbia River. Wildlife habitat is fragmented from roads, dams, agriculture, clearing, homes, and fences. Winter range has been encroached upon in the larger vicinity, making the winter range in the planning area more important in the region. Due to the loss of Columbia River floodplain habitat, ponds (even the manmade ponds) are more significant regionally.

The exclusion of fire has resulted in conifer encroachment and thick understory, which has reduced habitat values to wildlife in these crowded stands. Thinning the pine oak woodlands would increase structural diversity and wildlife habitat value.

## Aquatic Conservation Strategy

This section evaluates how well the Aquatic Conservation Strategy (ACS) Objectives (as part of the Forest Service Management Plans) are currently being met and the potential for meeting them in the future on National Forest lands. USDA Forest Service Regional policy, the CRGNSA Plan and the Mt. Hood Forest Plan as amended by the Northwest Forest Plan identify activities that can take place in riparian areas on National Forest lands.

Several small unnamed intermittent streams flow through National Forest lands in the "Rowena Columbia Tribs" subwatershed. National Forest lands are interspersed with private lands in the "Rowena Creek" subwatershed, with National Forest lands concentrated in the lower stream reach. The majority of Rowena Creek is private land outside of the CRGNSA. Therefore, the Forest Service has limited influence on this stream.

**Objective 1:** *Maintain and restore the distribution, diversity, and complexity of watershed and landscape-scale features to insure the protection of the aquatic systems to which species populations and communities are uniquely adapted.*

Loss of large trees in the watershed has led to less complexity and diversity in stream channels. Thinning forest vegetation may result in the existing trees becoming larger, more heavily branched and more spaced creating a more stable community over time.

**Objective 2:** *Maintain and restore the spatial and temporal connectivity within and between watersheds. Lateral, longitudinal, and drainage network connections include floodplains, wetlands, upslope areas, headwater tributaries and intact refugia. These network connections must provide chemically and physically unobstructed routes to areas critical for fulfilling life history requirements of aquatic and riparian-dependent species.*

The connectivity between watersheds provided by the Columbia River floodplains has been lost. Connectivity between the Columbia River and the upper stream reaches has been disrupted by the transportation corridors. Numerous road/stream crossings have disrupted connectivity on National Forest lands.

Many wetlands and stream channels have been drained or diverted to reduce saturated soil conditions, and the use of drain tiles and ditches to drain wet areas for agriculture and roadways was common and continues to the present. Some opportunity may be available to reverse these actions on National Forest lands.

The Rowena SMA, which includes parts of the "Rowena Creek" and "Rowena Columbia Tribs" subwatersheds, is an isolated area of federal land. The CRGNSA extends to the east and west but in the less restrictive GMA, with primarily private ownership. Lands to the south are largely private and outside of the CRGNSA. Connectivity within and between portions of the "Rowena Creek" and "Rowena Columbia Tribs" subwatersheds may improve due to federal acquisition.

**Objective 3**: *Maintain and restore the physical integrity of the aquatic system, including shorelines, banks and bottom configurations.*

The intermittent streams have no major channel modification above the river level transportation

corridors. The lowest stream reaches and the Columbia River shoreline are in a highly altered condition. Banks, shorelines, and bottoms are outside the range of natural variability and likely to remain so. Existing transportation facilities severely restrict opportunities to improve conditions.

**Objective 4:** *Maintain and restore water quality necessary to support healthy riparian, aquatic and wetland ecosystems. Water quality must remain within the range that maintains the biological, physical, and chemical integrity of the system and benefits survival growth, reproduction and migration of individuals composing aquatic and riparian communities.*

Little data on water quality is available for this watershed. Several factors influence water quality, such as sediment, erosion, and development. Road density in general, and road density in riparian areas in particular, are considered moderate intensity. Riparian buffer zones are required on all lands in the CRGNSA, but future development is likely to take place in the upper reaches of Rowena Creek outside of the CRGNSA.

**Objective 5:** *Maintain and restore the sediment regime under which aquatic ecosystems evolved. Elements of the sediment regime include the timing, volume, rate and character of sediment input, storage and transport.*

The infrequent large episodic stream events of the Reference period have been replaced by more frequent and less significant events. Streams are feeding sediment to the Columbia River but no longer feeding woody material. Sediment input from roads is more chronic, but of smaller amounts than the previous large events. Large woody material is missing in this watershed.

Bonneville Pool has eliminated the delta at the mouths of creeks. Sediment is no longer moving from the mouth of Rowena Creek down the Columbia River in large amounts. Sediment is moving much more slowly down river.

Vegetation management could result in larger trees in the subwatershed. Road construction and development will be the major source of sedimentation. Sediment flows in the Columbia have been reduced by the dam system, and will likely not change in the near future due to the extensiveness of the system.

**Objective 6:** *Maintain and restore in-stream flows sufficient to create and sustain riparian, aquatic and wetland habitats and to retain patterns of sediment, nutrient and wood routing. The timing, magnitude, duration and spatial distribution of peak, high and low flows must be protected.*

Streams are intermittent in the subwatersheds. Because of the mixed land ownership and degree of development, restoration of in-stream flows on National Forest lands is not likely to have a large overall effect. Re-establishing wood routing and sedimentation in the lowest reaches is limited by the non-National Forest transportation corridors. Dredging and wood removal would be conducted to protect the development (bridges, homes, and roads) in these areas. No change is anticipated for the Columbia System in the near future.

**Objective 7:** *Maintain and restore the timing, variability and duration of floodplain inundation and water table elevation in meadows and wetlands.*

Many of the area's wetlands are human constructed, and replace habitat lost by Columbia River damming. Therefore, it is desirable to maintain the wetlands, even though they are not natural. The timing, variability, and duration of flooding on the Columbia have been totally altered by the dams and there is little expectations that this will change in the foreseeable future.

**Objective 8:** *Maintain and restore the species composition and structural diversity of plant communities in riparian areas and wetlands to provide adequate summer and winter thermal regulation, nutrient filtering, appropriate rates of surface erosion, bank erosion and channel migration, and to supply amounts and distributions of coarse woody debris sufficient to sustain physical complexity and stability.*

Forest vegetation is in need of thinning to bring the community into higher fire resiliency and closer to the range of natural variability. With thinning, the existing trees may become larger, more heavily branched and more spaced creating a more stable community over time, and would then increase structural diversity and wildlife habitat value. Noxious weeds threaten native plant communities and their control is necessary to maintain habitat diversity in the watershed.

**Objective 9**: *Maintain and restore habitat to support well-distributed populations of native plant, invertebrate and vertebrate riparian-dependent species.*

Invasive weeds are found in riparian habitats and active management is needed to control them. Invertebrate and vertebrate riparian-dependent species have not been extensively studied in these streams. Streams lack large wood and, as previously discussed, could be improved through active management. The Columbia River is highly altered and probably will remain so.

**Review of Interim Width for Riparian Reserves**

As defined in the Northwest Forest Plan, Riparian Reserves are one component of a four-pronged agency Aquatic Conservation Strategy (ACS) action framework. Riparian Reserves are those lands along streams and other water bodies (including wetlands) where special standards and guidelines direct land use. The purpose of riparian reserves is to enable the Forest Service to manage "riparian-dependent resources to maintain the existing condition or implement actions to restore conditions", (Northwest Forest Plan, 1994: B-10). They are intended as a barrier zone to development and logging near waterways. Standards and guidelines prescribed for these reserves prohibit or regulate activities that retard or prevent attainment of ACS objectives. The ACS defines interim widths for determining riparian reserve areas in the field; however, as part of watershed analysis, the ACS stipulates that adjustments to these interim widths may be recommended.

Due to the CRGNSA guidelines within the CRGNSA, developments on private lands near riparian areas are generally not permitted in the buffer zones. The exception is that forest practices are not regulated in the GMA. The watershed analysis team members, therefore, see no compelling evidence for changing Riparian Reserve widths on permanently-flowing or intermittent streams. The team also found no evidence to suggest making the riparian widths narrower than current standards, given Northwest Forest Plan ACS objectives.

# Recreation Feasibility Analysis

A recreation feasibility analysis for the planning area utilized the following considerations:

- Recreation uses
- Recreation types of facilities
- Recreation locations
- Compatibility with resource values
- Compatibility between user groups
- Compatibility with neighboring lands
- Recreation opportunities provided at other locations; provided in the larger region
- Maintenance and partnerships
- Seasons of popularity

Trail User Feasibility

The area is already popular with hikers. Use by mountain bikes and horses appears to be low at this time. The open, relatively flat terrain can be designed for multiple use trails. A beginner/intermediate mountain bike experience could be provided. Conflict between user groups can occur on multiple use trails. Trail design and user education can incorporate features to minimize user and resource conflict, e.g. providing good site distance and adding features to slow down mountain bikes.

The lower elevations can be quite wet in the winter, and the wet soils are susceptible to puddling, compaction and erosion. The heavier the use and the heavier the body, the more resource impacts are likely to occur. Use in winter (November to February) would impact deer in their winter range from harassment. The Seven Mile Hill ridgeline has fewer resource concerns for multiple users.

OPRD prefers alternatives to horse use at the Rowena Crest area (primarily under OPRD management). The Nature Conservancy allows only foot traffic on its land. For these reasons, use of the Rowena Crest and Tom McCall Point area for equestrian and bicycle trailhead/trails is considered problematic.

The CRGNSA Plan does not allow motorized use on new trails in the SMA. The existing Forest Service roads of any length in the Rowena area (e.g. Sevenmile Hill area) are not accessed by public roads. Due to sensitive resource concerns, most of the National Forest lands in the Rowena are now closed to motorized use off trail and off road. For these reasons, OHV use would not be accommodated on National Forest lands in this area.

OPRD plans to build a universally accessible ramp on the east side of the Rowena Overlook parking area, and would be in favor of universal access to the Nature Conservancy Plateau.

Trail Feasibility

The CRGNSA Plan's *Recreation Development Plan* (1992) proposes two trails:

1. T 17 Rowena Overlook to Tooley Lake Trail (Seven Mile Hill)
2. T 18 Memaloose Overlook to Rowena Dell Trail

Both of the CRGNSA Plan proposed trails are considered feasible. A number of locations are possible for these trails; the current public land ownership pattern allows other locations than those envisioned in the 1992 Recreation Development Plan. These two conceptual trails could be linked given the extent of National Forest acquired lands and Oregon State Park lands. The Rowena Overlook to Tooley Lake Trail is envisioned to eventually connect to The Dalles Riverfront Trail. The Memaloose Overlook to Rowena Dell Trail would logically continue to the Memaloose Safety Rest Area.

In addition to the two CRGNSA Plan proposed trails identified above, a third trail consisting of a loop system in the western portion of the planning area (Memaloose Hills area) is considered feasible and could incorporate portions of the existing user trails. The "Memaloose Hills" loop trail could connect to the two CRGNSA Plan proposed trails to provide a variety of possible trail opportunities, including a connection to the Memaloose Safety Rest Area. This area can be quite wet in the winter. The wet soils are susceptible to puddling, compaction and erosion.

One public commenter suggested a trail in the Rowena Loops area, citing beautiful and pristine wildflower and oak woodland habitat. However, this proposal was considered problematic due to lack of a trailhead location.

Any trails require parking on public lands, accessed from public roads. Canyon Way in Rowena Dell is an example of a private road that cannot be used for public access to trails on public land.

Trailhead Feasibility

The feasibility of a number of trailhead locations was considered, using factors such as public ownership, access from public roads, adequate site distance, and topography. The Historic Columbia River Highway is abbreviated to HCRH.

*Feasible Trailhead Locations, from west to east (see Figure 13 for general locations)*

TH 1. Private land west of McClure Hill (former Hudson Hill). A private landowner recently offered to sell land bordering the HCRH west of McClure Hill to the Forest Service. The property has very good site distance from the HCRH, moderate topography, and a moderate amount of exiting vegetative screening. This site would be the furthest west of all of the identified trailhead locations.

TH 2. Memaloose Rest Area (State Land). The site has easy eastbound I-84 access. Facilities area in place, including a restroom. Issues include inconvenience of eastbound only access. ODOT would require the existing parking to be expanded if it became a formal trailhead.

TH 3. National Forest land west of the Wasco County quarry near Marsh Cut-off Road. An access road is in place from the HCRH with good site distance, although there is a bit of a curve off the HCRH. Terrain is flat; screening is limited. The access road is used as driveway to a residence.

TH 4. Marsh Cut-off Road west side: The site is ¼ mile from the HCRH with good site distance, flat terrain, and some screening. An intermittent stream needs protection.

TH 5. Marsh Cut-off Road east side: There is good site distance and flat terrain. The site is ¼ mile from the HCRH. Screening is limited, and the site is near two houses.

TH 6. Morehead Fisher property. An access road is in place from the HCRH with good site distance. Terrain is flat. Issues include safety regarding existing buildings and cultural resources.

TH 7. Forest Road 3000782. An access road is in place from the HCRH with good site distance. Terrain is flat.

TH 8. Wheelchair access trail on State Park lands west of Rowena Dell would require access off HRCH. There is an existing native surface road. Highly visible from HCRH east bound; good site distance and easy topography.

TH 9. Rowena Crest Viewpoint (State Land). Parking is already in place. Use as a trailhead would requires the agreement of Oregon State Parks and the agreement of the Nature Conservancy for a formal trail. OPRD preferred alternatives to horse use at the Rowena Crest area. The Nature Conservancy allows only foot traffic on its land. For these reasons, use of this area for equestrian and bicycle trailhead/trails is considered problematic.

TH 10. National Forest land on lower Seven Mile Hill Road to an old quarry. The site has adequate space for a number of vehicles, and for large vehicles. Issues include nearby residences and high visibility. No long term trail is planned from this location.

*Problematic Trailhead Locations, from west to east (see Figure 13 for general locations)*

TH 11. Memaloose Overlook. This site has poor site distance and limited space.

TH 12. Forest Road 3078083. This NFS road is accessed only from a private road.

TH 13. Forest Road 3000810 from the HCRH Rowena loops. This site has poor site distance, steep terrain and limited space.

TH 14. East end of proposed Rowena Overlook to Tooley Lake Trail (in GMA outside of the Rowena planning area). No public land location has been found to date. Further acquisition or easements are required. (Not mapped)

Developed Recreation Feasibility

The Management Plan's *Recreation Development Plan* (1992) proposes six developed recreation facilities. The continued feasibility of these proposed recreation developments was considered, using factors such as current demand, public ownership, access from public roads, and presence of sensitive resources. The Mayer Park proposal (No.29) is in the GMA and is not part of the planning area.

*Feasible Recreation Developments*

- No. 30 Mayer West Park (SMA): This State Park proposal would help meet demand for river related recreation. OPRD proposes a tent campground, river/windsurfing access and restoration of the existing gravel pit pond.
- No. 31 Hudson Hill (GMA): This GMA proposal is included since it could be part of a potential "Memaloose Hills" loop trail system. Issues include road access and cultural resources. This proposal could be changed to include this location in a "Memaloose Hills"

loop trail system, rather than a destination parking area. Note: the name of this hill has been changed from Hudson Hill to McClure Hill.

- No. 33 Memaloose Campground Expansion (SMA): This State Park expansion would help met demand for RV/Trailer camping; and is perhaps the only location in the area to accommodate this use. OPRD finds that the expansion is unlikely without significant cultural resource survey work. Instead, ORPD would like to consider developing 8-10 cabin or Yurt sites adjacent to the campground in an existing overflow parking area. The CRGNSA Plan does not specifically identify cabin or Yurt sites as an allowed use.

*Problematic Recreation Developments*

- No. 27 Ortley View Point: There is no public road access to this site. It would be time consuming to reach the proposed viewpoint.

*Completed Recreation Developments*

- No. 28 Rowena East
- No. 29 Mayer Park (GMA)

Moorehead-Fisher Property Development Feasibility

A number of ideas have been proposed for the Moorehead Fisher property, recently acquired by the Forest Service. These ideas include interpretation, information kiosk, historical visitation area, trailhead, and restored buildings. The buildings would be costly to restore and costly to maintain. There is a public safety concern with allowing the public in proximity to the buildings in their present state.

Continued Hunting Feasibility on National Forest Lands

Several members of the public asked the Forest Service to continue to allow hunting on National Forest lands. The Forest Service does not regulate hunting; it is regulated by the Oregon Department of Fish and Wildlife (ODFW). The Forest Service has the authority to prohibit firearm use on National Forest lands, and typically exercises this authority to protect public safety in highly visited sites. The Forest Service does not consider shooting on National Forest lands in the Rowena area to be problematic and considers continued firearm use on National Forest lands to be feasible.

Commenters asked that hunting not be allowed along the HCRH, or on OPRD or Nature Conservancy land. State regulations prohibit shooting over roads. OPRD, the Nature Conservancy or other landowners would make decision regarding hunting access on their lands.

Cabins and/or Yurts at State Parks

Oregon State Parks (OPRD) would like to develop cabins and/or Yurts at their State Parks. OPRD reports that cabins and Yurts are very popular in introducing people to affordable camping and the occupancy rate statewide is 95-100% during the summer. The CRGNSA Plan does not specifically identify cabin or Yurt sites as an allowed use. The issue of cabins and yurts at public recreation sites should be addressed when recreation issues are addressed in the CRGNSA Plan.

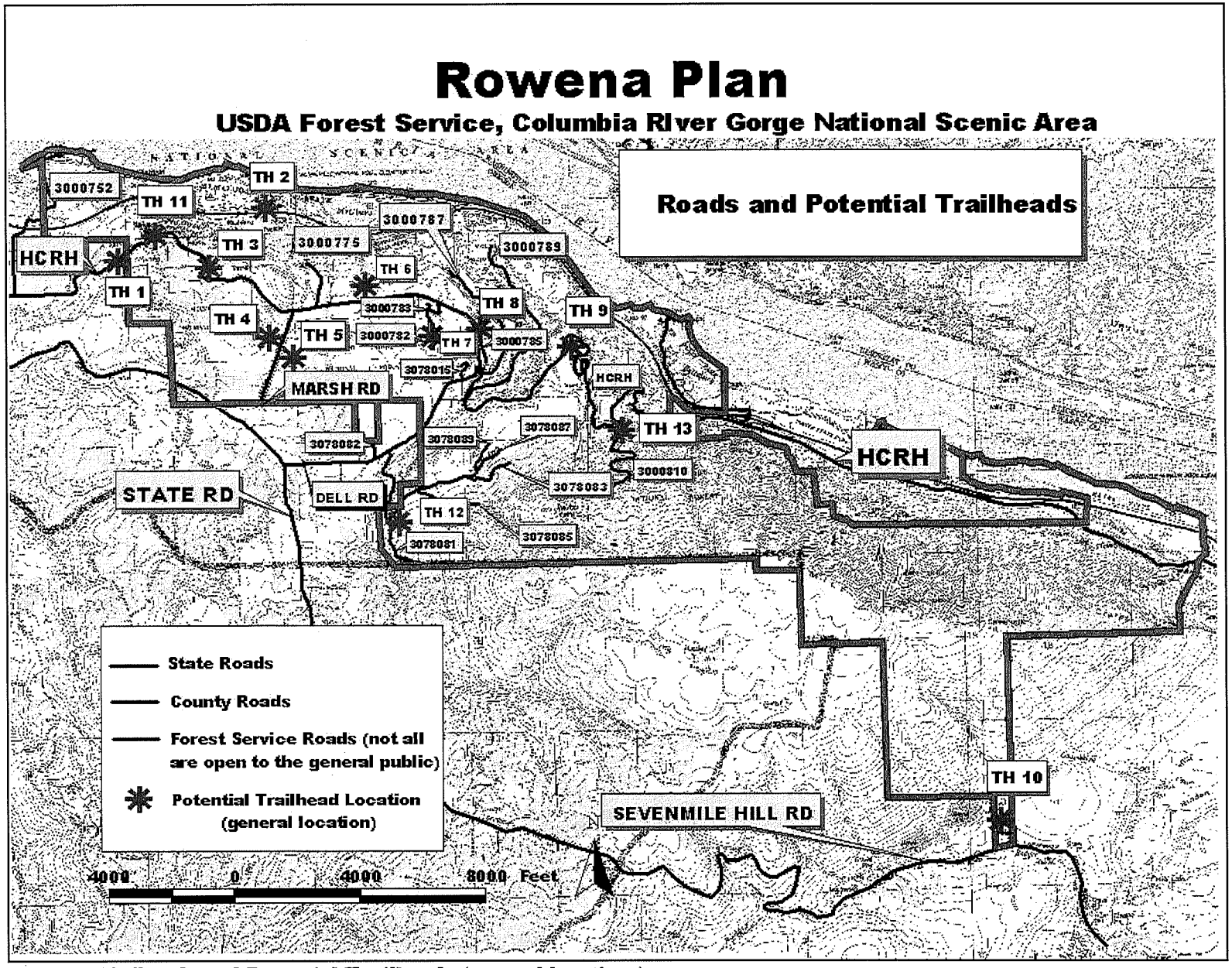


Figure 13: Roads and Potential Trailheads (general locations)

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# Desired Future Condition

## Overview

The desired future condition for the Rowena area is to maintain the mosaic of oak-pine woods, Savannah areas (predominantly grassy openings with scattered trees), and grassy prairies interspersed with scattered rural development and agricultural operations. Development includes residences, roads and fences; orchards and cultivated areas that lend a pastoral flavor to this generally natural-appearing landscape.

The vegetation communities are fire resilient, and native plants prevail over invasive species. Native flora and wildlife habitats and species are protected and enhanced, with a special emphasis on protection of Threatened, Endangered and Sensitive (TES) species sites and restoration of habitat used by TES, ODFW priority habitats/species, and degraded habitat used by native species. A connected stream network provides a more natural supply of water, more wood and less sediment.

The high scenic quality is maintained. Development along the HCRH is in keeping with the character of this historic resource. The cultural and natural landscape of the HRCH (circa 1922) is maintained.

All significant cultural and historic sites are protected, as required by the CRGNSA Plan and other state and federal laws. All National Forest lands are surveyed for cultural resources and any sites are recorded.

Rowena Plateau presents a breathtaking backdrop with areas of relatively easy terrain for day use recreation at all times of year. Spring and fall are particularly popular seasons. The area offers scenic views, openness, wildflowers, HRCH and history. A careful network of inter-connecting trails allows hikers, bikers and equestrians (if feasible and compatible), to sightsee and view wildflowers. Visitors have opportunities to view nature and for more interpretation. Opportunities are available for an ageing population; more trails are accessible, and existing exiting facilities are upgraded to be more universally accessible.

Social activities are compatible with the resource capabilities and balanced with local resident's social expectations. Collaboration and partnerships with and between groups holding diverse social expectations is a key component to preserving and protecting the scenic, natural, cultural and recreational resources of this section of the Gorge.

New developments and uses are consistent with CRGNSA Plan guidelines or county implementing ordinances for SMA Open Space and for protection of scenic, natural, cultural, and recreational resources.

## Landscape Pattern

The landscape pattern would reflect the present distribution of the three Forest Types (Pine-Oak-Douglas Fir, East Conifer and Oak Pine Woodlands).

The cultural oak woodland landscape would be retained along the foreground of the Historic Columbia River Highway; a mix of grassland openings, oak woodlands, wildflowers, and scattered residences.

Some of the existing openings could be retuned to a forested condition, especially those that are human made. Soil capability and surrounding forest type should be considered to determine where openings could become forested. Trees could be planted, or the current vegetation not actively maintained, allowing the areas to reseed naturally.

## Vegetation Types

Further specificity in the species composition and structure of each vegetation type is provided in this section. The forest types are fire dependant, which has affected the species composition and forest structure. The desired condition of the forest types expresses a desired natural plant community, with both ecosystem restoration and fire reduction outcomes.

**Desired Condition of Grassland**
In retained open landscape, reintroduce native herbaceous plant species (for wildlife, tribal and other values).

**Desired Condition of Pine-Oak-Douglas Fir:**

- *Overstory*: Large diameter oak, pine, and Douglas fir trees scattered in woodland communities. Site predicts variability of canopy closure. Large older trees would provide more desirable habitat for many wildlife species.
- *Understory:* Sparse—in most areas stand will be a single story because of closed canopy.
- *Openings:* Scattered openings in areas of large pine and oak.
- *Shrub and Herbacious Layer*: Down wood and snags would be present. Herbacious layer more complex with a large diversity of native bunch grasses and flowers.

**Table 9: Desired Species and Size Composition of Pine-Oak Douglas Fir**

| Pine-Oak-Douglas Fir | Desired Future Condition |
|---|---|
| Species Composition (% of Total Canopy): | |
| Oak | 10-50% |
| Pine | 20-60% |
| Douglas-fir | 10-50% |
| Total Canopy Closure | 30-70% |
| Size Composition (Average diameter at breast height): | |
| Oak | 20-30" |
| Pine | 24-40" |
| Douglas-fir | 24-40" |

**Desired Condition of East Conifer:**

- *Overstory*: Big trees, variation of species by site characteristics. Site predicts variability of canopy closure. Amount of pine depends on location, encourage it where it exists, but no manual planting or creation of openings.
- *Understory:* Single story due to fire. Small oak and pine in openings where fire misses.
- *Openings:* No openings will be created. Where naturally present, openings will support some small oak and pine.
- *Shrub and Herbacious Layer*: Snags, down logs present. Native bunch grasses and diverse wildflowers present.

**Table 10: Desired Species and Size Composition of East Conifer**

| East Conifer | Desired Future Condition |
|---|---|
| Species Composition (% of total canopy): | |
| Oak | 0-10% |
| Pine | 0-35% |
| Douglas-fir | 40-60% |
| Grand Fir | 10% |
| Total Canopy Closure | 50-70% |
| Size Composition (Average diameter at breast height): | |
| Oak | 20+" |
| Pine | 30+" |
| Douglas-fir | 40+" |
| Grand Fir | 40+" |

**Desired Condition of Oak Pine Woodlands (including Savannah)**

- *Overstory:* Large scattered pine amongst large oak trees. Canopy closure is variable; some areas are open savannah while others are woodland.
- *Understory:* Oak component that includes very large sizes but some size variability reflective of site conditions.
- *Openings*: Openings are variable. Some openings are permanent based on soils or moisture content of soils.
- *Shrub and Herbacious Layer:* Native, diverse, bunch grasses, lupine, and other flowers. Noxious weeds would be absent.

**Table 11: Desired Species and Size Composition of Oak-Pine Woodlands**

| Oak-Pine Woodlands | Desired Future Condition |
|---|---|
| Species Composition (% of Total Canopy): | |
| Oak | 50-75% |
| Pine | 5-20% |
| Douglas-fir | 0-5% |
| Total Canopy Closure | 25-60% |
| Size Composition (Average diameter at breast height): | |
| Oak | 15-30" |
| Pine | 24-30" |
| Douglas-fir | 24-30" |

# Recommendations

## Vegetation

- The Desired Future Condition expresses a desired natural plant community and ecosystem. Treat forest types to achieve the Desired FutureC. Gather additional stand information to determine exact needs. Use mechanical treatment (e.g. thinning predominately smaller trees (usually less than 15")) to achieve the desired structural composition. Develop a maintenance program that includes mechanical treatments, prescribed fire and/or use of animals to control unwanted vegetation.
- Remove invasive plants. Plant native plants. Use prescribed fire for maintenance; cultural (e.g. animals) or mechanical methods may be considered if well managed. Grazing may be considered for fine fuels management. Timing, number and type of animals must be carefully considered to meet objectives. Grazing would be carefully used only as a tool to meet vegetation management objectives; grazing would not be used for animal production objectives.

  ***Priorities:*** Both native plant restoration of the plateau grasslands, and restoration of the forest structure are important goals. Both types of restoration are needed to support native wildlife communities and restore the ecosystem. Additional priority criteria for allocating limited resources are offered below for forest restoration. Priorities will be adjusted as more detailed vegetation information is obtained.

  Forest Priority 1: Condition Class 3
  Areas of Condition Class 3 are the highest priority to treat. Condition Class 3 correlates to the East Conifer forest type. Douglas fir trees grow well in this area, and with past fire exclusion, this forest type is the most significantly altered, and is the furthest away the from natural fire regime of the forest types in this area. Due to the nearby residences and Urban Areas, a stand replacement fire is to be avoided. It is a high priority to thin these areas because a fire must be caught while it is small, or it will grow so fast that evacuation of residences and even The Dalles may result. Physical considerations, such as access, may alter implementation priorities. The Condition Class 3 areas may also be difficult to maintain with prescribed fire due to lack of access, steep slopes, aspect, prevailing weather conditions, and wildland/urban interface issues.

  Forest Priority 2: Condition Class 2
  Condition Class 2 is the second priority. Condition Class 3 correlates to Pine-Oak-Douglas Fir, and Oak Pine Woodlands. Condition Class 2 can be further prioritized by fire protection needs (e.g. areas near heavily used roads and trails, houses), conifer areas with high ladder fuels and areas near east conifer areas which are encroaching into other areas. Oak stands with a few pine are lower priority to treat for fire prevention, but are important ecologically to maintain in an open condition.

## Wildlife

The proposed restoration of the forest structure will benefit all species dependant upon it, including deer and turkey.

- Consider limiting human disturbance with wildlife interpretive signing. In important deer winter range, limit disturbance between November and February.
- Maintain and improve habitat connection for pond turtles. Eliminate/reduce non-natives that impact pond turtles and that can be effectively treated.
- Protect peregrine falcon eyrie and eagle nest; do not disturb nesting. Plan recreation use to keep noise and visual disturbance away from peregrine falcon and bald eagle sites, especially during the breeding season.
- Add bird boxes for native cavity dependant species until more snags are created.

## Watershed

- Work within riparian areas to encourage a large wood component. For example, plant trees or thin to encourage larger trees, compatible with the vegetation desired future condition.
- Stabilize existing road systems. Size drainage crossings to allow water, wood to flow through the system, reduce sediment input. Stabilize roads that will be kept that need work. Roads with steepest slopes are worst problems.

## Scenic Resources

To maintain the landscape context for the HCRH, the landscape character should retain elements present when the highway was built. The Rowena Dell development should be screened where possible, and historic structures and cultural features such as orchards and pastures should be retained if they were present circa 1922 and contribute to the quality of the scenery.

The most important considerations for management of this area with respect for the scenic quality are the following:

- Protection and enhancement of the wildflower component.
- Protection and development of large diameter ponderosa pine and Oregon oak.
- Design of recreation development along the HCRH in keeping with the quality of this historic resource.
- Restoration of existing quarries in the planning area.
- Reduction of non-historic visible fences along the HCRH which are not needed to control vehicle access.
- Repair/replacement of needed fences with fences that blend with the landscape.
- Restoration and maintenance of the HCRH.
- Planting the vacant National Forest lots at Rowena Dell with Ponderosa pine and Oregon oak at a fire resilient spacing.

- Removal of visually discordant features seen from Key Viewing Areas that do not have other resource values, as funding allows.

## Cultural Resources

- Move toward restoration of the historic landscape used by the Wasco. The landscape of the HCRH period is not incompatible with a presettlement landscape. Then, as now, the landscape is a mosaic.
- The Forest Service is supportive of Native American efforts to restore areas of traditional native plants, and will work with the Warm Springs Tribe on specific proposals.

## Recreation Resources

### Trail Locations

Based on user demand and resource capabilities, consider implementing the two CRGNSA Plan trail proposals, 1) T 17 Rowena Overlook to Tooley Lake Trail (Seven Mile Hill), and 2) T 18 Memaloose Overlook to Rowena Dell Trail. In addition, implement a loop trail in the western part (Memaloose Hills) of the planning area. Connecting to the Memaloose Safety Rest Area.

These three trails would connect with one another to provide a variety of possible trail opportunities, for length and type of experience. Some of the existing user trails may be incorporated into the designated trails. The final locations of the trails would protect sensitive natural, cultural and scenic resources; access safe, public parking areas; and minimize impacts to private lands and residents.

The most important resource constraints are the wet ground in the lower elevations in winter and spring, and the potential disturbance to deer (most of the planning area is deer winter range). Heavy use and heavy bodies are incompatible in lower elevation wet areas in the wet season.

Fire management specialists should be consulted when trails are located to co-locate trails as fuel breaks when possible. The status of third party rights will be researched as part of project analysis.

### Trailhead Locations

Locate three trailhead locations in support of trail development; on the west side, the center, and the east side of the planning area. The final locations of the trailheads would protect sensitive natural, cultural and scenic resources; be located in safe locations on public lands and accessed from public roads; and minimize impacts to private lands and residents.

Possible feasible locations for these trailheads include:

- West Side: Seven possible feasible locations consist of three locations on National Forest land along the HCRH (TH3, TH6, TH7), the west and east sides of Marsh cut-off road (TH4 and TH5), at Memaloose Safety Rest Area (TH2), and, if acquired by the Forest Service, on

private land west of McClure Hill (TH1). A location as far west as possible on the HCRH would allow the longest trail experiences.

- Center: With concurrence from Oregon State Parks, use the Rowena Overlook as an official trailhead (TH9). This site is already developed with a sizeable amount of parking. OPRD prefers alternatives to horse use at the Rowena Crest area. The Nature Conservancy allows only foot traffic on its land. For these reasons, use of the Rowena Crest and Tom McCall Point Trail area for equestrian and bicycle trailhead/trails is considered problematic.
- East Side: The long-term desired trailhead location would be consistent with the CRGNSA Plan's Rowena Overlook to Tooley Lake Trail, with a trailhead located east of the Rowena area. This trail is envisioned to connect to The Dalles Riverfront Trail, and perhaps a trailhead would eventually be located in that area. It may be many years before such a trailhead can be established. For the present, allow parking in National Forest land adjacent to lower Seven Mile Hill (TH10). This area is not currently suitable for horse trailer parking.

A small wheelchair access trail/trailhead could be placed on State Park lands west of Rowena Dell (TH8).

Smaller parking areas would limit potential impacts to wildlife (especially deer winter range). The status of third party rights will be researched as part of project analysis.

**Recreation Users**

- Hiking is considered a compatible use in all areas.
- OHV is considered an incompatible use in all areas.
- Lower elevations are wet in winter and spring, and susceptible to puddling and erosion. Heavy use and heavy bodies would create more impacts in these areas in the wet season. Trail planners may consider seasonal closures in the lower elevations to protect resources.
- The area is important deer winter range. Recreation use in winter (November to February) would impact deer in their winter range from harassment.
- The Seven Mile Hill ridgeline has fewer resource constraints in any season due to the dry soils and terrain, making it suitable for multiple users all year. Locations for horse trailer parking in the Seven Mile Hill area appear limited.
- OPRD prefers alternatives to horse use at the Rowena Crest area (primarily under OPRD management). The Nature Conservancy allows only foot traffic on its land. For these reasons, use of the Rowena Crest and Tom McCall Point area for equestrian and bicycle trailhead/trails is considered problematic.
- Due to current low equestrian use and lack of identified locations for equestrian parking facilities, a trailhead accommodating horse trailers is currently a low priority.
- Fire arm use is considered a compatible use on National Forest lands.

**Recreation Facilities**

- Moorehead Fisher property. Members of the public proposed some type of facility in this area, such as interpretive, restroom, trailhead etc. The Forest Service would evaluate proposals considering cost, SHPO requirements, public safety, etc.
- The following recommendations are made to the Management Plan's *Recreation Development Plan:*
  - No. 27 Ortley View Point. Drop this proposal due to lack of public road access, and time consuming to reach.
  - No. 28 Rowena East (completed).
  - No. 29 Meyer Park (completed). (GMA)
  - No. 30 Mayer West Park. Keep this proposal to meet demand for river related recreation.
  - No. 31 Hudson Hill. Consider changing this proposal as become part of a "Memaloose Hills" loop trail system, rather than a parking destination. Note: the name of this hill has been changed from Hudson Hill to McClure Hill.
  - No. 33 Memaloose Campground Expansion. Keep this proposal to meet demand for camping, considering OPRD demand analysis.

## Fire Prevention

Spring is expected to be the heaviest recreation use period; less use is expected in the dry summer months. When trail and trailhead facilities are developed, the Forest Service will have a higher presence. Fire prevention techniques could include the following:

- Post fire prevention and other fire information signs (Industrial Fire Precaution, Adjective Class) at trail heads and other developed sites.
- Prohibit camp fires on National Forest lands.
- Restrict smoking to vehicles between May and November.
- Continue routine summer fire patrols by vehicle.
- Add occasional summer fire trail patrols.
- Continue to provide the fire prevention message at Gorge community events.

## Land Acquisition

The Forest Service would continue to evaluate property sale offers.

## SMA Open Space Uses and Developments

The Rowena Plan serves as the SMA Open Space Plan. Every potential proposal for new developments or uses cannot be anticipated at this time; therefore, this section provides direction for future uses that cannot be anticipated at present.

Proposed new developments and uses in SMA Open Space would be consistent with this Open Space Plan if they:

1. Do not conflict with plan, and

2. Meet CRGNSA Plan guidelines or county ordinances for Open Space and for protection of scenic, natural, cultural, and recreational resources.

## Designation of National Forest Lands as SMA Open Space

Several commenters asked that the Forest Service consider changing the designation of National Forest lands from Agriculture to Open Space, and that a recommendation to that effect be included in the Rowena Plan. A detailed analysis of this issue is not being conducted as part of this planning effort. Analysis of this issue would take place as a Management Plan amendment or as part of a future Management Plan review. Some considerations for this proposal are as follows.

- SMA Open Space designation policies require the following attributes of lands in order to be designated SMA Open Space:

    1. Lands with high scenic values. These include areas of outstanding natural beauty, such as cliff faces, steep bluffs, canyons, water features, and tributary river corridors.

    2. Wetlands, areas supporting ecologically and scientifically significant plant communities, and significant natural areas. Most of these areas contain concentrations of threatened, endangered, sensitive, and endemic plants, and sensitive plant associations that are rare or unusual.

    3. Sensitive and unique habitat values and threatened, endangered, sensitive, and endemic species. These lands include habitat for significant wildlife species such as spotted owl, pine marten, pileated woodpecker, and anadromous fisheries.

    4. Concentrations of cultural resources. These lands contain known and potential significant concentrations of cultural resources.

Designating land as SMA Open Space rests on the attributes of the land, and whether the land meets the criteria. It does not rest merely upon land ownership.

# Potential Future Projects

The Rowena Team identified the following specific potential future projects. Projects on National Forest lands would be prioritized with all other Forest Service projects. Forest Service projects require further site specific analysis to determine consistency with NEPA and the CRGNSA Plan.

Specific Road Stabilization Projects:

- Road 3000789, below Rowena Dell. Investigate replacing double 8' diameter culverts with a vented ford, concrete ford or other design. Fire management access must be retained.
- Road 3000775, to Wasco County rock pit. Verify that the existing 48" culvert is adequately sized.
- Road 3000810: from HCRH Rowena Loops, east of Rowena Overlook. Retain for vegetation management purposes, a high priority to stabilize or storm proof.

Specific Road Decommission Projects:

- Road 3000782, comes off HRCH west of Dell Road.
- Road 3078083, accessed from a private road off Dell Road. Utilities have access from Road 3078087.
- Road 3078085, accessed from a private road off Dell Road. Keep as a trail tread; for fire access do not narrow tread. Open road up to stabilize properly.

*Note:* the status of third parry rights on these roads will be researched as part of project analysis.

- Minimize non-historic fencing.
- Maintain wildflowers; add more wildflowers. Reduce competition from invasive plants.
- Plant trees on vacant lots at Rowena Dell at a fire resilient spacing.
- Complete restoration of rock pits
- Remove debris from old dump site at Road 3000810 when it is opened up for vegetation management.
- Bring residents' litter concerns to ODOT.
- Pull old fences as funds allow, if they are not protecting resources and are not blocking cross country driving. Interior fences are a priority. Review existing fences on HCRH that are to be kept and ensure the design is compatible for scenic and historic values.

# Data Gaps

- Map of spring locations.
- Fish use at mouth of Rowena Creek.

# Sources


Campbell, Bruce H. 2004. *Restoring Rare Native Habitats in the Willamette Valley.* Biodiversity Partners. Defenders of Wildlife

Columbia River Gorge Commission and USDA Forest Service. 1992 and 2004. *Management Plan or the Columbia River Gorge National Scenic Area.* Columbia River Gorge Commission, White Salmon, Washington and USDA Forest Service, Hood River, Oregon.

Dobson, Robin. 1995. *Management Plan for the Western Pond Turtle Population on Morganson Road, Oregon.* Prepared for the USDA Forest Service, Hood River OR and Wasco County Planning Department, The Dalles

Friends of the Columbia Gorge. 1997. *A Vision for the Rowena Area: Rich in Resources – Rich in Beauty. A Collaborative Project coordinated by Friends of the Columbia Gorge.*

McClure, Richard. 2003. *Heritage Resource Inventory and Evaluation Report for Moorhead/Fischer Acquisition, Wasco County, OR.* Manuscript on file with the Columbia River Gorge National Scenic Area in Hood River.

McNeal, William H. No date. *History of Wasco County, Oregon.*

Oregon States Park and Recreation Department. 2003. *Statewide 2003-2007 Oregon Statewide Comprehensive Outdoor Recreation Plan (SCORP)*

USDA Forest Service

1990 *Mount Hood National Forest Land and Resource Management Plan.* USDA Forest Service.

1995 *Reconciliation Document: Mt. Hood Forest Plan and Northwest Forest Plan.* USDA Forest Service, Mt Hood National Forest.

USDA Forest Service, USDI Bureau of Land Management.

1994 *Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents within the range of the Northern Spotted Owl and Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species within the Range of the Northern Spotted Owl* (the "Northwest Forest Plan" or the "ROD").

Wasco County Soil and Water Conservation District for the Mosier Watershed Council. 2002. *Mosier Watershed Assessment*

Wasco County Soil and Water Conservation District and Fifteenmile Coordinating Group for the Northwest Power and Conservation Council. 2004. *Fifteenmile Subbasin Plan (draft).*

Woodland Fish and Wildlife. 1997. *Wildlife On White Oaks Woodlands*

PLASAR-15-01-0004 UPRR

# Natural Resources: Wetlands

Angie Brewer <angieb@co.wasco.or.us>

# RE: [EXTERNAL] Wetland Mitigation Coordination UPRR Project Near Mosier, Oregon (UNCLASSIFIED)

1 message

**Olmstead, Peter NWS** <Peter.D.Olmstead@usace.army.mil> Thu, Mar 26, 2015 at 12:45 PM
To: Angie Brewer <angieb@co.wasco.or.us>, "jeremy.sande@ch2m.com" <Jeremy.Sande@ch2m.com>
Cc: "rebecca.viray@noaa.gov" <rebecca.viray@noaa.gov>, "Shoal, Robin Z -FS" <rshoal@fs.fed.us>

Classification: UNCLASSIFIED
Caveats: NONE

Angie,
Thank you for putting this together, you captured our discussion very well.

Jeremy: Just a reminder that the BA will need to be revised to include the compensatory mitigation component (once it is decided) within the proposed action for this project. Rebecca, maybe you can elaborate on how far you can get into the consultation before this is received? Will you hold off your review until this is received?

Also, wanted to add that this has been a shining example of effective inter-agency cooperation. Thank you all very much.

Peter

-----Original Message-----
From: Angie Brewer [mailto:angieb@co.wasco.or.us]
Sent: Thursday, March 26, 2015 12:26 PM
To: jeremy.sande@ch2m.com
Cc: Olmstead, Peter NWS; rebecca.viray@noaa.gov; Shoal, Robin Z -FS
Subject: [EXTERNAL] Wetland Mitigation Coordination UPRR Project Near Mosier, Oregon

Hello Jeremy,

I just got off a conference call with Peter Olmstead (USACE), Rebecca Viray (NOAA/NMFS) and Robin Shoal (USFS CRGNSA) to follow up on our March 10th conversation about the wetland mitigation options and proposals you provided for our discussion. This email intends to provide you with a general summary of our conversation as part of our ongoing inter-agency coordination and to provide you with consistent information.

In general, of the mitigation options proposed to us, we find the Schacht property on Tooley Lake to be the most appropriate location for mitigation efforts. The reason for this is in part due to the (1) proximity of the site to the site of disturbance, the Columbia River, and the railroad; (2) existing and available water resources that would provide a self-sustaining feature (once created); and (3) because it seems to be the most "in kind" mitigation option for the habitat function that will be impacted by the proposed development.

We discussed elements of the other proposals as well and generally agreed that mitigation options should be limited to self-sustaining features where possible - and not include features that require human or mechanized assistance to maintain inundation or other water needs for habitat function.

We agreed that we are still open to other options for mitigation and would encourage CH2M Hill and UPRR to also explore mitigation and enhancement opportunities that may exist along other portions of the existing rail alignment (outside of the project area) through the Columbia River Gorge National Scenic Area.

I hope this information is helpful. We look forward to seeing your final mitigation proposal. Please do not hesitate to contact any of us with questions. I've copied everyone on this email in case I've left something out.

Have a wonderful afternoon,

Angie

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Classification: UNCLASSIFIED
Caveats: NONE

**PC 1 4-1203**

Angie Brewer <angieb@co.wasco.or.us>

# UPRR Second Mainline Track Project - Updated Wetland Mitigation Grading Plan

1 message

**Linnea.Eng@ch2m.com** <Linnea.Eng@ch2m.com> Tue, Nov 17, 2015 at 12:25 PM
To: Peter.D.Olmstead@usace.army.mil, rebecca.viray@noaa.gov, angieb@co.wasco.or.us
Cc: slcheney@up.com, lmbaatz@up.com, kmoore@dunncarney.com, danielse@up.com, Joel.Shaich@ch2m.com, James.Nicholas@ch2m.com, Henriette.Emond@ch2m.com, Christine.Roberts@ch2m.com

Peter, Rebecca, and Angie,

Attached please find an updated site description, description of water rights, and grading plan for the Tooley Lake wetland mitigation effort. Per discussions with Peter and Rebecca, I understand that this information will complete responses to the outstanding questions necessary to assess impacts from the project. Because there will no longer be a surface water connection between Tooley Lake and the new wetland, there is no longer any possibility of fish stranding in the wetland.

We previously provided a memo, supplemental to the Biological Evaluation, detailing responses to Rebecca's questions about the culvert construction methodology in Thompson's Lake. Peter's comments on performance standards for the wetland mitigation project will be addressed separately. Please let me know if you are still waiting for any further information.

Thank you,

**Linnea Eng, P.E.**

*Senior Project Manager*

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**Tooley Lake Mitigation Updates_November2015.pdf**
553K

**PC 1 4-1204**

# UPRR Second Mainline Track Project, Wasco County

# Tooley Lake Wetland Mitigation Updates

| | |
|---|---|
| PREPARED FOR: | Peter Olmstead/USACE<br>Rebecca Viray/NMFS<br>Angie Brewer/Wasco County |
| COPY TO: | Luke Baatz/UPRR<br>Dave Nielsen/UPRR<br>Steve Cheney/UPRR |
| PREPARED BY: | Joel Shaich/CH2M<br>Kate Moore/Dunn Carney |
| DATE: | November 17, 2015 |

As a follow up to the August 17, 2015, conference call and follow-on discussions with the U.S. Army Corps of Engineers (USACE), National Marine Fisheries Service (NMFS, Wasco County, Union Pacific Railroad (UPRR) and CH2M, this memorandum presents revisions being made to the *Draft Compensatory Mitigation Plan for the Union Pacific Railroad Second Mainline Track Project* (CH2M, June 2015). The updates are clarifications of information provided in the draft plan and updates to the plan that have been developed on the basis of additional site-specific information gathered since the draft plan was submitted for agency review in June 2015. In addition, the updated grading plan for the Tooley Lake wetland mitigation is attached (Figure 1).

Additional minor modifications have been made based on the hydrologic regime and the modified approach, as described below. Key among these is the depiction of the buffer area on project maps and the removal of the proposed culvert as a design feature for delivering water to the wetland.

## Tooley Lake Mitigation Site

Wetland construction activities will be conducted within the boundaries of the site's existing agricultural area. The mitigation wetlands will be constructed by excavating to the elevation of the water table, resulting in a depressional wetland supported by groundwater and containing open water, palustrine emergent, palustrine emergent/scrub-shrub and palustrine scrub-shrub/forested zones. The wetland will have adjacent riparian areas and buffer areas separating it from Interstate 84 and adjacent properties. The wetland will not have a surface or culvert connection to Tooley Lake or other water bodies.

**Buffer Area**

The draft plan has been revised to show a reserved buffer area at the wetland site (Figure 1). After the wetland is constructed, the buffer area will be managed according to the conditions of the Columbia River Gorge National Scenic Area Management Plan, which requires a buffer around an existing wetland (NSA LUDO Section 14.610.A.2.a(2)(a)). Portions of the buffer could be modified at a later date if potential future wetland expansion were requested by UPRR and received agency approval under a separate permitting process.

**Removal of Culvert from Wetland Design**

The surface water connection to Tooley Lake, previously shown as a culvert, has been removed from the plan. Hydrologic data collected at the site have shown that the wetland will be viable as a groundwater-

fed resource. Based on discussions with the Oregon Water Resource Department (OWRD), the existing water right can be modified to allow this use, as described below.

**Wetland Grade**

The wetland grade was developed based on preliminary data on Columbia River and Tooley Lake elevations and groundwater monitoring well data at the proposed wetland site. Based on data collected at the site from June through early September 2015 and historical and recent data reported for Columbia River elevations at The Dalles, the conclusions about wetland grade are:

- Surface water levels at the Tooley Lake and groundwater observation wells within the wetland creation area are the same as the levels in the Columbia River. Horizontal gradients in groundwater flow are variable. During lower lake levels, a gradient from the wetland creation area toward Tooley Lake is evident. During periods of higher levels, a gradient exists from Tooley Lake toward the wetland creation area.
- Groundwater levels track the Columbia River stage (estimated by levels upstream at The Dalles), which indicates a hydraulic connection between the wetland creation area and the river. The data indicate that abundant groundwater is present to support wetland creation without the need for connecting to a surface water source.
- Observed elevations in Tooley Lake include an ordinary high water elevation of approximately 80.5 feet. Elevations of wetlands along the margin of Tooley Lake are between 78 feet and 82 feet.
- Hydroperiod seasonality and elevation range at the proposed wetland site can be inferred from the Columbia River elevation data and will be refined with the ongoing collection of Tooley Lake and groundwater elevation data.

Based on this information, the wetland cell will be excavated to a bottom depth of 77 feet to allow open water areas for other waters creation and habitat interspersion with the wetland areas. Wetland cell elevations between 77 feet and 78 feet are not anticipated to develop wetland vegetation but will generally retain standing water year-round. Wetland cell grade between 78 feet and 82 feet is expected to support wetland vegetation and will be planted with wetland plant species.

Elevations of wetland vegetation communities within the existing wetlands along Tooley Lake will be used as reference elevations for establishment of wetland vegetation communities in the created wetland. Areas above 82 feet are not expected to develop into wetland conditions, but will support riparian habitat creation. Areas between elevation 82 feet and the existing ground surface, which varies from 82 to 85 feet, will be planted with riparian species and/or upland vegetation, depending on site-specific conditions.

Slopes within the wetland cell vary from 4:1 (horizontal:vertical) to 8:1 on upper banks, and from 7:1 to 20:1 within the wetland and water areas. Slopes and elevations will vary to mimic natural conditions, provide a visual aesthetic, and provide varying conditions for wetland and riparian establishment along hydraulic gradients. The grading plan will be finalized after field investigations are completed.

Soils resulting from excavation of the wetland site will be retained on site and graded to create natural contours.

**Soil Engineering**

Geotechnical investigations of the wetland site are underway. The objectives of these studies are to:

- Identify subsurface constraints to excavation to better support mitigation project cost estimates,
- Characterize subsurface soil conditions and identify soil engineering needed for wetland creation, and

- Determine elevation and movement of groundwater to estimate potential contribution of groundwater to wetland hydrology.

A limited field investigation was conducted on June 11, 2015, using an excavator to dig test pits at 12 locations distributed across the site. Elevations on the site range from a high of approximately 86.5 feet along the northern portion of the site bordering I-84 to a low of approximately 79.4 feet at the water's edge at Tooley Lake. The soil profile was consistent across the site, with a sand and silt mixture from 1 to 4 feet below ground surface that is underlain by clean fine sand. The fine sand that is present from approximately 4 feet to the bottom of the test pit resulted in unstable test pit walls. Despite efforts to excavate deeper, all pits were terminated at depths between 5.5 feet and 9 feet below ground surface. Visible groundwater was encountered in 11 of the 12 tests pits at depths generally between 4.8 feet and 6 feet below ground surface.

Starting on June 22, 2015, a follow-on investigation advanced seven borings to approximately 20 feet below ground surface to evaluate subsurface conditions below the depths previously excavated with test pits (5.5 feet to 9 feet). Selected soil samples were collected from the borings and submitted for laboratory testing, including sieve analysis and Atterberg limits. The explorations encountered variable mixtures of silt, lean clay, and sand extending from the ground surface to the maximum depths of the explorations. The soil ranged from brown to gray, was damp to wet above the groundwater level, and wet or saturated below the groundwater level. The silt and clay was non-plastic to low plastic, and the sand was fine-grained. In general, the profiles graded from primarily fine-grained and silty sand deposits near the ground surface, to primarily fine-grained sand deposits with increasing depth. Because the soils are sandy, slope stabilization might be required within the created wetland to prevent slumping of areas of higher elevation.

**Planting Plan**

Planting will be conducted within the wetland and riparian areas and within areas disturbed by grading. A preliminary species planting list by planting zone has been developed (provided in the Draft Mitigation Plan, CH2M, June 2015). Plants were selected based on suitability for varying hydrologic conditions, desirability for habitat restoration quality, and propensity for rapid establishment.

Emergent vegetation will be installed either as plug or containerized material or as wetland sod installed in accordance with the manufacturer's specification. Riparian plantings will be canes/live cuttings or containerized material. Areas identified as temporary slope stabilization outside of the anticipated wetland hydrology limits will be planted with herbaceous vegetation to support slope stability, but will not be part of the required mitigation acreage. These areas will be designed to accommodate grading for future wetland expansion separate from the requirements of compensatory mitigation for the proposed Project.

Wetland and riparian planting is planned for implementation in the fall/winter. If construction schedules preclude the ability to acquire dormant cutting material, some planting of cuttings will be scheduled for the winter/spring following wetland construction.

**Wildlife Habitat Features**

Woody debris of varying diameters will be placed in the wetland and riparian areas to improve habitat for aquatic invertebrates, pollinators, amphibians, reptiles, birds, and small mammals. Approximately 40 pieces between 4 to 12 inches in diameter and at least 6 feet long will be placed throughout the site. Approximately eight logs greater than 18 inches in diameter and at least 8 feet long will be installed throughout the site, primarily in the wetland areas.

Approximately four snags will be placed in the wetland and riparian areas to provide roosting and nesting habitat for birds and other animals. Snags will be at least 18 inches in diameter at ground level and will extend a minimum of 8 feet but no higher than 12 feet (for safety reasons) above-ground following installation. Snags will be embedded a minimum of 6 feet below ground for stability.

# Water Rights

**Existing Water Rights at Tooley Lake Mitigation Site**

Water Right Certificate 64084 (Permit 49914) allows water of Tooley Lake, which is a tributary of the Columbia River, to be used for irrigating 14.4 acres on the mitigation site. The priority date of this certificate is December 19, 1986. The right is limited to no more than 0.18 cubic foot per second as measured at the point of diversion. The amount of water used for irrigation, together with the amount secured under any other water right for the same property, is limited to 1/80 of 1 cubic foot per second per acre or its equivalent for each acre irrigated, and will be limited to a diversion of no more than 2.5 acre-feet per acre for each acre irrigated during the irrigation season of each year.

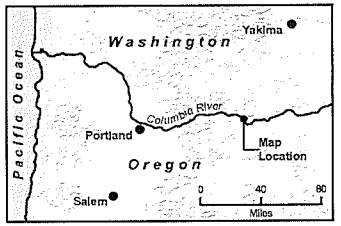
**Planned Water Rights Applications**

To obtain sufficient water for the mitigation site, three separate applications are being submitted to the Oregon Water Resources Department (OWRD). The first is an application for a Limited Water Use License to store groundwater. A limited license will provide temporary authorization to store water from Tooley Lake in the wetland in the short term while the permanent water right transactions are under review by OWRD.

Second, UPRR is filing an application for a Permit to Appropriate Ground Water (for storage in the wetland). The wetland will be designed to meet OWRD's definition of a "sump," that will intercept shallow groundwater for use in the wetland. Because shallow groundwater is known to be hydraulically connected to surface water, surface-water availability limitations will apply to the use of groundwater under this permit, limiting the use of ground water during the months when water is available in the Columbia River (water cannot be diverted between April 15 and September 30). All new use outside of that time frame would require "bucket-for-bucket" mitigation (replacing the amount of water being used with an equal amount of water). As a result, UPRR will limit this permitted use to October 1 through April 14.

To provide water during the timeframe between April 15 and September 30, UPRR will file an application for a Water Rights Transfer. This application will request a change of the existing certificated water right from a surface water right for irrigation to a groundwater right for wetlands enhancement.

\\rosa\Proj\UnionPacificRailroad\427191 Portland to Grangor Permitting\00_Mosiorl\09_GIS\02_MXD_MapFiles\Other\TooleyBuffer_151023.mxd




LEGEND

Reserved Wetland Buffer

Surveyed Property Line

Basemap Source: ESRI

**Note:** Wetland buffer is shown to demonstrate a reserved area that would be managed following wetland construction for compliance with the Columbia River Gorge National Scenic Area Management Plan, which requires a buffer around an existing wetland (NSA LUDO Section 14.610.A.2.a (2)(e)). Portions of the buffer shown could be modified at a later date if future wetland expansion were to be authorized.

N

0 50 100 150 200

Feet

FIGURE 1
**Tooley Lake Mitigation Site**
*UPRR Second Mainline Track Project*

CH2MHILL

PC 1 4-1209

TABLE 5-1
**Affected Wetlands and Waterbodies**
*Compensatory Mitigation Plan*
*UPRR Second Mainline Track Project*

| Wetland/Waterbody Name | Open Water Area (ac) | Vegetated Wetland Area (ac) | NSA Designation | Notes | Connectivity | Wetlands - Cowardin Type(s) | Dominant Species (from delineation report) | HGM | Approximate Hydrologic Regime |
|---|---|---|---|---|---|---|---|---|---|
| Wetland_1/ThompsonLake | 0.24 | 0.24 | SMA | Wetland along lake | Culvert(s) to Columbia River | PEM (0.12); PSS (0.12) | PEM - Phalaris arundinacea; PSS - Salix sessifolia, Salix lasiandra, Apocynum cannabinum, Phalaris arundiancea | Riverine Impounding | Seasonal flooding in late winter/early spring in conjunction with high Bonneville Pool levels; saturation for weeks to months in late winter to late spring/early summer, dry in summer and fall |
| Wetland_7 | 0 | 0.17 | SMA | Oregon ash in a ponded area south of railroad; depression; no other wetlands nearby | South side of RR embankment; no mention of connection | PFO (0.17) | Fraxinus latifolia | Depressional Closed | Seasonal flooding for weeks to months in late winter to late spring; saturation for months from late winter to early summer; dry late summer and fall |
| Wetland_11 | 0.14 | 0.25 | GMA | Wetland along large lake | Lake & wetland confined by existing and old embankements; culvert connects to CR | PFO (0.15); PEM (0.10) | PFO - Fraxinus latifolia, Populus balsamifera, Crataegus douglasii; PEM - Phalaris arundinacea? (no data) | Riverine Impounding | Seasonal flooding in late winter/early spring in conjunction with high Bonneville Pool levels; saturation for weeks to months in late winter to late spring/early summer, dry in summer and fall |
| Wetland_12 | 0 | 0.03 | GMA | Ponding area with black hawthorne | Disconnected from Wetland 11 by a constructed berm associated with signal house. No other connection to CR mentioned. May be jurisdictional by rule since berm is manmade. Requires review. | PSS | Crataegus douglasii | Depressional Closed | Seasonal flooding for weeks to months in late winter to late spring; saturation for months from late winter to early summer; dry late summer and fall |
| Wetland_14B | 0 | 0.003 | Urban (City of Mosier) | Wetland and riparian wetland along Mosier Creek | Along Mosier Creek, so connected to CR | PFO | Populus balsamifera, Salix lasiandra, Gleditsia triacanthos (not in Oregon per USDA website), Phalaris arundinacea | Riverine Flow-through | Intermittent flooding, generally for days to weeks in late winter/early spring due to storm events; saturation for weeks to months in late winter to late spring, dry in summer and fall |
| Wetland_16 | 0.04 | 0.01 | Urban (City of Mosier) | Wetland fringe along Lake 16 | Surface water connection to Mosier Creek | PSS | Fraxinus latifolia, Salix lasiandra | Riverine Impounding | Seasonal flooding in late winter/early spring in conjunction with high Bonneville Pool levels (assume groundwater connection); saturation for weeks to months in late winter to late spring/early summer, dry in summer and fall |
| Wetland_17 | 0.23 | 0.26 | Urban (City of Mosier) (.020 wetlands, 0.23 open water); GMA (0.06 wetlands) | Wetlands along Lake 17 | Reports states no current surface water connection to CR, confirmed by various sources & investigation. This wetland was likely part of the Bonneville pool prior to the construction of the Columbia River Highway that isolated it from the river. May make it jurisdictional as a water that was used in the past for interstate commerce. | PEM | Phalaris arundinacea | Depressional Closed | Seasonal flooding in late winter/early spring in conjunction with high Bonneville Pool levels (assume groundwater connection); saturation for weeks to months in late winter to late spring/early summer, dry in summer and fall |
| Wetland_20 | 0.02 | 0 | GMA | open water | connected to CR by culverts | L1UBHh | | | |
| **Total Impacted Acreage** | **0.67** | **0.963** | | | | | | | |

PC 1 4-1210

TABLE 6-1

**Summary of Grouped Services Scores for Impacted Wetlands and Proposed Tooley Lake Mitigation Site**

*Compensatory Mitigation Plan,*

*UPRR Second Mainline Track Project*

| Grouped Services* | | Wetland 1 | Wetland 7 | Wetland 11 | Wetland 17 | Mitigation Site |
|---|---|---|---|---|---|---|
| Hydrologic Function | Function | 2.85 | 7.00 | 3.69 | 1.00 | 4.24 |
| | Value | 1.50 | 0.50 | 1.00 | 1.00 | 2.00 |
| Water Quality Group | Function | 5.22 | 10.00 | 5.64 | 10.00 | 8.89 |
| | Value | 8.75 | 4.03 | 6.25 | 4.50 | 6.25 |
| Fish Group Support | Function | 5.63 | 2.56 | 5.25 | 4.23 | 8.59 |
| | Value | 10.00 | 10.00 | 10.00 | 10.00 | 10.00 |
| Aquatic Support Group | Function | 5.53 | 6.41 | 5.21 | 5.86 | 6.10 |
| | Value | 7.00 | 6.41 | 5.25 | 5.86 | 8.59 |
| Terrestrial Support Group | Function | 4.42 | 5.99 | 4.52 | 4.09 | 8.44 |
| | Value | 10.00 | 10.00 | 10.00 | 3.33 | 6.67 |
| Carbon Sequestration | Function | 2.29 | 1.26 | 2.09 | 2.24 | 2.59 |
| Public Use and Recognition | Value | 1.43 | 0.00 | 0.56 | 2.50 | 5.33 |
| Provisioning | Value | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Condition | | 4.33 | 4.29 | 5.91 | 3.02 | 7.33 |
| Sensitivity | | 5.76 | 5.17 | 6.39 | 7.44 | 1.77 |
| Stressors | | 6.20 | 10.00 | 5.00 | 10.00 | 6.11 |

*"Grouped Services" are aggregates of individual functions and their associated values organized into thematic categories.

TABLE 6-2
**Functions and Values Replacement**
*Compensatory Mitigation Plan,*
*UPRR Second Mainline Track Project*

| Grouped Services | | Weighted Average Grouped Scores for Impacted wetlands | Grouped Scores for Tooley Lake Mitigation Site | Replacement Achieved |
|---|---|---|---|---|
| Hydrologic Function | Functions | 3 | 4 | Yes |
| | Values | 1 | 2 | Yes |
| Water Quality Group | Functions | 7 | 9 | Yes |
| | Values | 6 | 6 | Yes |
| Fish Group Support | Functions | 5 | 9 | Yes |
| | Values | 10 | 10 | Yes |
| Aquatic Support Group | Functions | 6 | 6 | Yes |
| | Values | 6 | 9 | Yes |
| Terrestrial Support Group | Functions | 5 | 8 | Yes |
| | Values | 8 | 7 | Yes |
| Carbon Sequestration | Functions | 2 | 3 | Yes |
| Public Use and Recognition | Values | 1 | 5 | Yes |
| Provisioning Services | Values | 0 | 0 | Yes |

TABLE 2-1
**Mitigation Acreage**
*Compensatory Mitigation Plan*
*UPRR Second Mainline Track Project*

| Impact | Acres of Impact | Mitigation Ratio | Basis for Ratio | Mitigation Type | Location | Wetland Creation | Waters Creation | Riparian Creation | Waters Enhancement | Totals |
|---|---|---|---|---|---|---|---|---|---|---|
| Scenic Area Wetlands | 0.75 | 3:1 | NSA-LUDO | Wetland creation | Tooley Lake | 2.25 | | | | 2.25 |
| Other Wetlands | 0.2 | 1.5:1 | Dept. of State Lands | Wetland creation | Tooley Lake | 0.3 | | | | 0.3 |
| Other Waters | 0.68 | 1:1 | USACE[a] | Open water creation | Tooley Lake | | 0.34 | | | 0.34 |
| | | | | Riparian creation (shading) | Tooley Lake | | | 0.34 | | 0.34 |
| Fisheries Habitat | N/A | N/A | N/A | Open water enhancement (culvert) | Thompsons Lake | | | | 1.58 | 1.58 |
| | | | | | **Total by Type** | **2.55** | **0.34** | **0.34** | **1.58** | |
| | | | | | | | | | **Grand Total** | **4.81** |

[a] 1:1 requested based on additional mitigation provided for open waters through Thompsons Lake culvert enhancement.

Notes:

N/A = not applicable

NSA-LUDO = *National Scenic Area Land Use Development Ordinance for Wasco County* (Wasco County, May 1994).

USACE = U.S. Army Corps of Engineers

PC 1 4-1213

MEETING SUMMARY

# UPRR Second Mainline Track Project Wetland Mitigation Plan, Wasco County, Oregon

# August 17, 2015

| | |
|---|---|
| **ATTENDEES:** | Peter Olmstead/USACE |
| | Rebecca Viray/NMFS |
| | Angie Brewer/Wasco County |
| | Luke Baatz/UPRR |
| | Steve Cheney/UPRR |
| | Kate Moore/Dunn Carney |
| | Henriette Emond/CH2M |
| | James Gorham/CH2M |
| | Linnea Eng/CH2M |
| **PREPARED BY:** | Linnea Eng/CH2M |
| **DATE:** | August 18, 2015 |
| **PROJECT:** | 650375 |

## Objectives

This meeting was intended to review the proposed wetland mitigation plan associated with the CWA 404 Permit Applications for UPRR's Second Mainline Track Project in Wasco County, Oregon. The project, the mitigation plan, and consultations to date were reviewed. Questions and concerns to date were identified and discussed, and the project schedule was reviewed.

## Summary

A presentation by CH2M, UPRR, and Dunn Carney covered the following topics:

1. Project Overview. New second mainline track project; conversion of existing siding to mainline track; 1.62 acres of disturbance to wetlands and waters. Permitting includes CWA 404 Nationwide Permits, a flowage easement from USACE, and a scenic area development review process led by Wasco County. The CWA Section 404 process has included multiple meetings and pre-consultations with USACE and NMFS, beginning in December 2013. Wetland mitigation site alternatives were presented to the agencies at a meeting in March 2015, and the proposed site was the preferred alternative. The draft mitigation plan was submitted in June 2015.

2. Two mitigation sites are proposed. The Thompsons Lake culvert project will enhance salmonid habitat and was negotiated with NMFS during pre-consultation in 2014. This project is presumed to be fairly settled and not the focus of the current call. The Tooley Lake wetland creation project is intended primarily to mitigate for impacts to wetlands, although some open water creation is also included. The

wetland mitigation site will replace lost functions and values of wetlands as described in the ORWAP analysis documented in Section 6.2 and Appendix I of the mitigation plan.

3. The wetland project includes creation of wetlands, riparian areas, and open water. Table 2-1 in the wetland mitigation plan lays out the proposed mitigation ratio and type of mitigation for each of the impacts. A total of 2.55 acres of wetland, 0.34 acres of open waters, and minimum of 0.34 acres of riparian areas would be created at the Tooley Lake site. The following issues were discussed with regard to the wetland creation project:

a. The grading plan includes area to the north of the wetland that would be planted with riparian or upland species but would not be included in the calculated mitigation requirement. If a future project is identified for which wetland mitigation requirements could be met at this site, then UPRR would like the option of connecting to the proposed wetland. Although no such project has been identified or is anticipated in the next several years at least, the design of the current wetland would allow for such an expansion. No wetland expansion is proposed as part of the current project and if one is considered in future, it would be evaluated on its own merits.

b. Will fish be able to pass through the culvert into the wetland? Based on preliminary evaluation, it is unlikely that protected species of fish are present in Tooley Lake. In addition, due to shading along the length of the culvert, it is unlikely that fish would pass through the culvert. Juvenile Chinook are of the greatest concern; any ESA-listed steelhead or salmonids would be of concern. NMFS agrees that there is low likelihood of fish presence and the gradient/flow are not likely to attract fish into the wetland. NMFS suggests a clear focus on Tooley Lake as low quality of habitat for fish. ***Action: UPRR to provide information on the probability of protected species being present in Tooley Lake and any other pertinent information. Also discuss existing culverts and proposed culvert relative to gradient and flows and low probability of salmonids ability to enter wetlands.***

c. What are the "other waters" where we have 0.68 acre impact? Are these impacts within the scenic area? Angie was not sure of required mitigation. ***Angie to clarify whether mitigation ratios have been correctly applied in accordance with NSA regulations.***

d. A fish screen was considered for the culvert but rejected for several reasons, including possibility of getting clogged (requiring additional maintenance), as well as the low probability of fish using this culvert for passage. USACE would prefer no fish screen. If a fish screen were installed, need to avoid restricting passage of other species.

e. The slide gate for the culvert was discussed. This is proposed due to water rights restrictions (see item 4 below). The culvert would need to be closed on April 15, and reopened on October 1, to avoid taking water from Tooley Lake during the restricted time frame. USACE and NMFS would prefer not to have this slide gate because it carries the risk of maintenance being forgotten, which could deprive the wetland of its water source. It was noted that groundwater is at nearly the same elevation as the lake. ***Action: Storage right application should request that the April 15 – September 30 restriction be lifted for this location. This would avoid the need for the culvert to be blocked during that time period.***

f. Additional hydrology and geotechnical information is currently being collected. The grading plan presented in the mitigation plan depicts general conditions that will be achieved in the proposed wetland. However, as additional information is obtained, some details of the plan may be modified. Current information indicates the subsurface consists of very transmissible sand; and the water table may sit slightly higher than initially assumed. Any changes to the grading plan would consist primarily of changes to slopes leading up to the wetland, and possibly raising the bottom elevation of the wetland. Soil amendments may be required; this has not yet been determined. ***Action: update report with current hydrological information.***

g. The wetland buffer was discussed. No specific buffer is described in the plan. However, due to gradual slopes that will be required to maintain slope stability in sandy soils, a significant area will be disturbed and replanted. The riparian planting zone that has been designated as part of the mitigation project will be 15-20 ft in width. NSA regulations require that once the wetland is created, it have a buffer of 75 – 150 feet within which other activities would not be permitted. (75 ft for woody species, 100 ft for shrubs, and 150 feet for herbaceous plantings). USACE wants an established buffer that will not be disturbed. However, we may be able to write a requirement that allows encroachment on the buffer to create additional wetland area in future. It was noted that the current grading plan already contains most if not all of what is being discussed for a buffer, it just isn't shown that way on the grading plan. USACE would be fine with the NSA buffer requirements but want to make sure this is described, including planting. ***Action: add a section to the mitigation plan titled "Buffers" and describe what will be done, including the potential for future connection to this wetland if another wetland project were constructed at a later date. Also consider including in restrictive covenant.***

4. Kate Moore described the water rights applications that will be submitted. The conceptual approach described below was discussed with Bob Wood (water master) and Rob French (ODFW), and they are in agreement with this approach.

a. There is a current irrigation right, for which a transfer application will be submitted. This right is currently in use by the farmer and allows withdrawal of water from Tooley Lake during the summer months.

b. A new storage right would be requested, to allow water from Tooley Lake to be withdrawn and 'stored' in the wetland. This right typically would not be useable during the April 15 – September 30 period. USACE prefers that UPRR request this restriction be lifted for this project to avoid the need for a slide gate (as described above). It is unlikely that the restriction will be lifted but not impossible. USACE is concerned about project sustainability with a gate that needs to be opened and closed every year. It was noted that because of the water table which is approximately level with Tooley Lake, although we are not designing the project with the intent to use groundwater, we will not be able to avoid groundwater intrusion into the wetland. As a result, even if the gate were not opened, it is likely that the wetland would still receive water. However, maintenance of the gate would be required and implemented as part of the restrictive covenant for the project.

c. A temporary water right will be requested. Because it can take a long time to process the permanent transfer and storage right applications, a temporary "limited license" right will be requested. This right would cover the gap between when water is needed and when the permanent rights can be obtained.

5. Other comments on the mitigation plan were discussed.

a. Rebecca is concerned to make sure all of the changes are incorporated into the BE. Water rights, hydrology information, and information on fish in Tooley Lake and the potential for fish to enter the wetland all should be included in the BE. As an interim step, a summary of where all of the information is located can be submitted, and the BE can be updated later. A final BE is not necessary to complete the BO and the Section 7 consultation process.

b. USACE sent a letter to NMFS on 2/5/15 initiating consultation. This project is listed for NMFS as "pending additional information". No new action from USACE is required.

c. Will there be any construction on the shoreline of the Bonneville Reservoir? If so, it would be subject to the December-March in-water work window. Work within the off-channel ponds is subject to the July-September window. ***Action: Verify no work on shoreline of Bonneville Reservoir or on reservoir side of culverts.***

d. The "no net loss" policies were discussed. Peter noted the real estate division requirement for no net loss in flood storage (USACE policy forwarded separately from Peter). The wetland creation project actually would increase flood storage. The rail project has a separate application in for a flowage easement, and preliminary indications are that the real estate division processing that application does not have any significant concerns about the project.

A separate question was raised regarding "bucket for bucket" replacement for withdrawals from the Columbia. There is a state requirement that this be met during the April 15-September 30 period. Rebecca indicated that NMFS does not have a specific time frame identified but looks at the no net increase in withdrawals based on potential impacts. Division 33 rules and consultation process through NMFS will also be addressed through the water rights process.

e. Public notice for scenic area review will be published. Only sensitive information (cultural) can be kept private; all other information in the application is public. Is the mitigation plan ready for public distribution? ***Action: UPRR to discuss in-house and provide a response to Angie.***

f. Discussion of other relevant activites for 404 permit. Cultural work has been completed, including investigation on mitigation site. The USACE intends to send a their letter to SHPO and tribes by August 21. Chris Page is coordinating with Marge Dryden.

6. Schedule

a. Reviewed project schedule. UPRR funding and planning cycles are such that in order to make this project happen in 2016, and meet the required in-water work window time frames, the bid process needs to be in place early in the year (scheduled for February 4, 2016). Backing up from there, all permits need to be issued well in advance, so that bid documents can accurately reflect permit requirements. We are hopeful that the NWPs can be issued in October to meet this timeline.

b. Peter indicated he will have detailed comments on the mitigation plan this week. Major items that need to be addressed:

i. Long-term maintenance plan: can be a condition of the permit if needed; prefer that this is in place when the permit is issued. Can't start work without the final plan.

ii. Will need to review revisions to the grading plan.

iii. Need to confirm buffer per discussion above.

USACE is in agreement with the conceptual plan. This is a good site and the elements of the plan are there to make this a good mitigation project. Once we nail down the items above, and complete the Section 7 and Section 106 consultations, USACE can issue the permits.

c. Rebecca is working on comments this week. A separate conversation will be scheduled to review details and concerns.

d. Angie will not have significant comments on the mitigation plan. However, she will send a letter reiterating mitigation ratio requirements, including buffer requirements. Angie cannot approve or reject the plan as the scenic area review is a public process with decision by the planning commission; she can only gather feedback.

e. Angie noted that she has received multiple phone calls from the Mosier watershed council with concerns about offsite mitigation.

PLASAR-15-01-0004 UPRR

# Natural Resources: Sensitive Wildlife

WASCO COUNTY

Angie Brewer <angieb@co.wasco.or.us>

# RE: Natural Resource Protection Notice - UPRR project in Wasco County

1 message

**Rod French** <rod.a.french@state.or.us> Mon, Mar 14, 2016 at 3:22 PM
To: Angie Brewer <angieb@co.wasco.or.us>

Angie,

The ODFW supports the UPRR conceptual mitigation plan for their Second Mainline Track Project. As you are aware, ODFW along with NOAA Fisheries staff, has had considerable coordination in the development, and support the open water mitigation plan for Thompsons Lake. The Wetland Mitigation Plan, including the Tooley Lake mitigation site, while less developed than the open water plan, is also supported by ODFW.

We request that applicant work with ODFW, and NOAA Fisheries on developing in-water timing guidelines for all proposed work in Columbia River Tributaries, and the culvert work associated with Thompsons Lake.

Thanks for the opportunity to comment.

Rod A. French

Mid-Columbia District Fish Biologist

3701 W. 13th St.

The Dalles, OR 97058

541-296-4628

rod.a.french@state.or.us

**From:** Angie Brewer [mailto:angieb@co.wasco.or.us]
**Sent:** Monday, March 14, 2016 10:27 AM
**To:** Rod French
**Subject:** Re: Natural Resource Protection Notice - UPRR project in Wasco County

No problem! Thank you Rod. I'll be here.

PC 1 4-1219

Angie

**Angie Brewer, AICP**
Planning Director
Wasco County Planning Department
(541) 506-2566 direct / (541) 506-2560 main
www.co.wasco.or.us/planning/

On Mon, Mar 14, 2016 at 8:31 AM, Rod French <rod.a.french@state.or.us> wrote:

Hi Angie,

I'll have some comments for you later this afternoon. Thanks for your patience. Rod

**From:** Angie Brewer [mailto:angieb@co.wasco.or.us]
**Sent:** Saturday, March 12, 2016 12:58 PM
**To:** Jeremy Thompson
**Cc:** Rod French
**Subject:** Re: Natural Resource Protection Notice - UPRR project in Wasco County

Thank you Jeremy.

If either of you would like to sit down and discuss the materials, I can set up a time for next week...Just let me know.

The rest of the application can now be viewed on our website if you're interested: http://co.wasco.or.us/planning/UPRR.html

Thanks again,

Angie

**Angie Brewer, AICP**
Planning Director
Wasco County Planning Department
(541) 506-2566 direct / (541) 506-2560 main
www.co.wasco.or.us/planning/

On Thu, Mar 10, 2016 at 9:31 AM, Jeremy Thompson <jeremy.l.thompson@state.or.us> wrote:

Angie,

I was able to open the documents. I can share with Rod.

*Jeremy Thompson*

**From:** Angie Brewer [mailto:angieb@co.wasco.or.us]
**Sent:** Monday, March 07, 2016 5:43 PM
**To:** Jeremy Thompson <jeremy.l.thompson@state.or.us>; Rod French <rod.a.french@state.or.us>
**Subject:** Re: Natural Resource Protection Notice - UPRR project in Wasco County

Okay - I tried to reshare the UPRR information.

If you can't open directly from the Google generated email, please try the link. The link to the drive is https://drive.google.com/a/co.wasco.or.us/folderview?id=0BxL9FusHK2hEc1ILWXNPZmNtMkU&usp=sharing

Thanks guys. I'll call Tuesday to confirm your access.

Angie

**Angie Brewer, AICP**
Planning Director
Wasco County Planning Department
(541) 506-2566 direct / (541) 506-2560 main
www.co.wasco.or.us/planning/

On Sat, Feb 20, 2016 at 1:20 PM, Angie Brewer <angieb@co.wasco.or.us> wrote:

> Hello Jeremy and Rod,
>
> Wasco County is reviewing and application from Union Pacific Railroad for a railroad track expansion project on either side of the City of Mosier, Oregon.
>
> The natural resource notice and comment period are attached as well as the field survey and mitigation plan prepared by the applicant. If you have any comments, concerns, or recommended conditions of approval, please provide them to me by **March 12, 2016.**
>
> The documents are large, but are mostly maps - so let me know if you have any problems receiving, opening or navigating them for the pertinent information. The link to the large documents is directly under my signature block. The memo notice is attached to this email.

Thank you and have a nice weekend,

**Angie Brewer, AICP**
Planning Director
Wasco County Planning Department
(541) 506-2566 direct / (541) 506-2560 main
www.co.wasco.or.us/planning/

**UPRR Natural Resource Coordination**

# 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


Date: February 20, 2016

To: Jeremy Thompson, Wildlife Biologist, Oregon Department of Fish and Wildlife
(sent to: jeremy.l.thompson@state.or.us)

Rod French, Fish Biologist, Oregon Department of Fish and Wildlife
(sent to: rod.a.french@state.or.us)

From: Angie Brewer, Wasco County Planning Department

Subject: National Scenic Area **Natural Resource Notice**
Wasco County Land Use Application #PLASAR-15-01-0004
Applicant: Union Pacific Railroad; Applicant Consultant: CH2M Hill

---

Greetings Scenic Area Natural Resource Protection Specialists,

The Wasco County Planning Department is reviewing an application from Union Pacific Railroad and their land use consultants, CH2M Hill, to expand an existing double track siding on either side of Mosier, Oregon, realign existing track in the same area, replace equipment shelters, install new lighting and signage, install wireless communication poles, and construct temporary and permanent access roads. Wetland mitigation elements of the proposed project include the creation of new off-site wetland and wetland habitat, resulting in multiple project areas along the southern shoreline of the Columbia River.

The project has also been subject to a federal review by the U.S. Army Corps of Engineers, National Marine Fisheries, and the U.S. Fish and Wildlife Office. A biological opinion was prepared and can be provided at your request.

As shown in the attached application materials, portions of the proposed development will occur inside the city of Mosier and portions will occur outside the City, within the Columbia River Gorge National Scenic Area. Wasco County Planning has regulatory authority provided by the National Scenic Area Act to protect scenic, natural, cultural and recreation resources outside of the Mosier Urban Area.

Wasco County GIS inventories indicate the proposed development will occur in areas that contain or may contain or be within the buffer of wetlands, streams and other water bodies as well as sensitive wildlife habitat. Attached to this memo, please find the natural resource survey reports prepared by the applicant (Appendices J and K of the larger application and supplemental mitigation plan). If you prefer a hard copy or have trouble loading the electronic documents, please let us know immediately.

The report documents contain a mapped field surveys, an assessment of effect and recommendations for mitigation.

Chapter 14, Section 600(D) of the Wasco County National Scenic Area Land Use Ordinance, contains process provisions and requirements for natural resource protection. **A 20-day natural resource review comment period is provided by these rules.**

**Written comments are needed by March 12, 2016.**

The Wasco County Planning Commission is tentatively scheduled for April 5, 2016 to host a public hearing and make a decision on this application. The meeting is scheduled for 12:00pm at the Discovery Center in The Dalles, Oregon. If the hearing date, location or time changes, your office will be notified.

Thank you in advance for your coordination in this review. Please do not hesitate to contact me directly with any questions or concerns. I can be reached directly Monday through Friday at (541) 506-2566 or by email at angieb@co.wasco.or.us.

Enclosures: Project Narrative, Appendix J, Appendix K, and supplemental wetland mitigation plans.

# United States Department of the Interior

FISH AND WILDLIFE SERVICE

Oregon Fish and Wildlife Office
2600 SE 98th Avenue, Suite 100
Portland, Oregon 97266
Phone: (503)231-6179 FAX: (503)231-6195


Reply To: 01EOFW00-2016-I-0166
File Name: Informal Consult Union Pacific Railroad Second Mainline Track Project.doc
TAILS: 01EOFW00-2014-I-0242
TS Number: 15-316
Doc Type: Final

FEB 9 2016

Shawn H. Zinszer, Chief, Regulatory Branch
U.S. Army, Corps of Engineers, Portland District
P.O. Box 2946
Portland, Oregon 97208-2946

Subject: Informal Consultation for the Union Pacific Railroad (UPRR) Second Mainline Track Project, Mosier, Wasco County, Oregon, Railroad Mile Posts 66 to 72.5 (USFWS Number: 01EOFW00-2016-I-0166).

Dear Mr. Zinszer:

The U.S. Fish and Wildlife Service (Service) has reviewed your February 9, 2015, letter requesting informal consultation and the accompanying November 2014 biological assessment (BA) for the Union Pacific Railroad (UPRR) Second Mainline Track Project, Mosier, Oregon (proposed project). The Army Corps of Engineers (Corps) is evaluating the proposal for permitting under Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act. The proposed action involves the expansion and modernization of an existing railroad siding into a second mainline track. This involves the extension and expansion of the existing railroad grade, laying new track, realigning existing track, creating a new and /or temporary access road, construction material staging areas, and construction of new bridges over Mosier Creek and Rock Creek. The project is located in and adjacent to the Columbia River and nearby man made ponds in Mosier, Wasco County, Oregon.

The Corps has made a determination that the proposed project "may effect, not likely to adversely affect" bull trout (*Salvelinus confluentus*) which is listed as threatened under the Endangered Species Act, and may result in adverse modification of its designated critical habitat. The development of a mitigation plan to compensate for the loss of wetlands and shallow water habitat was not known to the Service until February 9, 2016. In future consultations it would be helpful to have this information included in the original BA or an addendum to the BA.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TAKE PRIDE® IN AMERICA

Based on the above-described scope and the proposed project described in the BA, the Service concurs with the determination made by the Corps that the proposed project is not likely to adversely affect bull trout and will not result in the destruction or adverse modification of designated critical habitat. The Service's determination is based on the following: 1) implementation of minimization measures, best management practices and conservation measures that will avoid or minimize adverse effects to bull trout; 2) there will be no direct construction impacts to bull trout or it's designated critical habitat; 3) due to water temperature factors bull trout are highly unlikely to occur within the proposed project area, particularly during the dry season/in-water work period, when construction will occur; 4) all construction materials and staging will occur away from the wetlands or the Columbia River; 5) the UPRR is adequately mitigating for the loss of wetlands and shallow water habitats; and 6) no primary constituent elements of bull trout critical habitat are likely to be affected to a measurable degree. Collectively, these factors result in impacts to bull trout that are insignificant and discountable and not likely to rise to the level of adverse effects or modification.

This response serves as conclusion of informal section 7 consultation on the Union Pacific Railroad (UPRR) Second Mainline Track Project, Mosier, Oregon, as outlined in your BA.

If you have any questions regarding these matters please contact Jody Caccio or Kevin Maurice of my staff at (503) 231-6179.

Sincerely,

Jody L. Caccio

for Paul Henson, Ph.D.
State Supervisor

e-fax: Peter.D.Olmstead@usace.army.mil (COE)

Printed on 100 percent chlorine free/60 percent post-consumer content paper.

**UNITED STATES DEPARTMENT OF COMMERCE**
**National Oceanic and Atmospheric Administration**
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
1201 NE Lloyd Boulevard, Suite 1100
Portland, OR 97232

January 14, 2016

**Refer to NMFS No.: WCR-2015-2105**

Shawn H. Zinszer, Chief
Regulatory Branch
U.S. Army Corps of Engineers, Portland District
P.O. Box 2946
Portland, Oregon 97208-2946

Re: Endangered Species Act 7(a)(2) Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for Union Pacific Railroad Second Mainline Trackline Project, Columbia River Mile 173-178 (HUC's #170701050502, 170701050503, and 170701050902) Wasco County, Oregon

Dear Mr. Zinszer: Shawn

Thank you for your letter received February 12, 2015 requesting initiation of consultation with NOAA's National Marine Fisheries Service (NMFS) pursuant to section 7 of the Endangered Species Act of 1973 (ESA) (16 U.S.C. 1531 et seq.) for the U.S. Army Corps of Engineers' (Corps) proposed permitting of the Union Pacific Railroad Second Mainline Trackline Project under section 10 of the River and Harbors Act and section 404 of the Clean Water Act.

In the attached biological opinion (opinion), NMFS concludes that the proposed action is not likely to jeopardize the continued existence of Upper Columbia River (UCR) spring-run Chinook salmon (*Oncorhynchus tshawytscha*), Snake River (SR) spring/summer run Chinook salmon, SR fall-run Chinook salmon, SR sockeye (*O. nerka*) salmon, Middle Columbia River (MCR) steelhead (*O. mykiss*), SR Basin (SRB) steelhead, or UCR steelhead, or result in the destruction or adverse modification of designated critical habitat for these species. We also concur with the Corps' determination that the proposed action is not likely to adversely affect Columbia River Chum salmon and its designated critical habitat.

As required by section 7(b) of the ESA, NMFS provides an incidental take statement (ITS) with this opinion. The ITS describes reasonable and prudent measures (RPM) we consider appropriate to minimize the impact of incidental take associated with this action. The take statement sets forth nondiscretionary terms and conditions, including reporting requirements, with which the Corps and applicant must comply to carry out the RPMs. Incidental take from actions that comply with these terms and conditions will be exempt from the ESA's prohibition against take of listed species. Exceeding the specified level of take in the ITS would trigger reinitiation of this consultation.

This document also includes the results of our analysis of the actions' likely effects on essential fish habitat (EFH) pursuant to section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), and includes three conservation recommendations to avoid, minimize, or otherwise offset potential adverse effects on EFH. Two of the conservation recommendations are a subset of the ESA take statement's terms and conditions. Section 305(b)(4)(B) of the MSA requires Federal agencies to provide a detailed written response to NMFS within 30 days after receiving these recommendations.

Please contact Rebecca Viray, Columbia Basin Branch of the Interior Columbia Basin Office at (541) 975-1835, ext 222, Rebecca.Viray@noaa.gov if you have any questions concerning this section 7 consultation, or if you require additional information.

Sincerely,

for William W. Stelle, Jr.
Regional Administrator

cc: Peter Olmstead, USACE
Mark Mullins, CH2M Hill
Linnea Eng, CH2M Hill
Jay Lorenz, CH2M Hill
Rod French, ODFW



PC 1 4-1228

Endangered Species Act Section 7(a)(2) Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation

Union Pacific Railroad Second Mainline Trackline Project
Columbia River (RM 173-178)
(HUC: 170701050502, 170701050503, and 170701050902)
Wasco County, Oregon

NMFS Consultation Number: WCR-2015-2105

Action Agency: U.S. Army Corps of Engineers, Portland District

Affected Species and NMFS's Determinations:

| ESA-Listed Species | ESA Status | Is the action likely to adversely affect this species or its critical habitat? | Is the Action likely to jeopardize this species? | Is the action likely to destroy or adversely modify critical habitat for this species? |
|---|---|---|---|---|
| Upper Columbia River (UCR) spring-run Chinook salmon *(Oncorhynchus tshawytscha)* | E | Yes | No | No |
| Snake River (SR) spring/summer-run Chinook salmon | T | Yes | No | No |
| SR fall-run Chinook salmon | T | Yes | No | No |
| SR sockeye salmon *(O. nerka)* | E | Yes | No | No |
| Middle Columbia River steelhead *(O. mykiss)* | T | Yes | No | No |
| UCR steelhead | T | Yes | No | No |
| Snake River Basin steelhead | T | Yes | No | No |
| CR Chum Salmon | T | No | No | No |

| Fishery Management Plan that Describes EFH in the Action Area | Would the action adversely affect EFH? | Are EFH conservation recommendations provided? |
|---|---|---|
| Pacific Coast Salmon | Yes | Yes |

Consultation Conducted By: National Marine Fisheries Service
West Coast Region

Issued by:

for William W. Stelle, Jr.
Regional Administrator

Date: January 14, 2016

PLASAR-15-01-0004 UPRR

# Natural Resources: Sensitive Plants

WASCO COUNTY

Angie Brewer <angieb@co.wasco.or.us>

# RE: UPRR

1 message

**Sue Vrilakas** <sue.vrilakas@pdx.edu> Mon, Apr 4, 2016 at 11:46 AM
Reply-To: Sue.Vrilakas@pdx.edu
To: Angie Brewer <angieb@co.wasco.or.us>

Hi Angie, I reviewed the documents.

Of the 3 rare plants that will be impacted, I am only really concerned with the Penstemon barrettiae and then for only 1 plant. It sounds like they will avoid if possible or transplant if not. When they built the "new" locks for Bonneville Dam (must be about 30+ years ago) they had to transplant the Penstemon, and as I recall, the plants did OK. They used mud and slingshots to plaster the plants against their new home, a high cliff wall.

Sue

Sue Vrilakas

Botanist/Data Manager

Oregon Biodiversity Information Center

Institute for Natural Resources

Portland State University

Mail Stop: INR

PO Box 751

Portland, OR 97207-0751

503-725-9950 (phone)

Sue.Vrilakas@pdx.edu

http://inr.oregonstate.edu/orbic

Physical address: 2118 SW 5th Ave., Portland, OR 97201

**From:** Angie Brewer [mailto:angieb@co.wasco.or.us]
**Sent:** Monday, April 04, 2016 9:42 AM
**To:** Sue.Vrilakas@pdx.edu
**Subject:** Re: UPRR

No problem Sue. Would you prefer a Google Drive link or multiple emails with individual large attachments?

**Angie Brewer, AICP**
Planning Director
Wasco County Planning Department
(541) 506-2566 direct / (541) 506-2560 main
www.co.wasco.or.us/planning/

On Mon, Apr 4, 2016 at 9:40 AM, Sue Vrilakas <sue.vrilakas@pdx.edu> wrote:

Hi Angie,

I remember reading through some documentation and not finding anything of concern. I was going to double check but I can't find what I thought I remembered reading; I can't find anything about the natural resource values and the consultant's report. Can you resend?

Thanks,

Sue

Sue Vrilakas

Botanist/Data Manager

Oregon Biodiversity Information Center

Institute for Natural Resources

Portland State University

Mail Stop: INR

PO Box 751

Portland, OR 97207-0751

503-725-9950 (phone)

Sue.Vrilakas@pdx.edu

http://inr.oregonstate.edu/orbic

Physical address: 2118 SW 5th Ave., Portland, OR 97201

# 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


Date: February 20, 2016

To: Sue Vrilakas, Botanist/Data Manager, Oregon Biodiversity Information Center, Institute for Natural Resources, Portland State University (sent to: sue.vrilakas@pdx.edu)

Robin Dobson, Botanist/Ecologist, U.S. Forest Service Columbia River Gorge National Scenic Area (sent to: rdobson@fs.fed.us)

From: Angie Brewer, Wasco County Planning Department

Subject: National Scenic Area **Rare Plants Resource Notice**
Wasco County Land Use Application #PLASAR-15-01-0004
Applicant: Union Pacific Railroad; Applicant Consultant: CH2M Hill

---

Greetings Scenic Area Rare Plants Resource Protection Specialists,

The Wasco County Planning Department is reviewing an application from Union Pacific Railroad and their land use consultants, CH2M Hill, to expand an existing double track siding on either side of Mosier, Oregon, realign existing track in the same area, replace equipment shelters, install new lighting and signage, install wireless communication poles, and construct temporary and permanent access roads. Wetland mitigation elements of the proposed project include the creation of new off-site wetland and wetland habitat, resulting in multiple project areas along the southern shoreline of the Columbia River.

As shown in the attached application materials, portions of the proposed development will occur inside the city of Mosier and portions will occur outside the City, within the Columbia River Gorge National Scenic Area. Wasco County Planning has regulatory authority provided by the National Scenic Area Act to protect scenic, natural, cultural and recreation resources outside of the Mosier Urban Area.

Wasco County GIS inventories indicate the proposed development will occur in areas that contain or may contain rare plants. Attached to this memo, please find the rare plant resource survey reports prepared by the applicant (Appendices J and K of the larger application). If you prefer a hard copy or have trouble loading the electronic documents, please let us know immediately.

The field survey identified three special status plant species within the study area, including: Barrett's penstemon, Currant-leaf alumroot, and Columbia Gorge lupine. The report documents contain a mapped field survey, an assessment of effect and recommendations for mitigation.

Chapter 14, Section 600(D) of the Wasco County National Scenic Area Land Use Ordinance, contains process provisions and requirements for rare plant resource protection. **A 20-day natural resource review comment period is provided by these rules.**

**Written comments are needed by March 12, 2016.**

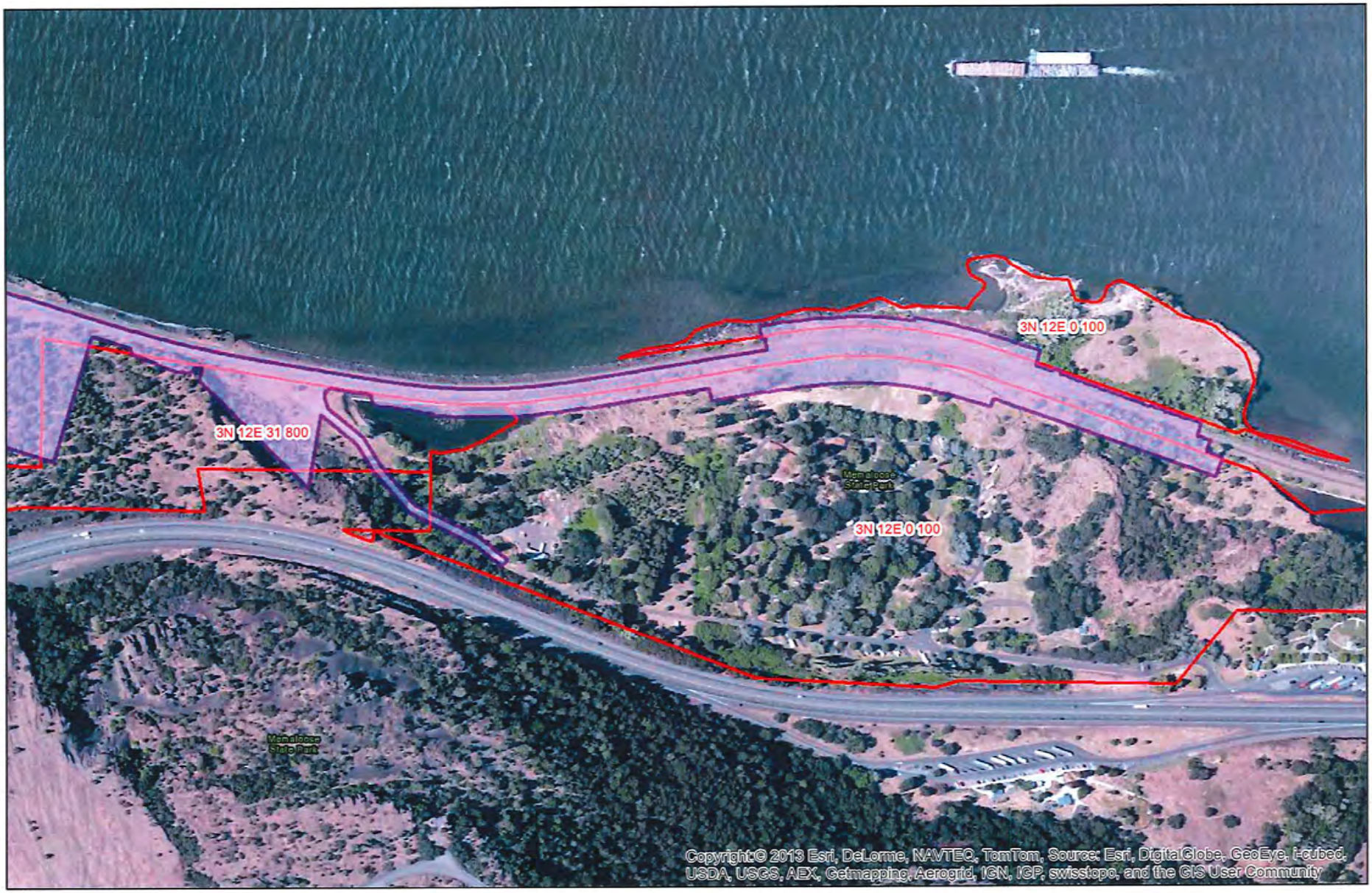
The Wasco County Planning Commission is tentatively scheduled for April 5, 2016 to host a public hearing and make a decision on this application. The meeting is scheduled for 12:00pm at the Discovery Center in The Dalles, Oregon. If the hearing date, location or time changes, your office will be notified.

Thank you in advance for your coordination in this review. Please do not hesitate to contact me directly with any questions or concerns. I can be reached directly Monday through Friday at (541) 506-2566 or by email at angieb@co.wasco.or.us.

Enclosures: Project Narrative, Appendix J, and Appendix K.

PLASAR-15-01-0004 UPRR

# Recreation Resources




**Legend**

- Project Area
- Affected OPRD Parcels

**Figure 1**
**Affected Parcels**
**Oregon Parks and Recreation Department**
UPRR Second Mainline Track Project
*Wasco County, OR*

PC 1 4-1237

Angie Brewer <angieb@co.wasco.or.us>

# Additional documents from OPRD files

1 message

**BEALS Alice * OPRD** <Alice.Beals@oregon.gov> Thu, Aug 25, 2016 at 9:24 AM
To: "angieb@co.wasco.or.us" <angieb@co.wasco.or.us>
Cc: DEVEREUX MG * OPRD <MG.Devereux@oregon.gov>

Good morning Angie,

MG asked me to forward you the attachments. The first is the letter we received from UPRR regarding the need to relocate utilities and the second is a Draft Access Study that was done by our Planning Department.

Alice M. Beals

Oregon Parks and Recreation Department

503-986-0761 (office)

503-580-1568 (cell)

725 Summer St NE, Ste C

Salem, OR 97301-1266

**2 attachments**

**OPRD Must Relocate Letter Final.pdf**
235K

**8-31 DRAFT Gorge River Access Study Report.pdf**
5171K

BUILDING AMERICA®

January 6, 2016

Alice M. Beals
Oregon Parks and Recreation Department
725 Summer St NE, Ste C
Salem, OR 97301-1266

Re: **Mosier, OR 2nd Main Track: Folder 2829-59**

Audit No. 115621 (Water Line – Copy is attached)

Audit No. A98546 (Overhead Power Line – Copy is attached)

Dear Alice:

The Union Pacific Railroad Company (the "Railroad") is planning to begin a project to construct additional tracks near Mosier, OR. In support of this project the Railroad is inquiring and locating information regarding existing facilities either crossing or adjacent to the Railroad's existing rail line.

In order to construct the proposed railroad improvements, it will be necessary to relocate an underground pipeline, and an overhead wire line that both cross the existing or proposed rail(s). The Railroad has already initiated the process of gathering information concerning all existing underground and overhead facilities that are affected by the proposed Railroad construction project, and this letter will serve to officially request your assistance and cooperation in this process.

Please consider this letter written notice of the Railroad's requirement for the Oregon Parks and Recreation Department to relocate or adjust the above referenced underground pipeline and overhead wire line in order to accommodate our construction project. If OPRD would prefer, Union Pacific Railroad can remove the utilities in lieu of relocation or adjustment, and cancel the associated agreements.

Therefore, please submit your relocation plans and specifications to Union Pacific's for approvals. To further coordinate this process, please reference folder 2829-59 and immediately contact Mike Barrera at (402) 544-4365 or via email at mbbarrer@up.com.

Thank you for your time and cooperation concerning this matter.

Best regards,

Mike Barrera

Assistant Manager - Real Estate Utilities

# Columbia Gorge River Access Feasibility Study

## Oregon Parks and Recreation Department

## DRAFT 8/31/15

**Introduction**

All along the south side of the Columbia River in the Gorge, development of new public facilities for river access are limited by railroad tracks owned by the Union Pacific Railroad (UPRR) as well as Highway I-84 and the area's characteristic steep topography. At the same time, demand for river access is growing as people are drawn to the Gorge for wind sports, fishing, boating, and other river-based recreation activities. OPRD's Draft Columbia River Gorge Management Units Plan, completed in 2015, called for a study of river access development opportunities in response to public input during the planning process. The Draft Plan identified five sites for further study (Figure 1), including locations on and off OPRD property. In accordance with the Draft Plan, the following report investigates the preliminary feasibility of developing river access at these sites.

OPRD staff, with assistance from ODOT, assessed feasibility by weighing development limitations against potential benefits for recreation and management. The process included:

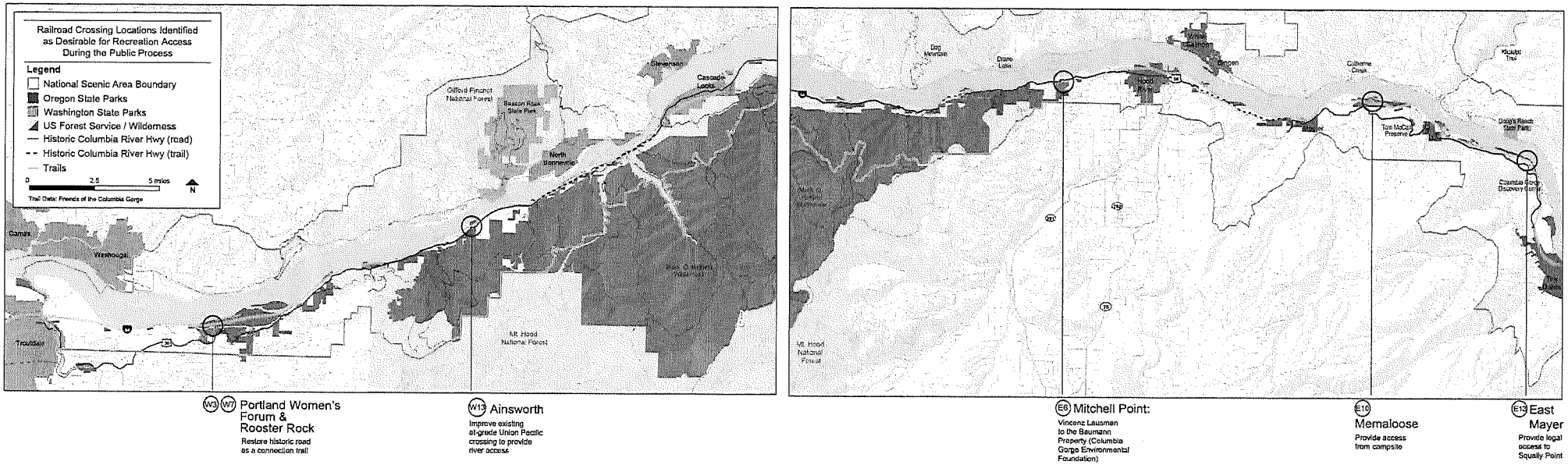
- Identifying factors for all sites that limit development feasibility
- Ranking the feasibility on a scale of 1-4 at each site, for each factor
- Conducting site visits with engineers and natural resource staff to better understand development limitations as well as recreation potential
- Exploring the generalized costs and benefits of alternative approaches to crossing the railroad tracks and developing associated facilities

The study does not include detailed cost estimates or design alternatives. This would be the next step if one or more of these sites are considered for development.

At most of these sites, crossing the railroad is the primary limitation. For safety and management reasons, UPRR no longer permits new at-grade crossings to be developed for public recreation in the Gorge. Construction of a bridge or tunnel to cross the railroad is the only option at most sites. UPRR's policy officially favors overcrossings, but, as described in the study, bridges are challenging at many sites because of space requirements and visual impact. Tunnels may be a viable option at some sites, but are challenging for other reasons. Development restrictions imposed within the Columbia River Gorge National Scenic Area add additional barriers to development, as do the significant cultural and natural resources present in the Gorge.

This study highlights a simple fact: getting the public across the railroad tracks in the Gorge is a complicated, difficult, and expensive proposition, regardless of the location or type of crossing. Keeping this in mind and based on the analysis that follows, suggested priorities for development are summarized below.

Figure 1 - Potential Access Locations




W3 W7 Portland Women's Forum & Rooster Rock
Restore historic road as a connection trail

W13 Ainsworth
Improve existing at-grade Union Pacific crossing to provide river access

E6 Mitchell Point:
Vincenz Lausman to the Baumann Property (Columbia Gorge Environmental Foundation)

E10 Memaloose
Provide access from campsite

E12 East Mayer
Provide legal access to Squally Point

PC 1 4-1241

**Priorities for Development**

| Site | Score* | Summary | Next Steps | Priority |
|---|---|---|---|---|
| Memaloose State Park | 30 | Developing river access at this site would solve management challenges, increase the campground's recreation value, and coincides with potential railroad expansion at the park. | Study railroad crossing design alternatives (under or overcrossing appear feasible) and get cost estimates. Work with railroad to permit construction, potentially aligned with track expansion. | High |
| Ainsworth State Park | 31 | This property was recently acquired by OPRD with the aim of providing river acces and has significant potential as a recreation destination. Access is contingent on negotiation with the railroad to allow use of existing at-grade crossing. | Work with UPRR to permit public use at one of several at-grade crossings near property. Incentives include building crossing improvements and potential closure of other at-grade crossings in the area. Negotiations with neighbors are needed as well. | Moderate |
| Squally Point | 29 | There is clear public demand for access at this site to accommodate growing need for wind sports locations. It may be feasible to develop access if Scenic Area parking restrictions can be incorporated into a design that meets need. | Work with the Gorge Commission and Wasco County planners to clarify parking restrictions and with natural resource managers to address impact on habitat. Work with railroad to permit an undercrossing and ODOT to build access facilities including parking. | Moderate |
| Baumann Property | 28 | This property has the potential to serve the growing demand for kiteboarding/windsurfing launches, but there are significant engineering challenges to developing for this purpose. Also, the property is not owned by OPRD. | Consider other recreation uses for the property that do not involve river access or provide hiking only river access. Alternatively, the property could be developed by another private or public entity with an interest in developing wind sports opportunities. | Low |
| Rooster Rock State Park | 26 | This is the only site where river access already exists. The proposal, contained in the Draft Gorge Management Units Plan, to connect Portland Women's Forum to Rooster Rock, is appealing but likely too costly to justify in the near future. | Continue to consider the pedestrian connection from Portland Women's Forum to Rooster Rock as a long term development option while developing out-and-back trails to connect visitors to Mirror Lake and the historic road below Portland Women's Forum. | Low |

**Scores are the sum of 1-4 feasibility ranks for each limiting factor identified on the feasibility matrices for each site*

**Rooster Rock**

Site Description:

The site is located approximately 8 miles east of Troutdale, on OPRD properties between the developed portion of Rooster Rock State Park and Portland Women's Forum. The area in question includes the base of the cliffs below Crown Point and across I-84 to Rooster Rock State Park. The railroad is located at the base of the cliffs and parallels I-84 east to west through the site. The railroad and I-84 are separated by Mirror Lake, a designated State Natural Area within the boundaries of Rooster Rock State Park.

Description of Desired Crossing:

The Draft Gorge Management Units Plan identified a "long term vision" of a trail connection between Portland Women's Forum and Rooster Rock, allowing visitors to hike between the two parks on a historic road once used to access the Chanticleer Inn from the railroad below. The route would descend along the historic road to the base of bluff, cross the railroad, skirt the edge of Mirror Lake, and ultimate cross I-84 into the developed portion of Rooster Rock. Several alternative routes across the highway have been discussed, including a new tunnel under the highway or utilization of the existing overpass.

Reasons to Develop a Railroad Crossing at this Site:

The fact that this site is relatively close to Portland makes it an attractive day hike option, however, the day hike experience could be achieved by developing out and back trails from Portland Women's Forum or Rooster Rock without developing a railroad crossing.

Views from the base of the cliffs and the edge of Mirror Lake are outstanding, and Mirror Lake is a natural and scenic attraction that deserves better access for public enjoyment. Currently, the only public access to Mirror Lake is via an unmarked gravel parking lot just before the overpass. A railroad crossing would provide a dramatic connection to this experience. But again, access to these sites does not require a railroad crossing. This is also the only site considered in this report where river access already exists.

Primary Barriers to Development:

The added recreation value of developing a connection may not be worth the significant expense of developing both a railroad crossing and a highway crossing.

Developing a highway crossing would be challenging from cost, permitting, and engineering perspectives. There are two primary options: a tunnel under I-84 or a boardwalk across a portion of Mirror Lake combined with pedestrian improvements to the existing overpass. The existing overpass would need to be widened to allow for a trail alongside the vehicle travel lane, however, it was recently improved by ODOT so there may be resistance to putting more money into it. A tunnel under the highway could utilize the existing culvert or a new tunnel could be built above the culvert; either of these options would be major undertakings.

Mirror Lake has a high natural resource value and potential impacts to habitat and wildlife could place limits on development.

Remaining Questions:

1) Does OPRD have an easement to use the private road and if so, does the easement allow for widening and other improvements to the road that would likely be necessary if it was used for public access to the park?
2) Reaction of adjacent property owners? Would they be interested in seeing crossing improvements made in exchange for public access across their land?

Discussion and Recommended Next Steps:

Although a new pedestrian trail connecting Portland Women's Forum to the Columbia River would no doubt be an attraction for park users, the question is whether building a connection is worth the expense of crossing both the railroad and the highway, and potentially a lake as well, especially considering that river access already exists at this site and that much of the same experience could be achieved through the development of out-and-back trails. Given current budget constraints and a lack of public demand for a crossing at this site, it makes sense to retain this concept as a long-term vision rather than pursue development in the near future.

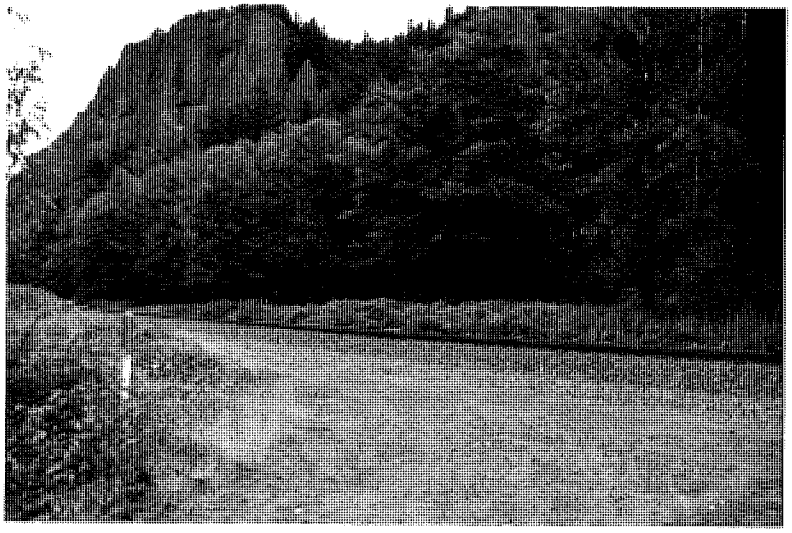
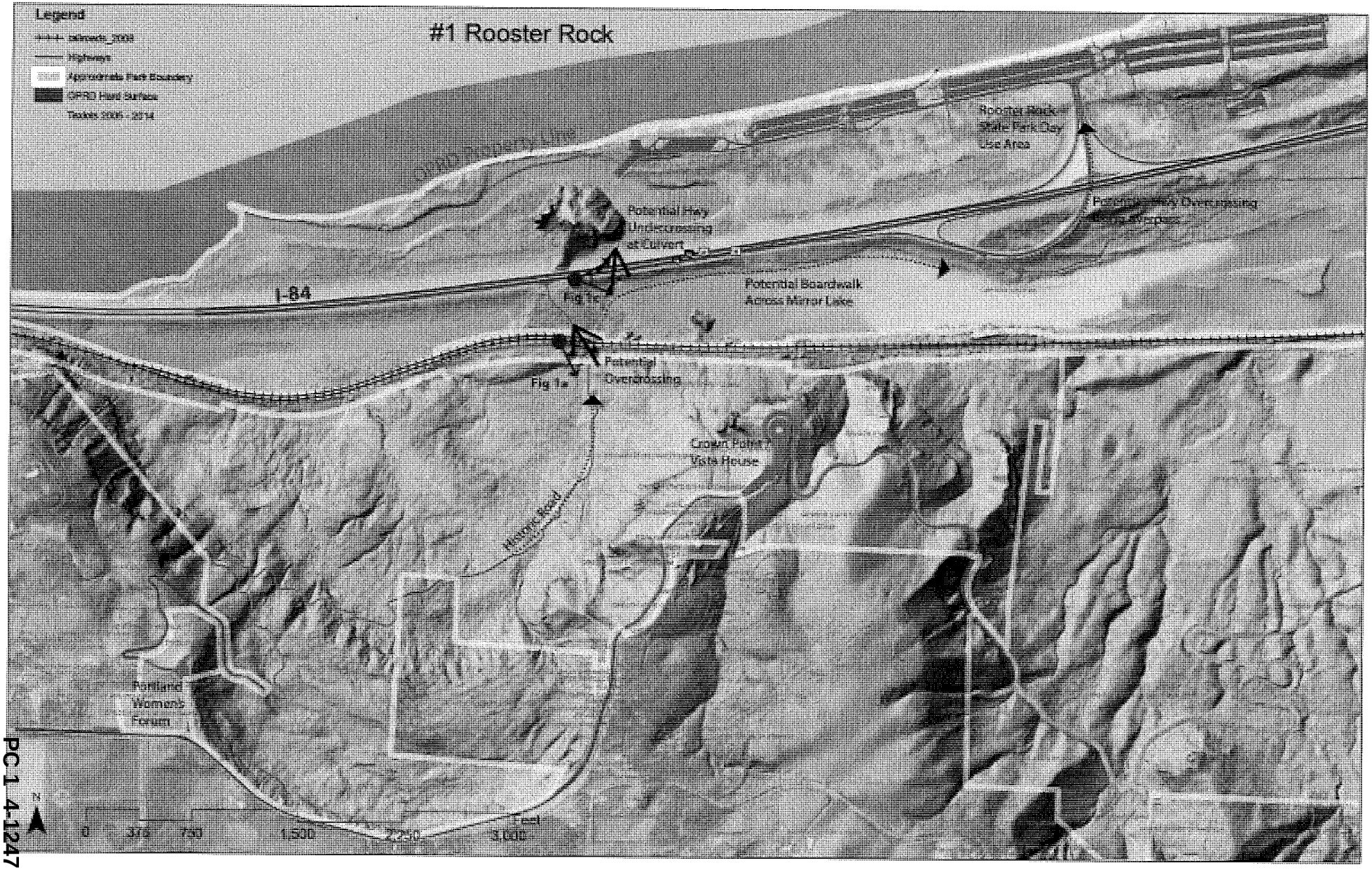


Figure 1a. View of Crown Point from the intersection of the old road from Portland Women's Forum and the Union Pacific Railroad

Figure 1b. View of the old road from Portland Women's Forum, looking north toward the railroad tracks

Figure 1c. View of the west end of Mirror Lake from the south side of I-84, where a large culvert (not visible) under the highway connects Mirror Lake to the Columbia River

Figure 1d. View of the culvert under I-84 from the north side of the highway



#1 Rooster Rock
Legend
Highways
Approximate Park Boundary
OPRD Hard Surface
Rooster Rock State Park Day Use Area
Potential Hwy Overcrossing
Potential Hwy Undercrossing at Culvert
Fig 1c
I-84
Potential Boardwalk Across Mirror Lake
Potential Overcrossing
Fig 1a
Crown Point Vista House
Historic Road
Portland Womens Forum
N
0
375
750
1,500
2,250
3,000
Feet


PC 1 4-1247

Analysis Framework for Identifying Preliminary Feasibility of Pedestrian Access to the Columbia River

| | |
|---|---|
| 1 | Critical Barrier to Development |
| 2 | Significant Challenges to Development |
| 3 | Moderate Challenges to Development |
| 4 | Minor or No Challenges to Development |

| | #1 Rooster Rock | | |
|---|---|---|---|
| Factors | Feasibility Rank | Reasons for Rank | Information needed to help determine feasibility ranking |
| Geotechnical / Structural Feasibility | 3 | A railroad undercrossing does not appear to be feasible based on topography. A pedestrian bridge overcrossing would be feasible starting from up slope to the south of the railroad, but would no doubt be very costly. | |
| Highway / Road Improvements | 2 | Assuming a railroad crossing is constructed, there are two primary options for transporting pedestrians into the main section of Rooster Rock State Park: a tunnel under I-84 or a boardwalk across a portion of Mirror Lake combined with pedestrian improvements to the existing overpass into the park. A boardwalk would be expensive, but may be feasible. The existing overpass would need to be widened to allow for a trail alongside the vehicle travel lane, however, this would be costly, and the overpass was recently improved by ODOT so there may be resistance to putting more money into it. A tunnel under the highway could utilize existing culvert or a new tunnel could be built above the culvert. At first glance it seems unlikely that the culvert would work for pedestrians due to water levels and concerns about blocking flow with a pedestrian structure. | Identify who manages culvert and confirm whether building a structure inside culvert to raise pedestrians above water level would be feasible. More information would be needed about the feasibility of constructing a new pedestrian tunnel above the culvert under I-84. It seems likely that this would be a complicated and expensive project. There may be a need to improve the existing culvert with a more fish-friendly design (see natural resource comments below), which could create an opportunity to make improvements for pedestrian access at the same time. |
| Coordination with UPRR | 3 | Assuming the money could be found to build a pedestrian overpass over the railroad that meets UPRR standards, there is no reasong to think that UPRR would not approve the crossing. | |
| Impact on Cultural Resources | 3 | There is a known archaeological site in vicinity of desired RR crossing - survey work for archaelogical resources would be needed prior to development. | |
| Impact on Scenic Resources | 3 | Development would be located in River Bottomlands and would need to be 'visually subordinate.' A portion of the area in question may be viewable from several iconic viewpoints, including Portland Women's Forum and Crown Point. The railroad overcrossing would likely be screened by vegetation and topography from these viewpoints, but a boardwalk and I-84 crossing would probably need special design to meet Scenic Area criteria. | Would need to investigate further the impact that development would have from Portland Women's Forum / Crown Point area. |
| Impact on Natural Resources | 3 | The boardwalk option would pose a significant impact to waterfowl using the lake when people and dogs are on the boardwalk, as well as impacting other "shy" wildlife, such as turtles. Also, there are new regulations from NOAA fisheries that may make it difficult to use treated wood in fish-bearing waterbodies, which creates design and long term maintenance challenges.Also, this area is part of the State Natural Area Reserve and is the best example of wapato wetlands in Oregon. Ponds on the existing road from PWFcould support turtles - good to route trail to avoid these ponds. The culvert under the highway is in need of replacement with a fish friendlier design, could be combined with development of pedestrian access. | |
| Compatibility with Gorge Management Plan Land Use & Recreation | 4 | The area in question is zoned Open Space and is designated Recreation Intensity Class (RIC) 1, which is the lowest level of use allowed. However, trails are an allowable use in RIC 1 areas. | |
| ADA Accessibility | 3 | The steep grade coming down from Portland Women's Forum would render ADA access infeasible for a large portion of the trail. A boardwalk and highway/railroad crossings could probably be designed to ADA standards, giving people with disabilities access to Mirror Lake, however, these improvements could be very expensive. | |
| Recreation Quality Post-Development | 2 | A crossing at this location would increase access to Mirror Lake and would create a relatively easy and visually rewarding hike option close to Portland. However, there does not appear to be current demand for this trail and it is not clear what the use would be. Also, a crossing here would not increase access to the river in any meaningful way since river access already exists at Rooster Rock State Park. It is questionable whether the added recreation value would be worth the signifcant expense of building both a railroad and highway crossing, especially since many of the benefits (i.e., a hiking trail and better access to Mirror Lake could be developed independently of a railroad crossing, from existing developed day use areas. | |

Score = Sum of Feasibility Ranks 26

PC 1 4-1248

**Ainsworth**

Site Description:

The site in question is located approximately 4 miles northeast of Multnomah Falls, just north of the Ainsworth State Park Campground. OPRD owns a parcel along the bank of the Columbia River, acquired from the Bucher family in 2006. The property is undeveloped, except for a house at the east end of the parcel, which is used as a residence for OPRD staff. The Union Pacific Railroad borders the parcel to the south and lies between the property and a county road (Tumalt Road), making a railroad crossing necessary for non-boat access. There are two private at-grade railroad crossings located on the property, and a third private at-grade crossing to the northeast, which serves several private homes along the river as well as a private campground, The Fishery. The primary access to the property is from Tumalt Rd. at a point several hundred feet from an I-84 Highway interchange.

Description of Desired Crossing:

OPRD would like to develop the property for recreation, either as a day use or overnight park, however, public access across the railroad tracks is needed before development can occur. The existing railroad crossings on or near the property are private crossings that do not allow for public use. Therefore, either a new crossing is needed or one of the existing crossings must be changed to allow public use in order to develop the property.

Reasons to Develop a Railroad Crossing at this Site:

The recreation value of this site is very high. It offers river access, spectacular views of Gorge walls and Beacon Rock, and flat topography suitable for picnicking or camping. It was acquired in 2006 with the intent to provide river access to the public.

There do not appear to be significant resource or National Scenic Area regulatory concerns. In fact, recreation is encouraged in this location by the Gorge Management Plan.

ADA access to the site could easily be provided due to the flat topography and vehicular access, including visual access to the river (although ADA access down to the river may be difficult to provide).

Primary Barriers to Development:

Construction of a new railroad under or overcrossing does not appear feasible due to topographical and space constraints. Therefore, the best option for crossing the tracks is to utilize one of the three existing at-grade crossings near the property. Upgrading one of the two crossings located on OPRD property would seem preferable, all things being equal, but there are a number of difficulties with this approach, including:

- The two crossings on OPRD property are located near the I-84 highway interchange and improvements for public access may be limited by ODOT's access management restrictions.
- Both crossings are often blocked by trains sitting for long periods of time.
- Both crossings may be subject to ODOT's access management restrictions because of their proximity to the I-84 interchange.
- A 2005 appraisal report indicates that UPRR would consider allowing public access at an existing at-grade crossing only if other nearby crossings were closed. Thus, upgrading an OPRD crossing to allow for public access would require the off-site crossing currently serving private residences to be closed.

Challenges to development of the off-property crossing include:

- This crossing is occasionally blocked by trains, although not as frequently.
- Using this crossing would require bringing the public in through an easement on neighbor's properties. This easement has not been confirmed, and even if it exists, neighbors would likely resist efforts to bring the public in over their property.

Finally, UPRR has expressed an intention in recent years not to allow any additional public access via at-grade crossings. Despite the potential advantages for the railroad in improving the existing crossing, they may simply be unwilling to grant a permit for a public crossing for any reason.

Remaining Questions:

3) Does OPRD have an easement to use the private road and if so, does the easement allow for widening and other improvements to the road that would likely be necessary if it was used for public access to the park?
4) Reaction of adjacent property owners? Would they be interested in seeing crossing improvements made in exchange for public access across their land?

Discussion and Recommended Next Steps:

This site presents an opportunity to "solve" a problem for Union Pacific Railroad (i.e., current use of three unpermitted private crossings with no improvements) while fulfilling public demand for recreational access to the Columbia River identified during the recent Gorge Management Units planning process.

The property was purchased in 2006 with the intent to develop a public railroad crossing and day use facilities for public recreation. At that time, a new railroad crossing appears to have been proposed but it is unclear whether options for getting the public across the tracks were studied in detail. As noted above, a 2005 appraisal of the property indicated that UPRR would be willing to grant public access only if other crossings in the vicinity were closed.

Based on the current analysis, the best approach to gaining access at this site appears to be negotiation with the railroad to improve one of the three existing crossings with signal bars, etc., and close the other two crossings in exchange for a public access permit from the railroad. It is not clear, however, which crossing may be most suitable for developing public access as there are unique challenges associated with each (discussed above).

The westernmost crossing on OPRD property is currently used occasionally for agricultural purposes. It provides direct access from the Historic Columbia River Highway and is located several hundred feet farther away from the I-84 interchange than the other OPRD crossing, possibly mitigating ODOT's access management concerns. It is also located farther from the neighbors to the east. If a public crossing were established on OPRD property, the assumption is that the neighbors' crossing would have to be closed, and neighbors would be re-routed via an easement along the majority of the southern boundary of the park to access their properties.

The eastern crossing on OPRD property is used regularly by ORPD staff. It may or may not have significant access management limitations – further discussion with ODOT would be needed. As with the other OPRD crossing, an easement would be granted to neighbors for a short distance at the east end of the property. One challenge with both OPRD crossings is that trains routinely sit on the double tracks for long periods of time, blocking the crossings. This issue would have to be addressed before recreation facilities are developed because it is obviously not tenable to have members of the public trapped in the park in an emergency situation.

The off-property crossing to the east of park is currently used by several property owners, including a private campground called the Fishery. In order to use this crossing, OPRD would need to speak with neighbors and assert its

right to bring the public into the park via an easement on the private road that passes along the southern edge of the neighbors' properties. This easement is shown on several property maps, but has not been confirmed in writing. In this scenario, both OPRD crossings would be closed and the only access to and from the park for the public as well as staff would be via the easement. OPRD would likely need to maintain the neighbors' road for public access.

It is worth noting that the neighboring property owners are not well disposed toward OPRD and are likely to resist any of these efforts.

Another cautionary note: railroad crossing permits are given to a property owner and are not transferred when the property is sold. It appears that none of the current property owners near this site, including OPRD, have current crossing permits from the railroad. Therefore any conversation about permitting with the railroad may bring attention to the fact that the crossings are currently being used without a valid permit.

Figure 2a. View of the at-grade railroad crossing used to access the OPRD residence, looking south from OPRD property

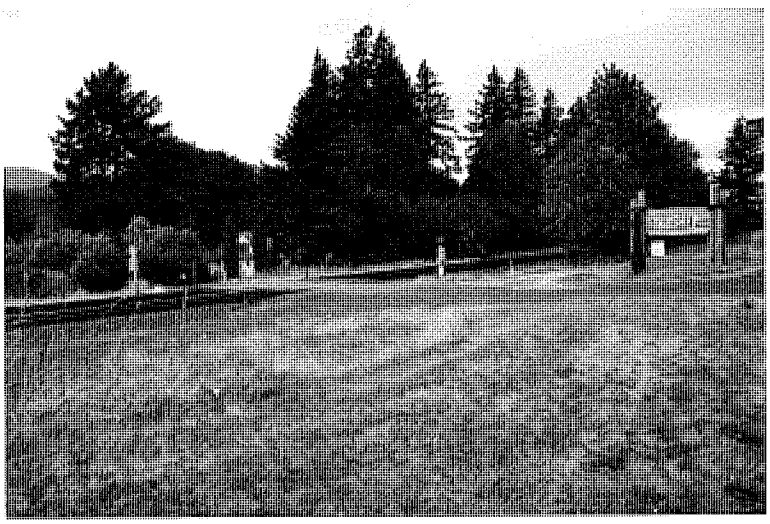


Figure 2b. View of the private railroad crossing to the east of OPRD's property, looking northeast from Tumalt Rd.

Figure 2c. View of the private road leading into OPRD's property, looking west from the railroad crossing

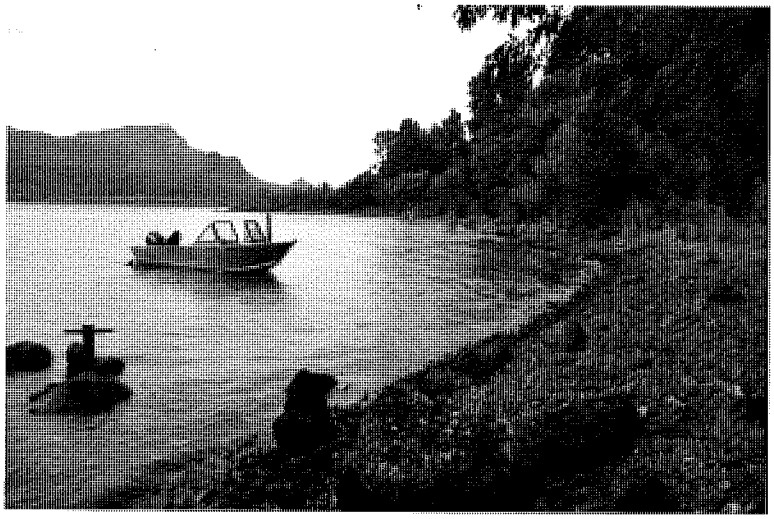


Figure 2d. View of the riverfront below the OPRD residence, looking northeast with Beacon Rock in background

Figure 2e. View of OPRD residence, looking southeast with canyon walls in background

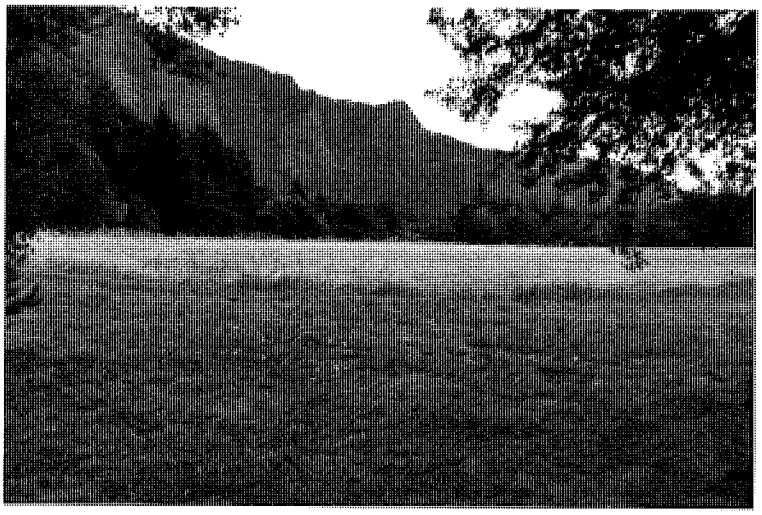
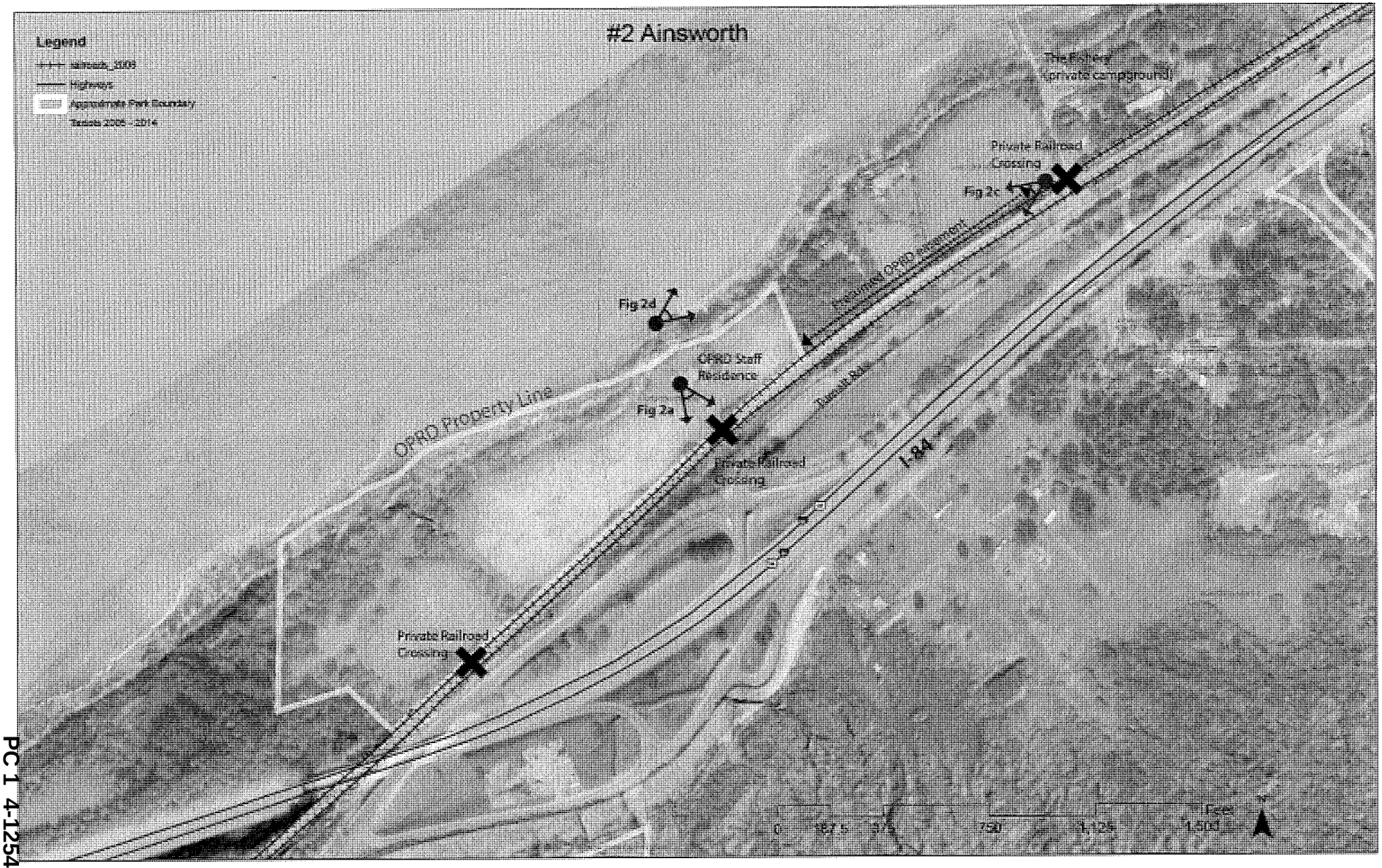


Figure 2f. View of OPRD property, looking southwest from residence, canyon walls in background


#2 Ainsworth
Legend
Highways
Approximate Park Boundary
Private Railroad Crossing
Fig 2d
Fig 2a
OPRD Staff Residence
OPRD Property Line
Private Railroad Crossing
Private Railroad Crossing
Feet

PC 1 4-1254

Analysis Framework for Identifying Preliminary Feasibility of Pedestrian Access to the Columbia River

| | |
|---|---|
| 1 | Critical Barrier to Development |
| 2 | Significant Challenges to Development |
| 3 | Moderate Challenges to Development |
| 4 | Minor or No Challenges to Development |

| | #2 Ainsworth | | |
|---|---|---|---|
| Factors | Feasibility Rank | Reasons for Rank | Information needed to help determine feasibility ranking |
| Geotechnical / Structural Feasibility | 4 | The site has generally flat topography. A bridge or undercrossing does not appear feasible due to space constraints between the existing county road and the railroad. There are several existing at-grade crossings with access to OPRD's property that could potentially be improved for public access. | |
| Highway / Road Improvements | 2 | Access management restrictions from ODOT do not allow access within a certain distance of a highway on-ramp. These restrictions would likely impact improvements to the two at-grade crossings on OPRD property. The third crossing, to the east, is far enough away from the freeway interchange that it would probably not be subject to access management restrictions. This third crossing is from a county road (Enquist Rd) and provides access to OPRD's property via an unconfirmed easement along a private road north of the railroad. This may be the best option if OPRD does indeed have an easement to use the road. | If public access were to be established at one of the three crossings, road improvements to the county road and/or private road leading into the park would likely be needed, but the crossing location must be determined before road improvement needs can be investigated. Assuming the easternmost crossing is used, a critical question is whether OPRD has an easement to use the private road north of the tracks. If so, an additional question is whether the easement grants the agency the right to widen or improve the road for public access. |
| Coordination with UPRR | 2 | There are three at-grade crossings on or near the OPRD property. UPRR has indicated to park staff recently that they will not allow new public access via an at-grade crossing. However, the easternmost crossing is already utilized by the public to access a private campground (The Fishery), so UPRR may be willing to consider increased public access at this crossing if improvements such as bars are installed. The 2005 appraisal for the property notes that UPRR would allow public access at one of the crossings if improvements were made and the other two crossings were closed. The two on-property crossings, in addition to having potential access management issues, are located where trains frequently stop and block ingress/egress. | Need more information about the agreement with the railroad related to the crossings. Railroad crossing orders would shed light on expected use at time of construction, traffic analysis needed. Need to talk with ODOT to get a better sense of what the access management restrictions would mean for development. Need to coordinate with residents where the third, off-property crossing is located if want to consider off-property access. |
| Impact on Cultural Resources | 3 | There is a known archaeological site along the river and, as with all sites along the Columbia River, a high probability in general that cultural resources are present in the area. Improvements to the existing railroad crossing may not require additional archaeological survey work, but surveys would be needed prior to development of day use facilities. | |
| Impact on Scenic Resources | 4 | Development in this area must be 'visually subordinate' to the surrounding landscape as seen from Key Viewing Areas (KVAs) in the Gorge. Utilizing an at-grade crossing instead of a bridge over the railroad tracks would be a significant advantage in this respect. Good site design could mitigate other scenic impacts for development such as a parking lot, etc. In addition, the site is not readily visible from nearby roads because of vegetative screening along the southern edge of the property. | |
| Impact on Natural Resources | 4 | No signficant natural resource concerns have been identified. | |
| Compatibility with Gorge Management Plan Land Use & Recreation | 4 | The eastern portion of the property is zoned for 'Public Recreation,' and the Recreation Intensity Class (RIC) is 4, which is the highest allowed level of recreation use under the Gorge Management Plan. The smaller western portion of the property is desingated RIC Class 3 and Class 2. | |
| ADA Accessibility | 4 | The site has mostly flat topography and, if an existing at-grade crossing can be utilized, would have vehicle access to primary recreation facilities. Physical ADA access to the river may or may not be feasible depending on site design and topography, but persons with disabilities would have access to much of the recreation value of the site (such as picnicking, views, trails etc.) even without physical river access. | |
| Recreation Quality Post-Development | 4 | The site offers river access, spectacular views of Gorge walls and Beacon Rock, and flat topography suitable for picnicking or camping. | |
| Score = Sum of Feasibility Ranks | 31 | | |

PC 1 4-1255

**Baumann Property**

Site Description:

This site is located approximately three miles west of Hood River. It is composed of two tax lots owned by a nonprofit organization situated between I-84 and the Columbia River. The Union Pacific Railroad line runs through the property from east to west with double-wide tracks, cutting off a narrow portion of riverfront property. The bulk of the property is located south of the railroad tracks and includes a private residence. Topography slopes gently down from I-84 to the railroad tracks, with a steep embankment leading down to the river on the north side of the railroad. To the east is a large undeveloped property owned by ODOT, which is similar to the site in question and also includes a narrow riverfront cut off by the railroad tracks.

Description of Desired Crossing:

Members of the public, including the group that owns the property, have expressed a desire to develop access to the river at this site for windsurfing, kiteboarding, and other recreational uses. During the comprehensive planning process for parks in the Gorge Management Units, members of the public suggested that OPRD acquire and develop the property as a state park. ODOT has also looked at the property as a possible trailhead or route for a planned segment of the Historic Columbia Highway State Trail between Mitchell Point and Hood River (although this would not require a river crossing).

The cove at the center of the property is the most desirable for wind sports, so a crossing should provide access to the cove and be convenient for carrying equipment. There is no room for a parking lot on the river side of the railroad tracks, and the railroad has stated that it will not allow new at-grade crossings for public use, so construction of a pedestrian bridge or tunnel from a parking area south of the tracks is the only reasonable option.

Reasons to Develop a Railroad Crossing at this Site:

The recreation value of this site is high. It offers river access, views of Gorge walls and Mitchell Point to the South, and topography suitable for parking and other recreation amenities.

There is public interest in developing the site for recreation use and the property owner has expressed an interest in selling the property to OPRD.

There do not appear to be significant natural resource or National Scenic Area regulatory concerns. The site is zoned for Agriculture and allows for recreation development. There is a Recreation Intensity Class 3 overlay, which is reasonably permissive (up to 75 parking spaces may be allowed).

Primary Barriers to Development:

The steep topography and limited area between the river and the railroad tracks poses difficulties for construction of an under or overcrossing. Challenges to construction of an overcrossing include:

- Visual impact of overcrossing: the railroad requires that the bottom of an overcrossing be 24 ft. vertically above tracks and 25 ft. horizontally from center of tracks (double-wide in this location). The bridge would need to be constructed adjacent to the cove to provide direct access for windsurfers and their equipment, which would place it in an open area, and in addition to being an eyesore for park visitors, such a large structure may not be consistent with scenic standards. The overcrossing could be screened by locating it in a forested area to the east or west, but it would no longer provide easy access to the cove.

- There is no room for an earthen ramp on the north side of the tracks, so the significant descent to ground level would have to be accommodated solely by the bridge structure itself, which would be expensive and potentially unfeasible. The steep slope would further complicate a bridge landing.
- ADA access likely could not be accommodated.

An undercrossing would be the preferred option if windsurfing / kiteboarding access is required, but challenges include:

- The exit onto the slope of the embankment could be difficult to engineer, especially if ADA access is provided.
- The Union Pacific Railroad prefers bridge crossings over tracks to tunnels and may be less inclined grant permission for an undercrossing.

OPRD does not own the property in question and there is no information to date on how much the property would cost or how easy it would be to acquire.

Remaining Questions:

1) What improvements, if any, would be needed to the existing I-84 freeway interchange that provides access to the property?
2) Cost estimate for acquiring property?

Discussion and Recommended Approach:

The technical barriers to development at this site are significant, and although the recreation value of establishing river access would be significant as well, there are other less challenging and probably less costly sites in the Gorge where river access could be developed. Beyond this, OPRD does not own the property. If the property was already in OPRD possession, both the feasibility and desirability of creating a river crossing might be higher. If access for windsurfers and kiteboarders were to be developed, the most feasible approach appears to be a railroad undercrossing with an outlet directly above the cove on the eastern side.

***This analysis assumes that easy access is desired to the cove for the benefit of windsurfers and kiteboarders. This makes sense because of the demand throughout the Gorge for facilities to support wind sports. However, the site could also be an attractive day use area for hikers and others wishing to access the river. In this case, an overcrossing at the west end of the property could be considered as it would be screened by trees and there would be more room for the landing on the north side of the railroad. A similar project in terms of scope, the Lafayette Heritage Bridge Trail, was completed in Florida in 2014 for a cost of $1.3 million. For this project a pedestrian bridge was constructed across the railroad from an elevated position to a narrow strip of land between the railroad and a body of water. The descent is accomplished with a 585 ft. boardwalk that gradually rises 40 feet to meet the bridge. Although topography at the Baumann Property is more challenging, the Lafayette bridge is a possible precedent for development at this site.*

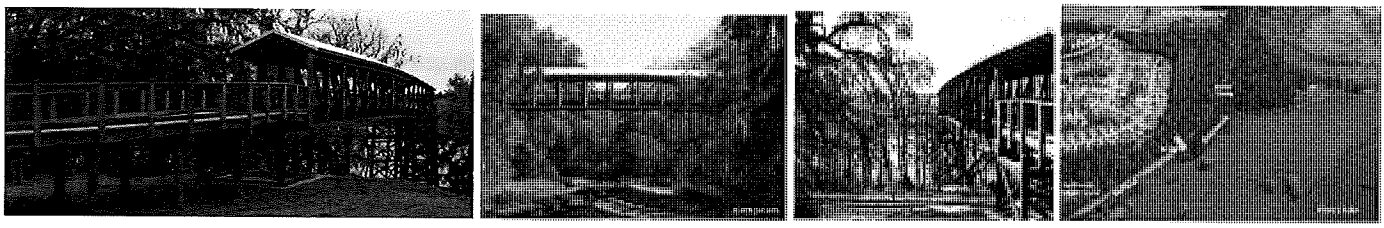


Figure 3a. Views of the recently completed Lafayette Heritage Bridge Trail, completed in 2014 with similar topographical constraints

Figure 3b. View of the railroad from the south side of tracks below grade level, looking west

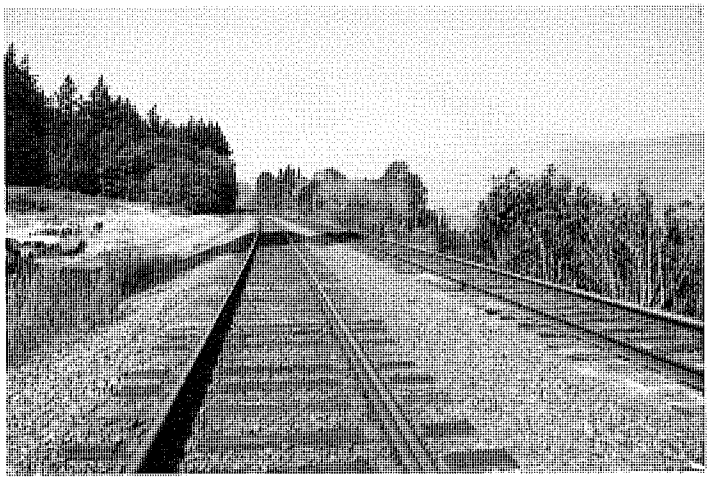


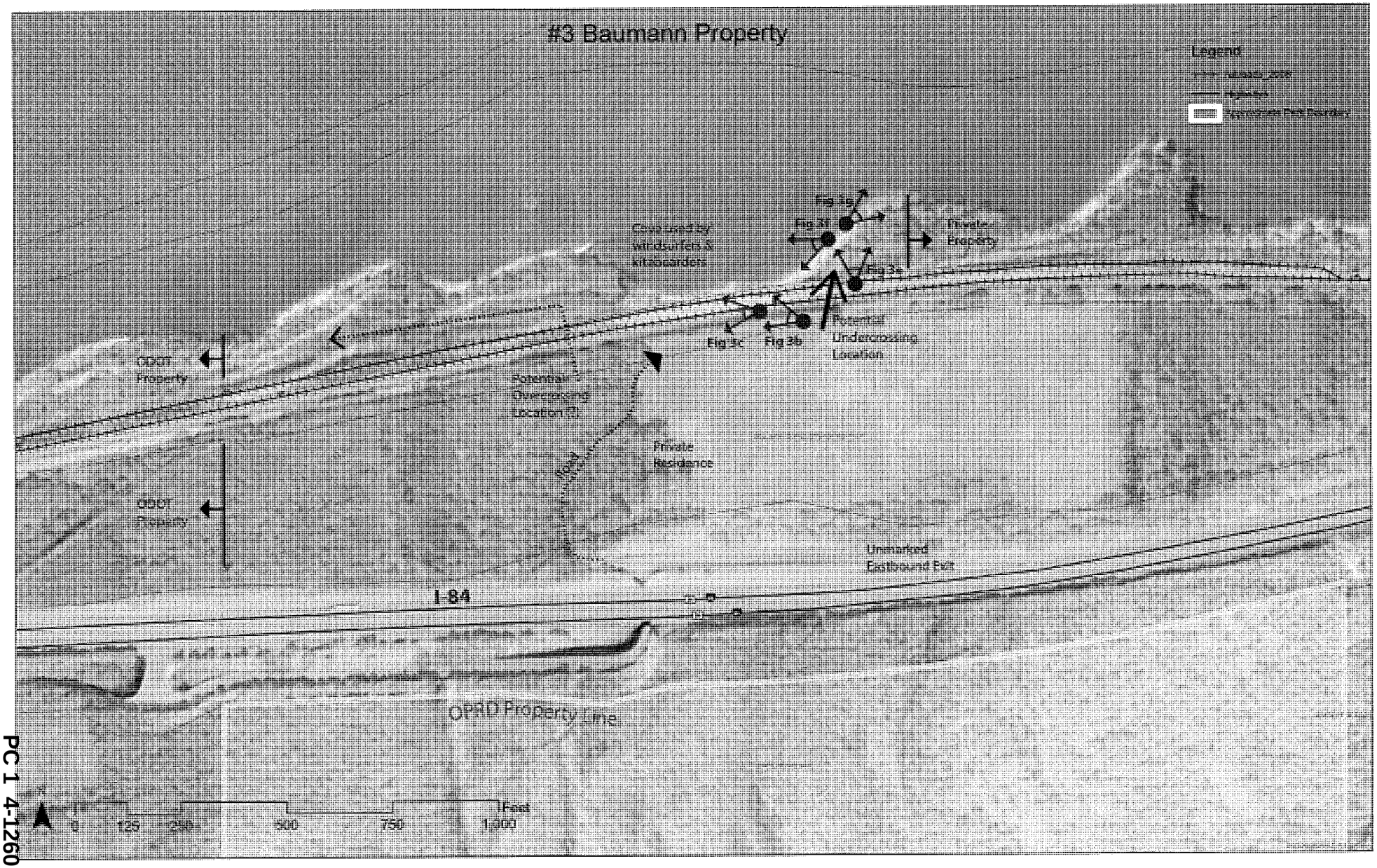
Figure 3c. View of the railroad at grade level, looking west

Figure 3d. View of the embankment from the north side of the railroad tracks, showing stairs constructed for unauthorized use across tracks

Figure 3e. View of the embankment on the north side of the railroad tracks, looking north to the river

Figure 3f. View of the cove, looking west with Mitchell Point visible in the background

Figure 3g. View of the east end of the cove, looking east


#3 Baumann Property
Legend
Fig 3g
Fig 3f
Fig 3e
Fig 3c
Fig 3b
Private Property
Cove used by windsurfers & kitzboarders
Potential Undercrossing Location
ODOT Property
Potential Overcrossing Location (?)
Private Residence
Road
ODOT Property
Unmarked Eastbound Exit
I-84
OPRD Property Line
0
125
250
500
750
1,000
Feet

PC 1 4-1260

Analysis Framework for Identifying Preliminary Feasibility of Pedestrian Access to the Columbia River

| | |
|---|---|
| 1 | Critical Barrier to Development |
| 2 | Significant Challenges to Development |
| 3 | Moderate Challenges to Development |
| 4 | Minor or No Challenges to Development |

| | #3 Baumann Property | | |
|---|---|---|---|
| Factors | Feasibility Rank | Reasons for Rank | Information needed to help determine feasibility ranking |
| Geotechnical / Structural Feasibility | 2 | An undercrossing may be feasible at this site, though space on the river side of the tracks is very limited and a more detailed study would be needed to confirm. An overcrossing may not be feasible due to the steep grade sloping down from the railroad tracks to the river. The grade and limited space on the river side of the railroad would not allow for earthen ramps, so the north side of the bridge would have to be entirely structural, which would be difficult to engineer and possibly prohibitively expensive. | It is possible that alternative locations on the property with more land area between the river and railroad tracks could be better suited for an overcrossing, but further investigation is needed. |
| Highway / Road Improvements | 3 | Improvements may be needed to the existing highway interchange if public recreational use is provided on the property. | Need opinion from ODOT. |
| Coordination with UPRR | 3 | Double-wide tracks at property would make any crossing project longer and more difficult. Railroad has stated that it prefers overcrossings to undercrossings, but may be amenable if it can be demonstrated that a safe crossing can installed without signicant impact to trains. Currently, some unauthorized activity across the railroad tracks exists but is less of a problem than at sites like Memaloose and Squally Point. | |
| Impact on Cultural Resources | 3 | Archaeological surveys would need to be conducted if development is pursued. As with all sites along the Columbia River, there is a high likelihood that Native American or other cultural resources are present. | |
| Impact on Scenic Resources | 3 | The minimum height for the bottom of an overcrossing spanning the railroad tracks is 24 ft and bridge parts lower than that height are required to be at least 25 feet away from center of nearest tracks. If constructed in an open area, an overcrossing would have signifcant scenic area impacts; however, a narrow pedestrian overcrossing placed in a heavily treed section of the property may have relatively low scenic impact if the span is only visible over the tracks and the rest of the structure is hidden by trees. An undercrossing would likely have minimal scenic impact, but still need design for visual subordinance. | |
| Impact on Natural Resources | 4 | There do not appear to be any signficant natural resource concerns related to development of access at this property. | |
| Compatibility with Gorge Management Plan Land Use & Recreation | 4 | The site is zoned for Agriculture and allows for recreation development. There is a Recreation Intensity Class 3 overlay, which is reasonably permissive (up to 75 parking spaces may be allowed). | |
| ADA Accessibility | 2 | The steep grade and small land area between the railroad tracks and the river greatly limits the potential for an ADA accessible overcrossing since constructing a ramp down from the bridge would require both space and reasonably level terrain. An undercrossing may accomodate ADA access, but the grade would still be an issue and would need further study. | |
| Recreation Quality Post-Development | 4 | Currently, the primary demand for access to the site is from windsurfers/kiteboarders. The primary beach is appealing and would undoutedly attract visitors, but it is also located almost directly adjacent to railroad tracks (separated by a slope), which may impact visitor experience to some degree. Views from the south side of the railroad as well as the beach are excellent, including a view of Mitchell point to the west. | Site visit needed to assess recreation potential of riverfront areas to east and west of cove as well as state-owned property to the west. |
| Score = Sum of Feasibility Ranks | 28 | | |

**Memaloose**

Site Description:

This site is located about 10 miles east of Hood River and is adjacent to the Memaloose State Park campground, which is situated on a bluff between the Columbia River and I-84. The Union Pacific railroad runs east to west along the base of the bluff, and cuts off a small portion of riverfront property owned by OPRD. Memaloose Island, a Native American burial site, is located about a thousand feet offshore from the property.

Description of Desired Crossing:

Locals and campground visitors at Memaloose often express a desire to get to the river at this site, and the users who cross illegally create a safety and management issue. Construction of a separated grade crossing connecting the campground to the riverfront would eliminate most trespassing, benefitting OPRD as well as the railroad, and satisfying public demand for river access. Union Pacific is currently in talks with OPRD to expand its single line of tracks through the park to a double-wide track. If built, this will only increase the safety risk from unauthorized crossings.

Reasons to Develop a Railroad Crossing at this Site:

As noted above, a crossing will greatly reduce safety concerns and benefit the railroad by removing trespassers from their tracks. It will also relieve OPRD staff of the burden of trying to control trespassing and answering customer complaints about lack of river access.

The recreation value at this site is very high. It offers an attractive, sandy beach in a secluded cove, scenic cliffs leading into the river, and views of Memaloose Island and Washington State. Memaloose Campground, which is primarily a staging area for people visiting other attractions in the Gorge, could become a destination in its own right if access to the river were provided.

Gorge Management Unit Plan designations encourage recreation. The site is within an existing State Park, is zoned for Public Recreation, and has a Recreation Intensity Class 4 overlay, which allows for the highest level of recreational use.

There is no need to develop parking or other recreation facilities associated with a railroad crossing, since these facilities are already present at Memaloose State Park.

Topographical and geological conditions are well suited for construction of an overcrossing and possibly an undercrossing as well.

Union Pacific may be willing to help construct the crossing in conjunction with widening the railroad through the park.

Primary Barriers to Development:

The area is in close proximity to Memaloose Island and other important cultural sites and there is a high probability of impact to cultural resources during construction.

An overcrossing would need to conform to the same height and width requirements described for the Baumann Property and would almost certainly be located in an open area. A large structure in this location could conflict with Scenic Area standards, although it would be screened from some angles by the bluff. In particular, views from Highway 30 above I-84, including Memaloose Overlook, could be impacted by the structure. An undercrossing would probably have no trouble in meeting scenic standards.

Remaining Questions:

1) Is an undercrossing feasible? May require an additional site visit to assess soil/hydrological conditions.

Discussion and Recommended Approach:

This is an attractive site for developing river access for all the reasons noted above. Perhaps the most compelling of these reasons is that a crossing would solve a number of existing management challenges for OPRD. Of the sites considered in this study, Memaloose also appears to have the fewest barriers to development. Although access here would not satisfy the demand throughout the Gorge for more windsurfing/kiteboarding opportunities, it would significantly enhance the recreational value of Memaloose Campground.

Public use of the site would be limited to campground users because there is currently no day use parking, but this may be a good thing because of potential concerns about overuse and impact to cultural resources. Alternatively, a small day use parking lot could be developed at the site of the existing dump station east of the campground, with a new trail leading down to the crossing. The dump station is failing and needs to be removed, and visitors could access this location without driving through the campground.

If an undercrossing is developed, it would be located to the east of the current unauthorized crossing where the railroad tracks are elevated above surrounding land. This area appears to be wet during the rainy season, and more study is needed to determine feasibility. If feasible from a geotechnical perspective, an undercrossing would be advantageous because it would not impact scenic resources and would facilitate ADA access to the river. A new trail could be built from the campground and/or potential new day use parking area down through a small draw to the undercrossing location.

An overcrossing is also feasible from an engineering perspective and would likely be located at the site of the current unauthorized use. More study would be needed to assess scenic impact from Memaloose Overlook and other Key Viewing Areas. An archaeological study would also be needed to assess proposed impact areas, as is the case for an undercrossing as well. Developing ADA access would be more problematic with an overcrossing, as the structure would require a large footprint to accommodate a gradual slope up to the crossing on both sides of the railroad tracks.

Union Pacific has asked OPRD for a 50 foot easement on the south side of the existing right-of-way to accommodate an additional line of tracks through the park. Assuming that OPRD grants the railroad an easement, it may be possible to construct all or part of the crossing at the same time that work is being done on the tracks. However, the railroad has expressed intent to begin construction of the additional track as soon as possible, and given the complexity of permitting a project like this, it may be more realistic to negotiate an agreement with the railroad for future development.

Figure 4a. View of the unauthorized railroad crossing location at the base of the bluff, looking northwest

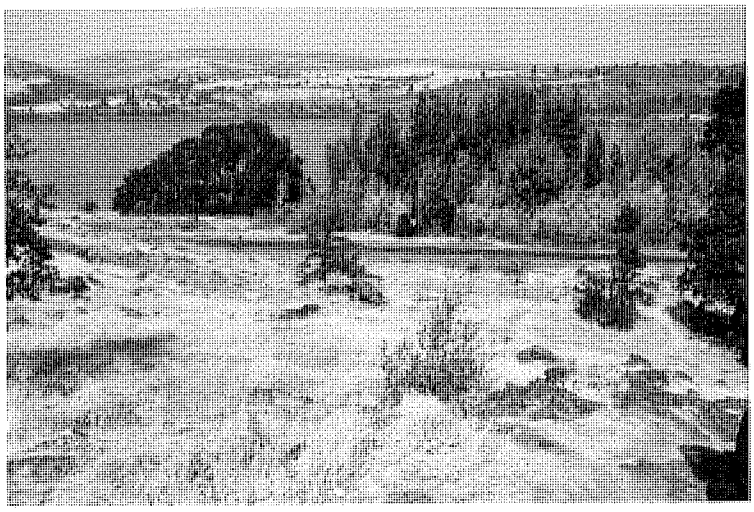


Figure 4b. Another view of the unauthorized railroad crossing location, looking north from farther up the bluff

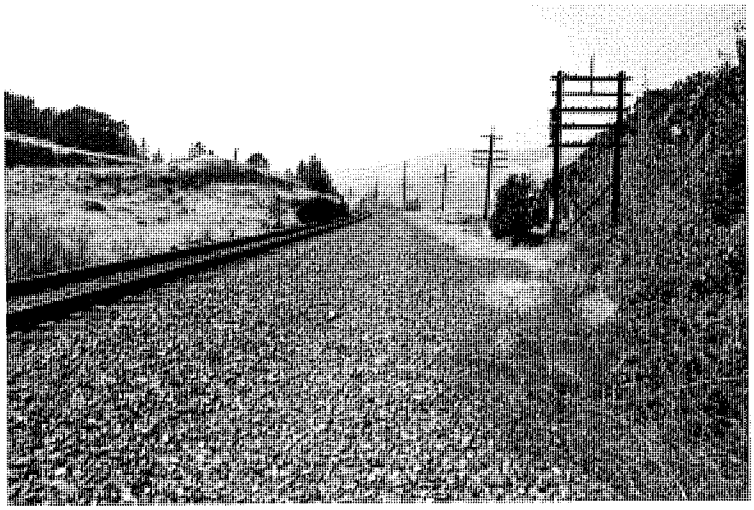


Figure 4c. View from the north side of the tracks at grade level, looking west

Figure 4d. View of the cove and beach along the riverfront, looking northwest

Figure 4e. View of the cliffs along the river's edge, looking northeast

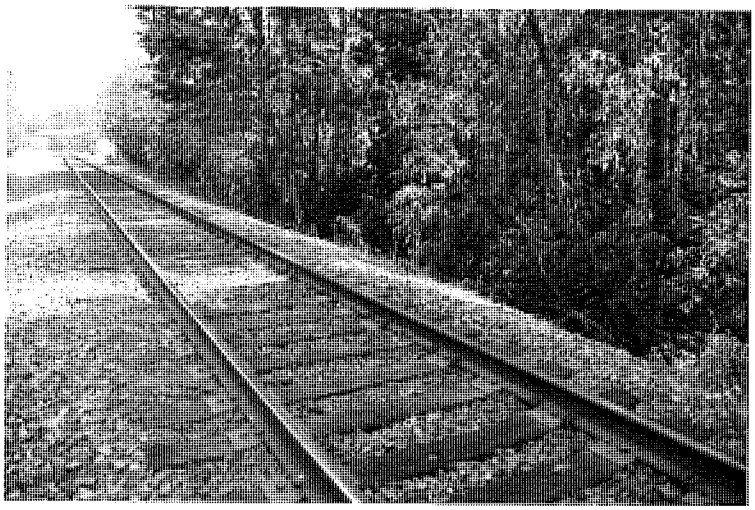
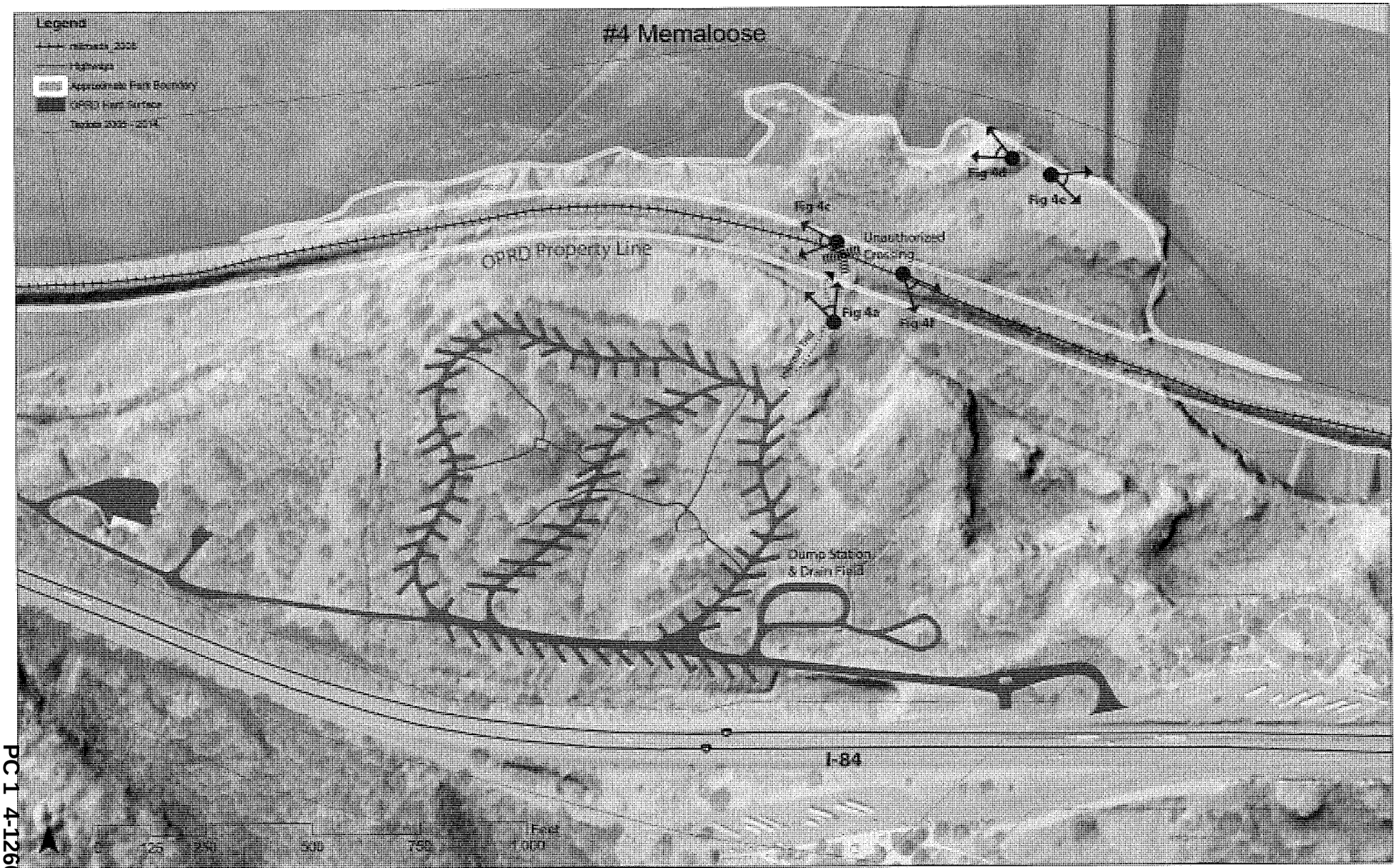


Figure 4f. View of the railroad tracks east of the unauthorized crossing location, where a tunnel may be feasible



Legend
Highways
Approximate Park Boundary
OPRD Fuel Surface
#4 Memaloose
OPRD Property Line
Fig 4a
Fig 4b
Fig 4c
Fig 4d
Fig 4e
Fig 4f
Unauthorized Crossing
Dump Station & Drain Field
I-84
0
125
250
500
750
1,000
Feet


PC 1 4-1266

Analysis Framework for Identifying Preliminary Feasibility of Pedestrian Access to the Columbia River

| | |
|---|---|
| 1 | Critical Barrier to Development |
| 2 | Significant Challenges to Development |
| 3 | Moderate Challenges to Development |
| 4 | Minor or No Challenges to Development |

| | #4 Memaloose | | |
|---|---|---|---|
| Factors | Feasibility Rank | Reasons for Rank | Information needed to help determine feasibility ranking |
| Geotechnical / Structural Feasibility | 4 | An overcrossing appears feasible utilizing sold bedrock outcrop as a base on the south side, with plenty of room to land the structure on the north side of the tracks. An undercrossing appears potentially feasible as well east of the existing path where a small canyon draw opens up and the tracks are elevated above the surrounding topography by 10-15 ft. The lowered topography may funnel water courses during wetter seasons, and needs to be investigated further. | A site visit is needed during winter months to assess hydrology at potential undercrossing location. |
| Highway / Road Improvements | 4 | No highway or road improvements are needed because any crossing would be pedestrian only and would be accessed from the existing campground. | |
| Coordination with UPRR | 3 | UPRR would like to acquire a 50 ft.-wide easement from OPRD to the south of existing ROW along length of property, with intent to put in an additional rail line. According to UPRR, trains will be running on both tracks, coming through the park approximately every hour. There is an opportunity to negotiate with the railroad to resolve the current safety issue with unauthorized crossings (risk would only increase with more frequent trains and wider tracks) by installing a pedestrian crossing at this location. | |
| Impact on Cultural Resources | 2 | There are known archaeological sites present in the vicinity of the desired pedestrian crossing. The site is located across from Memaloose Island, where some Native American tribes placed their dead, and as a result may have a particularly high cultural value for certain tribes. Opening up the site to increased public access may impact existing cultural resources. | |
| Impact on Scenic Resources | 3 | Site is located in River Bottomlands setting, and must be visually subordinate from Key Viewing Areas including Memaloose Overlook. An overcrossing may have a significant impact on scenic resources, but a pedestrian structure would be small compared toa roadway and could potentially be screened by steep topography and trees. A more thorough analysis would be needed to determine visual impact. An undercrossing would likely not be a problem as it would be screened by topography and vegetation. | Site visit to look at views of the area from Hwy 30 (Memaloose Overlook) would be helpful |
| Impact on Natural Resources | 4 | There do not appear to be significant natural resource concerns - most of the impact of a crossing would be near railroad tracks where habitat is already degraded. However, impact to wetlands and hydrology may be an issue for undercrossing. | |
| Compatibility with Gorge Management Plan Land Use & Recreation | 4 | The site is zoned for Public Recreation, with a Recreation Intensity Class 4 overlay, which allows for highest level of recreational use. | |
| ADA Accessibility | 2 | A railroad crossing at this site could likely be designed to accommodate ADA access, however, the approach to the crossing from the campground ADA access down from the campground could pose difficulties because of the steep topogrpahy. | Needs more study. |
| Recreation Quality Post-Development | 4 | The beach and rocks along the river are very attractive and provide opportunities for swimming, fishing, and relaxing. The recreation appeal is illustrated by the fact that people illegally cross the train tracks despite fencing that is repaired by OPRD park staff on a weekly basis in the summer. Providing formal access to the river would make the campground a destination in its own right, rather than simply a base for exploring the Gorge, and would greatly improve safety as illegal crossings would be discouraged. It is worth noting that if the railroad expands the tracks, the presence of double-wide tracks could reduce the quality of recreation experience for park users due to increased train noise and visual impact. | A better understanding of impact of railroad widening on current recreation at the park would be helpful to determine quality of recreation post-development. |
| Score = Sum of Feasibility Ranks | 30 | | |

**Squally Point**

Site Description:

The site is located about 5 miles north of The Dalles at a large bend in the Columbia River. The area in question lies along the north side of I-84 and stretches several hundred feet to the Columbia River, crossing the Union Pacific Railroad tracks. The portion of the site adjacent to I-84 lies within the highway right-of-way. ODOT owns a portion of the property adjacent to the south side of the Union Pacific railroad tracks, which pass through the site from east to west. OPRD owns property from the north side of the railroad tracks to the Columbia River, a distance of about 250 feet. OPRD's property is a part of East Mayer State Park, but this portion is undeveloped and there is no public access from the East Mayer parking lot. South of the railroad tracks and bordering the site to the east is a rocky bluff. Much of the site falls within the Squally Point Dunes natural area, a state designated natural site.

Description of Desired Crossing:

Squally Point is currently used by windsurfers and kiteboarders who park illegally along the shoulder of I-84 and trespass across the railroad tracks to access the beach. During the Gorge Management Units planning process, members of the public expressed a desire to formalize access at this site, both to provide an enhanced recreation experience and resolve the safety issues and other problems that accompany the unauthorized use. Officials with ODOT have seen up to two dozen cars parked illegally along the I-84 shoulder when windsurfing conditions are good. ODOT has provided OPRD with a design concept for a small parking lot between I-84 and the railroad right-of-way that meets traffic engineering standards for access on and off of I-84. A tunnel under the railroad from the parking lot appears feasible for providing recreation access to the river.

Reasons to Develop a Railroad Crossing at this Site:

Developing formalized access to the river at this site will reduce safety concerns for ODOT and benefit the railroad by removing trespassers from their tracks.

The recreation value at this site is high, particularly in terms of meeting excess demand throughout the Gorge for places to windsurf and kiteboard. The beach would also likely be attractive for families and those looking for a spot to go swimming or relax by the river.

ODOT has confirmed through their concept design drawing that a parking lot with access on/off the highway is feasible in this location from a traffic engineering perspective.

The site between the railroad and I-84 is located in a depression that would likely screen most of the visual impacts of development from Key Viewing Areas.

Primary Barriers to Development:

The site is located partly within a designated State Natural Area, and, while this designation does not carry regulatory weight by itself, the potential impacts of increased recreation due to development may threaten preservation of the Squally Point Dunes habitat, or at the least, provide any opponents of development with a compelling argument against the project. Northern wormwood, a threatened plant species, was reestablished in this area beginning in 2004 and these populations need to be protected.

Because of the natural resource value, the site has overlay zones imposed by the Gorge Management Plan that appear to limit the number of parking spaces to 10 or 25, depending on the location. Even if the maximum of 25 parking spaces

is assumed, this may not be enough to meet demand once the site is constructed, given that this number of vehicles can already be observed parking illegally along the highway. It is reasonable to expect that formalizing access would create more demand than currently exists.

Remaining Questions:

1) Assuming interpretation of overlay zone restrictions is correct, is there any room for flexibility within the Gorge Management Plan to increase the number of parking spaces beyond 25?
2) Is a maximum of 25 parking spaces enough to satisfy recreation demand?
3) Where are the northern wormwood populations located?

Discussion and Recommended Approach:

Development of river access at this site was considered during the Gorge Management Units planning process, and resulted in a list of limitations to development being included in the Draft Plan. Beyond the significant engineering costs involved at all of the locations considered in this study, Squally Point is challenging primarily because of natural resource concerns and regulatory limitations on parking.

As stated, the Gorge Management Plan recreation overlays appear to limit parking to a maximum of 25 spaces. The Gorge Commission maintains an adopted list of high priority recreation development proposals, on which Squally Point is included. But the proposed site is on the south side of I-84 in former agricultural land and describes a "small day-use facility" adjacent to Tooley Lake. There is no explicit mention of a connection to the river, although the proposal considers the "potential for expansion to adjacent Oregon State Park Land... if significant environmental concerns and impacts on Indian fishing can be overcome." It is unclear whether this refers to a connection across the highway and railroad tracks.

The natural resource value of the site is another limiting factor, although there do not appear to be any critical natural resource-related regulatory barriers to developing a crossing at this site. The area is the only remaining example on the mainland of the Columbia River Dunes ecosystem, which supports a number of endemic plant species. Northern wormwood, a threatened plant species, was reintroduced to the Squally Point dunes beginning in 2004.There are two populations that need to be protected from the impact of recreation and development. That said, the site is currently being used informally and the extent of impact from this use is unknown. Developing formalized access and actively managing the site may in fact help to preserve the dunes habitat. Controls such as fencing and interpretive signage could help to keep recreation within a small, designated area. Development could also be combined with habitat restoration efforts, which appear to be needed.

Ownership of the site also needs to be clarified. While much of the proposed parking lot lies within the highway right-of-way, and areas north of the tracks clearly belong to OPRD, there is a small portion on the south side of the railroad that appears to be ODOT property. Confusingly, this property is listed as ORPD-owned in county tax lot data, but there is no evidence of it being transferred to the agency. If so, none of the recreation facilities proposed in ODOT's concept drawing are actually on OPRD property, and, for what it's worth, a large portion of the Squally Dunes State Natural Area would be on ODOT property as well. This does not seem like a critical barrier by any means, but should be resolved before pursuing any development.

If not for the apparent limits on parking, developing access at this site would seem feasible using a tunnel approach under the railroad similar to the one installed at the Columbia Gorge Discovery Center. As it stands, this issue needs to

be discussed with county planning staff to clarify what the limits are and whether a variance is possible. On the other hand, further study could determine that a small number of parking spaces is in fact sufficient to serve the site.

Figure 5a. View of the pullout along I-84 where people park illegally to access the beach, looking west

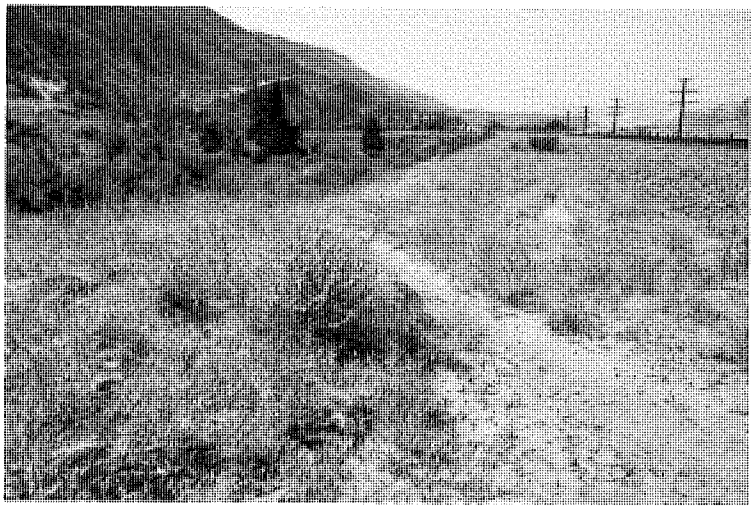


Figure 5b. View of the depression between the highway and railroad tracks where a parking lot could potentially be located, looking west. In the foreground is the informal trail leading from the highway across the railroad tracks.

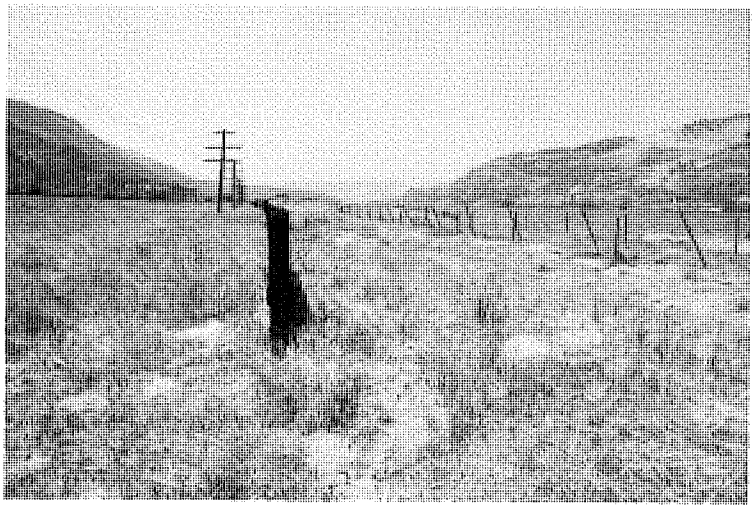


Figure 5c. View of the dunes north of the railroad tracks, looking west

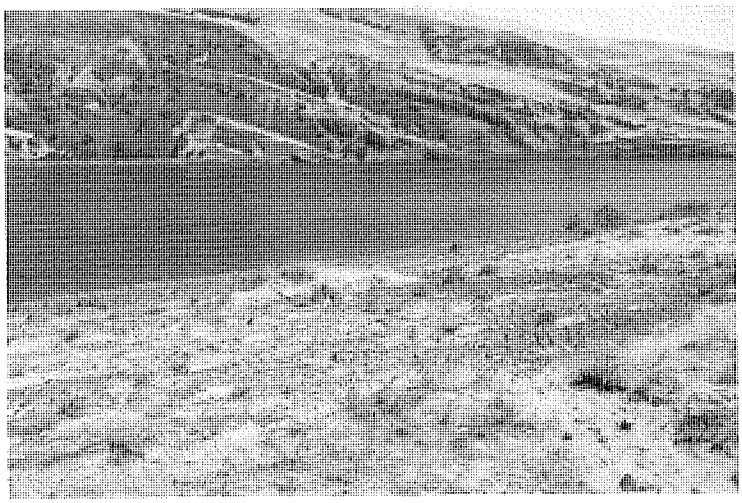


Figure 5d. View of the beach from north of the railroad tracks looking northeast

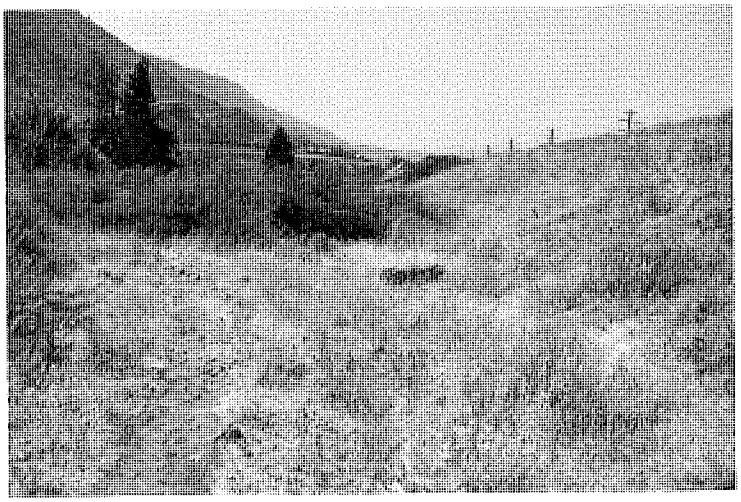


Figure 5e. View of the south side of the railroad embankment where a tunnel could potentially be constructed, looking west

Figure 5f. View of the I-84 shoulder from below, looking southeast

# #5 Squally Point

Analysis Framework for Identifying Preliminary Feasibility of Pedestrian Access to the Columbia River

| | |
|---|---|
| 1 | Critical Barrier to Development |
| 2 | Significant Challenges to Development |
| 3 | Moderate Challenges to Development |
| 4 | Minor or No Challenges to Development |

| | #5 Squally Point | | |
|---|---|---|---|
| Factors | Feasibility Rank | Reasons for Rank | Information needed to help determine feasibility ranking |
| Geotechnical / Structural Feasibility | 3 | An undercrossing appears feasible and preferable to overcrossing because of space limitations between highway, railroad tracks, and river. There could be impacts to the tunnel from shifting dunes and river flood events, but these do not appear to be critical problems. | |
| Highway / Road Improvements | 4 | ODOT has provided a conceptual parking lot design with on/off-ramps from I-84 that meets highway standards. The ingress/egress would be westbound only. The parking lot design is not located on OPRD property - appears to be located partly within I-84 right-of-way and partly on ODOT property. | |
| Coordination with UPRR | 3 | UPRR policy is to encourage overcrossings rather than undercrossings, but may be willing if justification is given. Currently, the site has a high level of unauthorized use - thus, an under or overcrossing would solve a safey issue for the railroad. | |
| Impact on Cultural Resources | 3 | No archaeological surveys have been conducted at the site, however there is a very high likelihood that sensitive cultural resources are present in the vicinity given extensive prehistoric settlement in the area. If development of the site moves forward, archaeological survey work would be needed. | |
| Impact on Scenic Resources | 4 | The site is located in River Bottomlands setting and must be visually subordinate from Key Viewing Areas. KVAs are located near river level in the vicinity (Hwy 30, I-84, and SR-14) rather than at high elevation, which limits viewing potential. In addition, the parking area and related facilities would be sited in a depression between I-84 and the railroad, which would reduce visual impact signficantly, especially if landscaping and existing trees are incoporated. Some sections of rock adjacent to the highway would need to be removed to construct the off-ramp, but this would not significantly alter the scenic character of the site. | |
| Impact on Natural Resources | 2 | The site is designated a State Natural Area under the Oregon Natural Areas Plan in part because it is one of the last remaining examples of a Columbia River Dunes habitat that was once widespread. There is a population of northern wormwood (a threatened plant species), which was established in the dunes here in 2008-2010. Increased recreation could have negative impacts on this population and the dunes ecosystem in general, however, there is the potential to direct users and impact to a small portion of the dunes while protecting and enhancing the surrounding environment. Ultimately, this approach may be better from a conservation standpoint than the current unauthorized and uncontrolled use. | Neeed to determine location of wormwood population. |
| Compatibility with Gorge Management Plan Land Use & Recreation | 2 | The site is zoned Open Space in the Gorge Management Plan, and is divided between a Recreation Intensity Class 1 overlay on the east end and a Recreation Intensity Class 2 overlay at the west end. These two overlays are fairly restrictive, allowing a maximum of 10 car parking and 25 car parking respectively. The Gorge Commission's Development Proposals List (which has been adopted separately from the Management Plan) includes a proposed day use area nearby, just south of I-84 adjacent to Tooley Lake. with potential "expansion" to OPRD property if natural resource concerns can be overcome. | |
| ADA Accessibility | 4 | The ODOT concept design for a parking lot allows for ADA access from parking lot to potential railroad undercrossing and beach. Athough ADA beach access would be provided, recreation opportunities once across the tracks would be limited for people with disabilities as an ADA trail system on the beach is probably not feasible due to maintenance costs and natural resource concerns. | |
| Recreation Quality Post-Development | 4 | This is an excellent windsurfing site, as evidenced by the high levels of unauthorized use and number of cars parked along the highway when conditions are good. Developing access would help satisfy a clear demand for additional wind sport sites in the Gorge, and would additionally reduce the existing safety hazard of people parking along the highway shoulder. | |

Score = Sum of Feasibility Ranks 29

Oregon

Kate Brown, Governor

**Parks and Recreation Department**
725 Summer St. NE, Suite C
Salem, OR 97301-1271
(503) 986-0980
Fax (503) 986-0794
www.oregonstateparks.org

Steven D. McCoy, Staff Attorney
Friends of the Columbia Gorge
steve@gorgefriends.org

August 9, 2016

Dear Mr. McCoy,

Thank you for your letter dated July 28, 2016. We respect and understand the position of the Friends of the Columbia Gorge regarding the Union Pacific Railroad (UPRR)'s proposed double track project in the Gorge. As you know, one component of that proposed project has been a request from UPRR for a land transfer. When the Oregon State Parks and Recreation Commission considers such a request for a land transfer, by rule it applies a very high standard: proposals initiated outside the department must result in an overwhelming benefit to the state park system. Our commissioners directed the Oregon Parks and Recreation Department (OPRD) to task UPRR for a proposal that provides such a benefit. The UPRR proposal, as presented to the Commission, did not meet the Commission's standard established in rule, so consideration of that specific proposal is over.

During the February 2016 public meeting, the Commission recognized that UPRR's proposed project was 4.1 miles through the Columbia Gorge, and that the land transfer request brought to them was only a small portion of the overall scope of the project. The Commission made it clear that the UPRR double-track project proposal merited a full public conversation before Wasco County, the appropriate decision maker. The Commission's position in that regard has not changed. **The consent form that OPRD signed in July 2015 absolutely does not authorize or commit any state park property to be transferred for use in the project**, but it does allow the full public conversation on the UPRR proposal to occur before Wasco County.

It is in that public process that OPRD has a role and a voice to comment on the recreational impacts of the entire UPRR proposal. If OPRD were to withdraw its consent, the county's ability to consider recreational impacts to OPRD property may be diminished and OPRD is less able to fulfill its mission as a recreation advocate. The Friends of the Gorge have been an excellent partner in the creation of the OPRD recreation plan for the Columbia Gorge. It was from this plan that OPRD submitted its first comments to Wasco County to address the potential recreation impacts of rail traffic in the Gorge. It is not in the best interest of OPRD or the public to lose that perspective by withdrawing from the planning process. It is important to note that UPRR is engaged in a locally permitting process voluntarily. For the good of the Gorge, we see real public value in allowing a full, open discussion to reach fruition, and that is a reason we are declining your request to withdraw the consent at this time. I hope the Friends understand our respect for the county's public process, even if you may disagree that that process should continue. Rest assured we will continue to offer public comment on the project at every opportunity afforded by the county process.

The Friends' concern about archaeological resources is shared by the department. The department's original April 25, 2016 comments to the county highlighted the need both to protect these resources, and to consult with the affected tribes. I am cc'ing this email to Angie Brewer, Wasco County Planner, to again emphasize the importance of those resources in the review.

Sincerely,

Lisa Sumption
Director

ec: Angie Brewer, Wasco County

Angie Brewer <angieb@co.wasco.or.us>

# Roads through Memalose

1 message

**DEVEREUX MG * OPRD** <MG.Devereux@oregon.gov> Tue, Aug 2, 2016 at 8:20 AM
To: Angie Brewer <angieb@co.wasco.or.us>

Angie –

In response to your question about road access to the railroad. Our files show that those roads were permitted by ODOT prior to our development of the park, so UPPR has full rights to use them. If a situation arose where a significant increase in traffic were to occur along the roads, we would ask that UPPR coordinate with OPRD to help mitigate noise, safety, gate security, and impacts to overnight visitors. That may look like signage, limited hours of operation.

Thanks

mg

MG Devereux

Oregon Parks and Recreation Department

mg.devereux@oregon.gov

503-986-0735

Angie Brewer <angieb@co.wasco.or.us>

# FW: Letter Requesting OPRD to Withdraw Permitting Consent

1 message

**Dryden, Margaret L -FS** <mdryden@fs.fed.us> Fri, Jul 29, 2016 at 10:51 AM
To: Angie Brewer <angieb@co.wasco.or.us>, "Page, Christopher NWP" <Christopher.M.Page@usace.army.mil>

I see that neither of you were copied on this letter. Marge

**Marge Dryden, Archaeologist & Historic Preservation Specialist**
**Heritage Resources Program Manager**

**Forest Service**

**Columbia River Gorge National Scenic Area**

**p: 541-308-1711**
**f: 541-386-1916**
**mdryden@fs.fed.us**

902 Wasco Avenue, Suite 200
Hood River, OR 97031
www.fs.fed.us

**Caring for the land and serving people**

**From:** Steve McCoy [mailto:steve@gorgefriends.org]
**Sent:** Thursday, July 28, 2016 5:03 PM
**To:** Lisa.Sumption@oregon.gov
**Cc:** Richard.M.Whitman@oregon.gov; Gabriela.Goldfarb@oregon.gov; Lauri.Aunan@oregon.gov; Brett.Brownscombe@oregon.gov; jhallen@pdx.edu; jblasher@playworks.org; bsc@deschuteslandtrust.org; mukumoto@gmail.com; wendy.veliz@pgn.com; lisadawson@neoedd.org; robin@robinrisley.com; steve.shipsey@doj.state.or.us; AudieHuber@ctuir.org; CarlMerkle@ctuir.org; brenthall@ctuir.org; bkent@yakama.com; esanchey@yakama.com; djc@nezperce.org; clay.penhollow@ctwsbnr.org; CARJ@critfc.org; lotr@critfc.org; Dryden, Margaret L -FS <mdryden@fs.fed.us>; mg.devereux@oregon.gov; Michael Lang <Michael@gorgefriends.org>; kevin@gorgefriends.org
**Subject:** Letter Requesting OPRD to Withdraw Permitting Consent

Dear Director Sumption,

**PC 1 4-1278**

Please accept the attached letter requesting that the Department withdraw consent to Wasco County to allow portions of Memaloose State Park to be used for permitting of the proposed Union Pacific double track project through Mosier.

Thank you,

Steve

Steven D. McCoy, Staff Attomey

Friends of the Columbia Gorge

522 SW Fifth Ave., Suite 720

Portland, OR 97204

(C) 503-319-2547

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**FriendsLetterToOPRD.pdf**
289K

**PC 1 4-1279**

# FRIENDS OF THE COLUMBIA GORGE

*VIA EMAIL*

July 28, 2016

Lisa Sumption, Director
Oregon Parks and Recreation Department
725 Summer Street NE, Suite C
Salem, OR 97301

**Re: OPRD Consent for Union Pacific Railroad to File Wasco County National Scenic Area Review Applications for a Proposed Second Mainline Track Project through Mosier**

Dear Director Sumption:

At the April 27, 2016 meeting of the Oregon Parks and Recreation Commission the Commission unanimously voted to reject a proposed land transfer of portions of Memaloose State Park that would have provided necessary right-of-way for Union Pacific to complete the railroad's proposed Mosier double-tracking project. With laudable foresight, the Parks Commission cited public safety and state liability as reasons to reject the land transfer. However, the Department has given consent for the same State Park land to be used in Union Pacific's National Scenic Area development application before Wasco County. We ask the Department to rescind consent and communicate to Wasco County that no portion of Memaloose State Park is to be considered as part of the application.

As a result of a public records request, we now have information about the discussions between the Department and Union Pacific. Based upon this information, the Department is well within its rights to withdraw consent immediately and complete the action that the Parks Commission took at its April meeting. There is no legal reason not to withdraw consent.

Significant resources are being expended by tribes, advocacy organizations, the railroad, and local governments – including Wasco County, Mosier, and other communities up and down the rail lines. The unnecessary expenditure of public and private resources – and the additional emotional toll on Mosier as this sore continues to be reopened – can be avoided if the Department rescinds consent.

In response to the public records request, we also found that the department was poised to request that the railroad do further archeological analysis including shovel tests every 20 meters in "a very high probability area for finding subsurface precontact and historic archaeological resources." This area was not evaluated by Union Pacific at all because blackberry brambles and poison oak made adequate review inconvenient for the railroad.

Ultimately, the Department decided not to pursue the request for extra testing. The initial draft of the response to interested parties was: "As UPPR's Mosier 2nd Mainline Track Project will no longer include the use of lands currently owned by Oregon Parks and Recreation Department, the Department will refrain from further comment regarding associated cultural resources surveys (April 2015, July 2015, August 2015 by CH2M Hill)." However, the permitting process continues with the Department's consent.

Allowing the permitting process to go forward while at the same time short-circuiting cultural review that the Department's expert staff determined was necessary could result in a permit approval by Wasco County based on inadequate information. There is an inherent inconsistency between allowing the review to go forward while at the same time not ensuring that the review is robust. If the Department does not rescind consent then we urge it to request a full review of cultural resources at the site as recommended by its staff archeologist.

Thank you for your attention to this matter.

Sincerely,

Steven D. McCoy
Staff Attorney

CC: Richard Whitman, Natural Resources Policy Director
Brett Brownscombe, Natural Resources Policy Advisor
Lauri Aunan, Natural Resources Policy Advisor

Gabriela Goldfarb, Natural Resources Policy Advisor
Oregon Parks and Recreation Commission
Counsel for the Parks Commission
Audie Huber, Confederated Tribes of the Umatilla Indian Reservation
Carl Merkle, Confederated Tribes of the Umatilla Indian Reservation
Brent Hall, Confederated Tribes of the Umatilla Indian Reservation
Brady Kent, Confederated Tribes and Bands of the Yakama Nation
Elizabeth Sanchey, Confederated Tribes and Bands of the Yakama Nation
Dave Cummings, Nez Perce
Clay Penhollow, Confederated Tribes of Warm Springs
Julie Carter, Columbia River Inter-Tribal Fish Commission
Rob Lothrop, Columbia River Inter-Tribal Fish Commission
Marge Dryden, United State Forest Service

ENC: OPRD Consent for Union Pacific Railroad To File Wasco County National Scenic Area Review Applications for the Proposed Second Mainline Track Project

~~January 9, 2015~~ June 8, 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 Parks and Recreation Department, as owner(s) of the real properties commonly known as, Tax Lot Numbers 3N 12E 0 100 and 3N 12E 31 800, and as more particularly described below (see Table 1 and attached Figure 1) expressly give my/our ~~permission~~ ~~and/or~~ consent ~~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 additional permanent ROW and temporary construction easement upon my/our property. These applications include Development Approval for Conditional Uses and a Planning Commission Variance Application.

**The ~~permission and/or authorization~~ consent 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~~ consent 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 |
|---|---|---|---|---|---|---|
| 3N 12E 0 100 | See Figure 1 | Oregon Parks and Recreation Department | 725 Summer St NE Suite C | Salem | OR | 97301 |
| 3N 12E 31 800 | See Figure 1 | Oregon Parks and Recreation Department | 725 Summer St NE Suite C | Salem | OR | 97301 |

Sincerely,

Legal Landowner(s) Oregon Parks and Recreation Department

Printed Name: MG Devereux, Deputy Director

Landowner Signature: [signature]

Date: June 8, 2015

# 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


May 19, 2016

Steven D. McCoy, Staff Attorney
Friends of the Columbia Gorge
522 SW Fifth Avenue, Suite 720
Portland, OR 97204

Via email: steve@gorgefriends.org

Re: April 29, 2016 Request to Suspend Review of PLASAR-15-01-0004

Dear Mr. McCoy:

Thank you for your April 29, 2016 written request for the suspension of PLASAR-15-01-0004 based on the outcome of the April 27, 2016 meeting of the Oregon Parks and Recreation Commission. Wasco County Planning also raised this concern and requested clarification from the applicant and Oregon State Parks and Recreation (OPR).

OPR staff have confirmed in writing that the scope of the project reviewed for consistency with the rules and regulations of the National Scenic Area Act, has not changed as a result of the April 27, 2016 OPR Commission hearing. Additionally, there has been no request from OPR to rescind landowner consent (see attached documents).

The Wasco County National Scenic Area Land Use and Development Ordinance will be applied to the project as proposed in the materials provided in the public notice (available online at http://co.wasco.or.us/planning/UPRR.html). The consistency review of the proposed development does not require the landowner to physically implement the development. Future implementation is at the will of the landowner but must be conducted in a manner consistent with the final land use decision and any conditions of approval.

Please do not hesitate to contact me directly with any additional questions. I can be reached Monday through Friday at (541) 506-2566 and angieb@co.wasco.or.us.

Sincerely,

Angie Brewer

Angie Brewer, AICP
Planning Director

Cc: Kristen Campbell, Wasco County Counsel (via email: kristen@timmonslaw.com)

Enclosures: (2) Email exchange and landowner consent form

# FRIENDS OF THE COLUMBIA GORGE

*VIA E-MAIL*

April 29, 2016

Angie Brewer, Planning Director
Wasco County Department of Planning and Economic Development
2705 East Second Street
The Dalles, Oregon 97058
angieb@co.wasco.or.us

**Re: Union Pacific Railroad Mosier Area Expansion – PLASAR-15-01-0004**

Dear Ms. Brewer:

Friends of the Columbia Gorge (Friends) attended the April 27, 2016 meeting of the Oregon Parks and Recreation Commission (Parks Commission). At that meeting the Parks Commission unanimously voted to reject any proposed land transfer that would provide additional right-of-way to the Union Pacific Railroad that is necessary to complete the project proposed in PLASAR-15-01-0004. This material change in circumstances renders the current application incomplete and inaccurate.

For example, the figures 1-2, pp. 8–9; 2-1, pp. 8–9; 4-1, pp. 8–9; 4-2, pp. 8–9; 4-3, pp. 8–9 in Appendix A do not depict realistically possible conditions. Nor do sheet numbers 19–21 in the engineering drawings in Appendix C. This also invalidates portions of the project narrative. Without the additional right-of-way or significant changes to the project, Union Pacific cannot comply with federally-mandated railway safety laws. Given the current inaccuracies in the proposal materials, it is impossible for the public or the Planning Commission to evaluate this proposal. ***Therefore we ask that the County suspend review of the application until the applicant submits a complete and accurate application.***

Thank you for your attention to this matter.

Sincerely,

Steven D. McCoy
Staff Attorney

Angie Brewer <angieb@co.wasco.or.us>

# RE: Comments

1 message

**DEVEREUX MG * OPRD** <MG.Devereux@oregon.gov> Thu, Apr 28, 2016 at 9:05 AM
To: Angie Brewer <angieb@co.wasco.or.us>
Cc: BEALS Alice * OPRD <Alice.Beals@oregon.gov>

We are not requesting any change or modification.

MG Devereux
Deputy Director
Oregon Parks and Recreation

-------- Original message --------
From: Angie Brewer <angieb@co.wasco.or.us>
Date: 4/28/2016 9:02 AM (GMT-08:00)
To: DEVEREUX MG * OPRD <MG.Devereux@oregon.gov>
Cc: BEALS Alice * OPRD <Alice.Beals@oregon.gov>
Subject: Re: Comments

Thank you MG.

Just to be clear, is OPRD still comfortable with the NSA review/permit process continuing with the same scope of the original proposal (on OPRD lands)? Or should I be seeking a revised proposal from UPRR?

Thanks,

Angie

**Angie Brewer, AICP**
Planning Director
Wasco County Planning Department
(541) 506-2566 direct / (541) 506-2560 main
www.co.wasco.or.us/planning/

On Wed, Apr 27, 2016 at 11:33 AM, DEVEREUX MG * OPRD <MG.Devereux@oregon.gov> wrote:

> Angie –
>
> The parks commission voted to direct staff to stop pursuing land transfer discussions with UPRR. That does not change our comments.
>
> **From:** Angie Brewer [mailto:angieb@co.wasco.or.us]
> **Sent:** Wednesday, April 27, 2016 10:46 AM
> **To:** DEVEREUX MG * OPRD
> **Subject:** Re: Comments
>
> Thank you MG. I'll add this to our record and look into the references you provided. If today's OPRD Commission meeting provides any further guidance, please let me know as soon as you can.

**PC 1 4-1286**

Thanks again,
Angie

**Angie Brewer, AICP**
Planning Director
Wasco County Planning Department
(541) 506-2566 direct / (541) 506-2560 main
www.co.wasco.or.us/planning/

On Tue, Apr 26, 2016 at 4:16 PM, DEVEREUX MG * OPRD <MG.Devereux@oregon.gov> wrote:

Angie - Attached is the final comment on letter head. I read your comments and am not sure that we can be more specific in-terms of potential impacts. The planning process referenced addressed the management concerns of rail activities, and to the extent that we are able these comments reference the recreation concerns we heard and have experienced. As we tried to express it is difficult to quantify an impact that is unknown to us at this time.

**From:** Angie Brewer [mailto:angieb@co.wasco.or.us]
**Sent:** Monday, April 25, 2016 12:27 PM
**To:** DEVEREUX MG * OPRD
**Subject:** Re: Comments

Hi MG -

Thank you for the draft response. I left you a voicemail earlier but will try to catch you on your cell.

The letter is helpful but does not clearly identify whether or not OPRD has any specific concerns with the proposed project. Much of it references existing impacts, but not new concerns or recommendations to address new concerns.

My report must be able to conclude that the proposed development will not cause adverse effects to recreation resources.

Let's talk when you have a minute.

Thanks,

Angie

**Angie Brewer, AICP**
Planning Director
Wasco County Planning Department
(541) 506-2566 direct / (541) 506-2560 main
www.co.wasco.or.us/planning/

On Mon, Apr 25, 2016 at 7:57 AM, DEVEREUX MG * OPRD <MG.Devereux@oregon.gov> wrote:

Angie –

Attached are our draft comments. I will have an official copy on letterhead to you by midday.

MG Devereux

Oregon Parks and Recreation Department

mg.devereux@oregon.gov

503-986-0735

Kate Brown, Governor

**Parks and Recreation Department**
725 Summer St. NE, Suite C
Salem, OR 97301-1271
(503) 986-0980
Fax (503) 986-0794
www.oregonstateparks.org

MEMO

DATE: April 25, 2016
TO: Angie Brewer, Wasco County Planner
FROM: MG Devereux, Deputy Director, Oregon Parks and Recreation Department

**RE: Potential Rail Impacts to Recreation on OPRD Properties in the Columbia River Gorge**

In 2015, the Oregon Parks and Recreation Department (OPRD) finalized the Columbia River Gorge Management Unit Plan covering the approximately 9,500 acres of OPRD managed property in the Columbia River Gorge. This planning effort included a robust public outreach effort to identify the current and future management issues on OPRD properties. Analysis included the existing challenges of an active rail corridor. The plan identified several areas where rail traffic has an impact on recreation. These areas are:

- Disconnection of existing recreation opportunity from the Columbia River
- Noise
- Natural and cultural resource disruption

This memo outlines the high level impacts that were identified in the planning process. A full list of references and links to the plan are included at the end.

**Disconnection**
The railroad has been in operation longer than many of the OPRD recreation sites, and in some cases the track creates a real property barrier between developed recreation sites and access to the Columbia River. The plan notes that federal crossing standards create a significant barrier to creating at-grade crossings, creating situations where the public trespasses across the rail line in order to access the Columbia River. The current trend toward increased visitation and recreation in the Columbia River Gorge means this demand will continue to place pressure on the need to find legal, safe crossings. Public input into the state park plan identifies several general areas where crossings would be desirable, and areas where existing recreation is limited because of the barrier to access created by the track. Developing new separated grade crossings would improve recreational access to the Columbia River, relieving pressure on other sites that are quickly becoming congested.

OPRD has also committed to developing and maintaining the partnership with Union Pacific Railroad (UPRR) to look for other ways develop recreation opportunities, such as trail connections, to expand recreation capacity of the Gorge.

**Noise**
The planning process illustrated a reality everyone who lives, works, and plays in the Gorge already understands: traffic noise—especially rail noise—is a significant challenge for visitors and park staff. It constrains recreation, especially camping, and the impact is documented in the plan as well as other media sources… See article: When Camping Columbia Gorge It Pays to be a Little Deaf. It is difficult to quantify a precise impact of increased noise based on the information provided by UPRR.



If the project results in a significant increase in train volume or increased speeds this may have

additional impacts on recreational uses, especially in the overnight areas near the tracks.

**Resource Impacts**
State Parks in the Columbia River Gorge often serve as recreational gateways to larger tracts of public lands and also serve as habitat corridors for wildlife. Rail and road transportation often fragments these habitat corridors. The interface between parks and rail or road corridors are often highly degraded with noxious weeds, and lower diversity of flora. Any new disturbance of these areas should take great care to remove non-native invasive weeds, and create opportunities for greater native bio-diversity.

The Columbia River Gorge also contains significant cultural resources. Great care should be taken to ensure that rail projects and operations do not impact cultural resources. Tribal coordination regarding these potential resource impacts is an important element of resource protection.

The Columbia River Gorge Management Unit Plan can be found at:
http://www.oregon.gov/oprd/PLANS/Pages/planning_gorge.aspx. Specific References can be found:

- Pg 6 - Overview of railroads effects on state parks in Gorge
- Pg 20 - RR Impact on Recreation on Gorge
- Pg 26-27 - Historic Cultural References
- Pg 44 - RR Impacts on Habitat connectivity
- Pg 103 – Historic Illegal Use Addressed at Memaloose, among other places
- Pg 104-5 - Map of potential railroad crossings to be studied in feasibility study
- Pg 106 – Public Comment about increase in railroad traffic and potential risk, OPRD response
- Pg 108 – Reference to UPRR partnership
- Pg 114 – Railroad as challenge to river access
- Pg 116 – Railroad impacts to overnight facilities (noise)
- Pg 118 – Wyeth's existing access over railroad as opportunity
- Pg 119 – Memaloose river access unsafe, unfeasible as constraint
- Pg 120 - Squally Point potential access needs to be explored
- Pg 155 – River access strategy to explore access point feasibility in multi-agency study
- Pg 138-139 – Railroad as barrier to increasing river access points in Gorge, and Plan for River access study
- Pg 150, 156 – Value of potential for Railroad crossing at Rooster Rock described
- Pg 158 – Reference to UPRR owning land near Bridal Veil
- Pg 161 – RR Impacts on recreation at Benson
- Pg 166 – Wyeth's existing access over railroad as opportunity described
- Pg 169 – Viento existing condition of at grade crossing\
- Pg 175 – Description of Memaloose as limited for river recreation with no access
- Pg 177 - West Mayer as having potential for increased facilities based on proximity from railroad (decreased noise), existing access to river
- Pg 180 – East Mayer/ Squally Point, mostly limiting factors for consideration in potential development

Angie Brewer <angieb@co.wasco.or.us>

# RE: Comments

1 message

**DEVEREUX MG * OPRD** <MG.Devereux@oregon.gov> Tue, Apr 26, 2016 at 4:16 PM
To: Angie Brewer <angieb@co.wasco.or.us>

Angie - Attached is the final comment on letter head. I read your comments and am not sure that we can be more specific in-terms of potential impacts. The planning process referenced addressed the management concerns of rail activities, and to the extent that we are able these comments reference the recreation concerns we heard and have experienced. As we tried to express it is difficult to quantify an impact that is unknown to us at this time.

**From:** Angie Brewer [mailto:angieb@co.wasco.or.us]
**Sent:** Monday, April 25, 2016 12:27 PM
**To:** DEVEREUX MG * OPRD
**Subject:** Re: Comments

Hi MG -

Thank you for the draft response. I left you a voicemail earlier but will try to catch you on your cell.

The letter is helpful but does not clearly identify whether or not OPRD has any specific concerns with the proposed project. Much of it references existing impacts, but not new concerns or recommendations to address new concerns.

My report must be able to conclude that the proposed development will not cause adverse effects to recreation resources.

Let's talk when you have a minute.

Thanks,

Angie

**Angie Brewer, AICP**
Planning Director
Wasco County Planning Department
(541) 506-2566 direct / (541) 506-2560 main
www.co.wasco.or.us/planning/

On Mon, Apr 25, 2016 at 7:57 AM, DEVEREUX MG * OPRD <MG.Devereux@oregon.gov> wrote:

**PC 1 4-1291**

Angie –

Attached are our draft comments. I will have an official copy on letterhead to you by midday.

MG Devereux

Oregon Parks and Recreation Department

mg.devereux@oregon.gov

503-986-0735

**Wasco County 042516.doc**
248K

WASCO COUNTY

Angie Brewer <angieb@co.wasco.or.us>

# UPRR Project Memaloose-Mosier

1 message

**Angie Brewer** <angieb@co.wasco.or.us> Tue, Apr 19, 2016 at 6:30 PM
To: MG.Devereux@oregon.gov
Cc: "Linnea.Eng@CH2M.com" <Linnea.Eng@ch2m.com>, POULEY John * OPRD <John.Pouley@oregon.gov>, Dennis.Griffin@oregon.gov
Bcc: Kristen Campbell <kristen@timmonslaw.com>

Hello MG,

Thank you for the clarification you offered this morning during our conference call with UPRR staff. I appreciate you asking your staff to have recreation impacts comments into us by Monday - it will help us confirm resource impacts of the proposed development and any mitigation requirements. I've spoken to our legal counsel about the change in project scope (removal of the property line adjustment) and have been advised to get something from you in writing to confirm OPRD's consent as an underlying landowner with the rest of the permitting processing moving forward. Could you please send me a quick note back to confirm? An email, memo or letter would be fine. Even if it's the same language used in the original consent form, we want to have on record that it's still valid.

During our call, you also noted that the State Historic Preservation Office is intending to revise it's comments originally provided for our NSA review process several months ago based on Nancy Nelson's comments. As we discussed, the hearing date is scheduled for May 3, 2016. If the comments are substantively different, we need to know as soon as possible so that we can confirm procedure moving forward. I made a few calls to the SHPO after our discussion and according to his outgoing voicemail message, Dennis Griffin will be out of town until May 9th. I left messages for John Pouley as well. I am concerned that I may not hear from them prior to the staff report going out next Tuesday for public review or by the hearing scheduled for May 3 - can you please confirm?

Wasco County Planning takes our role as NSA resource protection authority very seriously - and I want to be sure we've coordinated adequately with your resource specialists. Please let me know if you have any concerns with the May 3rd hearing date - we can postpone if the regulatory process and resource impact concerns necessitate additional coordination.

Thank you for the coordination and please don't hesitate to call me with any questions or concerns.

Best,
Angie

**Angie Brewer, AICP**
Planning Director
Wasco County Planning Department
(541) 506-2566 direct / (541) 506-2560 main
www.co.wasco.or.us/planning/

Angie Brewer <angieb@co.wasco.or.us>

# RE: UPRR application near Mosier

1 message

**STALLMAN Kristen** <Kristen.STALLMAN@odot.state.or.us> Wed, Feb 25, 2015 at 10:10 AM
To: Angie Brewer <angieb@co.wasco.or.us>
Cc: CIMMIYOTTI Patrick N <Patrick.N.CIMMIYOTTI@odot.state.or.us>, DEHART Brad <Bradley.K.DEHART@odot.state.or.us>

Angie – Great to hear from you. Congratulations on your interim position. Looks like we are both interim planning managers, I was just appointed ODOT's Region 1 Interim planning manager for Region 1.

It sounds like Pat Cimiyotti (541.296.2215) is ODOT's point person on this. He is probably your best contact on this. If there anything that would impact the HCRH or the I-84 Corridor Strategy Team that would be where I would come in.

I am around next week but on vacation the following week.

**Kristen Stallman**
**Columbia River Gorge National Scenic Area Coordinator**
Oregon Department of Transportation/Region 1
123 NW Flanders Street
Portland, Oregon 97209
503-731-4957
kristen.stallman@odot.state.or.us

**From:** Angie Brewer [mailto:angieb@co.wasco.or.us]
**Sent:** Tuesday, February 24, 2015 12:28 PM
**To:** STALLMAN Kristen
**Subject:** UPRR application near Mosier

Hi Kristen,

I hope this finds you well, it's been a while since we've worked together!

I have received an application from Union Pacific Railroad to do some work near Mosier and wanted to touch base with you and any other appropriate ODOT representative about what coordination has occurred or needs to occur. Do you

have time for a call this week?

Thanks very much,

Angie

**Angie Brewer, AICP**
Interim Director
Wasco County Planning Department
(541) 506-2566 direct / (541) 506-2560 main
www.co.wasco.or.us/planning/

WASCO COUNTY

**Angie Brewer <angieb@co.wasco.or.us>**

# Re: Memaloose State Park

1 message

**Angie Brewer** <angieb@co.wasco.or.us> Tue, Feb 24, 2015 at 2:04 PM
To: KRUGER Steve * OPRD <Steve.Kruger@oregon.gov>
Cc: PRICE Kevin * OPRD <Kevin.Price@oregon.gov>, COMFORT Dennis * OPRD <Dennis.Comfort@oregon.gov>, BEALS Alice * OPRD <Alice.Beals@oregon.gov>

Steve,

Thank you for your time this afternoon. As we discussed, the Wasco County Planning Department is working through the completeness review portion of the development review process. UPRR submitted their application for railroad modifications and associated development on January 9, 2015. The project area includes lands within Memaloose State Park. Acknowledging the larger scope of the proposed development, and the size of the application, the applicant has agreed to a 21 day toll (extension) of the 30-day completeness review period (which now ends March 2). I am working on a letter to UPRR regarding completeness that I hope to send Monday afternoon.

After you and I spoke today, I sent an email to the applicant letting them know that Wasco County requires the signature of the landowner's whose property will contain the proposed development as part of completeness. I am still working through the application materials to ensure they've submitted the rest of the required information, but would like to begin the conversation and coordination with OPRD about any concerns regarding scenic, natural, cultural and recreation resource impacts on OPRD lands. Please find a portion of the UPRR application attached to this email. The application in its entirety is more than 1,000 pages long and I am still gleaning it for confidential materials before it can be posted on our website or shared more broadly. I can put it on a CD for you or email it in multiple messages if you'd like a copy of the whole thing. The narrative provides a table of contents.

The attached portions of the application include the cover letter, Wasco County application forms, the project narrative, and Appendix A which includes project area maps. I would encourage you to start with the project narrative and Appendix A Figures 1-1 through 1-1(c) as the site plan. I've also attached Appendix G, which includes unsigned landowner consent forms. Per your suggestion, I will follow up directly with Alice Beals to discuss the real estate issue.

My apologies for not being able to send this to OPRD staff sooner - our staffing is down, and we are doing our best to keep up. Please know that there will be additional opportunities to coordinate about the project and resource impacts moving forward. After completeness, a formal notice will be sent to partner agencies soliciting resource impact feedback and a separate public comment notice will be sent to solicit additional feedback from the general public. As you know, our goal is to provide a transparent process that allows for as much coordination as possible.

To give you a sense of the bigger process - this application will be heard by the Wasco County Planning Commission (as opposed to staff issuing an administrative decision). The hearing will be a public hearing, allowing the public an opportunity to participate through oral and written testimony. We are also discussing a possible public meeting (once the application is deemed complete) that would allow the public to view the file, maps and project details in advance of the Planning Commission hearing. I will keep you posted about timelines as they are confirmed.

Please do not hesitate to reach out to me about any of this. Again, I would encourage you to review the location of the proposed development and consider any resource impacts and related mitigation options. In the coming weeks, I would like to schedule a meeting or conference call with you and any other OPRD staff that may be participating in this process. Do you have any time available the week of March 9th?

Thank you in advance for the coordination. I look forward to working with you on this project.

Best,

Angie

**Angie Brewer, AICP**
Interim Director
Wasco County Planning Department
(541) 506-2566 direct / (541) 506-2560 main
www.co.wasco.or.us/planning/

On Tue, Feb 24, 2015 at 11:17 AM, KRUGER Steve * OPRD <Steve.Kruger@oregon.gov> wrote:

> Angie – Thank you very much for connecting. Yes, I am the Park Manager for Memaloose. In regards to UPRR and their interest in that area, I have Cc'd a few OPRD staff who would want to be in conversation with you. Alice Beals is a real estate specialist in our Stewardship Division of our Salem Headquarters. Both Dennis Comfort and Kevin Price have asked to be included as my immediate supervisors for the Valleys Region and Portland Gorge District, respectively. Please let us know how we can help answer any questions you have.
>
> **Steve Kruger**
>
> Park Manager
> East Columbia River Gorge MU
>
> PO Box 126
>
> Hood River, OR 97031
> (503) 969-8350 cell
>
> www.oregonstateparks.org
>
> **From:** Angie Brewer [mailto:angieb@co.wasco.or.us]
> **Sent:** Tuesday, February 24, 2015 10:08 AM
> **To:** KRUGER Steve * OPRD
> **Subject:** Memaloose State Park
>
> Hi Steve,
>
> I hope this note finds you well. It feels like it's been a while since our last recreation strategy team meeting!
>
> Are you the manager for Memaloose State Park? If not, can you tell me who is? I have an application from Union Pacific Railroad that will cross through the park and would like to discuss any coordination that may have occurred, or needs to occur. Are you available by phone this week?
>
> Thanks,
>
> Angie

**Angie Brewer, AICP**
Interim Director
Wasco County Planning Department
(541) 506-2566 direct / (541) 506-2560 main
www.co.wasco.or.us/planning/

---

**5 attachments**

**00_Cover-Letter.pdf**
329K

**01_ApplicationForms.pdf**
2874K

**02_Narrative.pdf**
1519K

**03_Appendix_A_Figures.pdf**
14763K

**09_Appendix_G_Landowner-Consent-Forms.pdf**
1017K

PLASAR-15-01-0004 UPRR

# Treaty Rights

Confederated Tribes *of the*
Umatilla Indian Reservation

Board of Trustees & General Council

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May 11, 2016

Shawn Zinszer, Regulatory Chief
Army Corps of Engineers, Portland District
P.O. Box 2947
Portland, OR 97208-2946

**Re: UPRR Joint Permit Application No. 2014-364, Construction of 4.02 miles of track creating a 5.37 miles second mainline track near Mosier, OR**

Dear Mr. Olmstead:

The Confederated Tribes of the Umatilla Indian Reservation (CTUIR or Umatilla Tribe) Fish and Wildlife Commission (FWC) appreciates the opportunity to provide input on the proposed track construction near Mosier, Oregon that will result in 4.02 miles of new track and a new 5.37 mile second mainline track. The CTUIR FWC has serious concerns regarding this project as it entails significant construction over two tributaries to the Columbia River and numerous wetlands, will increase rail traffic on the Columbia River and also allow for increased train speed and length. Additionally, the citizens of the CTUIR and other tribes access the river across railroad tracks, often at unmarked crossings to access the Columbia River to exercise their constitutionally-protected Treaty reserved right to fish. Increased rail traffic increases safety risks to tribal members crossing the tracks. Further, because the project potentially impacts Treaty rights, both directly and indirectly, the use of a Nationwide permit for this project is inappropriate. The CTUIR requests that the Corps of Engineers remove this project review form the Nationwide process and put it on an individual permit review process. Such a move will allow the Corps to conduct the required analyses to ensure there is little to no impacts to Treaty rights and the resources on which they depend.

**The Umatilla Tribe's Constitutionally-Protected Treaty Fishing Rights**

The Supreme Court of the United States has repeatedly recognized the significance of the treaty right to fish at off-reservation usual and accustomed places, holding that the right is "not much less necessary to the existence of the Indians than the atmosphere they breathed." *Washington v. Washington State Comm'l Pass. Fishing Vessel*, 443 U.S. 658, 680, 99 S. Ct. 3055, 3071-3072 (1978), *quoting United States v. Winans*, 198 U.S. 371, 380 (1905). This treaty right to fish is a property right, protected by the Fifth Amendment to the Constitution of the United States. *See Muckleshoot Indian Tribe v. United Sates Corps of Engineers,* 698 F.Supp. 1504, 1510 (W.D. Wash. 1988), *citing Menominee Tribe of Indians v. United States,* 391 U.S 404, 411-412, 88 S.Ct. 1705, 1710-1711 (1968). The right to take fish includes a right to cross private property to access those areas, "imposing a servitude" upon the land. *Winans,* 198 U.S. at 381. Since 1968, the Umatilla Tribe has also protected these treaty rights as a plaintiff in *United States v. Oregon*, CV 68-513-KI, in the U.S. District Court for the District of Oregon.

The treaty fishing right carries with it an inherent right to protect the resource from despoliation from man-made acts. "[A] fundamental prerequisite to exercising the right to take fish is the existence of fish to be taken." *United States v. Washington*, 506 F.Supp. 187, 203 (W.D. Wash.

1980). *See also, Washington v. Washington State Commercial Passenger Fishing Vessel Ass'n,* 443 U.S. 658, 679 (1979) (Tribes with Treaty reserved fishing rights are entitled to something more tangible than "merely the chance...occasionally to dip their nets into the territorial waters.") The ecosystem necessary to sustain the fish cannot be diminished, degraded or contaminated such that either the fish cannot survive, or that consuming the fish threatens human health. *United States v. Washington*, 2013 U.S. Dist. LEXIS 48850, 75 (W.D. Wash. Mar. 29, 2013)(State "impermissibly infringed" tribes' treaty based fishing right in Washington by constructing culverts that "reduced the quantity of quality salmon habitat, prevented access to spawning ground, reduced salmon production...and diminished the number of salmon available for harvest.") *See also, e.g., Kittitas Reclamation District v. Sunnyside Valley Irrigation Distrcit,*763 F.2d 1032, 1034-35 (9th Cir. 1985)(Tribe's fishing right can be protected by enjoining ground water withdrawals that would destroy eggs before they could hatch). This project, both in its immediate construction impacts, and its resultant long-term increase in rail traffic and speed, carry impermissible potential impacts to both the access of the treaty fishing right, and degradation of the ecosystem on which those treaty resources depend.

According to the JARPA permit document, the proposed project will construct approximately four miles of new double-track rail line, which includes two new bridges over tributaries to the Columbia River and going through multiple wetlands and adjacent lakes, many of which are spawning habitat for salmonid species listed on the Endangered Species Act. The proposal would also construct two new signal cabins, which are curiously omitted from the permit plans based on the applicant's conclusory statement that "there are no waters fo the United States what will be affected" (Project No. 2014-364 JARPA at pp 6-7.) The project also calls for over 1.5 acres of fill to open waters and wetlands. Further, the project includes a new paved area that directs any runoff from the increased train traffic to bare ground, possibly adjacent to wetlands, for "infiltration" into the ground. Given that the runoff will largely come from train traffic, and given the 250% increase in rail traffic between 2013 and 2014[1], it is likely that some type of contaminants would pollute this runoff. Any runoff that infiltrates into the bare ground will then go into the groundwater, which is often hydraulically connected to the Columbia River trough the Gorge. The potential for the project to contaminate the Columbia River and adjacent wetlands, in which listed salmonids – treaty resources that the Corps has a trust duty to protect - is a potential effect the Corps must analyze, and is another reason a Nationwide Permit should not be used. Similarly, the potential impacts from the construction of bridges, cabins and tracks over sensitive wetlands and lake ecosystems in which listed species spawn and travel through requires the Corps abandon the use of the Nationwide process.

**The Project will Likely Harm the Umatilla Tribe's Treaty Resources and Interests**

This proposal will increase rail traffic in the Columbia River Gorge. In a one page document prepared by Union Pacific Railroad entitled "Union Pacific to Enhance Infrastructure in Mosier" submitted in their public outreach effort, UPRR stated:

[1] http://www.oregonlive.com/environment/index.ssf/2014/07/everything_you_need_to_know_ab.html

> The Federal Railroad Administration speed limit on the new track will be 35 mph. Union Pacific currently moves about 25 to 30 trains per day through Mosier. The new double track will allow us to move 5 to 7 more trains per day through Mosier.

This statement reveals several things. First, double-tracking this area will increase the railroad speed. The current speed limit in Mosier is 30 miles per hour.[2] Second, UPRR estimates that this project will increase traffic through in the area by approximately 25%. Also, the Columbia River Gorge is essentially a closed system for trains. If seven more trains go through Mosier, seven more trains go through Rufus, Biggs, The Dalles, Celilo, Hood River, Cascade Locks, etc. Increased traffic in Mosier generates impacts up and down the Columbia in the form of additional trains, pollution, noise and risks of derailment. Finally, while train traffic in Mosier is currently limited to 30 miles an hour, trains up river, between The Dalles and Boardman, travel up to 70 miles an hour.

The increased railroad traffic all along the Columbia River, particularly in Zone 6 between Bonneville and McNary Dams, will impair the Tribe's interests in the following ways: damage to treaty resources and the ecosystems they depend on, eradication of tribal fishing areas, impeded access to tribal fishing areas and increased risks to tribal member safety, and damage and access to cultural resources.

**The ecosystem and treaty resources will suffer catastrophic damage from accidents and spills.**

The Project would result in an increase in shipment of tank cars, many of which may carry crude oil or similarly dangerous products, traveling in the Columbia River Gorge and adjacent to the Columbia River, where many tribal fishing areas are located. Train derailments, shipping spills, and fire and explosions from those derailments are a certainty. This is evident from the cascade of derailments across the United States and Canada reported in the media. For example, on February 17, 2015, a town in West Virginia suffered the derailment of a unit train of more than 100 oil tank cars carrying Bakken crude. Fourteen of the tankers ignited in an explosion, and at least one went into the Kanawha River. Hundreds of families were evacuated, and two downstream water treatment plants were closed. Photos of the explosion and subsequent tour of the scene as reported by the Boston Globe and Newsweek are below.

[2] http://www.fogchart.com/Down/Beta/PORTLAND.pdf

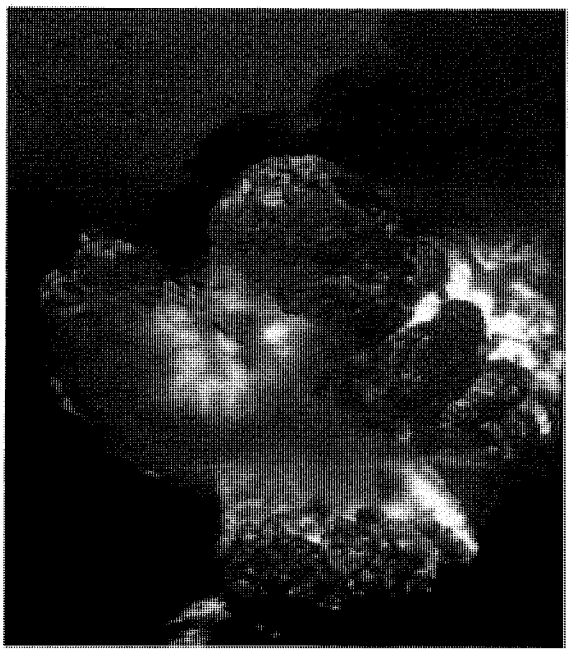


Photo caption: "Steve Keenan/The Register-Herald via Associated Press."

John Raby, *Oil-bearing train derails in West Virginia, setting off explosion,* The Boston Globe, February 17, 2015, at http://www.bostonglobe.com/news/nation/2015/02/17/west-virginia-train-derailment-causes-oil-spill-and-fires/opo6XRXLUV0URv8EiDSYQJ/story.html

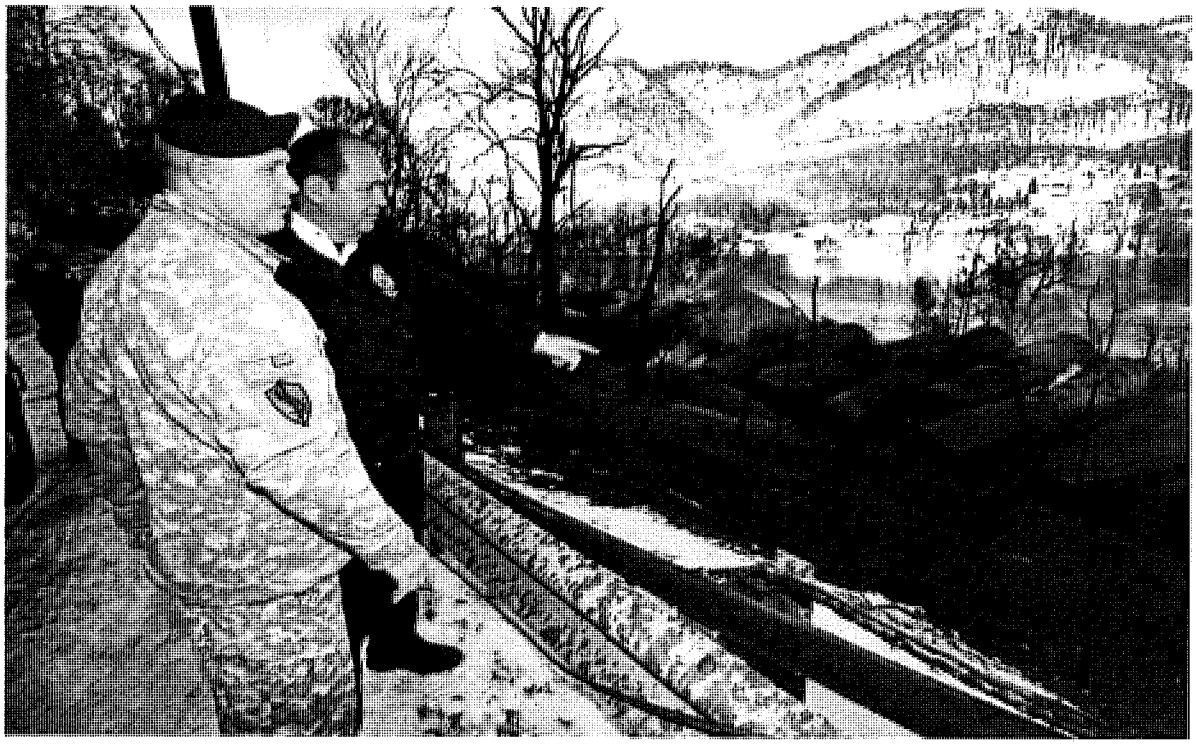


Photo caption: West Virginia Governor Earl Ray Tomblin surveyed the wreck site on February 17. "Many of the tanks had gaping holes in the tops where they had exploded," he tells Newsweek. Office of Governor Earl Ray Tomblin.

Max Kutner, *West Virginia Begins Investigating Massive Train Derailment,* Newsweek, February 20, 2015, at http://www.newsweek.com/west-virginia-begins-investigating-massive-train-derailment-308428.

The day before, February 16, witnessed the derailment and spill of more than 260,000 gallons of crude oil near Timmons, Ontario. The photograph below, from the Transportation Safety Board of Canada, shows workers fighting the oil spill fire.

Photo caption: "In this Feb. 16, 2015, file photo, provided by the Transportation Safety Board of Canada, workers fight a fire after a crude oil train derailment south of Timmons, Ontario. The train derailment this month suggests new safety requirements for tank cars carrying flammable liquids are inadequate, Canada's transport safety board (sic) announced Monday, Feb. 23, 2105."

Rob Gillies, *Canada safety board says latest oil train derailment shows new safety standards are inadequate,* U.S. News, February 23, 2105, at http://www.usnews.com/news/world/articles/2015/02/23/canada-oil-train-accident-shows-new-safety-rules-inadequate.

While the U.S. Department of Transportation is considering new standards for rail cars, newly built tanks cars do not appear to reduce the risk of accidents and spills as "both the West Virginia accident and the oil train derailment and fire in Ontario involved recently built tank cars that

were supposed to be an improvement," but the Canadian Transportation Safety Board said these new cars still "performed similarly" to the older models. *Id.* It is an unfortunate reality that "[t]he number of gallons spilled in the United States in [2013], federal records show, far outpaced the total amount spilled by railroads from 1975 to 2012." Clifford Kraus and Jad Mouawad, *Accidents Surge as Oil Industry Takes the Train,* N.Y. Times, Jan. 26, 2014, at A1, and http://www.nytimes.com/2014/01/26/business/energy-environment/accidents-surge-as-oil-industry-takes-the-train.html. If the Project goes forward, it is only a matter of time before a similar accident brings ecological catastrophe to the Columbia River, devastating the fishery and other resources the Umatilla Tribe depends on and has worked so hard to protect and restore. A derailment and spill along the Columbia River will not only be tragic for the resource, it will also work immeasurable hardships on the many tribal members that depend on the Columbia River and its riches for their living. It will likely eradicate productive fishing areas in the immediate area of the spill, and the consequences will be along the entire River, as a spill could wipe out stocks of salmon and steelhead that are already listed under the Endangered Species Act, erasing the many years and billions of dollars of effort that has gone into restoring the resource.

**Increased rail traffic will inhibit access to fishing areas and endanger tribal members.**

On both sides of the Columbia River, tribal members cross train tracks multiple times on a daily basis to exercise their treaty fishing rights. There is a great deal of scaffold fishing up stream and downstream of the project area that is visible from satellite images on Google Earth. This fishing is most often restricted by the crossing of the railroad tracks.

The increase in the number of trains, and possibly the length of such trains, will delay tribal members' ability to cross the tracks to access fishing areas. Such delays become acute during adverse or impending weather, when members must sometimes get to their nets in the water as quickly as possible.

The increase in rail traffic and the speed of that traffic will also increase the incidence of tribal members stuck by rail cars. Tribal members are at risk of rail-strikes when crossing the tracks to access fishing sites, In-Lieu sites, Treaty Fishing Access Sites, homes and markets for the sale of harvested fish. Recently, on February 21, 2015, a man was killed by train strike near Kalama, WA. http://www.khq.com/story/28168097/railroad-man-on-track-dies-after-being-struck-by-train. According to railroad statistics, 27 people were killed by train strikes across Washington State in 2014. [3] In Oregon, 11 were killed in 2015. *Id.* The likelihood of train-strike fatalities, injuries and property damage will increase from the increase in rail traffic and speed that would result from the Project.

**Increased rail traffic will damage cultural and religious tribal interests.**

The increased rail traffic will affect properties and items governed and protected by the National Historic Preservation Act, the Archaeological Resources Protection Act, the Native American

[3] http://safetydata.fra.dot.gov/Officeofsafety/publicsite/Query/TenYearAccidentIncidentOverview.aspx

Graves Protection and Repatriation Act and other laws. The transit corridor passes through tribal trust and traditional use areas. There are ancestral human remains, traditional cultural properties, historic properties of religious and cultural significance to Indian Tribes, and archaeological resources and sites in these areas. Any accidents, spills, explosions and related fires can damage these properties and items, and cause irreversible loss. Similarly, the increased traffic could result in increased risks of earthquake, liquefaction, or landslide, rail caused fires (without derailment), contaminant leakage onto tracks and sites, all of which could damage cultural and religious resources.

All of the potential impacts discussed above counsel for removal of the project review from the abbreviated Nationwide process, and the conduct of a robust review under the individual permit process. Moreover, it appears the Corps does not have accurate and complete information about the project before it on which to make a decision.

**The permit application contains inaccurate, inconsistent and incomplete information.**

There are inaccuracies and inconsistencies in the application as well. For instance, in the November, 2014 Project Purpose and Need and Alternative Analysis, it stated that trains along this route can range up to 12,000 feet and that the siding in Mosier siding is the shortest in the 206 mile subdivision. In conversations with UPRR it was clarified that UPRR does not run 12,000 foot trains, though there is nothing preventing them from doing so. The average length of train in the Gorge is 6,200 feet, half the length referenced in the report prepared by CH2M Hill. Also, Mosier is not the shortest siding in the Portland subdivision. From our information, the Mosier siding is 6,751 feet. The Bridal Veil siding is 6,360. The report contends that "[s]tandard 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." However, most of the sidings between Troutdale and The Dalles, are less than 12,000 feet including Sandy (10,617 feet), Bridal Veil (6,360 feet), Dodson (10,617 feet), Cascade Locks (6,751 feet), and Meno (9,916 feet). A chart of the siding length and locations is attached. Further, in response to cultural resource concerns by Catherine Dickson, the contractor stated that "the total number of trains per day is anticipated to remain similar to existing levels. The existing main line track speed limit would not be increased as a result of the project." A potential increase of 28% of train traffic is not similar to existing levels. Further, as noted above, in one pager, "Union Pacific to Enhance Infrastructure in Mosier," the speed limit will increase from 30 mph to 35 mph. The point of all of these inconsistencies is that the information before the Corps at this time is inaccurate. The project needs an individual permit review process, not the abbreviated whitewashing of the Nationwide process.

At a staff meeting with the Corps of Engineers regarding this permit on April 15, 2016, Corps staff expressed the opinion that the increased rail traffic of this project would be an indirect effect of this project. However, the Corps also did not know whether they could deny a permit if the indirect effects of the project had more than a de minimus impact on tribal treaty rights. This is a critical issue. The CTUIR believes that any impact by Corps authorized projects on treaty rights is unacceptable. Further, whether the impacts of this project are direct or indirect, the results will increase rail traffic and that will affect tribal fishers. The CTUIR would like a formal response to the question of whether or not the increased rail traffic and the threats that increase pose to tribal fishers and potential impacts on Treaty rights are direct or indirect effects of this project?

**Project elements have changed.**

UPRR has proposed the transfer of 2.82 acres of land from the Oregon Parks and Recreation Commission (OPRC) on September 23, 2015 in order to construct the second mainline construction.[4] On April 27, 2016, the OPRC unanimously rejected the proposal by UPRR to secure the lands from OPRC for the expansion. This denial will affect the project proposal. Since the project can no longer as designed, how will the Corps address mid-review changes?

**The project is currently under county review.**

Finally, the Wasco County Planning Commission is currently reviewing the UPRR application under county rules that implement the Columbia River Gorge National Scenic Area Act (Scenic Area Act). Until this use is authorized under the county review process, with all limitations and conditions, Corps review of the project under a Nationwide permit is premature. The Scenic Area Act is federal law, and county ordinances implementing that law are federal in nature. Therefore limitations on state and local authority over railroads are inapplicable to county actions under the Scenic Area Act.

**Conclusion:**

Until these questions are answered, it remains unclear whether the Corps is willing or able to address treaty impacts of this project. Please provide the answers to these questions to Brent Hall, Tribal Attorney at 541-429-7200.

We look forward to consulting with the Corps on this issue further to address potential impacts to treaty rights.

Sincerely,

Jeremy Wolf, Chair
Fish and Wildlife Commission
Confederated Tribes of the Umatilla Indian Reservation

Cc: Wasco County
Yakama Nation Fish and Wildlife Committee
Warm Springs Fish and Wildlife Committee
Nez Perce Tribe Fish and Wildlife Committee
Paul Lumley, Executive Director, CRTIFC

[4] http://www.oregon.gov/oprd/Documents/Commission/2016.4-Salem/April6.pdf

**DEPARTMENT OF THE ARMY**
CORPS OF ENGINEERS, PORTLAND DISTRICT
P.O. BOX 2946
PORTLAND, OREGON 97208-2946

April 25, 2016

Regulatory Branch
Corps No.: NWP-2014-364

The Honorable Gary Burke
Chair, Board of Trustees
Confederated Tribes of the Umatilla Indian Reservation
46411 Timine Way
Pendleton, OR 97801

Dear Chairman Burke:

This letter is in regard to the U.S. Army Corps of Engineers' (Corps) permit evaluation of the proposed Union Pacific Railroad (UPRR) second mainline project. The project would consist of creating a 5.37-mile long second mainline track to parallel the existing track in Mosier, Wasco County, Oregon (Enclosure 1). The Corps has a responsibility to ensure any permit we issue does not impermissibly interfere with Tribal treaty-reserved rights and complies with Section 106 of the National Historic Preservation Act. As such, the Corps has been working with your staff to better understand how this proposal may affect cultural resources and/or Tribal treaty rights.

On October 22, 2015, my staff received an email containing comments from Ms. Catherine Dickson of your Cultural Resource Protection Program. Among those comments was a request for the Corps to identify access locations across the railroad tracks within the project area for potential use by tribal members exercising reserved treaty rights. In response, we evaluated the 5.37-mile project area and determined that access to the river would necessitate crossing the existing and proposed parallel tracks in the eastern-most two miles of the project area, where the tracks are north of Interstate 84. In the remaining western portion of this project area, the tracks are south of Interstate 84 in the remaining western portion, so it is unclear that access to the river would necessitate crossing the tracks in this portion of the project area. After coordination with UPRR, we were informed that there are no approved at-grade crossings of the tracks within the eastern two mile segment. On February 8, 2016, the Corps provided responses to Ms. Dickson's comments and noted that there are no approved access crossings within the project area. We then requested that CTUIR provide the locations of any known crossings that are regularly used by Tribal members for exercising treaty rights. Since that time, no specific information has been provided by CTUIR regarding treaty fishing locations and/or access points, although our continued staff-level discussions indicate the Tribe still believes the proposed project may affect treaty reserved rights.

It is not clear whether or how the construction of this project would have the potential to impact CTUIR's Tribal treaty rights. The Corps requests additional specific information in an effort to better understand and document how potential impacts within the Corps' control and responsibility would adversely impact Tribal treaty rights. Please provide affidavits or declarations from any Tribal fishers, which should address, but is not limited to, the following information:

- Specific location(s) of where fishing occurs in the project area.
- How and where the fishing site(s) are accessed.
- The frequency and general timing of past and current fishing use in the project area.
- The target species and type(s) of fishing methods employed in the project area.
- The physical characteristics that contribute to the presence of the fishery in the project area.
- How the proposed project would impact the Tribe's access to fishing area(s) or fishing activities in the project area.
- Drawing(s) and/or map(s) showing the location of the fishing site(s) and routes to access the fishing site(s) in the project area.

This information, along with maps or any other supportive documentation, is necessary for us to fully consider the impact of the proposed action on Tribal treaty rights. This information will be included in the Corps' administrative record and will be used to assess whether the proposal may impermissibly interfere (more than *de minimis*) treaty reserved rights; specifically, whether the proposal will interfere with access to or eliminate a portion of usual and accustomed fishing sites within the project area. If the CTUIR does not intend to provide additional information, please advise me in writing.

In the October 22, 2015 e-mail, Ms. Dickson also raised concerns about cultural resources as part of the Section 106 process. We sent follow up information to Ms. Dickson on April 14, 2016. Based on our analysis thus far, the Corps still believes this project will have "No Adverse Effect" to historic properties. If the CTUIR has further questions or would like to formally disagree with that determination, please include that in any response.

Please provide a response including any affidavits and/or supporting information you would like considered within 30 days of the date of this letter so that we can proceed with the evaluation of this permit request. We must adhere to our commitment to public service to make fair, reasonable, and timely permit decisions.

The Corps will honor and meet our federal trust responsibility and will engage with the CTUIR in timely and meaningful consultations on treaty rights and other aspects of our permit evaluation. I remain committed to conducting a thorough review of the proposal within the scope of the Corps' regulatory authority. Courtesy copies of this letter will be provided to your staff (Ms. Catherine Dickson, Mr. Audie Huber and Mr. Brent Hall).

Please feel free to contact me should you have questions or concerns, or have a member of your staff contact Mr. Peter Olmstead of my staff at (541) 962-0401 or Ms. Misty Latcu of my Office of Counsel at (503) 808-4527.

Sincerely,

Shawn H. Zinszer
Chief, Regulatory Branch

Copy Furnished:

Confederated Tribes of the Umatilla Indian Reservation (C. Dickson, A. Huber and B. Hall)

Angie Brewer <angieb@co.wasco.or.us>

# RE: Treaty Rights coordination - UPRR project

1 message

**Audie Huber** <AudieHuber@ctuir.org> Wed, Apr 6, 2016 at 9:05 AM
To: Angie Brewer <angieb@co.wasco.or.us>
Cc: "Dryden, Margaret L -FS" <mdryden@fs.fed.us>

Strikes is probably not the best term. Collisions might be a better term. I don't know if there are areas that will be more significantly impacted, such as around Celilo. Celilo will be impacted by more trains that are stopped. It is hard to quantify the impact when the impacts will be systemic. How much will traffic increase is based on an approximation of the railroad, and in reality will be based on the number of customers, which fluctuates. There is no upper limit to the number of trains, the only limit is the physical carrying capacity of the tracks and the logistics of getting east and westbound trains around each other. Tribal fishers need to get to the river, and for the bulk of the real estate, the railroad tracks are in the way. Thanks.

A

**From:** Angie Brewer [mailto:angieb@co.wasco.or.us]
**Sent:** Wednesday, April 06, 2016 8:44 AM
**To:** Audie Huber
**Cc:** Dryden, Margaret L -FS
**Subject:** Treaty Rights coordination - UPRR project

Hi Audie,

Thanks again for your time this morning - it was great to talk with you. If you'd like to review the notice and application materials again, they are online here: http://co.wasco.or.us/planning/UPRR.html.

Please tell me if I've misunderstood, but my key take-aways from our discussion are that in the Tribe's perspective: (1) the project appears to increase the net rail traffic and may increase the speed of moving trains - which would increase the likelihood of tribal fishermen "strikes" on the tracks as they cross at informal crossings; (2) impacts would be more largely felt at fishing sites upriver from the actual development, where there are more known tribal fishing access sites, particularly near Celilo Village; and (3) any recreation mitigation the includes new waterfront access should be evaluated for treaty rights impacts. Let me know if I missed anything.

Formal comment is optional, but I would encourage you to provide any feedback you would like to see incorporated into Staff's recommendation the Planning Commission - which will be heard May 3, 2016 at 3pm at the Discovery Center in The Dalles. I look forward to seeing your USACE comments, when they are available. Please call me if anything else comes up or you have additional concerns.

Thanks again and have a wonderful afternoon.

Angie

**Angie Brewer, AICP**
Planning Director
Wasco County Planning Department
(541) 506-2566 direct / (541) 506-2560 main
www.co.wasco.or.us/planning/

PLASAR-15-01-0004 UPRR

# Comments from Gorge Specific Entities

- **Columbia River Gorge Commission**
- **USFS Columbia River Gorge National Scenic Area Office**
- **Friends of the Columbia River Gorge**

COLUMBIA RIVER
GORGE COMMISSION
EST. 1986

April 11, 2016

Angie Brewer, Planning Director
Wasco County Planning and Development
2705 East Second Street
The Dalles, OR 97058

Subject: National Scenic Area Land Use Permit #PLASAR-15-01-004

Dear Ms. Brewer,

Thank you for the opportunity to review the above referenced application submitted by the Union Pacific Railroad. In the spirit of working together to ensure sensitive resource protection, recreation and economic resource enhancement and consistency with the Management Plan for the Columbia River Gorge National Scenic Area, we would like to provide the follow comments.

The application seeks approval of the expansion of the Union Pacific Railroad pursuant to Wasco County Code Chapter 2, Section 2.050(B)(2), Chapter 14 – Scenic Area Review, and other provisions in the Wasco County LUDO. According to the application materials, the proposed development considered by this review is for 4.05 mile section of additional track next to the main track along the existing Portland Subdivision between approximately MP 67.0 and 72.43. It consists of adding a second line to the north of the mainline track. The application also includes five new equipment shelters, installation of drainage structures, a retaining wall, new lighting and signage, wireless communication poles, modification of existing utilities, temporary landing zones for construction, construction of temporary and permanent access roads; and a property line adjustment and off-site wetland mitigation.

The proposed development must comply with all the applicable land use and resource protection guidelines in the Wasco County's National Scenic Land Use Ordinance. There are several guidelines that deserve particular attention.

**Land Use** - The proposed development is located within the National Scenic Area in the Special Management Area (SMA) Agriculture; General Management Area (GMA) Large Scale and Small Scale Agriculture Zone, Special Agriculture Zone, SMA and GMA Open Space and SMA Public Recreation.

Large Scale Agricultural Zone under Miscellaneous Use 20. Utility Facilities and railroads allows when necessary for public service upon showing that: (GMA and 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.

Findings will need to show that the proposal complies with these standards. Large-scale linear development such as railroads, highways, communication and utility facilities often traverse multiple land use designations. To review a linear feature in multiple designations, the implementing Scenic Authority must: first, describe the proposed use in its entirety; second, look to the uses listed in each of the affected land use designations; and third, make findings to demonstrate consistency with the intent of the allowed use, the provisions that protect scenic, natural, cultural, recreation resources, and treaty rights.

In the Wasco County NSA Ordinance Chapter 3.180 "OS" Open Space Zone (GMA & SMA) there are some very specific requirements for both 3) Underground utility facilities and 4) Above ground and overhead utility facilities. Special attention will need to be considered by Wasco County Planning and Union Pacific to address this issue.

**Scenic Resources**: According to Gorge Commission inventories, the location of the proposed development is required to meet the scenic resource standard of visually subordinate and/or not visually evident depending on the Land Use Designation. With respect to Key Viewing Areas (KVAs), the railroad expansion is topographically visible from several key viewing areas and is in the foreground of two key viewing areas. The application shows how points of the railroad expansion may be visible from specific points at key viewing areas, in part relying on vegetation to determine visibility. The starting point for analysis, however, is whether the proposed expansion would be topographically visible as seen from key viewing areas. The final decision must include findings that explain how the proposed development would be consistent with key viewing area standards and requirements. Conditions of approval should be included in the consistency review decision to ensure that all elements of the proposed development meet the scenic resources standard to the maximum extent practicable. Possible conditions could include tinting the aggregate materials used for any proposed bridges and any fencing with dark earth-tone colors, requiring the retention of existing screening vegetation, requiring new landscaping with native trees to screen the development, or other solutions that might be deemed appropriate for the site and site conditions.

It is unclear whether the proposed grading retains the existing topography and minimizes grading to the maximum extent practicable. Because the development is on land visible from key viewing areas, the building materials for the five small accessory buildings must have low or no reflectivity. In addition to siting considerations, exterior building materials and colors will be important factors to ensure the development is visually subordinate from key viewing areas, particularly those located to the north. Union Pacific must consider 'siting' the small buildings on the south side of the track as it might provide a greater topographical relief.

**Sensitive Plant Species**

Wasco County NSA Ordinance Chapter 14.600 contains the standards for projects in the GMA that may affect sensitive plant resources. The first step is for the County to determine whether the project is proposed within 1,000 feet of a sensitive plant species.

This includes the following plant species:

- species endemic to the Columbia River Gorge and vicinity
- species listed as endangered or threatened by federal or state authorities, including the Oregon Natural Heritage Program.

If the proposed project is within 1,000 feet of any such species, the next step is for the applicant to prepare a more detailed site plan map at a scale of at least one inch equals 100 feet (1:1,200). The County must transmit the more detailed map to the Oregon Natural Heritage Program, which will review the application to determine if the project could affect sensitive plants. The applicant must identify the precise location of the affected plants and must delineate a 200-foot buffer zone to protect these plants. Buffer zones must be

maintained in an undisturbed, natural condition. Due to the area and extent of ground disturbing activity the applicant will need to clearly address by identification and mitigation the Native Plants that will be impacted by such disturbances according to Chapter 14 - D. Rare Plants.

**Scenic Travel Corridors**

Chapter 14.300, The Historic Columbia River Highway (Highway 30) and Interstate 84 (I-84) are designated as Scenic Travel Corridors, and development along a Scenic Travel Corridor must be set back at least 100' from the edge of pavement of the Scenic Travel Corridor roadway.

**Water Resources**

Chapter 14.610, Natural Resources – (SMA and GMA) contains the standards for projects that may affect streams, ponds, lakes, wetlands, or other riparian areas. If one or more of these resources is present on or adjacent to the subject parcel, then the applicant must determine the exact location of the water resource boundary and the County must verify the accuracy of the applicant's determination. One area of concern is the location of the offsite wetland mitigation and whether it satisfies the intent of the mitigation.

**Sensitive Wildlife Resources**

Chapter 14 – 5 contains the standards for projects in the (SMA and GMA) that may affect sensitive wildlife resources. The first step is for the Commission to determine whether the project is proposed within 1,000 feet of a sensitive wildlife area or site. If the proposed project is within 1,000 feet of one of these areas, the County must transmit the site map to the Oregon Department of Fish and Wildlife, which will review the application to determine the precise locations of wildlife habitat and activities, as well as potential impacts to wildlife areas or sites.

**Natural Resources**

In any case, no ground disturbance, including grading, landscaping, and structures, can occur in the required 100 foot setback as measured from the normal pool elevation of the Columbia River, unless such development is consistent with the requirements of Chapter 14.60. County staff will want to ensure that there are no disturbances within 100 ft. of the Columbia River. The proposed retaining wall described as basalt rock façade must meet the requirements of Wasco County as far as design, application, and color. The retaining wall appears to attempt to replicate a natural "cliff face". It will be helpful if the proposed size, scale and design details have findings that explain the intent of retaining wall specifications by a professional engineer.

**Cultural**

The applicant notes that the project will impact a portion of a recorded archaeological resource site, but does not address the National Scenic Area criteria for protection of archaeological resources—there is no evaluation of significance, assessment of effect or mitigation plan as required for the National Scenic Area. You should contact Marge Dryden at the U.S. Forest Service Office in Hood River for assistance with complying with the archaeological resource requirements of the National Scenic Area. Significant Cultural Resource
If a cultural resource is identified, it must be evaluated for significance.

**Treaty Rights**

The applicant should provide information as to whether the proposal will create additional impediment to tribal fishing. Consider under Chapter 14.800 Indian Tribal Rights and Consultation (SMA and GMA) and if the project where it intersects with the Parks and Rec. proposal for recreation river access (and whether increased recreation) interferes with tribal fishing.

**Recreation**

The applicant should provide information to address Oregon Parks and Recreation Department's interest to develop recreational access across the UPPR tracks to connect visitors to the Columbia River. According to Chapter 14.710 B, "New Developments and Land Uses shall not displace existing recreational use." Wasco

County should evaluate this with Oregon Parks and Recreation Department to ensure consistency with this standard.

**Anticipated use**

The applicant should provide information to describe access points and estimate the number of users to inform this finding and requirement. The Scenic Area consistency review must assess the source of transportation uses (nearby trailheads, parks, urban areas and urban area "hubs"), evaluate the level of anticipated use, and determine whether additional management practices will be necessary to ensure consistency with this intensity requirement.

**Signage**

All new signage must be consistent with the Columbia River Gorge National Scenic Area Graphic Signing System, as specified by the Management Plan.

**Cumulative Effects**

The Management Plan requires all new development and land uses, changes to existing development and changes to the use of existing development to be evaluated for impacts to scenic, natural, cultural, and recreation resources, including an assessment of cumulative effects. The consistency review decision should ensure that the resource protection requirements are met, and that protected resources are not adversely affected. The proposed 4.05 mile railroad extension is part of a larger, linear feature that is already one of the Columbia River Gorge National Scenic Area's most significant infrastructure developments. In your analysis and decision, please provide cumulative effect findings that acknowledge the regional impacts of the long-term project goals of a complete upgrade to the Railroad from one end of the Gorge to other, linking Gorge communities along the way.

As always, thank you for the opportunity to provide comment. Please do not hesitate to contact me with any questions or concerns about these comments. I can be reached at (509) 493-3323 extension 232 or by email at katie.skakel@gorgecommission.org.

Sincerely,

Katie Skakel
Planner

USDA United States Department of Agriculture
Forest Service
Columbia River Gorge National Scenic Area
902 Wasco Avenue Suite 200
Hood River, OR 97031
541-308-1700
FAX: 541-386-1916

**File Code:** 1900
**Date:** May 3, 2016

RECEIVED
MAY 10 2016

Angie Brewer
Planning Director
Wasco County Planning Department
2705 East Second St.
The Dalles, OR 97058

Dear Angie,

Thank you for the opportunity to comment on the development application submitted by Union Pacific Railroad (File number PLASAR-15-01-004). The Columbia River Gorge National Scenic Area-U.S. Forest Service is the federal entity charged with implementing the Management Plan for the Columbia River Gorge National Scenic Area (CRGNSA). We are pleased to work cooperatively with Wasco County to ensure that proposed developments within the CRGNSA are consistent with the Management Plan and with the purposes of the National Scenic Area Act.

In the application material, Union Pacific Railroad (UPRR) refers to this proposal as the "UPRR Second Mainline Track Project." The overall project would 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. The entire project lies within the Columbia River Gorge National Scenic Area. Except for those portions within designated urban areas, the project is required to comply with Wasco County's National Scenic Area Land Use Ordinance. The County's Scenic Area ordinance reflects the standards and guidelines found in the CRGNSA Management Plan. These comments reference the CRGNSA Management Plan rather than the Wasco County Ordinance.

**Land Use Designations:**

The proposed UPRR Second Mainline Track Project crosses several different Land Use Designations (LUDs): General Management Area (GMA) Large Scale Agriculture; GMA Small Scale Agriculture; Special Management Area (SMA) Agriculture; GMA Open Space; SMA Open Space, and SMA Public Recreation. The proposal also crosses a range of different Landscape Settings, is topographically visible from a number of KVAs, and intersects numerous known sensitive wildlife and plant areas. This is a complex project that requires careful, detailed review to ensure that all of the relevant guidelines are met.

On lands designated as GMA or SMA Large or Small Scale Agriculture, utility facilities and railroads necessary for public service are allowed upon a showing that (1) there is no practicable alternative location with less adverse effect on agricultural or forest lands, and (2) the size is the minimum necessary to provide the service. In the Agriculture LUDs, the proposal must be shown to be consistent with these two conditions.

**Scenic Resources:**

The proposed project is topographically visible from several key viewing areas. 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 (KVAs). The project must meet the relevant scenic standard – either visually subordinate or visually not evident – for each landscape setting it crosses. For instance, in the Oak Woodlands landscape setting in SMA Open Space, the County's findings must conclude that the new development is not visually evident from any of the KVAs from which it is topographically visible. The design of the proposed retaining wall, signal cabins, and all other structures must be considered in the context of the required scenic standards. Conditions may be placed on the project to ensure that it meets the scenic standards.

**Natural Resources:**

Sensitive wildlife and plant areas and sites must be protected from adverse effects from proposed uses. 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. This proposal includes activities and development in or near numerous sensitive wildlife and plant areas and sites and their associated buffers.

The proposal includes several staging areas. The largest of these staging areas is described in the application narrative as "a 6.62-acre site near project MP 71.53." Construction of this staging area would require removal of the trees on the site and grading to level the sloped terrain. This site is located in SMA Open Space, in an area of Oregon white oak woodland and mixed coniferous-deciduous habitat that contains a notable Oregon white oak component. Oregon white oak woodlands are considered a Priority Habitat in the CRGNSA Management Plan. Priority habitats are considered sensitive wildlife areas. The proposed staging area is also topographically visible from several KVAs.

Because the project as proposed would potentially result in adverse effects to sensitive wildlife and plants and their buffers, a practicable alternative test must be conducted. Avoiding adverse effects is preferred to mitigation. Mitigation is not a substitute for avoidance if a practicable alternative is available. If the County determines that there are no practicable alternatives to the uses and development proposed in and near these areas, a complete mitigation plan must be submitted to offset the adverse effects by deliberate restoration and enhancement. Impacts to sensitive wildlife and plant sites and areas and their buffers may require the establishment of off-site replacement or enhancement areas, as close to the original sites as possible.

The mitigation plan submitted by UPRR relies on revegetation of disturbed sites rather than proposing deliberate restoration and enhancement to offset project impacts. Revegetation of disturbed sites is separately required by other Management Plan guidelines. County staff must determine whether there are practicable alternatives for the components of the project that impact sensitive sites and buffers, including alternative locations for the proposed staging areas. Any mitigation plan must sufficiently offset the impacts of the proposed uses and development.

**Cultural Resources:**

In a letter to you dated April 28, 2016, Forest Service Archaeologist Marge Dryden confirmed that she reviewed the reports provided by the project consultant CH2M Hill and found them to comply with the cultural resource provisions in the CRGNSA Management Plan and the Wasco County Ordinance. She concurred with the "no adverse effect" findings of the Army Corps of Engineers (ACE) and the Oregon State Historic Preservation Office. It is our understanding that the ACE recently requested additional information from the Confederated Tribes of the Umatilla Reservation, and that Oregon State Parks (OSP) have requested that supplementary cultural resource survey/testing be conducted on OSP land. This request may provide additional information about how the proposal may affect cultural resources or treaty rights. Should either of these requests result in new information or cultural resource concerns, Ms. Dryden will review her findings again. The Forest Service supports Ms. Dryden's statement.

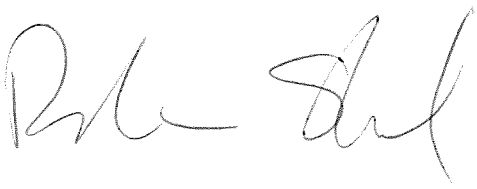
**Recreation Resources:**

The proposed UPRR Second Mainline Track Project passes near or through several established recreation sites, including Mayer and Memaloose State Parks. The County's review of the proposal must consider whether these and other recreation sites would be protected from adjacent uses that would detract from their use and enjoyment. The project may result in an increase in train noise, speed, and/or frequency that could impact the public's enjoyment of recreation sites adjacent to the tracks. Project-related activities may affect public rail crossings or disrupt public access to the river during construction.

The proposal includes the permanent acquisition by UPRR of several acres of state land in Memaloose State Park, adjacent to the existing UPRR right-of-way. This land is within the SMA Public Recreation LUD. The potential effects of this acquisition to public recreation must be taken into consideration in the County's findings.

The Forest Service appreciates the opportunity to comment on the UPRR Second Mainline Track Project. Please feel free to contact me with any questions about these comments, or for technical assistance from Forest Service resource specialists. You can reach me at 541-308-1716, or by email at *rshoal@fs.fed.us*.

Sincerely,



ROBIN SHOAL
Natural Resources and Planning Staff Officer

# FRIENDS OF THE COLUMBIA GORGE

*VIA E-MAIL*

August 16, 2016

Angie Brewer, Planning Director
Wasco County Department of Planning and Economic Development
2705 East Second Street
The Dalles, Oregon 97058
angieb@co.wasco.or.us

**Re: Union Pacific Railroad Mosier Area Expansion – PLASAR-15-01-0004**

Dear Ms. Brewer:

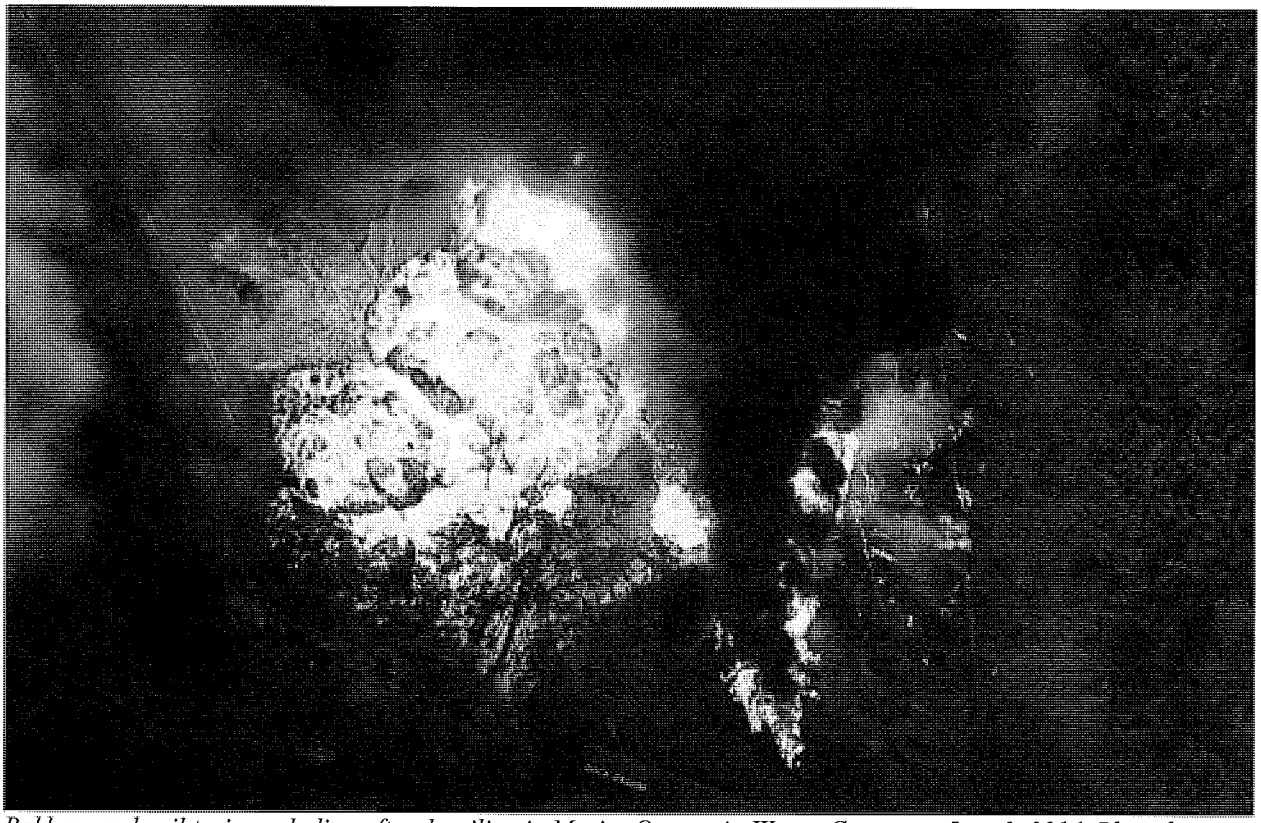
Friends of the Columbia Gorge, Columbia Riverkeeper, The Lands Council, Oregon Physicians for Social Responsibility, and Stand (collectively "Friends") have reviewed the above-referenced application and submit these comments to augment our initial comments of April 11, 2016 and our comments of June 7, 2016.

- Friends of the Columbia Gorge is a non-profit organization with approximately 6,000 members dedicated to protecting and enhancing the resources of the Columbia River Gorge. Our membership includes hundreds of citizens who reside in the six counties within the Columbia River Gorge National Scenic Area (the NSA).
- Oregon Physicians for Social Responsibility, guided by the values and expertise of medicine and public health, works to protect human life from the gravest threats to health and survival by striving to protect our climate and advance environmental health. The organization is comprised of approximately 2,500 health professionals and public health advocates working collaboratively to protect the health of all Oregonians.
- Columbia Riverkeeper is a non-profit organization with over 10,000 members, including many members that live, work, and recreate near the proposed project area. Columbia Riverkeeper's mission is to protect and restore the water quality of the Columbia River and all life connected to it, from the headwaters to the Pacific Ocean.
- The Lands Council, with a membership of 1,500, has protected thousands of acres of public land and, in the process, worked to preserve the forests, water, and wildlife we all depend on for life.
- Stand is an advocacy organization made up of people challenging governments and corporations to make the health of our communities, our environment and our climate the top

priority. Stand works to protect the forests and the stable climate required to keep our planet – and us – thriving.

## I. The Mosier Derailment

Of course, the elephant in the room is the Union Pacific railroad (UPRR) derailment in Mosier. On June 3, 2016, a Union Pacific train carrying highly flammable Bakken crude oil derailed in the community of Mosier.[1] When Bakken crude oil trains derail they inevitably break open, leak, and ignite. That is exactly what happened in Mosier even though reinforced railroad cars were in use. As a result of the derailment, one tank car was punctured, the volatile oil ignited, and three additional tank cars caught on fire.[2] The Federal Railroad Administration (FRA) determined on June 23, 2016 that "Union Pacific's failure to maintain its track and track equipment resulted in the derailment."[3] This was not an accident, but negligence on the part of Union Pacific.

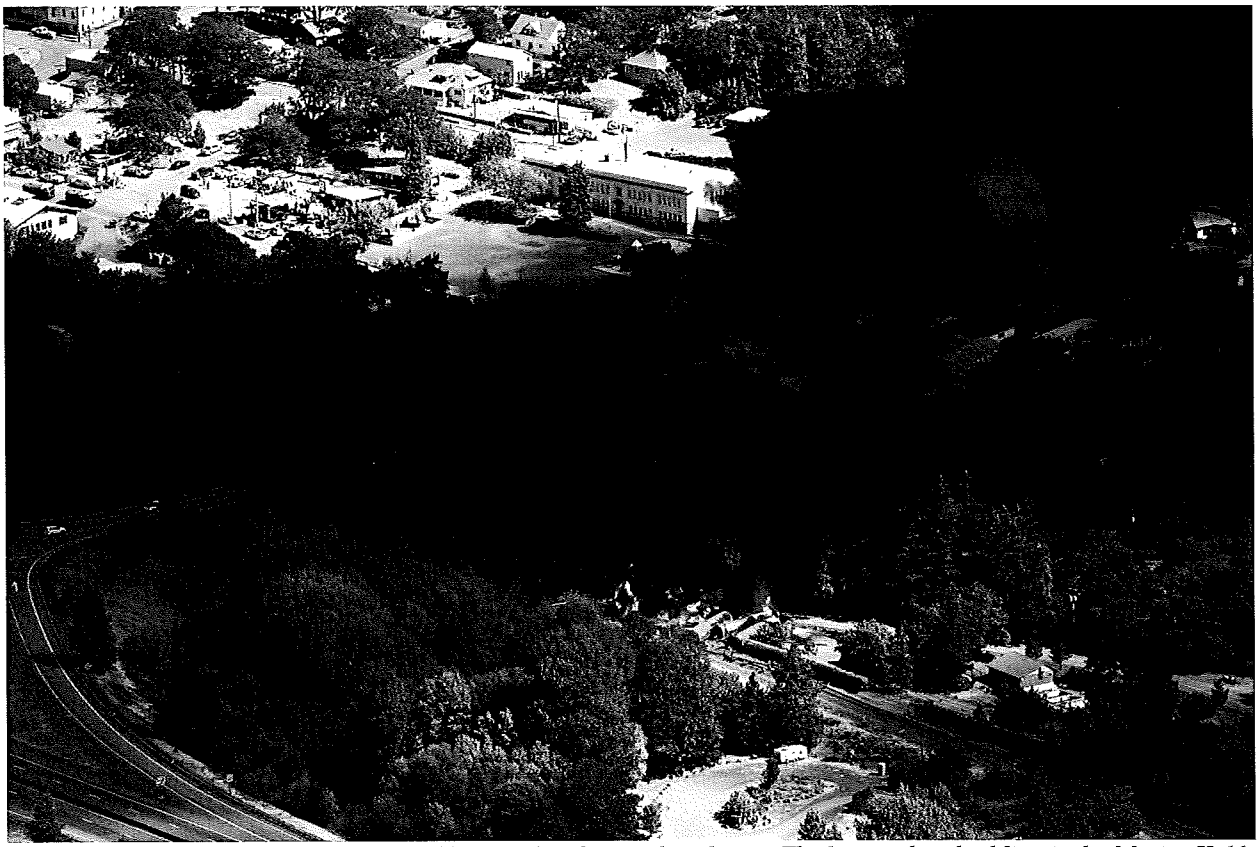


*Bakken crude oil train exploding after derailing in Mosier Oregon in Wasco County on June 3, 2016. Photo by KGW Television.*

Union Pacific has about 32 miles of main line track through Wasco County. UPRR says that it runs 25-30 trains per day on the tracks.[4] Over a year, that is about 292,000 to 350,000 total rail miles traveled per year by UP trains through the County. From 2006-2015, UP averaged 3.3 accidents per 1 million miles traveled.[5] Therefore, we should expect about one accident per year

[1] Federal Railroad Administration, PRELIMINARY FACTUAL FINDINGS REPORT, Derailment of Union Pacific's Unit Crude Oil Train ONETU 02 Transporting Bakken Crude Oil for U.S. Oil, Mosier, Oregon (June 23, 2016).
[2] *Id.*
[3] *Id.*
[4] Union Pacific To Enhance Infrastructure in Mosier, Fact sheet distributed by Union Pacific at March, 2016 meeting in Mosier, OR.
[5] http://safetydata.fra.dot.gov/OfficeofSafety/publicsite/Query/rrchart.aspx

of a Union Pacific train in Wasco County at current traffic levels. Oil trains, being heavier and carrying a commodity that tends to slosh around when the train speeds up or slows down, tend to have greater than average accident incidence.[6] Their weight also can damage tracks.[7] Oil trains are trouble on even the best maintained tracks.



*Explosive fire in Mosier caused by a Bakken crude oil train derailment. The large white building is the Mosier K-12 school that was filled with children at the time of the crash. The building would have been "incinerated" if the normally prevailing winds were blowing on that day according to Mosier Fire Chief Ron Appleton. Photo by Paloma Ayala.*

Unfortunately, Union Pacific perennially has poor accident statistics when compared with its peers. For example, in 2015 UPRR experienced 3.17 accidents per 1 million train miles travelled.[8] The 2015 industry average was 2.59 accidents per 1 million train miles travelled.[9] Additionally, a higher percentage of Union Pacific's 2015 accidents resulted in derailments and significantly more of them were due to faulty tracks, signals, or other equipment maintained by Union Pacific.[10] The industry average of accidents caused by tracks, signals, or equipment is 44% and it is 56% for Union Pacific.[11] This demonstrates the pattern of inadequate maintenance done by UP. While no railroad is acceptably safe, Union Pacific truly redefines "railroad safety."

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[6] "Petroleum crude oil unit trains with heavily loaded tank cars will tend to impart higher-than-usual forces to the track infrastructure during their operation. These higher forces expose any weaknesses that may be present in the track structure, making the track more susceptible to failure." Transportation Safety Board of Canada, RAIL SAFETY ADVISORY LETTER – 04/15, *available at* http://www.tsb.gc.ca/eng/medias-media/sur-safe/letter/rail/2015/r15h0021/r15h0021-617-04-15.asp

[7] *Id.*

[8] http://safetydata.fra.dot.gov/OfficeofSafety/publicsite/query/AccidentByRegionStateCounty.aspx

[9] *Id.*

[10] *Id.*

[11] *Id.*

In an attempt to make Union Pacific and other railroads safer, the FRA has been trying for years to pass rules to improve railroad safety.[12] Union Pacific, however, has been aggressive in lobbying the FRA to defer safety improvements and has pushed Congress to overturn FRA safety rulemaking.[13] Union Pacific has gone as far as threatening to sue the FRA over critical safety improvements.[14] Simply put, UP is more concerned about profits than safety. This focus may well have caused UP's negligence in maintaining its tracks to progress to the explosion and fire in Mosier.

The facts are simple:

- The Mosier derailment was caused by Union Pacific's negligence in maintaining its tracks.[15]
- This is part of a pattern – Union Pacific perennially has a startlingly poor safety record.[16]
- Union Pacific has done everything in its power to prevent safety improvements that would eat into its profits – which totaled $8.1 billion in 2015.[17]

At the same time, Union Pacific is proposing a project that would add more tracks on both sides of Mosier so that the railroad can run longer faster trains more frequently.[18] Instead of adding new tracks that will result in more trains and more accidents, Union Pacific needs to focus on maintaining the tracks it already has and fixing its industry poor safety record.

## II. Increase in Train Traffic

Union Pacific claimed initially that "[t]he new double track will allow [UPRR] to move 5 to 7 more trains per day through Mosier." *Union Pacific Mosier Fact Sheet.* However, in a May 6, 2016 email response to an inquiry into the number of additional daily trains the project would allow posed by the US Army Corps of Engineers the railroad failed to back up this claim and instead changed the subject:

> Q: "What is the maximum possible increase in the number of trains per day as a result of the project? (My information shows a max of 7 trains per day)"
> A: "Train count and more importantly carloadings are driven by the global market, and Union Pacific regularly attempts to forecast this demand by commodity. This project is not tied to any forecasted increase in carloadings, rather it is designed to alleviate a major bottleneck in our system. This bottleneck causes delays regardless of the number of trains." *Email from Luke Baatz, Senior Manager, Project Design, Union Pacific Railroad to Peter Olmstead, Project Manager/Biologist, US Army Corps of Engineers.*

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[12] *See, e.g.*, http://spectrum.ieee.org/transportation/mass-transit/stop-that-train

[13] *See, e.g.*, Union Pacific Railroad Company Comments on Docket No. PHMSA 2012—0082(HM-251), *available at*, https://www.up.com/cs/groups/public/@uprr/@customers/documents/up_pdf_nativedocs/pdf_up_media_upcomment.pdf

[14] https://next.ft.com/content/05834616-0647-11e5-89c1-00144feabdc0

[15] *Id.*

[16] http://safetydata.fra.dot.gov/OfficeofSafety/publicsite/Query/rrchart.aspx

[17] *See, e.g.*, Union Pacific Railroad Company Comments on Docket No. PHMSA 2012—0082(HM-251), *available at*, https://www.up.com/cs/groups/public/@uprr/@customers/documents/up_pdf_nativedocs/pdf_up_media_upcomment.pdf; *and* http://www.up.com/media/releases/160121-4q15-results.htm.

[18] Union Pacific To Enhance Infrastructure in Mosier, Fact sheet distributed by Union Pacific at March, 2016 meeting in Mosier, OR.

The US Army Corps of Engineers asked Union Pacific about "the maximum possible increase in the number of trains per day as a result of the project." Union Pacific dodged the question entirely.

As part of our inquiry into the application submitted by Union Pacific and as a way to verify the railroad's public pronouncements that the Mosier double tracking project would not result in significantly more train traffic even though it would remove the "the single greatest operational bottleneck in [sic] entire 206-mile Subdivision,"[19] Friends of the Columbia Gorge retained railroad experts Terry Whiteside and Gerald Fauth III. Between the two of them, they have over 68 years of experience in transportation working for both rail carriers and shippers.

In their expert testimony, they conclude that the Mosier double tracking project, when coupled with the modern train signaling mentioned in the application,[20] would provide infrastructure to increase rail traffic through Mosier by 45 to 52 trains per day or around two additional trains per hour. Up until last December there had been a ban on crude oil exports from the US for the last 40 years. An end to the crude oil export ban was stuffed into the federal budget that went into effect last December. This has opened up a gold rush for firms seeking to export oil from North Dakota, Utah, and Colorado. While some of the coal and oil export terminals that have been proposed in the Pacific Northwest have been deferred or denied, there is still a considerable amount of growth expected in coal and oil exports. For example, Portland has proposed to allow an unlimited number of new petroleum terminal facilities of up to 5 million gallons (or equivalent volume) of storage to be built in the city and to allow on site growth in the ten terminal facilities that already exist in the city based upon discretionary criteria.[21]

The companies that currently have terminals in Portland have speculated that they would require 2,024,000 new barrels of storage in the year 2035 versus today[22] – about the same new capacity as the proposed Vancouver Energy (Tesoro-Savage) oil by rail export terminal. *See* Appendix I, below. Furthermore, if every facility used its land in Portland as efficiently as Chevron does today, then the current facilities could expand to 17,219,048 total barrels of petroleum storage if the current proposal was adopted. *Id.* That is equivalent to almost 8 Tesoro-Savage terminals. This, along with the proposed double tracking, would result in a massive increase in dangerous oil train traffic through Wasco County.

In fact, Mr. Whiteside and Mr. Fauth III conclude that "UP anticipates 6 to 12 additional oil trains per day and 5 to 10 export coal trains per day through Mosier, which would equal 36 to 57 trains per day or 1.50 to 2.38 trains per hour." Union Pacific's contention that the project is for mere system improvements and would only provide infrastructure for an additional 5–7 more trains per day does not stand up to greater scrutiny. Instead, this proposed project would provide

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[19] Project Narrative at 2–4.

[20] The applicant's narrative states that: "[a]ll 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." Project Narrative at 1–4. The seven 53 foot tall wooden poles and wireless signaling appurtenances are not required under federal law and apparently do not appear to be on the engineering drawings. If that is the case, these structures – and any others that do not appear with specificity – cannot be reviewed for scenic area criteria and cannot be approved as part of this application. The applicant acknowledges that "[s]pecific signage locations will be determined in the field." *Id.* Therefore, whether the signage meets scenic area criteria cannot be evaluated and the signage cannot be approved.

[21] *See* https://www.portlandoregon.gov/bps/article/586612

[22] *See* https://www.portlandoregon.gov/bps/article/582407

capacity for many more dangerous oil trains to pass through Wasco County each day and increase the expected number of train accidents per year in Wasco County.

## III. Rail Safety Impacts of Coal Trains

Mr. Whiteside and Mr. Fauth III conclude that UPRR is banking on traffic increases from oil trains as well as coal trains. Currently, the Millennium Bulk Terminals coal export facility is undergoing review in Longview, Washington. If that terminal is approved then coal trains coming from Utah and Southern Wyoming are likely to share the tracks through Wasco County with oil trains. The U.S. Surface Transportation Board declared that coal is a "pernicious ballast foulant" that destabilizes railroad tracks and leads to more accidents.[23] At least one railroad "has determined that coal dust poses a serious threat to the stability of the track structure and the operational integrity of" its railroad network.[24]

Coal dust that is emitted from train cars gets into the rock ballast that supports the railroad ties, making the track unstable and more susceptible to damage. In fact, the Burlington Northern Santa Fe railroad has attributed derailments to ballast contaminated with coal dust.[25] Additionally, coal trains are heavy and result in more damage to tracks. As illustrated by the derailment in Mosier, damaged tracks can result in derailments of oil trains. Coal trains mean even more train safety woes for Wasco County.

## IV. Air and Water Quality Impacts of Coal Trains

Increased coal train traffic would also cause an increase in dangerous air pollution in Wasco County including fugitive emissions of coal dust and diesel emissions from trains. The Columbia River Gorge National Scenic Area is already severely impaired by air pollution, especially nitrogen oxides (NOx) and particulate pollution. The Gorge now stands among the most polluted places in the country, including Pittsburgh and Los Angeles. A 2005 joint study by the U.S. Forest Service and National Park Service studied twelve federally managed areas around the West and found that the Columbia River Gorge National Scenic Area and Sequoia National Park had by far the worst "annual standard visual range[s]" of the twelve areas.[26] Similarly, a 2000 Forest Service study of air quality monitoring data from 39 federally managed "visibility protected" areas in the West found that the Scenic Area has "the highest levels of haze" and "the sixth worst visibility pollution of these areas."[27] Gorge air quality has been monitored for the last twenty years. The Forest Service has documented that visibility impairment occurs on at least 95% of the days that have been monitored.[28]

Deposition of pollutants also has profound negative impacts on ecosystems. Studies demonstrate that in the Western United States, some aquatic and terrestrial plant and microbial communities

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[23] *See* http://www.troutmansandersenergyreport.com/wp-content/uploads/2011/03/Coal-Dust.pdf

[24] Available at http://www.bnsf.com/customers/what-can-i-ship/coal/coal-dust.html.

[25] *See* Decision, March 3, 2011, Arkansas Electric Cooperative Association—Petition for Declaratory Order, Surface Transportation Board, Docket No. FD 35305, at 7.

[26] Mark Fenn, USDA Forest Service et al., *Why federal land managers in the Northwest are concerned about nitrogen emissions*, at 10 (Dec. 2004).

[27] Arthur Carroll, USDA Forest Service, Letter to Columbia River Gorge Commission, at 3 & attach. 3 (Feb. 7, 2000).

[28] Robert Bachman, USDA Forest Service, *A summary of recent information from several sources indicating significant increases in nitrogen in the form of ammonia and ammonium nitrate in the Eastern Columbia River Gorge and the Columbia Basin*, at 2 (June 24, 2005).

are significantly altered by nitrogen deposition.[29] Metals, sulfur, and nitrogen concentrations in lichen tissue found in the Gorge are comparable to that found in lichen tissue sampled in urban areas. Nitrogen deposition rates in the Gorge are comparable to the most polluted areas in the United States.

Particulate matter pollution also threatens human health and welfare. In fact, when reviewing the National Ambient Air Quality Standards for PM2.5, the EPA found that there is no level of particulate matter pollution at which there are no human health effects. According to the EPA, fine particulate matter pollution causes a variety of adverse health effects, including premature death, heart attacks, strokes, birth defects, and asthma attacks.[30] Even low levels of PM2.5 can cause low birth weights, damage lung function, and increase risks of heart attack and premature death. Studies reviewed by EPA revealed a linear or almost linear relationship between diseases like cancer and the amount of fine particulate matter in the ambient air.[31] Consequently, particulate matter contamination has adverse health effects at any concentration.

*Photo of an open-top coal train emitting large quantities of coal dust at Columbia Hills State Park in the Columbia River Gorge National Scenic Area. Photo taken on May 22, 2015 five months after the Pasco re-spray facility became operational. Provided by Friends of the Columbia Gorge.*

[29] *See* Mark E. Fenn, et al, Ecological Effects of Nitrogen Deposition in the Western United States, BioScience Vol. 53:4, Apr. 2003, available at http://www.bioone.org/doi/abs/

[30] 71 Fed. Reg. 2620, 2627–36 (Jan. 17, 2006).

[31] *Id.*

Open-top coal trains lose huge volumes of coal dust and debris during transportation. Even after a facility designed to coat coal with sticky surfactants opened in Pasco Washington, the picture above demonstrates the occurrence of a massive coal dust emission from a coal train in the Gorge. According to Burlington Northern Santa Fe studies, between 500 lbs. and 2000 lbs. of coal can be lost in the form of dust from each rail car.[32] In other studies, as much as three percent of the coal in each car (around 3600 pounds per car) can be lost in the form of dust. A study of a West Virginia rail line found that one pound of coal per car per mile is lost from coal trains.[33] At this rate, one coal train with 120 cars traveling 85 miles through the Columbia River Gorge National Scenic Area could lose just over 10,000 pounds of coal in the Gorge. One coal train per day for 365 days is 3,650,000 lbs. per year emitted into the air and inhaled by County residents or deposited on Gorge lands and in Gorge waterways. The increase in the number of trains that can travel through Wasco County as a result of this proposal could have a direct adverse effect on the health of the County's citizens.

## V. Conclusion

Union Pacific has a very poor safety record and the June incident in Mosier was a direct result of poorly maintained tracks. Railroad experts refute UPRR's contention that the project would only allow 5–7 more trains per day through Wasco County. Many more dangerous oil trains are likely to pass through the County if this proposal is approved. Not all of those trains will pass through The Dalles and Mosier safely. Friends June 7, 2016 comments identify dozens of areas where the Union Pacific Mosier double tracking proposal does not meet legal criteria. We ask the County to deny the application on the legal grounds found within those comments.

Thank you for this opportunity to comment.

Sincerely,

Steven D. McCoy
Staff Attorney
Friends of the Columbia Gorge

Lauren Goldberg
Staff Attorney
Columbia Riverkeeper

Laura Ackerman
Organizer and Oil Policy Director
The Lands Council

Regna Merritt
Healthy Climate Program Director
Oregon Physicians for Social Responsibility

Matt Krogh
Extreme Oil Campaign Director
Stand

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[32] See Hearing, July 29, 2010, Arkansas Electric Cooperative Association—Petition for Declaratory Order, Surface Transportation Board, Docket No. FD 35305, at 42: 5-13.
[33] Simpson Weather Associates 1993. Norfolk southern rail emission study: consulting report prepared for Norfolk Southern Corporation. Charlottesville, VA.

CC: Columbia River Gorge Commission
M.G. Devereux, Deputy Director, Oregon Parks and Recreation Department
Audie Huber, Confederated Tribes of the Umatilla Indian Reservation
Carl Merkle, Confederated Tribes of the Umatilla Indian Reservation
Brent Hall, Confederated Tribes of the Umatilla Indian Reservation
Brady Kent, Confederated Tribes and Bands of the Yakama Nation
Elizabeth Sanchey, Confederated Tribes and Bands of the Yakama Nation
Dave Cummings, Nez Perce
Elmer Ward, Confederated Tribes of Warm Springs
Julie Carter, Columbia River Inter-Tribal Fish Commission
Rob Lothrop, Columbia River Inter-Tribal Fish Commission

This chart, with the original numbers taken from Figure 6 on page 14 of the City of Portland's Fossil Fuel Zoning Amendments Discussion Draft, depicts the impacts of the city's conceptual proposal. The City's proposed draft zoning amendments would also allow onsite expansions of nonconforming facilities. If every facility used its land as efficiently as Chevron currently does, then the existing facilities could expand to 17,219,048 total barrels of petroleum – even if the current proposal was adopted. If Chevron's speculative expansion is added then the total is 17,571,048 barrels.

| NW Portland Facility | Acres | Current bbls | Speculative 2035 new bbls | bbls/acre | Total bbls at 76,190/ac |
|---|---|---|---|---|---|
| Chevron Petroleum terminal | 21 | 1,600,000 | 352,000 | 76,190 | 1,600,000 |
| Kinder Morgan Willbridge Petroleum terminal | 33 | 1,551,000 | 342,000 | 57,364 | 2,514,286 |
| Arc Logistics Asphalt/crude oil | 39 | 1,466,000 | 323,000 | 45,872 | 2,971,429 |
| NuStar Petroleum terminal | 22 | 1,191,000 | 262,000 | 66,045 | 1,676,190 |
| McCall Oil Petroleum terminal | 19 | 930,000 | 205,000 | 59,737 | 1,447,619 |
| Conoco Phillips Petroleum terminal | 21 | 760,000 | 167,000 | 44,143 | 1,600,000 |
| BP West Coast Petroleum terminal | 18 | 601,500 | 132,000 | 40,750 | 1,371,429 |
| Kinder Morgan Linnton Petroleum terminal | 13 | 420,000 | 92,000 | 39,385 | 990,476 |
| Equilon/Shell Petroleum terminal | 38 | 400,000 | 88,000 | 12,842 | 2,895,238 |
| Pacific Terminal Services Petroleum terminal | 2 | 275,000 | 61,000 | 168,000 | 152,381 |
| **Total** | 226 | 9,194,500 | 2,024,000 | | 17,219,048 |

*Source: City of Portland, Bureau of Planning and Sustainability, Fossil Fuel Zoning Amendments Discussion Draft, Figure 6, available at https://www.portlandoregon.gov/bps / article/582407*

**1.11 - One Year Accident/Incident Overview - Combined**

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***ONE YEAR ACCIDENT/INCIDENT OVERVIEW BY REGION/STATE/COUNTY***
***Report Type - ' CALENDAR YEAR '***
***SELECTION: Railroad - ALL***
***All Regions***
***State - All States County - All***
***January To December, 2015***
***Reporting Level:... ALL***
****IMPORTANT: Rates calculated on National Level do not display for Region or State Geography****

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' CALENDAR YEAR '

| | | | | | |
|---|---|---|---|---|---|
| TOTAL ACCIDENTS/INCIDENTS: | 11,600 | Number of fatal accidents/incidents | 720 | 6.21% | |
| Overall frequency rate: | 15.75 | Total train miles: | 736,526,467 | | |
| Total fatalities: | 768 | Switching miles: | 91,757,614 | | |
| Total nonfatal conditions: | 8,828 | Employee hours: | 477,710,844 | | |

Total accidents/incidents is the sum of train accidents, highway-rail incidents, and other incidents.
Total accident/incident rate is the number of events times 1,000,000 divided by total train miles.

---

| | | | | | |
|---|---|---|---|---|---|
| TOTAL TRAIN ACCIDENTS: | 1,906 | Number of fatal train accidents | 6 | 0.31% | |
| Number per million train miles: | 2.59 | Collisions: | 148 | 7.76% | |
| Total fatalities: | 13 | Derailments: | 1,345 | 70.57% | |
| Total nonfatal conditions: | 539 | Other accidents: | 413 | 21.67% | |

----------Primary causes----------

| | | | | | |
|---|---|---|---|---|---|
| Human factors: | 39.40% | 751 | Track defects: | 523 | 27.44% |
| Equipment defects: | 13.69% | 261 | Signal defects: | 53 | 2.78% |
| Miscellaneous causes: | 16.68% | 318 | | | |

| | | | |
|---|---|---|---|
| Number of accidents on yard track: | 1,146 | 60.13% of all train accidents. | |
| Nbr per million yard train miles: | 12.49 | For other tracks: | 1.18 |

Train accidents represent 16.43% of all reported events.

Number of train accidents involving passenger trains 62 3.25%

Number of train accidents that resulted in a release of hazardous material 17 0.89% of total
Number of persons evacuated 6,866 Number of rail cars releasing hazmat 66

A train accident is an event involving ontrack rail equipment that results in monetary damage to the equipment and track above a certain threshold. Lading, clearing costs, environmental damage is not included.

---

HIGHWAY-RAIL

| | | | |
|---|---|---|---|
| Crossings: 209,444 | Incidents: | 2,063 | |
| Number per million train miles: | | 2.80 | |
| Total fatalities: | | 237 | |
| Total nonfatal conditions: | | 1,003 | |
| Number of fatal crossing incidents | | 210 | 10.18% |

TRESPASSING INCIDENTS(not at crossings)

| | |
|---|---|
| Frequency per million train miles: | 1.20 |
| Total fatalities: | 465 |
| Total nonfatal conditions: | 416 |

Public Crossings 129,469 With gates 46,850 Other activated crossings 21,704 Number with passive warnings 60,915
Private crossings 79,975 ***** THE COUNT OF CROSSINGS IS THE COUNT IN THE CURRENT INVENTORY *****

Highway-rail and trespassing incidents account for 91.41% of all fatalities.
Highway-rail incidents represent 17.78% of all reported events.

A highway-rail incident is any impact between a rail and a highway user at a crossing site, regardless of severity. Includes motor vehicles and other highway/roadway/sidewalk users at both public and private crossings.

---

| | | |
|---|---|---|
| OTHER INCIDENTS: | 7,631 | Number of fatal other incidents 504 6.60% of other incidents |
| Other incidents account for: | 65.78% | of all accidents/incidents |
| Total fatalities: | 518 | 9 Number to employees on duty. Trespassers 465 |
| Total nonfatal conditions: | 7,286 | 4,175 Number to employees on duty |

Other incidents include any event where that caused a death, an injury, or an occupational illness to a railroad employee. Most fatalities in this category are to trespassers.

---

| | | |
|---|---|---|
| EMPLOYEES ON DUTY CASES: | 4,343 | Frequency per 200,000 hours worked: 1.82 |
| Total fatalities: | 11 | 1.43% of all fatalities |
| Total nonfatal conditions: | 4,332 | 49.07% of all nonfatal cases |

---

Passengers carried: 700,110,486 Passenger miles: 21,777,088,518
Total passenger deaths 17. Total passengers injured 1605.
The frequency of passenger cases per 100,000,000 passenger miles is 7.45 Passenger cases include all circumstances; including getting off/on standing trains, stumbling aboard trains, assaults, train accidents, crossing incidents, etc.

A passenger mile is the movement of a passenger one mile.

**1.11 - One Year Accident/Incident Overview - Combined**

Back to Query Page Print Version

***ONE YEAR ACCIDENT/INCIDENT OVERVIEW BY REGION/STATE/COUNTY***
***Report Type - ' CALENDAR YEAR '***
***SELECTION: Railroad - Union Pacific RR Co. [UP ]***
***All Regions***
***State - All States County - All***
***January To December, 2015***
***Reporting Level:... INDIVIDUAL***
****IMPORTANT: Rates calculated on National Level do not display for Region or State Geography****

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' CALENDAR YEAR '

| | | | | | |
|---|---|---|---|---|---|
| TOTAL ACCIDENTS/INCIDENTS: | 1,668 | Number of fatal accidents/incidents | 138 | 8.27% | |
| Overall frequency rate: | 10.32 | Total train miles: | 161,620,754 | | |
| Total fatalities: | 155 | Switching miles: | 21,752,304 | | |
| Total nonfatal conditions: | 886 | Employee hours: | 93,094,412 | | |

Total accidents/incidents is the sum of train accidents, highway-rail incidents, and other incidents.
Total accident/incident rate is the number of events times 1,000,000 divided by total train miles.

---

| | | | | | |
|---|---|---|---|---|---|
| TOTAL TRAIN ACCIDENTS: | 513 | Number of fatal train accidents | 1 | 0.19% | |
| Number per million train miles: | 3.17 | Collisions: | 18 | 3.51% | |
| Total fatalities: | 0 | Derailments: | 381 | 74.27% | |
| Total nonfatal conditions: | 18 | Other accidents: | 114 | 22.22% | |

----------Primary causes----------

| | | | | | |
|---|---|---|---|---|---|
| Human factors: | 29.04% | 149 | Track defects: | 182 | 35.48% |
| Equipment defects: | 17.74% | 91 | Signal defects: | 15 | 2.92% |
| Miscellaneous causes: | 14.81% | 76 | | | |

| | | | |
|---|---|---|---|
| Number of accidents on yard track: | 302 | 58.87% of all train accidents. | |
| Nbr per million yard train miles: | 13.88 | For other tracks: | 1.51 |

Train accidents represent 30.76% of all reported events.

Number of train accidents involving passenger trains 0 0 %

Number of train accidents that resulted in a release of hazardous material 0 0.00% of total
Number of persons evacuated 121 Number of rail cars releasing hazmat 0

A train accident is an event involving ontrack rail equipment that results in monetary damage to the equipment and track above a certain threshold. Lading, clearing costs, environmental damage is not included.

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| HIGHWAY-RAIL | | | TRESPASSING INCIDENTS(not at crossings) | |
|---|---|---|---|---|
| Crossings: 30,413 | Incidents: | 366 | | |
| Number per million train miles: | 2.26 | Frequency per million train miles: | 1.03 | |
| Total fatalities: | 43 | Total fatalities: | 77 | |
| Total nonfatal conditions: | 132 | Total nonfatal conditions: | 90 | |
| Number of fatal crossing incidents | 38 | 10.38% | | |

Public Crossings 20,288 With gates 9,200 Other activated crossings 2,709 Number with passive warnings 8,379
Private crossings 10,125 ***** THE COUNT OF CROSSINGS IS THE COUNT IN THE CURRENT INVENTORY *****

Highway-rail and trespassing incidents account for 77.42% of all fatalities.
Highway-rail incidents represent 21.94% of all reported events.

A highway-rail incident is any impact between a rail and a highway user at a crossing site, regardless of severity. Includes motor vehicles and other highway/roadway/sidewalk users at both public and private crossings.

---

| | | |
|---|---|---|
| OTHER INCIDENTS: | 789 | Number of fatal other incidents 99 12.55% of other incidents |
| Other incidents account for: | 47.30% | of all accidents/incidents |
| Total fatalities: | 112 | 2 Number to employees on duty. Trespassers 77 |
| Total nonfatal conditions: | 736 | 406 Number to employees on duty |

Other incidents include any event where that caused a death, an injury, or an occupational illness to a railroad employee. Most fatalities in this category are to trespassers.

---

| | | |
|---|---|---|
| EMPLOYEES ON DUTY CASES: | 439 | Frequency per 200,000 hours worked: 0.94 |
| Total fatalities: | 2 | 1.29% of all fatalities |
| Total nonfatal conditions: | 437 | 49.32% of all nonfatal cases |

# Testimony of Transportation Experts

**Terry C. Whiteside, Principal, Whiteside & Associates**

**And**

**Gerald W. Fauth III, President, G. W. Fauth & Associates, Inc.**

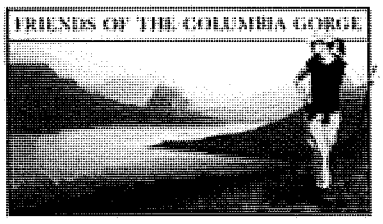
**File Number: PLASAR-15-01-0004**

**Concerning**

**Union Pacific Railroad Company's**

**Proposed Mosier Second Mainline Track Project**

**Prepared For:**



## Introduction

These comments are submitted by transportation consultants Terry C. Whiteside, Principal, Whiteside & Associates based in Billings, Montana, and Gerald W. Fauth III, President of G. W. Fauth & Associates, Inc. based in Alexandria, Virginia. We both have many decades of experience working on hundreds of projects and regulatory proceedings involving a wide-variety of transportation issues. Statements describing our backgrounds, qualifications and experience are attached hereto as Appendix A-1.

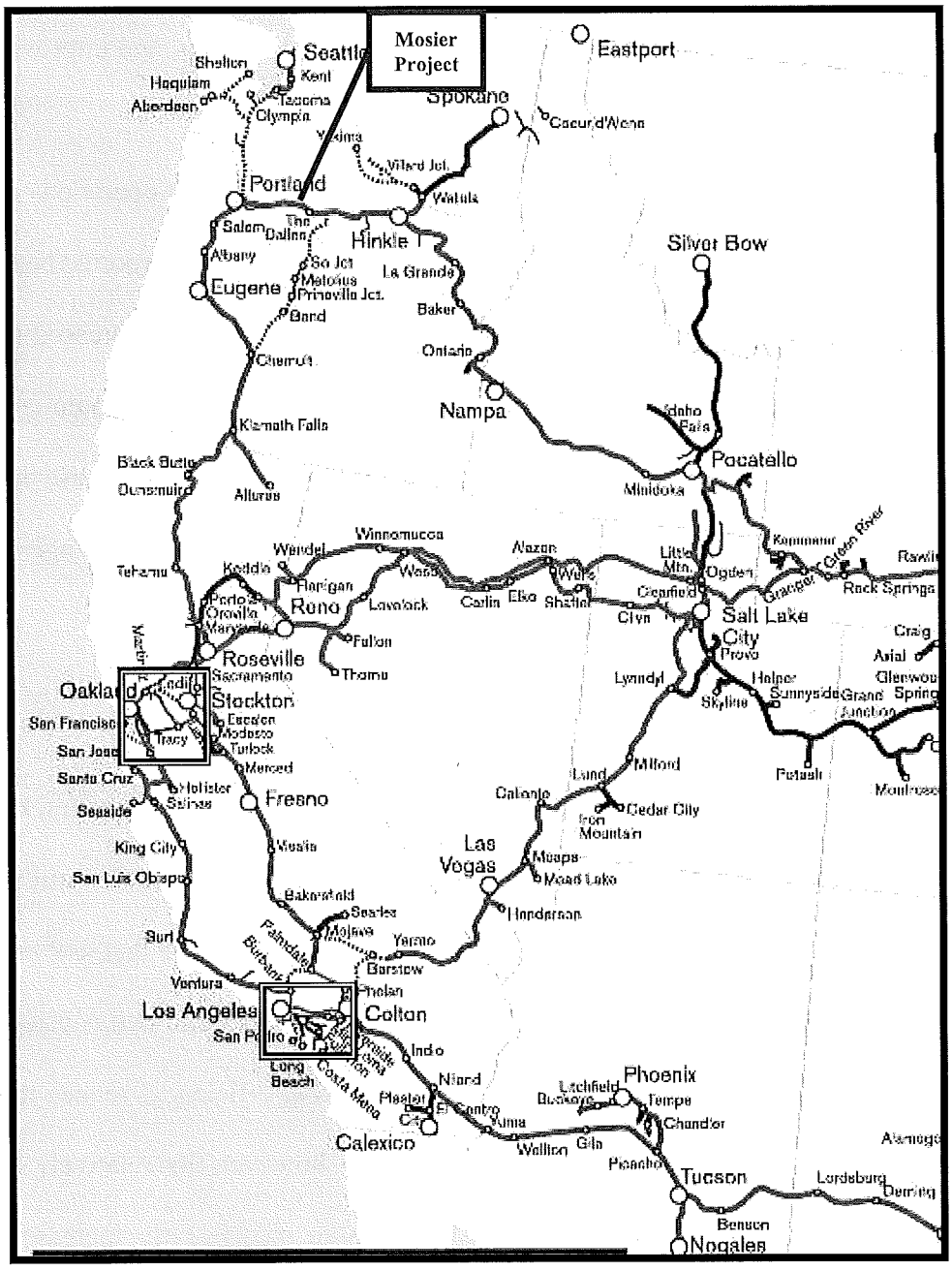
We have evaluated the potential impacts associated with Union Pacific Railroad Company's (UP) planned $25 million and 4.02-mile track expansion near Mosier, Oregon, which was recently submitted to Wasco County for Scenic Area permitting. The proposed project would significantly expand an existing UP railroad line on either side of Mosier. **UP's proposal would not provide the local health and safety benefits the railroad promises and it would result in a massive expansion in the number of trains that could travel through Mosier.**

## Project Context

UP's proposed track expansion through Mosier is on UP's 185-mile mainline between Portland and Hinkle, Oregon. As can be seen from UP's system map in Figure 1 on the next page, the Portland to Hinkle line is one of two heavy-duty, high-density UP mainlines in and out of the Portland area. The green lines on the map have a weight capacity of 315,000 lbs. (185 tons) gross car weight and can accommodate unit trains (i.e. trains made up of cars all carrying the same commodity). Hinkle is a major junction point, it is UP's primary carload classification yard (where trains are broken down into individual cars and reassembled), and it is UP's primary locomotive service and repair facility in the Pacific Northwest. Due to its location, small improvements to the railroad infrastructure through Mosier could have tremendous ripple effects throughout Wasco County and the Pacific Northwest.

**Figure 1**

**Northwestern Portion of UP's System Map**




## UP Has Overstated the Potential Health and Safety Public Benefits of the Proposed Track Improvements

In a fact sheet that UP prepared and presented to the City of Mosier, it stated that the new track would allow two trains to pass one another on parallel track without stopping in a siding

thus creating public benefits for Mosier residents including reducing noise and emissions from idling locomotives, eliminating the need to hold and meet trains on the existing siding, reducing horn blowing as train traffic passes stationary trains parked in the siding, and improving the movement of Oregon products to market.

While there may be some improvements compared to the current operations over the line – such as reducing noise and emissions from idling locomotives – these purported benefits will be more than offset by new health and safety problems associated with the increased traffic levels through Mosier. More trains through Mosier means more train noise, more train emissions and increased potential for rail accidents and spills. Moreover, more trains will increase the safety risk associated with pedestrian and vehicles collisions. Railroading is an inherently dangerous business and more trains mean more health and safety risks for the public.

**Significance of the Project**

The proposed Mosier double-track project involves only 4.02 miles of track, which is a relatively small segment in comparison to UP's 32,100 route miles and the $25 million price tag is only a small portion of UP's $4.3 billion in capital spending in 2015. In fact, UP maintains that the Mosier double-track project is just "one of nearly 1,500 Union Pacific will complete across its 32,000-mile network this year to help improve train operating efficiency, reduce motorist wait times at crossings and enhance safety." As indicated herein, however, this relatively small project is a key component in UP's demonstrated master plans to significantly increase its railroad capacity and traffic to and from the Pacific Northwest.

In its application to the County, UP has indicated that the project would eliminate "the single greatest operational bottleneck in entire 206-mile Subdivision." UP admits that traffic for the entire Subdivision is directly impacted ("causes ripple effects of delays and inefficient

operations along the Subdivision"). As detailed below, addressing this single bottleneck would allow UP to move one to three more trains through Mosier and Wasco County per hour.

**UP Has Likely Understated the Current Average Number of Trains Per Day Through Mosier**

According to its Mosier area fact sheet, UP maintains that it currently moves about 25 to 30 trains per day through Mosier and the new double track would allow UP to move 5 to 7 more trains per day through Mosier – or 30 to 37 trains per day. However, UP's application to the County states that UP "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." In other words, UP maintains that, although it will have the capacity to move at least 37 trains per day through Mosier with the proposed improvements, it will continue to only operate 20 to 30 trains per day. If this is the case, it is reasonable to ask why does UP need to expand its capacity over the line?

In its application, UP even implies that there will be *fewer* trains on the line by the utilization of larger trains. Even if UP utilizes longer trains, it is likely that more trains and substantially more carloads will move through Mosier.

This is borne out in the rapid increase in train traffic through Oregon in the past five years. Figure 2 below details this traffic increase. Based on the reported significant increase in UP carloads originating and terminating in Oregon in the last few years (e.g., 436,925 cars in 2013 to 554,020 cars in 2015), it is safe to assume that UP's current peak traffic levels over the line likely exceed 35 trains per day. We urge UP to provide more information concerning current traffic levels through Mosier. We also suggest that the County conduct an independent railroad traffic study and count, in order to accurately determine the number of current UP trains per day moving

through Mosier, including a separate determination of loaded and empty oil trains moving through town.

**Figure 2**

**UP Carloads Originated and Terminated in Oregon**

| Year | Cars Originated in Oregon | Cars Terminated in Oregon | Total Cars O&T in Oregon | Total Cars O&T Per Day in Oregon |
|---|---|---|---|---|
| 2011 | 179,014 | 261,840 | 440,854 | 1,208 |
| 2012 | 185,280 | 251,200 | 436,480 | 1,196 |
| 2013 | 185,848 | 251,077 | 436,925 | 1,197 |
| 2014 | 211,410 | 298,344 | 509,754 | 1,397 |
| 2015 | 237,165 | 316,855 | 554,020 | 1,518 |

*UP's traffic to and from Oregon has increased since 2011 from 1,208 cars per day to 1,518 per day.*

Additionally, UP reported that in the month of March, 2016, 6 unit oil trains ran through the state of Oregon instead of 4 unit trains as originally forecasted. Most, if not all, of these oil trains moved through Mosier. The improvements proposed by UP would allow the number of unit oil trains to increase significantly.

**UP Has Significantly Understated the Additional Capacity (Trains per Day) Resulting From the Proposed Project**

UP has also understated the *additional* capacity (i.e., 5 to 7 trains per day) that double tracking the line through Mosier would provide. If UP is currently operating 35 trains per day over the line and if the line is operating at or near capacity, double-tracking the line and including Positive Train Control (PTC), should result in nearly doubling the capacity. It is safe to assume that, rather than increasing the capacity to 37 trains per day, the capacity over the double-tracked line could easily exceed 60 trains per day.

In 2007, the Association of American Railroads (AAR) released the National Rail Freight Infrastructure Capacity and Investment Study, which was an assessment of the long-term capacity expansion needs of the continental U.S. freight railroads and provided an approximation of the rail freight infrastructure improvements and investments needed to meet the U.S. Department of Transportation's (U.S. DOT) projected demand for rail freight transportation in 2035. The report included the following approximation of the capacity associated with various track configurations:

**Figure 3**

**Practical Track Capacity (Trains Per Day)**

| Number of Tracks | Train Control System | Trains Per Day | |
|---|---|---|---|
| | | Lower Bound | Upper Bound |
| 1 | No Signal and Track Warrant Control (NS-TWC) | 16 | 20 |
| 1 | Automatic Block Signaling (ABS) | 18 | 25 |
| 2 | No Signal and Track Warrant Control (NS-TWC) | 28 | 35 |
| **1** | **Centralized Traffic Control (CTC)** | **30** | **48** |
| 2 | Automatic Block Signaling (ABS) | 53 | 80 |
| **2** | **Centralized Traffic Control (CTC)** | **75** | **100** |
| 3 | Centralized Traffic Control (CTC) | 133 | 163 |
| 4 | Centralized Traffic Control (CTC) | 173 | 230 |
| 5 | Centralized Traffic Control (CTC) | 248 | 340 |
| 6 | Centralized Traffic Control (CTC) | 360 | 415 |

Based on these AAR estimates, the UP line through Mosier should currently have a practical capacity of 30 to 48 trains per day, which is within the range of UP's current traffic levels (20 to 35 trains per day) and projected capacity levels (an additional 5 to 7 trains per day). This table also demonstrates that UP has significantly understated the practical capacity of the improved line, which could range from 75 to 100 trains per day.

**Estimated Potential Trains Through Mosier**

UP's application states that "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." It should be clear that UP has planned the proposed Mosier improvements and other capital improvements in Oregon, Washington and Idaho in order to significantly increase its capacity to handle significantly higher railroad traffic levels to and from the PNW.

While some of the oil and coal terminals in the PNW have been tabled or denied permits, there is still the potential for significant growth in coal and oil exports. Now that Congress has lifted the crude oil export ban, increased oil exports to Asian markets are likely when market conditions improve. In addition, fossil fuel terminals in Portland anticipate significant growth over the next 20 years.[1] UP clearly has its eyes focused on increasing oil and export coal shipments to the Pacific Northwest. We estimate that it is reasonable to assume that UP anticipates 6 to 12 additional oil trains per day and 5 to 10 export coal trains per day through Mosier, which would equal 36 to 57 trains per day or 1.50 to 2.38 trains per hour:

**Figure 4**

**Estimated Potential Trains Per Day Through Mosier**

| Item | Trains Per Day | |
|---|---|---|
| | Lower Bound | Upper Bound |
| Estimated Current Trains Through Mosier | 25 | 35 |
| Potential New Loaded & Empty Oil Trains | 6 | 12 |
| Potential New Loaded & Empty Export Coal Trains | 5 | 10 |
| **Estimated Potential Trains Through Mosier** | **36** | **57** |

[1] See figure 6 here: https://www.portlandoregon.gov/bps/article/582407

This projected traffic level (36 to 57 trains per day) would fall well within the practical capacity of the improved line (75 to 100 trains per day).

**Conclusion**

In its application materials and in its public discourse, UP has claimed that there will be net benefits to Mosier and Wasco County of improved health and safety at very little cost in terms of additional train traffic. However, in our expert opinions, the health and safety of communities along the rail lines will suffer due to the massive increase in train traffic that this proposal would allow. Railroads can be made safer but they cannot be made safe. The increase in train traffic that this proposed project would allow will make Mosier and Wasco County more dangerous places to live.

**STATEMENT**

**OF**

**BACKGROUND, QUALIFICATIONS AND EXPERIENCE**

**OF**

**GERALD W. FAUTH III**

My name is Gerald W. Fauth III. I am President of G. W. Fauth & Associates, Inc. (**GWF**), an economic consulting firm with offices at 116 S. Royal Street, Alexandria, Virginia 22314. I a recognized expert on transportation issues with over 38 years of experience in the private sector and in the Federal government.

This statement generally describes my background, qualifications and experience. The majority of experience has involved economic, regulatory, public policy and legislative issues primarily associated with, or related to, the U. S. railroad industry. Most of my work has involved regulatory proceedings and related projects before, or related to, the U.S. Surface Transportation Board (STB) and its predecessor, the Interstate Commerce Commission (ICC).

I have extensive experience in working in regulatory and other proceedings and projects involving: major railroad mergers and acquisitions; railroad transactions; railroad line construction and capital improvement projects; railroad line abandonments; railroad rate reasonableness and related economic issues; railroad operations and related environmental and safety concerns; and other railroad related issues. These matters have involved railroad issues on a nation-wide, system-wide and individual railroad line basis.

GWF has been engaged in the economic consulting business for over 50 years. My part time affiliation with GWF began in 1972. I began working for GWF on a full-time basis on May 15, 1978 and was employed by GWF continuously until November 1, 1999 at which time I took a leave of absence in order to take a position with the STB. At the STB, I served as Chief of Staff for one

of the three Board Members appointed by the President, Vice Chairman Wayne O. Burkes. I returned to GWF and consulting work effective June 23, 2003 after Mr. Burkes resigned his position to run for a political office.

Over the years, I have submitted expert testimony before ICC, STB, state regulatory commissions, courts and arbitration panels on a wide-variety of issues in numerous proceedings. In addition, I worked for 3½ years at the STB where I reviewed, analyzed and made recommendations on over 600 written formal decisions that were decided by the entire Board. These proceedings and decisions involved all matters of STB jurisdiction and had an impact on the transportation industry and the national economy.

Railroad transactions have long been the subject of ICC and STB regulatory proceedings and other matters involving: railroad merger and acquisition approval and oversight proceedings; railroad line abandonment proceedings; line sales; feeder line application proceedings; and other railroad transaction-related proceedings. I have been involved in numerous such proceedings and projects as an expert witness and as an STB staff advisor.

For example, I was an expert witness in the last two major Class I railroad merger proceedings: STB Finance Docket No. 32760, Union Pacific Corporation, et al. – Control and Merger – Southern Pacific Rail Corporation, et al. and STB Finance Docket No. 33388, CSX Corporation, et al., Norfolk Southern Corporation, et al. – Control and Operating Leases / Agreements – Conrail, Inc., et al.. My testimony in these major merger proceedings concerned the potential adverse competitive impact of these mergers on two key areas.

In addition to my work in major railroad merger proceedings, I have submitted expert testimony in other railroad finance docket and abandonment proceedings before the ICC and STB. In these proceeding, I have developed and submitted evidence relating to the impacted railroad traffic and the valuation and economics of the railroad line at issue (such as: going concern and net liquidation values; freight revenues and traffic; operating costs; maintenance costs: right-of-way valuation; etc).

In addition to my testimony in railroad mergers and other rail finance and transaction proceedings, I served as an original member of the Conrail Transaction Council, which was established by the Board in Finance Docket No. 33388. This council consisted of representatives of the CSX, NS and shipper organization and provided a forum for timely and efficient communication of information and problems concerning the transaction. I was one of the original members of the Conrail Transaction Council and attended every meeting of the council until my employment with the Board.

During my time at the Board, I was actively involved in the STB merger oversight proceedings associated with the UP/SP and Conrail transactions. Perhaps the most significant merger-related proceedings that I was involved in during my time at the Board were STB Ex Parte No. 582, Public Views on Major Rail Consolidations and STB Ex Parte No. 582 (Sub-No.1), Major Rail Consolidation Procedures. These STB major rulemaking proceedings involved extensive oral hearings and written testimony from hundreds of witnesses. The Board concluded that its existing rules governing railroad mergers and consolidations, which had been developed nearly 20 years earlier, were not adequate for addressing the broad concerns expressed and initiated a major rulemaking proceeding which resulted in a major revision to the Board's railroad merger rules.

I have a significant amount of experience working on complex economic issues involving railroad rate reasonableness. I was actively involved in the initial ICC regulatory proceedings over 30 years ago in which the ICC first proposed and established guidelines which have since evolved into the STB's current railroad rate reasonableness guidelines. I was actively involved in several of the first cases to test the ICC's then proposed guidelines. For example, I was the primary expert witness in ICC Docket No. 40073, South-West Railroad. Car Parts Co. v. Missouri. Pacific Railroad, which was the *first* case to test the ICC's proposed simplified guidelines, which have since evolved into STB's Three-Benchmark approach. I submitted extensive written and oral testimony in STB Ex Parte No. 646 (Sub-No. 1), Simplified Standards For Rail Rate Cases, on behalf of a group of 30 major stakeholders and my testimony was cited by the Board in its decision served September 5, 2007. My work and testimony in these ICC/STB proceedings has helped shape the STB's current railroad rate reasonableness guidelines.

I have extensive experience in working in STB regulatory proceedings, litigation and other projects involving railroad valuation issues, such as the valuation of railroad track, right-of-way and equipment. These matters have involved railroad valuation issues on a nation-wide, system-wide, individual line and individual movement scope and basis.

Many of our projects have involved the development of railroad variable cost analyses based on the application of URCS and its predecessor, Rail Form A (RFA). URCS is used to determine STB jurisdiction and is an integral component of the STB's Full-SAC method, new Simplified-SAC standard and recently modified Three-Benchmark approach.

I have an extensive working knowledge of the development and application of URCS and RFA. I have prepared URCS cost analyses for thousands of individual railroad movements. I also submitted expert testimony in ICC Ex Parte No. 431 (Sub-No.1), Adoption of the Uniform Railroad Costing System as a General Purpose Costing System for Regulatory Costing Purposes and more recently in STB Ex Parte No. 431 (Sub-No. 3), Review of the Surface Transportation Board's General Costing System.

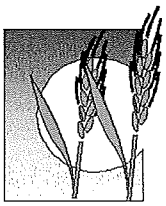
Proceedings before the Board often involve traffic and market analyses using the Board's Waybill Sample, which is a computer database of approximately 600,000 records of sampled railroad movements. I am extremely familiar with this railroad traffic database. Over the years, I have performed hundreds of analyses using this data, which has been used as evidence in merger and other proceedings before the Board.

Co-authored, with Terry Whiteside, the Study Entitled: "Heavy Traffic Ahead" in July 2012 and the follow-up study entitled: "Heavy Traffic Still Ahead." (November, 2013)

I am a 1978 graduate of Hampden-Sydney College in Hampden-Sydney, Virginia where I earned a Bachelor of Arts degree. My major areas of study were history and government. My senior paper in college dealt with the History of Railroad Deregulation. I am a 1974 graduate of

St. Stephen's School for Boys (now St. Stephen's and St. Agnes School), located in Alexandria, Virginia. My senior project and paper in high school dealt with the ICC and the Energy Crisis of 1973.

My professional memberships included the Transportation Research Forum and the Association of Transportation Law Professionals.



## STATEMENT

## OF

## BACKGROUND, QUALIFICATIONS AND EXPERIENCE

## OF

## TERRY WHITESIDE

Terry Whiteside is a principal in Whiteside and Associates (P. O. Box 20574, Billings, Montana 59104-0574, Phone: 406-245-5132), a transportation and marketing consulting firm. Terry and wife, Beverly who is a Montana native enjoy living in the Big Sky country of Montana. Terry has over 30 years of experience in transportation with both carrier and shipper representation. He has worked in private industry for several Fortune 500 companies including Conoco, Continental Pipeline and several of the Williams Companies and later headed up the Transportation Division of the Montana Department of Agriculture and the Litigation Bureau of the Transportation Division of the Montana Department of Commerce. W&A today represents most of the Wheat and Barley Commissions throughout the Western half of the U.S. The firm does work for utilities, lumber companies, agricultural manufacturers and government entities and most importantly the growers of grain.

Terry Whiteside (TCW), principal, has experience in transportation with both carrier and shipper representation. He has worked in private industry for several Fortune 500 companies and did extensive transportation planning, management and litigation work for the State of Montana. Terry has worked for both carriers and shippers. TCW was head of a tariff department for a major Class I carrier and is an expert in tariff work. He has had extensive experience in transportation management; railroad operations and market development; costing analysis and financial evaluation; ICC/STB & FERC law and practice; facility siting; industrial plant location; develop private and public financing - Milwaukee Road Restructuring; various State Public Service Commissions; transportation law and practice; served as a transportation Expert witness in numerous cases, including Montana Power Company/Northwestern Energy contract negotiation with rail, motor, and pipeline companies; energy company development; railroad development; and transportation system design and evaluation.

Terry chairs the national Alliance for Rail Competition in Washington, DC. He currently represents the Wheat and Barley Commissions in Idaho, Colorado, Oklahoma, Nebraska, Oregon South Dakota, Texas, Washington and Wyoming

**PROFESSIONAL**

BA, MBA , Physical Distribution
ICC/FERC/STB - Registered Law Practitioner
Associate Member of American Society of Traffic and Transportation
Graduate of the College of Advanced Traffic and Transportation - Chicago

**PREVIOUS CAREER AFFILIATION**

Continental Oil Company (CONOCO)
Continental Pipeline Company
Yellowstone Pipeline Company
Cherokee Pipeline Company
Geophysical Services, Inc.
Williams Companies, Agrico Chemical, Williams Pipeline, Williams Energy
State of Montana - Dept. of Agriculture/Dept. of Commerce
Radermacher, Whiteside & Associates
Whiteside & Associates

**REPRESENTATIVE PROJECTS**

Railroad Fueling Center Study
Revenue Maximization Studies
Litigation Involving All Aspects of Transportation
Merger Representation
Shipper Representation - Mining, Lumber, Agricultural, Manufacturing, Utilities
Lease/Purchase of Coal Rail Car Fleet for MPC
Consumer Representation - Abandonment, Transportation Negotiation
Montana Grain Sub-terminal studies
Montana State Rail Plan (original)
Milwaukee Road Restructuring Plan - Statewide intermodal studies
Bulk Intermodal Transfer Facilities Design
Development of Hazardous Waste Transportation Entity
Feasibility of Port Auth. in Yellowstone County (Montana TradePort)
Negotiation of Rail Transportation Contracts - coal, petroleum coke, lumber, cement, lime, talc, bentonite, taconite, chromium, wood products, wheat, barley, oats, safflower, canola, fertilizer, & other products
Special Consultant to Governors on Rail Car Plan for Grain Movement in Montana
Negotiation of Truck Contracts: including LTL, truckload, small package and air services

Feasibility of Various Mining Operations - Chrome, Coal, Lime, Phosphate, etc.
Exporting western Coal to Pacific Rim countries
Coal for Fuel - Industrial demand
Railroad Rate Studies on Malt, Corn, Wheat, Barley and various value added industrial developments
Co-authored, with Gerald Fauth III, the Study Entitled: "Heavy Traffic Ahead" in July 2012 and the follow-up study entitled: "Heavy Traffic Still Ahead." (November, 2013)

**Expert Witness**

TCW has testified as an expert witness on behalf of the State of Montana: Montana Department of Agriculture, Montana Department of Commerce, Montana Governor's Office, Montana Consumer Counsel, Montana Power Company, Montana Farmer Union, Montana Grain Growers and Montana Wheat & Barley Committee, Alliance for Rail Competition, National Association of Wheat Grower and National Farmers Union. These appearances have included proceedings involving rate hearings, rail abandonments, permits, certificates of public convenience and necessity, purchase and mergers. These hearings involved state and federal administrative agencies, regional commissions, and courts of law both federal and state.

TCW has also testified on behalf of many rail and transportation shippers involving shipper transportation issues including contracts, complaints, investigations, court proceedings and authority hearings. These proceedings involved state and federal administrative agencies, courts of law both federal and state as well as local administrative bodies.

Terry has testified for Montana Power Company/Northwestern Energy as an expert witness in rate increase cases, providing testimony on the rail rates on coal movements out of the Powder River Basin, and the MPC/BN Contract for coal movement from the PRB to Corette.

# FRIENDS OF THE COLUMBIA GORGE

*VIA E-MAIL TO* angieb@co.wasco.or.us

June 7, 2016

Angie Brewer, Planning Director
Wasco County Department of Planning and Economic Development
2705 East Second Street
The Dalles, Oregon 97058

**Re: Union Pacific Railroad Mosier Area Expansion – PLASAR-15-01-0004**

Dear Ms. Brewer:

Friends of the Columbia Gorge and The Lands Council (collectively "Friends") have reviewed the above-referenced application and submit these comments to augment our initial comments of April 11, 2016. Please place them in the file for this matter, distribute them to the Planning Commission, and recognize us as a party to these proceedings. Friends of the Columbia Gorge is a non-profit organization with approximately 6,000 members dedicated to protecting and enhancing the resources of the Columbia River Gorge. Our membership includes hundreds of citizens who reside in the six counties within the Columbia River Gorge National Scenic Area (CRGNSA or NSA). The Lands Council, with a membership of 1500, has protected thousands of acres of public land and, in the process, worked to preserve the forests, water, and wildlife we all depend on for life.

Union Pacific is proposing construction of over 4 miles of new track in the Columbia River Gorge National Scenic Area. The project would pass through some of the most highly protected lands in the National Scenic Area including Special Management Area (SMA) Open Space, SMA Public Recreation, General Management Area (GMA) Open Space, and GMA Large-Scale Agriculture. It would also create a double-track through the Mosier Urban Area. The project would provide capacity to increase the number of trains passing through the Scenic Area, increase the length of trains passing through the Scenic Area, or both. The increased capacity, when utilized, would impact adjacent land uses such as recreation sites and tribal fishing and would result in significant impacts to protected resources. **Since it does not comply with applicable laws Friends requests that Wasco County deny the application.**

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## I. Initial Matters

This section includes background on certain over-arching legal obligations that are required to be considered as part of the Planning Commission's deliberations.

### A. Quasi-judicial Hearings

**When acting in a quasi-judicial capacity, such as in the hearing for this matter, the planning commission is sitting in the place of a panel of judges.** The applicant has the burden of proof on all matters and the commissioners are legally required to act without prejudging the matter. *Fasano v. Board of County Com'rs of Washington County*, 507 P.2d 23, 264 Or. 574 (1973). Parties "are entitled to an opportunity to be heard, to an opportunity to present and rebut evidence, to a tribunal which is impartial in the matter – i.e., having had no pre-hearing or ex parte contacts concerning the question at issue – and to a record made and adequate findings executed." *Id.* **The political and policy landscapes are not part of the considerations in a quasi-judicial proceeding. Those have already been reflected in the applicable County ordinances. Instead, a Planning Commissioner's duty is to apply the law to the facts of the matter just as a judge would.**

NSA-LUDO § 2.180(B)(6)(a) contains other procedural requirements for the conduct of Planning Commission hearings such as this one. The applicant goes first followed by other proponents. NSA-LUDO § 2.180(B)(6)(a)(1–2). The County must "[a]llow other parties or witnesses to be heard next in the same manner as in the case of the applicant." NSA-LUDO § 2.180(B)(6)(a)(3). The requirement that other parties, such as Friends, get to be heard "in the same manner as in the case of the applicant" means that no additional limits – whether time limits or other limits on testimony – can be enforced against other parties unless they were enforced against the applicant. This ensures that there is a level playing field for all.

### B. Cumulative Adverse Effects

When Congress passed the Columbia River Gorge National Scenic Act it mandated that development actions not adversely affect the scenic, cultural, recreation, and natural resources of the NSA. 16 USC § 544d(d). It then clarified that "the relationship between a proposed action and other similar actions which are individually insignificant but which may have cumulatively significant impacts" must be considered in cumulative adverse effects analyses. 16 USC § 544(a)(3). However, the management plan and thus the resulting county ordinances failed to adequately require consideration of cumulative effects to certain protected resources. *Friends of the Columbia Gorge v. Columbia River Gorge Comm'n*, 346 Or 366, 213 P3d 1164 (2009) [henceforth *Friends*].

In particular, the Oregon Supreme Court ruled that natural and cultural resources are not adequately protected from cumulative adverse impacts by the version of the Gorge Management Plan that counties used to develop their ordinances. *Id.* Therefore, **the County is required to ensure that the proposed development will not contribute to cumulative adverse impacts to the protected resources of the NSA, regardless of the requirements of the current County ordinance.** *Id.* **This includes evaluation of past, present, and likely future actions.** *Id.* **There must be an evaluation of actions that are individually insignificant but cumulatively significant and cumulative adverse impacts must be avoided.** *Id.*

The Court also clarified what its interpretation means for scenic resources:

> **the applicant must accept any conditions – even draconian ones – that are necessary to ensure that the development take place without affecting scenic resources and complies with the [Management Plan] guidelines.** If the applicant does not or cannot sufficiently alter the proposal to satisfy the conditions required by the [Management Plan], permission to carry out the proposed activity must be denied. *Id.* (emphasis added).

Instead of conforming to the established federally mandated law that applies in the National Scenic Area, the applicant repeatedly fails in its application materials to comply with the Act, the Management Plan, and County ordinances. This includes, among other things, claiming federal preemption to avoid standards (App. Supp. at 6), attempting to establish a resource baseline that unlawfully excludes past actions (Project Narrative at 5-113), substituting the applicant's own criteria for species protection (Project Narrative at 5-98), submitting an incomplete alternatives analysis (see Section I.F below), claiming the railroad does not currently have to meet standards because it is an historically water-dependent use (Project Narrative at 5-55), and failing to disclose detailed project actions within the Mosier Urban Area that would contribute to cumulative adverse effects on the protected resources of the Gorge (Project Narrative at 1-2). The entire application must be read with a critical eye and a cumulative impacts evaluation of past, present, and likely future actions, including actions that are individually insignificant but cumulatively significant, must be completed by the County. **Once the cumulative adverse impacts are identified, they must be avoided or the application must be denied.**

### C. Incomplete and Inaccurate Application

Approval of a land use proposal not accompanied by a complete and adequate application violates the County's scenic area ordinance, denies the public any meaningful opportunity to comment on the proposed development, and results in a decision not based on substantial evidence. NSA-LUDO § 2.080(A). Such a decision is subject to reversal, as held by the Gorge Commission unanimously in the *Eagle Ridge* case. CRGC No. COA-S-99-01 (June 22, 2001). It is similarly unlawful for the County to use conditions of approval to defer the submission of complete and adequate application materials. *Eagle Ridge* at 9–10.

While the application is inaccurate and incomplete in many ways, some of which are highlighted in these comments, there are four areas in particular that cry out for a new application that is complete and accurate. The first is the omission of any analysis of the adverse effects that the additional trains resulting from the proposed action would have on the NSA. The second is the reliance of the application on a land transfer that will not take place. The third is the omission of several relevant key viewing areas ("KVAs") from the application, resulting in an incomplete visual impacts analysis. The fourth is the omission of detailed project components within the Mosier Urban Area from the application. Finally, the County should provide the public with additional time to review and comment on the proposed landscaping plan, which has not yet been publicly released.

**The applicant attempts to couch the proposed new facilities as improvements to operational efficiency and ignores in its application the impacts the additional trains will have on the protected resources of the NSA. Regardless of how the project is characterized, it would allow more trains to use the tracks. In fact, UPRR touts the fact that the project would allow 5-7 more trains to pass through the NSA per day.** *See* attached UPRR Fact Sheet titled "Union Pacific To Enhance Infrastructure in Mosier" [henceforth UPRR Fact Sheet]. **The applicant also acknowledges that the trains will be longer as a result of the project.** App. Supp. at 3–4. **The cumulative adverse effects of these additional trains were omitted from the application. Until those effects are disclosed the application is incomplete and inaccurate.** *See* Section I.B above.

The project relies on a land transfer with a state agency that has been denied by that agency; the agency's denial is not reflected in the application materials. At an April 27, 2016 meeting of the Oregon Parks and Recreation Commission (Parks Commission), **the Parks Commission unanimously voted to reject any proposed land transfer that would provide additional right-of-way to the Union Pacific Railroad for this project. The applicant acknowledges the additional right-of-way is necessary to complete the currently proposed project.** Project Narrative at 5-28, 5-69. The Parks Commision's rejection of the land transfer is a material change in circumstances that renders the current application incomplete and inaccurate. For example, figures 1-2, pp. 8–9; 2-1, pp. 8–9; 4-1, p. 8 (supplemented), p. 9; 4-2, pp. 8–9; 4-3, pp. 8–9 in Appendix A do not depict realistically possible conditions. Nor do sheet numbers 19–21 in the engineering drawings in Appendix C. The Parks Commission's action also invalidates portions of the project narrative. *See, e.g.*, Project Narrative at 5-28. **Without the additional right-of-way or significant changes to the project, Union Pacific concedes it cannot comply with federally-mandated railway safety laws.** Project Narrative at 5-28, 5-69. **Given the current inaccuracies in the proposal materials, it is impossible for the public or the Planning Commission to evaluate this proposal. We ask the Planning Commission to deny the application because it does not reflect current conditions.**

Additionally, the applicant acknowledges in its Project Narrative that parts of the project would be visible from multiple KVAs, including Interstate 84, Washington State Route 14, Old Washington State Route 14 (*i.e.*, Klickitat County Road 1230), Columbia River, and the Historic Columbia River Highway. Project Narrative at 5–2. Yet the applicant ignores the scenic impacts from several other KVAs from which large portions of the project would be visible, including Cook-Underwood Road, Rowena Plateau, Washington State Route 141, and Washington State Route 142. **These adverse impacts are not included in the project narrative, and omitting them from the application renders it inaccurate and incomplete.** *See* Project Narrative 5-46–5-53, National Scenic Area Land Use and Development Ordinance for Wasco County Oregon (NSA-LUDO) § 14.020(A)(5). **It also makes it impossible to weigh the cumulative adverse effects of the project. We ask the County to deny the application and to instruct the applicant to submit a new application with a complete and accurate visual impacts analysis.**

Additionally, detailed maps and descriptions of the project components within the Mosier Urban Area are necessary to determine the cumulative adverse effects of the entire project. While the project components within the urban area do not have to meet the same standards as the portions outside the urban area, the required cumulative impacts analysis must review the impacts of the entire project. *See* 16 USC 544(a) (definition of "adversely affect"). **The proposed double-**

**tracking through and on both sides of Mosier is a single project. To adequately determine the cumulative adverse effects of the project on the protected resources of the NSA, it is necessary to analyze the project as a whole. Without a detailed look at the complete project, any analysis falls short of that which is required by *Friends*.** *See* I.B above.

Finally, **construction of the project would require the railroad to remove approximately 12.8 acres of existing trees and shrubs.** Project Narrative at 5-46. Appendix K, which purportedly includes the landscaping plan required by NSA-LUDO § 14.020(D), has been redacted from the application materials. *See* Project Narrative at 5-42. We submitted a public records request for many documents, including this portion of the application, but we have not yet received it. Until the landscaping plan is released, the public is prevented from reviewing it and commenting on whether it includes, for example, "detailed information [about] 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." Unless the County releases the portions of the landscaping plan that area a matter of public record and provides the public with sufficient time to review and comment on it, the application must be denied under *Eagle Ridge*.

**D. Requirements for Conditional Use Review**

As the applicant concedes, this project requires conditional use review. *See, e.g.*, Project Narrative § 5.3.5. This type of application not only requires more scrutiny from the County, but also explicitly allows the County to specify wide-ranging conditions on the project.

NSA-LUDO § 5.010 requires the project to be "compatible with the permitted uses in a zone and consistent with the general and specific purposes of this Ordinance, the Wasco County Comprehensive Plan, and the Management Plan for the Columbia River Gorge National Scenic Area." The Planning Commission "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." NSA-LUDO § 5.020. **As you will see below, the project would have massive adverse impacts on the National Scenic Area and is not consistent with the Wasco County NSA-LUDO, the Wasco County Comprehensive Plan, or the Management Plan for the Columbia River Gorge National Scenic Area. As such, the County cannot lawfully approve the application.**

Additionally, to pass conditional use review muster, the entire project must meet the requirements of NSA-LUDO § 5.020. However, it fails to meet at least NSA-LUDO § 5.020(A–D), (F–H), and (L). *See, e.g.*, Sections I.C, II.B.1, II.B.2, II.C, II.C.1, II.C.2, II.C.4, III.A.1, III.A.3, III.A.4, III.A.5, III.B.1, III.B.2, IV.A, and IV.B of this document. These deficiencies are discussed and summarized in Section V below.

**E. Temporary Uses**

Some aspects of the UPRR proposal are temporary uses. For example, the 5+ acre staging and mineral production area at ~MP 71.6 in the SMA Open Space zone is proposed as a temporary use. Of course, temporary uses within the NSA in Wasco County still must comply with all zoning codes and scenic area review criteria. NSA-LUDO § 8.020. **Except in circumstances under NSA-LUDO Chapter 8 where temporary use requirements are even more restrictive,**

**the requirements for temporary uses are identical to the requirements for permanent ones and must be treated as such as part of the conditional use review.**

### F. Alternatives Analysis

The applicant includes an alternatives analysis that has at least two deficiencies. As discussed below, it does not comport with the Practicable Alternative Test required for scenic area review because the alternatives studied are for the railroad as a whole, rather than for the individual project-area parcels as required by law. *See, e.g.*, Section II.C.2 below. Also, **unidirectional traffic on both sides of the Columbia River was not included as an alternative.** BNSF and UPRR already share trackage rights in other sections of the Pacific Northwest (e.g. on BNSF's I-5 gateway). Changing operations so that trains on the north side of the river travel in one direction and those on the south side travel in the other would likely result in even greater improvements to operational efficiency with a much lower impact on some of the protected resources of the NSA. **The selection of alternatives that does not include the most obvious way to meet the purported purpose and need of the project is arbitrary and baffling. Even if a parcel-by-parcel analysis was not necessary, this would render the railroad's application of the Practicable Alternative Test inadequate. The County should instruct the applicant to come back with an application that includes such an alternative.**

**Regardless the County cannot simply cater to the applicant's purported purpose and need. If an applicant approached the County with a project to build a massive landfill on the edge of Mosier in the SMA Open Space zone it could not be lawfully approved even if the applicant demonstrated that building the landfill was necessary for it to fulfill its business plan. The same applies here. The requirements of the law cannot be ignored merely because the applicant professes a purpose and need. Regardless of professed purpose and need, if the applicant cannot meet the requirements of the law the application cannot be lawfully approved.**

### G. Nonconforming Structure or Use

**The railroad is a nonconforming structure or use under the NSA-LUDO.** This is defined as "[a] lawful existing structure or use at the time [the NSA-LUDO] or any amendment thereto becomes effective, which does not conform to the requirements of the zone in which it is located." NSA-LUDO § 1.200. While there are many examples below where the railroad does not meet current standards (all of which are incorporated by reference here), the most obvious is that it is currently visually evident in the SMA and not currently visually subordinate in the GMA. Therefore the railroad is a nonconforming structure or use.

## II. <u>Special Management Areas Requirements</u>

The Special Management Areas contain some of the lands most at risk of conversion to uses incompatible with the National Scenic Area Act. Thus, SMA lands have the highest level of protection in the Gorge. 1.24 miles of the proposed new tracks would run through SMA lands, disturbing 20.18 acres in the SMA. This amounts to about two-thirds (65.5%) of the proposed disturbed area. While the alternatives analysis did consider different track configurations, it did not include a parcel-by-parcel study of alternatives for the tracks and other proposed disturbed areas – including staging areas – so as to minimize the impacts to the protected resources in the

Gorge. The following subsections analyze the impacts to the protected resources in the SMA portions of the National Scenic Area and point out numerous proposed violations of pertinent laws.

**A. Repair, maintenance and operation of existing structures**

Some uses may qualify as allowed uses under County ordinances, but the applicant has not shown that all aspects of its proposal qualify. NSA-LUDO § 3.100(D) regulates "[r]epair, maintenance and operation of existing structures" and allows a legally established railroad use to continue. "Legally established" means that all applicable land use and building permits were obtained, that the use or structure has been operated or constructed in compliance with all applicable land use regulations and other laws, and that the use or structure has not been discontinued or changed for any period of one year or more. NSA-LUDO § 1.200 (definition of "existing use or structure"). The burden is on the applicant to prove that the use or structure qualifies as an existing use.

Not only has the applicant not demonstrated that all aspects of the construction and operation of the railroad since the passage of the NSA-LUDO have been permitted, but this project goes far beyond the "repair, maintenance and operation of existing structures. . . ." NSA-LUDO § 3.100(D). Instead the applicant proposes massive new land disturbances, a new set of tracks, new bridges, new permanent roads, new structures, new signals, new rock crushing facilities, new staging areas, and new culverts. When, for example, a new accessory building is proposed by a homeowner it is considered new development. Since new structures are proposed to be established by the applicant this is new development and should be reviewed as such.

**B. General Considerations**

This section discusses the requirements of each SMA zoning designation the proposed project would cross.

**1. *SMA Open Space Zone***

The proposal includes a second mainline track, utilities, lighting, a pump house, access roads, variances to setbacks, a large retaining wall, a new blasted area through a mesa, and a very large construction staging and mineral production area in the SMA Open Space zone. **The proposed location of the 5+ acre construction staging and mineral production area on SMA Open Space lands cannot be lawfully permitted and is particularly troubling. The applicant must move this staging and mineral production area to a zone that allows the use.**

NSA-LUDO § 3.180 specifies which uses are allowed in the SMA Open Space zone. All development must be consistent with an adopted open space management plan. NSA-LUDO § 3.180(E)(1) & (2). However, the applicant has indicated in its application that it will not comply with this requirement. *See* Project Narrative at 5-26. The applicant does not provide a valid argument as to why it should be exempted from complying with the Rowena Plan,[1] which is the adopted open space management plan for the area. Though the applicant asserts that

[1] The Forest Service adopted the Rowena Plan in September 2005. It acts as the Open Space Management Plan and the Watershed Plan for the SMA Open Space area that the applicant's proposal impacts.

"infrastructure improvements to a pre-existing serviceable structure" is exempt from this requirement as an expedited review use, it is not. *See* Project Narrative at 5-26, NSA-LUDO § 3.180(C), NSA-LUDO § 3.110(A). **At the very least, the applicant's failure to demonstrate compliance with the plan renders the application incomplete.**

As discussed in Section II.A above, the proposed project is new development. **New development cannot be permitted under NSA-LUDO § 3.180(D)(3) – the applicant's proposed path to permitting the project. Portions of the project may qualify as utility facilities for public service under NSA-LUDO § 3.180(D)(8), however, this requires the applicant to consider alternative sites with less adverse impact on Open Space land. The applicant has refused to do so. *See* App. Supp. at 6, NSA-LUDO § 3.180(D)(8)(a). Additionally, to take advantage of this path to a permit the applicant must show that the size is the minimum necessary to provide the service. NSA-LUDO § 3.180(D)(8)(b). The applicant is already providing rail service so the size is already the minimum to provide the service – or larger.**

Additionally, within the SMA Open Space zone "[a]ny 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." NSA-LUDO § 3.180(G)(6). The applicant acknowledges that 0.78 miles of the length of the project would be in the 100-year floodplain and that the County may ask for more information to ensure that the project is safe from flooding. We urge the County to take all necessary precautions to ensure that safety is achieved. This requirement also applies to the SMA Public Recreation zone.

**The applicant has proposed a mineral production area within the SMA Open Space zone – a use that is not allowed in this zone. NSA-LUDO § 3.180(F). "Production of mineral resources means the use of portable crushing, on-site stockpiling, washing, milling, screening, or sorting equipment or other similar methods of initial treatment of a mineral resource to transport to another site for use or further processing." NSA-LUDO § 1.200. According to the application materials the proposed "staging area" at ~MP 71.6 meets this definition.[2] This use is not allowed in this zone and must be moved to a zone where it is allowed. Denuding this site also violates NSA-LUDO § 14.100(H) and the staging area is unlawfully proposed within the buffer zone of Wetland 9.**

2. ***SMA Public Recreation Zone***

The applicant proposes 3.38 acres of temporary disturbance and 5.57 acres of permanent disturbance in the SMA Public Recreation zone. It also proposes acquisition of lands from Memaloose State Park, the relocation of a pump house, new track, a construction staging area, and a new permanent road.

**As discussed above, the Parks commission has refused to complete any land transfer to enable the project. Even if it had been approved it is unclear how the applicant would**

[2] "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." App. Supp. At 6.

**propose to accomplish the property acquisition since neither property line adjustments nor land divisions are allowed in the SMA Public Recreation zone.** *See* NSA-LUDO § 3.170(E)(33) (property line adjustment are only allowed in this zone if they are within the GMA). This alone renders the application incomplete.

The applicant also proposes "rock excavations" in this zone. *See* Figure 4-1, p. 8 (supplemental). While exploration, development, and production of sand, gravel, and crushed rock are a conditional use in the SMA Public Recreation zone, that use is "subject to that material being used only for the construction, maintenance, or reconstruction of roads used to manage or harvest commercial forest products on lands within the SMA." NSA-LUDO § 3.170(E)(26). Since the crushed rock would not be used on forest roads, but rather on a railroad, the development of mineral resources is not allowed in this zone. *Id.*

### 3. *SMA Agriculture Zone*

The applicant proposes 1.85 acres of land disturbance in the SMA Agriculture zone. It also proposes a new mainline track, construction of a retaining wall, lighting, and ancillary structures. These are also conditional uses in the zone and require similar review as discussed in Section I.D above. NSA-LUDO § 3.120(E)(18).

## C. Resource Impact Review

Since the project will be reviewed as a conditional use under NSA-LUDO § 3.170(E)(27) it must comply with Chapter 5 - Conditional Use Review, Chapter 11 - Fire Safety Standards, and Chapter 14 - Scenic Area Review, as well as all other standards. Conditional use review is discussed in Section I.D above and Section V below. **The project application does not address the fire safety standards in Chapter 11. Given the history of wildfires started by railroads in the Gorge, this omission is particularly glaring and requires denial of the application.** Also, the new track would allow longer, faster, and more frequent trains carrying highly volatile Bakken crude oil. *See* UPRR Fact Sheet. The failure of the applicant to address Chapter 11 is a basis to deny the application.

The additional trains that would be enabled by the efficiency improvements proposed by the applicant – no matter the train contents – would have impacts on the NSA. The Rowena Plan describes the fire conditions through this stretch of tracks:

> Given the slope class, flashy fuel load, predominant wind patterns and wildland/urban interface any fire within the planning area between late May and late October is potentially significant. Light flashy fuels such as cheat grass coupled with steep slopes and strong west winds combine to generate explosive fire behavior characterized by rapid rates of spread. Such fire behavior within the wildland/urban interface generates significant public and firefighter safety concerns. *Rowena Plan* at 20.

The Rowena Plan also describes the incidence of wildfires in only this small part of the NSA:

> A review of fire statistics from 1992 through 2004 indicates that some 34 fires burned in the planning unit within that time period. These fires were

all human caused and ranged in source from fireworks and cigarettes to rail road, farm equipment and power lines. Of these 34 fires, nine fires would be classified as significant (based on size and/or complexity). *Id.*

**The new facilities proposed by UPRR would allow 5-7 longer trains to pass through the National Scenic Area per day.** *See* UPRR Fact Sheet, App. Supp. at 3–4. **This would necessarily result in more fires started through the length of the National Scenic Area. Fires often result in degradation of the scenic, natural, cultural and recreation resources of the NSA and damage to property. A permit cannot be lawfully issued without taking these cumulative adverse effects on the protected resources of the CRGNSA into account.** ***See*** **Section I.B & I.C above.**

1. ***Scenic Resource Protection***

NSA-LUDO §§ 14.100 through 14.400 contain the scenic resource protection standards for the Special Management Areas. This subsection discusses some of those impacts.

The proposed new structures would be topographically visible from multiple key viewing areas including Interstate 84, Washington State Route 14, Old Washington State Route 14 (*i.e.*, Klickitat County Road 1230), the Columbia River, and the Historic Columbia River Highway and Trail. It appears that large portions of the project area may also be seen from the Cook-Underwood Road, Rowena Plateau, Washington State Route 141, and Washington State Route 142 KVAs. The following rules, denoted by bullets, apply:

- **The County is legally obligated to evaluate the potential cumulative visual effects of proposed new development in order to ensure that scenic resources would not be adversely affected. NSA-LUDO § 14.200(L). This includes evaluation of past, present and likely future actions. In addition, the County is required to evaluate individually insignificant but cumulatively significant actions and avoid cumulative adverse effects.** 16 USC 544(a)(3), *Friends*.

**The application acknowledges that the applicant does not even attempt to meet this legal standard** and even endeavors to use past impacts – like the blasted area through the mesa – to bootstrap approval of this application. Project Narrative at 5-57, 5-116 ("The cumulative effects analysis did not include an analysis of past actions."). **Therefore, the application cannot be lawfully approved. Even if past actions were considered, the application fails to demonstrate that cumulative visual effects on scenic resources will not occur.**

- As viewed from key viewing areas, new development must be either visually subordinate to the adjacent natural landscape or not visually evident within the adjacent natural landscape, depending on the applicable landscape setting. NSA-LUDO § 14.200(R)(1).

NSA-LUDO § 14.210 specifies the standards for compatibility of development within the landscape settings in the SMA. Generally, new development in all landscape settings must be compatible with the general scale (height, dimensions, overall mass) of similar development in the vicinity. However, the general scale of this proposal is massive – much larger than surrounding development. Therefore, it does not meet this standard.

**In the SMA Open Space zoned areas the "not visually evident" standard applies in both of the affected landscape settings. The proposal includes a new track, a portion of a mesa that the applicant proposes blasting through, other rock excavations, and a very large construction staging and mineral production area in the SMA Open Space zone. The new track would be visible from multiple KVAs including, at least, the Columbia River and SR-14. The new development – including the new rock excavations at MP 71.7 – would be highly visible from the Columbia River, SR-14, and Klickitat County Road 1230 KVAs and would fail to meet the required standards of "not visually evident". Additionally, the expansion of the blasted area in the rock mesa, especially when considered along with the existing blasted area, would be visually evident from each of these KVAs. Finally, the large new staging and mineral production area at ~MP 71.6 would be visually evident from multiple KVAs, including from long distances away. Simply put, the applicable standard will not be met, requiring denial of the application or conditions of approval – even draconian ones that lead to the withdrawal of the application.**

The visual subordinance standard applies to the other SMA zoned areas. The applicant proposes 3.38 acres of temporary disturbance and 5.57 acres of permanent disturbance in the SMA Public Recreation zone. It also proposes acquisition of lands from Memaloose State Park, the relocation of a pump house, new track, a construction staging and mineral production area, and a new access road within this zone. The applicant also proposes 1.85 acres of land disturbance in the SMA Agriculture zone. This includes new track, construction of a retaining wall, lighting, and ancillary structures within the zone. Cumulatively, these impacts cannot achieve visual subordinance.

This development is proposed partially in an Oak Woodland landscape setting. New development and land uses in this setting must meet the overall appearance of a woodland landscape. NSA-LUDO § 14.400(C)(3). **However, the proposed new development of a 5+ acre staging and mineral production area would denude the existing oak woodland. Regardless of claims by the applicant that this is a temporary use, it still must meet the same scenic area review requirements as a permanent use. *See* Section I.E above. Moreover, mineral production sites must meet the heightened "not visually evident" standard if they are within 3 miles of a KVA, as this site is. The application does not meet this requirement. One or more conditions of approval requiring the project to meet the standard is legally required or the application cannot be lawfully approved.**

- New development must be sited to avoid the need for new landscaping wherever possible. NSA-LUDO § 14.200(K)(1).
- New development must be designed to fit the natural topography and to take advantage of vegetation and landform screening. NSA-LUDO § 14.200(R)(4).
- New development must be designed to minimize visible grading and other modifications of landforms, vegetation cover, and natural characteristics. NSA-LUDO § 14.200(R)(4).

The proposed siting of the large staging and mineral production area near MP 71.6 within a stone's throw of the Columbia River is particularly egregious. It is clear from the siting of this staging area that the applicant disregards the outstanding scenic resources of the National Scenic Area. **This aspect of the development is not designed to minimize visible grading and other modifications to landforms, vegetation, and natural characteristics. It would not meet the**

**not visually evident standard and it would contribute greatly to cumulative adverse scenic impacts on scenic resources in the NSA. We ask that the County deny the application or condition approval upon relocating the proposed staging and mineral production area to an area where it is allowed.**

- Exterior colors must be dark earth-tones found at the specific site or in the surrounding landscape. Actual specific colors meeting this standard must be proposed in the land use application. Colors that are not expressly approved by a land use decision may not be used. NSA-LUDO § 14.200(I).

**While the County has requested the use of darker colors on the equipment buildings, the applicant has refused.** App. Supp. at 5.

- Exterior lighting must be sited, limited in intensity, and shielded and hooded as viewed from key viewing areas. NSA-LUDO § 14.100(F).

Conditions of approval must be included to meet this requirement.

**New development must be sited on the parcel in the location that best meets the applicable scenic standard, using existing topography and vegetation for screening before requiring new screening measures. While the applicant indicates that the signal buildings would be small in scale, it does not assert that they would be sited in the location that best meet the applicable standard as seen from KVAs. Other project components, like the blasting/mineral development area, the staging and mineral production area, the pump house, the utilities and the lighting are similarly not sited based upon visibility from KVAs. For these reasons, the project cannot be lawfully permitted as proposed.**

2. ***Natural Resource Protection***

When reviewing these requirements it is important to remember that the Oregon Supreme Court has determined that the provisions of the county implementations of the Gorge Management Plan do not adequately meet the requirements of the Scenic Area Act. *Friends*. Therefore, a cumulative impacts evaluation of past, present, and likely future actions, including actions that are individually insignificant but cumulatively significant, is required by the Act and must be completed by the County. Once the cumulative adverse impacts are identified, they must be avoided or the application must be denied. In short, this analysis must go above and beyond the requirements of the Wasco County Ordinance.

*Water Resources*
NSA-LUDO § 14.610(A) contains the standards for projects that may affect streams, ponds, lakes, wetlands, or other riparian areas in the Special Management Areas. The applicant must determine the exact location of the water resource boundary. NSA-LUDO §§ 14.610(A)(2)(d)(3), 14.610(A)(2)(e). In addition, the following buffer zones apply:

- Wetlands, lakes, and ponds: 200 feet minimum. NSA-LUDO § 14.610(A)(2)(a)(2)(a).
- Perennial streams: 200 feet. NSA-LUDO § 14.610(A)(2)(a)(2)(a).
- Fish-bearing streams: 200 feet. NSA-LUDO § 14.610(A)(2)(a)(2)(a).

- Intermittent streams not used by anadromous or resident fish: 50 feet. NSA-LUDO § 14.610(A)(2)(a)(2)(b).

Water resource buffer zones must be untouched and maintained in their natural condition. NSA-LUDO § 14.610(A)(2)(a)(1) & (A)(2)(g). However, the applicant proposes to intrude on both water resources and their buffer zones.

**The applicant attempts to inject ambiguity into the clear requirement within NSA-LUDO § 14.610(A)(2)(g)(2) that, within the SMA, wetlands and aquatic and riparian areas can only be disturbed when a public safety hazard exists or when the disturbance is for a restoration/enhancement project.** Project Narrative at 5-97. **With the exception of a scrivener's error, this requirement was lifted verbatim from the Management Plan.** *Compare* NSA-LUDO § 14.610(A)(2)(g) *with* Management Plan at I-3-36. **Only unavoidable impacts from public safety hazards and restoration/enhancement projects can be allowed (and they must be mitigated with a complete mitigation plan). All other disturbances are simply not lawfully permitted under NSA-LUDO § 14.610(A)(2)(g) and the Management Plan at I-3-36. Even though a variance is not available the applicant has requested variances for three delineated wetlands or waterbodies within the SMA. These requested variances cannot be lawfully granted.**

The applicant has also requested a variance for nine wetland or waterbody buffer zones. To grant a buffer zone variance the Practicable Alternative Test must show that there is no practicable alternative and NSA-LUDO Chapter 6 (Variances) must be followed. NSA-LUDO § 14.610(A)(2)(g)(1) & (5). NSA-LUDO Chapter 6 requires that all setbacks and buffer zones be undisturbed unless there are no practicable alternatives and all adverse effects would be fully mitigated. NSA-LUDO § 6.020(D). Both NSA-LUDO § 6.020(D) and NSA-LUDO § 14.610(A)(2)(g)(1) require the completion of a Practicable Alternative Test. **The applicant has not adequately completed a Practicable Alternative Test.**

The Practicable Alternative Test is laid out in NSA-LUDO § 14.610(D) and discussed at 5–102 through 5–104 of the applicant's Project Narrative. As an initial observation, the Project Narrative does not address the requirement that the applicant request a Management Plan amendment to meet the test. NSA-LUDO § 14.610(D)(3). This alone requires the application to be denied. The Practicable Alternative test requires the applicant to show that the basic purpose of the use cannot be accomplished on a site with less adverse effects.

The applicant also has not demonstrated for each area to be impacted that it has complied with the requirements to assess other sites (e.g. other parcels that would still meet the purported need) while reducing adverse impacts as required by NSA-LUDO § 14.610(D)(1) and (D)(2). Instead, there is the assertion that there is no other way than to do the entire project exactly how the railroad wants. **Unless the Practicable Alternative Test is applied to each impacted resource on a parcel-by-parcel basis, NSA-LUDO § 14.610(D) has not been met and the application cannot be lawfully approved.**

The Practicable Alternative Test also requires the applicant to show that it cannot meet the basic purpose of the use – rather than the basic purpose of the project – in a way that produces less adverse effects. NSA-LUDO § 14.610(D)(1). This analysis must include "reducing its proposed

size, scope, configuration, or density, or by changing the design of the use." NSA-LUDO § 14.610(D)(2). The basic purpose of the use is to increase the speed and volume of rail transportation. The applicant is already providing rail transportation in a less impactful way. Therefore, this portion of the test is also not met. Even if the County accepts that the basic purpose of the use is to improve operational efficiency, reducing the size, scope, configuration, or density of the use (e.g. scaling back the amount of efficiency to be attained by reducing the proposed length of the double track) was not considered as part of the applicant's Practicable Alternative Test analysis. Without such an analysis the test is not met and the application cannot be lawfully approved.

While it was not discussed as part of the Practicable Alternative Test, reducing the length of the double track was included as Alternative C in Section 3.13. However, the alternative was not fully developed, the target metrics for operational efficiency improvements were not discussed, and there was no discussion of why the project must intrude on SMA resources when a double track of ~4.9 miles could be achieved on GMA and urban area zoned lands. Until such practicable alternatives are developed and included in the Practicable Alternative Test, the application of the test is incomplete.

The proposed buffer zone variance also violates NSA-LUDO § 6.020(D)(2). That provision requires that the natural resources mitigation plan "ensures that the development can be mitigated to ensure no adverse effects would result." NSA-LUDO § 6.020(D)(2). However, the applicant concedes that the water resources mitigation plan is incomplete. Appendix D at 1. Additionally, the update to the mitigation proposal does not "ensure no adverse effects will result." NSA-LUDO § 6.020(D)(2).

The updated mitigation proposal supplied by the applicant is dependent on a change in water rights to assure the wetland has sufficient surface water. Appendix D Supp. The proposed use of pumped groundwater to maintain wetland conditions creates a long-term management responsibility and proposes to establish an artificial wetland system to compensate for existing biological systems that do not rely on such mechanisms. *Id.* There is no assurance that either the water right will be transferred or the permit to appropriate ground water will be granted. Even if they are granted, there is no assurance that the applicant would be interested in committing to perpetual management of a pumped water system to maintain a wetland of no economic use to the railroad. A major deficiency of the mitigation proposal is the real possibility of having a winter ponding site that dries out in the spring and summer and is an invasion site for wind-borne seeds from invasive species. The supplemented plan simply does not "ensure no adverse effects will result." NSA-LUDO § 6.020(D)(2).

Most new development and land uses may not be approved within wetland buffer zones unless numerous restrictive approval criteria are met. See NSA-LUDO §§ 14.610(E)(4) & (6). These criteria are designed to ensure that impacts to buffered areas will be minimized and adequately mitigated and that rehabilitation and enhancement efforts will be professionally designed and properly implemented. **Unfortunately, the applicant's mitigation plan is speculative and incomplete and it would require ongoing maintenance. These criteria are not met.**

*Sensitive Wildlife and Plants*

NSA-LUDO § 14.610(B) contains the standards for projects in the SMAs that may affect sensitive wildlife/plant resources. The following wildlife and plant protection standards apply to all projects in the SMAs:

- All sensitive plant species must be surrounded by an undisturbed 200-foot buffer zone. NSA-LUDO § 14.610(B)(2)(c)(4).
- Buffer zones for sensitive wildlife sites must be determined by the Forest Service in consultation with other state and federal agencies. NSA-LUDO § 14.610(B)(2)(c)(4).
- Projects must not interfere with fish and wildlife passage. NSA-LUDO § 14.610(B)(2)(d)(8).
- Projects must not interfere with the existing condition of the wildlife/plant area or site and the surrounding habitat and useful life of the area or site. NSA-LUDO § 14.610(B)(2)(d)(4).
- Projects must be timed to occur during periods when fish, wildlife, and plants that might be affected are least sensitive to activities. NSA-LUDO §§ 14.610(B)(2)(c)(3), 14.610(B)(2)(d)(6).
- Projects must maintain, protect, and enhance the integrity and function of priority habitats (such as old growth forests, talus slopes, oak woodlands, aspen stands, prairies, steppes, snags and logs, cliffs, caves, and dunes), including a consideration of cumulative impacts. NSA-LUDO § 14.610(B)(2)(d)(9).
- In areas of big game winter range, habitat components such as forage and thermal cover must be maintained. NSA-LUDO § 14.610(B)(2)(d)(5).

None of these criteria are met in the project narrative – the applicant instead pledges to avoid sensitive species and priority habitats to the extent practicable, which falls far short of the required standard – and there is no way to determine if they have been met without access to Appendix J. We have submitted a public records request for Appendix J, which was redacted entirely from the application materials. However, the fact that the applicant has substituted its own standard (avoid to the extent practicable) and requested a variance to these requirements indicates an admission that some or all of the provisions will not be met. Friends requests detailed information about how the applicant proposes to meet each legal requirement. Without that information and a copy of the landscaping plan, the public does not have a meaningful opportunity to review and comment on the application, and it should therefore be denied pursuant to *Eagle Ridge*.

To receive a variance, the applicant must prove that there are no practicable alternatives and all adverse effects would be fully mitigated. NSA-LUDO § 6.020(D). There is no evidence that either of these criteria is met. As discussed in the Water Resources discussion above, the practicable alternative test is inadequate. The application also violates NSA-LUDO § 6.020(D)(2). That provision requires that the natural resources mitigation plan "ensures that the development can be mitigated to ensure no adverse effects would result." NSA-LUDO § 6.020(D)(2). The applicant claims that a compliant plan exists in Appendix J. But that appendix has been redacted from the provided materials. We have submitted a public records request for that appendix but have not yet received it. The public has the right to evaluate whether the applicant has demonstrated that "no adverse effects would result." NSA-LUDO § 6.020(D)(2). As above, the public must be provided with a meaningful opportunity to review and comment on the portions of Appendix J that are a matter of public record, or the application must be denied.

*Soil Productivity*
Projects must control all soil movement within the area shown on the site plan map. The disturbed soil area must not exceed 15 percent of the project area. Within one year of completion, 80 percent of the disturbed area must be restored using effective native ground cover species. NSA-LUDO § 14.610(C). Conditions of approval must be included to ensure that this work is done.

**3. *Cultural Resource Protection***

**Due to its location along the Columbia River and near Memaloose Island there is a high likelihood of cultural resources within the project area.** For most uses and developments in the Special Management Areas, NSA-LUDO § 14.500 contains the standards for the protection of cultural resources. *See* NSA-LUDO § 14.510(C). **The cultural resource reconnaissance survey and report must be prepared to meet NSA-LUDO § 14.500(K) and (L). It is unlikely that an adequate survey was produced since the applicant acknowledges that it did not survey "large patches of blackberry bushes or poison oak."** App. Supp. at 5. In addition, all provisions of NSA-LUDO § 14.500 must be met. There is no way to determine if they have been met without access to Appendix L. We submitted a public records request for the portions of Appendix L that are a matter of public record, but we have not yet received it. As above, the public must be provided with a meaningful opportunity to review and comment on Appendix L or the application must be denied. At the very least, it would be appropriate to continue the hearing and hold the public record open until the public has an opportunity to review the portions of the appendix that do not contain sensitive information.

*Significant Cultural Resources*
If a cultural resource is identified, it must be evaluated for significance. NSA-LUDO § 14.500(D)(2). If the resource is determined to be significant, the County must determine whether the project is likely to adversely affect the resource. NSA-LUDO § 14.500(D)(4). If the County concludes that the project would have an adverse effect on a significant cultural resource, then a mitigation plan must be prepared and reviewed pursuant to section 14.500(F).

*Historic Resources*
NSA-LUDO § 14.500 contains the standards for protection of historic resources. Historic surveys are required for all proposed uses that would alter the exterior architectural appearance of buildings and structures that are at least 50 years old. NSA-LUDO § 14.500(B)(2). Historic surveys must contain the following elements:

- a documentation of the location, form, style, integrity, and physical condition of historic buildings and structures
- photographs and maps
- a description of any uses that would 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
- detailed architectural drawings and building plans that clearly illustrate all proposed alterations

NSA-LUDO § 14.500(M).

4. ***Recreation Resource Protection***

The ordinance requires that "[r]ecreation sites shall be protected from adjacent uses that would detract from their use and enjoyment." NSA-LUDO § 14.710(M). However, the applicant concedes that "[d]uring construction, there may be temporary impacts to recreational uses associated with construction noise." Keeping in mind that temporary uses must comply with scenic area review requirements (*See* Section I.E above), the project cannot be lawfully permitted. The project proposal includes rock crushing, road building, blasting, grading, track construction, and additional train traffic on lands adjacent to Memaloose State Park and the Columbia River. In addition, the project would allow 5-7 longer trains a day to pass through the park. UPRR Fact Sheet. The applicant also sought a land transfer that would make Memaloose State Park smaller. This is diametrically opposed to the provisions of NSA-LUDO § 14.710(M) and cannot be lawfully permitted.

Further, new buildings and structures "may detract from the use and enjoyment of established recreation sites on adjacent parcels." A new pump house would be constructed along with new track directly adjacent to the camping area at Memaloose State Park. In response, the ordinance requires that "an appropriate buffer shall be established between the building/structure and the parcel." NSA-LUDO § 14.710(M). Rather than creating an appropriate buffer, the applicant proposes to reduce the area between the tracks and the camping area. Reducing the current buffer is the exact opposite of establishing a buffer. The project cannot be lawfully permitted as long as the buffer will not be established.

County ordinance also requires that "[n]ew developments and land uses shall not displace existing recreational use" NSA-LUDO § 14.710(B). Reducing the size of the park, as the applicant proposes in its application, would result in de facto displacement of existing recreational uses.

**Finally, "[m]itigation measures shall be provided to preclude adverse effects on the recreation resource."** NSA-LUDO § 14.710(E). **The applicant concedes that there would be adverse effects on the recreation resource and yet does not propose any mitigation measures to preclude these effects.** Project Narrative at 5-109. **Permanent degradation of the resource would also occur due to more frequent train traffic waking campers and detracting from the recreational experiences at Memaloose State Park and at other parks and recreation areas in the NSA.** *See* UPRR Fact Sheet. In fact, *The Oregonian* reported that "When camping in the Gorge, it pays to be a little deaf" and singled Memaloose State Park out as already being impacted by excessive train noise.[3] http://blog.oregonlive.com/terryrichard/2008/05/when_ camping_columbia_gorge_it.html. Cumulative adverse impacts of increased train traffic to the recreation resource of the NSA must be considered and impacts caused by past actions must be included. *Friends*. **Due to these reasons, the project cannot be lawfully permitted.**

[3] "The park has about 105 sites, split evenly between full hookups for RVs and tents campers. It has a beautiful setting, with good views of the river, but there goes the train again. The railroad also blocks access to the river. The freeway isn't too noisy, if you camp close to the trains. The trains aren't too noisy, if you camp close to the freeway. You get the picture. The walls of an RV help block out the noise a bit better than the nylon of a tent."

## III. General Management Area Requirements

This section discusses the legal requirements for development in the General Management Area of the NSA and identifies various violations of these requirements.

### A. General Considerations

#### 1. *GMA Large-Scale Agriculture Zone*

The project would pass through 0.74 miles in the GMA Large-Scale Agriculture zone and would disturb 3.30 acres in this zone. In addition to new track in this zone, there would also be a new signal building as well as a construction staging area and a temporary access road. NSA-LUDO § 3.120 specifies which uses are allowed in Large-Scale Agriculture zones. All uses and structures must be sited to minimize the loss of land suitable for producing agricultural crops or livestock, must be compatible with agricultural uses, and must not force a change in or significantly increase the cost of accepted agricultural practices on nearby lands devoted to agricultural use. NSA-LUDO § 5.020(J) & (K).

The applicant relies on NSA-LUDO § 3.120(E)(20) as the permitting mechanism for the area that crosses the GMA Large-Scale Agriculture zone. However, that provision requires an analysis of practicable alternatives that would have fewer adverse affects on the protected resources of the NSA and also requires the size to be the minimum necessary to provide the service. *Id.* As discussed above, the applicant, while purporting to have performed a large-scale analysis and asserting that it must build new tracks through the NSA for an undefined amount of operational efficiency, has not studied practicable alternatives on a parcel-by-parcel or zone-by-zone basis. Until it does so, NSA-LUDO § 3.120(E)(20)(a) is not met. *See also* Section I.F.

**Additionally, NSA-LUDO § 3.120(E)(20)(b) requires a project to be the minimum size necessary to provide the service. UPRR already provides rail service through the area and it asserts in its application that the project is for efficiency improvements, rather than to provide additional service.** *See* Project Narrative Section 2. **Based on the applicant's own words, the size is already the minimum necessary (or larger) to provide train service, so NSA-LUDO § 3.120(E)(20)(b) is not met. For this reason alone, this massive new project cannot be permitted through the GMA Large-Scale Agriculture zone under NSA-LUDO § 3.120(E)(20).**

It is unclear from the proposal if mineral production would take place in this zone. "Production of mineral resources means the use of portable crushing, on-site stockpiling, washing, milling, screening, or sorting equipment or other similar methods of initial treatment of a mineral resource to transport to another site for use or further processing." NSA-LUDO § 1.200. If such uses are to take place in the GMA Large-Scale Agriculture zone then the requirements in NSA-LUDO § 10.300 must be met. The application provides no evidence that any of the criteria would be met. **Any permit issued for this project must either be conditioned on no mineral production in this zone or the application cannot be lawfully issued.**

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2. *GMA Small-Scale Agriculture Zone*

The project would pass through 0.26 miles in the GMA Small-Scale Agriculture zone, disturbing 0.90 acres in this zone. In addition to the proposed new track, there would also be a new signal building as well as construction staging and a temporary access road in this zone. NSA-LUDO § 3.130 specifies which uses are allowed in Small-Scale Agriculture zones.

The applicant relies on NSA-LUDO § 3.130(E)(14) as the permitting mechanism for the portions of the project that would cross the GMA Small-Scale Agriculture zone. NSA-LUDO § 3.130(E)(14) mirrors NSA-LUDO § 3.120(E)(20). That provision is discussed in Section III.A.1 above. Rather than repeating that analysis, it is incorporated by reference here.

3. *GMA Open Space Zone*

The proposal includes new track, construction staging, temporary and permanent roads, a signal building, two signal lights, 3,615 feet of un-weathered guardrail, a new culvert and two new culvert taps in the GMA Open Space zone. This would disturb 6.41 acres of land and account for 1.34 miles of new track.

NSA-LUDO § 3.180 specifies which uses are allowed in the GMA Open Space zone. The applicant does not propose a path for permitting the new culvert in the GMA Open Space zone. This is probably because there is no path to permit this new use. **It is a prohibited use and cannot be lawfully permitted.** NSA-LUDO § 3.180(F). **The County must deny the proposed new culvert.**

New guardrails are a permitted use within the zone if they will be within the disturbed right-of-way of the road and they are weathered or meet the I-84 corridor strategy. NSA-LUDO § 3.180(B)(2)(e). The applicant has proposed two-thirds of a mile of new, un-weathered guard rail in GMA Open Space. **Un-weathered guardrail would significantly contribute to the cumulative scenic impacts of the project. If the County approves the application, we ask the County to include a condition of approval to require weathered guardrails.**

**The applicant has proposed a mineral production area within the GMA Open Space zone – a use that is not allowed in this zone. NSA-LUDO § 3.180(F). "Production of mineral resources means the use of portable crushing, on-site stockpiling, washing, milling, screening, or sorting equipment or other similar methods of initial treatment of a mineral resource to transport to another site for use or further processing." NSA-LUDO § 1.200. According to the application materials a proposed staging area meets this definition.[4] This use is not allowed in this zone and must be moved to a zone where it is allowed.**

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[4] "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." App. Supp. At 6.

4. *GMA Water Zone*

A temporary construction area is proposed in the GMA Water zone. Temporary uses are subject to the same standards as permanent uses. *See* Section I.E above. **There are no zoning regulations for uses in the GMA Water zone. Where a use is not allowed outright, allowed through expedited development review, or allowed through conventional development review, it is prohibited. Thus, this use cannot take place and the County cannot lawfully approve the application.**

5. *GMA Agriculture Special Zone*

The County has identified a parcel zoned GMA Special Agriculture that the project would affect – Tax Lot 3N12E31-00000700, owned by Orchard View Farms LLC. **Although this zone appears both on the notice provided by the County and on the pre-application conference report, the applicant chose to ignore this zone in its analysis. NSA-LUDO § 3.190 specifies which uses are allowed in GMA Agriculture Special zones. "Utility facilities, public use facilities, and roads" are expressly prohibited.** NSA-LUDO § 3.190(E)(7). Allowed review uses include "Replacement or minor expansion of existing and serviceable structures within a dedicated site. Expansion shall be limited to the dedicated site." NSA-LUDO § 3.190(D)(4). The proposed new railroad track would not be a "minor expansion" of an existing track and would not be limited to the dedicated site.

It is difficult to discern from the engineering drawings what is proposed for this zone. Rock blasting and equipment staging have been proposed right up to the edge of the zone and the drawings indicate that the rock blasting may enter the zone. In addition, the required agricultural setbacks do not appear to be adhered to. However, the applicant has not requested a variance to these setbacks. **Conditions of approval must ensure that the proper agriculture setbacks will be adhered to and that no rock blasting will take place in this zone.**

It is curious that the applicant discussed this zone with the County during the pre-application hearing – and the County has included it in its approval criteria – but the applicant does not address it at all in the actual application. **This is another example where the application is incomplete and inaccurate. The County cannot lawfully approve the application if any part of the development, whether temporary or permanent, would be sited in the Agriculture Special zone or disturb the agricultural setbacks provided in County ordinance.**

**B. <u>Resource Impact Review</u>**

This section discusses the legal requirements for protection of scenic, natural, cultural, and recreation resources within the GMA and identifies various deficiencies in the project application.

1. *Scenic Resource Protection*

NSA-LUDO §§ 14.100 and 14.200 contain the scenic resource protection standards for the General Management Area. Whether or not the parcel is visible from KVAs, new buildings and roads must be sited and designed to retain existing topography and to reduce grading to the maximum extent possible. NSA-LUDO § 14.100(B). New buildings must be compatible with the

general scale of existing nearby development. For purposes of determining compatibility, the height, dimensions (*i.e.*, length, width, and footprint), and visible mass of the proposed building must each be evaluated. NSA-LUDO § 14.100(C). **The length, width, and footprint of this project and the overall visible mass are extremely large. The siting is proposed for the railroad's convenience rather than to retain existing topography or reduce grading. The application fails in this area.**

*Key Viewing Areas*

- New buildings and roads must be sited so that they are visually subordinate to their settings as seen from KVAs. In determining the least visible site, existing topography and vegetation must be given priority over artificial means of screening. NSA-LUDO § 14.200(R)(4).
- The existing tree cover screening the development area on the subject parcel from KVAs shall be retained except as necessary for site development or fire safety purposes. NSA-LUDO § 14.200(H).
- New buildings and roads must be sited and designed to minimize grading activities and visibility of cut banks and fill slopes from KVAs. NSA-LUDO § 14.200(D).
- The County must evaluate all aspects of the development, including size, height, shape, color, reflectivity, landscaping, and siting, to ensure that the development will be visually subordinate. NSA-LUDO § 14.200(A)(2).
- Exterior colors must be dark earth-tones found at the specific site or in the surrounding landscape. Actual specific colors meeting this standard must be proposed in the land use application. Colors that are not expressly approved by a land use decision may not be used. 14.200(I).
- The County must evaluate the number of KVAs from which the development site is visible; the amount of area of the building site exposed to KVAs; the degree of existing vegetation providing screening; the distance from the building site to the KVAs; and, for linear KVAs such as roads, the linear distance along which the site is visible. NSA-LUDO § 14.200(A)(1).
- The County must evaluate the potential cumulative visual effects of the proposed development. NSA-LUDO § 14.200(L). This includes evaluation of past, present and likely future actions. Individually insignificant but cumulatively significant actions must be evaluated and cumulative adverse impacts must be avoided. 16 USC 544(a)(3).

**As discussed in Section I.C above, the development would apparently be visible from several more KVAs than the applicant identified. The number of KVAs and the large scale of the proposal must be considered. The new access roads and signal buildings must be sited to achieve the applicable scenic standard as seen from KVAs. There is no evidence this was even a consideration of the applicant. Furthermore, the County is required to consider the cumulative adverse visual impacts of the project including the impact of past actions. This must extend to the existing railroad. We ask that the County deny the application based on these criteria.**

**If the County were to approve the application, it must require landscaping to make the development visually subordinate when viewed from KVAs. NSA-LUDO § 14.200(K). This applies, for example, to the portion of the development from MP 67 eastward that can be seen from the I-84, Klickitat County Road 1230, Columbia River, Cook-Underwood Road,**

**Historic Columbia River Highway, Rowena Plateau, SR-14, and SR-141 KVAs. The screening must also meet the requirements of NSA-LUDO Chapter 11.**

- Unless the building site is fully screened from all key viewing areas by existing topography, building materials must be nonreflective or low-reflective. NSA-LUDO § 14.200(J).

The County should include a condition of approval to ensure that all surfaces, including the rails, meet this requirement.

**2. *Natural Resource Protection***

Section II.C.2 above discusses the requirements for natural resource protection in the SMA and identifies deficiencies in the project application. That discussion is incorporated here by reference to the extent that standards are the same in the GMA and the SMA.

The applicant has requested a variance to the sensitive plant buffer zones and the water resources setbacks in the GMA. Section II.C.2 above discusses the SMA requirements for a natural resources variance. The GMA requirements are the same. We incorporate the discussion of the variance standards from Section II.C.2 here. As discussed in that section, the variance standards are not met. Therefore a variance cannot be issued.

NSA-LUDO § 14.600(A) & (B) contain the standards for projects in the GMA that may affect water resources. The applicant acknowledges that the project would result in permanent disturbance of three delineated wetlands and disturbance of five wetland buffer zones within the GMA. By requesting a variance, the applicant further acknowledged that the standards would not be met. As discussed in the previous paragraph, a variance cannot be legally granted for this buffer. Since these standards would not be met, the application cannot be lawfully approved.

In its analysis of NSA-LUDO § 14.600(A)(6), the applicant attempts to skirt the requirements by claiming the project is historically water-dependent and that it has no practicable alternatives. Project Narrative at 5-71. As discussed in Section II.C.2 above and in Section IV.A below, neither contention is accurate so the applicant again does not meet the applicable criteria. The applicant also unconvincingly argues that "[d]ue 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." Project Narrative at 5-72. No such exception to the criteria exists. The railroad must meet the criteria in NSA-LUDO § 14.600(A)(6). It fails to do so.

While the applicant acknowledges that the proposed mitigation plan is "conceptual," the applicant also claims that "[t]he final Mitigation Plan will satisfy all requirements of Section 14.600(A)(6)(h)." The production of a final mitigation plan that is compliant with all applicable standards is necessary before the application can be approved. Compliance cannot be deferred through conditions of approval. *Eagle Ridge.*

NSA-LUDO § 14.600(C) contains the standards for projects in the GMA that may affect sensitive wildlife resources. The first step is for the County to determine whether the project is proposed within 1,000 feet of a sensitive wildlife area or site. This includes the following areas:

- habitat for wildlife species that are listed as endangered, threatened, sensitive, or candidate by the federal government or by the State of Oregon
- habitat for elk, mountain goat, great blue heron, osprey, golden eagle, or prairie falcon
- deer and elk winter range
- pika colony areas
- waterfowl areas
- shallow water fish habitat in the Columbia River
- sturgeon spawning areas
- tributary fish habitat
- streams that are primary water supplies for fish hatcheries or rearing ponds
- wetlands, mudflats, shallow water, or riparian vegetation that have high values for waterfowl, shorebirds, raptors, songbirds, upland game, and reptiles

NSA-LUDO §§ 1.200 (definition of "sensitive wildlife species"),14.600(C)(1)(b).

Since the proposed project is within 1,000 feet of one or more of these areas, the County is required to transmit the application to the Oregon Department of Fish and Wildlife, which will review the application to determine the precise locations of wildlife habitat and activities, as well as potential impacts to wildlife areas or sites. As part of its review, ODFW may in its discretion conduct site visits. NSA-LUDO § 14.600(C)(3).

If the County, in consultation with ODFW, concludes that the proposed project is likely to adversely affect a sensitive wildlife area or site and that the impacts cannot be eliminated through site plan modifications or project timing, then the applicant must prepare a wildlife management plan. NSA-LUDO § 14.600(C)(5). The plan will provide a basis for the applicant to redesign the project in a manner that protects sensitive wildlife areas and sites, maximizes its development options, and mitigates temporary impacts to the wildlife area or buffer zone. *Id.* A wildlife management plan, prepared by a professional biologist hired by the applicant, must include the following:

- relevant background, such as biology of the species, characteristics of the subject parcel, and regulatory protection and management guidelines
- delineation of core habitat
- wildlife buffer zones
- an indication of the size, scope, configuration or density, and timing of all new uses within core habitat
- rehabilitation and enhancement actions
- a 3-year monitoring plan for federal or state listed species

*Id.*

**NSA-LUDO § 14.600(D) contains the standards for projects in the GMA that may affect sensitive plant resources. By requesting a variance, the applicant has acknowledged that these standards would not be met. As discussed in the first paragraph of this subsection, a variance cannot be legally granted for this buffer. Since these standards would not be met, the application cannot be lawfully approved.**

As discussed above, Appendix K, which must contain the wildlife management plan required by NSA-LUDO § 14.600, has been redacted from the application materials. *See* Project Narrative at 5-81. We have submitted a public records request for this portion of the application but we have

not yet received it. To preserve standing, we assert that it does not meet the requirements of NSA-LUDO § 14.600.

### 3. *Cultural Resource Protection*

For uses and developments in the General Management Areas, NSA-LUDO § 14.500 contains the standards for the protection of cultural resources. These are the same standards as apply to this development in the SMA. Section II.C.3 is therefore incorporated here by reference.

## IV. Other Requested Variances

This section discusses two variances requested by the applicant that do not neatly fit into the previous sections. Neither variance can be lawfully granted.

### A. Columbia River Development Setback Variance

**The applicant requests a variance to the Columbia River development setback. Such a variance can only be granted when enforcement of the setback would render the property unbuildable. NSA-LUDO § 14.200(G). The property is, in fact, already built upon so it does not qualify as unbuildable. Thus, a variance cannot be lawfully granted.**

The applicant also argues that the railroad is an historically water-dependent use and points out that a variance is not necessary for water-dependent development. Project Narrative at 5-55, NSA-LUDO § 14.200(G). At the same time, the applicant acknowledges that railroads have not been a water-dependent use since the 1920s when diesel locomotives became available. Project Narrative at 5-55. The applicant also tries to bootstrap water-dependence by noting that the grade near rivers is often gentler. *Id.* This does not somehow make railroads a water-dependent use; railroads are often built far away from water sources and are not water-dependent in 2016. And even assuming railroads are grade-dependent, that would not meet the legal criteria for water-dependence. Additionally, by requesting a variance the applicant tacitly acknowledges that one is necessary to lawfully approve the application. **The prerequisites to getting a variance are not met and the application cannot be lawfully approved unless conditions of approval require a setback from the Columbia River of 100 feet in the GMA and 200 feet in the SMA.** NSA-LUDO § 14.200(G), *Friends*.

Finally, even if the parcels were determined to be unbuildable without a variance, the Columbia River development setback variance can only be granted in the SMA when the practicable alternative test has been completed and all adverse effects will be mitigated. NSA-LUDO § 6.020(D). As discussed above, the applicant has not adequately completed the practicable alternative test. *See* Section II.C.2 above. While the applicant has submitted an incomplete Water Resources Conceptual Mitigation Plan, it has not submitted an adequate final mitigation plan. **Until the applicant shows that the land is unbuildable without a variance, completes an adequate practicable alternative test, and produces an adequate water resources mitigation plan, the County cannot lawfully issue a variance to the required setback from the Columbia River.**

/// /// ///

**B. Scenic Travel Corridor Setback Variance**

The proposed development is located within one-quarter mile of Interstate 84 and thus is in the foreground of a scenic travel corridor. NSA-LUDO § 14.300(B)(1). As discussed below, the applicant seeks a variance to the required 100-foot setback and fails to demonstrate compliance with NSA-LUDO § 14.300(B)(5).

Under the County ordinance, a scenic travel corridor setback variance can only be granted in an SMA when the Practicable Alternative Test has been completed and all adverse effects will be mitigated. NSA-LUDO § 6.020(D). **In addition to not completing an adequate Practicable Alternative Test, the applicant has not proposed any mitigation for the adverse effects of the new development. A condition that the applicant cannot build in the scenic travel corridor setback area is necessary.**

In addition, NSA-LUDO § 14.300(B)(5) requires railroads to "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." The applicant incorrectly argues that this standard does not apply to the project because it would relocate existing utility and signal lines rather than construct new ones. *See* Project Narrative at 5-60. The applicant is wrong; the requirement in NSA-LUDO § 14.300(B)(5) is not limited to new signal lines and powerlines. The applicant has failed to demonstrate compliance with this standard. =

**V. <u>Conditional Use Review</u>**

As discussed in Section I.D above, to pass conditional use review muster, the entire project must meet the requirements of NSA-LUDO § 5.020. However, it fails to meet at least NSA-LUDO § 5.020(A–D), (F–H), and (L).

NSA-LUDO § 5.020(A) requires a proposed conditional use to be "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." **As discussed at length above, the proposal is not consistent with the Wasco County NSA-LUDO, the Wasco County Comprehensive Plan, or the Management Plan for the Columbia River Gorge National Scenic Area. As such, the County cannot lawfully approve the application.**

The applicant's proposal also does not meet the requirements in NSA-LUDO § 5.050(A)(4). The applicant's Project Narrative entirely skips this requirement, not addressing how "[t]he project includes provisions for bicycle and pedestrian access and circulation." **To meet this requirement, much-needed improvements to river access should be required by the County.**

Under NSA-LUDO § 5.020(C) & (L), the proposed use must not significantly burden fire facilities and available services, nor significantly increase fire hazards, fire suppression costs, or risks to fire suppression personnel. **Section II.C above discusses the significant increase in fire hazards that the project will bring, which are likely to further burden fire facilities and services.** Despite requirements that it do so, the applicant does not address the Fire Safety standards in Chapter 11 of the NSA-LUDO in its application. **The application fails on these criteria.**

NSA-LUDO § 5.020(D) requires that "[t]he proposed use will not unduly impair traffic flow or safety in the area." **With at least five at-grade street crossings in the County and the increase in train traffic that the applicant projects, there will be an impairment of traffic flow in the area.** UPRR Fact Sheet. The increase in trains will likely include an increase in oil trains through the National Scenic Area. Such trains severely threaten public safety and will increase the dangers of driving along I-84 and city streets in Mosier, Rowena, and The Dalles. **This criterion is also not met.**

NSA-LUDO § 5.020(F) requires that "[t]he proposed use will not significantly reduce or impair sensitive wildlife habitat, riparian vegetation along streambanks and will not subject areas to excessive soil erosion." **The portion of the project area that has been disclosed in the application crosses three wetlands and waterbodies and nine buffer zones, plus it will require work in the Columbia River. This will result in significant impairment of riparian vegetation and sensitive wildlife habitat. The fact that the applicant has requested variances to the sensitive plant buffer zone, the wetland buffer standard, and the Columbia River development setback shows that significant impairment will result. This criterion is not met.**

NSA-LUDO § 5.020(G) requires that "[t]he proposed use will not adversely affect the air, water, or land resource quality of the area." Simply put, spills happen. The more trains that travel the tracks, the higher the likelihood that there will be a large-scale spill that will affect the surrounding area. This legal requirement does not have a threshold like "unduly" or "significantly." Thus, **any adverse effect on the air, water or land resource quality makes the application fail these criteria.** While the applicant asserts that diesel emissions will be reduced due to fewer idling trains in Mosier, the NSA-wide impact is entirely different. **Faster, longer, and more frequent trains can only mean that additional particulate matter (PM 2.5) will be emitted and that it will negatively affect the air resources of the NSA. PM 2.5 has been tied to cancer, cardiovascular disease, neurodevelopmental disorders, and pulmonary problems. See attachment. This degradation of air resources is justification to deny the application. The adverse effects discussed in the previous paragraph and in the sections above show the impacts on water resources. The massive excavations, grading, and other land development will impact land resources in the area. These criteria are also not met.**

NSA-LUDO § 5.020(H) requires that "[t]he location and design of the site and structures for the proposed use will not significantly detract from the visual character of the area." As discussed in sections II.C.1 and III.B.1 above, there will be both temporary and permanent significant changes to the visual character of the area. **From the rock excavations, to the removal of several acres of vegetation, to the proposed new permanent road – not to mention the additional buildings, track, signals, and trains – the project will result in significant adverse effects to the visual character of the area. This criterion is not met.**

Finally, NSA-LUDO § 5.020(B) requires the County to take "into account location, size, design and operational characteristics of the proposed use" when determining whether "the proposal is compatible with the surrounding area and development of abutting properties by outright permitted uses." The surrounding area includes Mosier; Memaloose State Park; and the scenic, natural, cultural and recreation resources of the Columbia River Gorge National Scenic Area. In addition to the new track, bridges, buildings, roads, excavations, culverts, signals, guardrail,

staging areas, and intrusions into wetlands and floodplains, the proposed use would allow 5-7 more trains to travel through the area each day and all trains could be longer. *See* UPRR Fact Sheet, App. Supp. at 3–4. **The location of this enormous development along with the additional trains next to the Columbia River in designated open space is not compatible with the surrounding area. Instead it is intrusive and dominates the area. The project fails on these criteria and a permit cannot be lawfully issued.**

## VI. Conclusion

The applicant has proposed to build 4.02 miles of new mainline track, new bridges over Rock Creek and Mosier Creek, and other associated facilities including new buildings. Earth-disturbing work outside of the Mosier Urban Area would involve 11.22 acres of temporary disturbance and 19.58 acres of permanent disturbance, the installation of a new rock retaining wall, and construction of new temporary and permanent access roads. A cut through a mesa would be greatly expanded and the rock would be stored and crushed on a new 5+ acre site within SMA Open Space. The applicant also requests four variances of greater than 50% of standards. They include a variance to the Columbia River development setback standard, to the scenic travel corridor setback standard for I-84, to the wetland buffer standard, and to the sensitive plant buffer zone development standard. Twelve wetlands, five lakes, and the Columbia River would be affected with a total of 0.41 acres of permanent open water disturbance, 0.75 acres of permanent disturbance to vegetated wetlands, and 8.75 acres of permanent disturbance to buffer areas. Simply put, the proposed project would harm resources in the NSA.

The following are initial matters to be considered during review of the application:

- One legal requirement for the review of this project is that it must be evaluated for cumulative adverse effects including past, present, and likely future actions. This must include an evaluation of actions that are individually insignificant but cumulatively significant and cumulative adverse effects must be avoided. If they cannot be avoided, the permit must be denied. Section I.B.
- The application is incomplete and inaccurate. It omits any analysis of the adverse effects on the NSA from the additional trains resulting from the proposed action, it relies on a land transfer that will not take place, it omits several relevant key viewing areas (KVAs) from review, and it omits detailed project components within the Mosier Urban Area from the application. Section I.C.
- Temporary uses and structures in the NSA are subject to the same review requirements as permanent uses and structures. Section I.E.
- The alternatives analysis produced by the applicant is incomplete because it omits an analysis of unidirectional rail operation on both sides of the Columbia River and because it does not address site-specific impacts with a parcel-by-parcel alternatives analysis. Section I.F.
- The railroad itself is already a nonconforming structure or use. Section I.G.

The following are some of the legal defects with the application. All of them must be corrected or the application cannot be lawfully approved:

- The large new construction staging and mineral production area is not an allowed use in SMA Open Space and cannot be lawfully permitted. Section II.B.1.

- All portions of the proposal that qualify as new development (e.g. the new tracks) cannot be approved in SMA Open Space. Section II.B.1.
- The application fails to demonstrate that the project complies with the Rowena Plan. Section II.B.1.
- The rock excavations cannot be lawfully permitted within the SMA Public Recreation zone. Section II.B.2.
- According to the applicant, it has insufficient right-of-way to meet to meet rail safety standards. The current landowner has refused to transfer additional right-of-way to the applicant and, if it had transferred the right-of-way, the land could not be legally partitioned or transferred through a lot line adjustment. Section II.B.2.
- The application does not address the fire safety standards in NSA-LUDO Chapter 11 as required by County ordinance. Section II.C.
- The applicant downplays the visual impacts of the project and fails to meet the "not visually evident" standard in SMA Open Space as required by law. Section II.C.1.
- The proposed mineral production and staging area in SMA Public Recreation zone fails to meet the "not visually evident" standard required of mineral operations. Section II.C.1.
- The mineral production and staging area within the SMA Public Recreation zone does not minimize grading. Section II.C.1.
- The applicant has refused the County's request to use darker colors on signal buildings. Section II.C.1.
- The development has not been sited on each parcel so as to use the existing topography and vegetation for screening or to minimize visibility from KVAs. Section II.C.1.
- The applicant proposes to intrude on both water resources and their buffer zones. Section II.C.2.
- The applicant has failed to adequately complete the Practicable Alternative Test which is a prerequisite to obtaining the requested variances. Section II.C.2.
- The applicant's water resources mitigation plan is speculative and incomplete. Section II.C.2.
- The applicant substitutes its own standards for the legal standards that it is required to follow for the protection of sensitive wildlife and plants. Section II.C.2.
- The applicant acknowledges that the cultural resource reconnaissance survey and report did not include large areas with blackberry and poison oak cover. Section II.C.3.
- The applicant acknowledges that the recreation resource of the NSA will be temporarily degraded but does not propose the necessary mitigation measures. Permanent degradation without the required mitigation would also take place. Section II.C.4.
- The applicant has not completed the alternatives analysis required for the project to be constructed in the GMA Agriculture zones. Section III.A.1.
- The project is not the minimum size necessary to provide the service as is required in the GMA Agriculture zones. Section III.A.1.
- The application does not demonstrate that the necessary standards have been met to allow mineral production in the GMA Large-Scale Agriculture zone. Section III.A.1.
- A new culvert cannot be legally placed in the GMA Open Space zone. Section III.A.3.
- The proposed 3,615 feet of new un-weathered guardrail in GMA Open Space would significantly contribute to the cumulative adverse effects of the railroad on the scenic resource of the NSA. Section III.A.3.

- The mineral production and staging area within GMA Open Space is not an allowed use. Section III.B.3.
- The temporary construction area in the GMA Water zone is not an allowed use. Section III.B.4.
- The GMA Agriculture Special zone is not addressed in the application. Section III.B.5.
- Siting standards for the new road and signal buildings do not appear to have been addressed or even considered. Section III.C.1.
- A final water resources mitigation plan must be produced before the application is complete and legally ready for review. Section III.C.2.
- The applicant does not meet the standards for a Columbia River development setback variance so no development within 100 of the river in the GMA or within 200 feet of the river in the SMA can be lawfully approved. Section IV.A.
- The applicant does not meet the standards for a scenic travel corridor setback variance so construction cannot take place within 100 feet of I-84. Section IV.B.
- The proposal does not meet conditional use review because of the fire and traffic safety issues it would cause. Section V.
- The proposal does not meet conditional use review because it would significantly impair sensitive wildlife habitat and riparian vegetation. Section V.
- The proposal does not meet conditional use review because there will be adverse effects on air, water, and land. Section V.
- The proposal does not meet conditional use review because of the visual impacts that it will cause. Section V.
- Faster, longer, and more frequent trains can only mean that additional particulate matter (PM 2.5) will be emitted and that it will negatively affect the air resources of the NSA. PM 2.5 has been tied to cancer, cardiovascular disease, neurodevelopmental disorders, and pulmonary problems. See attachment. This degradation of air resources alone is justification to deny the application. Section V.

For the reasons above, the applicant's proposal cannot be lawfully permitted. Thank you for this opportunity to comment.

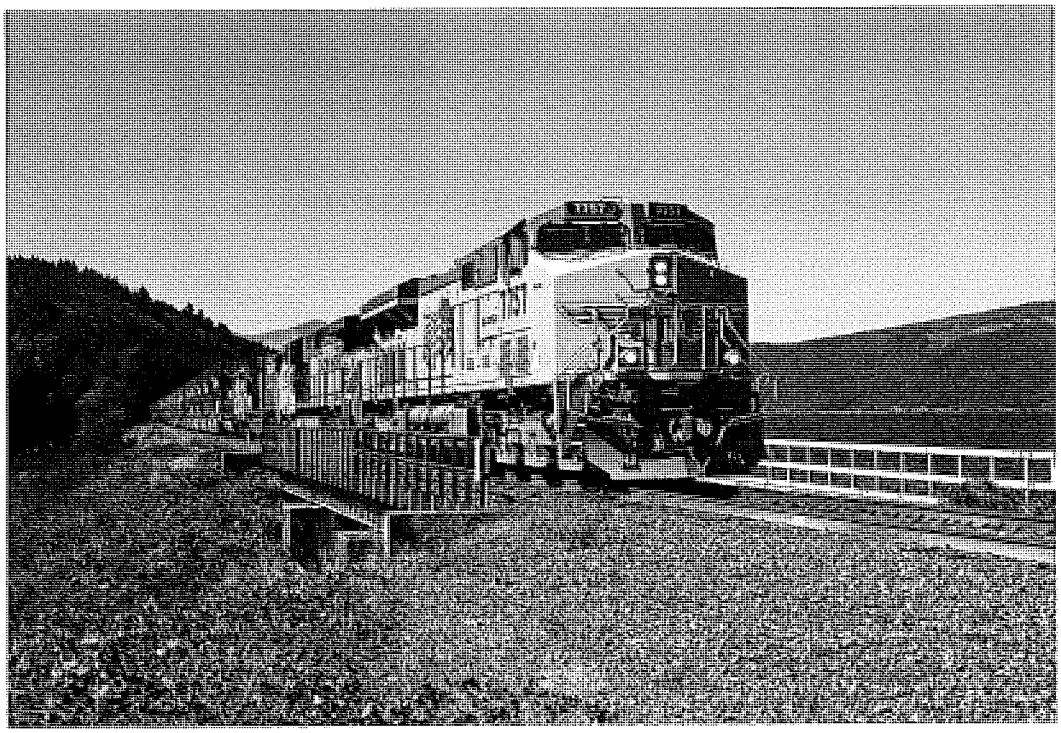
Sincerely,

Steven D. McCoy
Staff Attorney
Friends of the Columbia Gorge

Laura Ackerman
Organizer and Oil Policy Director
The Lands Council

CC: Audie Huber, Confederated Tribes of the Umatilla Indian Reservation
Carl Merkle, Confederated Tribes of the Umatilla Indian Reservation
Brent Hall, Confederated Tribes of the Umatilla Indian Reservation
Brady Kent, Confederated Tribes and Bands of the Yakama Nation
Elizabeth Sanchey, Confederated Tribes and Bands of the Yakama Nation
Dave Cummings, Nez Perce
Clay Penhollow, Confederated Tribes of Warm Springs
Julie Carter, Columbia River Inter-Tribal Fish Commission

Rob Lothrop, Columbia River Inter-Tribal Fish Commission



# Union Pacific To Enhance Infrastructure in Mosier

Union Pacific's Mosier rail siding sits in the middle of a 20-mile section of railroad track where trains do not have a passing lane. The Mosier siding is a bottleneck for Union Pacific in the Pacific Northwest.

The company's shortest siding in the Portland metropolitan area at 6,300 feet, Union Pacific plans to replace the siding with 5 miles of double track, creating a passing lane for trains.

## Public Benefits

The new track will allow two trains to pass one another on parallel track without stopping in a siding, creating public benefits for Mosier residents by:

- Reducing noise and emissions from idling locomotives.
- Eliminating the need to hold and meet trains on the existing siding.
- Reducing horn blowing as train traffic passes stationary trains parked in the siding.
- Improving the movement of Oregon products to market using the safest, most environmentally responsible mode of ground freight transportation.

## Project Details

The east and west ends of the new double track will be located approximately 2 miles outside Mosier. We estimate the new track will be built in 12-15 months once the permitting process is complete. Union Pacific applied for permits from the US Army Corps of Engineers and Wasco County. The new track will be constructed on the north side of the existing main track in Mosier.

In addition to the new track, two new bridges will be constructed at Mosier Creek and Rock Creek. Approximately 15 to 20 feet of new embankment will be built as part of the new track. The cost of the project is estimated at $25 million. No public funds will be used.

Union Pacific needs temporary construction access to its right-of-way to build the new track, specifically in the Rock Creek area, downtown Mosier, and off of Interstate 84 east and west of Mosier. The Federal Railroad Administration speed limit on the new track will be 35 mph. Union Pacific currently moves about 25 to 30 trains per day through Mosier. The new double track will allow us to move 5 to 7 more trains per day through Mosier.

**SPECIFIC DISEASES ASSOCIATED WITH EXPOSURE TO HIGHER LEVELS OF PARTICULATE MATTER IN AIR POLLUTION**

**Cancer**—Studies relating cancer risk and particulate matter:

- exposure to ozone and PM correlated with development of and mortality from lung cancer (Beeson, Dockery, Pope)
- increased biological markers associated with risk of lung cancer (Demetriou)
- increased oxidative DNA damage predictive of cancer risk (Avogbe)
- increased rates of breast cancer (Crouse, Wei)

**Cardiovascular**—Studies have linked increased particulate matter with increased cardiac disease:

- increased cardiovascular disease mortality and morbidity in both short term and long term exposures to PM 2.5 (Brook)
- increased hospital admissions for serious cardiac arrhythmias (Peters 2000)
- increased probability of admission for acute myocardial infarction (Mustafic, Peters 2001)
- increased ischemic heart disease, arrhythmias, congestive heart failure (Dominici) and bio markers (HRV) associated with increased cardiac morbidity and mortality (Pieters)
- increased hospital admissions and death from heart failure (Shaw)
- increased risk of congenital cardiac anomalies in children (Vrijheid)

**Cerebrovascular** – Studies have shown links between particulate matter and adult brain effects:

- increased hospital admissions for strokes(Dominici, Lue, Wellenius 2005)
- significant increase in stroke mortality associated with increase in PM (Chen, Qian)
- increased risk of stroke associated with increased exposure to small PM, black carbon, and nitrous dioxide (Wellenius 2012)
- increased risk of stroke and death from stroke for post menopausal women (Miller)
- structural brain damage and cognitive deficits in middle-aged and older adults (Wilker)

**Neurodevelopmental**—Studies associating in-utero exposure to particulate matter and:

- increased incidence of autism spectrum disorder (ASD)—(Becerra, Kalkbrenner, Raz, Roberts, Volk 2013, Volk 2011)
- increased incidence of behaviors associated with attention deficit hyperactivity disorder (ADHD) (Chiu, Newman, Perera 2014, Peterson)
- lowered IQ (Calderón-Garcidueñas, Perera 2009, Jedrychowski)
- increased behavioral symptoms of anxiety, depression, social problems, rule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breaking, and aggression (Perera 2013)
- neurobehavioral development in children benefited from the shutdown of a coal-burning plant (Perera 2008, Tang)

**Pulmonary**—Studies have demonstrated the effects of particulate matter on the lungs:
- decreased lung function (WHO 3)
- inhibited lung development in children and adolescents and measurable airway inflammation (Gauderman)
- increased asthma rates and worsening of preexisting asthma and chronic obstructive pulmonary disease (COPD), resulting in increased hospitalization (Carlsten et al., Gowers, Delamater, 2012; HEI Panel, Pandya, Trasande)

**General**—
- increased mortality from cardiac, respiratory and kidney disease in all members of communities with coal exposure (15,16,17,18 Hendryx 2007, Hendryx 2010, Hendryx 2008, Hendryx 2009)
- long term exposure linked to decreased life expectancy from cardiopulmonary mortality (Krishnan, WHO 4)
- prenatal exposures linked to aled immune system development (Hertz-Picciotto)

**KEY AMERICAN MEDICAL SOCIETIES AND THE WORLD HEALTH ORGANIZATION HAVE ISSUED POSITIONS ON REDUCING AIRBORNE PARTICULATE MATTER (LARGELY COMPOSED OF DIESEL EXHAUST):**

The *American Heart Association's* 2010 Scientific statement updated and summarized its 2004 position: "It is the opinion of the (AHA) writing group that the overall evidence is consistent with a *causal* relationship between PM2.5 exposure and cardiovascular morbidity and mortality. This body of evidence has grown and has been strengthened substantially since publication of the first AHA scientific statement and, ... because the evidence reviewed supports that there is no safe threshold, it appears that public health benefits would accrue from lowering PM2.5 concentrations even below present-day (EPA standards), if feasible, to optimally protect the most susceptible populations." (Brook, see references above)

The American College of Obstetricians and Gynecologists (ACOG) together with the American Society of Reproductive Medicine (ASRM) in October 2013 issued a statement, "The evidence that links exposure to toxic environmental agents and adverse reproductive and developmental health outcomes is sufficiently robust, ...

individuals alone can do little about exposure to toxic environmental agents, such as from air and water pollution, ... calling for timely action to identify and reduce exposure." (ACOG, see references above)

The *American Academy of Pediatrics* (AAP) issued a policy statement linking ambient air pollution to adverse health outcomes in children and recommended the National Ambient Air Quality Standards (NAAQS) be promptly reviewed and revised to protect children. (AAP, 2004, reaffirmed 2009, see references above)

In October 2013, *WHO's International Agency for Research on Cancer (IARC),* classified both outdoor air pollution, as a whole, and particulate matter, on its own, as carcinogenic. Therefore, it is vital to implement efficient policies to reduce exposure to pollution worldwide. (World Health Organization (WHO 2) and American Cancer Society, see references above).

**Local Washington agencies and medical professionals have taken positions on oil transportation:**

In September 2015, the Washington State Medical Association in a unanimous vote by the House of Delegates passed a resolution (C-8) in opposition to coal exports and the transport and storage of oil in Washington State.

The Washington Department of Health has issued a request that an environmental impact study on the Tesoro Vancouver Terminal include "an analysis of potential impacts on the health of people in Washington State."

**References:**
**(Includes all illnesses associated with airborne particulate matter in air pollution)**

ACOG—The American College of Obstetricians and Gynecologists, Committee Opinion, No. 575, October 2013 - http://www.acog.org/About_ACOG/News_Room/News_Releases/2013/Environmental_Chemicals_Harm_Reproductive_Health

AAP—American Academy of Pediatrics. Committee on Environmental Health. Ambient Air Pollution: Health Hazards to Children, , *Pediatrics*, 2004: 114, 1699-1707, Reaffirmed April 2009 (http://pediatrics.aappublications.org/content/125/2/e444.extract)

Avogbe P, Ayi-Fanou L, Autrup H, et al. Ultrafine particulate matter and high-level benzene urban air pollution in relation to oxidative DNA damage. Carcinogenesis 2004; 26(3):613-620

Becerra TA, Wilhelm M, Olsen J, et al. Ambient air pollution and autism in Los

Angeles County, California. Environ Health Perspect 2013; 121(3);380-386

Beeson WL, Abbey DE, Knutsen SF. Long-term concentrations of ambient air pollutants and incident lung cancer in California adults: results from the Adventist Health Study on Smog. Environ Health Perspect 1998; 106(12):813-23

Bellavia A, Urch B, Speck M, et al. DNA Hypomethylation, ambient particulate matter, and increased blood pressure: findings from controlled human exposure experiments. J Am Heart Assoc. 2013; 2:e000212 doi: 10.1161/ JAHA 113.000212

Brook RD, Rajagopalan S, Pope CA, III, et al. Particulate matter air pollution and cardiovascular disease: An update to the scientific statement from the American Heart Association. Circulation 2010;121(21):2331-2378

Calderón-Garcidueñas L, Engle R, Mora-Tiscareño A, et al. Exposure to severe urban air pollution influences cognitive outcomes, brain volume and systematic inflammation in clinically healthy children. Brain and Cognition 2011; 77(3):345-355

Carlsten C, Dybuncio A, Becker A, et al. Traffic-related air pollution and incident asthma in a high-risk birth cohort. Occup Environ Med 2011; 68:291-295

Chen R, Zhang Y, Yang C, et al. Acute effect of ambient air pollution and health effects study. Stroke 2013; 44:954-960

Chiu Y-HM, Bellinger D, Coull BA, et al. Associations between traffic-related black carbon exposure and attention in a prospective birth cohort of urban children. Environ Health Perpect 2013; 121(7):859-864

Crouse D, Goldberg M, Ross N, et al. Postmenopausal breast cancer is associated with exposure to traffic –related air pollution in Montreal, Canada: a case-controlled study. Environmental Health Perspectives 2010; 118(11): 1578-1583

Delamater P, Finley A, Banerjee S. An analysis of asthma hospitalizations, air pollution, and weather conditions in Los Angeles County, California. Science of the Total Environment 2012; 425:110-118

Demetriou C, Raaschou-Nielsen O, Loft S, et al. Biomarkers of ambient air pollution and lung cancer: a systematic review. Occup Environ Med 2012; 69:619-627

Dockery DW, Pope CA, III, Xu X, et al. An association between air pollution and mortality in six US cities. N Engl J Med 1993; 329(24):1753-1759

Dominici F, Peng RD, Bell ML et al. Fine Particulate air pollution and hospital admission for cardiovascular and respiratory diseases. JAMA 2006; 295(10):1127-1134

EPA 1—http://www.epa.gov/region1/eco/airtox/diesel.html

EPA 2— http://www.epa.gov/teach/chem_summ/BENZ_summary.pdf

Gauderman WJ, Avol E, Gilliland F, et al. The effect of air pollution on lung development from 10 to 18 years of age. N Engl J Med 2004;351(11):1057-1067

Gowers A, Cullinan P, Ayres J, et al. Does outdoor air pollution induce new cases of asthma? Biological plausibility and evidence; a review. Respirology 2012; 17:887-898

Guardian: http://www.theguardian.com/environment/chinas-choice/2013/oct/24/china-airpocalypse-harbin-air-pollution-cancer

HEI Panel on Health effects of traffic related air pollution, Traffic related Air Pollution A Critical review of the literature on emissions, exposure, and health effects. Boston: Health Effects Institute; 2010.

Hendryx M, Ahern MM, Nurkiewicz TR. Hospitalization patterns associated with Appalachian coal mining. Journal of Toxicology and Environmental Health, Part A. 2007;70(24):2064-2070

Hendryx M, Fedorko E, Anesetti-Rothermel A. A geographical information system-based analysis of cancer mortality and population exposure to coal mining activities in West Virginia, United States of America. Geospatial Health 2010;4(2):243-256

Hendryx M, Ahern MM. Relations between health indicators and residential proximity to coal mining in West Virginia. American Journal of Public Health 2008;98(4):669-671

Hendryx M. Mortality from heart, respiratory, and kidney disease in coal mining areas of Appalachia. International Archives of Occupational and Environmental Health. 2009;82(2):243-249

Hertz-Picciotto I, Park H-Y, Dostal M, et al. Prenatal exposures to persistent and non-persistent organic compounds and effects on immune system development. Basic and Clinical Pharmacology and Toxicology 2007;102:146-154

Jaffe, Daniel A., et al. Diesel particulate matter emission factors and air quality implications from in-service rail in Washington State, USA, Atmospheric Pollution Research. Doi: 10.5094/Apr. 2014.040

Jedrychowski WA, Perera FP, Spengler CD, et al. Prenatal exposure to polycyclic aromatic hydrocarbons and cognitive dysfunction in children. Environ Sci Pollut Res Int, 2014, Epub Sep 26 (ahead of publication)



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Kalkbrenner, et al. Particulate matter exposure, prenatal and postnatal windows of susceptibility and Autism Spectrum Disorder. Epidemiology 2015; 26:30-42

Krishnan RM, Adar SD, Szpiro AA, et al. Vascular responses to long- and short-term exposure to fine particulate matter, MESA Air (Multi-ethnic study of atherosclerosis and air pollution. J Am College of Cardiology 2012; 60(21):2158-2166

Li N, Sioutas C, Cho A, et al. Ultrafine particulate pollutants induce oxidative stress and mitochondrial damage. Environ Health Perspec 2003; 111(4): 455-460.

Lue S-H, Wellenius GA, Wilker EH, et al. Residential proximity to major roadways and renal function. J Epidemiol Community Health 2013; 67:629-634

Miller KA, Siscovick DS, Sheppard L, et al. Long term exposure to air pollution and incidence of cardiovascular events in women. N Engl J Med 2007;356(5):447-5

Mustafic H, Jabre P, Caussin C, et al. Main air pollutants and myocardial infarction, a systematic review and meta-analysis. JAMA 2012; 307(7):713-721

Newman NC, Ryan P LeMasters G, et al. Traffic-related air pollution exposure in the first year of life and behavioral scores at 7 years of age. Environ Health Perspect 2013; 121(6):731-736

Oregon Live,
http://www.oregonlive.com/environment/index.ssf/2014/04/oregon_oil_train_shipments_inc.html

Pandya RJ, Solomon G, Kinner A, Balmes JR. Diesel exhaust and asthma: hypotheses and molecular mechanisms of action. Environmental Health Perspectives. 2002;110(suppl 1):103-112

Perera FP, Li T, Zhou Z, et al. Benefits of reducing prenatal exposure to coal-burning pollutants to children's neurodevelopment in China. Environmental Health Perspectives 2008; 116(10):1396-1400

Perera FP, Li Z, Whyatt R, et al. Prenatal airborne polycyclic aromatic hydrocarbon exposure and child IQ at age 5 years. Pediatrics 2009; 124(2):e195-202
Perera FP, Wang S, Rauh V, et al. Prenatal exposure to air pollution, maternal psychological distress, and child behavior. Pediatrics 2013; 132(5):e1284-1294
Perera FP, Chang HW, Tang D, et al. Early life exposure to polycyclic aromatic hydrocarbons and ADHD behavior problems. PLoS One. 2014 Nov 5;9(11); PubMed Central PMCID: PMC4221082

Peters A. Ambient particulate matter and the risk for cardiovascular disease. Progress in Cardiovascular Diseases. 2011; 53: 327-333

Peters A, Liu E, Verrier RL et al, Air pollution and incidence of cardiac arrhythmia. Epidemiology 2000; 11(1):11-17

Peters A., Dockery DW, Muller JE, Mittleman MA. Increased particulate air pollution and the triggering of myocardial infarction. Circulation 2001; 103(23):2810-2815

Peterson, BS, Rauh, VA, Perera, F, et al. Effects of prenatal exposure to air pollutants (Polycyclic aromatic hydrocarbons on the development of brain white matter, cognition, and behavior in later childhood, JAMA Psychiatry 2015; doi:10.1001/jamapsychiatry.2015.57

Pieters N, Plusuin M, Cox B, et al. An epidemiological appraisal of the association between heart rate variability and particulate air pollution: a meta-analysis. Heart 2012; 98:1127-1135

Pope CA, III, Burnett RT, Thun MJ et al. Lung cancer, cardiopulmonary mortality, and long term exposure to fine particulate air pollution. JAMA 2002; 287(9):1132-1141

Qian Y, Zhu M, Cai B, et al. Epidemiological evidence on association between ambient air pollution and stroke mortality. J Epidemiol Community Health 2013; 67:635-640

Raz R, Roberts AL, Lyall K, et al. Autism Spectrum Disorder and particulate matter air pollution before, during, and after pregnancy: a nested case-control analysis within the nurses' health study II cohort, Environ Health Perspec 2015; 123(3):265-270

Roberts AL, Lyall K, Hart, JE, et al. Perinatal air pollutant exposures and Autism Spectrum Disorder in the children of nurses' health study II participants. Environ Health Perspect 2013; 121(8): 978-984

Shaw ASV, Langrish JP, Nair H, et al. Global associations of air pollution and heart failure: a systematic review and meta-analysis. The Lancet 2013; 832:1039-1048

Tang D, Li TY, Chow JC, et al. Air pollution effects on fetal and child development: a cohort comparison in China. Environ Pollut. 2014; Feb. 185:90-6. Doi:10.1016/j.envpol.2013.10.019 Epub2013 Nov. PubMed PMID: 24239591

Trasande L, Thurston GD. The role of air pollution in asthma and other pediatric morbidities. J Allergy Clin Immunology 2005; 115(4):689-699

Vrijheid M, Martinez D, Manzanares, S, et al. Ambient air pollution and risk of congenital anomalies: a systematic review and meta-analysis. Environmental Health Perspectives 2011;119(5) 598-606

Volk HE, Lurmann F, Penfold B, et al. Traffic-related air pollution, particulate matter,

and autism. JAMA Psychiatry 2013; 70(1):71-77

Volk HE, Hertz-Picciotto I, Delwiche L, et al. Residential proximity to freeway and autism in the CHARGE study. Environ Health Perspect 2011; 119(6):873-877

Wei Y, Davis J, Bina WF. Ambient air pollution is associated with the increased incidence of breast cancer in US. Int J Environ Health Res 2012: 22(1):12-21

Wellenius GA, Schwartz J, Mittleman MA. Air Pollution and hospital admissions for ischemic and hemorrhagic stroke among Medicare beneficiaries. Stroke 2005; 36(12):2549-2553

Wellenius GA, Burger, MR, Coull BA, et al. Ambient air pollution and the risk of acute ischemic stroke. Arch Int Med 2012; 172(3): 229-234

Wilker EH, Preis SR, Beiser AS, et al. Long-term exposure to fine particulate matter, residential proximity to major roads and measures of brain structure. Stroke 2015, May DOI:10.1161/STROKEAHA.114.008348

WHO 1—World Health Organization
http://www.who.int/mediacentre/factsheets/fs313/en/#

WHO 2— World Health Organization/ American Cancer Society
http://www.cancer.org/cancer/news/world-health-organization-outdoor-air-pollution-causes-cancer

WHO 3— World Health Organization. Health aspects of air pollution with particulate matter, ozone, and nitrogen dioxide. Bonn: World Health Organization; 2003

WHO 4—World Health Organization. Outdoor Air Pollution. Global Health Observatory. Available at
http://www.who.int/gho/phe/outdoor_air_pollution/en/index.html

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# FRIENDS OF THE COLUMBIA GORGE

*VIA E-MAIL*

April 11, 2016

Angie Brewer, Planning Director
Wasco County Department of Planning and Economic Development
2705 East Second Street
The Dalles, Oregon 97058
angieb@co.wasco.or.us

**Re: Union Pacific Railroad Mosier Area Expansion – PLASAR-15-01-0004**

Dear Ms. Brewer:

Friends of the Columbia Gorge and Columbia Riverkeeper (collectively "Friends") have reviewed the above-referenced application and would like to offer initial comments. These comments will be supplemented at or before the May 3, 2016 hearing. Friends of the Columbia Gorge is a non-profit organization with approximately 6,000 members dedicated to protecting and enhancing the resources of the Columbia River Gorge. Our membership includes hundreds of citizens who reside in the six counties within the Columbia River Gorge National Scenic Area ("CRGNSA" or "the NSA"). Columbia Riverkeeper is a non-profit organization with over 10,000 members, including many members that live, work, and recreate near the proposed project area. Columbia Riverkeeper's mission is to protect and restore the water quality of the Columbia River and all life connected to it, from the headwaters to the Pacific Ocean.

Union Pacific is proposing construction of over 4 miles of new mainline track through the Columbia River Gorge. The project would pass through some of the most highly protected lands in the National Scenic Area including Special Management Area ("SMA") Open Space, SMA Public Recreation, General Management Area ("GMA") Open Space, and GMA Large-Scale Agriculture. It would also create a double-track through the Mosier Urban Area. The project would either increase the number of trains passing through the Gorge or increase the length of trains passing through the Gorge. In either event, the increased capacity would impact adjacent land uses, such as recreation sites and tribal fishing and will result in significant impacts to the protected resources of the Gorge. **Friends requests that Wasco County deny the application.**

## I. Project background

Under the current submittal, applicant Union Pacific Railway ("UPRR") has proposed to build 4.02 miles of new mainline track, new bridges over Rock Creek and Mosier Creek, and other associated facilities including signal cabins. Earth-disturbing work outside of the Mosier Urban Area will involve 11.22 acres of temporary disturbance and 19.58 acres of permanent disturbance, the installation of a new rock retaining wall, and construction of new temporary and permanent access roads. A cut through a mesa will be greatly expanded and the rock will be stored and crushed on a new 6.62 acre site within SMA Open Space. The applicant also requests four variances of greater than 50% of standards. They include a variance to the Columbia River development setback standard, to the scenic travel corridor setback standard for I-84, to the wetland buffer standard, and to the sensitive plant buffer zone development standard. Twelve wetlands, five lakes, and the Columbia River will be affected with a total of 0.41 acres of permanent open water disturbance, 0.75 acres of permanent disturbance to vegetated wetlands, and 8.75 acres of permanent disturbance to buffer areas. Simply put, the proposed project would harm resources in the NSA.

If the project meets its goals it would increase the speed of trains and the number of both train engines and cars passing through heavily protected lands in the National Scenic Area. It also provides capacity for a greater number of idling trains. The extra train traffic would adversely affect scenic, natural, cultural, and recreation resources and endanger local communities.

## II. The significant adverse impacts of this project to the National Scenic Area require denial of the permit

The proposed project will have significant impacts on the scenic, recreational, natural, and cultural resources of the Columbia River Gorge National Scenic Area. Pursuant to the Oregon Supreme Court ruling in *Friends of the Columbia Gorge v. Columbia River Gorge Comm'n*, 346 Or 366, 213 P3d 1164 (2009), County land use decisions must protect against cumulative adverse effects to Gorge resources. Under this ruling, the County must review whether the proposed development would contribute to cumulative adverse impacts to natural resources. This includes evaluation of past, present and likely future actions. Individually insignificant but cumulatively significant actions must be evaluated and cumulative adverse impacts must be avoided. 16 USC 544(a)(3). This includes not only the project itself, but also an analysis of train traffic along the route. Some of the more significant impacts are detailed below.

### *A. Scenic Resource Impacts*

The construction of new mainline tracks could cause adverse impacts to scenic resources, particularly the protected views from designated key viewing areas. As identified by the applicant, development within the National Scenic Area would be visible from at least Interstate 84, Washington State Route 14, Old Washington State Route 14/Klickitat County Road 1230 within the SMA, the Columbia River, and the Historic Columbia River Highway and Trail – all of which are designated as KVAs in the CRGNSA management plan. The visual impacts include clearing of vegetation, grading, construction of new railway tracks, new bridges, other new facilities and the trains themselves.

The project would require large-scale excavation and the construction of one large retaining wall that may be visible from key viewing areas. It is unlikely that such large-scale construction could be designed to comply with the applicable scenic resource protection standards (visually subordinate for the GMA locations, not visually evident for the SMA Open Space and Public Recreation locations). However, it is unclear from the application to what degree the retaining wall and the tracks will be visible. We ask that UPRR be directed to prepare seen areas maps to identify where cut-banks, retaining walls, and other structures would be topographically visible and to allow for the proper consideration of cumulative visual impacts.

While the County requested that the railroad use a darker color for signal cabins, UPRR responded that it "is unable to modify the existing approved signal cabin color used throughout the National Scenic Area." App. Supp. at 5. More information is required from UPRR on who the NSA approval authority was and why the color cannot be changed.

Alarmingly, approximately half of the work will occur between I-84 and the Columbia River in areas designated SMA Open Space and SMA Recreation. This may result in particularly acute degradation of the scenic resources from the I-84 KVA. Not only will the ground disturbance, the new tracks, and the new bridges detract from the visual appeal of the area, but the additional trains that would result from this development, whether moving or stopped, will likely block views of the scenic wonders of the Gorge that are protected under the NSA Act.

Finally, the 6.62 acre site within SMA Open Space that would be used for construction staging, storage, and rock crushing will be acutely visible from the SR-14 KVA across the river. This ground disturbance needs to be studied to determine if it will meet the not visually evident standard that is necessary.

The County must evaluate the potential cumulative visual effects of proposed new development in order to ensure that scenic resources would not be adversely affected. NSA-LUDO § 14.200(L). This includes evaluation of past, present and likely future actions. Individually insignificant but cumulatively significant actions must be evaluated and cumulative adverse impacts must be avoided. 16 USC § 544(a)(3).

*B. Recreation Impacts*

The project would also construct an additional rail line through Memaloose State Park, which, if the goals of the project are met, would lead to longer trains traveling at higher speeds through the recreation area. Conditional Use review requirements demand consistency with Management Goals and Policies. In addition to impacts to public safety, more, faster train cars will have noise impacts on Memaloose State Park. It is also possible that the trains will be approximately 15 feet closer to the campsites and that the size of the park will be reduced. Reducing the size of a State Park likely results in de facto impacts to recreation. It is outside the realm of reason that faster, longer trains closer to users of a State Park will not impact recreation uses.

Additionally, UPRR refused the County's request to identify all current recreation access points. UPRR's response was that "[r]ecreation access is not legally allowed through existing ROW and

across active railroad tracks." However, people are crossing the tracks. UPRR needs to provide safe access where they are crossing.

*C. Natural Resources Impacts*

The natural resource impacts of this proposed project to the National Scenic Area will be significant. These impacts include reduced air quality, the filling of wetlands, new point sources that could affect water quality, and effects on sensitive species.

As detailed above, the project would require large amounts of fill in multiple wetlands adjacent to the Columbia River. Because each individual wetland is small, the Corps of Engineers determined that full permit review is not required. As a result, the Corps is not reviewing whether the fill will be in the public interest. This means that Wasco County will be the default review authority for this project. Please note that UPRR excluded development within the Mosier Urban Area from the NSA application. However, that information must be considered as part of NSA cumulative impacts analysis.

The project also includes the construction of two new bridges. The new bridges are potential locations of new point source pollution, as are all old bridges due to increased train traffic. It is common for portions of uncovered commodities being transported by rail to blow out of the cars and into the surrounding area. In the case of a bridge, the surrounding area will ultimately be the Columbia River. Higher speeds, longer trains, and the windy conditions of the Gorge will increase likelihood of wind-blown water pollution. This must be addressed by the applicant or it is grounds to deny the permit. The placement of new culverts will also introduce new point source pollution to the Columbia River and is another area of concern.

The applicant states that "[s]eeding to be used to stabilize disturbed areas will be of an approved native grass seed mix." App. Supp. at 7. This begs the question of who will approve the seed mix? That question is left unanswered by the application. We ask that the County require the applicant to answer this question prior to making any determinations on the permit.

Also, air quality within the Columbia River Gorge National Scenic Area is already degraded by emissions from both mobile and stationary sources. Diesel emissions from an increase in train traffic resulting from the project would further adversely affect air quality and visibility within the NSA. Without further study and analysis by the applicant, this impact cannot be adequately addressed.

The proposed project would facilitate an increase in the transport of fossil fuels to proposed oil terminals, and possibly coal terminals, in the Northwest. Several proposals for oil terminals are pending in Washington, including what would be the largest oil-by-rail terminal in North America – Tesoro's Vancouver Energy project. Since 2013, oil train accidents have caused 47 fatalities, spilled millions of gallons of crude oil, caused the evacuation of thousands of people and caused billions of dollars in property damage and environmental destruction. The oil train safety requirements contained in the 2015 FAST Act allow tank cars with a side puncture threshold of 12 m.p.h. and a head puncture threshold of 18 m.p.h. to travel at speeds of 50 m.p.h. or more. An accident is likely to result in an oil spill, fire and explosion. Federal law gives

railroads very little control over what commodities they carry. Now that Congress has lifted the U.S. crude oil export ban, we can expect more and more pressure to transport these dangerous trains through the Gorge to terminals on the west coast.

The blast and impact zone from an oil train explosion would cover most of the towns along the rail lines. Firefighters in the Gorge and across the region oppose oil by rail or have raised significant concerns, because they would be unable to adequately respond to a spill and ensuing explosion and fire. These include Skamania Fire District #4, Washington State Council of Firefighters, Washington Fire Chiefs Association and the Vancouver Firefighters Union. *See* attachments.

The Columbia River Gorge Commission and local governments in the region have adopted resolutions opposing or raising concerns about the transport of oil by rail through the Columbia River Gorge. These include Mosier, The Dalles, the City of Hood River, Hood River County, Bingen, Stevenson, Vancouver, Portland, and Multnomah County. *See* attachments. The Port of Camas-Washougal, the Washougal School District, and the Columbia River Inter-Tribal Fish Commission also oppose Oil by Rail. *See* attachments.

Approval of this application is likely to result in an increase in transportation of dangerous oil trains operating at higher speeds, thereby threatening the environment and public safety. The project's adverse indirect and cumulative effects require it to be denied.

There is also the potential for the project to facilitate new coal trains on the Oregon side of the Gorge. Coal is generally transported in open-topped coal cars. According to industry sources, each car loses between 500 and 2,000 pounds of coal dust in transport from the Powder River Basin, or about one pound per mile. With 120 cars per train, each coal train loses about 10,200 pounds of coal as it travels 85 miles through the Gorge. Coal is deposited in the Columbia River, numerous tributary streams, ponds and wetlands within the Columbia River Gorge National Scenic Area. Unpermitted discharge of coal into a waterway of the United States is in violation of the federal Clean Water Act.

*D. Cultural Resources Impacts*

The project area has a very high probability of containing Native American cultural resource sites. This project is a "public transportation facility outside the developed right-of-way" so a cultural resource survey is required. The circulated application materials state that not all areas were surveyed due to the presence of blackberry thickets blocking access. We ask that the County require the applicant to remove blackberry thickets and complete a full cultural resource survey of the development area. Notably, blackberry thickets frequently grow in areas with rich soil, which may correspond to locations that were historically used by the tribes and therefore more likely to contain cultural resources. As a result, it is imperative that the Applicant completes the required cultural resource survey.

Impacts to cultural resources in the project construction area, as well as up- and downstream, are highly likely. As noted above, the project facilitates increased rail traffic and increased train speed. Studies demonstrate that increased rail traffic and speed are associated with increased risk

of derailments and spills. *See, e.g.,* Washington State 2014 Marine and Rail Oil Transportation Study, Washington Dept. of Ecology (Mar. 1, 2015). Derailments and spills impact cultural resources along the UPRR rail line. These impacts and cumulative impacts to cultural resources must be considered.

The project also may limit treaty access fishing rights. The application materials include a list of treaty access fishing sites from CRITFC's website. The list only shows formal access sites, not the actual fishing sites. We ask the County to direct the applicant to work with the tribes to ensure that treaty access fishing rights are fully respected.

## III. Federal Preemption under the Interstate Commerce Commission Termination Act

UPRR has made a point to mention possible preemption under the Interstate Commerce Commission Termination Act of 1995 (ICCTA) (49 U.S.C. § 10501(b)(2)) and is apparently relying on it to refuse to seek permits from the Oregon Department of Forestry. App. Supp. at 4. However, federal preemption does not apply to the Columbia River Gorge National Scenic Area Act or to local rules implementing the Act. The CRGNSA Act is, of course, a federal law so ICCTA must be harmonized with it. *Ass'n of American R.R. v. South Coast Air Quality Mgmt. Dist.*, 622 F.3d 1094, 1097–1098 (9th Cir., 2010) [heretofore *AARR*]. State courts in Oregon and Washington have determined that local land use regulation in the NSA is federally mandated and thus has the force of federal law. *Columbia River Gorge Comm'n v. Hood River County*, 210 Or App 689, 152 P3d 997, *rev den*, 342 Or 727, 160 P3d 992 (2007); *Klickitat County v. State*, 71 Wn. App. 760, 862 P.2d 629 (Div. III 1993). Combined, these cases require any reviewing court to harmonize ICCTA with the Gorge Act and any local implementation of the Gorge Act. Harmonizing ICCTA, the Gorge Act, and local implementation of the Gorge Act would mean that, since rail service is already available on both sides of the river and nothing in the Gorge Act or local ordinances prevents continued operation of those rail services, it does not "manage" or "govern" rail service, and thus is not at all preempted. *AARR* at 1097. The fact is that UPRR has sought at least some permits, placing itself within the jurisdiction of Wasco County, and the ephemeral threat of possible federal preemption should not be used to short-circuit the current permitting process.

## IV. Conclusion

**Friends asks that the County request additional information from the applicant so that the project's true impacts can be fully disclosed and reviewed. Once this is accomplished, for the reasons discussed above, a permit cannot be lawfully issued.**

Thank you for this opportunity for initial comment.

Sincerely,

Steven D. McCoy
Staff Attorney
Friends of the Columbia Gorge

Lauren Goldberg
Staff Attorney
Columbia Riverkeeper

CC: Columbia River Gorge Commission
M.G. Devereux, Deputy Director, Oregon Parks and Recreation Department
Audie Huber, Confederated Tribes of the Umatilla Indian Reservation
Carl Merkle, Confederated Tribes of the Umatilla Indian Reservation
Brent Hall, Confederated Tribes of the Umatilla Indian Reservation
Brady Kent, Confederated Tribes and Bands of the Yakama Nation
Elizabeth Sanchey, Confederated Tribes and Bands of the Yakama Nation
Dave Cummings, Nez Perce
Elmer Ward, Confederated Tribes of Warm Springs
Julie Carter, Columbia River Inter-Tribal Fish Commission
Rob Lothrop, Columbia River Inter-Tribal Fish Commission

# RESOLUTION NO. 2015-006

## A RESOLUTION OF THE CITY OF BINGEN REGARDING TRANSPORTATION OF CRUDE OIL THROUGH THE CITY OF BINGEN

**WHEREAS,** the city council of the City of Bingen is committed to protecting the health, safety and welfare of its citizens, as well as sustaining the health of its local economy; and

**WHEREAS,** an increase in train traffic through the City of Bingen has an impact on safety and economic development, and

**WHEREAS,** derailments involving trains hauling crude oil can lead to crude oil spills and explosions which pose a significant health risk; and

**WHEREAS,** the impact of such train derailment within the city limits of the City of Bingen has the potential to cause loss of life and devastation to the community, environment, and local economy; and

**THE CITY COUNCIL OF THE CITY OF BINGEN, WASHINGTON DO RESOLVE AS FOLLOWS:**

1. The city council of the City of Bingen urges the Governor of Washington to use the powers of the State to encourage federal rules to ensure safe transport of crude oil on rail lines in Washington.

2. The city council of the City of Bingen urges the State of Washington to require coordination among state agencies concerning preparedness and capacity to respond to an accident involving transportation of crude oil by rail.

3. The city council of the City of Bingen urges the Federal Government to implement regulations regarding train speeds and rail car designs to provide for safer transport of crude oil by train.

4. The city council of the City of Bingen urges the State of Washington to require owners and operators transporting crude oil by rail to assume all risk and be sufficiently bonded and insured against the risk of catastrophic fire and explosion, loss of life and property, environmental destruction and damage and any other harm connected with derailments and/or accidents involving trains carrying crude oil.

ADOPTED by the City Council of the City of Bingen, Washington, and APPROVED by its Mayor, at an open public meeting thereof this 5th day of June, 2015.

Mayor

Attest:

City Clerk – Treasurer

Approved as to Form:

Attorney

Columbia River Inter-Tribal Fish Commission

# Resolution

**COMMISSION RESOLUTION NO. 14-01**

## Opposing the Transportation of Crude Oil Through the Columbia River Gorge and Indian Reservations

### PREAMBLE

The Columbia River Inter-Tribal Fish Commission (CRITFC), formed by the Nez Perce Tribe, Confederated Tribes of the Umatilla Indian Reservation, Confederated Tribes of the Warm Springs Reservation of Oregon, and the Confederated Tribes and Bands of the Yakama Nation, in providing a forum to coordinate joint tribal efforts to protect, promote, and enhance member tribes' treaty-reserved natural resources and fishing rights using holistic management of both the fish and the ecosystem upon which those fish depend, does hereby establish the following resolution:

**WHEREAS**, we oppose projects that substantially degrade treaty fishery resources and the ecosystems upon which those resources depend; and

**WHEREAS,** CRITFC Resolution 13-01 recognizes that the three (3) proposed projects for the transport and export of coal through the Columbia River Gorge pose significant risks to tribal rights and resources; and

**WHEREAS,** through CRITFC Resolution 13-02, we oppose development, transportation and use of Canada tar sands oil and related megaload transportation through tribal lands; and

**WHEREAS,** the currently proposed transport projects represent an unprecedented surge in the use of rail to transport millions of gallons of volatile, unrefined crude oil from the Bakken oil field and Alberta oil sands and millions of tons of coal from the Powder River Basin to ports on the Columbia River, Grays Harbor, and the Salish Sea; and

**WHEREAS,** the transport of this volatile crude oil and coal to existing or proposed new terminals would go by rail through the Columbia River Gorge; and

**WHEREAS,** the rail transport of this volatile crude oil and coal to existing or proposed new terminals would go through Indian reservation lands and ceded territories of all of the CRITFC member tribes; and

**WHEREAS,** the proposed crude oil and coal transport projects would pose significant risks to treaty-protected tribal rights and resources, including displacement and elimination of traditional fishing, hunting, and gathering sites; and

**WHEREAS,** CRITFC recognizes that a small number of trains transporting crude oil and coal currently pass through the Columbia River Gorge are currently affecting treaty-reserved resources, and that more trains would increase that burden; and

**WHEREAS,** if each of these proposals is approved, as many as twenty (20) additional trains of crude oil per day and as many as eighteen (18) additional trains of coal per day will travel adjacent to the Columbia River, which will present greater hazards and obstacles to tribal fishers crossing the tracks to access treaty fishing sites, increase the risk of derailment and spill of these contaminating substances, and will result in further expansion of existing rail lines that will require fill for shorelines, wetlands, and streams; and

**WHEREAS**, crude oil that is and will be transported is either Bakken crude oil, a highly volatile substance, or Canada oil sands bitumen, a heavy and extremely viscous substance, both of which are capable of contaminating water and destroying Columbia River natural resources in the event of an accident; and

**WHEREAS**, the DOT-111 class rail cars that carry crude oil are structurally unfit for handling volatile substances, rail cars carrying coal have the propensity for derailment, and that none of these trains are well regulated, lack any assertion of effective oversight by any government, and need to be improved if they are to be used in these sensitive areas; and

**WHEREAS,** the design and performance of rail cars used for shipment of crude oil and coal needs to be improved regardless of whether any of the new proposed transport projects go forward; and

**WHEREAS**, the proposed projects could degrade or destroy cultural and religious sites in the Columbia River Gorge; and

**WHEREAS,** there are no adequate accident response plans in place that will prevent the previously mentioned adverse effects in the event of derailment; and

**WHEREAS**, the projects will degrade the water quality of the Columbia River and adversely impact salmonid, lamprey, and sturgeon habitats.

**NOW THEREFORE BE IT RESOLVED,** that the Columbia River Inter-Tribal Fish Commission opposes all current and proposed transportation of unrefined fossil fuel energy resources including Bakken Shale Oil, Canada Oil Sands, and coal through the Northwest and along the Columbia River via rail, truck, and vessel, and calls upon the federal government to protect the inherent rights of tribes and those rights reserved by treaty; and

**BE IT FURTHER RESOLVED,** that the Columbia River Inter-Tribal Fish Commission calls upon the federal government, including, but not limited to, Region 8 of the Federal Railway Administration of the United States Department of Transportation, to improve the safety of rail cars used for shipment of oil and coal and to develop timely accident response, first responder, and contamination response and cleanup plans in the event of derailments in the Columbia River Gorge; and

**BE IT FINALLY RESOLVED,** that the Columbia River Inter-Tribal Fish Commission calls upon the federal government to fulfill its trust obligation to protect treaty and aboriginal resources by conducting a comprehensive risk assessment of the effects of these energy transport proposals on indigenous peoples of the Northwest, and ensuring that every federal agency involved with these approval processes consult directly and individually with CRITFC's member tribes, as is directed by Presidential Executive Order 13175.

**CERTIFICATION**

The foregoing Resolution was adopted at a Regular Commission Meeting of the Columbia River Inter-Tribal Fish Commission held on the 18th day of April, 2014, at which a quorum was present. The vote for the Resolution was 4 for and 0 opposed.

Joel Moffett
Chairman

Attest

Gerald Lewis
Secretary

**RESOLUTION**

**A RESOLUTION OF THE COLUMBIA RIVER GORGE COMMISSION SEEKING TO PROTECT THE OUTSTANDING SCENIC, NATURAL, CULTURAL, AND RECREATION RESOURCES OF THE COLUMBIA RIVER GORGE NATIONAL SCENIC AREA, AND SEEKING TO PROTECT THE HEALTH, SAFETY AND ECONOMY OF GORGE RESIDENTS, VISITORS, AND COMMUNITIES FROM THE IMPACTS OF INCREASING RAIL TRANSPORT, INCLUDING THE TRANSPORT OF COAL AND OIL THROUGH THE COLUMBIA RIVER GORGE.**

WHEREAS, the Columbia River Gorge is a national treasure that contains world-class scenic, natural, cultural and recreation resources and draws visitors from around the world; and

WHEREAS, sacred cultural resources along the Columbia River Gorge have been kept and protected since time immemorial; and

WHEREAS the Columbia River Gorge National Scenic Area is a uniquely vulnerable landscape due to its steep topography, varied landscapes, unique concentration of scenic, natural, cultural and recreation resources, and increasingly evident impacts of climate change, invasive species and intense wildfires; and

WHEREAS, Oregon and Washington, and the United States Congress committed to protect, enhance and support the Columbia River Gorge National Scenic Area with a unique framework of local, state, and federal laws; and

WHEREAS, the continued protection of the Columbia River Gorge cannot effectively be accomplished by a single state or community acting alone; and

WHEREAS, the Columbia River Gorge Commission is committed to protect the most sensitive portions of the National Scenic Area from the cumulative effects of human use and development; and

WHEREAS, the Columbia River Gorge contains two major railways and the only sea-level rail route through the Cascade Mountains; and

WHEREAS, communities across the United States and Canada have recently experienced devastating tragedies resulting from train derailments, oil spills, explosive fires, and other tragic incidents involving the shipment of crude oil; and

WHEREAS, Gorge communities are individually and collectively unprepared to respond to a train derailment, or a spill of coal, oil or other hazardous materials in the Columbia River Gorge National Scenic Area; and

WHEREAS, a coal or oil spill or a tank car explosion would impact both sides of the Columbia River, Gorge communities are willing to work together to protect their regional community; and

WHEREAS, Gorge industries have expressed specific concerns about the threat of a derailment or fire to human lives, private property and economic assets on both sides of the Columbia River; and

WHEREAS, the introduction of fugitive hazardous materials into the National Scenic Area by any means or from any source is a threat to the world-class resources, quality of life, public health and safety, and the economic stability of the Gorge community; and

WHEREAS, Washington and Oregon agencies are currently reviewing multiple proposals to site large-scale coal and oil transportation facilities in the Northwest that would significantly increase the volume of rail traffic in the National Scenic Area; and

WHEREAS, the proposed developments could increase the volume of oil transported through the Gorge to hundreds of thousands of barrels of crude oil daily, thereby significantly raising the risk of one or more catastrophic incidents; and

WHEREAS, the Columbia River Gorge Commission, acting in its capacity as a bi-state policy-making body for the Columbia River Gorge National Scenic Area, is authorized to develop, adopt and implement standards for protecting the resources and assets of the Columbia River Gorge National Scenic Area; and

WHEREAS, the Columbia River Gorge Commission has unanimously agreed that coal and oil transport through the Columbia River Gorge present unacceptable risks to Gorge resources and threaten the health, safety and economy of Gorge communities;

NOW THEREFORE THE COLUMBIA RIVER GORGE COMMISSION, AN INTERSTATE COMPACT AGENCY WITH UNIQUE AUTHORITIES IN THE STATES OF OREGON AND WASHINGTON, HEREBY RESOLVES:

1. The Gorge Commission resolves to fully uphold its responsibility to ensure the consistent protection and enhancement of Gorge resources, and resolves to support and protect the economy of the Gorge from potentially devastating impacts from the transport of coal and oil.

2. The Gorge Commission strongly urges both Governors to use the powers of each state and the authorities in the National Scenic Area Act to impose a moratorium on all new fossil fuel transport through the Gorge until both states, the Commission, and all Gorge communities have jointly completed a comprehensive risk assessment and implemented a regional plan to avoid, minimize, and mitigate risks from fossil fuel transport through the Gorge.

3. The Gorge Commission strongly urges both Governors and all state agencies of Oregon and Washington, to carry out their respective functions and responsibilities in accordance with the Gorge Compact (ORS 196.150 and RCW 43.97.015), including the specific responsibilities under ORS 196.155, RCW 43.97.025, and the Columbia River Gorge National Scenic Area Act.

4. The Gorge Commission strongly urges the United States Department of Transportation to significantly raise the safety and operational standards for rail cars and other commercial transport vessels to avoid and minimize the risks of hazardous materials transported through the Gorge and across the continent.

5. The Gorge Commission strongly urges Oregon and Washington to work with the Commission to explore and fully implement the authorities under the Gorge Compact and the Columbia River Gorge National Scenic Area Act.

6. The Gorge Commission strongly urges Oregon and Washington to use mandatory protection standards in the National Scenic Area Act, the Gorge Compact and the Management Plan for the Columbia River Gorge National Scenic Area, as those standards are applied by the Gorge Commission and the United States Forest Service, to evaluate the effects of any new development or transportation proposal on or in the National Scenic Area.

7. The Gorge Commission is committed to fully implement the purposes of the National Scenic Area Act, including developing planning, policy and management tools to ensure that our communities, resources and environment are healthy, safe and protected now and for future generations.

8. To ensure the full and timely implementation of this Resolution, the Gorge Commission respectfully requests that the offices of the Governors of Oregon and Washington, and appropriate state agencies, meet with the Commission and its staff not later than September 30, 2014, to discuss and determine appropriate State and Commission actions.

9. This Resolution shall take effect immediately upon passage by a vote of the Commission and upon signature of this document by the Chair or his appointed designee.

Dated and signed this 17TH day of JULY, 2014.

Jim Middaugh, Commission Chair – Multnomah County

Lynn Burditt, USDA – US Forest Service

Janet Wainwright, Vice Chair, Washington

Gorham Blaine, Hood River County

Damon Webster, Clark County

Rodger Nichols, Wasco County

Keith Chamberlain, Skamania County

Antone Minthorn, Oregon

Carl McNew, Klickitat County

Bowen Blair, Jr., Oregon

Hon. Don Bonker, Washington

Dan Ericksen, Oregon

Lorrie DeKay, Washington

BEFORE THE CITY COUNCIL
FOR THE CITY OF MOSIER, OREGON

Resolution No. 2014-05

**A Resolution to Protect the Health, Safety, and Economic Well-Being of Citizens and Natural Resources from the Potential Impact of Increased Crude Oil Rail Traffic Passing Through the City of Mosier, Oregon, Resulting from Proposed Terminal Projects.**

WHEREAS, the City of Mosier is committed to the protection of its citizens and the natural resources on which the City depends, and

WHEREAS, rail infrastructure in Mosier runs adjacent to land resources and its marine and aquatic resources including the Mosier and Rock Creek and the Columbia River; and

WHEREAS, rail transportation through the Mosier region is focused on an elevated track through the center of the City, and the Mosier City Council is concerned about the potential impacts on public safety and economic disruption from a possible derailment; and

WHEREAS, the Mosier City Council is concerned about the potential impacts to the Mosier Community School which is located approximately 150 ft. from the rail road tracks; and

WHEREAS, the Federal Pipeline and Hazardous Materials Safety Administration (PHMSA) issued a major safety alert on January 2, 2014, declaring oil obtained in the Bakken Shale is more explosive and calling for more testing of the temperature at which "traditional heavy crude oil" becomes flammable; the Alert states that, "...the materials pose significant fire risk if released from the package in an accident...[and] the agencies have found it necessary to expand the scope of their testing to measure other facts that would affect the proper characterization and classification of the materials" ; and

WHEREAS, on July 6, 2013, a train carrying crude oil derailed in Lac Megantic, Quebec killing over 40 people, destroying thirty buildings, and requiring the evacuation of over 1,000 people; and

WHEREAS, on December 30, 2013 a train carrying crude oil derailed in Casselton, North Dakota causing violent explosions and a hazardous plume of smoke causing evacuation of the whole town; and

WHEREAS, on January 7, 2014 a train carrying crude oil derailed in New Brunswick; and

WHEREAS, on April 30th, 2014, a train carrying crude oil exploded in Lynchburg, Virginia, and spilled 50,000 gallons of crude oil in the James River,

WHEREAS, as shipments of oil and other petroleum products increase, the number of accidents rises - in 2013 through early November, there were 137 crude releases as compared to just 1 in 2009; and

WHEREAS, the U.S. Department of Transportation (USDOT) is in the process of designating new safety standards and requirements for rail tank cars and evaluating potential new rules for the transportation of flammable liquids; and

WHEREAS, there has been a 8,358 % increase in rail car shipments of crude oil in the United States since 2006; and

WHEREAS, 84% of railroad tank cars are outdated and obsolete in terms of safely transporting Bakken Crude Oil; and

WHEREAS, Oregon is preempted by federal law from regulating rail freight transportation and rail car safety standards, and the navigation of vessels operating on the State's navigable waterways; and

WHEREAS, extreme fire danger from high winds and dry forests exists in the Columbia Gorge during the summer and fall months; and

WHEREAS, no Columbia Gorge fire department by itself or in combined support has the equipment or firefighting supplies to put out a major oil train fire and although are bound to support each other through mutual aid agreements their combined resources are not sufficient to address an oil fire (per the Columbia Gorge First Responder Survey of 2014); and

WHEREAS, unit trains of coal and/or oil with their combined massive weights and commensurate impact on ballast, gauge, and overall wear and tear are more likely to cause accidents and derailment; and

WHEREAS, Sightline Institute of Seattle has estimated that If all of the oil-by-rail projects were built, they would be capable of moving 785,000 barrels per day—more oil capacity than either of the controversial pipelines planned in British Columbia, and nearly as much as the planned Keystone XL pipeline; and

WHEREAS, The Intergovernmental Panel on Climate Change, an internationally accepted authority on climate change, which produces reports which have the agreement of leading climate scientists and the consensus of participating governments in their fifth assessment report, released a report on March 31, 2014 statement that states "strong action would have to be enacted to decrease the emissions of the greenhouse gases (such as carbon dioxide) that cause global warming." and the report

also states that "governments can protect their people from those risks, if they do so now"; and

WHEREAS, Governor Kitzhaber on April 19, 2014 stated: "For Oregon and the world, climate change is an environmental and economic imperative. It is the greatest challenge to our legacy and the greatest threat to our future"; and

***NOW THEREFORE BE IT RESOLVED that the City Council of Mosier, OR strongly requests that the potential impacts to Mosier's public safety, environment, economy, and traffic be studied by the agencies conducting all environmental reviews and request that Mosier be included in any environmental impact statements pertaining to any project that may cause increase in associated oil rail traffic travelling via Mosier; and***

***BE IT FURTHER RESOLVED that the Mosier City Council supports the creation of clear Federal guidelines for tracking the chemical composition of transported fuels so that local governments, citizens and first responders can better understand and plan for the risks associated with the specific type of fuel flowing through or to their communities; and***

***BE IT FURTHER RESOLVED that the Federal Government immediately implement safety regulations regarding older tank cars, train speeds, and other identified hazards associated with flammable crude oil; and***

***BE IT FURTHER RESOLVED that the City of Mosier urges the State of Oregon to adopt legislation requiring disclosure of transportation routes, type of oil, and estimated volume and frequency of transfers of oil; and calls for the Oregon State Office of Financial Management to coordinate state agencies to study the state's preparedness and capacity to respond to an accident involving railcars transporting oil; and***

***BE IT FURTHER RESOLVED that the City of Mosier communicate with public emergency response teams to review evacuation plans in the case of a derailment of an oil train; and***

***BE IT FURTHER RESOLVED that any member of the city council may speak on behalf of the City of Mosier on this matter if the Mayor is unavailable for comment.***

ADOPTED BY THE CITY COUNCIL ON _____

_____
Mayor Andrea Rogers

BEFORE THE BOARD OF COUNTY COMMISSIONERS
FOR MULTNOMAH COUNTY, OREGON

**RESOLUTION NO. 2016-001**

Opposing Oil Shipment by Rail, and Endorsing Comments on the Tesoro Savage Vancouver Energy Distribution Terminal Draft Environmental Impact Statement.

**The Multnomah County Board of Commissioners Finds:**

a. With the rapid development of the Bakken Oil fields in North Dakota and Canada, and ongoing development of Canadian oil sands, shipments of crude oil by rail have increased dramatically in the Northwest since 2012.

b. Due to this oil boom Oregon has become a throughway for crude oil traveling by rail.

c. Up to 12 trains carrying 1,000,000 gallons or more of Bakken crude oil pass through Multnomah County each week.

d. Risks posed to Multnomah County residents from oil by rail shipments include the potential for oil train explosions, fires, and/or spills as a result of derailment; increased particulate emissions from locomotive exhaust; congestion and collision along roadways and rail lines; and associated health impacts including injury and death.

e. Nine significant train derailments have occurred in North America since July 2013, one of which resulted in multiple fatalities and injuries.

f. In case of an oil train fire, the half mile surrounding the incident should be considered for evacuation. Concern about safety is heightened given population proximity to rail lines because 26% of Multnomah County's population lives within a half mile of a rail line that carries crude oil.

g. A total of 108 schools (pre-school through high school), and 100 childcare facilities are within the half mile evacuation zone.

h. The area of impact in the case of an oil train fire or explosion is increased because of a toxic plume of smoke from the fire, and because of distress and trauma caused to local residents.

i. The Tesoro Savage Vancouver Energy Distribution Terminal at the Port of Vancouver, if approved, would be the largest oil by rail terminal in the country, and would transport on average 360,000 barrels of oil per day by rail for transfer onto ocean going vessels.

j. The Tesoro Savage Vancouver Energy Distribution Terminal, in combination with a total of 13 new or expanded oil facilities proposed in Oregon and Washington, would increase oil by rail traffic to over one million barrels of oil per day on Northwest rails lines, and increase oil transport through Multnomah County.

k. The potential for oil by rail derailment and spill in the Columbia River corridor poses grave risk to natural and cultural resources, including endangered fish populations.

l. Because of the rapid rise of oil by rail, local emergency responders capability, equipment, and funding to deal with large scale oil fires is inadequate.

**The Multnomah County Board of Commissioners Resolves:**

1. To oppose oil by rail transportation through and within Multnomah County

2. To declare that it is the policy of Multnomah County to oppose projects and proposals that have the potential to increase the amount of crude oil being transported by rail through Multnomah County.

3. To support the development and review of a comprehensive Health Impact Assessment, at the expense of the initiating entity, prior to approval of any new oil transfer and storage permits by any state, regional, or federal agency.

4. To endorse the attached comments to the Tesoro Savage Vancouver Energy Distribution Terminal draft environmental impact statement, and to instruct the Office of Sustainability to submit those comments to the Washington Energy Facility Site Evaluation Council on behalf of the County.

5. To accept the findings of the attached risk assessment.

**ADOPTED this 21st day of January, 2016.**

BOARD OF COUNTY COMMISSIONERS
FOR MULTNOMAH COUNTY, OREGON

Deborah Kafoury

Deborah Kafoury, Chair

REVIEWED:
JENNY M. MADKOUR, COUNTY ATTORNEY
FOR MULTNOMAH COUNTY, OREGON

By Katherine Thomas
Katherine Thomas, Assistant County Attorney

**RESOLUTION No. 37164 As Amended**

Adopt a policy opposing all project proposals that would increase the amount of crude oil being transported by rail through the City of Portland and the City of Vancouver, Washington (Resolution)

WHEREAS, there has been a significant increase in the transportation of crude oil by rail through the Pacific Northwest to existing terminals and refineries on the west coast. Most, if not all of this oil is transported through the Columbia River Gorge National Scenic Area.

WHEREAS, 15 oil-by-rail terminals are proposed, under construction, or currently operating in Oregon and Washington.

WHEREAS, serious risks are caused by oil-by-rail projects including but not limited to delayed emergency vehicles, oil fires, oil spills, oil explosions resulting from train derailments, increased air pollution, increased water pollution, and contributions to climate disruption-induced injury and disease.

WHEREAS, according to the U.S. Department of Transportation (DOT), oil transportation by rail has increased 50 to 60 times above the levels that existed prior to 2010.

WHEREAS, much of the oil being transported by rail is highly volatile oil from the Bakken oil fields in North Dakota.

WHEREAS, the oil is often being transported in tank cars, called DOT 111s, which were never intended to transport volatile crude oil.

WHEREAS, since 2013, oil train accidents have caused 47 deaths, the evacuation of thousands of residents, and billions of dollars in property damage and environmental destruction.

WHEREAS, new rules adopted by the U.S. DOT fail to ensure the safety of communities or the environment from catastrophic accidents, spill, explosions, and fires.

WHEREAS, the U.S. DOT identifies the blast zone resulting from an oil train accident, fire and explosion involving Bakken oil as being 0.5 to 1 mile in all directions.

WHEREAS, in the event of an accident, explosion and fire involving an oil train, local emergency responders would be ill-equipped to protect human health, property, or the environment. Emergencies responders would likely focus on evacuation while allowing the oil fire to burn itself out.

WHEREAS, Vancouver Energy, proposed on the banks of the Columbia River in Vancouver, Washington, would be the largest oil-by-rail terminal in the country. If approved, it would transport an average of 360,000 barrels of oil (15 million gallons) per day by rail and transfer it to ocean-going vessels. From Vancouver, the vessels would travel down the Columbia River and across the perilous Columbia Bar.

WHEREAS, the terminal would result in five loaded oil trains per day, each carrying approximately 3 million gallons of volatile Bakken oil, travelling along the Columbia River through communities, parks, and endangered species habitat.

WHEREAS, Oil tanker traffic would increase by 300% on the Columbia River, raising the likelihood of a catastrophic oil spill;

WHEREAS, two additional terminals have been proposed on the Columbia River in Vancouver and in Longview.

WHEREAS, oil is transported by rail through Portland to an existing terminal in Columbia County and to refineries in California.

WHEREAS, oil-by-rail spills would have the potential to cause irreversible damage to the water quality and fish and wildlife habitat on the Columbia River.

WHEREAS, transport of oil-by-rail directly threatens the outstanding resources of the Columbia River Gorge National Scenic Area.

WHEREAS, the International Longshore and Warehouse Union (ILWU) Local 4 in Vancouver, WA, has opposed the two oil terminal proposals in Washington.

WHEREAS, the Vancouver City Council on June 2nd, 2014 adopted policies opposing all project proposals that would increase amount of crude oil being transported through Clark County, and directing their City Attorney's office to file for Energy Facility Site Evaluation Council (EFSEC) Intervener Status.

WHEREAS, Washington's EFSEC will conduct Environmental Impact Statement, hold a series of public hearings, and make a final recommendation to Governor Inslee, who is the final decision-maker on the proposed terminal.

WHEREAS, the Environmental Protection Agency, National Park Service, and others have raised serious concerns regarding the negative environmental impacts the proposed oil-by-train project may cause.

WHEREAS, Resolution 36962, adopted by Council on September 19th, 2012 adopted a policy opposing coal trains through the City of Portland until a programmatic, comprehensive, and area-wide Environmental Impact Statement is completed.

WHEREAS, this Resolution seeks to address the immediate issue of new oil-by-rail proposals in a timely manner as well as those oil trains already moving through Portland;

WHEREAS, at the 2015 United States Conference of Mayors, Mayor Charlie Hales proposed and passed the Resolution, "*Keeping Communities Safe Through Comprehensive Actions to Improve Rail Safety*" to encourage government leaders to examine the potential dangers of

transporting Volatile Materials by rail.

WHEREAS, neighbors in the City of Portland, including North East Coalition of Neighbors, have spoken out in opposition to oil trains in the City of Portland.

NOW, THEREFORE, BE IT RESOLVED that the City of Portland opposes oil-by-rail transportation through and within the City of Portland and the City of Vancouver, WA.

Be it further resolved the City of Portland supports the preparation of a programmatic, comprehensive, and area-wide Environmental Impact Statement to identify the cumulative effects that would result from existing and proposed oil-by-rail terminals.

BE IT FURTHER RESOLVED that the City of Portland supports the development and review of a comprehensive Health Impact Assessment prior to approval of any new oil transfer and storage permits by any state, regional or federal agency; and

BE IT FURTHER RESOLVED that the City of Portland intends to address to the extent practicable any impacts to public health, safety and property caused by the transport of oil through Portland by actively enforcing applicable local public health, safety, building, electrical and fire codes; and

BE IT FURTHER RESOLVED that the City of Portland intends to address to the extent allowed by law any impacts to surface, air, and groundwater caused by the transport of oil through Portland by actively enforcing any applicable environmental statues delegated to the City of Portland; and

BE IT FURTHER RESOLVED that the City of Portland will request that railroad companies and/or oil companies make public any development plans for increased rail traffic through Portland to accommodate oil transport and storage, and to provide adequate notice to Portland citizens of any plans for new or expanded rail facilities or any anticipated increases in rail traffic volume; and

BE IT FURTHER RESOLVED that the City of Portland will request that the railroad companies and/or oil companies provide representatives to meet periodically with local citizen groups and local governmental officials to address local concerns regarding oil trains through Portland; and

BE IT FURTHER RESOLVED that the City of Portland will request that the railroad companies mitigate any public safety hazards created by existing and future transport of oil through Portland; and

BE IT FURTHER RESOLVED that the City of Portland will request that railroad and oil companies submit an emergency environmental cleanup plan in case of accidental spills or train derailment; and that they submit a bond to pay for any and all spills, explosions, etc.

BE IT FURTHER RESOLVED that the City of Portland supports economic growth that

contributes to citizens' health, safety, and well-being, and that on balance, adheres to principles of sustainable development and overall reduction of carbon emissions; and

BE IT FURTHER RESOLVED that the Policy opposing all project proposals that would increase the amount of crude oil being transported by rail through the City of Portland the City of Vancouver, Washington is binding City policy.

Adopted by the Council: NOV 04 2015

Commissioner Amanda Fritz
Mayor Charlie Hales

Prepared by: Cristina Nieves, Commissioner Fritz's office
Date Prepared: September 24th, 2015

**Mary Hull Caballero**
Auditor of the City of Portland
By Susan Parsons
Deputy

Novick
Amendment #1
Passed,

November 4, 2015

City Council Item #1156

Additions in underline; ~~deletions in strikethrough.~~

Novick Amendment 1, page 1

Amend the third WHEREAS clause as follows:

WHEREAS, serious risks are caused by oil-by-rail projects including but not limited to delayed emergency vehicles, ~~adverse health impacts of train noise,~~ oil fires, oil spills, oil explosions resulting from train derailments, increased air pollution, increased water pollution, and contributions to climate disruption-induced injury and disease.

## RESOLUTION 20-15

## A RESOLUTION OF THE PORT OF CAMAS-WASHOUGAL BOARD OF COMMISSIONERS SUPPORTING RAIL SAFETY

WHEREAS, The Port of Camas-Washougal sees its role as promoting the public good; and

WHEREAS, An oil company plans to expand the rail capacity in the State of Washington to receive crude oil at four refineries and at newly proposed marine transfer stations at the Port of Vancouver and other locations, which will greatly increase the number of oil trains traveling through our community; and,

WHEREAS, These unit oil trains composed of 100 to 150 tankers filled with Bakken crude oil now travel through the Clark County Cities of Camas, Washougal and Vancouver on BNSF lines headed west and north; and,

WHEREAS, Due to the input shared by citizens, the demonstrated leadership of local, state and federal elected officials, and the diligent efforts of government officials, industry groups and the environmental community, the port sees the transportation of crude oil by rail moving toward improved handling of this commodity; and

WHEREAS, Washington state's U.S. senators Maria Cantwell and Patty Murray have proposed federal legislation known as the Crude-By-Rail Safety Act of 2015 that is consistent with the commitment to safety and expectations for the handling of crude oil, and addresses the safe movement of crude oil by rail in a timely fashion and at the appropriate level of government.

NOW, THEREFORE, BE IT RESOLVED by the Commission of the Port of Camas-Washougal that:

The Commission of the Port of Camas-Washougal supports the full mitigation of negative impacts to our safety, mobility, environment, and to other sectors of the our region's economy; and

The Commission of the Port of Camas-Washougal strongly urges the Washington Department of Transportation and the Freight Mobility Strategic Investment Board (FMSIB) to analyze and study the potential economic effect of this oil train traffic on the displacement of existing economic activity, the potential loss of access to rail transport by local and regional shippers, as well as by commuter services (Amtrack), and the economic damages to the public resulting from accidents on the rails; and

Because volatility is a factor in the safe movement of crude oil, the port supports a national standard for the maximum volatility of crude oil; and

Because rail car specifications are integral to the safe transport of cargo, the port supports a national standard for rail tank car performance, and the immediate phase-out of all cars not meeting the national standard; and

Because the safe movement of all commodities by rail depends on a well maintained rail system, the port supports a national standard related to the inspection of rail, rail ties, rail beds, rail cars, and rail operating systems, as well as mandatory reporting of

rail conditions; and

Because additional funding for training and equipment is vital to preparedness, the port supports expanding the existing oil spill response tax beyond waterborne vessels to include rail tank cars; and

Because effective emergency response plans depend on well-trained and well-equipped responders, the port supports equipping and training of local and regional responders, including mandatory drills with prescribed frequency; and

Because efficient spill response is dependent on the availability of emergency response resources, the port urges rail carriers to collaborate to develop inventories of emergency response resources; and

Because comprehensive emergency response plans are critical when addressing spilled commodities such as crude oil, the port supports requiring rail carriers to file plans that address worst-case scenarios with each state; and in addition, rail carriers should be required to submit a plan identifying the approximate number of trains, routes and volume of commodity through states; and

The port supports federal-level regulation related to the conveyance of crude oil, thereby helping to protect communities throughout the U.S. and ensuring our nation's ability to remain competitive in global markets through the movement of interstate commerce; and

The Port Commission further commits to working closely with the Cities of Camas and Washougal to secure funding from the FMSIB and other sources to relieve growing safety and mobility concerns from accelerating levels of train travel by means of grade separations and other available methods. The Port Commission supports actions taken by Camas, Washougal, Vancouver and other cities threatened by oil trains to restrict train movement until such time as a full fleet of U. S. DoT – certified tank cars are used and effective disaster response measures can be implemented throughout the entire Columbia Gorge, or Bakken crude oil is stabilized prior to shipment to render it as safe during transport as current oil train traffic; and

The Port of Camas-Washougal Commission requests that Governor Inslee carefully consider what improvements must be made and what requirements must be met to best ensure the safety of our citizens and environment, and to ensure the vitality of our economy and transportation system.

ADOPTED at the regular meeting of the Board of the Port Commissioners of the Port of Camas-Washougal on December 1, 2015.

PORT OF CAMAS-WASHOUGAL

By: _____

_____

_____

Commissioners

# SKAMANIA COUNTY FIRE DISTRICT NO. 4

10042 WASHOUGAL RIVER ROAD WASHOUGAL, WASHINGTON 98671
PHONE (360) 837-3420 FAX (360) 837-3167

FOR IMMEDIATE RELEASE

CONTACT: Timothy W. Young - Chairman, Board of Commissioners
Skamania County Fire District #4
tyoung@skamaniafd4.org or 201-247-3361

## Fire District Calls for Stop of Bakken Oil Train Traffic

*Washougal, WA* – Concerned over the potential impact of a Bakken Crude Oil Train fire on the residents of Skamania County Fire District #4, the District Board of Commissioners passed a resolution at their July 9 meeting requesting Senators Murray and Cantwell and Representative Herrera Beutler work immediately with The Pipeline and Hazardous Materials & Safety Administration, National Transportation Safety Board and the Federal Railroad Administration to stop Bakken Oil Train traffic through the District, Skamania County and the Columbia River Gorge at large. The resolution also calls for the concurrent development of Federal Legislation requiring that railroads, as a condition of transporting Bakken Crude Oil through the Columbia River Gorge, establish and demonstrate the capability to provide required Hazardous Materials Response including Fire Suppression of Bakken Crude Oil fires in the Columbia River Gorge.

BNSF operates a minimum of two Bakken Oil Trains per day through the District. Each train consists of an average of 100 cars. Each car contains 30,000 gallons of Bakken Crude Oil, with Bakken Crude Oil identified as a highly flammable hazard. The District and surrounding agencies do not possess sufficient resources including manpower, Class B Foam and water supply to extinguish Bakken Crude Oil fires resulting from accident or derailment with the exception of the smallest fires. The non-intervention tactic of allowing Bakken Crude Oil fires to burn out on their own presents a clear Fire and Life Safety danger to the residents of the District. This is compounded by the fact that approximately 75% of the BNSF tracks in the District are inaccessible by fire apparatus. Given the region's susceptibility to high winds, this exposes the District, Skamania County and the Columbia River Gorge at large to substantial wild fire risk.

Skamania County Fire District #4 provides Fire Protection and Emergency Medical Services to the west end of Skamania County.

###

# SKAMANIA COUNTY FIRE DISTRICT NO. 4

10042 WASHOUGAL RIVER ROAD WASHOUGAL, WASHINGTON 98671
PHONE (360) 837-3420 FAX (360) 837-3167

Resolution No. 2015-03
Bakken Oil Train Resolution

WHEREAS, BNSF Railway Company reportedly operates a minimum of two Bakken Oil Trains per day through the District, each train consisting of an average of 100 cars, each car containing 30,000 gallons of Bakken Crude Oil, with Bakken Crude Oil identified as a highly flammable hazard.

WHEREAS, the District and surrounding agencies, do not possess sufficient resources including manpower, Class B Foam and water supply to extinguish Bakken Crude Oil fires resulting from accident or derailment with the exception of the smallest fires.

WHEREAS, the non-intervention tactic of allowing Bakken Crude Oil fires to burn out on their own presents a clear Fire and Life Safety danger to the residents of the District. This, compounded by difficulty accessing wooded areas near the BNSF tracks and the region's susceptibility to high winds exposes the District, Skamania County and the Columbia River Gorge at large to wildland fire risk

NOW, THEREFORE BE IT RESOLVED, that Skamania County Fire Protection District No. 4 hereby requests that Senators Murray and Cantwell and Representative Herrera Beutler work immediately with The Pipeline and Hazardous Materials & Safety Administration, National Transportation Safety Board and the Federal Railroad Administration to stop Bakken Oil Train traffic through the District, Skamania County and the Columbia River Gorge at large while concurrently developing Federal Legislation requiring that railroads, as a condition of transporting Bakken Crude Oil through the Columbia River Gorge, establish and demonstrate the capability to provide required Hazardous Materials Response including Fire Suppression of Bakken Crude Oil fires in the Columbia River Gorge.

PASSED IN REGULAR SESSION, this 9th day of July, 2015.

Timothy W. Young – Chairman, Board of Commissioners

Dennis Gogolski – Commissioner

Robert Rohrick – Commissioner

# SKAMANIA COUNTY FIRE DISTRICT NO. 4

10042 WASHOUGAL RIVER ROAD WASHOUGAL, WASHINGTON 98671
PHONE (360)837-3420 FAX (360)837-3167


July 9, 2015

The Honorable Patty Murray – United States Senate
The Honorable Maria Cantwell – United States Senate
The Honorable Jaime Herrera Beutler – United States House of Representatives

Dear Senators Murray and Cantwell and Representative Herrera Beutler:

Skamania County Fire District #4 has significant concerns regarding the potential impact of a Bakken Crude Oil Train fire on the residents of the District, Skamania County and the Columbia River Gorge at large. The Board of Commissioners has adopted the attached resolution in response to said concerns.

We respectfully request your consideration of the resolution.

Sincerely yours,

Skamania County Fire District #4

_____
Chris Fuller – Fire Chief

_____
Timothy W. Young – Chairman, Board of Commissioners

_____
Dennis Gogolski – Commissioner

_____
Robert Rohrick - Commissioner

Cc:
The Honorable Jay Inslee – Governor of Washington
East County Fire and Rescue
Skamania County Fire District #1
Skamania County Fire District #2
Skamania County Fire District #3
Skamania County Fire District #5
North Bonneville Fire Department
Skamania County Sheriff's Office

**CITY OF STEVENSON, WASHINGTON**
**RESOLUTION 2014-279**

**A Resolution stating the City of Stevenson's concerns and opposition to the transportation of crude oil through the Columbia River Gorge**

**WHEREAS**, the City Council and Mayor have the authority to protect the health, safety and general welfare of its citizens and have determined that the transport by rail or barge of crude oil is contrary to the health, safety and general welfare of its citizens; and

**WHEREAS**, the City is committed to being a leader in protecting and sustaining the community, the local economy, the environment, the air quality, the water quality, and drinking water supplies, as well as reducing carbon emissions in the Columbia River Gorge; and train derailments can lead to crude oil spills that pose a significant public health risk; and

**WHEREAS**, because the rail alignment runs through our downtown area, the impact of existing and proposed oil trains is potentially catastrophic in terms of loss of life and devastation of the Stevenson community, environment and economy in the event of a derailment, particularly due to the continued use of unsafe legacy DOT-111 tanker cars; and

**WHEREAS**, oil tank cars are moving through the Gorge now and the volume is projected to increase dramatically [according to the Association of American Railways (AAR) the volume of crude oil shipped by rail has increased from 9,500 carloads in 2008 to 400,000 carloads in 2013], all of it destined to existing or proposed oil terminal facilities in the Northwest; and most of it unusually explosive [According to the Federal Pipeline and Hazardous Materials Safety Administration (PHMSA)], making an even greater hazard due to the extreme fire danger from high winds and dry forests in the Columbia Gorge; and

**WHEREAS**, tar sands crude or bitumen from Alberta and Utah is known to be extremely difficult to handle; if a derailment and spill occurs the oil would sink into Northwest rivers making clean-up difficult, if not impossible; and

**WHEREAS**, derailment poses a significant threat for which we lack a specific emergency response plan including training and equipment to deal with such an event; and

**WHEREAS**, the City experiences strong and steady job growth due to our exceptional quality of life, attracting people who can move their companies anywhere in the world; this growth and quality of life is endangered by intensified crude oil transport through the Gorge; and

**WHEREAS**, the City oversees or contracts for the operation of the Stevenson police and fire departments, which are responsible for maintaining order and emergency response within our city limits, and through a series of mutual aid agreements, for

assisting in emergency responses throughout much of the Gorge, on both sides of the Columbia River; and

**WHEREAS**, the Washington State Legislative Board of the Brotherhood of Locomotive Engineers and Trainmen's letter of August 2014, in response to the Governor of Washington's Washington State Marine and Rail Oil Transport Study, cite concerns about the risk to public health and safety of crude oil trains because of faulty operational practices, inadequate maintenance, poor federal regulatory oversight, and lack of accountability in all areas of railroad operations management; and these factors are more likely to cause accidents and derailment; and

**WHEREAS**, the City and other local jurisdictions charged with protecting our urban centers, farm lands, river systems, economic viability, and our natural environment, struggle to maintain our Fire Fighters and First Responders, and in January 2014 the National Transportation Safety Board stated that communities will bear the cost of cleaning up spills and explosions, the transport of increasingly large volumes of crude oil through the Columbia River Gorge places an unacceptable burden on us that we are unwilling and refuse to accept; and

**WHEREAS**, since January 2013 in the United States and Canada, ten catastrophic derailment incidents involving explosions, spills and death have occurred that have harmed other communities and could occur in our towns, on our farm lands and in our river systems; in July 2010, an oil spill caused more than 1 million gallons of tar sands crude to flow into Michigan's Kalamazoo River, much of which sank to the river bottom and still remains today after $1 billion in clean-up efforts; according to the PHMSA more than 1.15 million gallons of crude oil was spilled in U.S. rail incidents in 2013; and in 2013 through early November, there were 137 crude releases as compared to just one in 2009; and

**WHEREAS**, the U.S. Department of Transportation (USDOT) is designating new safety standards and requirements for oil tank rail cars and evaluating potential new rules for the transportation of flammable liquids; and the increase in the production of Bakken crude oil has placed such a demand for tank cars that 92,000 DOT-111 cars (designed 50 years ago but not to contain crude oil) are being used to transport flammable liquids, with only approximately 15% of those tank cars built to the latest industry safety standards (as yet unproven as safe), in contrast to the Canadian government, which has ordered the phase-out of the use of these puncture-susceptible DOT-111 tank cars; and

**WHEREAS**, oil tank cars built since 2011 meet the new CPC 1232 standard, the AAR "now supports even more stringent standards...retrofits of existing cars...and an aggressive phase-out of cars that cannot meet retrofit requirements"; the design of those new cars is unsettled and does not have a proven record of safe utilization (one of the tank cars that ruptured in Lynchburg, Virginia **was** a CPC 1232 tank car and was traveling 24 mph, well below the recently agreed upon 40 mph speed limit for urban areas, causing a spill, explosion and fire and resulting in the evacuation of a portion of the downtown area and the spill of 50,000 gallons of crude oil into the James River); and

**WHEREAS**, Burlington Northern Santa Fe plans to increasingly move mile-long trains of crude oil and bitumen from Utah on the Washington side of the Columbia River Gorge (according to the Washington Department of Transportation); the number and length of proposed trains transporting the oil will affect local emergency response capabilities by blocking road crossings; and diesel exhaust from the trains will increase air pollution and affect public health causing lung damage, worsening allergies and asthma, and increasing the risk of lung and cardiovascular diseases.

**NOW THEREFORE BE IT RESOLVED** that the City of Stevenson opposes transporting crude oil through the Columbia River Gorge either by rail or by barge; and

**BE IT FURTHER RESOLVED** that the City supports economic growth that does not jeopardize the City of Stevenson's commitment to fight the serious impacts of climate change; and

**BE IT FURTHER RESOLVED** that the City strongly urges the Governor of Washington and the Governor of Oregon to use the powers of each state to oppose crude oil transport through the Columbia River Gorge; and

**BE IT FURTHER RESOLVED** that the City agrees with the concerns expressed in the July 2014 resolution passed by the Columbia River Gorge Commission; and

**BE IT FURTHER RESOLVED** that the City urges the Federal Government to immediately implement safety regulations regarding train speeds and rail car designs that have not proven safe to transport flammable crude oil; and

**BE IT FURTHER RESOLVED** that the cited hazard and potential damage require that the owners and operators transporting crude oil by rail or barge assume all risk and be sufficiently bonded and insured; and

**BE IT FURTHER RESOLVED** that the City requests that the railroad submit an emergency environmental clean-up plan in case of a derailment affecting our community, local economy, watersheds and recreational areas; and the City further insists that the railroad and barge transportation of crude oil be fully insured against the risk of catastrophic fire and explosion, loss of life and property, environmental destruction and damage and any other harm connected with a derailment or accident; and

**BE IT FURTHER RESOLVED** that the City requests that an Environmental Impact Statement that identifies and measures the impacts on our community be completed prior to approval of permits; that at least one environmental impact scoping hearing be held in Stevenson and the results of continued environmental monitoring of noise, air, groundwater, and surface water quality be shared with local and state agencies; and

**BE IT FURTHER RESOLVED** that the City urges the State of Washington to require coordination of state agencies concerning the state's preparedness and capacity to respond to an accident involving transportation of crude oil by rail or barge; and

**BE IT FURTHER RESOLVED** that the City transmit copies of this resolution to the Governors of Washington and Oregon, to the Columbia River Gorge Commission, to the County Commissions of Skamania, Klickitat, Hood River, Wasco, Clark, and Multnomah counties, to each state Senator and Representative in both Washington and Oregon whose districts fall within the Columbia River Gorge, to the Washington Department of Ecology, to the Washington State Fire Marshal, to the Washington Department of Transportation, to the Oregon Division of State Lands, to the Oregon Department of Environmental Quality, to the Oregon Department of Fish and Wildlife, to the Oregon State Fire Marshal, to the Oregon Department of Transportation, and to each member of the Congressional Delegations of Washington and Oregon; and

**BE IT FURTHER RESOLVED** that passage of this resolution shall not preclude the City from taking additional future actions to protect residents from the effects of oil trains or barges.

**PASSED** by the Council of the City of Stevenson this 18th day of December, 2014.

Frank Cox, Mayor

ATTEST:

Nick Hogan, City Clerk

APPROVED AS TO FORM:

Kenneth B Woodrich, PC
City Attorney

**RESOLUTION NO. 15-008**

**A RESOLUTION EXPRESSING CONCERN REGARDING RAIL TRANSPORTATION OF CRUDE OIL THROUGH THE CITY OF THE DALLES**

**WHEREAS,** the City Council is committed to protecting the health, safety and welfare of its citizens, as well as sustaining the health of its local economy; and

**WHEREAS,** train derailments can lead to crude oil spills and explosions that pose a significant public health risk; and

**WHEREAS,** the impact of a derailment to the downtown core of the City of The Dalles has the potential to cause loss of life and devastation to the community, environment, and local economy;

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL AS FOLLOWS:**

Section 1. The City Council urges the Governor of Oregon to use the powers of the State to encourage federal rules to ensure safe transport of crude oil on the rail lines in Oregon.

Section 2. The City Council urges the State of Oregon to require coordination among State agencies concerning preparedness and capacity to respond to an accident involving transportation of crude oil by rail.

Section 3. The City Council urges the Federal Government to implement safety regulations regarding train speeds and rail car designs to obtain safer transport of crude oil.

Section 4. The City Council urges the State of Oregon to require owners and operators transporting crude oil by rail to assume all risk and be sufficiently bonded and insured against the risk of catastrophic fire and explosion, loss of life and property, environmental destruction and damage and any other harm connected with a derailment or accident.

**PASSED AND ADOPTED THIS 26TH DAY OF JANUARY, 2015**

| | |
|---|---|
| Voting Yes, Councilors: | Brown, Miller, Elliott, McGlothlin |
| Voting No, Councilors: | None |
| Absent, Councilors: | Spatz |
| Abstaining, Councilors: | None |

**AND APPROVED BY THE MAYOR THIS 26TH DAY OF JANUARY, 2015**

SIGNED:

Stephen E. Lawrence Mayor

ATTEST:

Julie Krueger, MMC, City Clerk

06/02/14

RESOLUTION NO. M- 3821

A RESOLUTION expressing the deep concern of the Vancouver City Council about the threat to life, safety and the environment due to accidents, potential spills and explosions posed by the oil terminal proposed to be located adjacent to downtown Vancouver; requesting the Port of Vancouver to terminate its lease with Tesoro Savage; urging EFSEC to recommend against the siting of the oil terminal; urging the Governor to not approve a site certification agreement; and urging Congress, the Legislature, and regulators to adopt laws and regulations to increase the safety of the transportation of crude oil.

1. WHEREAS, the City values its ongoing relationship with the Port of Vancouver, Washington, and is committed to maintaining this partnership that is essential to the vitality and growth of our community and the region. The City recognizes that the views expressed in this resolution are specific to the proposed terminal project and are not intended to impact the broad and long-term working relationship between the City of Vancouver and the Port of Vancouver; and

2. WHEREAS, the Port of Vancouver approved a lease with Tesoro Corp. and Savage Companies, who propose to construct a terminal on Port property to handle the transport of Bakken crude oil by rail, and this proposal is currently undergoing review by the Washington State Energy Facility Site Evaluation Council (EFSEC); and

3. WHEREAS, human error, acts of nature and unforeseen disasters are beyond the control of measures proposed for the Vancouver oil terminal project and could have devastating effects on the entire community; and

4. WHEREAS, the rail lines that will carry this volatile crude oil run through and by the City of Vancouver neighborhoods, parks, the I-5 corridor, commercial and industrial areas, the waterfront, the Columbia River, creeks and other natural areas; and

5. WHEREAS, according to the Association of American Railroads ("AAR") the volume of crude oil shipped by rail has increased from 9,500 carloads in 2008 to 400,000 carloads in 2013; and

6. WHEREAS, the volume of petroleum transported by rail through Vancouver is expected to increase in the future, and the planned oil terminal in the Port of Vancouver will increase that volume by more than 360,000 barrels per day, with the potential for future expansion; and

7. WHEREAS, possible derailments, spills, explosions and fallout pose a serious threat to this community; and

8. WHEREAS, the primary source of the petroleum anticipated to be transported by rail through Vancouver is from the Bakken formation, which the U.S. Department of Transportation (DOT) Pipeline and Hazardous Materials Safety Administration ("PHMSA") has determined may be more flammable than traditional heavy crude oil; and

9. WHEREAS, the PHMSA's 2013 investigation into the transportation of Bakken oil, known as Operation Classification, showed that crude oil taken from cargo tanks en route to rail loading facilities was not properly classified on numerous occasions leading DOT to issue an

emergency order requiring shippers to test Bakken oil and classify it as a packing group I or II commodity; and

10. WHEREAS, the fatal incident in Lac-Megantic, Quebec, resulted in loss of forty-seven lives and buildings and required the evacuation of 1,000 resident; and

11. WHEREAS, in November 2013, a derailment of a unit train in Aliceville, Alabama, caused a crude oil spill when tank cars ruptured and caught fire; and

12. WHEREAS, Galveston Bay, Texas, recently experienced a maritime collision that emptied more than 150,000 gallons of crude oil into the bay, and the Columbia River would be used as the major shipping channel for the proposed oil terminal in Vancouver; and

13. WHEREAS, in December 2013, a derailment of a BNSF unit train carrying crude oil caused a spill and explosion causing the evacuation of most of Casselton, North Dakota; and

14. WHEREAS, in January 2014 a freight train carrying crude oil in New Brunswick, Canada, derailed causing a spill and fire resulting in the evacuation of 45 homes in a 1.25-mile radius surrounding the crash; and

15. WHEREAS, in April 2014, a freight train transporting crude oil in Lynchburg, Virginia, derailed causing a spill and fire and resulted in the evacuation of a portion of the downtown area and spill into the James River; and

16. WHEREAS, on May 9, 2014, a train carrying crude oil derailed near LaSalle, Colorado, resulting in a spill; and

17. WHEREAS, according to the PHMSA more than 1.15 million gallons of crude oil was spilled in U.S. rail incidents in 2013; and

18. WHEREAS, the increase in the production of Bakken crude oil has placed such a demand on tank cars that older DOT 111 cars are being used to transport Bakken crude oil; and

19. WHEREAS, according to the AAR, approximately 92,000 DOT-111 tank cars are used to move flammable liquids, such as crude oil and ethanol, with only approximately 14,000 (15%) of those tank cars being built to the latest industry safety standards; and

20. WHEREAS, in light of the incident in Lac-Megantic, Quebec, the Canadian government has ordered the phase out of the use of older DOT 111 tank cars that do not provide necessary protections against punctures, failures and explosions for the transportation of crude oil within three years; and

21. WHEREAS, while, PHMSA has not ordered the phase out of older DOT 111 tank cars; and

22. WHEREAS, oil tank cars built since 2011 are designed to the CPC 1232 standard and Tesoro Savage has indicated that it would only accept CPC 1232 cars. However, in comments to the PHMSA the AAR "now supports even more [than CPC 1232] stringent standards...retrofits of existing cars...and an aggressive phase-out of cars that cannot meet retrofit requirements"; and

23. WHEREAS, one of the tank cars that ruptured in Lynchburg, Virginia, was a CPC 1232 tank car and was travelling 24 mph, well below the recently agreed upon 40 mph speed limit for urban areas; and

24. WHEREAS, it will be at least five to seven years before new model tank cars ordered by BNSF could be delivered and, even after they are delivered, BNSF will have to accept older cars from shippers transporting crude oil so long as those cars meet minimum safety requirements; and

25. WHEREAS, even today, the design of those new cars is unsettled and does not have a proven record of safe utilization; and

26. WHEREAS, the oil terminal project will result in eight to twelve unit trains per day traveling through the city each being a mile and a half long which could cause delay in responding to emergencies at any of the four public and twenty-one private rail crossings; and

27. WHEREAS, in January 2014 the National Transportation Safety Board stated "Because there is no mandate for railroads to develop comprehensive plans or ensure the availability of necessary response resources, carriers have effectively placed the burden of remediating the environmental consequences of an accident on local communities along their routes"; and

28. WHEREAS, the City of Vancouver is just beginning the process to study the demands placed upon its emergency responders by crude oil unit trains traveling through the City and has not yet identified the risk posed nor training, manpower and equipment needed to respond to that risk; and

29. WHEREAS, in 2007, the City adopted the Vancouver City Center Vision and Subarea Plan and the City is concerned about the potential negative impacts the oil terminal project could have on the vision, principles and policies expressed in that plan; and

30. WHEREAS, in October 2009, the City unanimously approved the master plan for the Columbia Waterfront Development project, which calls for the development of 3,300 residential units and 1 million square feet of commercial space on 32 acres of riverfront property; and

31. WHEREAS, On November 4, 2013, the Vancouver City Council unanimously approved the Waterfront Park Plan that calls for a 7.3-acre park and trail within the Waterfront Development project; and

32. WHEREAS, the City has invested approximately $45 million in transportation infrastructure to serve the Waterfront Development Project; and

33. WHEREAS, the Port of Vancouver has been a key partner in assisting the City to make the transportation improvements for the Waterfront Development project. The Port interrupted their construction schedule for the West Freight Access Project to facilitate the City's construction; the Port also allowed the City to use Port property temporarily for detouring rail traffic while the City constructed the new rail line; and the Port also engaged in land exchanges with the City for the new right-of-way within the site; and

34. WHEREAS, the Waterfront Development Project site is bordered by the BNSF railroad tracks that will be used to transport the oil to the terminal and could be impacted by the Project; and

35. WHEREAS, the City has concerns regarding the potential impacts of the oil terminal upon the residents of the adjacent Fruit Valley Neighborhood; and

36. WHEREAS, the National Transportation Safety Board in January 2014 recommended that unit trains transporting Bakken crude oil be rerouted to avoid populated areas where technically feasible; and

37. WHEREAS, the City has a paramount interest in the health, safety and welfare of its citizens and believes that the development of the proposed Tesoro Savage crude by rail oil terminal is contrary to the health, safety and welfare of its citizens and business community;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF VANCOUVER:

Section 1. The City of Vancouver asks the Port of Vancouver Commissioners to terminate the property lease to Tesoro Savage which will result in Bakken oil being shipped through urban centers.

Section 2. The City of Vancouver strongly requests that the Governor of Washington, the Washington Department of Ecology, the Washington State Energy Facility Site Evaluation Council (EFSEC), and any other relevant state agencies decline to permit crude by rail oil terminal projects, and specifically the proposed Tesoro-Savage project.

Section 3. The City of Vancouver calls on municipalities, agencies and officials to deny all permits for new facilities that will result in an increase in the transportation of Bakken crude oil through Clark County until such time as there is a consensus among the industry and regulators as to the appropriate method of safely transporting Bakken crude oil and a proven track record that demonstrates the safety of the methodology.

Section 4. The City of Vancouver strongly urges Congress, the State Legislature and agencies with jurisdiction to adopt legislation and regulations related to rail transport requiring disclosure of the volumes, types of petroleum, petroleum products, and petroleum derivatives; transport routes; and the frequency and duration of transfers of petroleum, so the state and local communities can be fully informed of and plan for the risks posed by the transport of petroleum by rail.

Section 5. The City of Vancouver strongly urges the U.S. Department of Transportation (DOT) Pipeline and Hazardous Materials Safety Administration to promptly adopt regulations to increase safety standards for tank car design and operations regulations for petroleum product shipments and aggressively phase out older-model tank cars used to move flammable liquids that are not retrofitted to meet new federal requirements.

Section 6. The City of Vancouver urges the federal government to follow through on rules jointly proposed by the U.S. National Transportation Safety Board and the Transportation Safety Board of Canada under which trains from the Bakken fields would be required to avoid populated areas and oil transported by rail would be regulated in the same way as other toxic or

explosive materials.

Section 7. The City of Vancouver wants transportation of crude oil by rail to meet all state, federal and local transportation rules and regulations and to exhibit a sufficient accident-free record for a sustained period of time. The City of Vancouver does not believe that there are sufficient answers to the important questions regarding environment and physical safety to proceed with any type of development at this time.

ADOPTED at a regular session of the Vancouver City Council this 3rd day of June, 2014.

Timothy D. Leavitt, Mayor

Attest:

R. Lloyd Tyler, City Clerk
By: Carrie Lewellen, Deputy City Clerk

Approved as to form:

Ted H. Gathe, City Attorney

WASHINGTON FIRE CHIEFS

**Matthew K. Rose**
Chief Executive Officer
BNSF Railroad
2650 Lou Menk Drive 2nd Floor
Fort Worth, TX 76131

**RE: Request for Information on Crude Oil Risks**

The Washington Fire Chiefs is a professional membership association that represents fire agencies in the state of Washington. We have been following both the legislation and news related to recent rail disasters and regulations proposed for Bakken Oil with great concern.

The safety of our communities and firefighters is of utmost importance. We have seen the impacts that train derailments have had on communities where they have occurred. Specifically, the 2013 derailment in Lac-Megantic, Canada killed 47 people, burning homes from the inside out as fire erupted out of water pipes, drains and sewers. The 2014 derailment in Lynchburg, Virginia dumped oil in a nearby river. In North Dakota, in December, 2014, a derailment caused several oil tankers to burst into flames. More recently, on February 16, 27 cars derailed near the Kanawaha River in West Virginia. This incident luckily only resulted in one known injury. All of these incidents could have been even more catastrophic should they have occurred in major population centers.

In July of 2014, Seattle narrowly missed disaster when three tanker cars derailed at a rail yard under Seattle's Magnolia Bridge. The cars that derailed were carrying 27,000 gallons of Bakken oil each. The Washington Fire Chiefs has an interest to ensure the safety of our members and their communities. This interest goes far beyond a few training sessions.

The WFC is well aware that even if an infinite amount of foam was available, we can only provide defensive firefighting. This assumption is based on the guidance from the US Department of Transportation [DOT] Emergency Response Guidebook [Guide 127 and 128 on ethanol and crude oil, respectively] recommending a 1/2 mile evacuation zone if only one tank car of these combustibles/flammables is involved in a fire.

Normally we would be able to assess the hazard through right-to-know and other public documents; however, your industry has sought and gained exemptions to these sunshine laws. This exemption does not mean that your industry is exempt from taking reasonable steps to ensure catastrophic incidents do not occur. To that end, we are specifically requesting access to your information on what the US DOT calls High Hazard Flammable

WASHINGTON FIRE CHIEFS

Trains operating most frequently with "unit trains" averaging 100 rail cars each, as well as on "manifest trains" with 10-20 cars of these cargoes that travel through the state of Washington.

Specifically, we request the following information:

1. Your railroad's own calculated **Worst Case Scenarios for a potential crude oil train emergency** in urban and sensitive environmental locales. What is the potential impact of a crude oil disaster in Washington communities?
2. Evidence of the **levels of catastrophic insurance coverage** your railroad has purchased relevant for potential serious releases in Washington State. For what level of potential disaster is your railroad covered?
3. Your high hazard flammable train **Comprehensive Emergency Response Plans,** both generic and for specific locations in Washington, urban and rural. Is there any credible emergency response to crude oil train disasters except evacuation? Please provide such plans covering all counties with crude train routes.
4. Your **route analysis documentation and route selection results for Washington State., pursuant to 2007 Public Law 110-53 on urban hazmat safety and security routing,** with the currently covered cargoes, especially chlorine and ammonia, as well as for the newly-recognized "key trains" of crude oil and ethanol. How have you weighted the 27 federal routing factors and whatever interchange agreements your railroad has struck with others to avoid high-risk areas?

We request that you promptly provide these documents to our organization within 30 days. These documents are vital to the safety and health of our fire agencies, communities and environment. Our citizens have a right to know what chemical disaster risks exist, and the various hazardous operations that are exposing them to this risk.

Sincerely,

Wayne Senter

**Wayne Senter**
Executive Director
Washington Fire Chiefs

*CC:*
*Dylan Doty*
*Ken Bagwell*
*Jessyn Farrell*

605 11th Ave. SE, Suite 211, Olympia, WA 98501 Phone: (360) 352-0161 Fax: (360) 586-5868

# 2014 WSCFF Convention Resolution

SUBJECT: Crude by Rail
RESOLUTION #: 14-33

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WHEREAS: New technologies and the current higher price of oil/barrel have resulted in the extraction of unprecedented amounts of crude oil from the Bakken shale formation in North Dakota, now estimated to extract one million barrels/day; and

WHEREAS: Oil company plans to expand the rail capacity in the state of Washington to receive this crude oil at four refineries and at newly proposed marine transfer stations at the Ports of Vancouver and Grays Harbor will greatly increase the number of oil trains traveling through our state; and

WHEREAS: These unit oil trains composed of 100 to 150 tankers filled with Bakken crude oil now travel through our state from Spokane, down the Columbia River and up the I-5 corridor north to refineries and possibly through Rochester along the Chehalis River west on Genesee & Wyoming lines to three proposed marine transfer terminals at the Port of Grays Harbor; and

WHEREAS: Catastrophic explosions, spills and death due to derailments of tankers carrying Bakken crude oil have occurred in Lac Megantic, Quebec; Casselton, North Dakota; New Brunswick, Canada; Aliceville, Alabama; and Lynchburg, Virginia within the last year and could occur in our urban and rural areas; and

WHEREAS: The U.S. Department of Transportation (DOT) Pipeline and Hazardous Materials Safety Administration (PMSHA) has determined this Bakken crude oil may be more flammable than traditional crude oil; and

WHEREAS: The vast majority (78,000 out of 92,000) of the tank cars used in the transport of this explosive Bakken crude oil through our state are DOT-111s, which have been known to puncture upon impact since 1991; and

WHEREAS: In January 2014, the National Transportation Safety Board (NTSB) stated, "Because there is no mandate for railroads to develop comprehensive plans or ensure the availability of necessary response resources, carriers have effectively placed the burden of remediating the environmental consequences of an accident on local communities along the route"; and

WHEREAS: At the same time this burden to protect is being placed on local jurisdictions--many who are struggling to maintain their fire fighters and first responders, let alone provide them with adequate resources to respond to oil fires, explosions and derailments; and

WHEREAS: On June 2, 2014, the City Council of the city of Vancouver passed a resolution opposing the proposed oil terminal at the Port of Vancouver and opposing the movement of these Bakken crude oil tanker trains through their city; and

# 2014 WSCFF Convention Resolution

WHEREAS: Governor Inslee has authorized a $300,000 study due March 1, 2015, to determine if it is possible to safely move this oil through our state; now therefore be it

RESOLVED: That the WSCFF asks Governor Inslee to do all in his power to halt the movement of this crude by rail until completion of his study in March 2015 and the determination that this crude by rail can be moved safely through our cities and rural areas; and be it further

RESOLVED: The WSCFF asks that if Governor Inslee and appropriate state agencies determine after March 2015 that this crude by rail is safe to move through our cities and rural areas, the WSCFF be informed as to the existence of adequate public resources to prepare for and deal with oil fires, spills and derailments; and be it further

RESOLVED: The WSCFF and its affiliates will work closely with communities it now serves to inform them of our concerns about crude by rail transportation and engage them in discussions about maintaining a healthy and safe community based on prevention and preparation.

SUBMITTED BY: Floor – Approved by 2/3 Standing Vote

| Committee | Action Taken | Recommendation |
|---|---|---|
| Safety and Health | | Do Pass |
| Legislative | | Do Pass |
| Floor | Adopted | |
| | | |
| | | |

ASSIGNED DESIGNATION:

# WASHOUGAL SCHOOL DISTRICT 112-6
# RESOLUTION NO. 2014-15-03
# CRUDE OIL BY RAIL

**A RESOLUTION** of the Board of Directors (Board) of the Washougal School District (District), expressing deep concern about the threat to life, safety and the environment due to accidents, potential spills and explosions posed by the transportation of crude oil by rail through Washougal to the proposed oil terminal to be located in the Port of Vancouver and other locations in Washington and Oregon; urging the Washington State Energy Facility Site Evaluation Council (EFSEC) to recommend against the siting of the proposed Tesoro Corporation and Savage Companies (Tesoro Savage) oil terminal in Vancouver; urging the Governor to not approve a site certification agreement for the Tesoro Savage terminal; and urging Congress, the Legislature, and regulators to adopt laws and regulations to increase the safety of the transportation of crude oil.

**WHEREAS**, the Port of Vancouver approved a lease with Tesoro Savage, who propose to construct a terminal on Port of Vancouver property to handle the transport of Bakken crude oil by rail, and this proposal is currently undergoing review by EFSEC; and

**WHEREAS**, human error, acts of nature and unforeseen disasters are beyond the control of measures proposed for the Tesoro Savage oil terminal project and could have devastating effects on the District and the entire community; and

**WHEREAS,** student and staff safety is one of the Board's primary goals; and

**WHEREAS**, Burlington Northern Santa Fe (BNSF) has rail lines running in very close proximity to Jemtegaard Middle School, Hathaway Elementary School, Gause Elementary School, Washougal High School, Excelsior High School, District Office, and the District's Transportation Facility; and

**WHEREAS,** 2450 of the District's 3100 students and 352 of the District's 419 staff members work daily in schools and offices that are 200 feet to 3600 feet from the railroad tracks; and

**WHEREAS**, Washougal has five at-grade crossings and only one grade-separated crossing; and

**WHEREAS** children living in homes that line both the north and south sides of the railroad tracks take the shortest route to school, crossing the railroad tracks rather than walking to a distant crossing; and

**WHEREAS**, according to the Association of American Railroads (AAR) the volume of crude oil shipped by rail has increased from 9,500 carloads in 2008 to 415,000 carloads in 2013; and

**WHEREAS**, the volume of petroleum transported by rail through Washougal is expected to increase in the future, and the planned Tesoro Savage oil terminal in the Port of Vancouver will increase that volume by more than 360,000 barrels per day, with the potential for future expansion; and

**WHEREAS**, possible derailments, spills, explosions and fallout pose a serious threat to District students, schools and the community; and

**WHEREAS,** trains transporting volatile petroleum products are frequently parked on existing sidings located in the center of the Washougal community and directly near schools, creating the threat that a derailment, spill, explosion and fallout could be doubled or tripled by the involvement of multiple trains; and

**WHEREAS**, the primary source of the petroleum anticipated to be transported by rail through Washougal is from the Bakken formation, which the U.S. Department of Transportation (DOT) Pipeline and Hazardous Materials Safety Administration ("PHMSA") has determined may be more flammable than traditional heavy crude oil; and

**WHEREAS**, the PHMSA's 2013 investigation into the transportation of Bakken oil, known as Operation Classification, showed that crude oil taken from cargo tanks en route to rail loading facilities was not properly classified on numerous occasions leading DOT to issue an emergency order requiring shippers to test Bakken oil and classify it as a packing group I or II commodity; and

**WHEREAS**, the Tesoro Savage terminal project will result in eight to twelve unit trains per day traveling through the Washougal each being a mile and a half long which will cause traffic congestion and delays to student transportation as well as delay in responding to emergencies at any of the five at-grade rail crossings; and

**WHEREAS**, Washougal has only one grade-separated railroad crossing, and resources are needed to add no less than one additional grade-separated crossing to assist in providing timely crossing for parents transporting students, school buses, and staff arriving in vehicles that must keep a schedule that is currently interrupted and undermined by the wait that occurs at the five at-grade crossings; and

**WHEREAS**, increased train traffic will further contribute to the current line of traffic that forms on both sides of the tracks, multiplying the drivers endangered when automobiles lined up are forced to back up onto Highway 14; and

**WHEREAS**, in January 2014 the National Transportation Safety Board stated "Because there is no mandate for railroads to develop comprehensive plans or ensure the availability of necessary response resources, carriers have effectively placed the burden of remediating the environmental consequences of an accident on local communities along their routes"; and

**WHEREAS**, the Washougal Police and Fire Departments are both located on the south side of the railroad tracks and all schools and program services are located on the north side of the tracks, a train derailment or incident will separate the emergency services and first responders from getting to the children and staff in our facilities to address a crisis emergency in any efficient way; and

**WHEREAS**, the City of Washougal is just beginning the process to study the demands placed upon its emergency responders by crude oil unit trains traveling through the City and has not yet identified the risk posed nor training, manpower and equipment needed to respond to that risk; and

**WHEREAS**, the Washougal community emergency responders have no fire retardant foam identified as needed to address a fiery explosion nor are there storage facilities available; and

**WHEREAS**, the National Transportation Safety Board in January 2014 recommended that unit trains transporting Bakken crude oil be rerouted to avoid populated areas where technically feasible; and

**WHEREAS**, the Board has a paramount interest in the health, safety and welfare of its students, staff members, and the community of Washougal and believes that the transportation of crude oil by rail associated with the development of the proposed Tesoro-Savage oil terminal is contrary to the health, safety and welfare of its students, staff and community;

**NOW, THEREFORE, BE IT RESOLVED BY THE WASHOUGAL SCHOOL DISTRICT BOARD OF DIRECTORS:**

**Section I**

The Washougal School District Board of Directors strongly urges the Governor of Washington, the Washington Department of Ecology, the Washington State Energy Facility Site Evaluation Council (EFSEC), and any other relevant state agencies decline to permit crude by rail oil terminal projects, and specifically the proposed Tesoro-Savage project.

**Section II**

The Washougal School District Board of Directors calls on municipalities, agencies and officials to deny all permits for new facilities that will result in an increase in the transportation of Bakken crude oil

through Clark County until such time as there is a consensus among the industry and regulators as to the appropriate method of safely transporting Bakken crude oil and a proven track record that demonstrates the safety of the methodology.

**Section III**

The Washougal School District Board of Directors strongly urges the Governor of Washington to do all in his power to halt the existing movement of crude oil by rail until the completion of the Washington State Department of Ecology's *Marine & Rail Oil Transportation Study* due in March of 2015 and if it can be determined that crude oil can be transported by rail safely through our State.

**Section IV**

The Washougal School District Board of Directors strongly urges Congress, the State Legislature and agencies with jurisdiction to adopt legislation and regulations related to rail transport requiring disclosure of the volumes, types of petroleum, petroleum products, and petroleum derivatives; transport routes; and the frequency and duration of transfers of petroleum, so the state and local communities can be fully informed of and plan for the risks posed by the transport of petroleum by rail.

**Section V**

The Washougal School District Board of Directors strongly urges the federal government to follow through on rules jointly proposed by the U.S. National Transportation Safety Board and the Transportation Safety Board of Canada under which trains from the Bakken fields would be required to avoid populated areas and oil transported by rail would be regulated in the same way as other toxic or explosive materials.

**Section VI**

The Washougal School District Board of Directors strongly call on federal officials to support and assist local governments in appropriate enhanced emergency response planning and emergency response capacity for rail tank cars with flammable liquids.

Adopted and approved this 10th day of February 2015.

Ron Dinius, President

Elaine Pfeifer, Vice-President

Karen Rubino

Teresa Lees

Bruce Westfall

Dawn Tarzian, Board Secretary

Bus Garage
Hathaway Elementary
Gause Elementary
Excelsior HS
Washougal HS
District Office
Jemtegaard MS
Google earth
© 2015 Google
Imagery Date: 7/14/2014 45°34'44.71" N 122°19'59.94" W elev 60 ft eye alt 13253 ft
2966 ft

PC 1 4-1445

PC 1 4-1446

PLASAR-15-01-0004 UPRR

# Substantive Correspondence

Angie Brewer <angieb@co.wasco.or.us>

# Additional time required for staff review - hearing rescheduled to July 5

1 message

**Angie Brewer** <angieb@co.wasco.or.us> Tue, May 31, 2016 at 12:58 PM
To: "Luke M. Baatz" <lmbaatz@up.com>, "Linnea.Eng@CH2M.com" <Linnea.Eng@ch2m.com>, Mike Eliason <meliason@up.com>
Cc: Tyler Stone <tylers@co.wasco.or.us>, Kristen Campbell <kristen@timmonslaw.com>

Luke, Linnea, Mike:

In our last meeting to discuss hearing dates, the County was fairly confident that the June 7 hearing date would be possible. With recent comments and subsequent coordination needs regarding treaty rights impacts, an extensive records request regarding the proposed project, and the complexity of review between documents provided in 2014, 2015 and 2016 – Staff needs a few more days to complete the staff analysis and recommendation to the Planning Commission.

I've discussed this need with County Counsel and determined that the Planning Commission hearing date will be postponed until July 5. If it can be rescheduled sooner, it will be - and we'll reach out to you with potential dates if that is possible.

As sign of good faith and demonstration of forward moving progress, the current internal draft will be provided for your review by tomorrow morning, and again by Friday morning. The final recommendation will be shared and posted online as quickly as possible.

This continues to be a complex project, unprecedented in scope for the Gorge NSA. Our sincere apologies for any impacts to your travel arrangements or project timelines.

Luke and Linnea, I look forward to speaking with you at 3pm.

Best,

Angie

**Angie Brewer, AICP**
Planning Director
Wasco County Planning Department
(541) 506-2566 direct / (541) 506-2560 main
www.co.wasco.or.us/planning/

WASCO COUNTY

Angie Brewer <angieb@co.wasco.or.us>

# Fw: UPRR Mosier

1 message

**Luke M. Baatz** <lmbaatz@up.com> Tue, May 17, 2016 at 3:43 PM
To: angieb@co.wasco.or.us
Cc: Linnea Eng <Linnea.Eng@ch2m.com>

Angie,

See the note below provided to USACE PM Peter Olmstead.

**Luke Baatz**
Senior Manager Project Design
LMBaatz@up.com | www.uprr.com
Union Pacific Railroad | 1400 Douglas St.
Omaha, NE 68179 | P: 402-544-3527 | C: 402-321-1601
—— Forwarded by Luke M. Baatz/UPC on 05/17/2016 05:40 PM ——

From: Luke M. Baatz/UPC
To: "Olmstead, Peter NWP" <Peter.D.Olmstead@usace.army.mil>
Cc: "Linnea.Eng@CH2M.com" <Linnea.Eng@CH2M.com>
Date: 05/06/2016 04:07 PM
Subject: Re: UPRR Mosier

Peter,

In reference to your April, 20th request for information please see the following response below,

Railroad operations are under the exclusive jurisdiction of the Surface Transportation Board and Federal Railroad Administration. Because they relate exclusively to such operations, these questions appear to seek information that is beyond the jurisdiction of the USACE in this permit process. That being said, Union Pacific has undertaken this process in a spirit of cooperation and transparency, and provides the following responses accordingly.

**1) What is the maximum possible increase in the number of trains per day as a result of the project?** (My information shows a max of 7 trains per day)

Train count and more importantly carloadings are driven by the global market, and Union Pacific regularly attempts to forecast this demand by commodity. This project is not tied to any forecasted increase in carloadings, rather it is designed to alleviate a major bottleneck in our system. This bottleneck causes delays regardless of the number of trains.

**2) What is the maximum possible increase in the length of trains operating on the line as a result of the project? (My information shows a max length of 12,000 ft)**

There is no maximum possible increase in the length of trains operating as a result of the project, however, operating efficiency will be improved by maintaining standard operating speed and system fluidity, improving the ability of trains to safely pass one another and reducing barriers to the use of industry-standard train lengths.

**3) What is the maximum capacity for length of trains currently able to operate on the line? (I believe I heard 7,000 is current max?)**

**PC 1 4-1449**

Currently, trains longer than 9,500 traveling this particular route through the Gorge require an exemption from the local Director of Transportation Services. This has not occurred in at least the last 18 months, however that could change at any time in the future.

**4) What is the maximum possible increase in speed of trains on the line as a result of the project and where? (I believe in Mosier the speed limit will go from 30 to 35 MPH, will it change anywhere else?)**

The project limits are between MP 66.98 and 72.35. The maximum allowable speed on the mainline of the subdivision is 70 mph. However, between the boundaries of our project, the speed lowers due to the geometry of the track to between 30 and 40 mph. That will not change as a result of the project.

Could you please provide any more accurate info as necessary and/or firm up this information is correct.

Thank you,

**Luke Baatz**
Senior Manager Project Design
LMBaatz@up.com | www.uprr.com
Union Pacific Railroad | 1400 Douglas St.
Omaha, NE 68179 | P: 402-544-3527 | C: 402-321-1601

From: "Olmstead, Peter NWP" <Peter.D.Olmstead@usace.army.mil>
To: "Linnea.Eng@CH2M.com" <Linnea.Eng@CH2M.com>
Cc: "lmbaatz@up.com" <lmbaatz@up.com>
Date: 04/20/2016 02:32 PM
Subject: UPRR Mosier

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This email originated from outside of the company. Please use discretion if opening attachments or clicking on links.

Hi Linnea,
Per our phone discussion earlier, the Tribe said they found some inconsistencies in the information they have regarding the increase in rail efficiencies that would result from the project. I think part of that may be some confusion in the difference between UPRRs expected increases (based on projected demand) vs. increase in the actual capacity of the system (max possible increase). Regardless, they have asked us to confirm some of these things with UPRR:

1) What is the maximum possible increase in the number of trains per day as a result of the project? (My information shows a max of 7 trains per day)
2) What is the maximum possible increase in the length of trains operating on the line as a result of the project? (My information shows a max length of 12,000 ft)
3) What is the maximum capacity for length of trains currently able to operate on the line? (I believe I heard 7,000 is current max?)
4) What is the maximum possible increase in speed of trains on the line as a result of the project and where? (I believe in Mosier the speed limit will go from 30 to 35 MPH, will it change anywhere else?)

Could you please provide any more accurate info as nescessary and/or firm up this information is correct.

Thank you,

Peter D. Olmstead
Project Manager/Biologist

**PC 1 4-1450**

U.S. Army Corps of Engineers
Portland District, Regulatory Branch
La Grande Field Office
3502 Highway 30
La Grande, Oregon 97850-5628
Office: 541-962-0401
Cell: 503-758-2864

**

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**

Angie Brewer <angieb@co.wasco.or.us>

# UPRR PC hearing rescheduled to June 7, 2016

1 message

**Angie Brewer** <angieb@co.wasco.or.us> Mon, Apr 25, 2016 at 1:56 PM
To: Mike Eliason <meliason@up.com>, lbaatz@up.com, "Linnea.Eng@CH2M.com" <Linnea.Eng@ch2m.com>
Cc: "Dryden, Margaret L -FS" <mdryden@fs.fed.us>, Tyler Stone <tylers@co.wasco.or.us>, Kristen Campbell <kristen@timmonslaw.com>, Brenda Jenkins <brendaj@co.wasco.or.us>

Mike, Luke and Linnea:

As you know, potential concerns regarding recreation and cultural resource impacts at Memaloose State Park were raised by, MG Devereux, the Deputy Director of Oregon State Parks, during our conference call on April 19, 2016. I have since spoken to MG as well as several staff from the State Historic Preservation Office and the US Forest Service National Scenic Area Office. The lack of clarity at that point was concerning to our process and I requested written confirmation of any known or anticipated resource impacts and required mitigation - to inform the staff recommendation prepared for the Wasco County Planning Commission.

Today, I received a written response from SHPO and a draft response from OPRD. The SHPO response confirms their letter will not be altered, but states that the Umatilla and OPRD are still working with the USACE to verify resource impacts of the same project. The draft response from OPRD provides information about existing rail impacts at Memaloose State Park, but does not include definitive comments about the proposed development. It also provides references to a list of existing resource summaries within the OPRD Gorge Unit Plan – which will take some time to read through and fully respond to in the staff report. The USFS NSA has not provided written comments, except for the cultural resource coordination process.

Given the 11th hour nature of these concerns being expressed, staff cannot realistically address them fully in time for the April 26, 2016 mail out date required by our administrative procedure to continue with the May 3, 2016 hearing date. As a result, Wasco County has determined that the Planning Commission hearing will be postponed until **June 7, 2016** in an effort to fully address any remaining resource impact concerns.

The staff recommendation will be completed and shared publicly for review as quickly as possible. A revised public notice for the rescheduled hearing will be shared on Tuesday, April 26.

Thank you,

Angie

**Angie Brewer, AICP**
Planning Director
Wasco County Planning Department
(541) 506-2566 direct / (541) 506-2560 main
www.co.wasco.or.us/planning/

# 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


April 25, 2016

Union Pacific Railroad
Attention: Mike Eliason, Luke Baatz, Linnea Eng, and Ty Wyman
Sent via email to: meliason@up.com; lmbaatz@up.com; linnea.eng@ch2m.com; and twyman@dunncarney.com

Subject: Stipulation of Completeness Date for PLASAR-15-01-0004

Greetings Mike, Luke, Linnea and Ty:

As we progress in the review of PLASAR-15-01-0004 for consistency with the Wasco County National Scenic Area Land Use and Development Ordinance, we have compiled the attached timeline of substantive application material submittals.

Following purported completeness on June 9, 2015, the scope of the proposed development increased when the offsite wetland mitigation site was selected. The changes warranted additional natural and cultural resource surveys, agency coordination and new land owner consent. Furthermore, the supplemental surveys were necessary for completeness of the expanded project scope, staff review and resource protection agency consultation.

Given this information, Wasco County Planning Department stipulates the completeness date of PLASAR-15-01-0004, including the offsite wetland mitigation, is November 17, 2015.

Please contact me directly with any concerns.

Sincerely,

Angie Brewer

Angie Brewer, AICP
Planning Director

Enclosures (1): PLASAR-15-01-0004 Application Materials Timeline

Cc: Kristen Campbell, Wasco County Legal Counsel

## PLASAR-15-01-0004 UPRR

## Timeline of application material submittal (substantive items only):

January 9, 2015 – Application hand delivered to Wasco County Planning Office in The Dalles, Oregon

February 27, 2015 – ODOT land owner signature provided

March 2, 2015 – Incompleteness letter provided to UPRR, requesting additional information

March 9, 2015 – meeting to discuss completeness requirements and missing materials

March 13, 2015 – Incompleteness letter #2 provided to UPRR, requesting additional information

May 27, 2015 – Discussed need to have landowner signatures for completeness

April 1, 2015 – Revised Cultural Survey materials provided

April 3, 2015 – SHPO clearance form with map provided

June 2, 2015 – Supplemental materials provided by UPRR in response to 3/13/15 letter

June 9, 2015 – OPRD landowner signature provided

June 26, 2015 – Compensatory Mitigation Plan provided

July 29, 2015 – Cultural Addendum 1 provided (report from supplemental surveys)

August 4, 2015 – Schacht property signature provided for wetland mitigation site (blank form received)

August 7, 2015 – Cultural assessment provided for wetland mitigation site

August 10, 2015 – Cultural Addendum 2 provided (report from supplemental surveys)

August 11, 2015 – Schacht property signature provided (completed form)

August 17, 2015 – Wetland mitigation proposal presentation/discussion materials provided

August 17, 2015 – Affected waterbodies table provided

August 24, 2015 – Final Cultural Resources Report with two addenda provided

November 17, 2015 – Updated wetland mitigation supplemental application materials provided

April 19, 2016 – OPRD staff verbally requested the property line adjustment be removed from the project proposal and raised possible concerns regarding cultural and recreation resource impacts that require confirmation prior to completion of staff recommendation.

**Wasco County Notice Dates:**
Resource consultation has been ongoing with partner agencies since application was submitted. These dates reflect formal written requests provided by Wasco County, soliciting formal agency feedback.

- February 24, 2015 – Formal coordination with OPRD via email notice began
- September 22, 2015 – Cultural notice provided to SHPO and Treaty Tribes
- February 20, 2016 – Natural resource consultation notice to USFS, ORBIC, ODFW
- March 11, 2016 – Public Notice for the project and May 3, 2016 hearing was sent out

CH2M Seattle
1100 112th Ave NE
Suite 500
Bellevue, WA 98004
O +1 425 453 5000
www.ch2m.com

USACE Portland District
ATTN: Chris Page CENWP-OD-G
P.O. Box 2946
Portland, OR 97208-2946

August 24, 2015

Subject: Cultural Resources Surveys of UPRR Second Mainline Track, Wasco County, Oregon

Dear Chris,

Enclosed please find the requested 8 hard copies and 8 CDs of the original cultural resources report, along with two addenda, for the subject project. This version incorporates changes to the wetland mitigation site cultural memorandum requested by Marge Dryden. With these submittals, we believe all outstanding information requests that we have received regarding cultural resources for the project have been addressed. We look forward to completion of the Section 106 consultation process. I will call you to verify when this process is expected to be completed.

Please let me know if you have any questions or comments regarding these documents.

Regards,
CH2M HILL Engineers, Inc.

Linnea Eng, P.E.
Project Manager

Cc: Angie Brewer/Wasco County (electronic only)
Peter Olmstead/USACE (electronic only)
Luke Baatz/UPRR (electronic only)
Steve Cheney/UPRR (electronic only)
Marge Dryden/Wasco County (electronic only)
Robin McClintock/CH2M (electronic only)
Christine Roberts/CH2M (electronic only)

WASCO COUNTY

Angie Brewer <angieb@co.wasco.or.us>

# RE: Mosier Area Siding Extension

1 message

**Tom Garnier** <TGarnier@ssiworld.com> Thu, Jul 2, 2015 at 11:53 AM
To: "Brock A. Nelson" <BANELSON@up.com>
Cc: Angie Brewer <angieb@co.wasco.or.us>, Jerry Dettwiler <JDettwiler@ssiworld.com>

Brock,

I am following up with some additional questions regarding the siding extension that will run through our property in the Mosier area. As a reminder, Columbia View Orchards is zoned large agricultural and we have over 200 acres in production. Critically important to these crops is a dependable supply of irrigation water.

My first question is will there be an accessible schedule to when trains will be parked on the extended siding? We have 13 acres of property on the north side of the track. The inlet or take-up pipe for our irrigation systems is located on the north side of the track. From time-to-time we need to access this as service is required for the irrigation system. Often time the service can be schedule but also it can be on an emergency bases. Currently we have a crossing, but if a train is park on the siding the access will be restricted. What is worse is if we are servicing the inlet, fish screen, etc. we don't want to get stuck or cut off from returning or getting required materials. If we knew the schedule we could plan ahead of time. Or a better question is what accommodations can the railroad make to eliminate this concern and insure access to our property?

My second question relates to the "outside" people that try to cross the track to get beach access. Our best efforts have not been fully successful in restricting access through our property. My concern here is what will people do when they get stuck on the wrong side when a train arrives at the siding? Clearly no one wants them to climb over a train. Yes, of course we know this is trespassing, but a 100 plus years of beach use is not going to end overnight. How do you hope to control this issue?

Thanks

Tom

**From:** Brock A. Nelson [mailto:BANELSON@up.com]
**Sent:** Thursday, December 18, 2014 7:04 AM
**To:** Tom Garnier

**PC 1 4-1456**

**Subject:** Re: Mosier Area Siding Extension

Just east of the I-84 bridge over our tracks.

Sincerely;

Brock Nelson
Union Pacific Railroad
Director of Public Affairs
(503) 249-3079

" My expectation is that everyone work injury free "

Tom Garnier ---12/16/2014 06:00:17 AM---Just curious how/where the new track makes the switch from the north side to the south near our plac

From: Tom Garnier <TGarnier@ssiworld.com>
To: "Brock A. Nelson" <BANELSON@up.com>
Date: 12/16/2014 06:00 AM
Subject: Re: Mosier Area Siding Extension

---

Just curious how/where the new track makes the switch from the north side to the south near our place.

T

On Dec 16, 2014, at 5:48 AM, Brock A. Nelson <BANELSON@up.com> wrote:

> Sorry, that's all I have. What is it that you are wanting to see?
>
> Sincerely;
>
> Brock Nelson
> Union Pacific Railroad
> Director of Public Affairs
> (503) 249-3079
>
> " My expectation is that everyone work injury free "
>
> <graycol.gif>Tom Garnier ---12/15/2014 05:54:10 PM---Brock, Thanks but that is the 5,000 ft. view and the section that show our property was excluded or
>
> From: Tom Garnier <TGarnier@ssiworld.com>
> To: "Brock A. Nelson" <BANELSON@up.com>
> Date: 12/15/2014 05:54 PM
> Subject: RE: Mosier Area Siding Extension
>
> ---
>
> Brock,

**PC 1 4-1457**

Thanks but that is the 5,000 ft. view and the section that show our property was excluded or I just couldn't find it. Thought there might be something better.

Tom

**From:** Brock A. Nelson [mailto:BANELSON@up.com]
**Sent:** Monday, December 15, 2014 12:09 PM
**To:** Tom Garnier
**Subject:** Re: Mosier Area Siding Extension

Tom, I showed a google map of the existing track and the extended track in my presentation. I believe the City posted a copy of my presentation on their website. Thanks.

Sincerely;

Brock Nelson
Union Pacific Railroad
Director of Public Affairs
(503) 249-3079

" My expectation is that everyone work injury free "

<graycol.gif>Tom Garnier ---12/15/2014 11:56:11 AM---Brock, If you recall we met and briefly talked after the recent meeting in Mosier regarding the sidi

From: Tom Garnier <TGarnier@ssiworld.com>
To: "banelson@up.com" <banelson@up.com>
Date: 12/15/2014 11:56 AM
Subject: Mosier Area Siding Extension

---

Brock,

If you recall we met and briefly talked after the recent meeting in Mosier regarding the siding extension. Again, we own the vineyard/orchard property on the eastern portion of the extension - best seen in your current TV commercial.

My question today is whether you have released a plan view of the project showing the track how it currently is and the proposed change?

Thanks

Tom

Tom Garnier
Columbia View Orchards LLC

**

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**

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**

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**

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

RECEIVED
JUN 11 2015

June 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 – 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). With the submittal of this information, UPRR requests, pursuant to ORS 215.427(2), that Wasco County deem the application complete and begin formal processing.

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

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~~January 9, 2015~~ June 8, 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 Parks and Recreation Department, as owner(s) of the real properties commonly known as, Tax Lot Numbers 3N 12E 0 100 and 3N 12E 31 800, and as more particularly described below (see Table 1 and attached Figure 1) expressly give my/our ~~permission~~ ~~and/or~~ consent ~~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 additional permanent ROW and temporary construction easement upon my/our property. These applications include Development Approval for Conditional Uses and a Planning Commission Variance Application.

**The ~~permission and/or authorization~~ consent 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~~ consent 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 |
|---|---|---|---|---|---|---|
| 3N 12E 0 100 | See Figure 1 | Oregon Parks and Recreation Department | 725 Summer St NE Suite C | Salem | OR | 97301 |
| 3N 12E 31 800 | See Figure 1 | Oregon Parks and Recreation Department | 725 Summer St NE Suite C | Salem | OR | 97301 |

Sincerely,

Legal Landowner(s) Oregon Parks and Recreation Department

Printed Name: MG Devereux, Deputy Director

Landowner Signature: MGD

Date: June 8, 2015

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

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

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# 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


March 13, 2015

Jeremy Sande, Project Manager
CH2M Hill Engineers, Inc.
2020 SW 4th Avenue, Suite 300
Portland, Oregon 97201
Sent by email to: Jeremy.Sande@ch2m.com

Debra Schafer
Union Pacific Railroad
1400 Douglas Street, Stop 0910
Omaha, Nebraska 68179
Sent by email to: DebraLSchafer@up.com

Subject: Completeness Review Findings and Status of PLASAR-15-01-0004

Dear Mr. Sande and Ms. Schafer,

Thank you for traveling to meet with our staff on Monday, March 9, 2014 to discuss the remaining materials required for completeness. As we discussed, I've spent additional time with the detailed drawings and mitigation plans. I've also heard from Marge Dryden, the Heritage Program Manager for the Columbia River Gorge National Scenic Area.

At our meeting you explained that a response to the issues raised in my March 2 letter was actively being prepared but has not yet been submitted. Because of this, I've elected to include that list again below as issues that are still waiting to be addressed through additional materials. New items will be highlighted as "new items" under each topic.

**To be clear, application PLASAR-15-01-0004 is incomplete at this time.** Pursuant to the Wasco County National Scenic Area Land Use Ordinance, the following materials are required for completeness and must be submitted before Wasco County Planning can begin the development review process or issue a decision:

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.
- 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.
- Please confirm <u>all</u> changes to existing utilities are shown on the provided site plan materials.
- Please confirm blasted rock materials from the "mesa" will be used onsite to build new ballast.
- 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.

Treaty Rights:

- Confirm any known traditional treaty tribe fishing access sites or traditional cultural properties, regardless of safe crossings or developed access points.

Scenic:

- Please provide elevation drawings of the retaining wall(s) or modifications to existing bridges, outside of the Mosier urban area.
- 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.
- Please describe the visibility of the proposed retaining wall(s) from key viewing areas and anticipated impacts to scenic resources.
- 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 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).
- **New item:** please confirm whether a darker brown color can be used on the equipment buildings.

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 result.
- Please confirm all changes to existing underground utilities were reviewed as part of the cultural resource assessment.
- Please confirm areas of ground disturbance associated with temporary development were included in the cultural resource assessment.
- **New item:** 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 confidentiality requirements for the protection of cultural resources (please let me know if you do not already have it).

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.
- 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.
- Please confirm that with the exception of new culverts identified for resource mitigation and enhancement, proposed culverts will be limited to extending existing culverts.
- 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.

- Please confirm any natural resource impacts resulting from crushing rock materials onsite.
- 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.

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.
- 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.
- 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.

**New item:** 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.

If the application materials already address any of these items, please direct me to the correct location. Otherwise, please provide the missing materials at your earliest convenience to ensure a timely review. The Wasco County Planning Department will continue coordinating with resource protection specialists, partner agencies, and treaty tribes with the materials provided, but cannot notice the application for public comment or issue a land use decision until the missing materials are provided.

Thank you in advance for providing these materials. Do not hesitate to contact me directly with any questions or concerns. I can be reached Monday through Friday, from 8am to 4:30pm at (541) 506-2566 or by email at angieb@co.wasco.or.us.

Sincerely,

Angie Brewer, AICP
Interim Planning Director

cc: Kristen Campbell (via email kristen@timmonslaw.com)
Ty Wyman (via email twyman@dunncarney.com)

# 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


March 2, 2015

Jeremy Sande, Project Manager
CH2M Hill Engineers, Inc.
2020 SW 4th Avenue, Suite 300
Portland, Oregon 97201
Sent by email to: Jeremy.Sande@ch2m.com

Debra Schafer
Union Pacific Railroad
1400 Douglas Street, Stop 0910
Omaha, Nebraska 68179
Sent by email to: DebraLSchafer@up.com

Subject: Completeness Review Findings and Status of PLASAR-15-01-0004

Dear Mr. Sande and Ms. Schafer,

Thank you for your recent application to modify and expand an existing railroad siding (double track), replace associated support structures and communications equipment, and construct new access roads near Mosier, Oregon. Your application was submitted January 9, 2015 and a letter tolling the 30-day completeness review by 21-days was provided February 9, 2015.

I have had an opportunity to review the application materials, and will continue to review the site plans and drawings in detail this week. To ensure a timely opportunity for you to provide missing materials, this letter provides a list of issues that have been identified so far. A second letter to confirm remaining items needed for completeness will be provided upon the completion of my review of the detailed drawings.

**Application PLASAR-15-01-0004 is incomplete at this time.** Pursuant to the Wasco County National Scenic Area Land Use Ordinance, the following materials are required for completeness and must be submitted before Wasco County Planning can begin the development review process or issue a decision:

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.
- 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.
- Please confirm <u>all</u> changes to existing utilities are shown on the provided site plan materials.
- Please confirm blasted rock materials from the "mesa" will be used onsite to build new ballast.
- 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.

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- Confirm any known traditional treaty tribe fishing access sites or traditional cultural properties, regardless of safe crossings or developed access points.

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- Please provide elevation drawings of the retaining wall(s) or modifications to existing bridges, outside of the Mosier urban area.
- 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.
- Please describe the visibility of the proposed retaining wall(s) from key viewing areas and anticipated impacts to scenic resources.
- 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).
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- Please confirm all changes to existing underground utilities were reviewed as part of the cultural resource assessment.
- Please confirm areas of ground disturbance associated with temporary development were included in the cultural resource assessment.

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- 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.
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- Please confirm that with the exception of new culverts identified for resource mitigation and enhancement, proposed culverts will be limited to extending existing culverts.
- 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.
- Please confirm any natural resource impacts resulting from crushing rock materials onsite.
- 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.

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- 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.
- 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.

If the application materials already address any of these items, please direct me to the correct location. Otherwise, please provide the missing materials at your earliest convenience to ensure a timely review. The Wasco County Planning Department will continue coordinating with resource protection specialists, partner agencies, and treaty tribes with the materials provided, but cannot notice the application for public comment or issue a land use decision until the missing materials are provided. As previously stated, a second letter will be provided in the near future to identify any remaining materials required for completeness that are missing from the detailed drawings.

Thank you in advance for providing these materials. Do not hesitate to contact me directly with any questions or concerns. I can be reached Monday through Friday, from 8am to 4:30pm at (541) 506-2566 or by email at angieb@co.wasco.or.us.

Sincerely,

Angie Brewer, AICP
Interim Planning Director

cc: Kristen Campbell (via email kristen@timmonslaw.com)
Ty Wyman (via email twyman@dunncarney.com)

WASCO COUNTY

Angie Brewer <angieb@co.wasco.or.us>

# RE: Railroad projects

1 message

**Edelman, Scott** <scott.edelman@state.or.us> Wed, Feb 25, 2015 at 9:59 AM
To: Angie Brewer <angieb@co.wasco.or.us>

Then there shouldn't be any state land use issues. Thanks for checking.

**From:** Angie Brewer [mailto:angieb@co.wasco.or.us]
**Sent:** Wednesday, February 25, 2015 9:58 AM
**To:** Edelman, Scott
**Subject:** Re: Railroad projects

No. It will be located inside the NSA - no state zoning...

**Angie Brewer, AICP**
Interim Director
Wasco County Planning Department
(541) 506-2566 direct / (541) 506-2560 main
www.co.wasco.or.us/planning/

On Wed, Feb 25, 2015 at 9:51 AM, Edelman, Scott <scott.edelman@state.or.us> wrote:

Will the additional ROW be through farm or forest land? Sorry about the brief messages – on a conference call.

**From:** Angie Brewer [mailto:angieb@co.wasco.or.us]
**Sent:** Wednesday, February 25, 2015 9:42 AM
**To:** Edelman, Scott
**Subject:** Re: Railroad projects

Most of it will be in the existing right of way, although they will need to purchase a few acres of additional right-of-way for a small portion of the project. The goal of the project is to extend an existing double track.

Angie

**Angie Brewer, AICP**
Interim Director
Wasco County Planning Department
(541) 506-2566 direct / (541) 506-2560 main
www.co.wasco.or.us/planning/

On Wed, Feb 25, 2015 at 9:37 AM, Edelman, Scott <scott.edelman@state.or.us> wrote:

Is the work going to be in existing RR right-of-way?

**From:** Angie Brewer [mailto:angieb@co.wasco.or.us]
**Sent:** Wednesday, February 25, 2015 9:14 AM
**To:** Edelman, Scott
**Subject:** Railroad projects

Scott,

I have an application from Union Pacific Railroad to do some work near Mosier. I was not on staff when the pre-application conference was conducted, so I am circling back and double checking a lot of things regarding process. Can you confirm for me whether there are any state land use laws that apply to railroad projects? Right now, we have only identified National Scenic Area rules as rules in our ordinance that apply. There are other federal rules that apply - but none that we implement directly. Could you let me know if I'm missing anything?

Thanks :)

Angie

**Angie Brewer, AICP**
Interim Director
Wasco County Planning Department
(541) 506-2566 direct / (541) 506-2560 main
www.co.wasco.or.us/planning/

WASCO COUNTY

**Angie Brewer <angieb@co.wasco.or.us>**

# Status of UPRR Application

1 message

**Angie Brewer** <angieb@co.wasco.or.us> Tue, Feb 24, 2015 at 12:50 PM
To: "jeremy.sande@ch2m.com" <Jeremy.Sande@ch2m.com>
Cc: Jessica.Golman@ch2m.com, Kristen Campbell <kristen@timmonslaw.com>

Jeremy,

As we discussed, I will provide you with updates as I make progress during the completeness review process for your application on behalf of Union Pacific Railroad. Although my review is not complete, I've identified a significant need that I feel you should begin addressing right away. Appendix G contains landowner consent forms for Oregon State Parks and the Oregon Department of Transportation that are not signed. Before Wasco County can deem the application complete, signatures from all affected landowners are required. Please submit the signed forms for completeness. I will continue to review the rest of the submitted materials and coordinate with resource protection partner agencies. I will send you a summary of my review early next week identifying any remaining issues for completeness.

Thank you and please feel free to call with any questions.

Angie

**Angie Brewer, AICP**
Interim Director
Wasco County Planning Department
(541) 506-2566 direct / (541) 506-2560 main
www.co.wasco.or.us/planning/

TIMMONS LAW PC

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The Dalles, Oregon 97058

541.296.9900
fax 541.296.9904
timmonslaw.com

**Bradley V. Timmons***
**Antoine J. Tissot***
**Karen A. Feil**
**Staci L. McCarthy*‡**
**also admitted in Washington*
**‡also admitted in California*

February 23, 2015

Ty K. Wyman
Dunn Carney, LLP
851 S.W. Sixth Avenue, Suite 1500
Portland, OR 97204-1357

Via email: twyman@dunncarney.com
and 1st Class Mail

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

Dear Ty:

Based on your February 9, 2015 letter, it is my understanding that Union Pacific Railroad is assuming the application of ORS 215.427. You are correct that it is the County's position that the timelines established by ORS 215.427 likely do not apply to projects within the National Scenic Area and, if challenged, the County would prevail.

However, in the spirit of efficiency, the County has voluntarily agreed to use its best efforts to utilize the statutory framework as a guideline. As such, this confirms our understanding that Union Pacific Railroad has agreed to toll any period for the County to "notify the applicant in writing of exactly what information is missing" until March 2, 2015. Correspondingly, the County agrees to use its best efforts to take final action within 150 days after that date. Furthermore, if the County becomes aware that it will be unable to meet any review or response timeframes, it will notify Union Pacific Railroad in writing as soon as practicable.

Finally, this confirms that Union Pacific Railroad will provide an amendment extending its Reimbursement Agreement with the County. Also, on account of the size and complexity of the application, the County has identified that the Maximum Price amount may not be adequate to secure the staffing it needs to effectively adhere to the requested timeframes. The County requests that Union Pacific Railroad commit an additional Fifteen Thousand Dollar ($15,000.00) to the Maximum Price amount to ensure adequate planning staff and attorney fees. It should be noted that the hourly rates for Attorney review of land use matters are in excess of the hourly rate for Planning set forth in the original Reimbursement Agreement.

*Physical Address*
Crates Building
3591 Klindt Drive, Suite 220
The Dalles, Oregon 97058

I look forward to your response and to continued cooperation throughout this process.

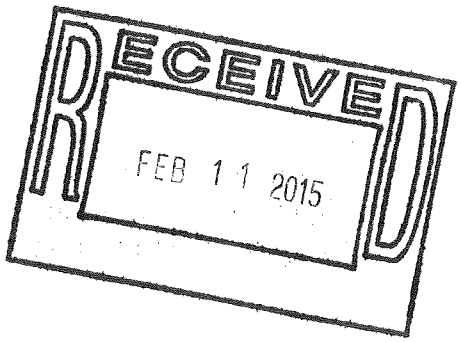
Sincerely,

TIMMONS LAW PC

Kristen A. Campell
kristen@timmonslaw.com

cc: Tyler Stone

Dunn Carney Allen Higgins & Tongue LLP ATTORNEYS AT LAW




February 9, 2015

TY K. WYMAN
Admitted in Oregon

DIRECT DIAL
503-417-5478

E-MAIL
twyman@dunncarney.com

ADDRESS
Suite 1500
851 S.W. Sixth Avenue
Portland, Oregon
97204-1357

Phone 503.224.6440
Fax 503.224.7324

INTERNET
www.dunncarney.com

**Via E-mail (angieb@co.wasco.or.us)**
**Via First-Class Mail**

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

Re: National Scenic Area Development Review Application for the Union Pacific Railroad Second Mainline Track Project
Our File No.: UNI45-86

Dear Angie:

Following up on our phone conversation last Friday, I understand that the County to believe that ORS 215.427(2) (requiring the County to "notify the applicant in writing of exactly what information is missing within 30 days of receipt of the application") does not apply in this case because the project is within the National Scenic Area. Having not analyzed the Scenic Area Act on this issue, I am not prepared to agree or disagree with the County on this point.

Regardless, with this letter Union Pacific hereby tolls the 30 day period of ORS 215.427(2) for a period of 21 days. As such, the period will now end on March 2, 2015.

As I said on the phone, it would seem wise to use that the additional 21 days to have the County and UP agree upon deadlines for processing the application. Please let me know if I can facilitate such agreement. Thanks for your assistance and let me know if you have any questions or comments.

Very truly yours,

Ty K. Wyman

TKW:amh

cc: Kristen Campbell (via E-mail kristen@timmonslaw.com)
Deb Schafer (via E-mail debralschafer@up.com)
Jeremy Sande (via E-mail jeremy.sande@ch2m.com)

DCAPDX_1654519_v1

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 not 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
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