Wasco County Planning Department
"Service, Sustainability & Solutions"

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WASCO COUNTY PLANNING COMMISSION AGENDA PACKET

FOR

Hearing Date: September 26, 2016

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

Action Item(s):

QUASI JUDICIAL HEARING:

PLASAR-15-01-0004

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

VOLUME #1

Wasco County Planning Department

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Date: September 16, 2016

To: Wasco County Planning Commission

From: Wasco County Planning Office

Subject: Submittal for Hearing dated September 26, 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.

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SUMMARY OF INFORMATION

Prepared for September 6, 2016 Planning Commission Hearing
Revised September 13, 2016 (changes shown in underlined text)

FILE # PLASAR-15-01-0004 **HEARING DATE:** September 6, 2016 and September 26, 2016

REQUESTS: Expand an existing railroad siding on either side of Mosier, Oregon to create a new second mainline track and realign existing track; replace five equipment shelters; install drainage structures including ditches and culverts, 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 off-site wetland mitigation.

STAFF RECOMMENDATION: Approve with recommended conditions

APPLICANT: Union Pacific Railroad **APPLICANT'S CONSULTANT:** CH2M Hill

LAND OWNERS: Union Pacific Railroad
Oregon Department of Transportation
Oregon Parks and Recreation Commission
Skylar and Kathleen Schacht

PROJECT LOCATION: The project area begins at rail MP 66.98, east of the Wasco County line, approximately two miles west of the City of Mosier, and ends at rail MP 72.35, approximately three miles east of Mosier, within Memaloose State Park. The project area roughly parallels the Columbia River and Interstate 84. More specifically, the project crosses Township 3 North, Range 12 East, Sections 31 and 32; Township 3 North, Range 11 East, Section 36; and Township 2 North, Range 11 East, Sections 1, 2, and 3. The replacement of a signal building and two signal lights are also proposed at MP 74.73, approximately 2.4 miles east of the contiguous project area and off-site wetland mitigation is proposed on Wasco County Parcel 2N 13E Section 8 Lot 200 (Account # 1274). The project will be predominantly located on lands owned by Union Pacific Railroad. Portions of the project are also proposed to occur on lands owned by Oregon Department of Transportation and Oregon State Parks and Recreation. Offsite wetland mitigation will occur on lands owned by Skylar and Kathleen Schacht.

ZONING: General Management Area Large-Scale and Small-Scale Agriculture (A-1 (40) and A-2 (80)), Open Space, and Water; and Special Management Area Public Recreation, Agriculture, and Open Space.

ATTACHMENTS:

A. Staff Recommendation & Conditions of Approval
B. Staff Summary

Attachment A: Staff Recommendation & Conditions of Approval
PLASAR-15-01-0004 UPRR

Staff Recommendation

Based upon the findings of fact and conclusions of law included in the Staff Summary (Attachment B), staff recommends the proposed development is approved only with the following conditions of approval and any additional conditions deemed appropriate by the Wasco County Planning Commission:

Three conditions of approval have been added as a result of new information received for the September 6, 2016 Planning Commission hearing. The additions are shown in underlined text below.

Recommended Conditions of Approval

General Conditions:

1. Noncompliance with any condition placed on a conditional use permit shall be grounds for revocation of the permit. Revocation of a conditional use permit shall be considered a land use action reviewed by the Planning Commission.

2. Section 2.140 of the Wasco County National Scenic Area Land Use and Development Ordinance requires all conditions attached to approval of uses shall be recorded in the County deeds and records to ensure notice of the conditions to successors in interest.

3. The proposed development shall not significantly deviate from the application materials reviewed for consistency.

4. Final engineering drawings shall be provided to the Wasco County Planning Director for review and confirmation prior to commencement of construction.

5. Grading, excavation and vegetation removal outside of previously disturbed areas shall be the minimum necessary to allow for construction. Best management practices shall be implemented to prevent excessive erosion.

6. All exposed graded areas shall be reseeded with the following native seed mix at the earliest planting season following construction (CRGNSA Botanist Robin Dobson can be contacted at 541-308-1700 or rdobson@fs.fed.us with any questions about seed sources or modified mixtures to comply with this requirement).

   Idaho fescue (Festuca idahoensis) 30%
   Bromus vulgaris 30%
   Blue wild rye 20%
   Blue bunch wheatgrass 20%

   Add some herbaceous seed (1 -2 oz of each):
   Annual lupine (L. bicolor)
   Yarrow

7. Temporary traffic impacts during construction activities shall be coordinated with the Oregon Department of Transportation and the Wasco County Public Works Department.

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

9. New signal buildings on lands adjacent to agriculture zoned lands suitable for agriculture use, shall comply with the 30-foot setback from vineyards and 75-foot setback from orchards specified in the agriculture setbacks of Chapter 3.

10. To comply with Flood Hazard Overlay Section 3.243(C)(1)(a) new construction and substantial improvements shall be anchored to prevent flotation, collapse, and lateral movement of the structure in the event of a flood. The applicant is required to submit final specification sheets and an explanation of all building materials and methods utilized to demonstrate anchoring, flood proofing and flood damage resistance and minimization.

11. Certification by a registered professional engineer or architect that the flood-proofing methods for any non-residential structure meet the flood-proofing criteria in Section 3.243.D.6-Specific Standards is required.

12. Temporary construction site identification, public service company, safety, or information signs cannot be greater than 32 square feet. Exceptions may be granted for public highway signs necessary for public safety and consistent with the Manual for Uniform Traffic Control Devices. Removal of temporary construction site identification must be accomplished within 30 days of project completion.

13. Coal cars are required to be covered.

14. A spill response plan is prepared or made available prior to the commencement of construction.

15. UPRR shall stay within the existing range of 20 to 30 trains per day as stated in the application materials.

16. UPRR to adhere to all FRA safety standards, a including any safety improvements that are optional.

17. UPRR shall provide regular training to Gorge fire departments included in the Mid-Columbia Five County Mutual Aid Agreement and requires UPRR to solicit feedback about local needs for combatting a railroad related fire incident and make a good faith effort to assist in meeting those needs.

18. UPRR is required to comply with Chapter 11 for wildfire safety and prevention. Required compliance with fire safety standards shall be disclosed to future land owners prior to sale of any parcel.

19. UPRR must verify the use complies with all applicable federal, state, and local laws.

Treaty Rights Conditions:

20. The proposed development shall not directly result in significantly increased net volume of rail traffic, including number of individual trains, length of trains, or speed of trains.

21. UPRR shall provide two (2) safe crossings for National Scenic Area treaty tribe members: one east of the project area, and one west of the project area. The safe crossings will each include a minimum of new crossing lights and crossing arms for safety. The safe crossings must occur in locations deemed appropriate by the Umatilla Fish and Wildlife Commission. Following the appeal period, but within 45 days of the final decision, UPRR shall establish contact to begin this work. The safe crossings shall be completed within two years of the commencement of second mainline development; extensions of this timeline may be requested by the CTUIR. Please note a subsequent review may be required depending on the scope and location of proposed safe crossings.

Scenic Resource Conditions:

22. Colors approved for new structures include the colors identified in the *Interstate 84 Corridor Strategy Plan* for the eastern Gorge, including: Sherwin Williams "Otter" for signal buildings, any railing, support structures for signage, and retaining walls; and Federal Color 30099 for any new painted fences, lighting, and other associated equipment. The color palette for eastern stone facades (retaining walls) provide that "Otter" shall be the predominant base color, and that Sherwin Williams "Black Fox" and Miller Paint "Dapper" shall be used as highlights. If different brands are used, they shall match the color codes of these paint colors. To achieve a more natural appearance, colors are to be applied to the retaining wall surface as a multi-step, multi-colored staining process applied in the field. The Oregon Department of Transportation implements these requirements and may be source of technical assistance.

    If the communications poles are untreated, they shall be painted "Otter".

23. To the extent practicable, rock blasting shall occur in irregular patterns to produce a natural appearing cut face;

24. Clearing of 6.62 acre SMA Open Space area landing zone identified on the site plans east of the rock blasting site is prohibited.

25. Concrete retaining walls shall be stamped with a natural basalt rock pattern to emulate the surrounding landscape;

26. Existing trees north of the retaining wall and temporary construction areas shall be retained and maintained for screening to the maximum extent practicable;

27. Revegetation of the temporary construction areas shall occur within the first planting season immediately following completion of construction. Revegetation shall occur in compliance with the conditions of approval for natural resources below.

28. Ends of exposed culverts in the SMA shall be a dark earth-tone color listed above.

29. Guardrail repair shall be in-kind to continue the visual aesthetic of the existing guardrail system. In the event of an entire guardrail system replacement, corten pre-weathered guardrail material shall be used, consistent with the *Interstate 84 Corridor Strategy.*

30. All sign support structures and the backs of single sided signs to be dark brown or black with a flat, non-reflective finish, consistent with the *Interstate 84 Corridor Strategy*.

31. The surfaces of equipment buildings shall be treated with an approved polyacrylic paint and sand mixture to add texture and thus reduce reflectivity.

32. No new screening vegetation is required, but a condition of approval in included to require the retention of existing screening vegetation, existing backdrop vegetation, and the prohibition of the clearing in the 6.62acre SMA Open Space landing zone.

33. All signal lights and affiliated structures are to be treated with a dark earth tone color. Outdoor lighting shall be directed downward, sited, limited in intensity, shielded and hooded in a manner that prevents the lighting form projecting onto adjacent properties, roadways, and the Columbia River as well as preventing the lighting from being highly visible from Key Viewing Areas and from noticeably contrasting with the surrounding landscape setting. Shielding and hooding materials shall be composed of non-reflective opaque materials. There shall be no visual pollution due to the siting or brilliance, nor shall it constitute a hazard for traffic.

Natural Resource Conditions:

34. The proposed clearing of SMA Open Space Areas identified as the "6.62-acre site near project MP 71.53" for temporary construction is **prohibited** due to the sensitive natural resources that exist in that area and the environmental constraints that prevent the proposed impacts from being temporary.

35. In all other locations, the wetland mitigation plan shall be implemented as specified in the Tooley Lake Wetland Mitigation Update (dated November 17, 2015); Implementation of the Sensitive Species and Wildlife Habitat Protection and Rehabilitation Plan (dated January 2015).

36. Wetlands restoration, creation, and enhancement efforts should be completed before a wetland is altered or destroyed. If it is not practicable to complete all restoration, creation, and enhancement efforts before the wetland is altered or destroyed, these efforts shall be completed before the new use is occupied or used. Five years after a wetland is restored, created, or enhanced at least 75 percent of the replacement vegetation must survive. The project applicant shall monitor the hydrology and vegetation of the replacement wetland for five years and shall take corrective measures to ensure that it conforms with the approved wetlands compensation plan and this guideline.

37. Blasted rock materials must be moved from the project area for off-site crushing at an existing quarry, in Urban Area, or outside of the NSA.

38. Avoid areas of identified special-status plant populations, priority habitats, sensitive wildlife and plant areas, and their buffer areas to the maximum extent practicable.

39. Implement micrositing slight relocations of proposed project facilities to avoid special-status plant populations or habitats if practicable.

40. Remove and conserve plants that will be directly affected; replant immediately following construction.

41. Implement weed control procedures to prevent spread of noxious weeds to native plant habitats.

Cultural Resource Conditions

42. UPPR shall comply with Section 14.500(G) provides requirements for the protection of cultural resources discovered after construction begins; and Section 14.500(H) for the protection of human remains discovered during construction.

43. If cultural resources or human remains are discovered during construction, development shall cease immediately and the owner shall notify Wasco County Planning Department (541-506-2560), the Columbia River Gorge National Scenic Area Heritage Program Manager, the Columbia River Gorge Commission (509-493-3323), the four treaty tribes, and the State Historic Preservation Officer. If human remains are found, law enforcement shall be contact immediately.

Recreation Resource Conditions

44. UPRR shall work with the Oregon Parks and Recreation Department to develop a Columbia River access feasibility study to ensure long term impacts of the railroad do not impact established recreation uses or sites. Improved access from State Parks properties to the Columbia River shall be the outcome of this study and any resulting action items.

45. Construction activities on the road shared with OPRD for the Memaloose State Park Campground must occur either outside of the peak recreation season, or trucks used for hauling the blasted and crushed materials must be covered to minimize dust and related impacts to visitors at the park.

<u>As a result of new information received for the September 6, 2016 Planning Commission hearing, staff also recommends the following conditions of approval:</u>

46. <u>In the Special Management Area, any Oregon white oak trees removed for the project shall be mitigated at a ratio of 8:1. New trees shall be planted in a natural appearing configuration at a spacing of at least 15 feet between trees. Newly planted trees and existing Oregon oaks near the affected area, shall be monitored for a minimum of four years following the completion of construction to ensure survival. Monitoring reports shall be prepared and provided by a qualified professional in conjunction with the annual monitoring reports required for the approved wetland mitigation plan and habitat mitigation plan.</u>

47. <u>Prior to construction, UPRR shall work with the Confederated Tribes of the Umatilla Indian Reservation on the development of a study to analyze the impacts of trains on tribal fishing. The study shall identify uncontrolled crossings tribal fishers use and the number of train fatalities related to train traffic in the Gorge - both recent and those projected to occur in the future. The study shall include identifying and designating funding necessary to mitigate the impacts of additional trains. As a result of the study, crossings must be improved to better protect tribal</u>

members lawfully accessing the river under treaty rights established in 1855 and protected by the National Scenic Area Act.

48. Staff recommends but cannot require UPRR to work with the Oregon Department of Transportation to commence seismic stability studies and verify structural safety at the development sites located within the Mosier Urban Area.

Memo

To: Wasco County Planning Commissioners

From: Angie Brewer, Wasco County Planning Director

Date: September 13, 2016

Subject: Staff response to Planning Commission questions following September 6, 2016 hearing

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Questions in **bold** from Planning Commissioner Lynne Erickson, staff responses are immediately below. A subsequent memo will be provided by County Counsel for question 1.

1) **A representative of UPRR, when asked by a Planning Commissioner if UPRR can meet all of the conditions stipulated (by staff), said that Common Carrier Rules apply and that they would be recommending revisions to some conditions. What limitations does Common Carrier rules impose on us from applying conditions to insure compliance with NSA/LUDO regulations?**

Staff finds that NSA requirements carry full federal authorities and would be applied like any other applicable federal rule. County Counsel, Kristen Campbell has prepared a short memo for you; she will share it with you directly.

2) **In relation to the above statement by UPRR representative, they also stated that the number of trains (and we presume cars), is dictated by the market-shippers and global commodity prices. As demand increases, so will the need to add trains/cars. Can condition #15 (and similarly #20) be enforced by the County and how could that be effectively implemented? Does the number of trains and cars permitted currently relate to the Common Carrier rules or Federal Rail Safety rules? If we cannot effectively implement, then could we have potential cumulative adverse impacts as train numbers and cars grow?**

According to the Confederated Tribes of the Umatilla Indian Reservation, <u>any increase</u> in rail traffic would have an adverse effect to treaty rights protected by the NSA Act and the NSALUDO. If we are unable to control rail traffic to the current levels or there is any concern that compliance will not be possible, then the treaty rights protections would prevail and the Planning Commission <u>must deny</u> the proposed development.

The applicant has indicated to staff that the current average of 20-30 trains can still be attained even with a potential increase in demand. They have simply stated that in that scenario, the average daily runs will be closer to 30 than 20. Based on the application narrative, it seems that the "Mosier pinch point" is the current limiting factor in having more days closer to 30 trains. Implementation of traffic control conditions would be admittedly difficult once the infrastructure is built, especially because we do not currently monitor rail traffic. If you wanted to impose a monitoring system for these conditions, I would suggest the following language:

"To ensure compliance with Conditions 15 and 20, UPRR shall provide quarterly reports to the Wasco County Planning Department documenting the number of trains per day and the length of trains used. Staff understands this data is proprietary and will be used for compliance purposes only."

Based on feedback from the Wasco County Sherriff and Emergency Operations Manager last fall, staff finds that there is an inherent risk with transporting of goods whether it is by rail, barge or truck. If the number of trains increased beyond current averages, then yes, there would be an unavoidable and undeniable increase in risk to our citizens and sensitive resources of the Columbia River Gorge- it would be similar to the current risk, but would be increased, even if only slightly. The same could be said for a mass increase in truck traffic carrying similar commodities. It is important for the Planning Commission to think about the market's driving forces and its impact on the kinds of infrastructure we want to encourage in our communities to maximize safety. Whether it is safer to bring materials by train, barge or truck (mass individual scale incidents vs. large scale incidents) is something to be considered when weighing the options of how market demands impact our communities.

3) **If violation of any condition (general or specific) is grounds for revoking the conditional use permit, how would the County be able to enforce that once the track is completed? For example, perhaps other items that need completed after construction like replanting fails to happen or there is failure to provide regular Training to Gorge fire depts., etc. What remedies would be available besides fines?**

If a timely response was not taken by UPRR, the remedy would be the required removal of the new double track and a return to the original configuration. We would likely seek legal support from the Columbia River Gorge Commission and the US Forest Service Columbia River Gorge National Scenic Area.

4) **When does condition #44 have to be met? If the outcome of the feasibility study is that there are long term impacts to recreation uses or sites, what happens? Is staff recommending adding any other conditions as a result of the letters submitted in Supplement #1 for the hearing from OPRD and ODOT(or other letters), or as a result of other testimony?**

I agree that there should be a temporal component to Condition 44. If you'd like to suggest one during deliberations, I would suggest the following modification to be consistent with Condition 21 (underlined):

"UPRR shall work with the Oregon Parks and Recreation Department to develop a Columbia River access feasibility study to ensure long term impacts of the railroad do not impact established recreation uses or sites. Improved access from State Parks properties to the Columbia River shall be the outcome of this study and any resulting action items. <u>The study shall be initiated with the Director of Oregon State Parks following the appeal period, but within 45 days of the final decision. Improved access, as identified and agreed upon by UPRR and Oregon State Parks as a result of this study shall be accomplished within two years of the commencement of development; extensions may only be requested by Oregon State Parks."</u>

As a result of the new letter from the Oregon Department of Transportation – which references a bridge located inside the Mosier Urban Area - I suggest adding the following condition:

"Staff recommends but cannot require UPRR to work with the Oregon Department of Transportation to commence seismic stability studies and verify structural safety at the development sites located within the Mosier Urban Area."

5) **Can UPRR be required (as a condition) to notify Fire Districts in advance of hazardous materials being shipped through their areas of responsibility-materials, quantities, etc.? (Fire Chief Appleton request)**

Yes, however it is my understanding that this is already available to Fire Districts through an app you can download to your mobile phone. If you would like to suggest this condition, I would be supportive.

6) **Friends of the Gorge Legal Counsels (in writing and at the hearing) stated that the application "is illegal" and substantially does not meet the NSA/LUDO requirements. I assume that Kristen has reviewed those letters and testimony. Do we have a legal opinion that addresses those points made by Friends attorneys or has it been determined that staff addressed those items in its staff report and findings?**

I will defer to Kristen as County Counsel on any legal opinions but I can confirm that the proposed development is a request for a use allowed in each of the applicable zones and that a complete application was provided. If the application had been for a new railroad corridor and not an expansion of an existing railroad, there are some zones that would not permit the use in this location. Consistent with regional NSA policies, Staff finds this to be an expansion of an existing use, publically noticed it as such, and received no opposition from the Columbia River Gorge Commission or US Forest Service National Scenic Area Office following project notice and requests for technical assistance.

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

UPRR: Legal Memorandum

1 message

Kristen Campbell <kristen@timmonslaw.com> Tue, Sep 13, 2016 at 4:15 PM
To: Angie Brewer <angieb@co.wasco.or.us>, "rus.hargrave@gmail.com" <rus.hargrave@gmail.com>, "Brenda Borders (brendab@co.wasco.or.us)" <brendab@co.wasco.or.us>
Cc: Ruth Pullen <Ruth@timmonslaw.com>

Good Afternoon Planning Commissioners:

Attached is a memorandum outlining my analysis of legal questions that have been raised related to PLASAR-15-01-0004.

Thank you for all of your attention to this matter,

Kristen

Kristen A. Campbell, *Attorney*

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Memorandum

To: Wasco County Planning Commission
From: Kristen A. Campbell, Wasco County Counsel
Re: PLASAR-15-01-0004
Date: September 13, 2016

The following is a preliminary analysis of an issue untested by direct legal precedent. It is in response to testimony at the September 6, 2016 Wasco County Planning Commission hearing and the September 8, 2016 inquiry by Wasco County Planning Commissioner, Lynne Erickson, asking:

1) A representative of UPRR, when asked by a Planning Commissioner if UPRR can meet all of the conditions stipulated (by staff), said that Common Carrier Rules apply and that they would be recommending revisions to some conditions. What limitations does Common Carrier rules impose on us from applying conditions to insure compliance with NSA/LUDO regulations?

This touches on the issue of preemption by a federal law or regulation. The common carrier provisions referenced by the applicant are presumably those encompassed by the Interstate Commerce Commission Termination Act. It is not disputed that railroads are common carriers. 49 U.S.C. § 11101. As such, in general, they must carry virtually all commodities tendered to them upon reasonable request and must maintain rates and other service terms for such transportation. *Id.* Aside from its duty to carry the commodities tendered in accordance with governmental regulations, a common carrier may impose other reasonable terms and conditions on the transportation of any commodity.

While the scope of the Interstate Commerce Commission Termination Act's preemption is broad, and while there is not significant direct legal precedent on point, there are exceptions to its preemptive effect. Specifically, the Surface Transportation Board has expressly held that this preemption is not intended to interfere with local implementation of federal environmental statutes. STB Docket 33971. Also, the 3rd Circuit has concluded that a local government may enforce generally applicable regulations relating to health and safety as long as they do not discriminate against or unduly burden rail carriage. *New York Susquehanna v Jackson*, 500 F3d 238 (3d Cir 2007).

Furthermore, if federal schemes conflict, it can be argued that the Columbia River Gorge National Scenic Area Act which: 1) authorized the compact that created the Columbia River Gorge Commission; 2) required the Columbia River Gorge Commission to adopt a regional management plan; and 3) required Wasco County to adopt land use ordinances consistent with the management plan, should be given effect because it is a congressional enactment passed later in time and is more specific, limited to a narrow geographical region.

6) Friends of the Gorge Legal Counsel (in writing and at the hearing) stated that the application "is illegal" and substantially does not meet the NSA/LUDO requirements. I assume that Kristen has reviewed those letters and testimony. Do we have a legal opinion that addresses those points made by Friends attorneys or has it been determined that staff addressed those items in its staff report and findings?

I do not have additional information to add to the staff report and the staff response to this question at this time because I concur with the staff report and response.

Dunn Carney Allen Higgins & Tongue LLP ATTORNEYS AT LAW

Memorandum

To:	Wasco County Planning Commission	**Date:**	September 13, 2016
From:	Ty K. Wyman TKW	**File No:**	UNI45-86
Subject:	UPRR's Evidentiary Statement – County File No.: PLASAR 15-01-0004		

Following up on UPRR's September 6 testimony, this memorandum takes the Planning Commission up on its invitation to provide "new evidence" in writing. Specifically, it clarifies our responses to the questions you posed at the end of the hearing and rebuts some of the opponents' testimony.

Response to Planning Commissioners' Questions

In this process, both UPRR and its opponents submitted significant written comment before the hearing. Accordingly, as I noted toward the end of your September 6 meeting, the purpose of the hearing was more to address Planning Commissioners' questions than to provide more comment. We were gratified that, even after enduring five hours of testimony, you posed some for us. Though we responded orally, we use this submittal to augment and clarify those responses.

Vice Chair Ashley asked what seemed to be the biggest question in everyone's mind: "Will or will not the train traffic increase?" Clint Schelbitzki of UPRR Network Planning responded that the project, in and of itself, will not increase the frequency of trains through the County.[1]

[1] Clint said: "Our traffic is really dictated by the global market, by the US economy. When our customer give us more goods to ship that's when our train volumes will either increase or, if the economy goes down like it has in the past several years, train volumes could decrease the same, but it has nothing to do with the amount of track that we install in any given area."

Commissioner Myers then asked about the capacity of the system, specifically opponents' assertion that the project will put it "in the neighborhood of 75 to 100 trains." Clint again responded, speaking to the fluid capacity of the line – the ability to move roughly equal numbers of trains in each direction over the course of a given day. "I can tell you that 75 to a 100 is false."

A Planning Commissioner then asked why four miles of added track would result in a relatively small increase in capacity. Wes Lujan joined Clint in responding that, even with the project, only a small percentage of the Portland to Hinkle stretch of railroad will be double tracked.

Exhibit A hereto, a letter of today from Grant Janke, Assistant Vice President of Network Planning for Union Pacific, augments UPRR's hearing testimony. Mr. Janke concludes that "with over 80% single-track [between Portland and Hinkle] and at least 20 single-track gaps between meet points still remaining after completion of the project," the line cannot handle 75-100 trains per day.

Another Planning Commissioner picked up on the safety question, specifically whether the six foam trailers provided by UPRR would be placed across the state or in the Gorge. Wes Lujan of UPRR responded that they would be placed "across the state, but the Gorge could be a location. That is between ... the State Fire Marshal and the first responders." We attach (as Exhibit E hereto) an MOU between the Oregon Fire Marshal and UPRR on the issue.

Rebuttal of Opponents' Testimony

UPRR does not question opponents' sincerity any more than we question their passion. However, most of that opposition expresses frustration with the existence of the railroad, rather than the Mosier double track project itself.

Safety. The best example of this might be the assertion by Friends of the Gorge ("Friends") (August 16 letter, p. 3) that "no railroad is acceptably safe."[2] UPRR has, since the first moment, accepted responsibility for the June 3 derailment and fire. We ask Friends to accept that, like cars and airplanes, railroads are a vital part

[2] This assertion refers to the June 3 derailment and fire. We reiterate that crude oil makes up less than 1% of UPRR's total volume. Also, we clarify the history regarding unit trains carrying crude oil through the County. At hearing, Wes Lujan stated that the first such train occurred in December 2015. In fact, opponent testimony was correct that a crude oil train carrying tar sands occurred April 2014. Mr. Lujan's reference was to the first train that carried Bakken crude, which occurred in December 2015.

of our economy. In fact, notwithstanding June 3, freight rail is easily the safest and greenest way to transport goods across the country.[3]

During the hearing, opponents framed their testimony as "expert" on a number of occasions.[4] It is not at all clear that any opponent is an expert on the specific matter to which he testified. Nonetheless, so that the weight of evidence can be absolutely clear, we rebut these so-called expert assertions.

Chief Jim Appleton of Mosier and another firefighter from Hood River, testified that the hazmat plan included in UPRR's application is inadequate. We first note that neither individual said that he possessed expertise specific to transport of hazardous materials (though Chief Appleton certainly speaks from considerable experience, given the June 3 derailment).

Ben Salo, UPRR's Hazardous Materials Manager, addresses this testimony in Exhibit B attached hereto. A cornerstone of UPRR's hazmat plan is to train first responders. Wes Lujan spoke at hearing to this training. Ben clarifies that UPRR has, at its expense, trained hundreds of such responders around the state, many from Gorge communities.

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[3] Notwithstanding so much rhetoric at the hearing, UPRR has a singular goal – to safely operate our trains. We have made considerable improvements in our rail equipment incident rates over the past decade, reducing reportable derailments by 35% since 2000. In Oregon specifically, we reduced reportable derailments by 58% since 2000. We are working to be at zero incidents on our network. Union Pacific has an excellent safety record and transports hazardous materials safely 99.997% of the time.
Union Pacific helps America thrive by providing safe and efficient transportation of the products that power the country, including crude oil, coal, ethanol, wind turbines and solar panels. We have always been a critical part of the national energy infrastructure. We transport crude from oil fields to refineries as safely and efficiently as possible.
Shipping crude by rail is the safest mode of land transportation. Railroads deliver crude oil safely 99.99% of the time. Union Pacific is mindful of the potential consequences of an accident, which is why we have a long-standing commitment to training first responders in our communities.
From the FRA: 99.99% of all tank cars containing crude oil arrive at their destination safely.
https://www.aar.org/todays-railroads/what-we-haul/crude-oil-by-rail

[4] In order to keep the hearing as short as possible, UPRR did not have its project team describe the application. To be clear, however, as detailed on Exhibit C attached hereto, that application consists of thousands of hours of expert research and analysis. The weight of this combined expertise is likely a major reason County staff recommended approval, notwithstanding the onslaught of vitriolic opposition.

The suggestion underlying this opposition testimony is that the June 3 derailment, in and of itself, proves that UPRR's hazmat plan is inadequate. As Ben explains, nothing could be farther from the truth. UPRR has never from the first moment tried to shift blame for the derailment. Indeed, Chief Appleton acknowledged that, in reference to the June 3 derailment and fire, the "emergency response went amazingly well from start to finish."[5]

Capacity. Friends asserted as follows:

> The project would result in significant increases in rail traffic through the Gorge and the entire region. We wanted really to take a close look at this so we hired two experts Terry Whiteside and also Gerald Fauth to perform independent analysis of the rail traffic increases and impacts on this. They have extensive experience in working with the railroads for many years on these issues. They determined that, because of this particular location of the proposed project, this would increase the operational or the practical capacity to 75 to 100 trains per day.

As described above, the September 13 letter of UPRR's Grant Janke rebuts the assertion of Whiteside and Fauth. I further note that:

1. Neither Whiteside nor Fauth have any demonstrated expertise in evaluating the capacity of freight rail systems. Neither they nor Friends refer to any academic training, professional experience (*e.g.*, employment by a railroad), or even membership in a relevant professional organization.

2. UPRR filed the subject application in November 2014. Though not obligated to do so, it served contemporaneously a copy of the application on Friends. That application included a statement of the purpose and need for the Mosier project, *viz.*, to eliminate a bottleneck and remove operational constraints. UPRR further stated that it "anticipated moving a similar number of trains after the project is completed."

   Although possessed of this statement months in advance of the hearing, Whiteside and Fauth ignore it. Instead, they simply resort to assumption. Specifically, Whiteside and Fauth "assume" (p. 7, second paragraph) that UPRR will increase the frequency of oil trains by six to twelve per day, and

[5] Furthermore UPRR Safety Inspection document attached as Exhibit D hereto describes enhanced safety measures implemented by UPRR in the Gorge.

coal trains to five to ten trains per day, through Mosier.[6] They point to no evidence to support that assumption. Furthermore, UPRR provided unrebutted testimony that it currently ships no coal through Wasco County. Whiteside and Fauth ignore that as well.

In short, the Whiteside/Fauth testimony is grounded in no demonstrated expertise, rather simple assumptions. Their testimony is neither credible nor persuasive.

River Access. The Planning Commission heard testimony regarding protection of tribal treaty rights to access the Columbia River. I note that:

1. UPRR has a track record of working with tribes to make such access happen;[7]

2. Staff's finding on this issue does not describe any project impact that necessitates or even supports a condition requiring UPRR to provide this access;[8] UPRR's June 2015 Completeness Supplement noted that there were no impacts to known traditional Treaty Fishing Access sites or traditional cultural properties.

3. Entities other than the tribes (*viz.*, City of Mosier[9] and OPRD) also seek river access for their own purposes;

4. Two of these stakeholders (tribes and OPRD) have not yet provided any proposed locations for a crossing(s);

5. Any selected design must comply with UPRR design standards and obtain a real estate license to cross its right-of-way.

In conclusion, UPRR is gratified that County planning staff recommended that the Planning Commission approve the project and believes that staff proposed conditions that try to reach a decision that balances the interests of multiple stakeholders. On that point, staff noted at hearing that the conditions the Planning

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[6] Whiteside and Fauth "assume" two other material facts; p. 4, last paragraph and p. 5, last paragraph.

[7] See Exhibit F attached hereto a press release describing agreement with the CTUIR to allow access into the Meacham Canyon.

[8] UPRR's June 2015 Completeness Supplement noted that there were no impacts to known traditional Treaty Fishing Access sites or traditional cultural properties.

[9] As shown in the March 25, 2015 letter agreement between UPRR and the City of Mosier (Exhibit G attached hereto), we are working to meet their access interests.

Commission attaches to its decision will be very important going forward. We agree.

As I noted at hearing, however, some of the staff-proposed conditions are unenforceable under federal law and others need some clarification. As such, UPRR plans to ask you to revise some of the proposed conditions. Because that request will not contain new evidence, we plan to submit it on September 21. We then look forward to seeing you again on September 26.

Exhibits:
Exhibit A – Janke Mosier Response
Exhibit B – Salo Mosier Response
Exhibit C – Combined Biographies and summary
Exhibit D – Safety Inspection
Exhibit E – MOU State Fire Marshal
Exhibit F – UPRR and CTUIR MOU Press Release
Exhibit G – MOU Mosier UPRR Letter of Offer

BUILDING AMERICA®

September 13, 2016

Mrs. Angie Brewer
Director – Planning Dept.
Wasco County
2705 East Second Street
The Dalles, OR 97058

Dear Mrs. Brewer,

My name is Grant Janke, and I have been the Assistant Vice President Network and Capital Planning at Union Pacific Railroad since September 2014. I have been employed by UP for 22 years holding positions in the Audit, Marketing & Sales, Finance, Strategic Planning, and Network Planning and Operations Departments and have a degree in Finance from Kansas State University. In my current position I head a group of 26 employees responsible for optimizing the use of critical resources such as infrastructure, locomotives, and crews and for recommending appropriate investments to reduce operational inefficiencies and to accommodate growth opportunities. I provide this response from Union Pacific (UP) to the testimony submitted by Terry C. Whiteside and Gerald W. Fauth III on behalf of Friends of the Columbia Gorge.

UP specifically refutes the following assertions:

- That addressing the bottleneck near Mosier would allow UP to move one to three more trains through Mosier and Wasco County per hour (estimated 75-100 trains per day).
- That UP has understated the additional capacity that double tracking the line through Mosier would provide.

As a normal business process, UP maintains estimates of the sustainable throughput, also referred to as fluid capacity, of its line segments between major terminals or yards, junctions, or locations such as ports or customer facilities. On a single-track route with either sidings or short stretches of double-track where trains can meet or pass one another, UP bases these estimates on an analysis of:

- allowable speeds,
- distances between meeting points for trains traveling in opposite directions, and
- typical length, weight, and locomotive horsepower of trains operating on the route.

The capacity of an entire route between on/off locations is limited by the amount of single-track along the route. The 187 mile Portland Subdivision, where the Mosier double track project is located, includes only 24 miles (13%) of existing double track segments spaced throughout the corridor. Of the over 20 single-track gaps between sidings along the Portland Subdivision, the two on either side of Mosier represent the single largest source of congestion.

UNION PACIFIC CORPORATION
1400 Douglas St. STOP 1120
Omaha, NE 68179

Grant Janke
Assistant Vice President
Network & Capital Planning

P: 402-544-2200
E: gajanke@up.com

Contrary to the approach taken in the Whiteside/Fauth testimony, UP views the Portland Subdivision as a continuous line segment connecting network on/off points at Hinkle, OR and Portland, OR. The calculated fluid capacity of the entire subdivision today is 25-32 trains per day, with two equally restrictive bottleneck locations identified as the 10.8 mile single-track stretch between The Dalles, OR and Mosier Siding and the 10.0 mile single-track stretch between Mosier Siding and Meno Siding. Incorporating the existing Mosier Siding into a stretch of double-track extending both east and west will shorten the gaps between meet points which will reduce congestion. Simulation of train operations on the route indicates that it is necessary to address the gaps on both sides of Mosier in order to achieve the desired improvement in operational efficiency at current traffic volumes.

It is also important to recognize that the presence of a short stretch of double-track along a single-track route does not change the designation of the entire route to double-track and does not increase the capacity of the route beyond that of the governing bottleneck location along the entire 187 mile route. The number of trains per day that could theoretically traverse a stretch of double-track is limited in a practical sense to the number of trains per day that could actually enter and exit the stretch of double-track. It is disingenuous for the submitted testimony to assert that the Practical Track Capacity ranges for double-track infrastructure taken from the AAR's 2007 National Freight Infrastructure Capacity and Investment Study would apply on this route when, even after construction of the proposed project, the subdivision between on/off locations will still comprise over 80% single-track. While the testimony's projected addition of 1-3 trains per hour capacity is clearly inconsistent with the scope of construction being proposed, UP does anticipate that reducing the amount of single track on the route would allow for up to 5-7 additional trains per day to operate fluidly across the subdivision. However, it is important to note that the additional capacity will not inherently increase the frequency of trains through the Columbia River Gorge. Only the general economic conditions will dictate future train frequency and how much of the estimated total capacity is ultimately used.

In conclusion, Union Pacific maintains that it has not in its previous testimony and filings understated the amount of incremental capacity that the proposed 5.37 mile stretch of double-track near Mosier would create on the Portland Subdivision between on/off points at Hinkle, OR and Portland, OR. Union Pacific also disputes the assertion that the Portland Subdivision, with over 80% single-track and at least 20 single-track gaps between meet points still remaining after completion of the project, could reasonably be deemed capable of handling 75-100 trains per day.

Sincerely,

Grant Janke

Assistant Vice President – Network & Capital Planning

UNION PACIFIC RAILROAD
1400 Douglas Street Omaha, Nebraska 68179

September 13, 2016

Ty Wyman

You asked me to comment on testimony that firefighters (one from of Hood River) and Jim Appleton (of Mosier) gave to the Wasco County Planning Commission on Sept. 6, 2016. Given my experience on the issue (described below), I am happy to do so.

Chief Appleton asserts that the basic issue is that the "number of trains is undefined." I respectfully disagree. The basic issue in emergency response is preparation and training, rather than defining the frequency of train traffic.

Like everything we transport, the frequency with which UPRR carries hazardous materials through any given community depends on the demands of our customers. UPRR provides relevant information and training to communities throughout our system. In so doing, we do not discriminate based upon the size of the community or the frequency of hazmat trains.

UPRR maintains and implements a Hazardous Materials Emergency Response Plan. UPRR implemented that plan on June 3, and it worked. Consider the following piece Chief Appleton wrote in the Seattle Times:

"For all the potential for catastrophe, the emergency response went amazingly well from start to finish. There were hiccups and areas to improve, but as we progressed it became clear that one problem after another resolved quickly. However, none of it was easy.

Three elements contributed to the success of the initial fire operations:

- The weather and a handful of other happy coincidences limited the fire's ability to extend out of a small area.

- A two-state, five-county mutual-aid pact put in place a couple of years ago greatly simplified the task of ordering fire resources. Three years ago, we would have had to scramble. Last week, we made one phone

call and dozens of water trucks from all over the five-county area showed up, and stayed all night long. Wasco County Fire Defense Board Chief Bob Palmer and Hood River County Fire Defense Board Chief Jim Trammell deserve medals for conceiving and putting the aid pact into place.

- A recent drill held about 30 miles east, on a scenario eerily similar to the Mosier derailment, meant that many of the local fire agencies knew just whom to contact for critical information during the first few minutes. I didn't realize until later how reassuring this was, and it set a rhythm of early successes that we built upon.

As the incident transitioned to removing and cleaning up the oil, a different set of factors contributed to success:

- All of the coordinated federal, tribal, state and regional resources responded just as they were supposed to, vindicating all of the planning and preparation that has gone into this process.
- Union Pacific sent exactly the right people to deal with this incident. Literally, the people who wrote the book on oil response were the ones vetting this response. Their hazmat team could not be finer representatives of the brotherhood of emergency-services providers. They treated this as a public emergency, not a derailment. Think what you will about Union Pacific as a corporation, their personnel represent what many of us hope is a sea change in how it responds to its failures."

A firefighter from Hood River states, "our regional fire departments have minimal training and no significant foaming or booming materials." UPRR has since 2014:

- Trained 337 Oregon firefighters within their fire stations since January, 2014
- 181 personal in Portland since February 2013 to present
- Presented an overview to an additional 40 local fire personnel in The Dalles alone
- Trained 43 Oregon first responders. Of these, 11 personnel from agencies within the Columbia river gorge have been Trained in Crude Oil Response (Including 2 from Hood River fire Department, Lt. Picard's own department, which consists of 14 paid personnel, with
- 6 more attending other courses this year to come at a cost of $3,500 per person paid by UPRR, including members of the Mosier Fire Department.

In reference to the foaming materials, we have distributed to Oregon's Regional Hazardous Materials Teams, including agencies within the Gorge firefighting trailers with ARFF (Alcohol Resistant Film Forming Foam) capabilities.

A firefighter stated that "the railroad has the philosophy of let it burn in oil fires." UPRR has no such policy. As with any such incident, qualified emergency response personnel make a comprehensive assessment of the individual situation. The safest method of mitigating fire danger is sometimes to allow fuels to burn off. However, these decisions will be made by the public emergency response incident commander as designated by Union Pacific's Hazardous Materials Emergency Response Plan.

For reference, I have worked in emergency management for 18 years. UPRR has employed me as Manager, Hazardous Materials for approximately the last 10 years. My relevant education includes the following:

- Wildland Firefighting, Firefighter 1, Driver/Operator 1, and Fire Instructor 1. I also have courses completed in wildland fire investigation, vehicle extrication and numerous others including Hazardous Materials Technician and Tank Car specialist.

In my work with UPRR, I:

- served as a field manager responsible for the prevention, preparedness, response, and recovery throughout Central and Northern California and Northern Nevada;
- assisted in coordinating, advising, instructing and curriculum advisement at the California Specialized Training Institute in the Rail Hazardous Materials Response program;
- am currently assigned to the Central Functions section of the Hazardous Materials Management group in Omaha, overseeing many programs including the Crude-by-Rail program as related to training of fire personnel and adherence to Emergency Order 28; and
- administer all of Union Pacific's training courses at SERTC in Pueblo Colorado.

I also serve as Adjunct Fire Science instructor at the community college level.

Prior to working with UPRR, I served in the Emergency Response and Emergency Management sector in California including the fire service, emergency medical services and Assistant Emergency Services Director for a Tribal government. I have been on scene for innumerable fires, both urban and wildland. I was on scene for the June 3

derailment and fire from June 3 to June 6.

Needless to say, I take emergency management, hazard material spills, and fire suppression very seriously. Should the Planning Commission or other any other questions on this matter arise, I am happy to address them.

Respectfully,

Benjamin Salo,

Manager, Hazardous Materials

Union Pacific Railroad

Shannon & Wilson

Neal D.J. McCulloch, PE, LEG - Vice President, Director of Railroad Services

HOURS
95

BACKGROUND

EDUCATION
MSE, Geotechnical Engineering, University of Washington, 2002
BS, Geology, Western Washington University, 1997

REGISTRATION
Licensed Engineering Geologist, Washington (1736)
Licensed Professional Civil Engineer, Washington (42314)

PROFESSIONAL SUMMARY
Neal McCulloch specializes in solving slope stability problems of all types. Over the past 20 years most of his work has been for railroad clients across the United States. During these years he has provided recommendations for correction of different areas of instability along critical and very high density transportation routes. These projects have involved landslides and rockslides of various sizes, embankment failures, rockfall hazard evaluations, debris flows and torrents, drainage improvement, river erosion, tunnel clearance improvements, and railroad yard and new track design. Neal has worked on projects for the Burlington Northern Santa Fe, Union Pacific Railroad, CSX, Norfolk Southern, Rail America, DM&E, and short line railroads across the United States.

Benjamin Z. Haines PE - Senior Engineer

HOURS
45

BACKGROUND
EDUCATION
MS, Civil Engineering, Oregon State University, 2007
BS, Civil Engineering, Oregon State University, 2004

REGISTRATION
Washington Professional Engineer (Civil) No. 47657
Oregon Professional Engineer (Civil) No. 76527PE

PROFESSIONAL SUMMARY
Ben Haines is an experienced civil engineer specializing in geotechnical aspects of railroad and highway construction. His experience includes multiple rail and highway bridge replacement projects, large diameter culvert installations and emergency landslide repairs for the Union Pacific Railroad, BNSF Railway Company, Oregon Department of Transportation, Washington State Department of Transportation and other infrastructure owners in the United States and Canada.

Ben is well versed in site reconnaissance, geotechnical field explorations, capital project planning, emergency landslide response, geotechnical design and project management services for civil design firms and infrastructure owners. His experience managing geotechnical aspects of emergency landslide mitigation and capital improvement projects translate into practical, constructible solutions.

William A. Hultman, PE, LEG - Vice President

HOURS
35

BACKGROUND
EDUCATION
MS, Geotechnical Engineering, University of Idaho, 1988
BS, Geotechnical Engineering, University of Idaho, 1986
BS, Geology, University of Idaho, 1979

REGISTRATION
Registered Professional Civil Engineer: WA, 29668, 1993; RI, 9498, 2010; NH, 13154, 2010; ME, 12268, 2010; ID, 14199, 2010, Delaware, 16982, 2011
Licensed Engineering Geologist: WA, 301, 2001

PROFESSIONAL SUMMARY
William Hultman is a geologist and geological engineer with extensive experience in rockfall hazard assessment and mitigation. He has served as Resident Engineer, Project Engineer, and Project Manager on numerous rockslope stability problems in the mid-west and western U.S. for the Burlington Northern Santa Fe Railroad and the Government of Peru. Many of the railroad projects involved emergency situations where the railroad was out of service because of the rockfall. While on site, Will developed a plan to stabilize the slope and assisted the railroad implement the plan to safely and expeditiously restore train service as quickly as possible. Stabilization measures included rock bolting, blast, hand, and mechanical scaling, and rock catchment fences.

Travis Nguyen, PE, GE - Associate Geotechnical Engineer

HOURS
208

BACKGROUND
EDUCATION
BS, Civil Engineering, Oregon State University (1990)

REGISTRATION
Professional Engineer, Geotechnical, Oregon, #19263 (1997)
Professional Engineer, Geotechnical, Washington, #35390 (1998)

PROFESSIONAL SUMMARY
Travis Nguyen has 25 years of geotechnical engineering related experience. For the last 22 years, he has provided geotechnical engineering consulting services on a variety of projects primarily in the Portland metropolitan area, western Oregon, and southwest Washington. Travis' project responsibilities include site investigations, development of geotechnical related design and construction recommendations, pre-construction support, review of project plans and specifications, construction observation and testing to monitor compliance with project plans and specifications, and project management. He has a strong background in analyzing and designing pile and pier foundations, seismic ground motion characterization analysis, liquefaction analyses, post-liquefaction settlement analyses, post-liquefaction soil residual strength evaluations, seismic soil-structure design, retaining wall and shoring design.

David J. Higgins, CEG - Associate Engineering Geologist

HOURS
33

BACKGROUND
EDUCATION
BS, Geology, Kutztown University of Pennsylvania (1998)

REGISTRATION
Certified Engineering Geologist, Oregon, #E2026
Registered Geologist, Oregon, #G2026
Licensed Engineering Geologist, Washington, #2980

PROFESSIONAL SUMMARY
David has 17 years of engineering geology experience in Oregon and has completed hundreds of geologic/geotechnical investigations. He is knowledgeable of regional geologic conditions and is proficient in the application of that knowledge to engineering projects. David specializes

in managing geologic hazard and landslide projects, including geologic reconnaissance, landslide investigation, rock falls, rock cuts, and eroded drainage channels; and instrumentation design, installation, and monitoring. David has served as project geologist during construction of landslide stabilization projects, highway rock slope excavation, roadway embankments, roadway and railroad bridges, tunneling, open shaft excavation, and dewatering projects. He plans and executes large field exploration and instrumentation programs and manages rock slope design and landslide mitigation. He is experienced managing a wide variety of geologic hazard-related projects. He is also knowledge and experienced in many drilling and instrumentation methods and works effectively with subcontractors and project teammates. David is frequently complemented by clients for great teamwork and exceptional communication. His ability to offer exceptional client service has brought Shannon & Wilson repeat projects from many public clients, such as the Bonneville Power Administration, the Cities of Wilsonville and The Dalles, and Clackamas County.

Ian LaVielle, PE - Senior Engineer II, Engineer Geotechnical

HOURS
271

Background
EDUCATION
MS, Civil Engineering – Geotechnical, University of Washington (2009)
BS, Civil Engineering, Arizona State University (2004)

REGISTRATION
Professional Engineer, Oregon, 87137PE (2013)
Professional Engineer, Washington, 46556 (2009)

PROFESSIONAL SUMMARY
Ian has more than ten years of experience in the Pacific Northwest, providing services for many diverse projects requiring innovative solutions. This includes the geotechnical design and construction of highways, local roadways, bridges, deep excavations, high-rise buildings, multi-use developments, public works, forensic evaluations, commercial developments, airports and military facilities. Ian specializes in the design, analysis, and construction of earth retention structures, including soil nail walls, soldier pile and tieback walls, MSE walls, cast-in-place concrete walls, and composite walls. Ian also has much experience with drilled-shaft design and the analysis of slope stability, liquefaction, and settlement for various transportation, development and other public works projects.

Adrian A.J. Holmes, CEG - Senior Professional III, Engineering Geologist

HOURS
130

BACKGROUND

EDUCATION
MS, Geology, Idaho State University (2005)
BS, Marine Science, Eckerd College (2003)

REGISTRATION
Certified Engineering Geologist, Oregon, E2210 (2010)
Registered Geologist, Oregon, G2210 (2008)
Professional Geologist (PGL), 1460, Idaho (2013)

PROFESSIONAL SUMMARY
Adrian Holmes has more than 10 years of experience as a field geologist. He has conducted numerous field exploration programs, including several for proposed tunnels and existing tunnel rehabilitation. He is practiced at rock face mapping for rock cuts. He's directed the installation of dozens of geotechnical instruments, including inclinometers for landslide monitoring, vibrating-wire piezometers for groundwater level monitoring, and settlement profilers for use during tunnel excavation. He has extensive experience observing and documenting a wide variety of construction activities, and he is skilled in the performance and analysis of aquifer tests, particularly slug tests.

Brian S. Reznick, PE - Associate Geotechnical Engineer

HOURS
25

BACKGROUND
EDUCATION
MS, Civil Engineering, Oregon State University, 2002
BS, Civil Engineering, Oregon State University, 2000

REGISTRATION
Registered Professional Engineer, WA, 42820, 2006
Nuclear Gage Certification, 08/07/2002
Hazardous Waste Operations 40-hour Training (last refresher 11/06/2003)

PROFESSIONAL SUMMARY

Brian Reznick has 10 years of professional experience in geotechnical and civil engineering. During his career, Brian has worked on several levee projects in the Puget Sound region, including levees on the Cedar, Green, Nooksack, Snoqualmie and Skagit Rivers. He has been responsible for preparing levee project scopes and budgets; developing subsurface exploration, in situ testing, and laboratory testing programs; managing field and laboratory work; completing feasibility, design, and risk analyses; preparing reports; managing staff during the analyses and report preparation; and reviewing plans and specifications. His technical expertise encompasses design of floodwalls, engineered log jams, filters, shoring, ground improvement, slope stability and settlement analyses, and liquefaction evaluation. He has been involved in construction observation including mass soil excavation, fill placement and compaction, and engineered log jam installation.

CDM Smith Staff - UPRR Mosier Siding Project

Brian S. Antonioli, PE – Associate

Hours
421

Background
Mr. Antonioli has over 30 years of experience in engineering, construction, and project management. He has been responsible for all aspects of project engineering and management including planning, site investigations, feasibility study analysis, design, construction management, construction oversight, facility startup, and operations and maintenance. He has a strong background in state and federal environmental regulations (CERCLA, RCRA, and NEPA) and the environmental assessment process. His experience includes Clean Water Act Section 404/401/402 permitting, asbestos, as well as permitting and construction constraints due to species of concern and cultural/historical regulations. Mr. Antonioli is currently providing Lead Practitioner and quality assurance and quality control (QA/QC) reviews as a member of the technical review committees (TRC) for numerous mining and metals, and railroad projects in the western U.S. For railroad projects he provides QA/QC reviews of siding and capacity projects, bridge projects, stream restoration and stream bank stabilization, roadbed stabilization, emergency repairs, maintenance, and federal, state and local permit applications.

Martin E. Carlson, PE - Vice-President

Hours
19

Background
Mr. Carlson has 24 years of professional experience completing multi-disciplinary general civil, and environmental/hazardous waste projects. His project management experience includes directing overall design efforts, including preparation of all planning documents, site studies, design drawings, technical specifications, permit procurement, construction schedules, value engineering studies, and cost estimates. He has also directed construction management, including bid document preparation, contractor procurement, contract administration, resident engineering, system start-up, implementation reporting, and on-going operation and maintenance. Many of his projects have included providing turnkey design-build services.
His environmental project responsibilities include regulatory interface and negotiation (CERCLA, RCRA, and state lead) and management and analysis for site assessments, remedial investigations, feasibility studies, remedial design, and site remediation's involving soil, groundwater, sediment, and surface water contamination. He has extensive experience permitting all phases of civil projects under the Clean Water Act related to in water and stormwater. Stormwater experience includes SPCC plans, NPDES permits, erosion control plan and designs, SWPP plans, best management practices (BMPs) and stormwater collection and control systems.

Elizabeth A. Herbst, PE, CPESC - Environmental Engineer

Hours
57

Background
Ms. Herbst is a professional engineer and certified professional in erosion and sediment control (CPESC) with nine years of experience in environmental engineering. Her experience includes Clean Water Act Section 404/401/402 permitting, stormwater and site control design and implementation, development of environmental training materials, design/build stream bank stabilization, design/build stream restoration, and construction oversight. Ms. Herbst plays a key role in CDM Smith's response to emergency requests for regulatory and field support during high flow events, derailments, and other natural disaster emergencies in the vicinity of waterways, and she provides assistance in complying with federal, state, and local requirements during planned maintenance and construction activities.

Jennifer M. Jones - Ecologist/Environmental Scientist

Hours
142

Background
Ms. Jones's experience provides technical expertise in water resources planning and impact evaluation, biological and habitat assessment, and permitting. She has over 18 years of experience in field biology, including aquatic and terrestrial habitat assessment, bird surveys,

wetland delineations, vegetation mapping, and fish barrier assessments. She has conducted biological assessments in coastal, mountain, and desert ecosystems of California and Oregon. As an environmental scientist with CDM Smith, Ms. Jones prepares NEPA documents, including EISs/EIRs and Environmental Assessments (EAs) for a variety of clients, including federal and state agencies. She also writes Biological Assessments for compliance with the Endangered Species Act and provides expertise in Clean Water Act Section 404 permitting, ecological risk assessment, and habitat restoration and monitoring.

Ronnie Schmidt, PE - Civil Engineer

Hours
140

Background
Mr. Schmidt is a Professional Engineer with ten years of experience in civil / environmental engineering and survey. His experience includes civil / environmental design, railroad bridge surveys, railroad undercutting material management and derailments, construction management, storm water pollution prevention plan implementation, and environmental permitting. He has unique civil design experience that includes: storm water and site controls design (i.e., infiltration basins, sediment basins, and diversion and stormwater channels) and implementation, wetland surveys, waste rock repository and tailings impoundment design, and levee design. In addition, Mr. Schmidt has experience sizing riprap and channel bedding materials, field engineering, and working close with governing agencies. Mr. Schmidt conducts bridge surveys and assisting with the hydrology and hydraulics (H&H) analysis for many Union Pacific Railroad (UPRR) bridges across UPRR's track network.

Kate J. Stenberg, PH.D. - Senior Planner

Hours
193

Background
Dr. Stenberg has 30 years of experience in wildlife assessment and conservation, planning, environmental documentation, multi-agency permitting, and litigation support. Dr. Stenberg manages the preparation of environmental documents (EIS, EA, CE, DCE, BA, EHP, etc.) in compliance with NEPA, state environmental policy acts (CEQA, SEPA, MEPA, etc.), and other federal regulations and conducts master planning efforts. Her NEPA experience includes the preparation of EISs and EAs in compliance with agency specific regulations including USACE, FEMA, USFS, USCG, FHWA, FTA, USBR, and HUD. In recent years, Dr. Stenberg has been the project manager for 7 EIS projects, the senior lead on significant portions of 6 other EIS projects, and has led the production and technical review of over 40 EAs and more than 10 BAs. Her experience includes obtaining permits and approvals for in-water work, wetland delineations, and preparing biological assessments and guiding the consultation process. Dr.

Stenberg has extensive experience with the federal permit processes for transportation projects and as a former USACE regulator she is intimately familiar with the 404 approval process. Her wildlife experience includes a decade as director of the King County Wildlife Program and multiple projects involving habitat assessments and terrestrial ecological evaluations. Her experience also includes managing the environmental program for the $4.6 billion Alaskan Way Viaduct and Seawall Replacement Program. This work included directing an integrated team of 40 state, city, and consultant staff to provide all environmental documentation, permitting, mitigation, and compliance monitoring.

Mosier Staff Summary - Olsson

Ryan Kosola, PE, CFM - Project Manager

Hours
708.50

Background
Education
Bachelor of Science, Civil Engineering, University of Nebraska-Lincoln, 2004
Master of Business Administration, University of Nebraska-Lincoln, 2009

Relevant Experience
Ryan is a professional civil engineer and certified floodplain manager with over 15 years of experience in the field of transportation and currently leads Olsson's transportation Design group in the state of Nebraska. His experience includes railroad track design, roadway design, hydrologic and hydraulic analysis, floodplain permitting, surveying, and construction observation. Ryan's work has included large Department of Transportation projects, complex municipal projects, and work for Class I railroads. Ryan has successfully managed some of Union Pacific's largest and most complex projects over the last six years. Ryan's overall experience also includes design of construction phasing, right-of-way design, project cost estimating, and preparation of project construction specifications.

Ben Grone, PE, LEED AP - Lead Designer

Hours
1404.00

Background
Education
Master of Science, Civil Engineering; University of Nebraska-Lincoln, 2012
Bachelor of Science, Civil Engineering; University Nebraska-Lincoln, 2009

Relevant Experience
Ben graduated with his M.S. in civil engineering. His experience includes numerous industrial track projects involving complex geometry and he has performed track and drainage design for several Union Pacific Railroad projects including the Pacific Northwest and Texas & Pacific corridor projects. His responsibilities include performing track layout, drainage, and road crossing design, as well as preparing cost estimates and Special Conditions.

Kylie Steel, EI - Structural Design

Hours
329.00

Background
Education
Master of Science, Civil Engineering, Idaho State University, 2014
Bachelor of Science, Civil Engineering, Idaho State University, 2012

Relevant Experience
Kylie is a structural engineer with experience designing and detailing railroad bridges, culverts, and temporary shoring systems. Her specific project experience includes the design and detailing of bridges with significant substructure elements and various superstructure types, including prestressed concrete box/slab beams, steel Through-Plate Girders, steel Deck-Plate Girders, and steel beam spans. Kylie is responsible for structural analysis and design, development of comprehensive calculation packages, plan development, and plan quality.

Joe James - Structural Drafting

Hours
253.75

Background
Education
Associate of Applied Science, Computer Aided Drafting Technology, ITT Technical Institute, 1996

Relevant Experience
Joe is a skilled design associate with more than 21 years of experience in railroad structure drafting/design, as well as precast concrete drafting and design work. He has experience developing and instituting drafting standards and procedures. He has also created multiple drafting automation programs to aid in creating design documentation.

Zachary Johnson – Survey

Hours
246.50

Background
Education
Associate of Applied Science, Civil Engineering Technology, Iowa Western Community College, 2010

Relevant Experience
Zach is an associate surveyor with more than six years of experience. He has worked on nearly 150 Class I railroad projects. He has educational experience in architectural drafting, surveying, estimating, soils and foundations, concrete and asphalt design, GPS, GIS, and steel and concrete design.

Travis Shafer, PE - Structural Design

Hours
203.75

Background
Education
Bachelor of Architectural Engineering (Structures), University of Nebraska-Lincoln, 2010
Master of Architectural Engineering (Structures), University of Nebraska-Lincoln, 2011

Relevant Experience
Travis is a bridge/structural professional engineer with nearly four years of experience designing and detailing construction documents for railroad bridges and culverts. He has supported design and plan production on hundreds of UPRR bridge projects over the past several years. His responsibilities have included preparing plans, layouts and designs for both bridges and retaining walls. Travis has developed a thorough understanding of AREMA and the design software used, including Microstation.

Steve Cyboron – Survey

Hours
193.50

Background
Education
Associate of Applied Science, Civil Engineering and Construction Technology, Iowa Western Community College, 2010

Relevant Experience

Steve is an associate surveyor with more than six years for professional experience. Since joining Olsson's survey team, Steve has provided topographic survey and construction staking services for more than 35 Class I railroad projects throughout the United States.

Steve Pickus - Track/Civil Drafting

Hours
188.50

Background
Education
Associate of Applied Science, Civil Engineering/Surveying Technology; St. Cloud Technical College, 2000

Relevant Experience
Steve is a senior technician with more than 17 years for experience. He has provided drafting design services for nearly 500 Class I railroad projects since joining Olsson. Steve's software experience includes MicroStation v8 and MicroStation v7 with GeoPak, and CivilPak, AutoCad 2007 Land Desktop, AutoCad (version 2005), and AutoCad 2i Land Development.

Drew Johnson, EI - Track/Civil Drafting

Hours
184.25

Background
Education
Bachelor of Science, Civil Engineering, University of Kansas, 2011

Relevant Experience
Drew is an associate engineer with the Transportation Design group. He has supported design and plan production on numerous Union Pacific Railroad projects including Pacific Northwest and Texas & Pacific corridor projects. His responsibilities include preparing track layout and design, drainage design, and road crossings. Drew has developed a thorough understanding of the design software used, including Microstation, GEOPAK, and Inroads.

Craig Rothluebber, PE, CFM - Hydrologic and Hydraulic Engineering

Hours
183.75

Background
Education
Bachelor of Science, Civil Engineering, University of Nebraska-Lincoln, 2010

Relevant Experience
Craig joined Olsson in 2011 as an associate engineer. He is a professional civil engineer and certified floodplain manager with experience related to water resources. Over the last five years he has provided hydrologic and hydraulic engineering services for nearly 500 Class I railroad projects.

Nick Bedford - Hydrologic and Hydraulics

Hours
134.00

Background
Education
Associate of Applied Science, Architectural Engineering, Southeast Community College at Milford, 2010
Associate of Applied Arts, Psychology/Business, Cloud County Community College, 2008

Relevant Experience
Nick is an associate technician with more than four years of engineering experience related to water resources. As a technician, he has worked on more than 500 Class I railroad projects over the last five years.

Rob Phillips - Track/Civil Drafting

Hours
97.25

Background
Education
Associate of Applied Science, Drafting and Design Technology, ITT Technical Institute-Omaha, 1997

Relevant Experience
Rob is a senior technician with nearly 20 years of drafting experience related to Transportation projects. Since joining Olsson in 2011, he has worked on nearly 50 Class I railroad projects over the last five years. Rob also has more than 15 years of experience with residential and light commercial design projects.

Branden Strahm, PE, CFM - Hydrologic and Hydraulics

Hours
94.75
Background
Education
Master of Science, Civil Engineering, University of Nebraska-Lincoln, 2003
Bachelor of Science, Agricultural Engineering, University of Nebraska-Lincoln, 2001

Relevant Experience
Branden is a senior engineer with more than 13 years of engineering experience related to water resources. His primary responsibilities include hydrologic and hydraulic studies, floodplain permitting, NPDES and environmental permitting, and particular specialty with hydrologic and hydraulic design for both the BNSF Railway and Union Pacific Railroad. Branden has proficient use of AutoCAD, HEC-HMS, HEC-RAS, HEC-2, HY-8, MicroStation, and TR20.

George Pinkerton, CFM - Hydrologic and Hydraulics

Hours
74.25

Background
Education
Bachelor of Arts, Philosophy, St. Gregory the Great Seminary, 2009
Associate of Applied Science, Land Surveying/Civil Engineers Design, Southeast Community College, 2001

Relevant Experience
George is a design associate with more than nine years of experience specializing in commercial rail projects. He has worked on a wide range of railroad projects including program replacement structures, capacity improvements, and specialized surveys for emergency replacement structures. He is adept with many types of field data collection with total station, GPS, and differential leveling. He has experience obtaining local permits, including submitting figures to the local agencies and answering questions about the design. George is also familiar with field layout of high hazard dams and construction observation. He is proficient in AutoCAD Civil 3D 2015, GIS, HecRAS, HydroCAD, and Microstation.

Daryoush Razavian, PE, PH, D.WRE - Hydrologic and Hydraulics

Hours
74.00

Background
Education
Master of Science, Water Resources Engineering, University Nebraska-Lincoln, 1981
Bachelor of Science, Civil Engineering, University Nebraska-Lincoln, 1979
Relevant Experience
Daryoush serves as Olsson Associates' railroad program leader. He has been serving UPRR's Engineering Department for more than 20 years. Daryoush has directed, managed, performed quality control, and/or conducted hydrologic and hydraulic (H&H) evaluations for more than 1,800 railroad projects in the last 10 years. He is the only registered professional hydrologist in Nebraska. His expertise is in investigations related to planning and design of water development projects, bridge/culvert hydraulics, floodplain management and flood control, watershed management planning, rural and urban hydrology, stream and reservoir restoration, wetland hydrology, engineering economy, erosion and sedimentation engineering, agricultural nonpoint source pollution control, and applications of hydrologic and hydraulic computer simulation models. He has directed, managed, and conducted more than 2,000 projects involving water resources engineering and management.

Rhona Alter - Structural Drafting

Hours
57.50

Background
Education
Associate of Applied Science, Computer-aided Drafting and Design, Johnson County Community College, 2012

Relevant Experience
Rhona is an associate technician with more than four years of experience structural projects. Her experience includes helping design bridge structures and drafting those designs. Rhona is a responsible CADD technician with attention to detail. She has the ability to identify, analyze, and solve problems, deal effectively with clients, and has great communication skills. Rhona is experienced using AutoCAD, MicroStation, and RIVET (Architectural).

Dan Hanna – Survey

Hours
43.75

Background
Education
N/A

Relevant Experience
Dan is an associate surveyor with more than 17 years of surveying experience. Since joining Olsson in 2007, he has worked on more than 90 Class I railroad projects involving topographic survey and construction staking services.

Justin Mohlman, PE - Track/Civil Design

Hours
42.75

Background
Education
Bachelor of Science, Civil Engineering, University of Nebraska-Lincoln, 2003

Relevant Experience
Justin is a senior engineer with more than 13 years of civil engineering experience. He specializes in track design for Class I railroads, industrial facilities, and small yard projects where tighter geometry is required and limited space is available for improvements. His experience includes siding and second mainline track design for the Pacific Northwest and Texas & Pacific capacity improvements and has 10 years of experience in engineering design and construction. Justin's overall experience includes roadway design, track design, storm drainage design, construction phasing, project cost estimating, preparation of project bid documents and construction specifications, and construction observation.

Daniel Lightbody, EI - Hydrologic and Hydraulics

Hours
42.50

Background
Education
Bachelor of Science, Civil Engineering, University of Nebraska-Lincoln, 2013
Masters of Business Administration, Kansas State University-Manhattan, In-Progress (12 Hours Completed)
Bachelor of Science, Automotive Technology, 2002

Relevant Experience
Daniel is an assistant engineer with more than two years of experience related to water resources. His responsibilities involve project design and CAD drafting, performing technical engineering calculations, working with technicians to create design drawings; performing research, writing technical reports, and preparing opinions of cost. He has worked on over 100 Union Pacific Railroad (UPRR) and Burlington Northern Santa Fe Railway (BNSF) projects.

Mark Hanigan, EI - Structural Design

Hours
40.75

Background
Education
Masters of Architectural Engineering, Structural, University of Nebraska-Lincoln, Expected 2016
Bachelor of Science, Architectural Engineering-Structural, University of Nebraska-Lincoln, 2015

Relevant Experience
Mark is an assistant engineer with the Structural group. He assists in the design, review, and analysis of different varieties of bridges and culverts. He is also responsible for preparing professional engineering documents for these projects. While at Olsson, Mark has studied and gained a great deal of expertise in the standards of railroad engineering in an effort to meet and exceed client standards. He also has relevant computer software knowledge in Bentley Microstation, RISA-3D, and Bluebeam Revu.

Chris Taylor, PE - Structural Design

Hours
32.50

Background
Education
Bachelor of Science, Civil Engineering, New Mexico State University, 2009
Master of Science, Civil Engineering, New Mexico State University, 2010

Relevant Experience
Chris is a project engineer with more than five years of experience in structural engineering design. His experience with UPRR projects is based on involvement with 30+ capacity and 250+ program projects. In addition, Chris has worked as an "in-house" consultant for UPRR in the Structure Public Review and Real Estate groups. He understands the relationship between public entities and UPRR expectations. His experience includes design of railroad bridges; bridge deck replacements, concrete and steel culverts, overhead bridge bent protection walls and retaining walls subject to railroad loading. Chris has working knowledge of the UPRR Standards and AREMA guidelines.

Steve VanVoltenberg, PLS – Survey

Hours
31.00

Background
Education
N/A

Relevant Experience
Steve is the Olsson Associates Omaha Land Survey Practice Group Leader. He has been involved with railroad surveys for throughout his professional career and understands the importance of completing and furnishing a quality survey. Steve is Olsson Associates' direct contact for the UPRR Survey Department. While with Olsson Associates, Steve has been responsible for completing railroad surveys throughout the Midwest including Nebraska, Kansas, Missouri, Texas, Iowa, Illinois, Wyoming, Idaho, California, Louisiana, Colorado, and Oregon. Steve has been involved with all aspects of railroad surveying, and will lead the survey team in conducting topographic design surveys, performing construction layout, and completing right-of-way acquisition surveys.

Mark Lambertus - Structural Drafting

Hours
30.75

Background
Education
Bachelor of Science, Civil Engineering, Iowa State University, 1996

Relevant Experience
Mark is a senior technician at Olsson with over 20 years of experience in construction related engineering fields, including civil, architectural, structural, mechanical engineering, and survey. He is known to be a team player who takes personal responsibility for each project and ensures that deadlines are met. Mark's responsibilities have included CAD system management, assisting co-workers with CAD questions and troubleshooting, plan set production, and insuring all clients' individual standards are maintained in the system and met on each plan set.

Ken Jennison, PE - Structural Design

Hours
30.00

Background
Education
Bachelor of Science, Civil Engineering, Colorado State University, 1976
Master of Science, Civil Engineering, University of Minnesota-Minneapolis, 1982

Relevant Experience
Ken has nearly 40 years of experience in the railroad industry, almost all of which were with the BNSF Railway. During his career at BNSF and while in the position of Assistant Director Structures Design, Ken oversaw all aspects of bridge planning, design, project management, and quality assurance and quality control. Ken currently leads Olsson's railroad bridge group and is responsible for administration, conceptual layouts, design and plan preparation, and quality assurance and quality control of the group. Ken has served as project manager for numerous railroad bridge projects over the past several years.

CH2M HILL - UPRR Second Mainline Track Project, Wasco County, Oregon

Scenic Area Review Application – Staff Support

The following staff worked on aspects of the application. Staff are listed under the topic where the majority of their time was spent but hours listed may have supported multiple topics within the application. Additional more junior staff supported numerous tasks and are not included below for reasons of space. The list of staff below encompasses task leads and senior technical consultants for all major aspects of the application. To date, a total of more than 8,000 staff hours have been spent conducting surveys, preparing analyses and reports, preparing the scenic area application and supporting documents, and conducting design related to the wetland mitigation.

Planning, oversight, and review

Christine Roberts

Hours
509

BACKGROUND
Education
M.C.P., Architecture and Urban Planning, Massachusetts Institute of Technology, 1990
B.A., Political Science and Public Service, University of California, Davis, 1986
Alternative Dispute Resolution Training (Environmental Mediation), PennAccord, Philadelphia, Pennsylvania

Relevant Experience
Ms. Roberts is located in the Sacramento office of CH2M HILL and has nearly 30 years of experience in analyzing environmental impacts for transportation, water resources, solid waste, and hazardous waste remediation projects.
Christine Roberts is responsible for regulatory review and program-level strategic planning for permitting the design and construction of major environmental engineering projects. She has expertise in designing and implementing resource protection programs that enable

governmental agencies, the private sector, and the public to reach collaborative decisions. She is particularly experienced in conducting and managing environmental reviews (EIRs, Environmental Impact Statements [EISs], and Environmental Assessments [EAs]) and has extensive experience in incorporating public involvement into environmental projects. She serves as a national resource on NEPA permitting projects.

Linnea Eng

HOURS
506

BACKGROUND

Education
M.S., Environmental Engineering and Science, The Johns Hopkins University, 1995
B.A., Mathematics, St. Olaf College, 1986

Professional Registrations
Professional Engineer (VA)

Relevant Experience
Ms. Eng is a senior project manager for siting and licensing projects with more than 20 years of experience managing and supporting environmental permitting, National Environmental Policy Act (NEPA) and State Environmental Policy Act (SEPA) evaluations, state and local environmental permit applications, site investigations, feasibility studies, and remedial actions. She has worked closely with commercial, industrial, and state/federal government clients to provide expertise on permit application preparation, technical resource studies, state and federal regulations, hydrogeology, and contaminant transport. She has a strong technical background in environmental engineering and contaminant hydrogeology and a broad range of experience in related disciplines.

Jeremy Sande

HOURS
1217

BACKGROUND
Education
M.S., Community and Regional Planning, University of Oregon, 2010
B.S., Political Science, University of Oregon, 2004

Professional Registrations
Member, American Institute of Certified Planners (AICP), #235441

Relevant Experience
Mr. Sande has managed and assisted in managing multiple permitting and licensing projects in Washington, Oregon, and California. In addition to planning and oversight support for this project, he has provided land use permit analysis for wind energy, solar energy, natural gas, and rail transportation projects. Jeremy is no longer an employee of CH2M.
Cultural resource surveys and reporting:

Cultural resource surveys and reporting:

Lori Price

HOURS
26

BACKGROUND
Education
M.F.A., Historic Preservation and Architectural History, Savannah College of Art and Design, 1995
B.A., English and Political Science, Louisiana State University, 1985

Relevant Experience
Lori Durio Price is a Senior Cultural Resources Specialist with CH2M with more than 19 years of national experience in assessing cultural resources effects and determining historic eligibility under Section 106 of the National Historic Preservation Act. She is a qualified Historian, Architectural Historian, and Historic Preservationist. She has obtained the U.S. Secretary of the Interior's Historic Preservation Professional Qualification Standards, which are the highest professional qualifications awarded in her field. Lori manages a team of cultural resources specialists at CH2M who serve UPRR throughout its railroad network in evaluating cultural resources effects from major capital projects, including negotiating Memoranda of Understanding with State Historic Preservation Officers in the states in which UPRR operates

Julie Wilt

HOURS
102

BACKGROUND
Education
M.S. Geography, Portland State University, Portland, Oregon, 1993
B.A. Anthropology, University of South Dakota, Vermillion, 1979

Relevant Experience

Ms. Wilt is a Qualified Archaeologist as defined in ORS 290.235 (6)(b) with over 25 years of experience as an archaeologist, primarily in the Pacific Northwest. She has extensive experience in all phases of archaeological research and fieldwork including background documentary and cartographic research, archaeological survey and excavation techniques, and archaeological monitoring. She has authored or coauthored over 100 reports, and presented professional papers at the Society for Historical Archaeology, Great Basin, and Northwest Anthropological Conference meetings, and at community and *EDUCATION* programs associated with Portland State University and the Clark County Historical Museum in Vancouver. Ms. Wilt is no longer an employee of CH2M.

Robin McClintock

HOURS
368

BACKGROUND
Education
B.S., Anthropology, Oregon State University, 1981

Relevant Experience
Mr. McClintock is a cultural resource specialist CH2M HILL's Portland, Oregon office. He is responsible for directing and conducting cultural resource projects for CH2M HILL and has experience in prehistoric archaeology, cultural anthropology, historic research, and historic preservation. He has been extensively involved in preparing cultural resource surveys and site evaluation reports in compliance with the National Environmental Policy Act, the National Historic Preservation Act and Executive Order 11593, and the Washington State Environmental Policy Act.

Having designed and conducted cultural resource surveys for more than 230 projects, Mr. McClintock has prepared cultural resource mitigation and site management plans, and determinations of National Register eligibility. He has recorded and evaluated a wide range of historic and prehistoric resources, including Native American, mining, ranching, transportation, and governmental properties.

In addition to his technical expertise, Mr. McClintock has over 20 years experience in direct consultation with state and federal agencies, including the Oregon State Historic Preservation Office (SHPO), Oregon Department of Transportation, Oregon Department of Energy, the Federal Emergency Management Agency (FEMA), Federal Highways Administration (FHWA), Washington Department of Archaeology and Historic Preservation, (DAHP), Washington Department of Transportation, and Washington Department of Health. In addition to these state and federal agencies, he has worked directly and consulted with numerous Northwest Native American Tribes in Oregon and Washington.
Biological Surveys and reporting (some also supported wetland mitigation planning and design)

Biological Surveys and reporting (some also supported wetland mitigation planning and design)

James Gorham

HOURS
413

BACKGROUND
Education
Graduate Studies, San Francisco State University, Emphasis: Land Use Planning, Conservation Biology, 1994-1997
B.S., Wildlife Management, Humboldt State University, 1983

Relevant Experience
James has more than 20 years of expertise in developing large-scale resource management plans including watershed management plans, Habitat Conservation Plans (HCPs), regional biodiversity protection plans, mitigation plans, and ecosystem management plans. He is an expert in all aspects of developing and implementing habitat restoration, including concept designs, feasibility analysis, final construction documents, construction management, and mitigation banking. His experience includes all aspects of environment regulations including California Environmental Quality Act (CEQA)/National Environmental Policy Act (NEPA), federal and state Endangered Species Act (ESA), Clean Water Act (CWA); environmental compliance documents and permitting; and agency coordination with United States Fish and Wildlife Service (USFWS) and the United States Army Corps of Engineers (USACE). His background includes over 7 years as a research technical assistant at Stanford University including studies on plant community ecology, plant physiological ecology, ecosystem function, and global change.

Mark Mullins

HOURS
271

BACKGROUND
Education
M.S., Fish and Wildlife Management, Montana State University, 1991
B.S., Biology, Montana State University, 1989

Experience
Mr. Mullins is a biologist with CH2M HILL's Seattle, Washington office. He specializes in fisheries sciences and aquatic ecology and has extensive training and experience in fisheries ecology, physiology, behavior, and aquatic ecosystems. Mr. Mullins has more than 24 years of experience and has served as a fisheries biologist for CH2M HILL on projects throughout the

United States. He has extensive project experience in western states assessing and developing mitigation for impacts to fisheries. Projects with which he has been associated include the evaluation of impacts on threatened and endangered species (fish and amphibians), fish screen evaluations and recommendations, FERC license applications and reviews, IFIM studies, and general aquatic assessments.

Peggy O'Neill

HOURS
487

BACKGROUND
Education
M.S., Environmental Sciences and Resources (Plant Ecology), Portland State University, 1999
B.A., Portland State University, 1992
B.S., Earth Science, Western Oregon University, 1975

Relevant Experience
Ms. O'Neill has nineteen years of experience conducting biological investigations including riparian corridor assessments, wetland delineations, vegetative analyses, botanical surveys, habitat assessments, and threatened and endangered species evaluations. Her experience includes preparation of federal, state (Oregon, Washington) and local permits for removal-fill activities, including use of the SLOPES programmatic biological opinion process. She has researched and implemented biological control methods for invasive plant species on wetland mitigation sites. She has developed and maintained an extensive database of plant species including description, habitat, threatened and endangered species information, wetland indicator status, and project information. She has extensive experience performing environmental monitoring during the construction phase of projects and long-term compliance monitoring following project construction.

Greg White

HOURS
36

BACKGROUND
Education
M.S., Oceanography (emphasis on fisheries), Old Dominion University, Norfolk, Virginia, 1991
B.S., Fishery Science, New Mexico State University, 1986

Professional Registrations
Washington Department of Natural Resources Watershed Analysis Certification
NAUI Scuba Diving Certification, Open Water II

Relevant Experience
Greg White has over 30 years of experience conducting studies and analysis related to the federal Endangered Species Act (ESA) consultation process, fisheries policies, watershed assessment, fish and macroinvertebrate evaluations, habitat restoration, aquatic and sediment toxicology and risk assessment, population dynamics, and age and growth studies. This work has involved policy decisions and developing regulatory and management strategies based on watershed evaluation. Much of his aquatic ecology work has involved salmonids, including salmonid species listed under the federal ESA. He has supervised and conducted numerous and extensive salmonid stream and lake surveys, habitat evaluations, aquatic resource inventories, and water quality assessments in Oregon, Washington, Alaska, New Mexico, Texas, and Virginia. Greg is no longer an employee of CH2M.

Joel Shaich

HOURS
573

BACKGROUND
Education
M.S., Environmental Science, State University of New York, 1989
B.A., History, Lewis and Clark College, 1986

Relevant Experience
Joel Shaich is a wetland scientist with over 25 years' experience in the regulation and management of wetlands, streams, and riparian areas. He has managed natural resource inventories, assessments, and permit processes for major projects, and assisted local and state governments with development of management policies, administrative rules and land use planning and zoning ordinances. Prior to joining CH2M, he was a wetlands specialist for EPA Region 10 in Portland and Oregon DSL and worked as an independent consultant doing natural resource planning.

Visual Resource Assessment

Thomas Priestley

HOURS
101

BACKGROUND
Education

Ph.D., Environmental Planning, Department of Landscape Architecture, University of California, Berkeley, 1988
M.C.P., City Planning, Department of City and Regional Planning, University of California, Berkeley, 1976
M.L.A., Environmental Planning, Department of Landscape Architecture, University of California, Berkeley, 1974
B.U.P., Urban Planning, Department of Urban and Regional Planning, University of Illinois, 1969

Professional Registrations
American Institute of Certified Planners (Certified Planner No. 008919)
American Planning Association
American Society of Landscape Architects

Relevant Experience
Dr. Priestley is a senior environmental planner who serves as the leader of the firm's visual resources practice group. In this role, Dr. Priestley guides the company's visual resources work through issue scoping, development of study designs, mobilization of staff and technologies appropriate to the assignment, guidance of analysis activities, and senior review of final products. In addition, Dr. Priestley consults directly in cases that require special visual resources, shadow flicker, and property value impact expertise, and he provides expert witness testimony when required. Dr. Priestley has more than 30 years of professional experience in urban and environmental planning and visual resource assessment. He is known nationwide for his expertise in evaluating aesthetic, land use, property value, and public acceptance issues related to electric energy projects.

Jessica Golman

HOURS
618

BACKGROUND
Education
M.E.S.M., Environmental Science and Management, UCSB Bren School, 2011
B.A., Psychology, Spanish, Boston College, 2004

Professional Registrations
Leadership in Energy and Environmental Design (LEED) Green Associate (2010, No. 10582252)

Relevant Experience
Ms. Golman works on siting, permitting and research for projects related to: linear transportation projects, utility-scale wind and solar energy development, water storage & conveyance, biogas-to-energy facilities, municipal- and facility-based greenhouse gas emissions inventories, natural gas power plant repermitting, and FERC permitting. She has provided

extensive planning and analysis support for land use, air quality and greenhouse gases, visual, biological, and water resource impacts. Ms. Golman is no longer an employee of CH2M.
Wetland mitigation planning and design

Wetland mitigation planning and design

Henriette Emond

HOURS
661

BACKGROUND
Education
Ph.D. and M.S., Agricultural Engineering, Colorado State University, 1994
B.S., Civil Engineering, Cornell University, 1988
M.A., Economics, and M.S., Foreign Service, Georgetown University, 1982
B.A., Political Science and French, Boston College, 1979

Professional Registrations
Professional Engineer: Oregon (2001, No. 66793PE); Colorado (1999, No. 33759); New Mexico (2002, No. 15371); Texas (2011, No. 110534); Louisiana (2012, No. 36914)
National Council of Examiners for Engineering and Surveying (NCEES) certification (No. 19562)
CH2M HILL Certified Project Manager: 1999

Relevant Experience
Dr. Emond is a civil and agricultural engineer in water resources with CH2M HILL's Water Business Group in Portland, Oregon. She specializes in the design and project management of constructed wetlands, phytoremediation, irrigated wastewater reuse, and water resource projects. She is an expert in irrigation design, monitoring, and soil root zone water balance modeling, with work ranging from feasibility assessment, analysis, design, construction management, and monitoring of irrigation, phytoremediation, constructed treatment wetlands, wastewater reuse, and water rights projects.

Mark Madison

HOURS
92

BACKGROUND
Education
B.S., Agricultural Engineering, Oregon State University, 1979

A.S., Production Agriculture (Irrigation Emphasis), Blue Mountain Community College, 1975

Professional Registrations
Professional Engineer (Agricultural, Environmental, Civil): Oregon, 1983 (No. 12178); Washington, 1985 (No. 022457)
CH2M HILL Certified Project Manager: 1995
Certified Water Rights Examiner, Oregon, 1992 (No. 325)

Relevant Experience
Mr. Madison is an agricultural, environmental, and civil engineer and senior project manager with CH2M HILL's Water Business Group in Portland, Oregon. He specializes in managing soil, water, plants, and nutrient relationships for wastewater reuse, wetlands treatment, and agricultural production. His experience includes site investigation, data collection, modeling, model calibration, design, construction, management, operations, and monitoring and maintenance of irrigation, reuse systems, wetlands and uplands phytoremediation systems. Mr. Madison served on the State of Oregon (USA) Department of Environmental Quality (DEQ) task force that wrote new municipal wastewater reuse regulations. He also served on a task force with the Oregon Department of Water Resources that developed a water marketing law and on a DEQ task force that wrote new industrial reuse regulations. Mr. Madison is an internationally known expert in irrigation, water reuse, and constructed treatment wetlands.

Todd Cotton

HOURS
75

BACKGROUND
Education
MS, Engineering/Geotechnical Engineering, Colorado State University, 1994
BS, Civil Engineering, Colorado State University, 1992

Professional Registrations
Professional Engineer: Oregon (No. 58496PE)

Relevant Experience
Mr. Cotten is a project manager and geotechnical engineer with the Water Engineering Design group in CH2M HILL's Portland, Oregon office. He has 21 years of professional experience on a variety of environmental, energy, water and wastewater, and transportation projects. He has experience managing complex multi-firm design projects, design management, resident engineering and geotechnical engineering skills. His project experience includes a variety of design, construction, and environmental projects, including wastewater and water treatment facilities, earth dams, reservoir tanks, large diameter pipelines, dredging and sediment capping, highway expansion, hard rock tunnels, auger boring, horizontal directional drilling, tunnel

grouting, landslide investigation and stabilization, and petroleum refinery facilities. His construction management roles include work on numerous challenging geotechnical sites, roadways, bridges, pipelines, water/wastewater treatment plants, braced excavations, ground improvement, and trenchless pipeline installations.

As a geotechnical engineer he has worked extensively on the design of shallow and deep foundation systems and has extensive design and construction management experience with large earthwork projects that involve excavation, transport, and reuse or disposal of soil and rock, and engineering control of fill placement. He has experience developing contract documents for construction projects, including geotechnical baseline reports that establish the contractual understanding of geotechnical and groundwater condition anticipated to be encountered during construction.

Jeff Gentry

HOURS
70

BACKGROUND
Education
B.S., Chemical Engineering, Oregon State University
M.E., Civil and Environmental Engineering, Cornell University

Professional Registrations
Registered Engineer: Oregon

Relevant Experience
Mr. Gentry is a chemical and environmental engineer with CH2M HILL's Environmental Services Business Group. He specializes in developing overall strategies for selecting remedies for environmental cleanup projects and taking the preferred remedies forward into remedial design. He also is proficient in designing pollution control systems and developing recordkeeping systems needed for facility compliance.

Travis Munson

HOURS
237

BACKGROUND
Education
M.S., Civil Engineering, Virginia Tech (Geotechnical Emphasis), 1995
B.S., Civil Engineering, Oregon State University, 1994

Professional Registrations
Professional Engineer: Oregon No. 51530PE; civil, geotechnical
New York No. 081877; civil

Relevant Experience
Mr. Munson is a geotechnical engineer with more than 14 years of geotechnical consulting engineering experience. He has expertise in geotechnical site characterization, design of deep and shallow foundations, deformation and settlement analyses, seepage and stability analyses, design of earth retaining structures and embankments, surface and subsurface drainage, pavement design, and laboratory testing interpretation. Mr. Munson is a lead geotechnical engineer for commercial, industrial, public works, and transportation projects.

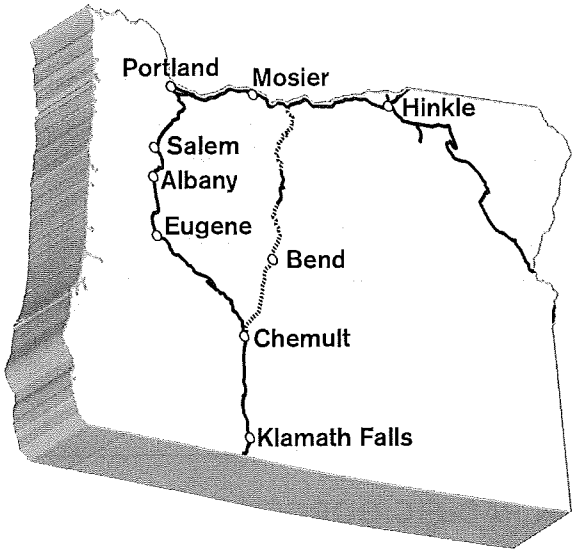
Union Pacific Mosier Update

UNION PACIFIC
BUILDING AMERICA®

Union Pacific Railroad operates more than 1,000 miles of track following the historic route of the Oregon Trail over the Blue Mountains in the eastern end of Oregon. The track winds along the south bank of the Columbia River to Portland and runs south from Portland to Oregon's border with California, generally along the Interstate 5 corridor. Union Pacific employs roughly 1,600 people in Oregon.

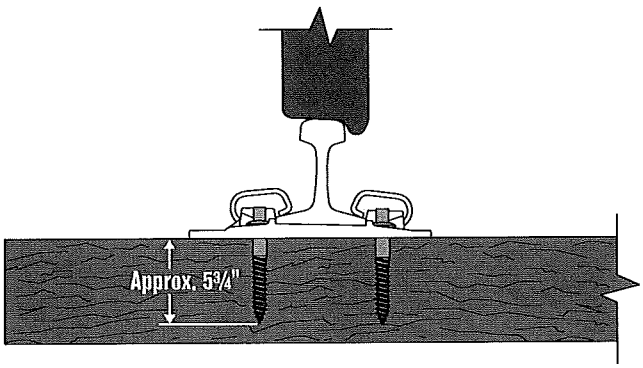
The company's diversified business mix includes agricultural products such as food, plant nursery products, Christmas trees and grain, as well as finished automobiles and automotive parts, and intermodal containers packed with consumer goods and other commodities. Crude oil makes up less than 1 percent of the products Union Pacific moves in Oregon.

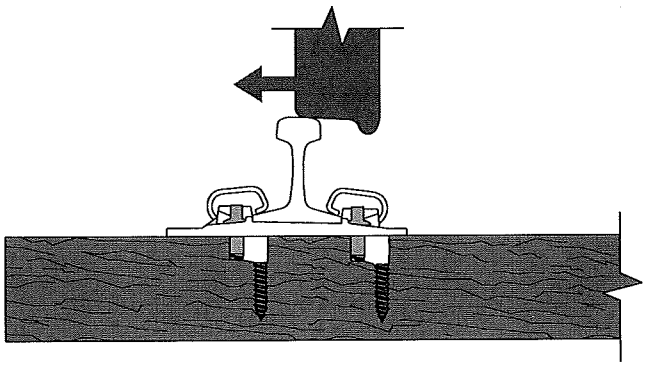
Sixteen tank cars carrying crude oil derailed from a westbound Union Pacific train June 3, 2016, in Mosier, Oregon.



DERAILMENT CAUSE

- The primary cause of the derailment was broken lag bolts, which are part of the rail fastening system at this location.
- The broken lag bolts allowed the rails to spread, creating a wider rail gauge that resulted in tank car wheels moving off the rail.
- This fastener system has been extremely reliable since Union Pacific introduced it in 1999, installing it on the Columbia River Gorge route in 2001.





SAFETY INSPECTIONS

Following the accident, Union Pacific completed additional inspections in the Gorge.

- In the area just repaired, Union Pacific installed a stronger fastener system that includes bigger plates and newer lag bolts.
- As the company progresses its ongoing track renewal process, it will be migrating toward a fastener system that replaces lag bolts with spikes, which provide higher levels of fault detectability.
- Union Pacific completed walking inspections of all lag curve locations with this type of rail fastening system between Portland and Hinkle, Oregon. Minor issues were identified – meaning issues that would not result in a derailment – and remediated.
- Union Pacific completed a Gauge Restraint Measurement System (GRMS) test of the area June 10.

UNION PACIFIC GORGE DERAILMENT PREVENTION INSPECTIONS

	UP in Gorge pre-June 3	**UP in Gorge post-June 3***
VISUAL HYRAIL INSPECTIONS	**2x** week	**3x** week
ENHANCED HYRAIL INSPECTIONS	**0**	**3x** week
GEOMETRY CAR	**4x** year	**4x** year
ULTRASONIC RAIL TESTING	**4x** or more a year	**4x** or more a year
GRMS	**1x** per 18 months	**4x** year
LAG CURVE WALKING INSPECTIONS	**0**	**Monthly**

GRMS = Gauge Restraint Measurement System

**until further notice*

USE AGREEMENT

Use, Storage and Maintenance of Union Pacific Railroad Company owned Firefighting Foam Trailers

THIS AGREEMENT is made and entered into by and between: the STATE OF OREGON, acting by and through its Department of State Police (OSP), Office of State Fire Marshal ("**OSFM**"); and Union Pacific Railroad Company ("**Union Pacific**"), acting by and through its authorized representative, hereinafter either individually referenced as a "Party" and collectively referenced as the "Parties."

RECITALS

A. Governor Kate Brown signed 2015 House Bill 3225 into law on July 20, 2015, requiring the Oregon Office of State Fire Marshal to adopt a plan for the coordinated response to oil or hazardous material spills or releases that occur during freight rail transportion.

B. As part of the response plan, Union Pacific, Burlington Northern and Santa Fe Railway Company and OSFM cooperatively determined to strategically place firefighting foam trailers throughout the State to provide a quicker and more effective response time to rail and other incidents that require large amounts of firefighting foam application.

C. Firefighting foam trailers are beneficial during an incident that requires large amounts of firefighting foam.

D. OSFM and Union Pacific recognize public health and safety would benefit from the ability to have a firefighting foam trailers available during the response to an incident.

E. In an effort to help provide quicker and efficient response times, Union Pacific agrees to provide OSFM and other first responders the use of seven (7), Union Pacific owned firefighting foam trailers that include accessory equipment and materials. The firefighting foam trailers will be used by OSFM and other first responders during incidents and training for incidents requiring large amounts of foam application.

F. Subject to the terms and conditions set forth in this Agreement, Union Pacific agrees to allow OSFM to: (1) use the firefighting foam trailers, (2) authorize local agency first responders to use the firefighting foam trailers, and (3) store the firefighting foam trailers at an OSFM-approved temperature-controlled building within the State of Oregon.

G. Subject to the terms and conditions set forth in this Agreement, OSFM agrees to: (1) arrange for storage of the Union Pacific owned firefighting foam trailers, (2) complete monthly firefighting foam trailer inspections, and (3) use the firefighting foam trailers only for incident response purposes and Union Pacific authorized training.

H. OSFM enters into this use agreement under authority of OAR 125-246-0170

NOW THEREFORE, the premises being in general as stated in the foregoing recitals, the Parties agree as follows:

TERMS OF AGREEMENT

1. EFFECTIVE DATE AND DURATION

The term of this Agreement will begin on the date all required signatures are obtained and will terminate two calendar years following the date all required signatures are obtained. The Agreement may be extended for additional terms, through an amendment signed by both parties.

2. DEFINITIONS AND ACRONYMS

2.1 Definitions.

Firefighting Foam Trailer(s) means a bumper pulled, flatbed trailer that is outfitted with foam and firefighting equipment to be used on large scale flammable fuel fires. The equipment included on the trailer will consist of foam, foam induction system, hose adapters/appliances, foam heating blankets, generator, and storage compartment.

Foam means firefighting foam used for fire suppression by coating the fuel, preventing its contact with oxygen, resulting in suppression of the combustion.

3. COMPENSATION

OSFM shall not be required to pay Union Pacific any financial compensation or rent for the allowed use of the firefighting foam trailers.

4. UNION PACIFIC OBLIGATIONS

4.1 Union Pacific agrees to:

4.1.1 Provide seven (7) firefighting foam trailers complete with foam available for use by Union Pacific, OSFM and local emergency responders.

4.1.2 Maintain the firefighting foam trailers and conduct any repairs necessary to keep the firefighting foam trailers in optimal working order. Upon notification by OSFM that any of the firefighting foam trailers or any equipment or component is in need of servicing, repair, or replacement, Union Pacific agrees to promptly provide the necessary service, repair or replacement.

4.1.3 License and insure the firefighting foam trailers, as provided in Section 12.

4.1.4 Allow OSFM and local first responders authorized by OSFM to use the firefighting foam trailers in response to incidents requiring large amounts of firefighting foam application.

4.1.5 Allow OSFM to use the firefighting foam trailers in training exercises. OSFM will provide no less than 24 hour advance notice of such training to Union Pacific.

4.1.6 Replace used foam and repair all the firefighting foam trailer damage attributable to Union Pacific's use of the firefighting foam trailers.

4.1.7 Replace used foam and repair all firefighting foam trailer damage attributable to OSFM or other first responders' use of the firefighting foam trailer when responding to an incident at the request of Union Pacific.

4.1.8 Provide, in writing to OSFM, Union Pacific contact information for OSFM notification of firefighting foam trailer utilization for an incident or training exercise not associated with Union Pacific.

4.2 Union Pacific reserves the right to remove any Union Pacific owned firefighting foam trailer from its stored location to use it to respond to emergency incidents. In the event that Union Pacific uses the firefighting foam trailer for such an incident, Union Pacific agrees to immediately notify OSFM and return the firefighting foam trailer to the OSFM storage location upon conclusion of the incident.

4.3 Subcontract: Union Pacific will not enter into any subcontract for any of the obligations agreed to under this Agreement without obtaining prior written approval from the OSFM. Any such subcontractor shall remain liable to OSFM under this Agreement as if no such assignment, transfer, or subcontract had occurred. The provisions of this Agreement shall be binding upon and shall inure to the benefit of the parties to the Agreement and their respective successors and assigns.

4.4 Compliance with all laws.

4.4.1 Union Pacific will comply with all federal, state, and local laws, regulations, executive orders and ordinances applicable to the work under this Agreement, including, without limitation, the provisions of ORS 279B.220, 279B.225, 279B.230, 279B.235 and 279B.270 incorporated by reference and made a part of this Agreement. Without limiting the generality of the foregoing, Union Pacific expressly agrees to comply with (i) Title VI of Civil Rights Act of 1964; (ii) Title V and Section 504 of the Rehabilitation Act of 1973; (iii) the Americans with Disabilities Act of 1990 and ORS 659A.142; (iv) all regulations and administrative rules established pursuant to the foregoing laws; and (v) all other applicable requirements of federal and state civil rights and rehabilitation statutes, rules and regulations.

4.4.2 All employers that employ subject workers, as defined in ORS 656.027, shall comply with ORS 656.017 and shall provide workers' compensation insurance coverage for those workers, unless they meet the requirement for an exemption under ORS 656.126(2). Union Pacific shall require and ensure that each of its subcontractors complies with these requirements.

5. OSFM OBLIGATIONS.

5.1 OSFM certifies, at the time this Agreement is executed, that sufficient funds are available and authorized for expenditure to finance costs of this Agreement within OSFM's current appropriation or limitation of the current biennial budget.

5.2. OSFM agrees to:

5.2.1 Arrange for storage of the firefighting foam trailers by OSFM or a local government agency within the State of Oregon, free of charge to Union Pacific.

5.2.2 Strategically position the storage location of the firefighting foam trailers and foam for maximum effectiveness and area coverage across the state of Oregon and provide Union Pacific access to, and written notice of the locations of, the firefighting foam trailers, and an OSFM point of contact.

5.2.3 Complete monthly inspections of the firefighting foam trailers and notify Union Pacific of any necessary repairs, maintenance, or other issues that may arise.

5.2.4. Provide Union Pacific access to the firefighting foam trailers on a continuous basis (i.e., 24 hours a day, 7 days a week). Union Pacific will secure access by contacting the storage location point of contact as provided by OSFM.

5.2.5. Use the firefighting foam trailers only for training and emergency response as part of the OSFM's role in preparing for and responding to incidents requiring large amounts of foam application within the State of Oregon.

5.2.6. Notify Union Pacific contact, per section 4.1.8, no less than 24 hour advance notice, if a firefighting foam trailer is to be utilized for a training exercise not associated with Union Pacific.

5.2.7. Notify Union Pacific contact, per Section 4.1.8 immediately, if a firefighting foam trailer is utilized for an incident not associated with Union Pacific.

5.2.8. Replace used foam and repair damage to the firefighting foam trailer attributable to OSFM's own use of the firefighting foam trailers not associated with a Union Pacific rail incident.

5.3 In the event of more than one simultaneous incident necessitating use of the firefighting foam trailer(s), and if one or more of the simultaneous incidents is a Union Pacific rail incident, Union Pacific may determine if the firefighting foam trailer will be deployed for the Union Pacific incident.

6. TERMINATION

6.1 This Agreement may be terminated by mutual written consent of both Parties.

6.2 This Agreement may be terminated by either party upon thirty (30) days' notice, in writing and delivered by certified mail, email or in person.

6.3 OSFM may terminate this Agreement effective upon delivery of written notice to Union Pacific, or at such later date as may be established by OSFM, under any of the following conditions:

6.3.1 If Union Pacific fails to provide services called for by this Agreement within the time specified herein or any extension thereof.

6.3.2 If Union Pacific fails to perform any other provision of this Agreement, or so fails to pursue the work as to endanger performance of this Agreement in accordance with its terms, and after receipt of written notice from OSFM fails to correct such failure within ten (10) business days or such longer period as OSFM may authorize.

6.3.3 If OSFM fails to receive funding, appropriations, limitations or other expenditure authority sufficient to allow OSFM, in the exercise of its reasonable administrative discretion, to continue to perform under this Agreement.

6.3.5 If federal or state laws, regulations or guidelines are modified or interpreted in such a way that OSFM is prohibited from performing its obligations under this Agreement.

6.4 Any termination of this Agreement will not prejudice any rights or obligations accrued to the Parties prior to termination.

7. ACCESS TO RECORDS

7.1 Union Pacific acknowledges and agrees that OSFM, the Oregon Secretary of State, the federal government, and their duly authorized representatives will have access to the books, documents, papers,

and records of Union Pacific that are directly related its performance of its obligations under this Agreement for the sole purpose of making audit, examination, excerpts, and transcripts for a period of six (6) years after such performance. Copies of applicable records will be made available upon request. OSFM will reimburse Union Pacific for costs of copies.

8. WRITTEN NOTICE.

All notices required under this Agreement will be in writing and addressed to the Party's Administrator, unless otherwise specified. Mailed notices are deemed received five (5) business days after post marked, when deposited, properly addressed and prepaid, into the U.S. postal service. Transmittals of notice by facsimile are deemed received upon electronic confirmation of successful transmission to the designated fax number if transmitted on a business day, no later than 5 pm Pacific Standard Time (PST) or Pacific Daylight Savings Time (PDT), as applicable. If transmitted by facsimile on a weekend or on a business day after 5 pm PST or PDT, as applicable, notice will be deemed received the following business day. Personal delivery or email is effective upon delivery.

Administrators of this Agreement are:

OSFM
Administrator: Jim Walker Title: Oregon State Fire Marshal Address: 4760 Portland Rd. NE, Salem, OR 97305 Phone:503-934-8209 Email: jim.walker@state.or.us

Union Pacific
Administrator: Robert Bavier Title: Program Manager Hazardous Materials Address: 2015 South Willow St Bloomington, CA 92316 Phone: (909) 685-2857 Email: rjbavier@up.com

9. INDEMNIFICATION.

9.1 UNION PACIFIC WILL HOLD HARMLESS AND INDEMNIFY OSFM, THE STATE OF OREGON, AND THEIR OFFICERS, EMPLOYEES AND AGENTS FROM ALL CLAIMS, SUITS, ACTIONS, AND LOSSES ARISING OUT OF THE NEGLIGENT ACTS OF UNION PACIFIC'S OFFICERS, EMPLOYEES, OR AGENTS WHILE ACTING WITHIN THE SCOPE OF THEIR DUTIES AND RESPONSIBILITIES CONCERNING THE OPERATION OR OWNERSHIP OF THE FIREFIGHTING FOAM TRAILER(S).

9.2 NOTWITHSTANDING PARAGRAPH 9.1, ABOVE, THE OREGON ATTORNEY GENERAL MUST GIVE WRITTEN AUTHORIZATION TO ANY LEGAL COUNSEL PURPORTING TO ACT IN THE NAME OF, OR REPRESENT THE INTERESTS OF, THE STATE AND ITS OFFICERS, EMPLOYEES AND AGENTS PRIOR TO SUCH ACTION OR REPRESENTATION. FURTHER, THE STATE, ACTING BY AND THROUGH ITS DEPARTMENT OF JUSTICE, MAY ASSUME ITS OWN DEFENSE, INCLUDING THAT OF ITS OFFICERS, EMPLOYEES AND AGENTS, AT ANY TIME WHEN IN THE STATE'S SOLE DISCRETION IT DETERMINES THAT (I) PROPOSED COUNSEL IS PROHIBITED FROM THE PARTICULAR REPRESENTATION CONTEMPLATED; (II) COUNSEL IS NOT ADEQUATELY DEFENDING OR ABLE TO DEFEND THE INTERESTS OF THE STATE, ITS OFFICERS, EMPLOYEES AND AGENTS; (III) IMPORTANT GOVERNMENTAL INTERESTS ARE AT STAKE; OR (IV) THE BEST INTERESTS OF THE STATE OF OREGON ARE SERVED THEREBY.

UNION PACIFIC's OBLIGATION TO PAY FOR ALL COSTS AND EXPENSES PURSUANT TO PARAGRAPH 9.1, ABOVE, SHALL INCLUDE THOSE INCURRED BY THE STATE OF OREGON IN ASSUMING ITS OWN DEFENSE AND THAT OF ITS OFFICERS, EMPLOYEES, OR AGENTS UNDER (I) AND (II) ABOVE.

9.3 SUBJECT TO THE LIMITATIONS OF ARTICLE XI, SECTION 7 OF THE OREGON CONSTITUTION, THE OREGON TORT CLAIMS ACT (ORS 30.260 THROUGH 30.300), ORS 476.600, AND ANY APPLICABLE LAW OF THE STATE OF OREGON, OSFM, THE STATE OF OREGON, AND THEIR OFFICERS, EMPLOYEES AND AGENTS WILL HOLD HARMLESS AND INDEMNIFY UNION PACIFIC FROM ALL CLAIMS, SUITS, ACTIONS, AND LOSSES ARISING OUT OF THE NEGLIGENT ACTS OF OSFM 's OFFICERS, EMPLOYEES, OR AGENTS WHILE ACTING WITHIN THE SCOPE OF THEIR DUTIES AND RESPONSIBILITIES CONCERNING THE OPERATION OF THE FIREFIGHTING FOAM TRAILER(S).

10. INSURANCE.

10.1 UNION PACIFIC INSURANCE RESPONSIBILITY. Union Pacific is insured under its Excess Property and Liability Policies. In lieu of a Certificate of Insurance, Union Pacific warrants and guarantees that Union Pacific has, and will maintain during the term of this Agreement, self-insured retention capable of satisfying the indemnification set forth in Section 9, as follows:

10.1.1 **Commercial General Liability** covering Bodily Injury, Death and Property Damage, and including contractual liability coverage for the indemnity provided under this Agreement, as follows:

10.1.1.a **Bodily Injury/Death:** Amounts as follows:

Per occurrence for any single claimant: $ 2,048,300.
Per occurrence for multiple claimants aggregate: $ 4,096,600.

10.1.1.b **Property Damage:** Amounts as follows:

Per occurrence for any single claimant: $112,000
Per occurrence for multiple claimants aggregate: $560,000

10.1.2 **Automobile Liability** covering the firefighting foam trailer(s) as follows:

Per occurrence for any single claimant: $ 2,048,300.
Per occurrence for multiple claimants aggregate: $ 4,096,600.

10.2 Union Pacific agrees to immediately notify OSFM in the event that Union Pacific elects to obtain private insurance in lieu of self-insurance, or ceases to have sufficient financial resources to cover the indemnification provisions in this Agreement.

10.3 OSFM is self-insured to the maximum limits of the Oregon Torts Claim Act as provided in ORS 30.260 through 30.300.

11. AGREEMENT DOCUMENTS; COUNTERPARTS, WAIVER AND MERGER.

11.1 This Agreement constitutes the entire Agreement between the Parties on the subject matter thereof. There are no understandings, agreements, or representations, oral or written, not specified in this Agreement.

11.2 No waiver, consent, modification or change of terms of this Agreement will bind the parties unless in writing and signed by all Parties and all necessary state approvals have been obtained. Such waiver, consent, modification or change, if made, will be effective only in the specific instance and for the specific purpose given.

11.3 Any changes, modification, revisions, or amendments to this Agreement that are mutually agreed upon by the parties to this Agreement will be incorporated by written instrument, executed, and signed by all parties to this Agreement with the same approvals, certifications, submission, and other requirements applicable to the original Agreement.

11.4 The failure of any party to enforce any provision of this Agreement will not constitute a waiver by that party of that or any other provision.

11.5 This Agreement may be executed in several counterparts (facsimile or otherwise) all of which when taken together will constitute one agreement binding on all Parties, notwithstanding that all Parties are not signatories to the same counterpart. Each copy of this Agreement so executed will constitute an original.

12. NO THIRD PARTY BENEFICIARIES.

OSFM and Union Pacific are the only parties to this Agreement and are the only parties entitled to enforce its terms. Nothing in this Agreement gives, is intended to give, or will be construed to give or provide, any benefit or right, whether directly, indirectly, or otherwise, to third persons unless such third

persons are individually identified by name herein and expressly described as intended beneficiaries of the terms of this Agreement.

13. SEVERABILITY.

The parties agree that if any term or provision of this Agreement is declared by a court of competent jurisdiction to be illegal or in conflict with any law, the validity of the remaining terms and provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the Agreement did not contain the particular term held to be invalid.

14. GOVERNING LAW.

The Contract will be governed by and construed in accordance with the laws of the State of Oregon, without regard to principles of conflicts of laws.

15. VENUE; CONSENT TO JURISDICTION.

Any claim, action, suit or proceeding (collectively, "Claim") between the State and Union Pacific that arises from or relates to the Contract will be brought and conducted solely and exclusively within the Circuit Court of Marion County for the State of Oregon; unless a Claim must be brought in a federal forum, then unless otherwise prohibited by law, it will be brought and conducted solely and exclusively within the United States District Court for the District of Oregon. UNION PACIFIC CONSENTS TO THE IN PERSONAM JURISDICTION OF SAID COURTS AND WAIVES ANY OBJECTION TO VENUE IN SUCH COURTS, AND WAIVES ANY CLAIM THAT SUCH FORUM IS AN INCONVENIENT FORUM. Nothing herein shall be construed as a waiver of the State's sovereign or governmental immunity, whether derived from the Eleventh Amendment to the United States Constitution or otherwise, or of any defenses to Claims or jurisdiction based thereon.

OSP Use Agreement #257-1157-16

EACH PARTY, BY EXECUTION OF THIS AGREEMENT, ACKNOWLEDGES THAT HE HAS READ THIS AGREEMENT, UNDERSTANDS IT, AGREES TO BE BOUND BY ITS TERMS AND CONDITIONS, AND HAS THE AUTHORITY TO SIGN AND BIND ITS ENTITY.

Union Pacific Railroad Company

6-27-16

Wesley J. Lujan
Vice President, Public Affairs

Date

STATE OF OREGON

DEPARTMENT OF STATE POLICE, OFFICE OF STATE FIRE MARSHAL

6-30-16

Joel Lujan, Major
Gaming & Employee Services Bureau

Date

BUILDING AMERICA'

COMMUNITY

Union Pacific Railroad and Confederated Tribes of the Umatilla Indian Reservation Announce New Agreements

Master access agreement facilitates access to historic hunting and fishing grounds for the Confederated Tribes

Memorandum of understanding solidifies parameters for Union Pacific infrastructure projects within the reservation.

MISSION, ORE., AUGUST 28, 2013

Union Pacific Railroad and the Confederated Tribes of the Umatilla Indian Reservation today announced the completion of a master access agreement and a memorandum of understanding. The master access agreement reestablishes Tribal member access to historic fishing and hunting grounds through the Meacham Canyon area for the Confederated Tribes. The memorandum of understanding formalizes the relationship between Union Pacific and the Confederated Tribes as the two entities work toward track projects Union Pacific will undertake on the rail line within the borders of the reservation.

Both agreements were signed today at a special ceremony held at the Nixyaawii Governance Center on the Umatilla Indian Reservation. Union Pacific chief executive officer Jack Koraleski joined Board of Trustee Chair Les Minthorn and Secretary Kathryn Brigham from the Confederated Tribes for the ceremonial gathering. These two agreements represent the culmination of nearly two years of ongoing negotiations between Union Pacific and the Confederated Tribes of the Umatilla Indian Reservation.

"The Confederated Tribes of the Umatilla Indian Reservation have been wonderful partners as we have worked through the details of these new agreements," said Jack Koraleski, Union Pacific chief executive officer. "We have invested more than $1 billion in Oregon over the last ten years, and we will continue to improve the transportation infrastructure of the state as we move forward in our collaboration with the Confederated Tribes."

"We have been here since time immemorial practicing our culture, history and way of life," said Kathryn Brigham, CTUIR Board Secretary, who served as the lead negotiator for the Board. "These agreements further recognize our commitment to preserving our culture and our rights, while building stronger partnerships with our friends at Union Pacific."

About Union Pacific

Union Pacific Railroad is the principal operating company of Union Pacific Corporation (NYSE: UNP). One of America's most recognized companies, Union Pacific Railroad links 23 states in the western two-thirds of the country by rail, providing a critical link in the global supply chain. From 2007-2012, Union Pacific invested $18 billion in its network and operations to support America's transportation infrastructure, including a record $3.7 billion in 2012. The railroad's diversified business mix includes Agricultural Products, Automotive, Chemicals, Coal, Industrial Products and Intermodal. Union Pacific serves many of the fastest-growing U.S. population centers, operates from all major West Coast and Gulf Coast ports to eastern gateways, connects with Canada's rail systems and is the only railroad serving all six major Mexico gateways. Union Pacific provides value to its roughly 10,000 customers by delivering products in a safe, reliable, fuel-efficient and environmentally responsible manner.

About the Confederated Tribes of the Umatilla Indian Reservation

The Confederated Tribes of the Umatilla Indian Reservation is a union of three tribes: Cayuse, Umatilla, and Walla Walla. In 1855 the three tribes signed a treaty with the U.S. government, in which it ceded over 6.4 million acres to the United States while maintaining Tribal sovereignty to manage their land and natural resources in perpetuity. The reservation is over 273 square miles and home to nearly 3,000 Tribal members. In the treaty, the tribes reserved rights to fish, hunt, and gather foods and medicines within the ceded lands, which today is northeastern Oregon and southeastern Washington. Tribal members continue to exercise and protect these rights today.

Union Pacific media contact: Aaron Hunt, amhunt@up.com, 916-789-6019 or @aaronmhunt.
Confederated Tribes media contact: Chuck Sams, chucksams@ctuir.org or 541-429-7393

The statements and information contained in the news releases provided by Union Pacific speak only as of the date issued. Such information by its nature may become outdated, and investors should not assume that the statements and information contained in Union Pacific's news releases remain current after the date issued. Union Pacific makes no commitment, and disclaims any duty, to update any of this information.

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[http://www.addthis.com/bookmark.php?v=20]

UNION PACIFIC RAILROAD
301 NE 2nd Avenue
Portland, Oregon 97232

P 503 249 3079
C 503 320 3099
F 402 233 3162

E banelson@up.com

Brock Nelson Director Public Affairs

March 25, 2015

Mayor Arlene Burns
Mosier City Hall
208 Washington Street
Mosier, Oregon 97040

Dear Mayor Burns,

Thank you for the opportunity to speak and answers questions about Union Pacific's Mosier Double Track project at the December 10, 2014 Mosier City Council meeting. I thought the meeting was very productive and I look forward to having more conversations with the City and its residents in the future.

UP is very interested in partnering with the City of Mosier in the future so we can both achieve our respective goals for growth and expansion. To that end, UP would like to offer the City the following to help mitigate and alleviate any anticipated adverse impacts that could result from approval, construction, and operation of the second set of tracks;

1.) Within 120 days of starting train operations on our newly constructed track, UP will donate approximately 2.5 acres of our land to the City for their future use.

2.) UP will construct at our own expense a new fence along the northern property line of the donated land. UP will coordinate with the City the locations for the gate(s) in the fence needed for our future access to our right of way. The City will maintain the fence and UP is responsible for any repair or maintenance necessary due to their use or damage to the fence caused by UP's actions.

3.) UP will work with the City on its plans for a future pedestrian crossing, crossing either over or under our tracks, once the City has funds in place to pay for the project.

4.) UP will support the City in its ongoing efforts to convert the existing crossing under our tracks at Rock Creek from a private to public crossing.

5.) UP will relocate the existing 2 inch City of Mosier Water line in Rock Creek road and will issue the City a new utility license at our own expense as a part of our double track project. If for some reason the double

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track project is not constructed, the City of Mosier will be required to relocate the line at their own expense.

6.) UP will be happy to conduct a Town Hall meeting for the City and its residents to talk more about UP's Mosier Double Track project and our operations in the City.

If what we have proposed above is acceptable to the City, please sign below and return the letter to me for our records.

Please feel free to contact me with any further questions.

Thanks.

Sincerely,

Brock A. Nelson

x Mayor, 5/20/15

City of Mosier Title Date

cc. Mosier City Council
Kathy Fitzpatrick – City Manager

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Confederated Tribes and Bands
of the Yakama Nation

Established by the
Treaty of June 9, 1855

September 13, 2016

VIA ELECTRONIC MAIL AND U.S. MAIL

Angie Brewer
Wasco County Planning and Development Office
2705 East Second Street
The Dalles, OR 97058
angieb@co.wasco.or.us

Re: Comments on Union Pacific Railroad's Application for Rail Extension Application Number: PLASAR-15-01-0004

Dear Ms. Brewer:

On behalf of the Confederated Tribes and Bands of the Yakama Nation ("Yakama Nation"), I submit to the Wasco County Planning Commission ("Commission") the following comments regarding Union Pacific Railroad's ("Union Pacific") Application for Rail Extension, Application Number PLASAR-15-01-0004, for inclusion in the record.

The Application would allow Union Pacific to make significant expansions to its rail line. Union Pacific requested approval to expand an existing railroad siding on either side of Mosier, Oregon for 4.02 miles of new second mainline track and realign 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 make a property line adjustment. The request also includes off-site wetland mitigation east of the primary project site.

The Yakama Nation stands opposed to the proposed rail expansion. As discussed in detail below, the Yakama Nation has significant interests that will be severely impacted and/or harmed by the proposed rail expansion, including:

- The proposed rail expansion may result in violations of the Yakama Nation's Treaty rights to hunt, fish, and gather traditional foods, and to maintain and continue their traditional, religious and cultural practices, including subsistence living and the provision of foods, through fishing, hunting, and gathering, to underserved individuals within the Yakama Nation community.

- The proposed rail expansion will increase train traffic, which already poses a risk to the safety of the Yakama Nation's People, including tribal fishers who regularly cross train tracks to access fishing sites. Further increasing rail traffic will only aggravate the risks the Yakama Nation People already bear with respect

to rail traffic in and around their usual and accustomed areas and other lands upon which Yakama People retain usufructuary rights pursuant to the Treaty of 1855 with the Yakama Nation ("Treaty") (June 9, 1855, 12 Stat. 951).

- The proposed rail expansion could result in irreparable harm to the Yakama Nation's cultural and natural resources.

- The proposed rail expansion would increase the risk of derailments and spills.

- The proposed rail expansion would increase emissions, negatively impacting climate change.

Accordingly, because of the significant and irreparable impacts that the proposed rail expansion will have on the Yakama Nation and its People, the Yakama Nation urges the Commission to deny Union Pacific's Application.[1]

I.Rail Expansion Negatively Impacts the Yakama Nation.

1. Rail Expansion Interferes with Yakama Nation's Treaty Rights.

i. Rail Expansion Limits Access to Usual and Accustomed Areas.

The Yakama Nation is a federally recognized sovereign nation, a signatory to a Treaty with the United States. In the Treaty, the Yakama Nation explicitly reserved the right of its People to hunt, fish and gather, at their usual and accustomed places. Treaty, Art. 3. The Treaty provides:

> The exclusive right of taking fish in all the streams, where running through or bordering said reservation, is further secured to said confederated tribes and bands of Indians, as also the right of taking fish at all usual and accustomed places, in common with the citizens of the Territory, and of erecting temporary buildings for curing them; together with the privilege of hunting, gathering roots and berries, and pasturing their horses and cattle upon open and unclaimed land.

The Yakama Nation's Treaty rights are not granted to the Yakama Nation, but rather are "grants of rights from them—a reservation of those not granted."[2] Treaties are the highest law of the land and create a special fiduciary duty and trust responsibility upon all agencies of the United States to protect Treaty rights, including fishing rights.[3] These Treaty rights cannot be abrogated except by explicit Congressional authorization. Courts have consistently required federal agencies and states to keep the Treaty promises upon which tribes relied when they ceded huge tracts of land.[4]

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[1] The Yakama Nation reserve any and all rights to supplement these comments with additional information to the fullest extent permitted by applicable laws, regulations, policies, and procedures.

[2] *U.S. v. Winans*, 198 U.S. 371, 380-381 (1905).

[3] *Seminole Nation v. United States*, 316 U.S. 286, 297 (1942).

[4] *See, e.g., U.S. v. Winans,* 198 U.S. 371 (1905); *Confederated Tribes of Umatilla Indian Reservation v. Alexander*, 440 F. Supp. 553 (D. Or. 1977); *U.S. v. Oregon*, 718 F.2d 299 (9th Cir.1983); *Muckleshoot v. Hall,* 698 F. Supp. 1504 (W.D. Wash. 1988); *Northwest Sea Farms v. U.S. Army Corps of Eng'rs*, 931 F. Supp. 1515 (W.D. Wash.

Further, Treaty rights include a property right in adjacent lands "to the extent and for the purpose mentioned" in the treaties.[5] As part of these Treaty rights, courts have confirmed that the tribes of Washington have a right to half of the harvestable fish in state waters.[6]

Accordingly, the Yakama Nation, as a sovereign nation, has a profound interest in the preservation of its Treaty rights. The *United States v. Oregon* and Boldt Decision also established the Yakama Nation as a co-manager of the fisheries resource with the State of Washington.[7] The Yakama Nation actively regulates its fisheries; the Yakama Nation staffs the Yakama Nation Fisheries ("Fisheries"). The Fisheries focus on the protection of Treaty rights; the restoration of aquatic populations and their habitats; and ensuring the fish are honored, in a manner reflecting their paramount importance to the Yakama Nation's People, diet and health. The Fisheries accomplish these goals using two primary methods: population and habitat management goals and actions and natural resource policies and regulatory mechanisms.

The Yakama Nation resides on central Washington's plateau and along the Columbia River. While the Yakama Nation was officially recognized by the United States in 1855 by the Treaty, the People that comprise the Yakama Nation have lived in this area since the time immemorial. Historically, villages were located on or near waterways, in places where a variety of resources could be obtained. Currently, the People use vegetation and wildlife as both food resources and cultural resources. The People gather edible greens, roots and berries. The People hunt and fish, many earn their living fishing for salmon in the waters of the Columbia River and its tributaries. The proposed rail expansion has the potential to interfere with the Yakama Nation's exercise of its Treaty rights, to hunt, fish, and gather it its usual and accustomed areas.

For example, the proposed rail traffic will directly interfere with fishing in the Columbia River. The Boldt Decision affirmed the Yakama Nation's usual and accustomed fishing areas include the "Columbia River area" where "[a]pproximately four hundred tribal members fish commercially[.]"[8] The Yakama Nation jointly regulates the exercise of its members' Treaty fishing rights on the Columbia River.[9] The court also noted that the Yakama Nation's members utilize fish for both "ceremonial and personal" reasons and that they "have been and continue to

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1996); *U.S. v. Washington*, 2007 WL 2437166 (W.D. Wash. 2007). *See also Confederated Tribes & Bands of Yakama Nation v. U.S. Dep't of Agric.*, 2010 WL 3434091 (E.D. Wash. Aug. 30, 2010) (entering an injunction barring the shipment of garbage, as a landfill was located in an area where the Yakama Nation's members exercised their Treaty rights).

[5] *Winans*, 198 U.S. at 381 (finding the Yakama Nation retained the right to make use of the land surrounding the usual and accustomed sites, as required by its members, to exercise their Treaty rights).

[6] *U.S. v. Washington*, 384 F. Supp. 312 (W.D. Wash. 1974) (the "Boldt Decision"), *aff'd*, 520 F.2d 676 (9th Cir.1975).

[7] *U.S. v. Washington*, 384 F. Supp. at 403. The Yakama Nation was also a party to the *United States v. Oregon* proceeding, a federal case. The Yakama Nation participated in that long-running case in order to protect their Treaty fishing interest and to "exercise their sovereign powers in a coordinated and systematic manner to protect, rebuild, and enhance upper Columbia River fish runs while providing harvests for both Treat Indian and non-treaty fisheries." 2008-2017 *United States v. Oregon*, Management Agreement, p. 1; *United States v. Oregon*, No. 68-513 (D. Or. Aug. 12, 2008) (Management Agreement adopted as an Order of the Court).

[8] *Id.* at 382.

[9] *Id.*

be very dependent on anadromous fish to sustain their way of life." The court found that "[a]nadromous fish are vital" to the Yakama Nation's members' diets.[10]

As the Boldt Decision observed, many of the Yakama Nation's usual and accustomed fishing areas lie along the Columbia River. Along the Columbia River, there are train tracks. The proposed rail expansion would be in Mosier, Washington, which is situated along the Columbia River. The proposed rail expansion raises two significant issues, in regards to the exercise of the Yakama Nation's Treaty rights. Increased train traffic would limit both access to the Yakama Nation's usual and accustomed fishing areas and would increase the risk of injury or death to tribal fishers.

In regards to access to fishing sites, there is the obvious impact that increasing train traffic will make it more difficult to cross the train tracks, limiting access to those sites that lie alongside train tracks. These significant impacts must be addressed in any proper analysis of the Application at issue here. Further, as discussed in detail below, increased train traffic results in an increased risk of trains derailing and spilling. Historically, the Yakama Nation has endured the loss of many traditional fishing places due to the development of the Columbia River and spills. The loss of more fishing sites due to a train derailment, or any resulting oil spill, would place an unacceptable cumulative burden of loss on the Yakama Nation. Again, these significant impacts must likewise be addressed in any adequate analysis on the Application.

ii. Rail Expansion Increases Risk of Injury and Death.

The biggest risk to the safety of tribal fishers when accessing fishing sites is the proximity of the train tracks to fishing sites. Many fishing sites can *only* be accessed by crossing train tracks. In order to access fishing sites, tribal fishers have to cross the train tracks, by foot or in vehicles. The crossings, especially in remote locations, do not always have signal and safety measures. Every time a tribal fisher crosses a train track they are exposing themselves to a significant risk of injury or death. Over the years, the Yakama Nation has suffered fatalities and injuries due to train strikes. Any increase in the train traffic would both make it more difficult for tribal fishers to access Treaty-protected fishing sites and would increase the safety risks faced by tribal fishers.

The Yakama Nation's Treaty rights allow its People to maintain their customary way of life. The Treaty rights include the right to hunt, fish, and gather at all usual and accustomed places and throughout the Yakama Nation's Ceded Lands, including those usual and accustomed places along the Columbia River at issue here. The proposed rail expansion would have a direct adverse impact to the Yakama Nation, its People, and its Treaty-reserved rights and Treaty-protected resources.

The Yakama Nation considers these impacts to the Yakama Nation's Treaty rights unacceptable.

Further, in regards to mitigation, to put it simply, there is no mitigation adequate to address the diminishment or destruction of the Yakama Nations' Treaty-reserved rights and Treaty-protected resources. There is no adequate mitigation that will compensate the Yakama Nation, or its People, for the continued degradation of our sacred places, and the incremental, but constant

[10] *Id.*

damage to our natural resources that sustain our culture and the constant threat to the livelihood and cultural practices of the Yakama People.

2. Rail Expansion Threatens Cultural Resources.

There are numerous cultural resources that would be at risk from increased train traffic. As previously stated, historically, the Yakama Nation situated its villages near waterways, in places where a variety of resources could be obtained. As a result, many of its cultural resources are located along the Columbia River. There are thousands of cultural and archeological sites up and down the Columbia River. For example, in Wasco County, close to where Mosier is located, is "She Who Watches." She Who Watches is one of the most famous petroglyphs in North America. She Who Watches is located approximately 120 feet from railroad tracks, near the Columbia Hills State Park, along the Columbia River.

She Who Watches, and other important cultural archeological resources would be at risk from increased rail traffic. These sites are at risk to oil spills and burning trains. Oil spills and fires can be damaging to archeological resources. In fact, current railroad operations are impacting cultural resource sites along the Columbia River, due to grading and other operations.

The significance of these cultural and archeological resources to the Yakama Nation cannot be overstated. Cultural resources represent the concrete, physical evidence of the Yakama Nation's presence and its relationship to the ancestors. The sites are a cultural record of the Yakama Nation's presence, since time immemorial. The sites are a physical connection to the Yakama Nation's past and the Yakama People's ancestors. These cultural resources are unique, priceless and irreplaceable. They cannot be restored in the event that a site is excavated or damaged and destroyed, as has happened before with routine rail operations.[11] The proposed rail expansion poses significant risks of adverse if not destructive impacts to these cultural resources.

3. Rail Expansion Threatens Fish and Wildlife.

As discussed above, the Yakama Nation has a significant interest in fish and wildlife restoration as the Yakama Nation considers it a part of its duties as co-manager of the fisheries. The Yakama Nation benefits from its fisheries management, as it allows them to preserve their cultural practices, including fishing and the use of fish in cultural ceremonies.

The Yakama Nation has made considerable investments into fish and wildlife restoration efforts. In 1996, the Yakama Nation has adopted the Wy-Kan-Ush-Mi Wa-Kish-Wit, or Spirit of the Salmon Plan; the Plan was updated in 2014. Accordingly, the Columbia River Basin is now engaged in one of the largest fish and wildlife restoration efforts in the world, more than $300 million is being invested annually in this effort.

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[11] Recently, a railroad bulldozed a known (to the railroad) Yakama Nation burial ground while the railroad was conducting so-called routine frontage road maintenance. The railroad's bulldozer scattered the remains of at least two Yakama ancestors in a wide swath of excavated materials. Only through the actions of a concerned landowner were the molested remains discovered and, partially, recovered for reburial. Unfortunately, this is not an isolated incident and is representative of railroad corporations' general apathy towards Yakama People and their culture and sacred places.

A wide variety of fish species that are significant and important to the Yakama Nation live in the Columbia River. The Columbia River contains chinook, sockeye, steelhead, coho and chum salmon. There are twelve different stocks of salmon and steelhead in the Columbia River Basin that are listed under the Endangered Species Act ("ESA"). The Columbia River also contains sturgeon, lamprey and smelt, all of which hold significant cultural value to the Yakama Nation.

The Yakama Nation's substantial investment in restoring fish and wildlife populations, and their habitats, impacts both cultural and natural resources. These efforts, and the subject fish and wildlife, are threatened by the proposed rail expansion. As discussed below, the increased train traffic may result in a train derailment or spill, which would be devastating to the local fish and wildlife.

i. Rail Expansion Increases Risk of Derailment and Spills.

The proposed rail expansion would result in increased train traffic; this, in turn, would increase the likelihood of a train derailment and increase the possibility of a spill. Oil is frequently transported along the rail lines that border the Columbia River. A number of scientific studies have demonstrated the negative impact of an oil spill on fish:

- After a crude oil spill a period of acute mortalities is often observed; these acute mortalities can affect the entire foodweb from phytoplankton to apex predators.[12] Acute exposure is also very damaging to organisms during early development, such as invertebrate and fish larvae.[13]

- Chronic long-term exposure of salmon to small amounts of residual oil, particularly multi-ringed polycyclic aromatic hydrocarbons (PAHs), has been associated with reductions in salmon survival.[14] Studies after the Exxon Valdez spill indicated that populations of pink salmon demonstrated elevated mortality for at least 4 years after the spill; mark and recapture studies demonstrated that pink salmon exposed to PAHs had elevated rates of post-release mortality, with an average reduction in adult survival of 35%.[15]

- There are complex food web interactions that may be negatively and indirectly affected by an oil spill, which are generally effects that are not immediately obvious; in considering oil spill effects, it is important to consider indirect effects

[12] Charles H. Peterson, et al., *Long-Term Ecosystem Response to the Exxon Valdez Oil Spill*, SCIENCE, Dec. 19, 2003.
[13] J.P. Incardona, et al., *Deepwater Horizon Crude Oil is Cardiotoxic to the Developing Hearts of Large Pelagic Fish*, PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES, 111(15): E1510-E1518 (2014).
[14] A.M. Blanc, et al., *Anthropogenically Sourced Low Concentration PAHS: In Situ Bioavailability to Juvenile Pacific Salmon*, ECOTOXICOLOGY AND ENVIRONMENTAL SAFETY, 73(5): 849-857 (2010).
[15] Corinne E. Hicken, et al., *Sublethal Exposure to Crude Oil During Embryonic Development Alters Cardiac Morphology and Reduces Aerobic Capacity in Adult Fish*, Proceedings of the National Academy of Sciences 108(17): 7086-7090 (2011).

that occur throughout the food web.[16] Scientists from NOAA have developed food web understandings for the Columbia River Estuary.[17]

The studies indicate that oil can be difficult to remove from the environment and that oil can remain in an environment long after the spill has occurred. In making its decision, the Commission should consider the potential long-term impact of an oil spill.

For tribal fishers, there are many ways an oil spill will impact a fishing site. The most immediate effect would be the closure of an area, making the area inaccessible for fishing. Also, any residual oil at a fishing site may make it so the fish avoid the area; this would negatively impact the catch rate at the fishing site. Further, among tribal fishers a spill may result in stigmatism; many tribal fishers are leery of fishing in an area where there has been a spill. In sum, an oil spill may impact both the catch rates and the fishing efforts at a fishing site.

In addition to the protection of its restoration activities, the Yakama Nation also has a vested interest in the prevention of oil spills, as it is actively involved in spill response and clean up. The Yakama Nation has its own spill response team, called the Hazmat Team. The Hazmat Team typically responds to ten to twelve spills a month, and coordinates its efforts with the Washington State Department of Ecology, the Oregon State Department of Environmental Quality, and the Environmental Protection Agency. The Yakama Nation is also on the Northwest Area Committee, Region 10 Response Team. The Yakama Nation has been forced to respond to and clean up a variety of spills, as a direct result of train accidents and derailments, including the recent train derailment at Mosier, Washington.

The Yakama Nation's Hazmat Team spent two weeks at Mosier. There, a train derailment resulted in an oil spill and fire. The Hazmat Team were particularly concerned about salmon and lamprey populations, as oil was reaching the adjacent Columbia River through an outflow pipe of a wastewater treatment plant. Further, the train derailment at Mosier resulted in the closure of multiple tribal fishing operations.

Overall, the Yakama Nation will bear the costs associated with an oil spill. In addition to the risk to fishing sites and cultural and natural resources, the Yakama Nation will have to expend a significant amount of resources in dealing with the consequences of the proposed rail expansion. The increased risk of oil spills will have a direct impact on the Yakama Nation. It is important that the Commission consider these risks as part of a comprehensive analysis when making a decision on Union Pacific's Application.

4. Rail Expansion Increases Emissions, Negatively Impacting Climate Change.

The proposed rail expansion, and the resulting increase in train traffic, would increase the amount of greenhouse gases emitted. It is widely recognized that the emission of greenhouse

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[16] Charles H. Peterson, et al., *Long-Term Ecosystem Response to the Exxon Valdez Oil Spill*, SCIENCE, Dec. 19, 2003.

[17] H.L. Diefenderfer, *An Evidence-Based Assessment of the Cumulative Effects of Tidal Freshwater and Estuarine Ecosystem Restoration: Early Life-Stage Habitat Functions for Endangered Salmonids*, DRAFT REPORT FOR U.S. ARMY CORPS OF ENGINEERS: PORTLAND DISTRICT, 2012.

gases negatively impacts climate change. This issue is particularly important to the Yakama Nation, as climate change has, historically, had a disparate impact on indigenous peoples. As recognized by the United Nations Permanent Forum on Indigenous Issues:

> Indigenous peoples are among the first to face the direct consequences of climate change, owing to their dependence upon, and close relationship with the environment and its resources. Climate change exacerbates the difficulties already faced by vulnerable indigenous communities, including political and economic marginalization, loss of land and resources, human rights violations, discrimination and unemployment.[18]

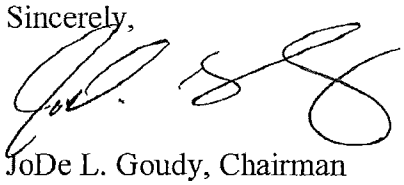
As previously stated, the People of the Yakama Nation have a very close relationship with the land and its natural resources. The People consistently gather vegetation to use as both food and cultural resources. Because of the Yakama Nation's symbiotic relationship with the lands and the natural resources on those lands, the proposed rail expansion's potential impact on climate change could have devastating, and disparate, impact on the Yakama Nation.

II.Conclusion

The proposed rail expansion has the potential to negatively impact the Yakama Nation's, its People and its cultural and natural resources. In short, the consequences of the proposed rail expansion could devastate the Yakama Nation. Accordingly, the Yakama Nation urges the Commission to deny Union Pacific's Application for Rail Expansion.

Thank you for your time and consideration. The Yakama Nation stands prepared to help provide any information the Commission may need in making its decision. If you have any questions, please feel free to contact the Yakama Nation through our attorney, Joe Sexton, who may be reached directly at (509)910-8842 or joe@galandabroadman.com.

Sincerely,



JoDe L. Goudy, Chairman
Yakama Nation Tribal Council

[18] United Nations Permanent Forum on Indigenous Issues, *Climate Change and Indigenous Peoples*, INDIGENOUS PEOPLES INDIGENOUS VOICES 1 (2015), http://www.un.org/en/events/indigenousday/pdf/Backgrounder_ClimateChange_FINAL.pdf.

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

MOSIER FIRE -- Additional comment re: UPRR Second Track

1 message

Mosier Fire <mosierfire@gmail.com> Tue, Sep 13, 2016 at 2:53 PM
To: Angie Brewer <angieb@co.wasco.or.us>
Cc: Phil Evans <mosierboy@yahoo.com>, Charles Young <charles.young@mosierfire.com>, Kris McNall <kris.mcnall@mosierfire.com>

Hello Angie --

I am attaching my current comment as a Word doc.

Also our District Map, which is a product of Wasco County GIS.

Jim Appleton
Mosier Fire Chief
541.478.3333 cell
mosierfire@gmail.com
mosierfire.com

2 attachments

Union Pacific Second Mainline comment 2 -- 20160913.doc
25K

MOSIER_FIRE_DISTRICT_MAP_20150715.pdf
5068K

Tuesday, 13 September 2016

Planning Commissioners
Wasco County Planning Department
2705 East Second St.,
The Dalles, Oregon 97058 **via email**

Re: Union Pacific Railroad Second Mainline Track Project

Dear Chair and Commissioners,

This letter is the second public comment on the proposed Union Pacific Second Mainline Track from Mosier Fire District (MFD).

After further study of the proposal and its impacts, I am writing as MFD's risk management professional, supplementing and amplifying comments made previously from the Board.

Our previous letter raised four categories of concerns:

1. Railroad caused Wildfires
2. Hazardous Material (HAZMAT) Movement
3. Pedestrian Safety and Emergency Access to the North Side of the Tracks
4. Noise

The sum of my comments is that the west segment of the project, from Mosier Creek to the Hood River County line, poses unacceptable risk to MFD in each of these four categories and must be disallowed. The middle and east segments of the project described under Alternative C, Option 2, might be considered if the issues raised in our letter of August 25 are addressed in a transparent and verifiable manner. However, until a plan for mitigating risk is developed and agreed upon by local response agencies, we respectfully request that the commission deny all segments of the UPRR Second Mainline Track Project.

There are two main reasons for my focus on the west segment of the project:

First, the majority of MFD, including City of Mosier, is downwind of the west segment, so issues created by the project as a whole are magnified for this segment. Fire moves downwind, hazmat blows downwind. The west segment increases upwind risk to our school, downtown core, and many more homes than the middle and east segments. (See Mosier Fire District Map, attached; note that purple dots represent built properties, the reason the fire district exists, and that our prevailing wind is typically from the west-northwest.) Second, the west segment runs through the downtown core of Mosier so the proposed double track would directly affect access to the north side of the tracks and

increase noise in the city.

In addition, the following operational and safety concerns were not fully explored in the August 25 letter.

Opposing train traffic at operating speeds creates the risk of accidents involving higher kinetic energy and greater potential damage from fire and/or hazardous materials release than if a single train has an accident. Placing that risk upwind of the majority of MFD, including the City of Mosier, and at the bottom of a slope which will accelerate fire behavior (http://www.hoodrivernews.com/news/2012/sep/28/milepost-66-fire-contained/), while cutting off our access via Interstate 84 and the Twin Tunnels Trail, sets the Mosier Fire District up for a disaster far worse than the one we narrowly escaped last June 3 (http://www.spokesman.com/stories/2016/sep/04/fire-chief-jim-appleton-lesson-of-derailment-ban-o/).

The City of Mosier and the Fire District are interdependent. The Fire District draws both its tax base and its volunteers from the Mosier area. Although technically outside the jurisdiction of the Planning Commission, the safety, vibrancy, and resilience of the City of Mosier must be factored into your decision and I aim to give you a basis to do so. Boundaries assumed by the Scenic Act aren't relevant when assessing risk or fighting fires. Risk is risk, and the increased risk imposed by a double main line through and to the west of the City of Mosier creates an unmanageable responsibility for the Fire District.

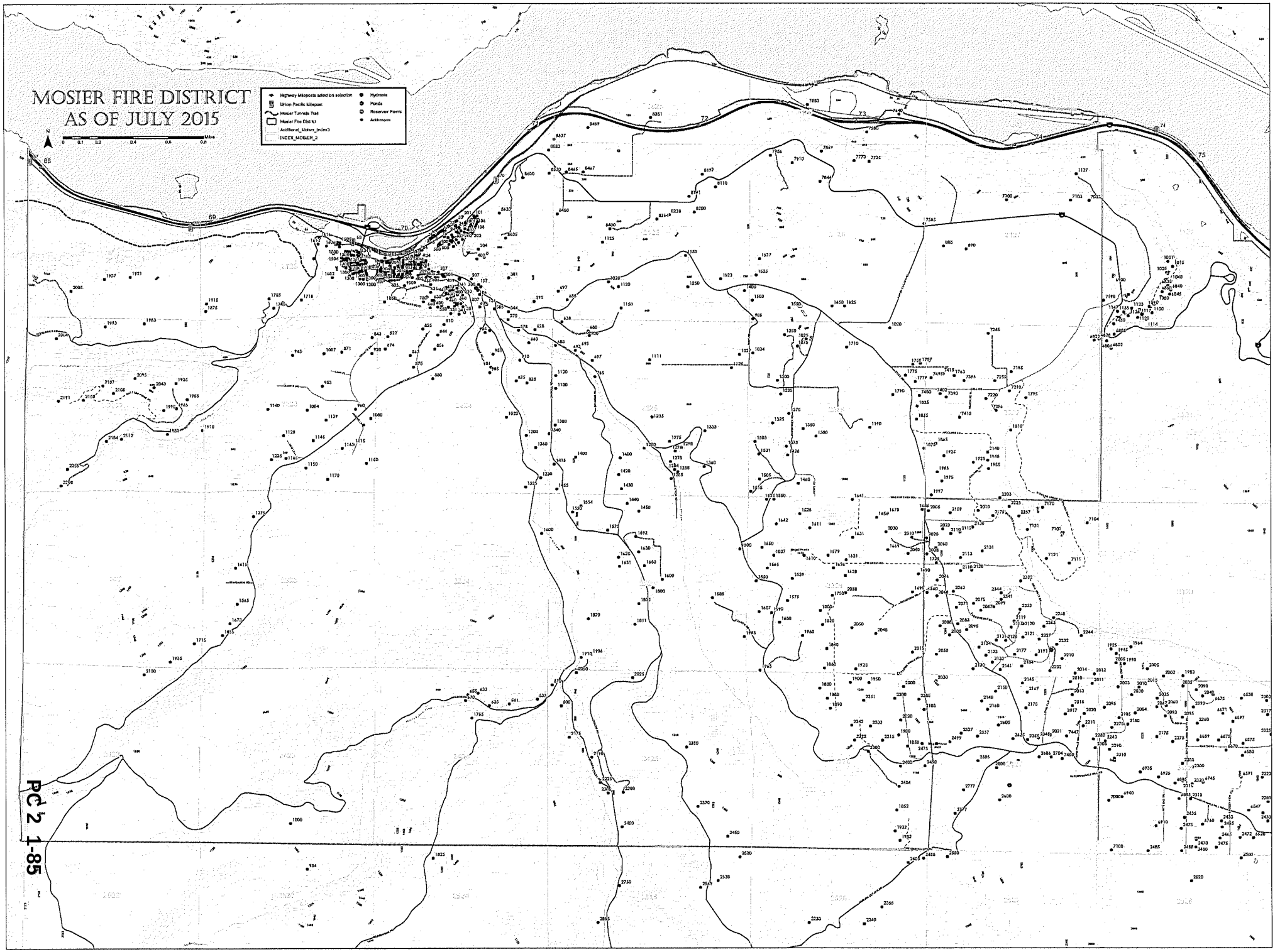
The double main line would impact the City of Mosier with economic damages and permanent harm to a right of quiet enjoyment, in a way that has not happened since Interstate 84 was built sixty years ago, and, indeed, only a handful of times prior going back to the 1840's. If the core of our community becomes less desirable both for residents and visitors, that negatively affects the fire district's ability to provide services district-wide, and cannot be allowed to happen. It is a flaw of the planning process that these externalities are not factored at all into the proposal or your decision, and so the emphasis here necessarily focuses on safety, but MFD cannot ignore the consequences of harm to our tax base.

Mosier is deep into a planning process which stands to bolster transportation and development well into the foreseeable future, a new fire station and City civic center being but one example. All of this investment in our future will be put at risk by the added safety concerns, noise and other impacts of a double main line.

In conclusion, I uphold and restate our concerns for the project as a whole, while categorically rejecting the west segment for the reasons stated. In my opinion, it is not possible to mitigate the increased risk of the west segment of the project to render it acceptable. The remaining segments should be evaluated under the considerations raised in MFD's August 25 letter. Under Alternative C, Option 2, Union Pacific achieves at least 60% of its efficiency goals while saving the cost and remediation requirements of the west segment, without significantly changing the negative impacts of idling trains in the City of Mosier. Moreover, Alternative C, Option 2 results in Union Pacific's longest passing zone (15,682 feet) between Portland and The Dalles, clearly shifting any concept of "bottleneck" elsewhere.

/s/
Jim Appleton, Mosier Fire Chief

MOSIER FIRE DISTRICT AS OF JULY 2015



PC 2 1-85

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

UPRR - PLASAR-15-01-0004

1 message

Steve McCoy <steve@gorgefriends.org> Tue, Sep 13, 2016 at 12:50 PM
To: "angieb@co.wasco.or.us" <angieb@co.wasco.or.us>
Cc: Steve McCoy <steve@gorgefriends.org>

Please accept the attached Visual Impacts Analysis and supporting materials for the above-mentioned scenic area development application. Some of these documents were hand-delivered at the September 6, 2016 Planning Commission Hearing. This electronic copy is provided as a courtesy.

Best,

Steve

Steven D. McCoy

Staff Attorney

Friends of the Columbia Gorge

522 SW Fifth Ave., Suite 720

Portland, OR 97204

(C) 503-319-2547

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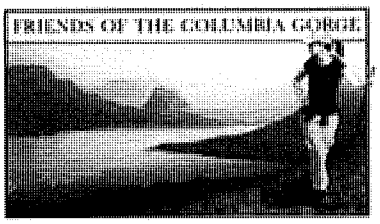


5 attachments

Dean Apostol Resume.pdf
630K

JordanSecterResume.pdf
390K

P0013908W-VRA-EX01-E.pdf
1468K

P0013908W-VRA-EX01-W.pdf
1006K

VisualImpactsReport_Final.pdf
619K

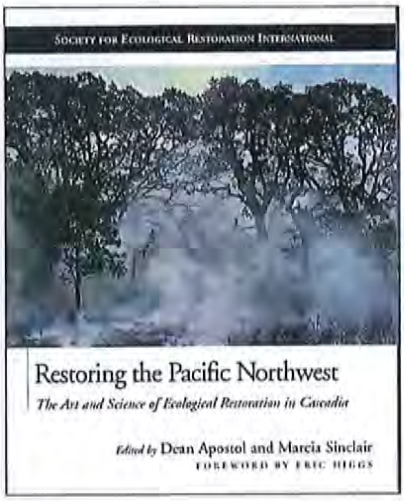
Dean Apostol, ASLA

NATURAL RESOURCE SPECIALIST

Dean Apostol has over 30 years of experience as a natural resource planner, landscape designer and landscape ecologist. Dean is recognized regionally and nationally as a leader and innovator in integrated resource planning and ecological restoration. As an independent consultant, Dean has worked on natural resource management, open space planning, landscape analysis, watershed analysis and ecological restoration projects throughout the Pacific Northwest.

Dean co-authored *Forest Landscape Analysis and Design*, a book that took theoretical concepts of landscape ecology and applied them to large scale forest planning and design problems. This book has been widely distributed and used in Great Britain, Australia, Canada and the United States. He has applied its ideas and techniques to over a dozen projects over the past decade.

In addition, Dean published *Restoring the Pacific Northwest: The Art and Science of Ecological Restoration in Cascadia* (Island Press) in 2006. This is the leading text on the practice of ecological restoration in the Northwest region and is already in wide use. **It won a Merit Award from the American Society of Landscape Architects Oregon Chapter in 2006**. He also completed work on Designing Sustainable Forest Landscapes, to be published by Taylor and Francis later this fall.



EDUCATION

- Graduate Coursework, Geography, Iowa State University
- Bachelor of Science, Landscape Architecture, Iowa State University

RELEVANT EXPERIENCE

- Natural Resources Management Plan, *Tualatin Hills Park and Recreation District, Oregon*
- Ecola Creek Forest Reserve Management Plan, *Cannon Beach, Oregon*
- Lower Owens River Recreational Use Plan, *Inyo County, California*
- Clackamas County Parks Wildfire Prevention Plan, *Clackamas County, Oregon*
- Clatsop County Natural Resource Stewardship Assessment, *Clatsop County, Oregon*
- Jackson County Sports Park Master Plan, *Jackson County, Oregon*
- Lost Lake Recreation Area, *Mt. Hood National Forest, Oregon*
- Hillsboro Parks and Trails Master Plan and Natural Resource Analysis, *Hillsboro, Oregon*
- Dorris Ranch Regional Park Master Plan, *Springfield, Oregon*
- Parks, Recreation and Natural Areas Master Plan, *Lake Oswego, Oregon*
- North Clatsop Plains Sub-Area Plan, *Clatsop County, Oregon*
- Swan Creek Park Master Plan, *Tacoma, Washington*
- Oregon Department of Transportation West Linn Solar Array Scenic Impact, *West Linn, Oregon*
- Forest Park and Powell Butte Wildfire Risk Reduction, *Portland, Oregon*

Jordan Secter

Natural Resource Specialist

Education

BS, Landscape Architecture, University of Oregon

MS, Landscape Architecture, University of Oregon

BA, Community Development, The Evergreen State College

BS, Ecology, The Evergreen State College

** Experience prior to employment with WHPacific, Inc.*

Jordan Secter is a results driven natural resource specialist with over 15 years of experience in landscape design, planning and construction. Jordan brings a focus on managing, conservation based recreation and visual resources, ecological restoration, re-vegetation and landscaping projects working collaboratively with private landowners to public agencies and contractors executing a high level of customer service within multiple accounts and projects. It is his professional goal to provide strategic value to customers including creative solutions to achieve comprehensive project goals that meet both project and landowner objectives. Moreover he provides open and clear communicator with demonstrated strategic vision and disciplined execution on all projects he works on.

Selected Project Experience

*Oregon Department of Transportation: US 26 Mile Post 49.2 Silent Rock to 57.45 Mirror Lake Trail Head, 2012-2013**

Jordan worked as project manager and principle in charge for this report. The purpose of the report was to evaluate the impact of the proposed road improvements on visual resources and to insure the design is consistent with the Mt. Hood National Forest Plan the changes maintain scenic resource values. He worked to develop the report to analyzes existing visual resources, describe impacts and provide mitigation recommendations specific to the proposed project from milepost (MP) 49.20 to MP 52.00. The project also included the visual simulations associated with the analysis.

*Wheeler County: Fossil Heritage Trail, 2012**

Jordan served as project manager and principle in charge with Secter Environmental Design to work with Wheeler County to design, plan, and manage project coordination for the Bowerman Loop associated with the Fossil Heritage Trail (FHT). Bowerman Loop trail is a one-mile section of natural surface running and walking trail developed through relatively unused pasture. "The natural surface trail circles the Wheeler County Fair Grounds and connects the community to views of the valley.

*Portland General Electric**

Jordan worked to provide PGE with planning and consulting services associated with recreation facilities improvements at

Timothy Lake as part of the Clackamas River Hydroelectric License Recreation Resource Management Plan. He served as project manager and principle in charge for this work. It provided PGE with planning and design consultation and production of associated products in support of planning and implementation/construction. The project also involved working with PGE to present work to an interdisciplinary advisory committee and prepare products for submittal to FERC.

*Timothy Lake Recreation Area Dispersed Sites Management Plan and Trails Plan**

Jordan worked as project manager and principle in charge, assisting PGE to develop a master plan for dispersed camping and trails at Timothy Lake and Lake Harriet. This master plan entailed developing action standards for: site spacing, site closure and removal, environmental impact, visual impact, connectivity to surrounding recreation areas, safety, universal access, maintenance, and vegetation implementation.

*Timothy Lake Pine Point Campground and Day Use Area, 2012**

Jordan worked as project manager and principle in charge, in partnership with PGE to develop and implement a campsite remodel / day use area design for the Pine Point campgrounds at Timothy Lake. The project scope consisted of an entire campsite redesign to enhance campsite quality, spatial composition and vegetation plan; development of day use areas with amenities, connection to recreation activities and trail system for day visitors and campsite users; implementation of a signage plan to create cohesive informative, location, directive and circulation sign age throughout the day use and campground areas.

*Timothy Lake West Shore Day Use Area, 2012**

Jordan served as project manager and principle in charge, working with PGE on design development through construction administration for a large day use area at Timothy Lake. The project included: Designating and designing day use areas and use types; locating amenities throughout day use areas; developing a boat launch and staging area; Creating and locating new parking regions; ensuring cohesive circulation for vehicular and pedestrian use; enhancing connections to the Timothy Lake trail system and surrounding recreation areas.

*Timothy Lake North Arm Campgrounds, 2012**

Jordan worked as project manager and principle in charge, in collaboration with PGE on the redevelopment and design of the North Arm Campgrounds at Timothy Lake. This process included: Designating campsite locations, and campsite type (i.e. single use, group use, pull in parking, spur parking etc.); developing additional campsites and campground loop road; locating and designing boat launch and staging areas, day use areas, and additional parking; creating a trail system that connects campgrounds to day use areas, Timothy Lake trail system and dispersed camping.

*Bureau of Land Management Western Oregon Resource Management Plan Community Outreach and Participatory Mapping Exercise, 2013**

Jordan worked as project manager and principle in charge, and developed an information gathering process to reflect the BLM's public engagement strategy in support of the recreation component of the Resource Area Management Planning effort for western Oregon BLM resource lands.

*BLM Salem District, Molalla River Concept Recreation Plan, 2011**

Jordan worked with BLM Recreation management staff as a project manager and principle in charge, to Master Plan a series of walk in campsites along the Molalla River, while protecting and enhancing riparian habitat.

*BLM Salem District, Bureau of Land Management, Larch Mountain Environmental Education Site, 2009-2010**

Jordan collaborated with BLM as a project manager and principle in charge to develop an interpretive plan for an education site within the Larch Mount Environmental Education site located in Sandy River Recreation Area. Provided consulting services, precedent information, sign themes, and signage and kiosk design for the interpretive plan.

*Bureau of Land Management (BLM) Salem, Oregon, and Portland General Electric (PGE), Marmot Dam Re- vegetation/Restoration Program, 2008**

Jordan served as project manager and principle in charge in collaboration with BLM and PGE staff to develop a re- vegetation site plan and budget that complies with FERC regulations along with meeting recreation and conservation site improvement goals developed as part of the BLM Sandy River Recreation Management Plan.

*Bureau of Land Management, Charrette Planning and Concept Design - Marmot Dam Site and Sandy Salmon River Confluence Day Use Area, 2008-2009**

Jordan worked as project manager and principle in charge, and contracted to organize and facilitate a community design Charrette out of which came two site alternatives for the Marmot Dam Wayside Park located along the Sandy River and the Sandy Salmon River Day use area. The project emphasized a collaborative decision-making process utilizing graphic communication to showcase spatial relationships and places of importance to the stakeholders produced a series of alternatives that were presented at three community meetings. SED then refined the designs into preferred alternatives for each site. This was then added to NPA as part of the Sandy River Basin Integrated Recreation Management Plan.

*City of Sandy, BLM and Oregon State Parks, Sandy River Water Trail, Sandy Oregon, 2010**

Jordan served as project manager and principle in charge, and provided the program planning, graphic design, and printing coordination of a paddle guide for the Sandy River. This guide is used to encourage safe, sustainable river recreation while helping to focus management and conservation of the river resource.

*Siuslaw Watershed Council: Mapleton, Oregon, 2007-2008**

Jordan provided graphic design and planning services for a water trail map, website, trail signage and interpretive materials for the Siuslaw Estuary Water Trail. He served on this project as the stewardship coordinator.

*Washington Forest Law Center c/o Dean Apostol, Landscape Architect, Portland, OR, 2004-2005**

This report contained an analysis and recommendations regarding aesthetic impacts from commercial forestry on State and private lands in Washington. Jordan worked as the technical ecologist on this.

Summary:

Jordan Secter of WHPacific and Dean Apostol, Environmental Planner, both experts on scenic resource impact analysis, were asked by the Friends of the Columbia Gorge to provide a review of the scenic impact analysis for a proposal to add new tracks in two segments of the Union Pacific Railroad (UPRR) near Mosier, Oregon. This analysis included a review of the application prepared by CH2MHill for UPRR and Wasco County. Additional work included a field visit, GIS visibility analysis, and Google Earth analysis.

The joint professional opinion of WH Pacific and Dean Apostol is that the analysis of visual impacts provided by CH2MHiLL is inadequate, and their findings are not supported by the information provided. Deficiencies include:

- Potential visibility from Key Viewing Areas is understated, and was not determined using appropriate and readily available methods.
- Important project features, particularly rock cuts and staging areas, are not well described, mapped, or analyzed.
- Views from the Columbia River were not analyzed or accounted for.
- Varying view angles from Key Viewing Areas (KVAs) were not properly analyzed.
- Mitigation measures to reduce or compensate for potential impacts were not included.
- The analysis fails to address the visual character and impact of existing rail features, including overhead powerlines and rock control fencing.

The Wasco County Planning Commission should require UPRR and their consulting team to provide additional analysis consistent with standards commonly used to assess visual impacts within the National Scenic Area.

Typical components of a Visual Impact Analysis for sensitive landscapes, including those within the Columbia Gorge National Scenic Area are:

- **Analysis of existing and inherent scenic character, including discordant elements**
- **Identification of Key Viewing Areas (KVAs), including corridors (roads, river, trails)**
- **Analysis of potential visibility from KVAs, including distances**
- **Analysis of visual contrast resulting from the project**
- **Measurement of the impact, including deviation from a scenic standard if one exists.**
- **Identification of methods to lessen or mitigate the impacts**

Background

Visual impact analysis within the Columbia River Gorge national scenic Area (CRGNSA) follows the Forest Service Visual Management System (VMS) and the updated version known as the Scenery Management System (SMS).

This system is a strategic approach that helps land managers and regulators determine a varying level of scenic value depending on natural and cultural features, and the way they are viewed. The CRGNSA was analyzed in detail through inventories and studies during the process that led to development of the 1992 management plan. Visual Quality Objectives (VQO's) were assigned along with landscape typologies (i.e. Canyon Walls, Pastoral) within two main land use zones, General Management Area (GMA) and Special Management Area (SMA). Visual Quality Objectives (VQOs) are established for allowed land uses within each zone. Each of these overriding zones help define the degree of visual protection and level of development allowed within a specific area. The degree of protection is selected after careful analysis, including the types of activities allowed within an area, public use and expectations, and VQOs created to be in balance with other resources in a given area.

The SMS system and VQO'S provide a framework for analysis and a way to measure, describe and evaluate potential visual impacts. Visual Contrast is a term used to help understand the degree to which a project affects the visual environment by considering color, texture, line and form along with factors like distance to understand the potential change to the valued landscape character caused by a given project.

Two main VQOs apply to lands within the CGNSA: Not Visually Evident meaning visual changes should not be evident as seen from KVAs, and Visual Subordination (VS), meaning that changes can be evident, but are not allowed to dominate over the valued landscape character.

Visibility Analysis is a commonly used method to determine how visible a project may be from Key Viewing Areas. It is done using a Geographic Information System (GIS) to determine if topography, or in some cases vegetation or buildings, block views of a project from a given KVA. GIS analysis is typically supplemented by field investigations to see if a project is as visible as the computer generated data suggests.

Design methods, like reducing color contrast, are used to help a project meet a given visual standard. If a project cannot meet the standard, then additional mitigation measures may be required, including reducing visual contrast from existing projects within a given viewshed. Design and mitigation measures help either reduce or offset the visual impacts. An important tool for measuring and evaluating visual contrast and potential impacts is to create photo realistic simulations to show, as accurately as possible, how a project will appear from important viewpoints. If the visual is medium or high, then VQOs may not be met.

Zone of Visual Impact Visibility Analysis

The project description provided by CH2M and UPRR failed to include a visibility analysis. Visibility was determined only through field investigation, which is inadequate because some KVAs, particularly the Columbia River, were overlooked. WHPacific staff did perform a visibility analysis using GIS data on topography, and KVAs listed in the Scenic Area Plan to analyze the potential visibility of project features, including new tracks, rock cuts, and staging areas. We determined that much of the project is potentially visible from: I-84, Historic Columbia River Highway (Memaloose Overlook), the Columbia River (including Memaloose Island) and SR 14. It is visible from both eastbound and westbound lanes on I-84, though the

CH2MHill analysis claimed it is not visible from westbound lanes. Our GIS analysis was supplemented by a field visit that validate the findings.

Range of photos provided.
The information provided in the project description included only 5 photo points that are not fully representative of the range of views from KVAs. For example, there are no photos from the Columbia river looking towards segment 2, even though our GIS analysis (and Google Earth) provides clear evidence that people on the river, a KVA, will clearly see the east end of the large cut through the mesa. Additionally there are potentially clear views of the mesa cut from I-84 that were overlooked or not considered. And there are multiple potential views from SR 14, in addition to the single photo provided.

Simulations
The application failed to provide photo realistic simulations of the project from affected KVAs. This failure makes accurate analysis of impacts very difficult. Our visibility analysis and field work demonstrates that much of the project is visible, but without simulations it is hard to know how strong visual contrast will be, and visual contrast is a key factor in understanding visual impacts. We strongly recommend that simulations be required from those viewing positions where the most visual contrast is likely.

Description of Impacts
The description of potential visual impacts is significantly understated. The VQO standards for scenic quality in the Special Management portion of the CGNSA are mostly"not visually evident," meaning no obvious change or contrast, and "visual subordination," which limits visual change or contrast. There is a high potential that the project as proposed will not meet either standard, particularly the east end of the cut through the rock mesa as viewed from one or more KVAs. While it is possible that design and mitigation could reduce impacts to within Scenic Area standards, it is impossible to know without more analysis.

Additional comments on the application

- Figure 5-6. If the view is moved east the mesa cut would likely be more visible.
- Figure 5-7. Our analysis shows that the rock mesa & proposed staging area would be clearly visible from Memaloose overlook. A visual simulation should be provided from this vantage point.
- Figure 5-8. The assumption in the report that visual change would be "subtle" is not supported. A visual simulation should be provided noting the visual contrast and determining whether the project meets the NSA scenic standard.
- Figure 5.5. The analysis claims the mesa cut would be shielded from SR 14 and the River evidenced by this figure. But if the angle of view is changed east or west it is not likely very shielded.
- Page 5-6. The discussion of possible impacts from the mesa cut on viewers at old SR 14 is too dismissive. At the middleground distance a fresh rock cut could be high contrast depending on sun angle and atmospheric conditions. This view should be simulated to test visual contrast.
- Page 5-6 & 5-7. The discussion of visibility of the mesa rock cut viewed from river is not supported by the evidence provided. Our analysis shows views up the mesa cut from the river.
- Page 5-7. The claim that the RR is not visible from the Historic Hwy is not supported by the evidence provided, which shows clear visibility of portions of the RR from Memaloose overlook,

which is part of the HCRH. Additionally, the overlook provides a long term view which raises its sensitivity.

- Page 5-8. It is claimed that visual changes due to tree removal & grading of the staging area at east end of mesa cut will be minimal & temporary. But growth of replanted vegetation in that location would likely be very slow given the dry, harsh, windy conditions. Temporary in this case could be decades.

Recommendations

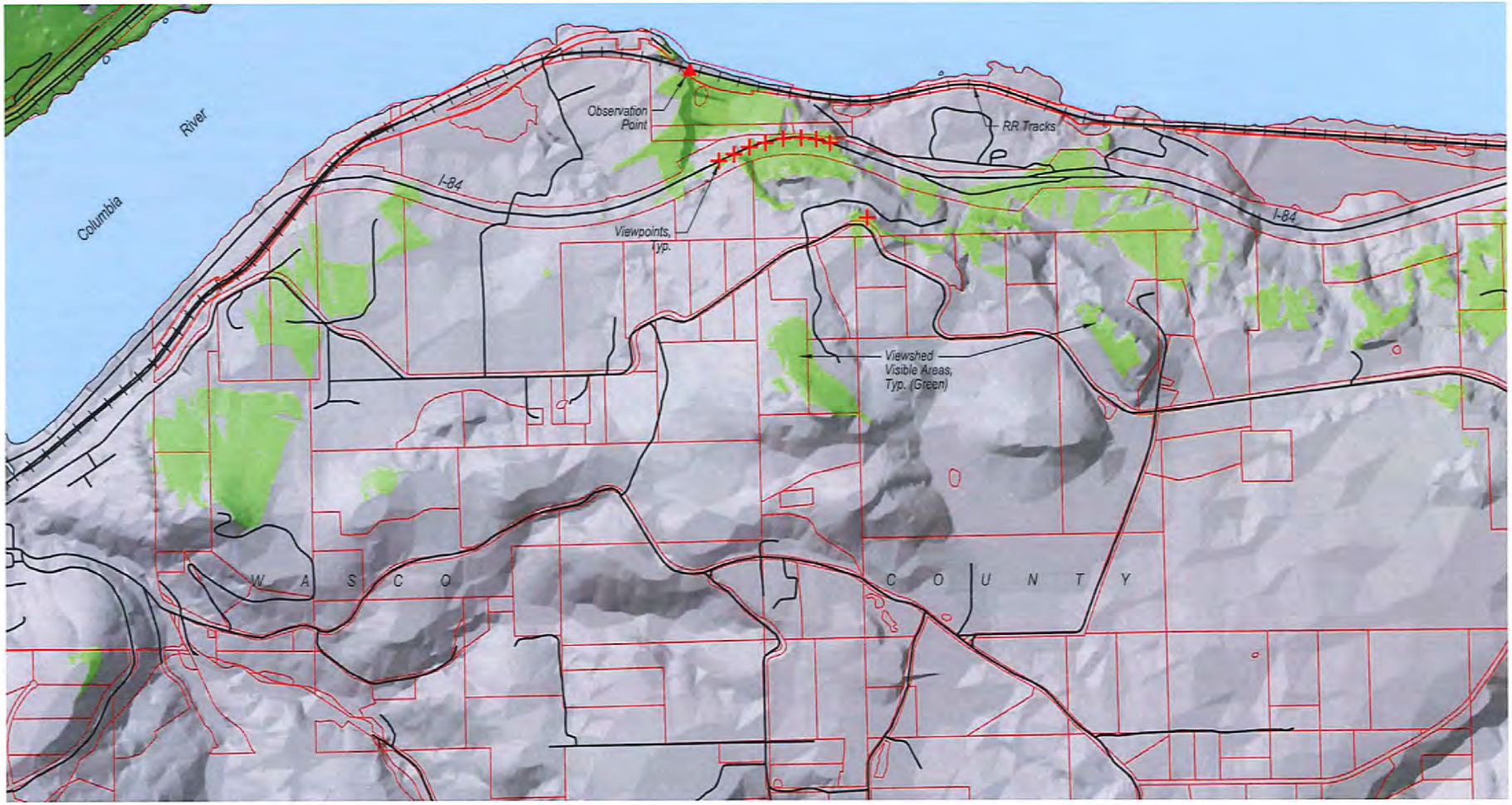
We recommend that Wasco County require UPRR to do additional analysis before this project is considered for approval. This additional analysis should include:

- A GIS based assessment of potential visibility of the project from KVAs within at least a 5 mile radius
- Additional field photos, including from the Columbia River and I-84 above the mesa
- More detailed identification of proposed staging areas regarding their impacts to the visual condition
- Visual simulations from KVAs with the most potential for visual impacts
    - Changes to contours and vegetation removal need to be modeled in these simulations, as well as new tracks and buildings
- Additional photos should be provided, especially from KVAs that have views of the mesa cut area
- Existing visually discordant elements of the railroad should be identified

Suggested Design & Mitigation Measures

If visual contrast of the project is determined to be outside the standards of the NSA, we recommend that the following design & mitigation measures be required:

- Existing white (painted) posts of rockfall fence are high contrast. Paint could be removed to reduce visual contrast.
- Overhead wires along segment 1 could be placed underground
- Screening vegetation could be planted between I-84 and RR along segment 1.
- Rock cut at mesa will likely be highly visible from I-84 & River. High contrast is probable if not treated to darken exposed rock face.
- A performance guarantee for replanted vegetation, with a realistic time frame for growth should be required.
- Mitigation measures should be sufficiently offsetting to result in no net impacts from the project.



VISUAL RESOURCE ANALYSIS

FRIENDS OF THE COLUMBIA GORGE

OREGON

Legend

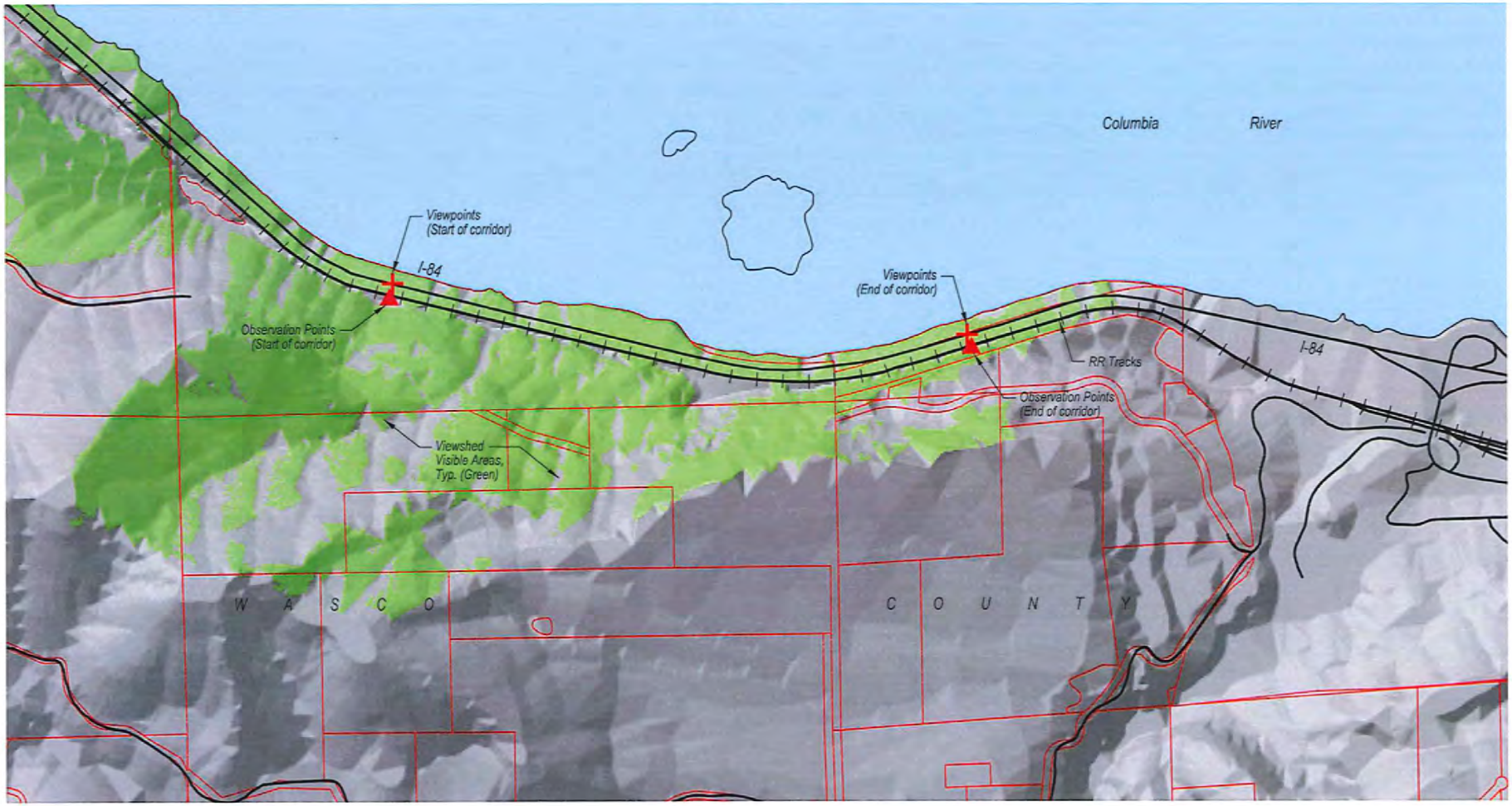
- Surface locations visible from viewpoints
- Hillshade
- Viewpoints
- Observation point (Focus of View)

N

May 24, 2016

WHPacific

PC 2 1-99



VISUAL RESOURCE ANALYSIS

FRIENDS OF THE COLUMBIA GORGE

OREGON

Legend

- Surface locations visible from viewpoints
- Hillshade
- Viewpoints
- Observation points (Beginning & end of viewing corridor)

N

SCALE

05/12/16

WHPacific

PC 2 1-101

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

PLASAR-15-01-0004 - Response to UPRR Rebuttal

1 message

Steve McCoy <steve@gorgefriends.org> Thu, Sep 8, 2016 at 4:31 PM
To: "angieb@co.wasco.or.us" <angieb@co.wasco.or.us>

Please accept the attached document into the record for the above-mentioned scenic area development application and, due to UPRR's improper offering of new evidence during rebuttal, immediately distribute it to the Planning Commission. We will be offering additional testimony responding to the staff report and the September 6, 2016 Wasco County Planning Commission hearing by September 13.

Thank you,

Steve

Steven D. McCoy

Staff Attorney

Friends of the Columbia Gorge

522 SW Fifth Ave., Suite 720

Portland, OR 97204

(C) 503-319-2547

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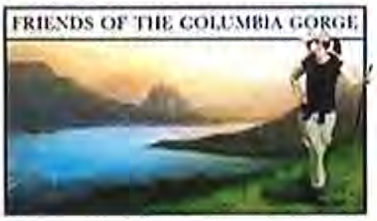

UPRR PLASAR-15-01-0004 Response to Rebuttal + Enc (W).pdf
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FRIENDS OF THE COLUMBIA GORGE

VIA EMAIL

September 9, 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:

Despite being directed not to introduce new evidence during rebuttal at the Wasco County Planning Commission hearing on September 6, 2016, Union Pacific unlawfully[1] introduced significant new evidence. While we are not asking to have the improperly offered evidence stricken from the record at this time, this letter responds to some of that evidence. To counter the improperly offered evidence, we ask that you distribute this to the Planning Commission immediately.

During rebuttal, Mr. Lujan made the most significant statement of the evening. After talking for several minutes about how important safety is to the railroad, he said that UPRR would have the lag bolts that failed in Mosier fixed throughout the Gorge by October 15. This is a stunning admission. Trains began running through Mosier again on June 5 and UPRR announced it would resume running oil trains during the week of June 20. On June 23, the Federal Railroad Administration issued its preliminary report citing the lag bolts as the cause of the accident and UP acknowledged that the incident was its fault for using the lag bolts. Twenty to thirty trains per day – some of them carrying dangerous commodities include explosive crude oil – are running through the Gorge on tracks that UP acknowledges will not be properly secured until October 15. Assuming only 20 trains a day ran through Wasco County since the cause of the accident became public on June 23, 1,540 trains have run on the unsafe tracks. UP is clearly willing to roll the dice – Wasco County gets the risk and UP gets paid. This exemplifies UP's commitment to profits over safety. [2]

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[1] NSA-LUDO § 2.180(b)(6)(B)(5) reads, in part, "The scope and extent of rebuttal shall be limited to issues raised during testimony and shall not be used to introduce new evidence."

[2] "No railroad in the country has paid more in penalties in the last two years than Union Pacific, which federal regulators fined more than $7 million in 2014-2015. And state inspections conducted just a day before the [Mosier]

During rebuttal, UPRR also talked about its common carrier responsibilities – it has to ship whatever its customers bring it, even crude oil. However, UPRR actively promotes its business shipping crude oil (see attachments) touting its "Crude by Rail Team" and extolling the "Advantages of Union Pacific" for shipping crude by rail. UPRR is actively working to create and serve a crude by rail market. UPRR's common carrier responsibility is merely a fig leaf it uses in an attempt to cover its commitment to oil by rail.

During rebuttal, UPRR also talked about its importance to Eastern Oregon farmers for grain shipments. The railroad is not the low cost shipper of grain from Eastern Oregon so it is very lightly used for these purposes. Barging grain from the Port of Morrow is 20 cents a bushel cheaper than shipping by rail and there is plenty of excess barge capacity.[3] The claim that rail expansion is necessary to serve Oregon wheat farmers simply does not stand up to scrutiny.

Finally, during rebuttal UPRR responded to the independent expert rail traffic study. After its operations expert refused to commit to a range of increased capacity that the proposed double tracking would facilitate, PR staff leapt to the podium and placed the range at 5-7 trains per day. According to the American Association of Railroads, an industry group of which UPRR is a member, that minor increase in traffic could likely be accommodated today and traffic through the Gorge is expected to increase by 100-2500% through the Gorge by 2035.[4] Clearly, UPRR is looking to move a lot more trains through Wasco County.

Thank you for the opportunity to respond to new evidence improperly offered by UPRR at rebuttal. We will be offering additional testimony responding to the staff report and the September 6, 2016 Wasco County Planning Commission hearing by September 13.

Sincerely,

Steven D. McCoy
Staff Attorney
Friends of the Columbia Gorge

Lauren Goldberg
Staff Attorney
Columbia Riverkeeper

ENC: KOIN-Mosier evacuations lifted, Union Pacific resumes service
Oregonian-Union Pacific resumes oil trains through Mosier
Oregonian-Day before Mosier, inspection found 'very serious' problems with UP
UP-Crude By Rail Brochure
UP-Crude By Rail Solicitation-Website1
UP-Crude By Rail Solicitation-Website2
Morrow County Grain Growers Connect Oregon Application

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derailment found repeat safety violations that Oregon's top rail official said were 'absolutely' concerning," Day before Mosier, inspection found 'very serious' problems with Union Pacific, The Oregonian, June 10, 2016.

[3] "Freight per bushel from Boardman to the lower Columbia River export facilities is 30 cents by barge, 50 cents by rail, and 75 cents by truck." Morrow County Grain Growers Connect Oregon Application at 10. "The existing facility is extremely underutilized. It is capable of handling considerably more product that it currently handles." *Id.* at 42.

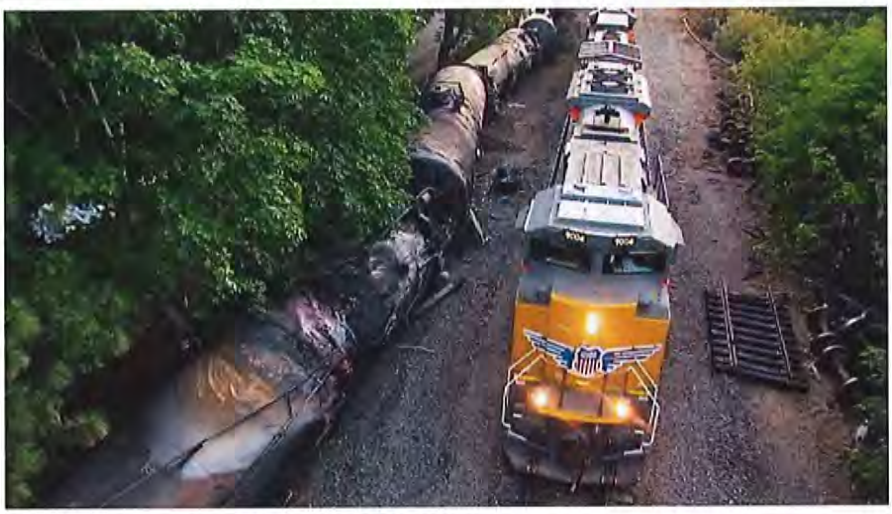
[4] See Figure 5.3 and Table 4.2 of the National Rail Freight Infrastructure Capacity and Investment Study that is already in the record.

KOIN 6
Watching out for you

Mosier evacuations lifted, Union Pacific resumes service

Trains operating on tracks feet from derailed cars filled with oil

Eileen Park, Jennifer Dowling and and KOIN 6 News Staff
Published: June 5, 2016, 12:58 pm | Updated: June 5, 2016, 11:24 pm



Trains run just feet from the oil cleanup site in Mosier, June 5, 2016. (KOIN)

MOSIER, Ore. (KOIN) — Cheers erupted at a community meeting Sunday night when Mosier residents learned they could return to their homes following a 16-car oil train derailment that rocked the small town (http://koin.com/2016/06/03/reports-train-derailment-in-the-gorge/) days earlier.

Unfortunately, the celebrations were short-lived. Locals soon learned Union Pacific planned to resume service in the area immediately, bringing more trains through the very spot where damaged rail cars filled with oil still sit.

Mayor Emily Reed called on Governor Kate Brown to require Union Pacific to remove all oil from the derailed cars before restarting service on the tracks. She also asked for the investigation to be completed before resuming service.

"The City of Mosier strongly objects to Union Pacific's plans to restart running trains, including oil trains, as early as tonight through the derailment site where damaged oil tankers continue to sit feet from newly laid railroad track," Reed said in a press release.

Union Pacific spokeswoman Raquel Espinoza said the cars filled with oil have been moved off to the side of the tracks. As a precaution, she said, operating trains will only pass through the area at speeds of 10 mph.

"[The oil-filled cars] are only a few feet away, however, they are not posing an issue," Espinoza said. "There are a lot of companies that are counting on us."

(https://lintvkoin.files.wordpress.com/2016/06/derailment.jpg)

Friday's incident was reportedly caused by some kind of track failure (http://koin.com/ap/the-latest-track-failure-likely-cause-of-train-derailment/), Espinoza said.

Trains run just feet from the oil cleanup site in Mosier, June 5, 2016. (KOIN)

The derailment sparked a fire that led to mandatory evacuations and damaged essential city services. Evacuation orders remained in effect throughout Sunday as officials monitored Mosier's waste water treatment plant and sewer system, which have not been operational since the derailment.

ODOT officials said they believe the weight of the crash impacted underground pipes. About 200 people from 20 different agencies investigated and helped clean up.

Eileen Park
@EileenParkTV
Follow

Exit off I-84 entering Mosier, closed off. Locals trying to pick up clothes after being evac'd. #oilttrainderailment
9:29 AM - 5 Jun 2016
4 1

Cameras inside and outside the train are being checked to help with the investigation Espinoza doesn't "know if that (video) will ever be released to the public."

She also said there is no timeframe for when cleanup efforts will be completed.

Mosier residents who have questions can call Union Pacific at 877.877.2567.

Oil train derailment in Mosier, June 3, 2016

View as list Open Gallery

1 of 26

A train derailed in Mosier along I-84 in the Columbia River Gorge, June 3, 2016 (Courtesy: Silas Bleakley)

More ▼

"We apologize to the residents of Mosier, the state of Oregon and the Pacific Northwest," Espinoza said Saturday. "This is the type of accident we work to prevent every day. We do everything that we can to move all hazardous materials safely."

Spokesman Justin Jacobs said Saturday the track about 70 miles east of Portland were inspected at least 6 times since March 21. It was most recently checked last Tuesday, and within the past month, the company had used a detector car to check for imperfections as well as a geometry car to inspect the ground along the track.

Jacobs said the inspections met or exceeded federal requirements.

The Associated Press contributed to this report.

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CXZuCXZkZ3Zfa29pbi5jb21fMjAxNjA5MDgjZQljawlhCTUyNwlvCQ&fwd=http%3A%2F%2Fdistroscale.com)

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Opponents of Gorge railroad expansion rally in Dalles (http://koin.com/2016/09/06/mosier-community-to-rally-against-rail-expansion/)

Trains roll through Mosier, school cancelled (http://koin.com/2016/06/06/trains-roll-through-mosier-school-cancelled/)

/trains-

/listen-

Listen: Oil train derailment 911 calls (http://koin.com/2016/06/08/listen-oil-train-derailment-911-calls/)

Comments are closed.

KOIN 6 (http://koin.com/)

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Union Pacific to resume sending oil trains through Columbia River Gorge

By Talia Richman | The Oregonian/OregonLive
Email the author | Follow on Twitter
on June 22, 2016 at 5:44 PM, updated June 22, 2016 at 6:12 PM

This post has been updated:

State leaders reacted with grave concern Wednesday after Union Pacific announced plans to resume transporting crude oil through the Columbia River Gorge despite calls for a pause on oil trains in Oregon.

The **railroad temporarily stopped** sending oil trains through the Gorge after 16 cars on a 96-car train **derailed in Mosier** on June 3. Four cars caught fire and leaked 42,000 gallons of oil in a crash that forced hundreds of people to evacuate and closed Interstate 84.

Wes Lujan, Union Pacific's vice president of public affairs, said in an email to officials that normal operations would "resume over the course of this week. This includes transporting crude oil." He cited a federal provision that "requires railroads to transport crude oil and other hazardous materials."

"If a customer delivers a crude oil tank car in conformity with U.S. Department of Transportation requirements," he wrote, "we are obligated to transport the rail car to its destination."

But Gov. Kate Brown, along with members of the state's congressional delegation, said Union Pacific's decision to restart oil trains so soon after the derailment will put people at risk.

"As I said last week and again as oil begins to roll through our Gorge, I call on federal authorities to ban the transport of oil by rail until safety can be greatly improved and our first responders have the tools they need," Brown said in a statement.

Last week, Oregon transportation officials asked for an **indefinite moratorium** on oil trains moving through the state after preliminary findings from the June 3 derailment showed inspectors might not be able to prevent a problem with track bolts that likely led to the crash.

In a June 8 letter to the Federal Railroad Administration, an Oregon Department of Transportation official said recent inspections failed to find broken screws along the track in Mosier.

"Until the underlying cause of the bolt failures is understood and a means of detecting this defect is developed," wrote Hal Gard, the state's rail and public transit administrator, "we request a moratorium on running unit trains over sections of track that contain track fasteners of this material in the state of Oregon."

U.S. Sens. Ron Wyden and Jeff Merkley joined Brown in criticizing Union Pacific's decision Wednesday.

In a joint letter to the Federal Railroad Administration, they asked for a ban on oil trains through the Gorge until the federal agency has assembled a final investigative report on the Mosier derailment and has "ensured all steps have been taken to prevent similar accidents."

If oil trains do resume through the Gorge, the senators wrote, then speed limits should be put in place.

The Federal Railroad Administration has been in "close and regular contact" with state leaders, an agency spokesman said, and their investigation is ongoing.

"If FRA finds that railroads need to make operational changes, we will direct them to do so," spokesman Marc Willis said in a statement.

As The Oregonian/OregonLive has reported, oil traffic in Oregon peaked in 2014, when 24,199 tank cars moved through the state. The state saw a 60 percent decrease last year after oil prices fell. As of last November, Union Pacific was running three oil trains a month past Mosier.

But that could change. Plans for an oil train terminal Vancouver, Washington — billed as the nation's largest at 360,000 barrels a day — would bring an additional four trains daily through the Gorge.

Those trains would pass many small towns, like Mosier, poorly equipped to deal with fiery derailments. In Mosier, Wyden and Merkley noted in their letter, the water needed to fight the fire depleted the city's main well.

The senators also emphasized that trains moving through Gorge require additional safety measures given the region's "unique environmental, economic, cultural and tribal importance."

The Gorge is a designated National Scenic Area, and the site of a slew of outdoor tourism activities, while the Columbia River is home to endangered species and encompasses the Columbia River Treaty Tribes' fishing ground.

Justin Jacobs, a Union Pacific spokesman, said the railroad will inspect tracks more frequently in the wake of the Mosier derailment. Workers will carry out monthly "walking inspections" of areas in the Gorge similar to where the derailment took place.

And inspections in which track workers drive specially outfitted trucks on the rails will now happen three times a week instead of two.

Jacobs said inspectors will also step up inspections for bolt failures, using a special machine that replicates the pressure a locomotive applies to tracks four times a year instead of once every 18 months.

"If we didn't think it was safe to do this, we wouldn't do it," he said. "At end of day, we have tens of thousands of customers that rely on us to move goods and services that people use everyday."

More than a dozen explosions have been recorded in North America since oil traffic picked up nationally in 2012.

Brett VandenHeuvel, executive director of Columbia Riverkeeper, called oil trains "an experiment the railroads tried, and it failed."

"Starting oil trains up again is reckless," he said. "I'm deeply disappointed Union Pacific is putting our safety at risk here in the Gorge, in Portland and all along the rail lines."

– Talia Richman

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Day before Mosier, inspection found 'very serious' problems with Union Pacific

By Rob Davis | The Oregonian/OregonLive
Email the author | Follow on Twitter
on June 10, 2016 at 9:20 PM, updated August 05, 2016 at 3:44 PM

After Union Pacific's fiery oil train derailment in Mosier last week, the railroad company repeatedly emphasized its record and commitment to safety. But federal records and newly released inspections from the Oregon Department of Transportation raise serious questions about the company's claims.

No railroad in the country has paid more in penalties in the last two years than Union Pacific, which federal regulators fined more than $7 million in 2014-2015. And state inspections conducted just a day before the derailment found repeat safety violations that Oregon's top rail official said were "absolutely" concerning.

The inspections obtained Friday by The Oregonian/OregonLive show Union Pacific conductors left their locomotives unattended without brakes set at least 11 times in April, May and June at two yards in Portland.

Though Union Pacific management was notified about each violation, the problem persists, the records showed.

The lapses could have allowed a runaway train, a safety expert said.

It's the train equivalent of leaving your car sitting in neutral instead of putting it in park with the emergency brake on, said Michael Eyer, a retired state rail safety inspector.

On flat ground, that's fine, Eyer said. But even the slightest grade can lead to a runaway train – a particular concern for oil trains. A runaway train hauling oil crashed and derailed in Lac Megantic, Quebec, in July 2013, killing 47 people and destroying part of the small town.

"If we're on an incline, which most track has, it can be imperceptible that you have movement," Eyer said. "They can start rolling. It's very serious. You just can't do that."

The problems discovered in the state inspections don't appear related to the cause of the June 3 oil train accident in Mosier. Union Pacific has said a preliminary investigation found the derailment was caused by a track defect – a fastener that held a railroad tie to the rail.

Hal Gard, the Oregon Department of Transportation's rail administrator, said the state targeted Union Pacific's yards because "there had been a history of violations that we thought were concerning" in Oregon.

OIL TRAINS

Washington requires railroads to prove they can respond to oil spills

Washington state to get notification of oil train shipments

Oil-train car upgrades being left to industry is problematic, NTSB chief says

Battle over Vancouver oil terminal set to unfold before state panel

Kate Brown renews call for oil train moratorium

All Stories

He said inspectors repeatedly visited the yards – under the Fremont Bridge along the Willamette River and near the St. Johns Bridge – to send a message.

"That was intensive and intentional to get attention and make a point that something's going on here and the program needs to be tightened up," Gard said.

At least two of the locomotives were connected to other cars when engineers left them. The inspections don't specify what the cargo was.

Inspectors also found cars unattended without brakes on three times in Portland, The Dalles and Springfield. The violation in The Dalles, in April, noted 30 cars without the brakes properly engaged.

Reached late Friday, Justin Jacobs, a Union Pacific spokesman, said he was unfamiliar with the inspection results.

"Our safety record is very good and we stand by it," Jacobs said. "We take that obligation very seriously and we commit that to our customers and the communities in which we serve."

The state's rail inspection program, expanded in 2014 by former Gov. John Kitzhaber after the increase in oil train traffic statewide, found other recurring problems with Union Pacific's operations throughout Oregon. The company moved 6,937 tank carloads of oil along the Columbia River and through the Interstate 5 corridor last year.

At least four times since September 2015, inspectors have found Union Pacific's switches unlocked – in Nyssa, The Dalles and Portland. That would allow a person walking past to simply pull a lever to route a train onto a side track, Eyer said.

"Someone could throw a switch and derail the whole train. That is a very serious issue," Eyer said. "A train coming along would find itself at 40 mph suddenly running out of track or running into a parked train."

Though the Oregon Department of Transportation conducted the inspections, the agency doesn't levy fines. The violations are sent to the Federal Railroad Agency for enforcement. That is the agency that penalized Union Pacific $7 million in the last two years for safety violations nationwide.

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July 2014

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Overview

Union Pacific can coordinate the shipment of crude oil, condensate and NGLs through the distribution channel in a safe, efficient and cost-effective manner. Our services include the following:

- Assistance with origin and destination site selection and rail design for new production facilities
- Assistance in establishing unloading terminals in major consumption markets
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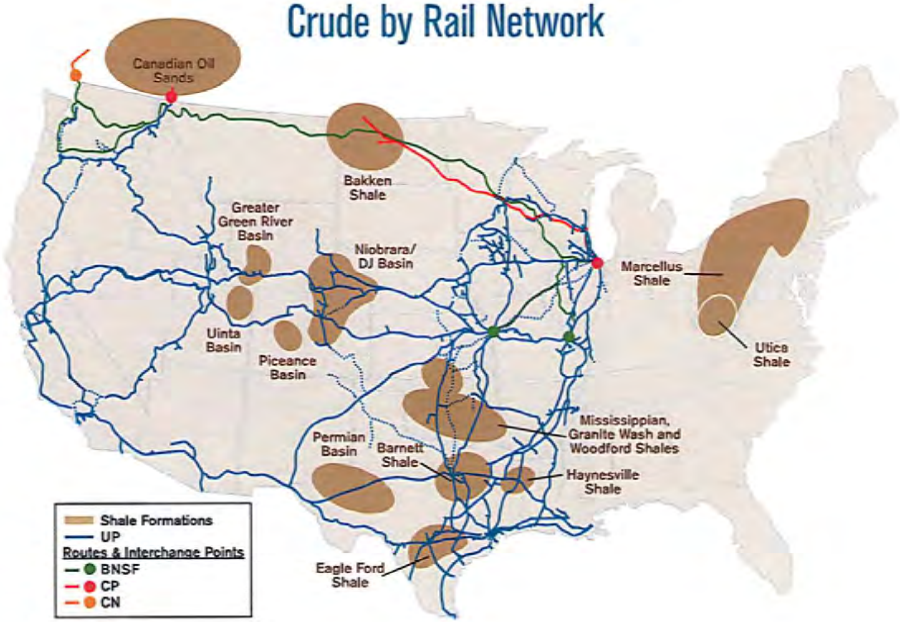
- On-site safety consultations
- Connections to every North American rail carrier
- Web-based tools to support logistics and fleet management
- Rail access process - secure necessary approvals for new service

Advantages of Union Pacific

- Dedicated logistics experts in the crude oil, condensate and NGL markets
- Serves strategic shale origin and destination terminals within North America
- Provides access to a network of markets to achieve the best price for the product
- Faster, more cost-competitive option versus pipeline
- Customized services to address existing and emerging shale markets
- Environmentally-friendly transportation mode
- Lower-entry cost option with minimal capital investment versus pipeline
- Product quality is maintained (non-contaminated)

Crude by Rail Network



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A single rail tank car will hold approximately 550-725 barrels of crude oil, condensate or NGLs. To select the right rail car and proper fleet sizing, consider the following:

- What is the density, viscosity and API specific gravity of the commodity being hauled?
- Does the commodity require the use of heating coils or insulation?
- Does the commodity require a lining?
- How and where will the car be loaded and unloaded?
- What is the capacity of the loading and unloading facilities to hold and transfer the commodity?
- What is the overall duration of the load/empty cycle?

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For additional information about transporting crude, please email the Crude by Rail Team [http://www.uprr.com/up/messages?address=crudeoil&name=Crude%20Oil%20Team

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Crude by Rail Overview

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- Faster, more cost-competitive option versus pipeline
- Customized services to address existing and emerging shale markets
- Environmentally friendly transportation mode
- Low-entry cost option with minimal capital investment versus pipeline
- Maintained/non-contaminated Product quality

Getting Started

- All new facilities must obtain approval through Union Pacific's Rail Access Process prior to construction
- Tank cars must be privately owned or leased for movement of crude oil, condensate and NGLs
- Buffer cars for crude, condensate and NGL unit trains must be furnished by the customer
- All unit trains must be pre-approved by Union Pacific, forecasted in Union Pacific's system and follow all tariff rules and guidelines

For additional information and pricing about our Crude by Rail service, please contact a member of our Crude by Rail Team.

May 31, 2016

*Connect*Oregon VI
Application Review Package

The following documents are contained (or will be added as received) in this application package:

1. Region Review Committee Project Report
2. Region Review Matrix
3. Region Review Committee questions to Applicants and responses received.
4. Modal Project Report
5. Modal Review Matrix
6. Modal Review Committee questions to Applicants and responses received.
7. Regional Solutions Team Report
8. Public Comment Received (11-23-15 to present)
9. Scoring Summary and Tier rating
10. Statutory Review Evaluation
11. Economic Benefits Evaluation
12. Applicant responses to *Connect*Oregon VI Staff questions (11-23-15 to 01-28-2016)
13. *Connect*Oregon VI Staff questions to the Applicant (11-23-15 to 01-28-2016)
14. Eligibility/Feasibility Review
15. Project Application (including maps, drawings, other supporting materials and letters of support).

CO VI Reviewer Instructions are posted online at:
http://www.oregon.gov/ODOT/TD/TP/CO/COVI-ReviewerInstructions.pdf

Region Review Committee Report

Tier (1-4): 1	Assigned Priority
Project: Boardman Grain Elevator Unit Train Unloading Project	**#9**
Requested Funds: $2,500,000	
Total Project Cost: $6,500,000	
Region: 5	
Report Date: 05/18/2016	

Project Description:

We are proposing to expand the existing truck to barge grain handling facility so it will have the capability to unload unit trains of grain coming to markets in the Pacific Northwest from the Mid-west region or the country. The expanded facility would then be able to reload this grain to barge for export or to supply the increasing demand from local dairies and feedlots with grain for feed.

Review Comments:

- This project uses up a lot of the Region's funding allocation for COVI.
- Project has the potential to bring more corn to the area for diary and biodiesel expansion
- Project is scalable
- Project supports the barge companies that take advantage of the unit train rates.
- Questionable as to whether is supports the existing transportation system and meets and supports local regional needs.
- The job savings of 75 jobs appears to more outside of Region 5.
- Small job creation; 8 family wage jobs with potential of 24; limited benefit
- Project has a broad statewide significance within the state
- Impacts and benefits are limited in Region 5 considering the large funding request
- Region 5 is using its COVI allocation to fund the whole project. Region 1 should pay a portion considering the project has more impacts and benefits to its region COVI project #1R0413.
    - As stated in the Rail Mode notes
        - "Improves the intermodal connection and leverages at N. Portland Junction project improvements
        - Addresses a freight bottleneck at Portland grain terminals
        - This project impacts multiple regions and is of statewide significance"

1

ConnectOregon VI Application Log - Region 5

MODE	MODE-FULL	APP. #	APPLICANT	PROJECT NAME	Total Project Cost	CO GRANT Funds Requested	Project Match Total	Statutory & Economic Review Total	Tier	Region Ranking
A	Aviation	5A0412	City of Baker City	Airport Apron Reconstruction and Fuel Storage Expansion	$ 1,911,990.00	$ 416,199.00	$ 1,495,791.00	77		1
A	Aviation	5A0377	Union County	La Grande/Union County Airport Rappel Base Building	$ 3,430,055.00	$ 1,000,000.00	$ 2,430,055.00	81		2
A	Aviation	5A0358	City of Burns, Oregon	Runway 3/21 Concrete Joint Repair Project	$ 750,000.00	$ 75,000.00	$ 675,000.00	68	2	3
R	Rail	5R0396	Wallowa Union Railroad Authority	Elgin Complex Rail Spur Repair	$ 500,000.00	$ 350,000.00	$ 150,000.00	53	2	4
R	Rail	5R0379	Wyoming Colorado Railroad, Inc.	Bridge Program #1	$ 173,550.00	$ 119,749.00	$ 53,801.00	53	2	5
A	Aviation	5A0370	City of Vale	Miller Memorial Airpark Phase II	$ 400,000.00	$ 280,000.00	$ 120,000.00	51	2	6
A	Aviation	5A0357	City of Burns, Oregon	Burns Airport Master Plan	$ 335,000.00	$ 33,500.00	$ 301,500.00	55	2	7
B	Bike/Ped	5B0367	City of Island City, Oregon	Grande Ronde River Greenway-Phase II	$ 1,586,133.00	$ 1,110,133.00	$ 476,000.00	63	2	8
R	Rail	5R0385	Morrow County Grain Growers, Inc	Boardman Grain Elevator Unit Train Unloading Project	$ 6,500,000.00	$ 2,500,000.00	$ 4,000,000.00	88		9
A	Aviation	5A0400	City of Pendleton	Pendleton Unmanned Aerial Systems Range (PUR)	$ 1,995,000.00	$ 1,396,500.00	$ 598,500.00	75		10
B	Bike/Ped	5B0389	Eastern Oregon University (EOU)	La Grande/EOU Grand Staircase Pedestrian Link	$ 3,177,000.00	$ 2,223,000.00	$ 954,000.00	72		11
B	Bike/Ped	5B0369	City of Stanfield	Stanfield Multi-Use Pathways	$ 195,500.00	$ 136,850.00	$ 58,650.00	50	3	12
B	Bike/Ped	5B0408	City of Hermiston	Hermiston Multimodal Loop Trail	$ 308,000.00	$ 215,600.00	$ 92,400.00	58	2	13

Mode Review Committee Report

Tier (1-4): **1**	**Assigned Priority**
Project: 5R0385 – Boardman Grain Elevator Unit Train Unloading Project	**2**
Requested Funds: $2,500,000	
Region: 5	
Report Date:	
Jobs Created: 22	
Projected Start Date: 02/2016	
Projected Completion Date: 08/2017	

Project Description: We are proposing to expand the existing truck to barge grain handling facility so it will have the capability to unload unit trains of grain coming to markets in the Pacific Northwest from the Mid-west region or the country. The expanded facility would then be able to reload this grain to barge for export or to supply the increasing demand from local dairies and feedlots with grain for feed.

Review Comments:

Improves intermodal connections and leverages North Portland Junction project improvements. Addresses a freight bottleneck at Portland grain terminals; this project impacts multiple regions and is of statewide significance.

ConnectOregon VI Application Log - Rail

Sequential By App #

MODE	APP. #	APPLICANT	PROJECT NAME	Total Project Cost	CO GRANT Funds Requested	Project Match Total	Statutory & Economic Review Total	Tier	Committee Rank	Notes
R	1R0381	Northwest Container Services	NWCS Container Lift Equipment	$ 1,961,280.00	$ 1,372,780.00	$ 588,500.00	48	3	11	Paying for equipment with a 20 year bond when equipment has a 10 year life span.
R	1R0413	Union Pacific Corporation & Subsidies	Portland Passenger-Freight Rail Speed Improvement Project	$ 12,964,124.00	$ 8,294,124.00	$ 4,670,000.00	82	1	1	Is a critical link in the statewide transportation system. Improves freight system, passenger rail service, regional rail service, and surface transportation by reducing crossing congestion.
R	2R0360	Marion Ag Service Inc.	Marion Ag Service Rail Spur	$ 1,089,700.66	$ 498,565.73	$ 591,134.93	84	1	8	Important link for the local community.
R	2R0373	Northwest Container Services	NWCS Rail Car Modification and Upgrade	$ 2,072,099.00	$ 1,450,449.00	$ 621,650.00	49	3	9	Supports shipping Oregon products to international buyers.
R	2R0419	City of Dallas	Dallas Industrial Area Rail Improvement Project	$ 1,066,400.00	$ 745,400.00	$ 321,000.00	30	4	14	Commend the City for bringing this project, but need to have a business commitment.
R	2R0420	Knife River Corporation - Northwest	Knife river Rock Train System Improvements	$ 1,591,500.00	$ 1,114,050.00	$ 477,450.00	53	2	10	Keeps trucks off road in heavily congested area.
R	3R0368	Rogue Valley Terminal Railroad Corporation	Western Emulsions/Boise Cascade 286k Track Upgrades	$ 170,000.00	$ 117,300.00	$ 52,700.00	77	1	6	Addresses key element of State Rail Plan, preservation of short line rail service. Has safety and economic benefits to local communities.
R	4R0401	Juhl Enterprises DBA J&P Wholesale	Rail Spur Expansion Project	$ 310,000.00	$ 210,000.00	$ 100,000.00	65	2	13	This would take traffic away from other existing businesses.
R	4R0417	Red Rock Biofuels LLC (RRB)	Rail Spur & Lake County RR Bridge Improvements	$ 4,757,513.00	$ 3,330,259.00	$ 1,427,254.00	80	1	12	Question project readiness and viability. Build the facility first and then add the rail component later.
R	4R0421	LRY, LLC	Lake Railway 5,000 ties to support growth	$ 500,000.00	$ 325,000.00	$ 175,000.00	51	2	3	Addresses key element of State Rail Plan, preservation of short line rail service. Has safety and economic benefits to local communities.
R	4R0424	BNSF Railway	Bieber Junction Rail Improvements	$ 6,979,160.00	$ 4,879,160.00	$ 2,100,000.00	54	2	7	Is a critical link in the statewide transportation system. Improves freight system, passenger rail service, regional rail service, and surface transportation by reducing crossing congestion. Committee had concerns about the amount of contingency budgeted. Would have liked to have seen design further along.
R	5R0379	Wyoming Colorado Railroad, Inc.	Bridge Program #1	$ 173,550.00	$ 119,749.00	$ 53,801.00	53	2	4	Addresses key element of State Rail Plan, preservation of short line rail service. Has safety and economic benefits to local communities.
R	5R0385	Morrow County Grain Growers, Inc	Boardman Grain Elevator Unit Train Unloading Project	$ 6,500,000.00	$ 2,500,000.00	$ 4,000,000.00	88	1	2	Improves intermodal connections and leverages North Portland Junction project improvements. Addresses a freight bottleneck at Portland grain terminals; this project impacts multiple regions and is of statewide significance.
R	5R0396	Wallowa Union Railroad Authority	Elgin Complex Rail Spur Repair	$ 500,000.00	$ 350,000.00	$ 150,000.00	53	2	5	Addresses key element of State Rail Plan, preservation of short line rail service. Has safety and economic benefits to local communities.

Mode Review Committee Report

Tier (1-4): 1	Assigned Priority
Project: 5R0385 – Boardman Grain Elevator Unit Train Unloading Project	**#7**
Requested Funds: $2,500,000	
Region: 5	
Report Date: 3/16/2016	
Jobs Created: 22	
Projected Start Date: 12/2016	
Projected Completion Date: 8/2017	

Project Description: We are proposing to expand the existing truck to barge grain handling facility so it will have the capability to unload unit trains of grain coming to markets in the Pacific Northwest from the Mid-west region or the country. The expanded facility would then be able to reload this grain to barge for export or to supply the increasing demand from local dairies and feedlots with grain for feed.

Review Comments:

This project may result in improved local system efficiency and has potential to increase freight movements. There is also potential for statewide freight system efficiency improvements if product demand supports the need.

CONNECT OREGON VI APPLICATION LOG – OREGON FREIGHT ADVISORY COMMITTEE

MODE-FULL	REG	County	APP. #	APPLICANT	PROJECT NAME	Total Project Cost	CO GRANT Funds Requested	Project Match Total	30% Required Match	Summary	Total	Tier	Final OFAC Ranking
Rail	2	Marion	2R0360	Marion Ag Service Inc.	Marion Ag Service Rail Spur	$1,089,701	$498,566	$591,135	$326,910	Marion Ag Service, Inc. (MAS) is requesting *Connect* Oregon funds to build 5,400' rail spur, consisting of 3 tracks, to serve a new state-of-the-art 28,000 ton bulk fertilizer storage and blending facility. The new facility adds needed rail and storage capacity, adds 22 new jobs, takes trucks off highways, and lowers cost for Oregon businesses.	84	1	1
Marine	1	Multnomah	1M0407	Port of Portland	Terminal 6 Auto Staging Facility	$6,740,256	$2,628,700	$4,111,556	$2,022,077	The project will construct a 19-acre auto staging facility across the street from the Terminal 6 entrance in the Port of Portland's Rivergate Industrial District. The new staging facility will improve logistical efficiency and increase the capacity to export vehicles from the Port's Berth 601 auto import/export facility. The Port expects to lease the facility to Auto Warehousing Co. (AWC).	81	1	2
Aviation	3	Jackson	3A0376	Jackson County/Rogue Valley Intl-Medford	Rehabilitation of Taxiway A - South	$7,146,666	$446,666	$6,700,000	$2,144,000	Rehabilitation of Taxiway A, connector taxiway geometry reconfiguration, and RSA grading. If awarded, the *Connect* Oregon VI grant will be used as the 6.25 match requirement for FAA AIP entitlement and discretionary grants for the project.	78	1	3
Marine	2	Columbia	2M0366	Teevin Bros Land & Timber Co	Mooring Points RM 66.5	$1,125,000	$750,000	$375,000	$337,500	Construct seven mooring dolphins and erect two single pile structures at River Mile 66.5 to provide mooring opportunities for tugs, barges and shallow draft vessels midway between Portland and Astoria.	72	1	4
Rail	3	Jackson	3R0368	Rogue Valley Terminal Railroad Corporation	Western Emulsions/Boise Cascade 286k Track Upgrades	$170,000	$117,300	$52,700	$51,000	Upgrade three (3) track switches, 1,000' of rail and replace 150 wood ties to accommodate heavier, more efficient 286,000-pound rail cars.	77	1	5
Rail	1	Multnomah	1R0413	Union Pacific Corporation & Subsidies	Portland Passenger-Freight Rail Speed Improvement Project	$12,964,124	$8,294,124	$4,670,000	$3,889,237	This project will reduce passenger and freight rail wait times by up to 21 minutes per train with the completion of track, signal, and elevation improvements at a critical BNSF/UP junction in the Portland rail network. An existing 10mph speed restriction will be eliminated resulting in reduced train delay for the 35 daily Amtrak, UPRR, and BNSF trains using the junction.	82	1	6
Rail	5	Morrow	5R0385	Morrow County Grain Growers, Inc	Boardman Grain Elevator Unit Train Unloading Project	$6,500,000	$2,500,000	$4,000,000	$1,950,000	We are proposing to expand the existing truck to barge grain handling facility so it will have the capability to unload unit trains of grain coming to markets in the Pacific Northwest from the Mid-west region or the country. The expanded facility would then be able to reload this grain to barge for export or to supply the increasing demand from local dairies and feedlots with grain for feed.	88	1	7
Marine	3	Coos	3M0404	Sause Bros.	Drydock	$4,744,000	$993,450	$3,750,550	$1,423,200	The project will add a new drydock, which will give much needed capacity for drydocking vessels of all types on the Oregon coast. The new dock will have 2500 ton lift capacity and ship transfer system which will serve the marine, highway and rail industries by servicing government vessels, renewable energy devices and commercial equipment.	74	1	8
Marine	3	Douglas	3M0399	Fred Wahl Marine Construction Inc	FWMC Bolon Island Expansion	$8,757,766	$3,401,250	$5,356,516	$2,627,330	Fred Wahl Marine Construction (FWMC) is expanding to develop a year- round full-service shipyard. The project consists of dock, rail, and site improvement, construction, wash station, marine repair and construction building, and purchase of a travel lift with haul-out slip and piers. Marine transportation will be enhanced, a rail link created, and a barrier to marine and highway traffic minimized.	75	1	9

CONNECT OREGON VI APPLICATIONS – OREGON FREIGHT ADVISORY COMMITTEE

MODE-FULL	REG	County	APP. #	APPLICANT	PROJECT NAME	Total Project Cost	CO GRANT Funds Requested	Project Match Total	30% Required Match	Summary	Total	Tier	Final OFAC Ranking
Rail	2	Marion	2R0420	Knife River Corporation - Northwest	Knife river Rock Train System Improvements	$1,591,500	$1,114,050	$477,450	$477,450	Knife River is proposing to utilize *Connect* Oregon funds to invest in new aggregate handling infrastructure that will increase the capacity of the rock train operation, improve operational efficiency & utilization by eliminating bottlenecks within our system, improve safety for Knife River employees, and ensure continued operation for at least the next 20 years.	53	2	10
Rail	2	Lane	2R0373	Northwest Container Services	NWCS Rail Car Modification and Upgrade	$2,072,099	$1,450,449	$621,650	$621,630	This project involves cutting down 23 existing 5-well double stack rail cars with a current well length of 49 feet, to a well length of 40 feet. It includes making any necessary repairs to the cars while at the shop. This will improve the weight capacity of the rail cars allowing for double stacking of loaded containers up to 120,500 pounds instead of the current 115,300 pound weight limit.	49	3	11
Rail	4	Klamath	4R0401	Juhl Enterprises DBA J&P Wholesale	Rail Spur Expansion Project	$310,000	$210,000	$100,000	$93,000	Build 650 feet of spur line for reloading materials as well as extending existing spur 150 feet.	65	2	12
Aviation	5	Umatilla	5A0400	City of Pendleton	Pendleton Unmanned Aerial Systems Range (PUR)	$1,995,000	$1,396,500	$598,500	$598,500	The project will fund the acquisition and installation of a radar and related support infrastructure at Eastern Oregon Regional Airport (EORA). This investment will serve a wide variety of fixed wing and rotor aircraft activity (such as air taxi, air freight, corporate jets, military, medical, firefighting, Ag pilots, general aviation, predator control) as well as unmanned aircraft.	75	1	13
Aviation	2	Benton	2A0394	City of Corvallis	Rehabilitate Runway 9-27, Install Perimeter Fence	$6,422,222	$642,222	$5,780,000	$1,926,667	Corvallis Municipal Airport Runway 9-27 rehabilitation, drainage improvements, taxiway realignment, lighting and signage rehab and perimeter fencing. This will benefit all aircraft using the Corvallis Municipal Airport for the next 20+ years. This includes cargo aircraft and charter jets carrying local business and education passengers.	71		14
Rail	5	Union	5R0396	Wallowa Union Railroad Authority	Elgin Complex Rail Spur Repair	$500,000	$350,000	$150,000	$150,000	The main reason for this project is to replace the 85 lb. rail currently running from the rail spur to the Elgin complex mills with 136 lb. rail. The upgrade is required because the Elgin complex has been utilizing the bigger 286 rail cars to ship out plywood and lumber. Along with this the complex will replacing the damaged railroad ties and re-surfacing a half mile of lead track.	53	2	15
Marine	2	Lincoln	2M0427	Port of toledo	Boatyard Environmental Work Building	$2,877,000	$2,013,900	$863,100	$863,100	Port of Toledo's Environmental Work Building is the final phase of the Boatyard Expansion project currently in process. This phase constructs a large work building with environmental controls for vessel maintenance, sandblasting and painting. It increases regional capabilities by expanding Oregon's commercial fishing industries, grows maritime related businesses, and supports scientific research.	70	2	16
Marine	2	Lincoln	2M0361	Port of Newport	International Terminal Shipping Facility	$6,532,577	$4,000,000	$2,532,577	$1,959,773	Develop existing Port property to accommodate consolidation of different commodities for coast-wise and trans-Pacific shipment by removing prior deposited spoils, grading and preparing compacted rock base, install utilities, develop storm water management system, pave an all-weather surface, add security and lighting, and add infrastructure for future development.	65	2	17
Rail	4	Lake	4R0421	LRY, LLC	Lake Railway 5,000 ties to support growth	$500,000	$325,000	$175,000	$150,000	Lake Railway as the operator (under lease) of Lake County's railroad is requesting *Connect* Oregon VI fund the purchase and installation of 5,000 railroad ties. These ties will be installed throughout the County's 55-mile long railroad.	51	2	18

CONNECT OREGON VI APPLICATIONS TO OREGON FREIGHT ADVISORY COMMITTEE

MODE-FULL	REG	County	APP. #	APPLICANT	PROJECT NAME	Total Project Cost	CO GRANT Funds Requested	Project Match Total	30% Required Match	Summary	Total	Tier	Final OFAC Ranking
Rail	5	Malheur	5R0379	Wyoming Colorado Railroad, Inc.	Bridge Program #1	$173,550	$119,749	$53,801	$52,065	Oregon Eastern Railroad would like to remove 3 small bridges at MP 5.16, MP 5.27, and MP 7.66 and replace them with culverts and repair 2 other bridges MP 14.97 and MP 17.56. By replacing the 3 smaller bridges with culverts it will supply some of the materials needed to repair the other 2 larger bridges.	53	2	19
Rail	4	Lake	4R0417	Red Rock Biofuels LLC (RRB)	Rail Spur & Lake County RR Bridge Improvements	$4,757,513	$3,330,259	$1,427,254	$1,427,254	RRB proposes to (1) construct a rail spur at its biofuels facility and (2) improve Lake County Railroad bridges for safety & reliability. Working with Lake Railway, two large antiquated bridges will be upgraded to handle modern railcars weighing 286,000 lbs., including RRB cars carrying jet, diesel, & naphtha fuels(classified as HAZMAT). 13 smaller bridges will be repaired or converted to culverts.	80		20
Marine	2	Clatsop	2M0375	Port of Astoria	Pier 2 West Rehabilitation	$2,200,000	$1,540,000	$660,000	$660,000	Pier 2 Rehabilitation / Upgrade: 1. Replace 35,000 sf of unsafe degraded dock, posts, piles and replace with reinforced concrete and steel pan decking.	60	2	21
Rail	4	Klamath	4R0424	BNSF Railway	Bieber Junction Rail Improvements	$6,979,160	$4,879,160	$2,100,000	$2,093,748	Bieber Junction Rail Improvements would power switches at Bieber Junction and UP's Klamath Falls yard where BNSF Railway and Union Pacific Railroad (UP) connect to improve freight train velocity while minimizing community impacts. The proposed project would automate switches that now have to be manually aligned by an operating employee which will improve the speed and efficiency of train movement.	55	2	22
Rail	1	Multnomah	1R0381	Northwest Container Services	NWCS Container Lift Equipment	$1,961,280	$1,372,780	$588,500	$588,384	The proposed project would enhance the condition of container lifts within the Portland facility. By reducing capital expenses we are able to reduct the cost of transportation to shippers and steamship lines calling the Oregon market. The number of container lifts within the facility was increased from 7 to 14 for 2015. We would like to replace our older machines.	48	3	23
Aviation	2	Lane	2A0397	City of Eugene	Eugene Airport Roadway Improvements	$791,564	$554,095	$237,469	$237,469	Eugene Airport Roadway Improvements entails structural repairs and improvements to paved roadways around the Eugene Airport and to the ramp area at the Fixed Based Operator on the airfield. The project will include removal and repaving of asphalt surfaces necessary to support additional transport of cargo, fuel and passengers to/from the Airport resulting from documented increases in demand.	66	2	24
Marine	3	Coos	3M0434	Oregon International Port of Coos Bay	Charleston Boatyard Capacity Expansion Development Plan	$1,500,000	$1,000,000	$500,000	$450,000	Develop planning and first level (10%-30% level) design documents to increase boatyard capacity and supporting infrastructure to provide current shipbuilding, refitting, and maintenance services to existing homeported and regional fleets and 3 or more "maximum size" vessels simultaneously.	31	3	25
Rail	2	Polk	2R0419	City of Dallas	Dallas Industrial Area Rail Improvement Project	$1,066,400	$745,400	$321,000	$319,920	The project includes upgrading 4.1 linear miles of an existing short line railroad track to bring the line back into service for manufacturing businesses located in the Dallas Industrial Area. The existing rail line would be improved to allow train speeds of 10 mph between the former Dallas Mill site and the closest rail user in Rickreall near OR Highway 99W.	30		26

March 4, 2016

Connect Oregon VI
Oregon Freight Advisory Committee
Applicant Responses to Questions from the OFAC Meeting on February 25, 2016
Morrow County Grain Growers - # 5R0385

Does the project lower costs for Oregon businesses?

This project will provide a new link previously unavailable in the Pacific Northwest between rail and barge transportation and is critical for improving logistics and efficiency for the transportation of grain to export facilities in the lower Columbia River. Providing a source for feed grain in Boardman will fill an urgent need for nearly 3 million bushels of feed in the Oregon Columbia Basin. Currently feed grain is shipped by unit train to grain facilities located in the state of Washington that have the ability to unload unit trains and trucked to feed lots in the Boardman area. This project will bring this business to the state of Oregon, as well as reduce truck transportation costs for local feed lots and dairies. Freight by rail from Lexington, Nebraska to the Port of Portland area is $1.58 per bushel in 25 car or less trains and is $1.38 per bushel in 110 car unit trains. Additional freight savings are offered by the rail carrier on 110 car unit trains if they are unloaded in less than 15 hours. The Union Pacific rail road has offered to reduce their freight rate by 30 cents per bushel to short stop the trains in Boardman versus taking it to export facilities in the Port of Portland area. This will keep the freight rate from the midwest cost neutral. However, transferring grain from rail to barge will greatly reduce both fuel consumed and exhaust emissions through the Columbia Gorge. Information received from the Pacific Northwest Waterways Association reveals that a standard 4 barge Columbia River tow through the Columbia Gorge is the equivalent of 1.3 trains (32% fuel and emissions savings) or 400 trucks (74% fuel and emissions savings). The expansion of the Boardman facility will also incorporate the capability to load rail cars for transportation to market in the lower Columbia River during extended lock closures. Freight per bushel from Boardman to the lower Columbia River export facilities is 30 cents by barge, 50 cents by rail, and 75 cents by truck. Currently if the river navigation system was not in operation growers would have to rely on expensive truck transportation to get their grain to market.

Is there a market study to substantiate the economic benefit from increased volume and handling?

The Boardman location is perfect for intermodal transportation opportunities. Boardman is located along Interstate 84 and at a point where the Union Pacific main line meets the Columbia River. The core infrastructure is in place to do this project and according to an economic impact analysis done for the Boardman area by FCS Group of Portland, OR, the economic return on each public dollar spent on additional infrastructure in this area will generate a return of $455 annually to state and local tax revenues. The efficient operation of this expanded facility will require up to eight additional full time employees for Morrow County Grain Growers. Additionally, it will add up to 15 additional employees for the barge lines. This intermodal grain handling facility will enhance the operations of grain export handling facilities in the lower Columbia River and provide increased job opportunities at those facilities as well. There is an Ethanol facility located near Clatskanie that is currently not in operation in part due to the difficulty in getting corn to the facility by rail. There is a possibility that they could receive grain by barge which would be sourced by this Boardman facility, thus they would be able to compete in the ethanol market, and make that plant a viable operation.

Please clarify where the 800,000 bushels of increased grain are coming from, who will handle them, and where they are expected to go?

The project we are proposing will give us the potential to source an additional 20 million bushels once the project is complete and at full capacity. The additional bushels handled at this expanded facility will be sourced by Morrow County Grain Growers and by export companies that need to increase their exports and are currently restricted by transportation. Morrow County Grain Growers has hired personnel with contacts and relationships in the mid-west region of the United States in order to focus on additional sourcing of commodities. Morrow County Grain Growers has been contacted by and has had discussions with a flour milling company that is interested in building a flour mill in the Boardman area. They will rely on Morrow County Grain Growers to unload and store cars of grain from the mid-west region of the country to supply their mill. The proposed flour mill will employ as many as 25 people when in operation.

Submitted by John Ripple

Regional Solutions Team Review

Project Number: 5R0385	**Tier #1**
Project Name: Boardman Grain Elevator Unit Train Unloading Project	
Requested Funds: 2500000	
ODOT Region: 5	
RST Region: Greater Eastern Oregon	
Date Reviewed by RST: March 7, 2016	

Project Description:

We are proposing to expand the existing truck to barge grain handling facility so it will have the capability to unload unit trains of grain coming to markets in the Pacific Northwest from the Mid-west region or the country. The expanded facility would then be able to reload this grain to barge for export or to supply the increasing demand from local dairies and feedlots with grain for feed.

Does the project support regional priorities identified by the Regional Solutions Advisory Committee?

Yes __X__ No ____

Please describe how the project supports the regional priority (or priorities) and/or provide other comments.

This project supports the regional priority of expanding infrastructure to serve industrial land.

*CONNECT*OREGON VI
SCORE SUMMARY SHEET

PROJECT #: **5R0385** **Application Tier: 1**

APPLICANT: **Morrow County Grain Growers, Inc**

TITLE: **Boardman Grain Elevator Unit Train Unloading Project**

FINAL POINT CALCULATION

	AVAILABLE POINTS	TOTAL SCORE
Consideration a –	Maximum 20 Points	**18**
Consideration b –	Maximum 20 Points (Use Score Provided By Economic Benefit Evaluation Team)	**20**
Consideration c –	Maximum 20 Points	**20**
Consideration d –	Maximum 10 Points	**10**
Consideration e –	Maximum 10 Points	**10**
Consideration f –	Maximum 10 Points	**10**
Maximum Available Points = 90		**88**

Points	Tier
71-90	1
51-70	2
31-50	3
0 - 30	4

Note

Scoring for Considerations a, c, d, and e was conducted by *Connect*Oregon VI staff including Oregon Department of Transportation (ODOT) for rail, transit, and bicycle/pedestrian, Oregon Business Development Department (OBDD) for marine, and Oregon Department of Aviation (ODA) for aviation. Scores and reviews are based on modal expertise and knowledge as well as information provided by the applicant in the application.

Scoring for Consideration b was conducted concurrently by Oregon Department of Transportation economists and Oregon Business Development Department Business Development Officers for each application. Where scores prior to doubling by each scorer differed by 1 point, the higher of the two was awarded. Where scores by each scorer differed by 2 points, the middle score was awarded. Applications that were awarded with scores that differed by more than two points were re-evaluated jointly with the final settlement score used for tiering purposes.

*Connect*Oregon VI – Statutory Considerations Review

Project Number: 5R0385

Project Name: Boardman Grain Elevator Unit Train Unloading Project

Project Reviewer: Rick Shankle, Bob Melbo, Ray Hubbell, John Johnson, Kathy Holmes

On the following pages, tables are provided indicating which application questions relate to the identified consideration. A given question may relate to more than one consideration, and will appear under each relevant consideration.

Consideration (a) - Whether a proposed transportation project reduces transportation costs for Oregon businesses or improves access to jobs and sources of labor

	Item No.	Brief Description of Question (from Application)	Points	Appraiser's Score
		***Items are evaluated in pairs with a shared point value.** **To determine the score of questions with a shared point value, score each question separately, then select the highest of the two scores as the "appraiser's score."*		
	34	Industrial or employments connections	*3	3
	35	Linking workers to jobs		
	33	Measurement of Success (Improved use and efficiency)	*4	4
	42	Safety		
	32	Transportation Connections	*3	2
	38	Serving Business Clusters		
		TOTAL AVAILABLE POINTS – Consideration "a"	**10**	**9**
		"Strategic Consideration" Multiply Total above by 2		**18**

Point System for 34, 35, 32, and 38:
0 – No positive benefit;
1 – Potential positive benefit;
2 – Likely positive benefit;
3 – Significant positive benefit.

Point System for 33 and 42:
0 – No positive impacts;
1 – Unlikely to make positive impacts;
2 – Potential positive impacts;
3 – Likely positive impacts;
4 – Significant positive impacts.

*To determine the score of questions with a shared point value, score each question separately, then selec the highest of the scores as the "appraiser's score."

COMMENTS

Consideration (c) - Whether a proposed transportation project is a critical link connecting elements of Oregon's transportation system that will measurably improve utilization and efficiency of the system.

	Item No.	Brief Description of Question (from Application)	Points	Appraiser's Score
		***Items 34 and 36 are evaluated together with a shared point value**		
	34	Industrial or employments connections	*3	3
	36	Linking populations to medical care, social services, or shopping		
		***Items 33 and 42 are evaluated together with a shared point value and Items 32 and 37 are evaluated together with a shared point value.**		
	33	Measurement of Success (Improved use and efficiency)	*4	4
	42	Safety		
	32	Transportation Connections	*3	3
	37	Improve system efficiency and utilization		
		TOTAL AVAILABLE POINTS – Consideration "c"	**10**	**10**
		"Strategic Consideration" Multiply Total above by 2		**20**

Point System for 34, 36 and 32, 37:
0 – No positive benefit;
1 – Potential positive benefit;
2 – Likely positive benefits; and
3 – Significant positive benefits.

Point System for 33 and 42:
0 – No positive impact;
1 – Unlikely to make positive impact;
2 – Potential positive benefits;
3 – Likely positive benefits; and
4 – Significant positive benefits

*To determine the score of questions with a shared point value, score each question separately, then select the highest of the scores as the "appraiser's score."

COMMENT:

Consideration (d) - How much of the cost of a proposed transportation project can be borne by the applicant for the grant from any source other than *Connect*Oregon

	Item No.	Brief Description of Question (from Application)	Points	Appraiser Score
	Various	Applicant will provide 30% match only	2	
	Various	Applicant will provide between 31% to 45% match	4	
	Various	Applicant will provide between 46% to 60% match	6	
	Various	Applicant will provide > 60% match	10	10
		TOTAL AVAILABLE POINTS – Consideration "d"	10	10
COMMENT:				

Consideration (e) - Whether a proposed transportation project is ready for construction.

	Item No.	Brief Description of Question (from Application)	Points	Appraiser's Score
For this consideration, assume a grant execution date of <u>September, 2016.</u>				
	Various	Project is ready to start **6 months** after grant agreement execution.	**10**	**10**
	Various	Project is ready to start **12 months** after grant agreement execution.	**7**	
	Various	Project is ready to start **18 months** after grant agreement execution.	**4**	
	Various	Project where major necessary elements are not evident. (e.g. No indicated knowledge of necessary permits, no documented contact with permitting agencies, not in TSP, not in Airport Layout Plan, undocumented ability to obtain match, etc.)	**-5**	
	Various	Project where property is not owned by applicant and negotiations are not underway.	**-10**	
TOTAL AVAILABLE POINTS – Consideration "e"			**10**	**10**
Comments:				

As all projects are not construction projects ODOT uses the following definition for project readiness when scoring and ranking projects.

> Whether a Project is ready **to begin elements of work necessary to commence with construction in a reasonable timeframe**, or if the Project does not involve construction, whether the Project is ready for implementation.

Staff and review committees all the following information plus other knowledge when determining project readiness.

• Permitting • Match financing • Plan inclusion where necessary
• Land use approval • Applicant capacity

Consideration (f) - Whether a proposed transportation project has a useful life expectancy that offers maximum benefit to the state.

	Item No.	Brief Description of Question (from Application)	Points	Appraiser's Score
The primary element of each project should be used in determining useful life. See reviewer instructions for further direction.				
	31	Expected useful life is between 0 and 5 years	2	
	31	Expected useful life is between 6 and 10 years	4	
	31	Expected useful life is between 11 and 15 years	6	
	31	Expected useful life is between 16 and 20 years	8	
		Expected useful life is > 20 years	10	10
TOTAL AVAILABLE POINTS – Consideration "f"			10	10
Comments:				

Consideration "f" Maximum Benefit Calculation Table

For the purposes of *Connect*Oregon VI, "maximum benefit" is considered as the project benefits identified in scoring of considerations a, b, and c.

In order to take both "life expectancy" and "maximum benefit" of consideration f into account, *Connect*Oregon staff will utilize the following method to determine life expectancy vs. maximum benefit.

(To be completed by ODOT Freight Planning Staff)

Expected life score(Considerations a+b+c scores) / Possible Maximum Sum of Considerations a+b+c	10(18+20+20)/60	**10**

Example:

8(16+12+10)/60 = 304/60 = 5.06 = 5 (rounded to nearest whole number)

*Connect*Oregon VI Economic Benefit Review

Project Number : 5R0385

Project Applicant: Morrow County Grain Growers, Inc

Project Name: Boardman Grain Elevator Unit Train Unloading Project

Thank you for your participation in evaluating the economic benefit aspects of *Connect*Oregon VI applications. One of the six required "considerations" of the Oregon Transportation Commission when selecting applications for funding through the *Connect*Oregon program asks, "Whether a proposed transportation project results in an economic benefit to this state." The "economic benefit" consideration will be a used as one of three "strategic considerations" by the Oregon Transportation Commission in making their final funding decision. Inasmuch, final scoring for this consideration should be doubled.

Use the scoring sheet below as a quick guide to the application. In some instances, where the score is a simple calculation based on information provided in the application, the answer has been provided. The remaining questions require a critical review of the applicant's answer before selecting an evaluation score based on the range of possible evaluations. The application instructions document, which identifies requirements associated with each question, is available as guidance.

Calculation and comment areas are provided to show your work and note information critical to your evaluation: How you arrived at your score.

Save a completed electronic version of this document for each application you evaluate. Email signed evaluation forms to connectoregon@odot.state.or.us **no later than January 15, 2016.**

Section 1

Application Question #s	Evaluation Criteria	Individual Score	Final Score (Higher of 2) 0-3
39a*31 39d/[19b/1,000,000]	Long-term jobs multiplied by projects useful life = long-term job-years **OR** Private investment ($) divided by [*Connect*Oregon VI request/1 million] = Private investment per $ million requested from *Connect*Oregon [briefly note in comments section the documentation required for a "yes" answer that was provided]	**2**	
Point System: 0 – no net positive impacts; 1 – potential net positive impacts; 2 – likely net positive impacts; 3 – significant net positive impacts			**3**
38	Does this project serve one or more of Oregon's Statewide Business Clusters? [note in comments section which box(es) were checked and any other relevant details from the application]	**3**	
Point System: 0 – the project does not serve the identified business clusters; 1 – the project has the potential to serve identified business clusters; 2 – the project is likely to serve identified business clusters; 3 – the project will serve identified business clusters			

Calculations/Comments:

22 x 50 = 1100.

4,000,000 / 2.5 = 1,600,000

38: Two boxes are checked. While a lot could go wrong, the letter of support from UP indicates the market analysis is currently correct.

Section 2

Application Question #s	Evaluation Criteria	Individual Score	Final Score (Higher of 2) 0-3
40c/ [19b/1,000,000]	Short-run construction-related jobs divided by [*Connect*Oregon VI request/1 million] = construction related jobs per $ million requested from *Connect*Oregon	**3**	**3**
Point System: 1 – less than 13 jobs per $million requested; 2 – 13-20 jobs per $million requested; 3 – greater than 20 jobs per million requested			
41	Project area unemployment rate (from instruction table) compared to state unemployment rate	**2**	
Point System: 0 – located in area with unemployment rate more than 2 percentage points *below* state average; 1 – located in area with unemployment rate 0-2 percentage points *below* state average; 2 – located in area with unemployment rate at or 0-2 percentage points *above* state average; 3 – located in area with unemployment rate more than 2 percentage points *above* state average			
Comments:			

Section 3

Application Question #s	Evaluation Criteria	Individual Score	Final Score (Higher of 2) 0-4
37	Does this project improve Oregon's transportation system efficiency and/or utilization in specifically identified ways? [note in comments section which box(es) were checked and any other relevant details]	**4**	**4**
Point System: 0 – no positive impacts; 1– unlikely to make positive impacts; 2 – potential positive impacts; 3 – likely positive impacts; 4 – significant positive impacts			
42	Does the project improve safety? [briefly note in comments section the documentation or explanation required for a "yes" answer that was provided]	**0**	
Point System: 0 – no positive impacts; 1 – unlikely to make positive impacts; 2 – potential positive impacts; 3 – likely positive impacts; 4 – significant positive impacts			

Comments:

37: Six boxes are checked. There is a risk that changes elsewhere (e.g., export destinations, transportation improvements along the Mississippi, improvements at export terminals) could negate the value of the project.

42: No.

Review of Economic Benefit to the State

Final Point Calculation

Section 1 (no more than 3)	3 points
Section 2 (no more than 3)	3 points
Section 3 (no more than 4)	4 points
Total (no more than 10)	**10 Points**
Strategic Consideration **Multiply Total above by 2**	**20 Points**

Reviewer Name: Jack Svadlenak

Reviewer Agency: ODOT

Date of Review: 12/21/15

*Connect*Oregon VI Economic Benefit Review

Project Number : 5R0385

Project Applicant: Morrow County Grain Growers, Inc

Project Name: Boardman Grain Elevator Unit Train Unloading Project

Thank you for your participation in evaluating the economic benefit aspects of *Connect*Oregon VI applications. One of the six required "considerations" of the Oregon Transportation Commission when selecting applications for funding through the *Connect*Oregon program asks, "Whether a proposed transportation project results in an economic benefit to this state." The "economic benefit" consideration will be a used as one of three "strategic considerations" by the Oregon Transportation Commission in making their final funding decision. Inasmuch, final scoring for this consideration should be doubled.

Use the scoring sheet below as a quick guide to the application. In some instances, where the score is a simple calculation based on information provided in the application, the answer has been provided. The remaining questions require a critical review of the applicant's answer before selecting an evaluation score based on the range of possible evaluations. The application instructions document, which identifies requirements associated with each question, is available as guidance.

Calculation and comment areas are provided to show your work and note information critical to your evaluation: How you arrived at your score.

Save a completed electronic version of this document for each application you evaluate. Email signed evaluation forms to connectoregon@odot.state.or.us **no later than January 15, 2016.**

Section 1

Application Question #s	Evaluation Criteria	Individual Score	Final Score (Higher of 2) 0-3
39a*31 39d/[19b/1,000,000]	Long-term jobs multiplied by projects useful life = long-term job-years **OR** Private investment ($) divided by [*Connect*Oregon VI request/1 million] = Private investment per $ million requested from *Connect*Oregon [briefly note in comments section the documentation required for a "yes" answer that was provided]	3	**3**
Point System: 0 – no net positive impacts; 1 – potential net positive impacts; 2 – likely net positive impacts; 3 – significant net positive impacts			
38	Does this project serve one or more of Oregon's Statewide Business Clusters? [note in comments section which box(es) were checked and any other relevant details from the application]	3	
Point System: 0 – the project does not serve the identified business clusters; 1 – the project has the potential to serve identified business clusters; 2 – the project is likely to serve identified business clusters; 3 – the project will serve identified business clusters			

Calculations/Comments:

22*50=1,100

$4,000,000/(2,500,000/1,000,000)= $1,600,000

Letters of commitment for job creation are provided by the three entities listed in the application.

Impacts: Agriculture & Food Processing Industries. Both industries are heavily prevalent in the Port of Morrow and surrounding area. This project will serve the identified clusters.

Section 2

Application Question #s	Evaluation Criteria	Individual Score	Final Score (Higher of 2) 0-3
40c/ [19b/1,000,000]	Short-run construction-related jobs divided by [*Connect*Oregon VI request/1 million] = construction related jobs per $ million requested from *Connect*Oregon	**3**	**3**
Point System: 1 – less than 13 jobs per $million requested; 2 – 13-20 jobs per $million requested; 3 – greater than 20 jobs per million requested			
41	Project area unemployment rate (from instruction table) compared to state unemployment rate	**2**	
Point System: 0 – located in area with unemployment rate more than 2 percentage points *below* state average; 1 – located in area with unemployment rate 0-2 percentage points *below* state average; 2 – located in area with unemployment rate at or 0-2 percentage points *above* state average; 3 – located in area with unemployment rate more than 2 percentage points *above* state average			
Comments: **64.272/2.5=26 jobs**			

Section 3

Application Question #s	Evaluation Criteria	Individual Score	Final Score (Higher of 2) 0-4
37	Does this project improve Oregon's transportation system efficiency and/or utilization in specifically identified ways? [note in comments section which box(es) were checked and any other relevant details]	3	3
Point System: 0 – no positive impacts; 1– unlikely to make positive impacts; 2 – potential positive impacts; 3 – likely positive impacts; 4 – significant positive impacts			
42	Does the project improve safety? [briefly note in comments section the documentation or explanation required for a "yes" answer that was provided]	0	
Point System: 0 – no positive impacts; 1 – unlikely to make positive impacts; 2 – potential positive impacts; 3 – likely positive impacts; 4 – significant positive impacts			

Comments:

- **Increase system capacity (yes)**
- **Relieving a bottleneck (yes)**
- **Completing one or more gaps in transportation system**
- **Removing existing barriers (yes)**
- **Reducing traffic or use conflict (yes)**
- **Improving geometrics**

This project impacts truck, rail and marine transportation but safety is not an issue

Review of Economic Benefit to the State

Final Point Calculation

Section 1 (no more than 3)	3 points
Section 2 (no more than 3)	3 points
Section 3 (no more than 4)	3 points
Total (no more than 10)	**9 Points**
Strategic Consideration **Multiply Total above by 2**	**18 Points**

Reviewer Name: Melisa Drugge

Reviewer Agency: Oregon Business Development Department

Date of Review: **January 7, 2016**

*CONNECT*OREGON VI ELIGIBILITY/FEASIBILITY REPORT FORM

Application Number: 5R0385

Applicant Name: Morrow County Grain Growers, Inc

Project Name: Boardman Grain Elevator Unit Train Unloading Project

Mode: Rail

Applicant Administrative Eligibility:

☐ The Applicant is a Public Body or Person within the state of Oregon.

☐ The Applicant, if applicable, has signed and submitted the Tax Declaration form

☐ The Applicant has submitted the Department of Revenue Tax Certification

☐ The Applicant has sufficient management and financial capacity to complete the Project including without limitation the ability to contribute 30 percent of the eligible Project cost.

☒ The Applicant is not a railroad owner that operates a railroad wholly within the boundaries of Benton and Linn counties that: (A) Charges landowners a fee for an easement to cross a railroad that is necessary for the landowner to access the landowner's property; and (B) Has imposed or collected fees for such an easement on or after January 1, 2013.

Project Administrative Eligibility:

☒ The project is a Transportation Project that involves one or more of the following modes of transportation: air, marine, rail, public transit or bicycle/pedestrian.

☒ The Project will assist in developing a multimodal transportation system that supports state and local government efforts to attract new businesses to Oregon or that keeps and encourages expansion of existing businesses.

☒ The Project is eligible for funding with lottery bond proceeds under the Oregon Constitution and laws of the State of Oregon.

☒ The Project will not require or rely upon continuing subsidies from the Department for ongoing operations.

☒ The Project is not a public road or other project that is eligible for funding from revenues described in section 3a, Article IX of the Oregon Constitution, i.e. the State Highway Trust Fund.

☒ The Project is feasible, including the estimated cost of the Project, the expected results from the proposed Project for each of the considerations as prescribed in 731-035-0060, the Project schedule, and all applicable and required permits may be obtained within the Project schedule.

Technical Feasibility

Does the cost estimate appear reasonable?

☒ Yes ☐ No

Is timeline in relation to tasks not yet completed feasible?

☒ Yes ☐ No

Are there any elements of the project that could cause unanticipated delays?

☐ Yes ☒ No

Can all applicable and required permits be obtained as indicated in the schedule?

☒ Yes ☐ No

Does the application package include documentation of the desire for and support of the Project from the businesses and entities to be served by the Project?

☒ Yes ☐ No

Comments:

No Conflict of Interest Certification: I do not have any conflict of interest with the proposer submitting this project application. A conflict of interest may include any family members presently associated with a proposer, or any financial relationships with a proposer (does not include past employment). I have read and rated the project application independently, and without interference or pressure from anyone. I have not had conversation or other contact with the proposer concerning this project application since it was issued. I have noted any potential conflicts or concerns on this form."

FEASIBILITY/ELIGIBILITY EVALUATOR(s):

Name(s)	Date
Kathy Holmes	01/14/2016
Rick Shankle	01/14/2016
John Johnson	01/14/2016
Bob Melbo	01/14/2016
Ray Hubbell	01/14/2016

ConnectOregon VI

2015 Program Application

October 5th, 2015

Oregon Department of Transportation

Introduction

To ensure you have current program information, sign up for the ConnectOregon electronic mailing list.

- Please read the *Connect*Oregon VI *Application Instructions* prior to completing this application.
- The *Application Instructions*, *Draft Grant Agreement*, and *Frequently Asked Questions* are available on the *Connect*Oregon website.
- Submission Requirements are detailed in Section 3 of the *Application Instructions*.
- Completed *Application* and *Checklist* are required.
- Answer all questions. Enter N/A where applicable.

Project Summary and Certification

1. Applicant

Organization name	Morrow County Grain Growers, Inc
Contact person name	John Ripple
Address	PO Box 367
Contact person title	General Manager
City, state, zip	Lexington, OR 97839
Phone	541-989-8221
Fax	541-989-8229
Website address	mcgg.net
E-mail (Required)	johnr@mcgg.net

2. Project name and location

Project name	Project location	Staff use only
Boardman Grain Elevator Unit Train Unloading Project	Boardman, Oregon	

3. Cost summary (fields will fill automatically as application is completed)

a. *Connect*Oregon VI Total Project Cost	$6,500,000.00
b. *Connect*Oregon VI Grant Request	$2,500,000.00
c. *Connect*Oregon VI Applicant Match (30% of grant)	$4,000,000.00

4. Certification

☒ By checking this box, I certify that **Morrow County Grain Growers, Inc** supports the proposed project, has the legal authority to pledge matching funds, and has the legal authority to apply for *Connect*Oregon VI funds. I further certify that matching funds are available or will be available for the proposed project. I understand that all State of Oregon rules for contracting, auditing, underwriting (where applicable), and payment will apply to this project. I certify that I have read the *Sample Draft Agreement* and will sign the *Agreement* if selected.

Date: Nov 16, 2015

Project Description

5. Project Summary

Brief summary of project (max 400 characters)

We are proposing to expand the existing truck to barge grain handling facility so it will have the capability to unload unit trains of grain coming to markets in the Pacific Northwest from the Mid-west region or the country. The expanded facility would then be able to reload this grain to barge for export or to supply the increasing demand from local dairies and feedlots with grain for feed.

6. Project purpose and description

Project maps must be identified in question #44 and submitted with this application. Maximum map size: 11x17 inches. For projects with any portion in Oregon Department of Transportation (ODOT) right-of-way, the right-of-way must be clearly identified and portions of the project in ODOT right-of-way must be identified. (max 4500 characters)

Morrow County Grain Growers, Inc is proposing to expand operations at the Grain Terminal located within the Port of Morrow at Boardman Oregon.

The proposed expansion will include building a unit train rail car unloading facility on a lateral rail line that connects to the existing loop track. Bottom unloading of grain from rail cars into a dump pit with conveyors to transfer to the existing facility. Unit trains will consist of up to 100 cars of grain that will need to be unloaded and if needed loaded within 15 hours to meet the incentives provided by the railroad for peak efficiency. Also included in this proposal is expanding the capacity of the facility by another by 800,000 bushels.

Providing a link between rail and barge transportation is critical for improving logistics and efficiency for the transportation of grain to the grain export facilities in the lower Columbia River that will serve the grain industry for many years to come.

Providing a source for feed grain in Boardman will reduce truck transportation costs for feeders located in the Oregon Columbia Basin for many years to come.

The efficient operation this project will require eight additional full time employees to Morrow County Grain Growers and will be essential for the operation of this new facility.

7. Project location

Street address or nearest street intersection

71010 Rail Loop Dr

City(ies)	County(ies)
Boardman	Morrow

GPS coordinates	Latitude (degrees and decimal)	Longitude (degrees and decimal)
	45.8545 N	119.6644 W

County tax parcel identification number(s)

Tax Map: 4N2502 Tax lot #'s 108 and 108A1 And Tax Map: 4N2503 Tax lot #'s 104, 104A1, and 105

8. Project mode

○ Aviation ○ Bicycle/Pedestrian ○ Marine ◉ Rail ○ Transit

9. *Connect*Oregon region

○ CO Region 1 ○ CO Region 2 ○ CO Region 3 ○ CO Region 4 ◉ CO Region 5

For more information, refer to the *Application Instructions*. For processing purposes, when projects are located in more than one *Connect*Oregon region, applicant must identify which region will contain the majority of the planned project.

10. Is the applicant current in all state and local taxes and fees?

◉ Yes ○ No

If no, explain: (max 400 characters)

☒ Complete *Tax Declaration form* and submit with application.

☒ Obtain *Department of Revenue Tax Certification* and submit with application.

11. Is the applicant a railroad that operates solely within Benton or Linn County?

○ Yes ◉ No ○ N/A

☐ If yes, complete *Railroad Certification form* and submit with application.

12. After project completion who will assume responsibility for the continued maintenance and operation of the project?

Morrow County Grain Growers, Inc. will maintain the project during the useful life of the project.

13. What will be the source(s) of funds for the continued maintenance and operation of the project?

Morrow County Grain Growers income from retail and grain operations.

14. What is the status of funds for maintenance and operations?

○ Secured - available now ◉ Budgeted - committed for future ○ Unknown or unconfirmed

Describe how and when these steps will occur. If unknown or unconfirmed, explain or describe necessary steps for funding assurance (max 400 characters):

Morrow County Grain Growers will guarantee proper maintenance of the rail unload facility using revenue from existing business operations of the grain elevator and future rail unload and trans-load to barge handling fees.

15. Is all the property required for the project owned by the applicant?

○ Yes, project real estate is *wholly* owned by the applicant
○ No, project real estate is *partly* owned by the applicant
◉ No

If yes, project area is wholly owned, what was the purchase price of the property?

☒ If no, project area is partly owned, or if no, complete *Property Owner Information form* and submit with application.

16. Will the project property or easements be purchased by the applicant to complete the project?

○ Yes ◉ No ○ N/A

If yes, is the property in escrow? ○ Yes ○ No

17. Will the project property be leased by the applicant?

◉ Yes ○ No ○ N/A

If yes, have the negotiations begun? ◉ Yes ○ No

18. Provide any additional property details: (max 1600 characters)

Morrow County Grain Growers has secured an option to lease property from the Port of Morrow. Morrow County Grain Growers is also negotiating with owner of adjacent private property, but negotiations are not completed at time of grant application submittal.

Project Budget and Schedule

19. Identify the amount of funds for the project budget, including grants and matching funds:

	Amount	Percent
a. Total Project Cost	$6,500,000.00	
b. Grant Request	$2,500,000.00	38.46%
c. Applicant Match (must be at least 30% of Total Project Cost)	$4,000,000.00	61.54%

20. Detail the source and amount of the match shown in Question #19:

Type of match	Source of match funds	Amount	Will this expenditure be incurred prior to completion of agreement?
Labor (payroll)			○ Yes ○ No
Contracted services			○ Yes ○ No
Materials and supplies			○ Yes ○ No
Capital outlay - land (purchase price)			○ Yes ○ No
Morrow County Grain Growers	Cash/financing	$2,000,000.00	○ Yes ◉ No
Non-equity investment from Shaver Transportation	Cash	$1,000,000.00	○ Yes ◉ No
Non-equity investment from Tidewater Barge Lines	Cash	$1,000,000.00	○ Yes ◉ No
Other (describe)			○ Yes ○ No
Total Total must equal 19.c Applicant Match: $4,000,000.00		$4,000,000.00	

When will the match be available? Explain. (max 400 characters)

September of 2016

21. If the project is part of a larger project, describe the scope of the entire project. Include the total amounts of public and private investment in the proposed project. Please note which portions of the project are already completed or already funded and which remaining portions are *Connect*Oregon VI eligible. (max 1200 characters)

The Port of Morrow has invested over $10 million in rail spurs in their East Beach Industrial Park. To support this new activity, Morrow County Grain Growers will be investing in an additional spur off the Port's Rail Loop. The Port has agreed to lease property to MCGG for this project.

22. Is there an urgency to this project? (See ***Application Instructions*** for examples)

◉ Yes ○ No

If yes, describe (max 400 characters):

Two Export Grain Terminals in on the Willamette River in Portland have limited track capacity and cannot receive or unload 100 car unit trains. They are restricted to receiving grain trains of less than 25 cars at a higher freight cost. Those terminals are at a competitive disadvantage with other terminals.

There is an urgent need for feed at the local feedlots and dairies.

23. Is the project construction ready or ready for implementation? (See ***Application Instructions*** for more information)

◉ Yes ○ No

If no, describe the remaining steps and when these steps will occur if *Connect*Oregon funds are received (max 400 characters):

24. Complete the following tables regarding current and projected milestones for the project. Check to indicate if the project is a construction or a non-construction project.

Milestone	☒ Construction Projects	☐ Other (non-construction projects - describe)	Has the milestone been met?	Projected start date of milestone work	Projected milestone completion date
1	Scoping and planning		◉ Yes ○ No	03/2015	10/2016
2	Right-of-way and land acquisition		◉ Yes ○ No	mm/yyyy	mm/yyyy
3	Permits		○ Yes ◉ No	02/2016	10/2016
4	Final plans/bidding engineering documents		○ Yes ◉ No	09/2016	11/2016
5	Construction contract award		○ Yes ◉ No	11/2016	12/2016
6	Project completion		○ Yes ◉ No	12/2016	08/2017

25. Complete the following tables regarding pre-construction documentation and permits.

Potential projects are expected to be at varying stages of construction readiness; some of the steps below will not apply, or must be marked "Still required" or "Don't know." See the *Application Instructions* for detailed explanations of the terms below.

Environmental and Public Involvement

Step	Status				
	Permit Completed	Permit Underway	Permit Required	Not Applicable	Don't Know
a. NEPA Categorical Exclusion (CE)	○	○	○	◉	○
b. NEPA Environmental Assessment (EA)	○	○	○	◉	○
c. Environmental Impact Statement (EIS)	○	○	○	◉	○
d. Air-quality conformity determination	◉	○	○	○	○
e. In-water work permit	○	○	○	◉	○
f. Army Corps of Engineers permit	○	○	○	◉	○
g. Coordination of project approval with any Native American tribe or another state	○	○	○	◉	○
h. Stakeholder involvement	○	○	○	◉	○
i. Permits	○	○	○	◉	○
Local construction permit	○	○	◉	○	○
Other (describe)	○	○	○	○	○

Planning and Land Use

Step	Status				
	Included Complete	Included Underway	Still Needed	Not Applicable	Don't Know
j. Identified in adopted transportation system plan (TSP)	○	◉	○	○	○
k. Identified in adopted local comprehensive plan	○	○	○	◉	○
l. Identified in adopted regional transportation plan (RTP)	○	○	○	◉	○
m. Identified in zoning amendment	○	○	○	◉	○
n. Goal exception (if required by state planning goals)	○	○	○	◉	○
Other (describe)	○	○	○	○	○
Other (describe)	○	○	○	○	○

List other federal, state, modal, regional, or local plans where this project is listed.

Name of plan	Project Specific	Route/Site Specific	General Goal/Policy
Port of Morrow Strategic Plan for Regional Hub Transportation	○	○	◉

Design and Specification					
Step	Status				
	Already Completed	Incomplete/ Underway	Still Required	Not Applicable	Don't Know
o. Engineering and/or design services contracted	○	○	◉	○	○
p. 30% design and environmental complete	○	○	◉	○	○
q. 60% design complete	○	○	◉	○	○
r. 90% preliminary design complete	○	○	◉	○	○
s. Final design complete	○	○	◉	○	○
t. Plans and specifications	○	○	◉	○	○
Other (describe)	○	○	○	○	○
Other (describe)	○	○	○	○	○

Additional Comments (max 400 characters):

26. Describe how the proposed project is consistent with or identified in a public or corporate planning document. Provide the portion of the document that applies. (max 400 characters)

The Board of Directors of Morrow County Grain Growers has identified connecting the rail to the Boardman Grain Elevator to to provide the capability to trans load grain from rail to barge and to provide a reliable supply of feed grains to local feeders as a priority strategic initiative of the company.

Port of Morrow Strategic Plan

☒ Cite documentation in question #44 and submit with application.

27. Is the construction of the project limited to specific construction timeframes due to environmental considerations (such as bird-nesting or fish-spawning seasons, or temperature)?

○ Yes ◉ No ○ N/A

If yes, note the periods when construction is limited:

Restriction description	Start date of restriction	End date of restriction
	mm/yyyy	mm/yyyy
	mm/yyyy	mm/yyyy
	mm/yyyy	mm/yyyy
	mm/yyyy	mm/yyyy
	mm/yyyy	mm/yyyy
	mm/yyyy	mm/yyyy

28. Can you demonstrate project support from public agencies that must approve the project?

◉ Yes ○ Yes, started but not completed ○ No ○ N/A

List approvals (max 1600 characters)

Port of Morrow
Morrow County

☒ Cite documentation in question #44 and submit with application.

29. Describe any unique construction-readiness, project implementation issues or possible delays not identified above: (max 1600 characters)

None

30. The project schedule presented above has the following level of risk involved.

○ High ○ Medium ◉ Low

a. Describe the reason for your answer regarding level of risk (max 300 characters)

Funding is available and project is located in a temperate climate for construction

b. Who was responsible for determining the project schedule and what is their level of expertise? (i.e. city or consulting engineer, construction project manager, city staff, etc.) (max 300 characters)

Morrow County Grain Growers General Manager has 30 years experience in the grain industry. He has also consulted consulted with contractors, millwrights, and engineers.

Project Details

31. What is the expected project life (in years)? 50

Explain how this was determined. (See *Application Instructions* for more information) (max 400 characters)

Life of project is consistent with similar projects in the region.

32. Does the project improve existing or create new critical links for Oregon's transportation system?

(•) Yes ( ) No

If yes, check all that apply:

The project:

- [x] creates a new link
- [ ] improves an existing link

The project improves or creates new transportation links:

- [x] between multiple modes of transportation (check all that apply)
  - [ ] air [x] marine [ ] pipeline [ ] passenger rail [x] freight rail [ ] transit [x] truck
  - [ ] bus [ ] bicycle [ ] pedestrian [ ] personal automobile
- [ ] to transportation networks outside Oregon

Explain (max 400 characters)

This project will expand the existing truck to barge grain handling facility so it will have the capability to unload unit trains of grain coming to markets in the Pacific Northwest from the Mid-west region or the country. The expanded facility would be able to reload grain to barge for export or to supply the increasing demand from local dairies and feedlots with grain for feed.

33. How is success measured for this type of project?

This answer must include the methodology for calculation. Attach additional information in question #44 if necessary (max 300 characters)

The existing facility is extremely underutilized. It is capable of handling considerably more product that it currently handles. There will be increased rail and barge traffic with the expansion. Additional export of domestic products from Oregon.

a. What is the existing measurement today?	2,000,000 bushels put through
b. What is the anticipated measurement when the project is fully operational?	15,000,000 bushels put through

34. Does the project improve an existing transportation connection or add a new connection to an industrial or employment center?

(•) Yes ( ) No

If yes, check all that apply:

The project:

- [x] Creates a new connection
- [x] Improves an existing connection

a. This project improves or creates access to:

[x] Industrial center	Port of Morrow Industrial Park to Portland and other lower Columbia River Ports
[ ] Employment center	Specify
[ ] This project provides access to	Site name

which is a site certified as "Project Ready" by the Oregon Business Development Department (OBDD).
For more information, refer to the *Application Instructions*.

35. Does this project link workers to jobs?

( ) Yes (•) No

Explain (max 300 characters)

a. Which mode(s) are linked for workers (check all that apply):

- [ ] Fixed-route bus
- [ ] Demand-responsive bus
- [ ] Bicycle/Pedestrian
- [ ] Light rail
- [ ] Passenger rail
- [ ] Commuter rail
- [ ] Air Services
- [ ] Ferry
- [ ] Water taxi
- [ ] Other

b. Estimated use by new users:

Estimated number of new users per day expected to use the service when opened

Explain basis for estimate (max 300 characters)

c. Describe the demographics or other relevant characteristics of the residential areas that gain new or improved access to jobs as a result of this project. (max 400 characters)

d. Geographic service level (check all that apply):

- ☐ Rural
- ☐ Intra-city (within a town or city)
- ☐ Intercity (between towns or cities)
- ☐ Interstate (between states)
- ☐ International

36. Does this project link populations to medical care, social services, or shopping?

○ Yes ◉ No

Explain (max 300 characters)

a. Which mode(s) are linked (check all that apply):

- ☐ Fixed-route bus
- ☐ Light rail
- ☐ Air Services
- ☐ Demand-responsive bus
- ☐ Passenger rail
- ☐ Ferry
- ☐ Bicycle/Pedestrian
- ☐ Commuter rail
- ☐ Water taxi
- ☐ Other

b. Estimated use by new users:

Estimated number of new users per day expected to use the service when opened

Explain basis for estimate (max 300 characters)

c. Describe the demographics or other relevant characteristics of the residential areas that gain new or improved access to these services as a result of this project. (max 400 characters)

d. Geographic service level (check all that apply):

☐ Rural ☐ Intra-city (within a town or city) ☐ Intercity (between towns or cities)
☐ Interstate (between states) ☐ International

37. This project will improve system efficiency and/or utilization by:

☒ Increasing system capacity
☒ Relieving a bottleneck or congestion point
☒ Completing one or more gaps in Oregon's transportation system
☒ Removing an existing barrier
☒ Reducing traffic or use conflicts
☒ Improving geometrics
☐ Implementing technology
☐ Other(describe below)

Explain. Cite supporting documentation in question #44 and submit with application. (max 1250 characters)

This project will allow for the unloading of unit trains of grain and the reloading of that grain on to a barge for its final export destination. This will reduce congestion of rail in the Columbia Gorge area as well as give the two export facilities on the Willamette River in Portland the ability to receive grain for export at a rate competitive with other facilities in the lower Columbia River that have the ability to receive unit trains of grain from the Mid-west region of the United States.

38. Does the project serve one or more of Oregon's Statewide Business Clusters? For more information, refer to the *Application Instructions*.

Statewide business clusters (check all that apply)

- ☒ Agriculture
- ☐ Athletic & Outdoor Gear and Apparel
- ☐ Aviation
- ☐ Bioscience
- ☐ Breweries
- ☐ Creative Industries
- ☐ Defense
- ☐ Education Services and Technology
- ☐ Electric Vehicles and Sustainable Transportation
- ☐ Energy Efficiency
- ☐ Environmental Technology and Services
- ☒ Food Processing
- ☐ Forestry and Wood Products
- ☐ Green Building and Development
- ☐ Manufacturing
- ☐ Nursery Products
- ☐ Semiconductors and Electronics Components
- ☐ Software
- ☐ Solar
- ☐ Tourism and Hospitality
- ☐ Wave Energy
- ☐ Wind Energy

Provide detail (max 500 characters)

This project enhances the export of agriculture products from the State of Oregon and will provide a supply of feed grains within the State of Oregon for dairies and feed lots located in Oregon.

39. Does this project benefit the Oregon economy by generating a net increase in or retention of long-term jobs (beyond short-term construction jobs) and/or increasing private investment in Oregon?

◉ Yes* ○ No

If yes, please complete the following:

a. Number of long-term (non-construction) jobs created or retained as a direct result of the project: 22

b. Average annual wage of long-term (non-construction) jobs created or retained: $50,000.00

c. List up to five businesses that will verify job creation/retention or new private investment

	Business Name	Name of Contact Person	Contact Person Phone
1.	Tidewater Barge Lines	Andy Stephens	360-759-0327
2.	Shaver Transportation	Steve Shaver	503-228-8850
3.	Morrow County Grain Growers, Inc.	John Ripple	541-989-8221
4.			
5.			

d. What is the increase by these businesses in Oregon as a result of this project? $4,000,000.00

☒ * *Required for a yes answer.* Commitment letters must be cited in Question #44 and submitted with application. These letters must be from businesses or organizations stating their intention to operate in Oregon and detailing: the number of jobs created or retained over a specific period of time as a result of this project, and/or the amount of additional private investment that the entity would make in Oregon over a specified period of time as a direct result of this project.

Explain (max 400 characters)

Morrow County Grain Growers will need to add 8 employees to operate the facility. With the increased barge traffic expected from this project, the barge companies will need to add additional crews to serve the increased volume of grain shipped on the river system.

40. To what extent does this project generate economic stimulus in the state by supporting short-term construction-related jobs in Oregon?

☐ N/A - project is not a construction project.

For construction projects, complete the following:

a. List the planning, engineering, land, and construction cost estimates done for this project (including when the estimate was done and the name of the business that did the estimate):

Year cost estimate was done	Business Name	Cost
2,015	Morrow County Grain Growers, Inc.	$6,500,000.00

b. Identify the year for which the majority of the costs were estimated to occur and explain your answer: (For example: A project requires $500,000 in engineering work expected to occur in 2015 and estimated using 2014 hourly engineering costs. The project also requires $2 million in construction expenditures now expected to occur in 2016, but originally slated for 2015, the original estimator had inflated the estimate to expected 2015 prices. The answer to *this* question would be 2015 because the construction costs represent the majority of the estimated costs being funded and the estimator had inflated the costs to that year.)

Morrow County Grain Growers consulted with The Haskins Company, a company that has a very good reputation in constructing grain handling facilities, to determine the cost of construction.

c. The short-run jobs supported by this project are: 64.272

(Calculate the jobs number using Fields 1-5 below. The result in Field 5 will populate here.)

Field1. Project Costs (planning, engineering, land, construction)	**Field 2. Inflation Adjustment** factor based on year (see instructions)	**Field 3. Project cost multiplied by Inflation Adjustment Factor** (Field 1 x Field 2)	**Field 4. Result divided by 1,000,000** (Field 3 / 1,000,000)	**Field 5. Result multiplied by the job multiplier of 10.3** (Field 4 x 10.3)
$6,500,000.00	0.96	6,240,000	6.24	64.272

41. What is the unemployment rate in the project area?

Average unemployment rate in the project area for the last 12 months (Refer to the *Application Instructions*) 6.3 % Morrow County

Provide additional detail on any other special economic considerations in the project location (max 800 characters).

42. Does the project improve safety?

○ Yes* ◉ No

☐ * *Required for a yes answer.* Documentation or explanation of the incident(s) or safety situation(s) that have occurred that this project is addressing or documentation of a high risk or of a safety issue or hazard potentially occurring. Cite in question #44 if necessary.

Explain. Please note the number and type of incidents (fatal accident, injury accident, property-damage accident, crime, or other) within a specified timeframe. (max 400 characters)

Other Considerations and Information

43. ☒ Completed *Racial and Ethnic Impact Statement form*.

44. List the supporting materials to be submitted in your application packet.

Question #6: Project Maps

1. Pacific Northwest map with site location
2. Site map
3. Site detail
4.
5.

Question #26 Planning Documents

1. Morrow County Grain Growers Strategic Goals
2. Port of Morrow Strategic Plan
3.
4.
5.

Question #28: Documentation of coordination and support of public agencies that must approve the project

1. Port of Morrow
2. Morrow County
3.
4.
5.

Question #33: Metrics

1.
2.
3.
4.
5.

Question #37: System Efficiency and Utilization

1. Union Pacific Rail Road letter
2. Tidewater Barge Lines letter
3. Shaver Transportation letter
4. Oregon Wheat letter
5.

Question #39: Commitment letters

1. Tidewater Barge Lines letter
2. Shaver Transportation letter
3. Louis Dreyfus Commodities letter
4.
5.

Question #42: Safety

1.
2.
3.
4.
5.

Other supporting documents:

1. United Grain Corporation letter
2. Pacific Northwest Waterways Association letter
3. Beef Northwest Feeders letter
4. Honorable Greg Smith from Oregon House of Representatives letter
5. Morrow County Court letter

45. Describe any other considerations and information that support why the project should be selected: (max 1200 characters)

Railroad

Labor Cost:	# of Units	Unit of Measure	$/Unit	Total Cost
Rail Installation and Ballast	1,800	feet	$75.00	$135,000.00
Switch installation	2	unit	$20,000.00	$40,000.00
Excavation	1	lump sum	$72,500.00	$72,500.00
Concrete Finishes	1	lump sum	$425,000.00	$425,000.00
Concrete rebar	1	lump sum	$120,000.00	$120,000.00
Steel	1	lump sum	$145,000.00	$145,000.00
Structures	1	lump sum	$112,000.00	$112,000.00
Paint	1	lump sum	$9,000.00	$9,000.00
Storage bins	1	lump sum	$400,000.00	$400,000.00
Machinery	1	lump sum	$275,000.00	$275,000.00
Electrical	1	lump sum	$195,500.00	$195,500.00
			Labor Subtotal:	$1,929,000.00

Materials Cost:	# of Units	Unit of Measure	$/Unit	Total Cost
Track steel and Ties	3,600	feet	$50.00	$180,000.00
Rail Switches	2	unit	$25,000.00	$50,000.00
Excavation	1	lump sum	$225,000.00	$225,000.00
Concrete	1	lump sum	$550,000.00	$550,000.00
Steel	1	lump sum	$375,000.00	$375,000.00
Structures	1	lump sum	$135,000.00	$135,000.00
Paint	1	lump sum	$2,500.00	$2,500.00
Storage bins	2	bins	$450,000.00	$900,000.00
Machinery	1	lump sum	$1,100,000.00	$1,100,000.00
Electrical	1	lump sum	$500,000.00	$500,000.00
				$0.00
				$0.00
contingency	1	lump sum	$263,500.00	$263,500.00

				$0.00
				$0.00
			Materials Subtotal:	$4,281,000.00

Miscellaneous Cost:	**# of Units**	**Unit of Measure**	**$/Unit**	**Total Cost**
Engineering/Permits	1	lump sum	$245,000.00	$245,000.00
Project Management	1	lump sum	$45,000.00	$45,000.00
Property Acquisition				$0.00
Environmental Mitigation				$0.00
Earthwork				$0.00
Utility Relocation				$0.00
			Miscellaneous Subtotal:	$290,000.00

Total: $6,500,000.00

Oregon Department of Transportation

ConnectOregon VI
Program Application 2015

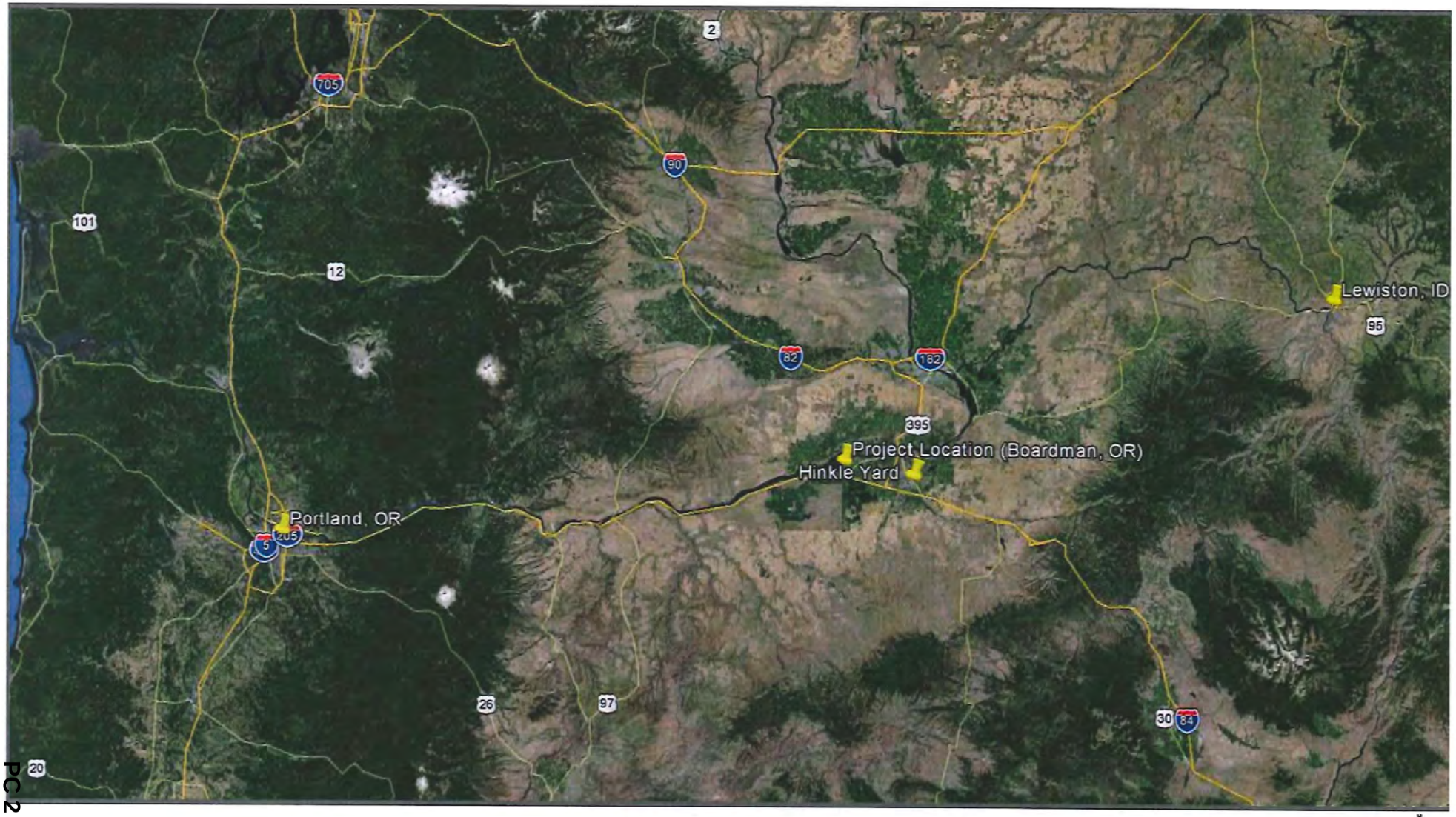
Property Owners/Lessors

Click ***Add new owner/lessor*** to add additional tables. Clicking ***Remove new owner/lessor*** will remove last table added.

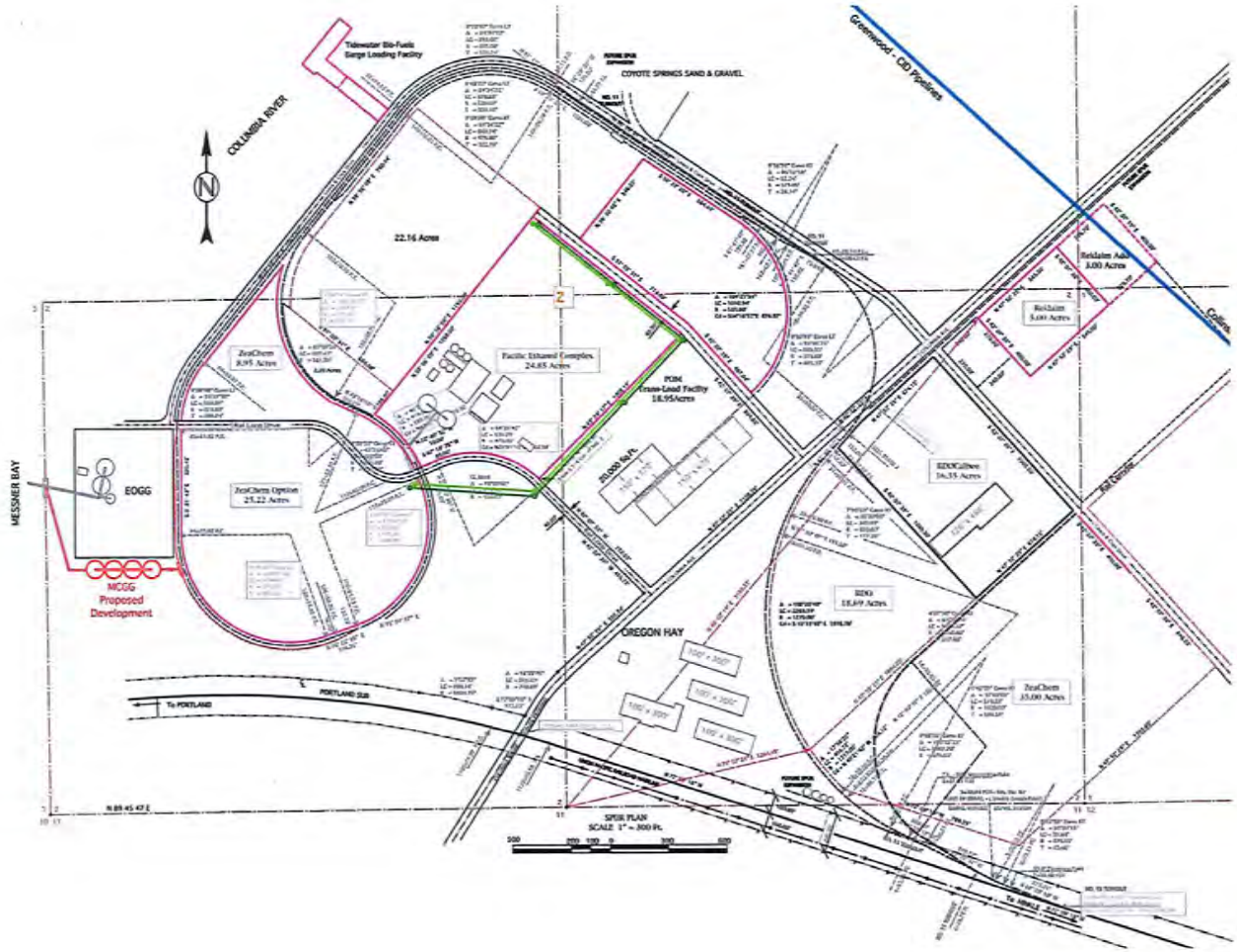
Owner Name	Owner Phone	
Port of Morrow	541-481-7678	
Owner Address	Owner Fax	
P. O. Box 200	541-481-2679	
Owner City, State, Zip	Owner E-mail	
Boardman, OR 97818	lisam@portofmorrow.com	
Authorized Representative Name	Authorized Representative Phone	
Lisa Mittelsdorf, Port of Morrow	541-481-7678	
Authorized Representative Address	Authorized Representative Fax	
P. O. Box 200	541-481-2679	
Authorized Representative City, State, Zip	Authorized Representative E-mail	
Boardman, OR 97818	lisam@portofmorrow.com	
Property Owner/Lessor or Authorized Representative Signature	Print Name	Date
X Lisa Mittelsdorf	Lisa Mittelsdorf	Nov 19, 2015

Add owner/lessor

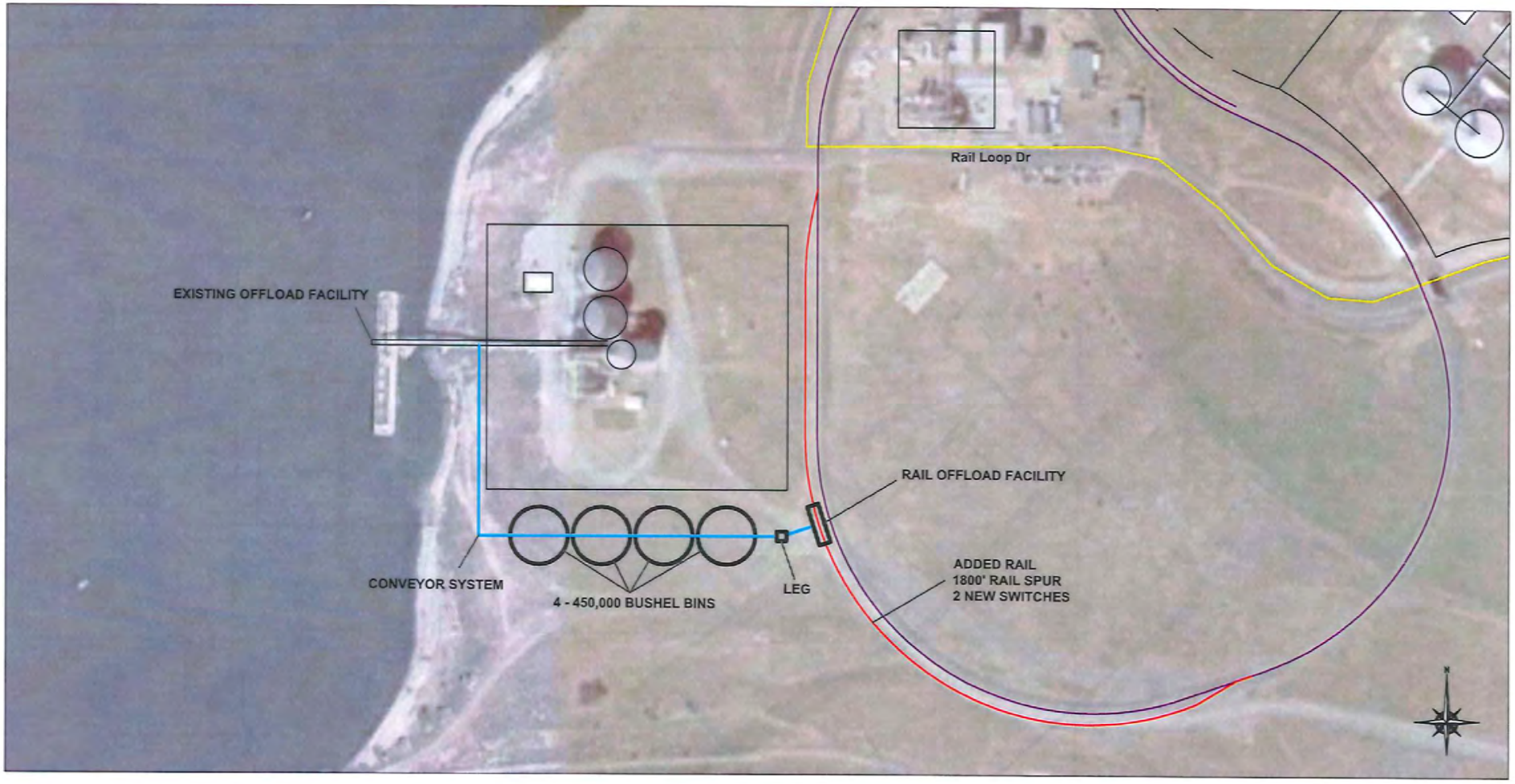
Remove owner/lessor



MORROW COUNTY GRAIN GROWERS



MORROW COUNTY GRAIN GROWERS Port of Morrow Industrial Park Boardman, Oregon		**Map Scale** 0 200 400 SCALE 1" = 200'	Existing Road Proposed Road Existing Rail Proposed Rail	**PROJECT LAYOUT** Date Updated: 11/19/2015 Sheet Size: ANSI B (11x17)



MORROW COUNTY GRAIN GROWERS Port of Morrow Industrial Park Boardman, Oregon		**Map Scale** 0 200 400 SCALE 1" = 200'	Existing Road Proposed Road Existing Rail Proposed Rail	**PROJECT LAYOUT** Date Updated: 11/19/2015 Sheet Size: ANSI B (11x17)

M.C.G.G. STRATEGIC GOALS

*Achieve a $2,000,000 net income on gross sales to provide for $250,000 of debt service, $450,000 of equity revolves, $450,000 of capital requirements, and $850,000 for growth.

*Expand the Boardman Grain Elevator and connect the current grain handling facility to the loop track for the purpose of trans-loading grain received by rail from the mid-west region of the country to barge. This connection to the rail gives us the capability to also source grain for the feedlots and dairies in the area from the mid-west.

*Develop a grain alliance with other cooperatives to market grain together in order to collectively have a large enough quantity of grain to maximize opportunities in the market.

*Develop business with new growers and entities to increase grain handle capital to update our grain facilities.

*Grain facility analysis on future logistics to maximize return to our membership

*Ione seed plant project completion and centralize agronomy operations at Ione plus expand agronomy market share and market reach. Short term, reach into Condon area with local staff and operations and long term reach into irrigated markets.

*Succession planning for general manager position.

*Develop a timeline for company assets to help with prioritizing asset replacement and new projects.

*Market growth in energy department.

*Continue process of becoming compliant with CaseIH Pinnacle program.

*Explore options on the future of the machinery dealership.

*Maintain the Umatilla Napa store, exit if opportunity arises.

*Maintain and pursue profitability for the feed store.

Quality of Life and Business Incentives

Good jobs, recreational access, low-cost living, small-town character, and favorable infrastructure affect residents and businesses located within the port district positively. Competitive land/development costs and favorable electric power and water rates also benefit major employers in the port district.

Partnerships between the Port, Business Oregon, and the County and City through the state-sponsored Columbia River Enterprise Zone II provide limited property tax abatement in return for guaranteed private capital investment and job creation. Private development on Port and private properties within the enterprise zone has generated eight applications over the past 2 years, and is expected to create in lieu payments of over $1 million annually to be used for community development investments.

C. Demand Analysis

Economic Strengths and Weaknesses

The physical, economic, demographic, and infrastructure characteristics of the Port district set the framework within which businesses can establish themselves and grow. An analysis of the Port district in the context of the broader regional or state economy can help narrow the list of target industries as well as identify where policies could be adjusted to help remove barriers to job creation.

D. Port Industrial Opportunity Sites

The Port manages 8,000 acres of land, primarily located in the Boardman/East Beach, Airport/Tower Road, and South County/Heppner old mill site locations. These industrial sites have ample capacity to address the growing demand for agriculture, food manufacturing, energy, and related industries discussed in this section that may rely on the port district's crop-growing weather and soils, ample freeway, river and rail transportation access, and shipping demands, given ongoing investments in infrastructure over time.

In addition to co-generation and ethanol production, the wind energy economy is expanding in Eastern Oregon and Washington. According to the America Wind Energy Association, a dozen existing and proposed wind energy projects in Washington and Oregon are within 20 to 150 miles of the Port. These facilities are planned to include over 2,500 wind turbines and to provide a planned maximum capacity of nearly 3,940 megawatts of power.

The industrial clusters within the County that appear most viable for long-term expansion are based on an analysis of existing enterprises that are already concentrated in the Port area. The industrial sectors that appear consistent with future job growth and development within the Port include:

- Grain and root vegetable farming
- Warehousing and storage

- Food processing
- Repair and maintenance contractors
- Energy generation
- Agriculture support services
- Wholesale Trade
- Wood product manufacturing
- Waste management
- Data centers
- Truck, rail and barge transportation
- Building materials and farm products

Consideration of commodity export trends may also help identify prospective industrial activities. Within the list of the top Oregon exports, the commodities and goods that can be produced or shipped from the Port may include:

- Wheat and grain exports ($1,962 million in Oregon exports)
- Potassium chloride production ($1,063 million in Oregon exports), which is used for fertilizer as well as biomedical purposes
- Soybean exports ($183 million in Oregon exports)
- Hay/clover exports ($175 million in Oregon exports)
- Wood chips ($103 million in Oregon exports)
- Frozen/freeze-dried foods
- Energy-related commodity supplies (ethanol, coal, etc.)

These and other industrial sub-clusters are prime candidates for future marketing efforts by the Port and its regional partners.

Retail Target Market Opportunities

FCS GROUP analyzed retail supply and demand within the primary market area, which is defined as the area within a 20-minute drive of Boardman. There is significant annual retail sales leakage from the local area amounting to over $35 million. Almost every store group type experienced net retail leakage or trade outflow.

The store groups that are the most under-represented (local residents going outside the primary market area to make purchases) include motor vehicle and parts dealers ($12.1 million in trade outflow); general merchandise stores ($8.9 million in trade outflow); food service/drinking places ($7.0 million in trade outflow); food & beverage stores ($5.6 million in trade outflow); clothing/accessory stores ($2.0 million in trade outflow); and electronics/appliance stores ($1.8 million in trade outflow).

These high levels of retail trade outflow may justify a major opportunity for retail development by the Port or private investors at this time. Excluding the motor vehicle and parts category, there is a total retail outflow of $16.1 million in retail trade and $7.0

The Honorable Greg Smith
Oregon House of Representatives
District 57

November 5, 2015

Oregon Transportation Commission
355 Capital St. NE, MS #11
Salem, OR 97301-3871

RE: Letter of Support for *Connect*Oregon VI Application

To Whom It May Concern:

I eagerly submit this letter of support for the Morrow County Grain Growers' *Connect*Oregon VI Application.

Morrow County Grain Growers, Inc. is proposing to expand operations at their grain terminal located within the Port of Morrow at Boardman, Oregon. Currently, the facility has a limited local market due to the fact that it can only receive grain by truck. The proposed project will give the facility the capability to unload unit trains coming into Pacific Northwest markets from the Midwest region. The proposed expansion will include building a unit train unloading facility on a lateral rail line that connects to the existing loop track. The railcars will unload into a dump pit equipped with conveyors to transfer the grain to the existing facility. Unit trains will consist of up to 100 cars of grain that will need to be unloaded within 15 hours of arrival to meet the incentives provided by the railroad for peak efficiency. Providing this link between rail and barge transportation is critical for improving the logistics and efficiency in the transportation of grain to export facilities in the lower Columbia River. It is anticipated that this project would also create eight full-time jobs.

In addition to the economic benefits, the project also benefits the transportation system. The location of the project is where the Union Pacific Railroad mainline meets the Columbia River with a loop track located within a short distance. This project would help reduce long-haul transportation of grain by truck and reduce the growing volume of train traffic through the Gorge. It will accomplish this by transferring product from rail and truck to barge, where it will then be sent downriver to its final export destination in the lower Columbia River.

I believe this project is a "win-win" solution for the Oregon transportation system along the Columbia River. I hope you take great consideration for this project and encourage your approval of the Morrow County Grain Growers' *Connect*Oregon VI Application.

If you have any questions or require any additional information, please do not hesitate to contact me at rep.gregsmith@state.or.us.

Best Regards,

Representative Greg Smith
District 57

900 Court Street NE, H-482, Salem, OR 97301 – Phone: 503-986-1457
P.O. Box 219, Heppner, OR 97836 – Phone: 541-676-5154
rep.gregsmith@state.or.us

COUNTY COURT

P. O. Box 788 · Heppner, Oregon 97836
(541) 676-5620 · FAX (541) 676-5621

TERRY K. TALLMAN, Judge
email: ttallman@co.morrow.or.us
Boardman, Oregon
LEANN REA, Commissioner
email: lrea@co.morrow.or.us
Heppner, Oregon
DON RUSSELL, Commissioner
email: drussell@co.morrow.or.us
Boardman, Oregon

October 21, 2015

John Ripple
General Manager
Morrow County Grain Growers
P.O. Box 367
Lexington, OR 97839

Dear Mr. Ripple:

We are pleased to learn that you are applying for *Connect*Oregon funds to expand the Boardman grain handling facilities giving it the capability to unload and load unit trains.

Morrow County continues to experience healthy economic growth, particularly when compared with other rural counties. We see ongoing investment by private industry which builds upon the infrastructure developed by the Port of Morrow that was partially funded by past rounds of *Connect*Oregon. This growth leads to increased demand for additional handling capacity.

The industries located in Morrow County such as food processing, dairy, grain and energy generation all depend on a healthy balance of transportation options. It is vital to ensure modal choices for companies that operate here. This is why we support Morrow County Grain Grower's efforts to expand your ability to transfer grains. Providing a link between rail and barge transportation is critical for improving logistics and efficiency for the transportation of grain to the grain export facilities in the lower Columbia River that will serve the grain industry for many years to come while also helping to reduce the current rail congestion through the Columbia River Gorge and the Portland metro area. This project will allow the north central region of the State to continue to serve as a leader in economic development.

We support the Morrow County Grain Grower's application and their efforts to bring jobs to our area and encourage the approval of the grant application.

Sincerely,

Terry K. Tallman
Judge

Leann Rea
Commissioner

Don Russell
Commissioner

PORT OF MORROW

November 17, 2015

John Ripple, General Manager
Morrow County Grain Growers
P. O. Box 367
Lexington, OR 97839

RE: Connect Oregon VI - Boardman Grain Elevator Unit Train Unloading Project

Dear John:

The Port of Morrow offers our support to Morrow County Grain Growers in your application to the State of Oregon for Connect Oregon VI grant funding to expand your existing truck to barge facility with addition intermodal opportunities by adding a unit train rail car unloading facility on a lateral rail line connecting to the Port's existing loop track.

The Port of Morrow has been the location for a grain terminal for over 30 years, supporting transport of Oregon and Pacific Northwest grains to the global market. We commend you and your company's efforts to develop an efficient, competitive transportation alternative to moving Oregon's products into the global market. We are excited about the partnerships and additional investment furthering your ability to improve grain movement regionally and nationally to the benefit of Eastern Oregon as well as the State of Oregon.

Finally, we believe this project will provide the opportunity to further reduce the number of trucks on the Pacific Northwest's interstate highway system, shifting containerized transportation to rail. This will reduce congestion, highway maintenance costs and air pollution. Shifting from truck to rail alone reduces emissions by 60%, which will improve energy efficiency and lower greenhouse gas emissions.

Best of luck in obtaining the Connect Oregon VI grant funding. If I can answer any questions or be of further assistance, please contact me at (541) 481-7678 or lisam@portofmorrow.com.

Sincerely,

Lisa Mittelsdorf
Director of Economic Development

UNION PACIFIC RAILROAD
10031 Foothills Boulevard
Roseville, CA 95747
(916) 789-6015

Wesley J. Lujan
Vice President – Public Affairs

November 2, 2015

Mr. Matthew Garrett
Director
Oregon Department of Transportation
355 Capitol Street
Salem, OR 97301

Dear Director Garrett:

On behalf of Union Pacific Railroad, I am writing to inform you of our company's support for Morrow County Grain Growers, Inc ConnectOregon proposal to expand operations at the Grain Terminal located within the Port of Morrow at Boardman, Oregon.

This project would enhance the Port's capabilities to unload unit train of grain coming to markets in the Pacific Northwest from the Mid-West region of the country. These improvements will help ensure that the Port is able to provide service to its current customers and encourage future growth. It is our understanding that this project will provide a vital multimodal link between rail and barge transportation that will improve logistics and efficiency for the transportation of grain to export facilities in the lower Columbia River.

Union Pacific looks forward to working with Morrow County Grain Growers and the Port of Morrow on this project if awarded a 2015 ConnectOregon grant. Thank you for your consideration and please feel free to contact me if you have any questions.

Sincerely,

TIDEWATER
TRANSPORTATION & TERMINALS

November 17, 2015

Mr. John Ripple
General Manager
Morrow County Grain Growers
P.O. Box 367
Lexington, OR 97839

Dear John,

Tidewater Holdings Inc. (parent Company of Tidewater Barge Lines and Tidewater Terminal Company) is in strong support of Morrow County Grain Growers' (MCGG) application for ConnectOregon VI funds for a project that would expand operations at your Boardman elevator, located within the Port of Morrow. I send this letter to express Tidewater's enthusiastic support for your ConnectOregon application and for the facility enhancement and improvement project, and we look forward to investing in and partnering with MCGG and the Port of Morrow to ensure the economic success of the elevator expansion. To that end, the Tidewater Board of Directors has approved an investment of up to $1 million in this facility.

The Boardman grain elevator is fundamentally a strong asset but underutilized because of excess marine grain terminal capacity in this region of the Columbia River. The planned investment supplemented by Connect Oregon funds will enable efficient receipt and transload to barge of grain grown in the Midwest and delivered by unit train.

Tidewater provides inland marine transportation and terminaling services on the Columbia/Snake River system, where we operate a fleet of 62 grain barges. While the rail corridor along the Columbia River Gorge is limited in capacity, the Columbia River and lock system is at only about 30% barge capacity utilization, and Tidewater has existing barges with adequate excess volume to readily transport 1 additional unit train per week (about 630,000 tons) with relative operational ease. This added volume would add 10 to 15 jobs at Tidewater alone and can be achieved without strain on the Columbia River lock system and with existing Tidewater tugs and barges.

Tidewater is nearing the completion of 3 new high-power, low-emission, and state of the art tugboats built at Vigor Shipyard in Portland, Oregon. We look forward to putting at least 1 of these tugs in service to handle the added grain barge volume that would come from the Boardman elevator expansion.

Tidewater fully supports MCGG's Connect Oregon VI application and looks forward to the successful completion of this much needed growth project.

Sincerely,

Andy Stephens
Vice President of Business Development
Tidewater Holdings

6305 NW Old Lower River Road, Vancouver, WA 98660 • 360.693.1491 • www.tidewater.com

SHAVER
TRANSPORTATION COMPANY

Date: October 16, 2015

Subject: Shaver Transportation Company support for Morrow County Grain Growers Connect Oregon VI Grant Application.

Shaver Transportation Company is writing this letter in support of Morrow County Gain Growers (MCGG) application to the Connect Oregon VI program. The MCGG grant request concerns a project at the Port of Morrow at Boardman OR to better connect bulk rail commodities to river transport.

Shaver Transportation Company is a 135 yr old, 5th generation, family owned Oregon company. Shaver is a tug and barge line that provides ship assistance to deep draft vessels in the lower Columbia River, and bulk agricultural product barging on the Columbia Snake River system. We are located in Portland Oregon, on the Willamette River.

The MCGG proposal to connect mainline continental rail carriers to a barge trans load facility at the Port of Morrow has great deal to offer the citizens of the State of Oregon. Rail traffic in the sensitive and congested Columbia River Gorge is nearing a maximum, and only adds to air and rail congestion at export terminals they serve. Though infrequent, derailments of one train have a profound effect on the whole rail system serving our lower Columbia terminals.

Barging is the most environmentally responsible mode of transport, delivering 576 tons per mile per gallon of diesel, compared to 413 ton/miles per gallon for rail. Our Columbia Snake River barging system has seen a peak of over 1800 barge tows per year transiting our system. Currently the system is running at approximately 1300 to 1400 tows per year, leaving a significant margin for transport on the river. Each 4 barge tow (standard Columbia River barge tow size) represents approx. 140 railcars, and when delivered to the export terminal requires no expenditure of diesel to offload.

Not only is barge trans loading the best way to help reduce carbon emissions in our Columbia River transport corridor, but does so without a single addition to our existing river infrastructure of Navigation Locks, barge tie offs, or floating equipment. The additional product tonnage this project brings to the river will have a direct effect on jobs for our tug crews. Not only will it add additional tug crewing opportunity for our existing crews, but also allows us to speed up our hiring, training, and wheelhouse promotion programs. The net result would be 4 to 6 additional crewmembers hired during the construction period. Our deckhands average $60,000 annually with Captains at about $100,000. We note that these jobs provide complete health care and paid retirement benefits. They are just the type of jobs to help move the Oregon economy forward. The river and its transport mechanism are ready to easily accept the products and volume brought to market with this facility upgrade.

I S M Certified
4900 N.W. Front Avenue • Portland, OR 97210-1104 • P.O. Box 10324 • Portland, Oregon 97296-0324
Office (503) 228-8850 • Toll Free (888) 228-8850 • Dispatch (503) 228-8847 • FAX (503) 274-7098

Recently, the Board of Directors for Shaver Transportation Company met to discuss this project and its' impact not only on Morrow County Grain Growers, but on Shaver as well. Our Board decided to authorize our management to negotiate with Morrow County Grain Growers to provide a letter of intent to commit $1,000,000.00 as a non-equity investment in this expansion of the Boardman Grain Terminal. The Boardman Grain Terminal is an underutilized facility, and we at Shaver have the additional barge capacity to serve this expansion. The increased ability to barge additional quantities on our Columbia River System will reduce congestion on the rail lines, increasing their efficiency as well as increasing the utilization of barging, which provides the lowest carbon footprint for commodity transport.

When it comes to river transport of Oregon agricultural products, the combined experience of Morrow County Grain Growers producing and marketing expertise is coupled with the remarkable success of the Port of Morrow and its steady development of sustainable industry. The investment in this rail to barge upgrade is a natural progression of increasing availability to our markets while reducing our impact on the environment.

Sincerely,

Rob Rich, V.P. Marine Services

OREGON WHEAT

"Making Every Resource Count"

Oregon Wheat Growers League 115 SE 8th Street, Pendleton, OR 97801 (541) 276-7330 www.owgl.org

Mr. John Ripple
General Manager
Morrow County Grain Growers, Inc.
PO Box 370
Lexington, OR 97839

Dear Mr. Ripple,

The Oregon Wheat Growers League, representing Oregon's many wheat growers, is pleased to support your planned expansion of the Boardman, Oregon grain terminal at the Port of Morrow. We believe this will be a great project for the Connect Oregon program.

The proposed project will expand the holding capacity of the existing facility, upgrade the existing unloading capability to include rail, and provide a crucial link between grain producers in the Midwest and Pacific Northwest and the export facilities at the Port of Portland and along the lower Columbia River. The Boardman Grain Elevator would utilize both a nearby rail loop track as well as modern barge loading facilities.

Winter wheat is among the largest commodity crops in Oregon and is a critical economic driver in many of our rural communities. Transportation is a major cost for our wheat growers and your proposed project will allow for barging additional quantities of wheat and other grains on the Columbia River. This should reduce congestion on the rail lines and reduce transportation costs for our growers. Increasing grain volumes moved by barge will significantly reduce carbon emissions from grain transportation. The increased efficiency of both rail and barging on the river system should continue to provide sustainable benefits for years to come. In addition, the creation of eight new full-time, family wage jobs at the elevator will increase the economic health of the Boardman area.

We appreciate the opportunity to lend our support to your Boardman Grain Elevator Unit Train Unloading project. This effort will be a great benefit to the community and to grain growers throughout the region.

Respectfully,

Blake S. Rowe

Blake Rowe
CEO
Oregon Wheat Growers League

Louis Dreyfus Commodities

Louis Dreyfus Commodities
North America

4800 Main Street
Suite 600
Kansas City, MO 64112
T +816-756-3560
F +816-753-5690

www.ldcom.com

October 19, 2015

Mr. John Ripple
General Manager
Morrow County Grain Growers, INC
P.O Box 367
Lexington, OR 97839

Mr. John Ripple;

We, Louis Dreyfus Commodities LLC, would like to contribute our support for the Morrow County Grain Growers expansion project at your terminal in Boardman, Oregon. The concept to turn this facility into a unit train trans-load operation, going from rail to barge, would provide many benefits to the local community in the way of jobs but also would have many downstream benefits including creating jobs and lessening rail congestion in the Columbia Gorge and in the Portland area.

We, LDC, see benefits from this expansion project that would allow us to be more competitive on export business from our Portland terminal due to the land-locked nature of our terminal operation. This project would give us the ability to be more competitive with other U.S. ports at, WA, TX and LA points, to the Asian and other markets served by the aforementioned terminals. This would allow us to handle more business, tonnage, which creates more jobs and or more man hours for the water front labor force.

Additionally, this expansion project at Boardman would have the potential to reduce rail congestion in the Columbia River Gorge while creating additional commercial activities for the local maritime industry which makes it livelihood off the Columbia and Snake Rivers. All said, the economic impact of this project is very wide reaching for many stakeholders along the Columbia River basin.

As mention early, we strongly support the Boardman expansion project and are willing to commit to an annual tonnage volume to ensure the project comes to fruition.

Regards,

Mark Huston
Director North America Transportation
Louis Dreyfus Commodities, LLC

UGC
united grain corporation

900 Washington Suite 700
Vancouver, Washington 98660

October 20, 2015

John Ripple
General Manager
Morrow County Grain Growers, Inc
P.O. Box 367
Lexington, OR 97839

Dear John:

It is a pleasure to have known you since 1998 and appreciate the opportunity to comment in support of the Morrow County Grain Growers' upgrade project at the Boardman grail elevator.

The grain industry is going through a consolidation and transformation phase which requires grain handlers to look at ways of diversifying their grain handling capabilities in order to meet the market ever changing needs while preserving a local presence for Oregon farmers.

The Boardman grain elevator is strategically located on the Columbia River and also next to the mail line of the Union Pacific Railroad. The combination of barge and rail access provides the Boardman elevator with a strategic advantage in terms of potential handling capability as well as a diversification in the mode of transportation.
At its' current state the elevator is underutilized and will not be able to capture the strategic advantages the elevator is capable of achieving. The proposed expansion plans created by Morrow County Grain Growers (MCGG) will allow the Boardman facility to unload unit trains of grains coming from the Midwest in order to: provide access of grain to local feed-users, and to alleviate rail congestions at Pacific Northwest export terminals by trans loading grains from unit train to barges.

As a stakeholder in the industry we endorse MCGG efforts in expanding the Boardman Grain facility as it will secure a future for a company which has supported local farmers since 1930, supply feed grains to local markets, and provide the Pacific Northwest grain exporters with transportation flexibility.

Augusto Bassanini
President & CEO

October 8, 2015

PNWA
PACIFIC NORTHWEST WATERWAYS ASSOCIATION

John Ripple
General Manager
Morrow County Grain Growers, Inc.
P.O. Box 367
Lexington, OR 97839

Dear John:

Thank you for the opportunity to provide comment in support of the Morrow County Grain Growers' Boardman Grain Elevator Unit Train Unloading project.

As you know, the Pacific Northwest Waterways Association (PNWA) is non-profit trade association of over 130 public ports, towboat companies, steamship operators, agriculture and forest products producers, public utilities, manufacturers and others in Oregon, Washington, and Idaho. Our members join together to address navigation, transportation, trade, energy, regulatory and environmental policies. Morrow County Grain Growers is a valued member of our association.

PNWA strongly supports your planned expansion of the Boardman Oregon grain terminal at the Port of Morrow. The proposed project will expand the holding capacity of the existing facility to 1,800,000 bushels, upgrade the existing unloading capability to include rail, and provide a crucial link between the Midwest and Pacific Northwest facilities. The Boardman Grain Elevator would utilize both a nearby rail loop track as well as modern barge loading facilities.

Barging additional quantities of grain on the Columbia River will reduce congestion on the rail lines, and will result in net gains for the efficiency of both rail and barging on the river system. The upgraded Morrow County Grain Elevator will include a rail line that connects to the loop track, with conveyors to transfer to the grain facility. This will allow a unit train of 100 cars of grain to be unloaded and loaded within the 15 hours needed to provide for maximum efficiency. Upgrades to the facility will allow the Morrow County Grain Elevator to provide a key link between rail and barge, resulting in improved efficiency for the grain industry for many years to come. The increased market reach of the new facility will reduce transportation costs in the Columbia Basin. Finally, creation of eight new full-time, family wage jobs at the elevator will help to increase the economic health of the region.

The Morrow County Grain Growers' efforts to boost economic development and job growth are critical to this part of Oregon. Increasing the use of barging for grain movements will boost the efficiency of both rail and barging. The increased market reach of the facility will bring advantages to the entire Columbia Basin region.

We fully support Morrow County Grain Grower's endeavors and look forward to the successful completion of this project.

Sincerely,

Kristin Meira

Kristin Meira
Executive Director
Pacific Northwest Waterways Association

www.pnwa.net

ph. 503-234-8551 • f. 503-234-8555 • 516 SE Morrison Street • Suite 1000 • Portland, OR 97214

BNW
BEEF NORTHWEST

October 23, 2015

John Ripple, General Manager
Morrow County Grain Gowers
PO Box 367
Lexington, OR 97839

Dear John:

Morrow County Grain Growers proposed expansion of the grain terminal at the Port of Morrow to include a unit train unloading facility would be of benefit to us and Columbia River Dairy. The facility is located close to our facilities and could become an important source of feedstuffs for us. The Boardman area is a feedgrain deficit region and this facility will help provide us with access to feedgrain outside the area.

Beef Northwest is the largest cattle enterprise in Oregon and we process grain for both our feeding enterprise and Columbia River Dairy which is the largest dairy operation in Oregon. Our facilities are located 10 miles from Morrow County Grain Grower's elevator which will make it a close and convenient source of grain.

We support your efforts to expand your facility and look forward to working with you to help make it a reality.

Sincerely,

Ron Rowan
Beef Northwest Feeders

65799 North Powder River Ln PO Box 209 North Powder, OR 97867 (541) 898-2288

Brenda Jenkins <brendaj@co.wasco.or.us>

Wasco County Planning Commission/Union Pacific Application/Public Hearing Addenda

1 message

Daniel Rasmussen <vivaldischool@gmail.com> Sun, Sep 11, 2016 at 9:58 PM
To: angieb@co.wasco.or.us
Cc: brendaj@co.wasco.or.us

11 September 2016

Wasco County Planning Commission

The Dalles, Oregon

Honorable Commissioners:

Thank you for your attention to the application by Union Pacific Railroad, and thank you for your attention to the following letter. I'm sure your desks are heaped high with documents in abundance, and your ears full of contentious and often negative rhetoric.

What is suggested here is that the issue of safety be set aside, momentarily, and the inevitability and importance of rail transportation be fully embraced. Rail transportation offers economies and opportunities that may be especially critical at this time. Railroads have been of great historical importance in opening up new land and creating future possibilities. There is an opportunity for Union Pacific, and all of us together, to engage and continue with this fine tradition.

You will probably recall my attempt to summarize and suggest a somewhat divergent look at the current situation, vis-a-vis the railroad application, at this week's public hearing. Three minutes is not much time for addressing the issue, and my purpose here is to be as succinct as possible in finishing my presentation. I spoke of the centrality of the City of Mosier, of the vast number of people that flow through the Gorge, of the special piece of real estate that lies just west of Mosier, and of the many decades in which people of vision have considered the development of this land. The ODOT quarry certainly cannot be returned to its original state, piles of gravel are hardly suitable for development as a park of some sort, and something of a special character, hopefully supporting the public good, should certainly be built there. Conversations between ODOT and the City of Mosier have recently suggested the possibility of transferring ownership of this area. Education and the future of our young people is the common concern of Mosier residents.

Development of the ODOT Quarry has been rendered in relatively specific terms. The Mosier Institute, located there. would be an educational entity, working in concert with the Mosier School, and a myriad of other entities, partners, foundations, and corporate organizations, to showcase, explicate, and explore humanity's future. Some have framed it as a sort of permanent World's Fair. In any event, the Institute would be a world-class attraction that would enormously impact economic and educational development in the Gorge and, moreover, protect Mosier residents from unwanted, and random, development by clearly defining both philosophical and concrete development directions. Whatever the Planning Commission decides, the railroad's role in Mosier would still be enormously relevant to this effort. In the event that approval is determined, perhaps certain conditions that coincide with the proposed development in Mosier could be attached to that approval. Not only would this lay the cornerstone of the quarry project, but would also represent economies related to obviating later retrofitting. Railroad public relations would be greatly enhanced, and cutting-edge ideas evidenced and garnered for improving the rail system in our region and beyond.

Specifically, a station for passengers in Mosier might be a condition for double tracking. This would allow for passenger trains on the Oregon side of the Columbia River once again. Such a transportation option would allow for safer travel and presage the transportation requirements of the Institute. This station might include a small museum operating in conjunction with the Mosier Institute. Hands-on displays would highlight the past and future of train travel. Ideas like magnetic levitation, solar powered trains, and structures that promote greater safety and aesthetic dimensions might be explored. Providing exemplary city infrastructure could be another condition. Mitigations and accommodations to promote safety, attenuate sound, and screen unwanted optics, might be constructed, evaluated, and then duplicated in other areas of the country that face similar issues with trains. Students, teachers, transportation professionals, and the

general public might be invited to make suggestions for improvements in this regard. One never knows what insights could arise from this interface.

In any event, various documents are appended to this letter to provide greater insight, credibility, and delineation of the project envisioned in Mosier. These documents represent a small fragment of the work that has been accomplished in respect to bringing the Mosier Institute into reality. I would be pleased to meet with you, and other principals in this project, to discuss these matters at length and in detail. Thank you for your attention and careful consideration in this matter.

Respectfully Submitted,

Daniel M. Rasmussen

Teacher/Facilitator

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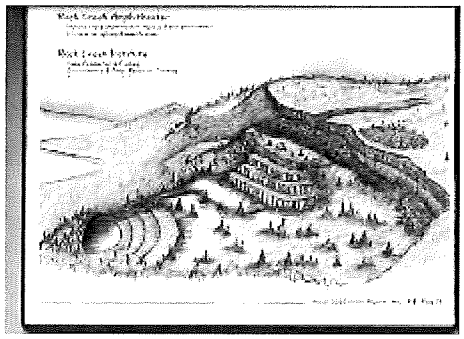
10 attachments



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MOSIER INSTITUTE MISSION STATEMENT.pdf
27K

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2009K

DMR_CV.pdf
68K

SMITH LETTER.doc
23K

Phil Hawes CV.pdf
62K

Phil Hawes Qualification Outline Letter 090609.pdf
57K

Mosier Institute Preliminary Draft Propsal 090609.pdf
64K

Charles.doc
49K

Basalt+paper1.pdf
368K

Rock Creek Amphitheater

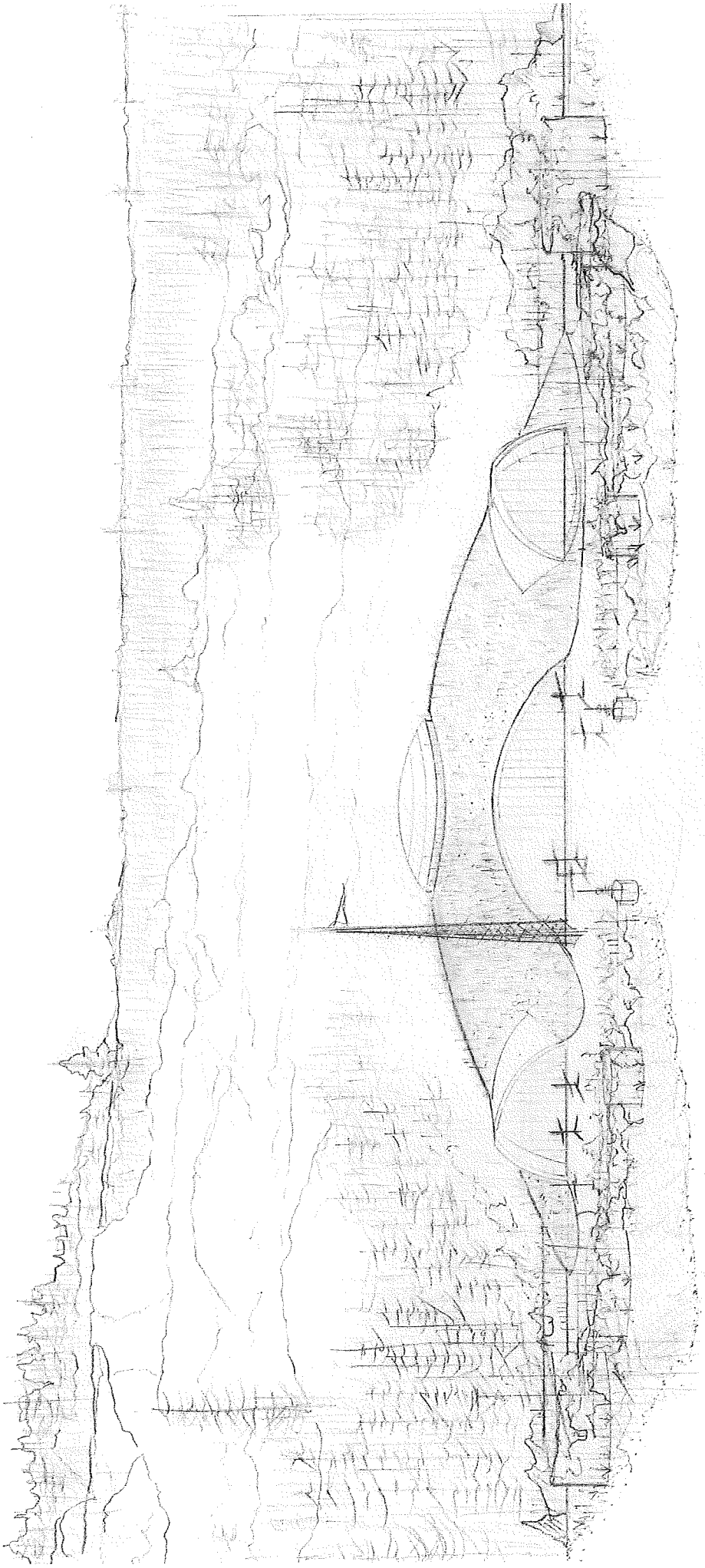
Natural stone amphitheater, music & drama performance.
Little or no lighting & amplification

Rock Creek Institute

Video Production & Training
Environmental & Other Research, Training

MOSIER INSTITUTE MISSION STATEMENT

"... The mission of the Mosier Institute (is) to germinate, develop, showcase, and proliferate concepts and methods that will assist in bringing forth more effective educational strategies, strong democratic institutions, respect for the environment, and the bright future of humanity."



Daniel M. Rasmussen
602 Canyon Road
Lyle, WA 98635
541.980.5527
<vivaldischool@gmail.com>

FORMAL EDUCATION:

University of California, Berkeley, CA	B.A. / Rhetoric	1965 - 70
National University, Sacramento, CA	Education	1986 - 87
Continuing Education	Various	1970 - Present

EXPERIENCE:

- Continuing development of educationally focused science/music programs in the Columbia Gorge.
- Currently implementing The Vivaldi School Music program at Mill A School.
- Design and implementation of a violin instruction program in Klickitat Schools, WA.
- Gorge Operations Coordinator for The Vinca Quartet <www.vincaquartet.com>.
- Implementation of The Vivaldi School, a music teaching methodology, in Klickitat Schools, WA.
- Music & Science specialist/teacher at Mosier Community School. Science instruction for all students grades 3-6. Music instruction (The Vivaldi School) for all students, grades 3-6. Responsibility for school-wide science and music curriculum development/implementation.
- Classroom teacher at Mosier Community School for Grades 5 & 6. All subjects.
- Creator/Director/Curator of The GISMO Student Science Museum and Athena-Weston Middle School Science Teacher. These experiences comprise 15 years of focused specialization in all aspects of a successful, student built/operated, hands-on science museum. <www.gismo.org>
- Successful grant preparation and management.
- Classroom Teacher. This position includes 25+ years of experience as a professional teacher/ facilitator in a wide spectrum of formal and informal instructional settings ranging from elementary education to adult education. Strong emphasis in science and mathematics instruction for approximately 15 years. Strong information technologies capabilities.

SELECTED RECOGNITION:

1995 Umatilla Soil & Water Conservation District Natural Resources Education Award
1996 Omsi/Tektronix Award for Excellence in Teaching Science, Math, & Technology
1998 Oregon State Presidential Award for Excellence in Mathematics & Science Teaching
1999 Intel Innovations in Teaching Award
2000 Oregon Innovators in Education Award
2000 Oregon State Presidential Award for Excellence in Mathematics & Science Teaching
2001 US Space Foundation/US Air Force Space Command Rocket Design Competition, First Place
2002 Meyer Memorial Trust: Grant Makers Tour & 20th Anniversary Featured Project
2003 GISMO Science Museum/Mosier Community School, Teacher/Curator
2004 Solar Electric (PV) Demonstration Project, Oregon Energy Trust, Grant Writer/Recipient/PI
2005 The Vivaldi School/Mosier Community School, Teacher/Director
2008 The Vivaldi School/Klickitat Schools, Community Education Grant, Teacher/Director
2008 GISMO Science Museum/Klickitat Schools, Teacher/Curator
2009 Teacher/Advisor: The Dalles MS/LEGO/4-H Robotics Program, Oregon State Finals Team
2009 The Vivaldi School: Mosier Community School/Klickitat Schools
2010 The Vivaldi School/Vinca Quartet violin program in Klickitat Schools
2011 The Vivaldi School Chamber Music Programs; Beyond The Chamber, Klickitat Schools
2013 The Vivaldi School:Mill A Schools/Klickitat Schools
2014 The Vivaldi School:Mill A School/Klickitat Schools
2015 GISMO Science Museum/Wahtonka Community School
2016 Founder-Conductor/The Vivaldi School Ensemble

CERTIFICATIONS:

California Multiple-Subject Professional Clear Teaching Credential,
Oregon Teaching License with endorsements in science & music,
Extra Class Amateur Radio Operator, Certified Scuba Diver,
United States Fencing Association Certified Instructor of Foil.

ACTIVITIES:

Music, chamber music, flauto dolce,
outdoor recreational sports, research, invention, and continuing education.

13 July 2006

Senator Gordon Smith
Pendleton, Oregon

Dear Senator Smith:

You will recall your generosity to The GISMO Student Science Museum in Weston, Oregon at a time when it was profoundly needed. That is to say, at the very beginning. I am now located in Mosier, Oregon. GISMO is alive and well and is now moving to its own dedicated building. We are hoping for architectural revisions and I am certain that monies for this will be obtained with relative ease. However, greater issues and possibilities have arisen here that may merit your attention, and perhaps even your involvement.

I'm not certain how familiar you are with Mosier, but it occupies an unusually central location in the state. Its centrality is not merely geographic, but also encompasses socio-economic, geological, hydrological, energy production, and other parameters. The arrival of Google also presages centrality in new technologies that are already deeply embedded in the Northwest region of the country.

Something has happened here. The community was about to lose its school, when the entire population of Mosier, in all of its enormous diversity, crystallized around the issue of education. The school was saved. This is no small thing. When the enormously contentious world of adults agree on anything at all, that is remarkable indeed. The point is that education is something on which we can all agree. The next generation is precisely that, the next generation. They will remain when we have gone. Focusing on education and on the critical thinking skills necessary to maintain our democratic society, are the issues that can potentially bind us together as a nation where all else fails. I know that you are keenly aware of this from the public positions that you have taken.

To be brief, Mosier has a monolitihic character, and is unlike the neighboring cities of The Dalles and Hood River. This singularity invites the focused attention of the vigorous, and rapidly expanding tourist traffic in The Gorge. ODOT maintains a quarry of 20+ acres in a spectacular natural bowl here. It is adjacent to the Mark O. Hatfield Trail, Historic Route 30, and Twin Tunnels Trail. If one were to take the public will, that has already been expressed, and develop an institution for the study of promising educational methods, particularly in the areas of science and math (But not limited to these subject areas.), it could produce spectacular results. Open laboratories would produce a sort of "Education Theme Park." This would attract a myriad of partners. The cutting-edge monolithic dome technology selected for GISMO's expansion is easily applied to the complex topography of the environmental eyesore that presently exists. The quarry is a big issue in Mosier. A master plan that removes the rock material needed by ODOT, while terra-forming the site for the envisioned educational center, might satisfy all parties. Such an effort would solidify Oregon's leadership in the field of education and provide a beacon for the rest of the country. The Mosier Community School, at which I teach, could serve as an ancillary dimension of the project in which promising methodologies are actually applied.

If this is at all of interest, and unless you are very familiar with Mosier and the issues that have been raised, it might be best to examine the possibilities at ground level. To this end, and in the event that you might be passing this way at some point, I would invite you to lunch at our excellent restaurant, The Wildflower, and give you a very brief tour and share my ideas and information. Alternatively, and given your intimate knowledge of the world here, I would be pleased to discuss this matter with you further and share some of the possibilities I envision, all of which are merely the physical manifestation of the will of an Oregon community that has agreed on what is of most importance to all of us.

Thanking you for your attention in this matter, I remain,

Sincerely,

Daniel M. Rasmussen

PHIL HAWES - CURRICULUM VITAE

(30 January, 2009)
Born Danville, Illinois
20 May 1934

EDUCATION AND PROFESSIONAL REGISTRATION

1952-1954	Swarthmore College, Swarthmore, Pennsylvania
1954-55; 1959	Architecture School, University of Illinois
1956-1957	Frank Lloyd Wright Fellowship at Taliesin West, Scottsdale, AZ, and Taliesin East at Spring Green, Wisconsin
1957-58; 1960-63	Architecture School, University of Oklahoma, Norman, OK
1958	Architecture tour of Europe, four months
1963	Bachelor of Arts in Architecture, College of Architecture, University of Oklahoma, Norman, Oklahoma
1963-1965	Graduate Studies in Town & Regional Planning, Univ. of Okla.
1973-Present	Architectural License, State of New Mexico
1985-Present	Architectural License, State of Arizona.
1998-March	Ph.D., San Francisco Institute of Architecture - Sustainable Architectural and Town Design*
1998-2000	Landmark Education - 'Curriculum for Living' program
2007-Present	Architectural License, State of Texas

* Doctoral Degree in Sustainable Architecture and Town Design was granted on the basis of:

A) A written program to direct the design and development of an ecologically-and economically sustainable, full-service village of 5,250 population proposed on only 160 acres of a 1,250-acre property north of San Raphael, California. Of the 1,250 acres, 1,190 were reserved for food production and aquaculture. The following areas of self-sufficiency and sustainability were addressed:

1) Renewable energy from sun and wind
2) Water sources, storage, purification, and use
3) Wastewater treatment and re-use
4) Food production (Permaculture guided)
5) Materials and methods of construction
6) Intra-community transportation system (cable cars, no private autos)

B) Eight years of professional work on the Sustainable Closed System of the Biosphere 2 complex near Oracle, Arizona.

ARCHITECTURE, CONSTRUCTION, TOWN PLANNING & TEACHING EXPERIENCE

Note: (Project) indicates structure(s) not built

1954-1968 Architectural Draftsman, for architects in Illinois, California, Nevada, New Mexico, and Wisconsin.

1955 Assistant to Dr. Ralph Wister, Scott Horticultural Foundation, Swarthmore, Pennsylvania. Mapping of trees in Crum Woods, and plantings.

1964 Planning Internship, City Planning Department of Oakland, California. Designed preliminary Oakland Estuary Marina Development from Jack London Square to Lake Merritt (Project)

1967-1969 Assistant Planner, City of Santa Fe, New Mexico. Prototype design for a 5,000 person Village/Neighborhood on city owned land. (Project)

1968 Assistant Planner, North Central New Mexico Economic Development Agency Report (on loan from the City of Santa Fe, NM Planning Dept.)

Construction Foreman, Vietnam War Veterans Memorial Chapel, Eagle Nest, New Mexico. (Architect: Ted Luna)

1969-1978 General Building Contractor, Electrical, Plumbing and Gas Fitting contractor's licenses, State of New Mexico.

1969 General Building Contractor, Esperanza Corporation, Santa Fe, New Mexico. Radiant-heated adobe residence. (William Lumpkins, architect)

1970 Construction Foreman, Bull Ring Restaurant, Santa Fe, New Mexico. (Architect: William Lumpkins)

Architect and Contractor on Camino Manzano, Santa Fe, New Mexico. Two radiant-heated adobe houses constructed.

1974-1978 Planner, Architect and General Building Contractor, Llano Compound, Santa Fe, New Mexico, 29 radiant-heated adobe houses; including site planning, radiant-heating system design; Synopco Corp. (Synergetic Operations Corp.)

1977-1980 Architect, Vajra Hotel, Katmandu, Nepal. A 40 room earthquake-resistant structure in indigenous historic style; reinforced concrete frame with light weight local brick in-fill; ferro cement and tile pagoda roofs.

1978 Architect, Plaza Canon, Santa Fe, New Mexico. A 52 dwelling unit residential adobe complex, underground parking, water harvesting, total solar radiant-heating. Mix of land-uses through the enlightened Santa Fe Residential Arts and Crafts ordinance, permitting artists and craftsmen to live, work, & sell products in the same building. For Synopco Corp. (Project)

Architect, Ladakh India High Altitude Nature Study Camp, Stok, Ladakh, India. Adobe construction at 13,000 foot elevation.

Architect, Tibetan Buddhist Residence, and Study Center, Katmandu, Nepal. Project for His Holiness the Karmapa Rinpoche. (Project)

Architect, Tibetan Buddhist Monastery, Katmandu, Nepal. Preliminary design for His Holiness the Karmapa Rinpoche. (Project)

1980-1982 Architect, Savannah System Research Station, Derby, Western Australia. Work and Living facilities for a grasslands research station in a tropical-monsoonal ecosystem.

1982 Assistant Professor, School of Architecture, University of Oklahoma. Taught under-graduate architectural design. Co-taught graduate design seminar with Bruce Goff.

Street Facade development: Caravan of Dreams Performing Arts Center, Fort, Worth, Texas.

Architect for a preliminary design and a model of a spacecraft with recycling systems for permanent space habitation; this evolved into the Biosphere 2 project. Institute of Ecotechnics Conference, Aix-en-Provence, France. (Project)

1985-1992 Architect of Record, Biosphere 2 Project, Oracle Arizona. As "Director of Architecture and Design Development", I was the "Architect of Record" for the three-acre ecological systems apparatus that included the tropical biomes of Rain forest, Savannah, Marsh, Thorn-scrub, Ocean, Desert, Agriculture, plus the Human Habitat. The structure w/3,800 species, was essentially completely sealed off from outside atmosphere, and other physical interchanges. I also, designed the biological waste treatment systems for Biosphere 2. (Planning phase 1985-1988; built 1988-1991)

1985-1988 Architect, Biospheric Research and Development Complex, a 40,000 square foot support facilities complex for Biosphere 2, Including an active-solar heated Plant Tissue Culture Lab and Mission Control building. Both buildings received awards for energy conserving design. Oracle, Arizona.

Architect, Mars Base Science Station, agriculture, manufacturing and mining prototype. (Project)

Architect, Life on the Martian Frontier Pavilion. Osaka, Japan. A Mars base prototype, with agriculture, with a two-person recycling habitat system, for the Osaka Horticulture Exposition. (Project)

1986 Architect, and head of design team, Biosphere 2 Test Model. A 19,000 cubic foot sealed prototype habitat for one person, with total air and water recycling, including climate and computer monitoring/control systems, and marsh-type biological human waste recycling system. It was the world's first completely sealed, recycling human habitat. Oracle, Arizona.

1987-1988 Architect, Environmental Clean-up System, a prototype system for purifying pesticide waste products from air and water in the plant-quarantine facility at Biosphere 2.

1988-1989 Architect of Record, Royal Manas National Park Project, Manas, Bhutan. Preliminary design of forestry school and visitor complex for the Royal Government of Bhutan and World Wildlife Fund. Halted by war in Assam, India. (Project)

1990 Architect, Ecological Space Laboratory, for External Tanks Corp. A bioregenerative research laboratory for space. Their two-person, 19,000 cubic foot living and work facility, was designed within a NASA Space Shuttle external oxygen-tank. (Project)

1990 Architect, Ecological Conference Resort Hotel of 500 rooms, to be built on-site at Biosphere 2. (Project)

1990-1991 Architect, Biosphere 2 Visitor Center sewage treatment system capable of serving 1.5 million visitors per year. Oracle, AZ (Project)

1991 Architect, Mars-Sphere, Environmental chamber to simulate the Martian environment, including atmosphere. Intended for experiments leading to establishing a Martian settlement. Oracle, AZ (Project)

1991-1993 Planner, Biospheric EcoVillage; An Ecological community concept for 5,000 population. The creation of an ecologically sustainable human community wherein environmental architecture and technics are integrated organically into the surrounding ecosystem. The infrastructure of energy systems, water

recycling, transportation, and other systems are all a visible part of the community and serve as an educational demonstration of an ecological life-style. The Biospheric EcoVillage includes a light industrial area for the manufacture of environmentally sound products and technologies in an ecological manner. Oracle, Arizona (Project)

1992 Professor - Two-week Summer session course on Biosphere 2 and Biospherics at the International Space University, Kitakyushu, Japan.

1992-1993 Hilltop, A neighborhood village for 450 persons on 4.6 acres. Mixed-use residential-commercial-industrial prototype with wastewater treatment marsh and 90% water recycling. Oracle, Arizona (Project)

1993 Llegada Piedras, mixed-use complex with 14 residential apartment units on 2nd floor with 11,000 sq. ft. of commercial office below. Rammed-earth construction with a tile-covered ferro-cement prefab roof panels. Oracle, Arizona (Project)

Resident Architect - Biosphere 2, Oracle, Arizona.

1994 -1995 Professor at the San Francisco Institute of Architecture (SFIA), San Francisco, California. Biospherics and Design with Nature. Studio classes on Eco Village Design and Construction.

1993 - 1994 San Francisco Institute of Architecture (SFIA), San Francisco, CA. One week summer sessions at Taliesin West, Scottsdale, AZ

1995 Stenderup Project, Proposal for the municipality of Kolding, Denmark for the ecological and sustainable development of 35 square miles of rural and village area (3000 people) within the municipality boundaries (Project)

Created a Graduate Architectural Master Degree program in Ecological Architecture and Biospheric Design , in conjunction with SFIA and the Fundacao Convento da Orada, Monsaraz, Portugal. Designed curriculum; directed professors and also taught:

Section 1 - Permaculture - Professor Penelope Livingston
Section 2 - Ecological Construction - Professor Phil Hawes
Section 3 - Wastewater Treatment - Built a "Living Machine"
Prof. David Austin
Section 4 - Organic Architecture and Heritage - Professor Fred
Stitt, Director, San Francisco Institute of Architecture

1996 Visiting Professor - Hartwick College, Oneonta, New York, Two weeks of "J" Semester. An intensive in Biospherics and Sustainability

Visiting Professor - Virginia Polytechnic Institute and State University, Architecture School, Special "Semester-in-One Month", course in "Ecological Design and Sustainability"

Professor - Summer Session for SFIA at Taliesin West, Scottsdale, AZ

Professor - Summer Session - SFIA, San Francisco, California. Courses:
1) Principles of Ecological Design
2) Eco-Ark Project - to develop program for a floating architecture school
3) Designing a Design-Build project. (Eco-Home)

1996 Professor -- SFIA, San Francisco, California. Courses:
Eco-Ark Project --Studio workshop on SFIA 's "floating home."
2) Introduction to Materials and Methods of Construction
3) Interior and Exterior Eco-Landscaping - design for a wastewater treatment marsh and Permaculture pond
4) Design Studio -Ecological Village Design for 5,000 pop. (Part 1)
5) Introduction to Structural Engineering

1997 Professor - Directed Readings - SFIA, San Francisco, CA.

Professor - SFIA, San Francisco, California. Courses:
1) Design Studio - Ecological Village Design for 5,000 pop. (Part 2)
2) Interior-Exterior Landscape Design Lab -- Hands-on residential project

Lecturer-- SFIA Annual Taliesin Summer Session

Director and Professor at a Hands-on Field Laboratory for Sustainable Systems and Straw-bale Cottage Design - Battle Ground, Washington. Course divisions:
1) Structures/ Habitation
2) Food Production
3) Renewable Energies
4) Water - Collection, Storage, Purification
5) Wastewater Treatment

On-site preparation for setting up a school for sustainability courses at the Moulin du Bonheur, La Rochelle, France

1998 Director and professor of the Sustainability Program - Moulin du Bonheur, La Rochelle, France. Courses were:
1) Permaculture - gardens designed and planted (Livingston)
2) Greenhouse Design - designed, & construction begun (Hawes)
3) Sewage Bioremediation Sys. for 25 people: designed (Hawes)
4) Rainwater Collection/Aquifer Recharge Sys: designed (Hawes)
5) Graywater Treatment System for 25 people: designed (Hawes)
6) Renewable Energy Sys. w/photovoltaics & wind: designed "

Workshop: "Straw Bale Construction", Western Washington State Univ., Pullman WA.

Collaboration with Roald Gundersen on straw-bale greenhouse construction , Duluth, Minnesota, and The Indigenous Materials Workshop, La Crosse, Wisconsin

1999 Design and Construction Supervision on an Italian Restaurant Module, and did a preliminary design for a restaurant for 300 people for the Portland, Maine Municipal Market.

1999-2000 Director - Eco-Design Experience, a hands-on residential school in Oracle, Arizona for the study of applied ecology, and an ecologically-sustainable approach to food, structures, energy, water and wastewater systems.

Courses in conjunction with the Central Arizona College:
1) Natural House Building - Survey of alternative bldg. materials
2) Architecture of EcoVillage Design (Basic)
3) Architecture of EcoVillage Design (Advanced)

2000 Prelim. drawings for a rammed-earth office building: Las Cruces, NM.

2001 Preliminary statistical compilation of basic functional, & estimated cost data, and preliminary feasibility study outline for the initial stages of the Global EcoVillage Inc. Project for a 5,000 person community.

Design an Environmental Studies Program for the University of Maryland, Baltimore, Maryland.

Workshop: "The Design of Ecological Villages" - for the Orange Twin Conservation Community, Athens, Georgia.

Univ. of Maryland, Baltimore County Campus, Interdisciplinary Studies Dept. -Summer Session, "The Design of Sustainable Environments."

Preliminary Global EcoVillage design begun, with continuation of calculations; May-Oct corporate departments defined; team members outlined, phasing and scheduling address with budgetary outline, etc.

Design & construction, with Taren Pang and Jill Janis, of a chicken coop built as a dome, with burlap soaked in cement draped over chicken wire, placed over reinforcing bar.

2002 Design of adobe/straw-bale/rammed-earth group-house for the George Drum, and George Drum Jr. families. Located in the San Pedro River Valley, San Manuel, Arizona.

Global EcoVillage: writing organizational documents, initial team members meeting, financing, phasing and scheduling, Focus Meeting planning, economics symposium planning, property investigations.

Taliesin talks for SFIA, on ecological sustainability & community design.

2002-2008 Research, calculations, Business Plan, and preliminary designs for an Ecologically and Economically Sustainable Village of up to 5,100 persons. Proposed location near Amarillo, TX.

PAPERS, PUBLICATIONS, PRESENTATIONS, AND LECTURES

1981 Presentation - "Architecture for Space Colonies," talk with a scale-model spacecraft at the 1982 Institute of Ecotechnics, International Ecological Galactic Conference, Aix-en-Provence, France.

1985 Publication - "Two Biospheric Architects: Frank Lloyd Wright and Bruce Goff;" published in the Biosphere Catalogue, Synergetic Press, Tucson, Arizona.

1986 Paper - "Biosphere 2: Ecological Life-Support System for Space Habitats," presented to The National Commission on Space, Palo Alto, California.

1987 Paper - "Mars Base Design," presented at the Case for Mars III conference, Boulder, Colorado.

1988 Presentation - Nelson, Mark, with Hawes Phil, "Life Support Lunar Base", presented at the Lunar Base Conference, Houston, Texas.

Publication - Nelson, M., with Hawes, P. and Dyhr, K., "Biosphere 2 – Paradigm, Symbol, and Laboratory," published in the International Synergy Journal, Santa Fe, New Mexico.

Publication - Hawes, P., with Schuiteman Chas. "Biosphere 2 Site Wastewater Treatment and Recycling," presented at the 64th Annual Conference of the Water Pollution Control Federation, Toronto, Canada.

Lecture - "Closed Ecological Life Support Systems." The International Space University, Summer Session, Toulouse, France.

Paper - "Biosphere 2: Materially Closed, Energetically Open Life System," presented at the 9th Annual Man in Space Conference, Koln, Germany.

Paper - "Biosphere 2: Materially Closed, Energetically Open Life System," presented at the Intelligent Building Symposium, Karlsruhe University, Karlsruhe, Germany.

1991 Paper - "Space Technology and Earth's Ecology" - Communication to the French Minister of the Environment and the National Center for Space Studies, Paris, France.

Lecture - "The Biosphere 2 Project", at the Architecture School at the University of Arhus, Arhus, Denmark.

Lecture - "The Biosphere 2 Project", at the Royal Academy of Art and Architecture, Copenhagen, Denmark.

Lecture - "Biosphere 2 Project and Applications of Technologies in Integrated Building Systems, Toward a Global Indigenous Architecture", American Institute of Architects, National Convention, Boston, Massachusetts.

Lecture - "Biosphere 2 and Ecological Applications for Architecture", 1st Union of International Architects (UIA) Congress of Combined Swedish and Finnish Associates of Architects, Helsinki, Finland.

Lecture - "Biosphere 2 Design and Construction", for the Phoenix Chapter of the English Speaking Union.

Publication - Decisions Environment Magazine, Paris, France. Article, "Ecological Community Planning"

1993 Publication - Progressive Architecture Magazine. Paintings and Notes on the Mars Sphere.

Lectures - Kingston/Scottsdale, Arizona. Sister cities Conference, Kingston, Ontario, Canada.
1) "Biosphere 2 and the Evolution of Biospheric Communities".
2) "Evolution of Eco-Technic Architecture: Biosphere 2 Lessons".

Lecture - "The Evolution of Eco Architecture: Lessons from Biosphere 2"- for the International Meeting of Ecological Architecture, under auspices of Biodilizia Co-Operative Society; Italian Ministry of Environment; Italian Ministry of Public Works; the World Wildlife Fund; Universities of Padua, Venice, and Verona; and the National Institute of Ecological Architecture.

Lecture - Series of seven lectures at four different universities and foundations in Portugal. Under the auspices of the Masters Program Workshop, University of Lisbon, Lisbon, Portugal.

"Lecture - Biosphere 2 Construction", Londonia House, London, England.

Lecture - "Biosphere 2", at the Human Behavior in Closed Systems Symposium at UNESCO. Paris, France.

1994 Lecture - "Biosphere 2 Design & Construction", International Federation of Planners, Edmonton, Canada.

1994 Lecture - "Transdisciplinarity and the Biosphere 2 Project." Presented to the First World Congress on Transdisciplinarity, Setubal, Portugal.

1995 Lectures - Presented at four schools & ecology groups. Kolding, Denmark.

Lecture - "Biosphere 2 and Sustainability". For the Non-Governmental Organizations Forum, Hosted by the Union of International Architects (UIA), Copenhagen, Denmark.

1995 Presentation - Lagarde, France; development team presentation, program for a school in a restored medieval village and environs.

Lectures - Three classes on ecological design. Nordic Summer School, Kolding, Denmark.

Lecture - "Biosphere 2 and Problems of Sustainability." Hartwick College, Oneonta, New York.

Lecture - "Biospherics and Sustainability." Virginia Polytechnic Institute, Blacksburg, Virginia.

Lecture - "Biosphere 2 Design & Construction", Danish Center for Renewable Energy, Ydby, Denmark.

Lecture -"Implications & Applications of the Biosphere 2 Experience", Danish Center for Renewable Energy, Ydby, Denmark.

Lecture - "Biology, Ecology and Habitat Design." University of Evora, Portugal, Biology Department.

1996 Lecture - "Biospherics, Construction and Education". College of the Atlantic, Bar Harbor, Maine.

Lecture - "Biospherics, Construction & Education". Pratt University, NY

Presentation, with Willem Pothof, of Eco-Birdhouse to St. Paul's School, Exceptional Students' Class. (fifth grade) Pikesville, Maryland. (Designed by P. Hawes and Willem Potof, built by Willem Potof)

Presentation of Eco-Birdhouse. Osaka, Japan. (Designed by P. Hawes and Willem Potof, built by Willem Potof)

1997 Presentation - Gualala River, Watershed Conference. Gualala, CA.

Presentation - Sustainable Communities conference, Bellingham, WA.

1998 Lecture - "Biosphere 2", to the Centre de Recherche en Ecologie Marine et Aquaculture (CNRS-IFREMER) L'Houmeau, France.

Presentation - "The Future Role of Biosphere 2 in Research and Education", to the Education for Living Architecture Conference on Ecological Design, Sponsored by San Francisco Institute of Architecture.

Panel on Sustainable Design with Ian McHarg - Environmental Forum for Business - Spokane, Washington.

1999 Chapter on Biosphere 2 engineering and construction - Special Edition of Ecological Engineering Journal entirely on Biosphere 2. (With Zabel, Marino, Stuart)

2000 Presentation to Interdisciplinary Studies Division-University of Maryland, Baltimore County, Maryland.

2002 SFIA Ecological Design Conf: The Unstoppable Wave #1 -Berkeley, CA.

1) Talk w/ slides on "Sustainable Design Components"
2) Talk w/slides on "Master Plan for EcoVilage Design"
3) "Tribute to John and Nancy Todd", and their work on wastewater Bioremediation

Article: "Water, Wastewater, and Wealth" - The Arizona Capital Times

Article: "Sustainable Communities" - Oracle Land Trust Newsletter

SFIA Conference on Ecological Design: The Unstoppable Wave #2 San Diego, CA. Talks w/slides:

1) "Overview of Finite Materially Closed Ecological Systems"
2) "Indigenous Ecological Architecture & Polytechnics in Today's World"
3) "Construction, Contracting, and the Owner-Builder Alternatives: Including Hybrid Construction, Waste Disposal Systems."
4) "EcoVillage Schematic Master Plan"

2003 SFIA Conference on Ecological Design: The Unstoppable Wave #3 - Oakland, CA. Talks w/slides:

1) "Sustainable, Ecological Community Design"
2) "Ecological Systems for EcoVillage Design"

The 11th. Viennese Architectural Congress, "Intelligent Realities: What to Build in the 21 st. Cenury," Vienna, Austria "Building Sustainable Communities"

2004 University of Calif., San Luis Obispo "The Relevance of Closed System Research to Designing Sustainable Communities"

SFIA at Taliesin
2006 "Building An EcoVillage: With Economics"

2007	Public Lecture, Amarillo, TX: "Taming the Dragons: A Finite List of Tasks for the New Paradigm"
2008	Talk for the League of Women Voters of Amarillo, TX. Talk on water sources, use and recycling.

OTHER EXPERIENCE

1969	Internship in bronze and aluminum casting techniques with the sculptor J.B. Thompson, Hollywood, California.
	Oil painting, and casting bronze and aluminum sculpture for exhibitions in Los Angeles, California.
	Gold and silver jewelry design and casting shop, Santa Fe, New Mexico.
1970-1973	Ecological Planning Studies, Institute of Ecotechnics projects in New Mexico and New South Wales, Australia.
1973	Interstate truck driver out of Eden, New South Wales, Australia.
1975-1976	Cattle Ranch Management Team - 216,000 acre Quanbun Downs, Outback Station, Fitzroy Crossing, Western Australia, Australia (1 year)
1978	In-Port Captain for political relations, for the Research Vessel Heraclitus, a 120 ton ferro-cement sailing vessel; under the auspices of the Institute of Ecotechnics. The expedition voyage sailed from Broome, Australia to Mombassa, Kenya and back to India (4 months).
1980-81	Grasslands Research Station operations team for Savannah Systems Pty. Ltd at Birdwood Downs, Derby, Western Australia, Australia.
1981	Solo "walk-about" expedition of five hundred miles across an uninhabited area of the Western Australian wilderness.
1982-1985	Expedition chief, Research Vessel the Heraclitus, on the Institute of Ecotechnics, "Around the Tropic World Ecological Expedition". We sailed from Puerto Rico, across the Pacific Ocean to Indonesia and Singapore. Were shipwrecked for nine months in Western Samoa, where we worked on repairing the ship, and I continued on the voyage as the ship's Captain from Western Samoa to Singapore. (Total voyage, including preparation in Puerto Rico, two years and three months.)
2002	Landscaping projects for bush-fire protection. Design and execution. Oracle, AZ

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ECOLOGICAL SYSTEMS DESIGN

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Qualifications Outline

September 6, 2009

Dear Dan Rasmussen & the Mosier Institute:

My name is Phil Hawes. I am an Architect, Town and Regional Planner/Designer, and am the owner and president of Ecological Systems Design (ESD) in Tucson, Arizona. My areas of interest and expertise are sustainable projects in community design and development, and medium to large ecologically oriented projects and their management.

My early formal education was from Swarthmore College, the Univ. of Illinois, the Univ. of Indiana, the Univ. of Oklahoma, the San Francisco Institute of Architecture (SFIA), and in 1955-56 I was privileged to study with Frank Lloyd Wright at his Taliesin fellowship in Arizona and Wisconsin.

I earned a BA in Architectural Design in 1963 from the University of Oklahoma, and subsequently spent two years in their graduate school of Town and Regional Planning.

In 1998, I received a PhD in Ecological Community Design from the San Francisco Institute of Architecture (SFIA), for my work on a program for the design and of an ecologically, and economically sustainable, full-service village of 5,250 population. The following areas of self-sufficiency and sustainability were addressed:

1) Renewable energy from sun and wind
2) Water sources, storage, purification, and use
3) Wastewater treatment and re-use
4) Food production (Permaculture guided)
5) Materials and methods of construction
6) Intra-community transportation system (cable cars, no autos)

Also taken into consideration in granting my PhD. degree were my eight years of professional work on the Sustainable Closed System of Biosphere 2 near Oracle, AZ.

Concerning Biosphere 2, I was the Architect of Record on that extraordinary project during its design, construction, and early operation. (1985-1992; 1994) In addition to Biosphere 2 itself, the $250 million project included a 40,000 sf. Biospheric Research and Development Complex (BRDC). That complex contained:

- Test Module, a fully-sealed, food-producing, waste-recycling, human habitat
- Plant Tissue Culture Laboratory
- Insectary, to breed up to 150 insect species to include in Biosphere 2

- Environmental Cleanup Laboratory, to remove pesticides from the Biosphere 2 official Quarantine Station for imported plants
- 14,400 sf of Greenhouses and Growth Chambers for plants, fish, and animals
- Energy Center, producing 5 megawatts, to cool and heat Biosphere 2

I also designed the bioremediation sewage processing systems for, both inside Biosphere 2, and for the unrealized visitor's center, designed to handle waste for an estimated 1.5 million visitors per year. My teacher was Dr. Billy Wolverton, at NASA.

I have worked on other ecological projects in the USA, England, France, Nepal, and Australia, and have established small-scale sustainable-design educational programs in the USA, Portugal, and France. I have had many opportunities to speak in the US, and abroad, on these subjects, and have taught at the Univ. of Oklahoma, Virginia Polytechnic Institute and State Univ., the Univ. of Maryland, and other institutions.

In 1968, while working as Assistant Planner in Santa Fe, NM, one of my tasks was to design a prototype neighborhood for 5,000 people on property owned by the city, and I was also loaned to the North Central NM Economic Development Agency, to work on their statistical planning document.

1969-1978 I held contracting licenses in New Mexico for General Building, Electrician, Plumbing, and Gas Fitting. In 1973, I was also licensed as a NM architect, and now hold licenses in New Mexico, Arizona, and Texas. A member of my team is an architect in WA.

In the mid 1970's I helped design, build, and later operate a 130 ton ferro-cement sailing vessel, on which I spent three years sailing across the Indian and Pacific Oceans; two years as Political Captain and Bosun, and one year as Sailing Captain on the "Around the Tropic World Ethnobotaniocal Collections Voyage". (1982-85)

1974-1978 - I was the architect-of-record, general building contractor, and planner of an adobe complex of 32 homes in Santa Fe, NM.

Other facilities on which I've worked are:

- Australian Outback Cattle and Grassland's Research Station (1976-82)
- Nature-Study and high altitude trekking camp at 13,000 ft. in India's Himalayan Mountain Ladakh State (1979)
- Hotel in Kathmandu, Nepal (1977-1980)
- Conference Center in Aiz-en-Provence, France (1980)
- The Royal Manas Park Visitor's Center in Bhutan, in cooperation with the World Wildlife Fund (1988)

I walked 500 miles alone in the uninhabited Australian outback, and re-discovered, to my satisfaction, that humankind's proper destiny is to struggle upward. (1981)

1982 - At a conference in France, I presented a closed-system space-craft concept, that I had participated in designing, which was the precursor to Biosphere 2.

Through the years, I have given numerous papers and conference presentations on sustainable environmental design, as well as many related to Biosphere 2.

For the last eight years I have primarily been engaged in developing the background to design and build the first true ecologically and economically sustainable village with a population cap of 5,000 persons. Much of that work has been in the investigation of, and the

assessment of the many required systems' feasibility. Some of these are:

- Water recycling
- Renewable energy sources
- Food production and processing
- Sewage purification and reuse in agriculture
- Intra-Community Transportation
- Education designed to teach sustainability at all levels, and to all ages
- Selection and use of, innovative, as well as local, traditional building materials

Currently I'm also on the Board of Directors of the Institute for Applied Ecology, a non-profit 501(c)(3) company, dedicated to the manifestation and application of ecological education, training and research.

One of the members of our ESD staff is an LEED AP (Accredited Professional), and worked in the Austin, Texas Green Building Program for several years. One of her tasks there was to educate contractors in various aspects of "Green" building. She has also worked extensively in the real estate field, and as a construction supervisor, and has a Master Degree in Architecture.

I, and others associated with our design team, have through the years had a great deal of experience with public relations and relating generally to the greater community environment.

One of the primary aspects of my work has been in the area of cost control, and I am confident that we can substantially reduce both the initial cost, and the future operational expenses, of your project.

I believe that me and my colleague Charles Sholten and our entire design team, fully satisfy the qualifications that you are looking for to manage your project, and I would be interested in learning more of the in-depth particulars involved.

Sincerely,

Phil Hawes

cc:
1. mosier institute preliminary draft proposal 090609.pdf
2. phil hawes curriculum vitae.pdf
3. map of complexity science.pdf
4. implementing new technologies for sustainable development.pdf
5. roy walford m.d. article quoted.pdf

"... The mission of the Mosier Institute (is) to germinate, develop, showcase, and proliferate concepts and methods that will assist in bringing forth more effective educational strategies, strong democratic institutions, respect for the environment, and the bright future of humanity."

PRELIMINARY DRAFT PROPOSAL

September 6, 2009

To Dan Rasmussen & the Mosier Institute:

The Mosier Institute mission statement reads like a list of the very qualities that a truly "sustainable" community would promote and adopt as its primary orientation.

A useful definition of sustainability is by Robert Gilman, founder of In-Context Institute.

"Sustainability refers to the ability of a society, ecosystem, or any such on-going system to continue functioning into the indefinite future without being forced into decline through exhaustion of key resources."

From what we have learned so far, we gather that the citizens of Mosier essentially view their community as being "progressive" and are therefore presumably vitally interested in its sustainability and its ability to function indefinitely and to lead by example into the future.

It seems obvious that the project cannot live up to its potential if it simply focuses on developing the quarry. The small size of the town mandates that the community as a whole must be deeply considered design-wise and kept in the loop of the overall quarry development process. In the interest of transparency the citizenry needs to be kept aware of the activities of the Quarry Development Co. and/or the Mosier Institute.

Our understanding is that there has been some thought put into having the Quarry Project be a combination of an innovative educational facility with, exhibition halls, a planetarium, a theater, indoor/outdoor concert venues along with a modern conference center, camping sites and lodgings. Are there ideas on just how this entire concept might further evolve?

Has the community as a whole ever tried to generate a list of characteristics that they would like to have as the town's persona? (Consult the articulated visioning process from the past.)

Is there an active interest in generating new local industries to increase the existing economic base and future eco-tourism prospects?

Starting from the standpoint of economic development is a wise practice, particularly in these times, and a broad educational program guided by a sustainability orientation could become a very vital local "industry" as stated and maintained in the mission statement.

In addition to the traditional primary industries of timber, cattle, fisheries, agriculture, and mining, there are now "information", and other "high-tech" businesses. Although, these tend to be relatively easily moved types of ventures, like other offices, or commercial business.

There are a wide variety of possibilities in the field of grants for "green" projects, currently emerging from the Obama efforts at economic stimulation, and these should be investigated.

Linda Leigh, of Biosphere 2 fame, lives in Oracle, AZ and is engaged in writing a major stimulus-grant for the whole state of AZ. With her scientific and Biospherian background, and her PhD in Energy Analysis gained by working with Howard Odum, she has become a very competent grant writer and potential project advisor. There is also, the Meyer Memorial Trust and its integral participation in funding the project.

It should save a good deal of the cost if the community would integrate its wider goals with the quarry project. (It may be that the best approach is as a design-build operation, with the town or a Foundation serve as the developer which then hires the planner/architect and construction-contractors. Alternatively, we could also think about forming a design-build co. to do the project.)

Approaching the project in a holistic way can make it a very satisfying piece of work. This also will help the community as a whole, understand and manifest a sustainable-community vision.

The quarry would be just a part, although a major influence, in developing the entire town as an integrated ecologically and economically sustainable community in the Columbia River Gorge region and watershed.

In order to begin to build-up an overall picture & vision of a potential project, the design team will need to visit the site and spend a few days reviewing local factors pertinent to the project.

FOR PHASE I WE PROPOSE:

1) That the initial team, consisting of Charles Sholten and Phil Hawes will come to Mosier for a minimum of three days, with at least two of those being working days for businesses and local governmental agencies. Permission to walk & survey the site is also very necessary.
2) The design team cost is $1,600 per day, at $125/hr for Phil Hawes, and $75/hr for Charles Sholten, plus any expenses of travel, food and lodging. Lodging has been arranged locally in a yurt for which a fair compensation be paid of $40/day, food can be covered by a daily stipend, or some other method as desired. (Travel-time is not charged for.)
3) Upon concluding the initial survey Phase I, we will submit a comprehensive document with:
   (a) our preliminary overall recommendations for the Quarry Project,
   (b) schematic drawing(s) of a modular approach to the project's design,
   (c) recommendations for materials and methods of construction,
   (d) an explanation of any technologies proposed for consideration of the project, or for the local community as a whole,
   (e) a plan with costs for producing Phase II, preliminary designs for the Quarry Project with at least one perspective rendering,
   (f) a questionnaire designed to elicit the community's positive thought concerning the town's future and other democratic principles.

PHASE I DATA

1) Community Systems & Relevant topics to address:
   a. water supply, quality and ownership,
   b. sewage treatment, disposal and its ownership,
   c. garbage collection and composting,
   d. recycling, (methane, depolymerization, gasification)
   e. potential locally-available building materials,
   f. renewable energy, (solar, wind, water, geothermal, methane and hydrogen gases)
   g. local organic food production and processing. Permaculture methods,
   h. intra & inter-community transportation, (rail, air, boats, bicycles, trails & roads)
   i. healthcare & clinics. Local business impacts, etc.
   j. finance of housing and small businesses (loans, local "currency", as LETS, etc., (See: " Money", by Thomas Greco.)

2) Information for design-team review prior to the site-visit, if possible:
   A) Physical Characteristics:
      a. insolation, temperature/humidity regimes, rain, wind speed and direction,
      b. local geology, (earthquake frequency/severity, earth-slides)
      c. town size in dwellings, existing & desired max,
      d. population within 10 miles, 20 miles, 50 miles,
      e. residences, (current/future)
      f. known pollution sources,
      g. quarry material, (its constituents, current ownership and use)
      h. land ownership, (in town and peripheral)

   B) Official Documents, such as:
      a. Watershed Assessment,
      b. building codes,
      c. zoning regulations,
      d. health department ,(septics, composting toilets, bioremediation)
      e. infrastructure ownership and contracts, (utilities, transport, landfill)
      f. demographic statistics, (age, income, employ, housing, etc.)

   C) Local Governmental Structure (officials and departments.):
      a. Inter-governmental agreements and/or environmental coalitions,
      b. revenue: sales/other tax, county, state, fed. grants, etc.,
      c. annual town operating expenses, (by dept.)
      d. local special districts, (police, fire, school, etc.)
      e. bureaucratic relationships with county, state, and federal
      f. available institutions/programs, (current/ideal projected)
         - education, (high level institutions (available/desired.)
         - employment,
         - welfare,
         - homeless/transience,
         - mental health,
      g. official community values, goals, policies, programs.
      h. local native American input and cultural integration.

D) Existing & Future Community Economic Base:

a. local resources, (timber, minerals, grazing, flora & fauna)
b. extent and products of local agriculture,
c. the role of fish & wildlife in the local economy,
d. the significance of tourism & eco-tourism to the region,
e. economic development programs, (C of C, and others)
f. commercial/industrial business opportunities (analysis of existing categories and number of employees, etc.)
g. conference space needs, (current/future)

TECHNOLOGIES

Some tentative relevant, ecologically-sound technologies available both for construction, and for possible municipal utilities:

1) Materials and Methods of Construction:

a. In Amarillo, Texas, at the Mariposa Eco-Community project a 2,000 sf visitors center is under construction using on-site non-stabilized caliche earth, compressed and extruded into giant adobe blocks two feet square and up to 10 feet long. These are set in place with mobile equipment as they are produced.

b. Ceramic cements of great strength, with low initial temperature of manufacture, and very rapid set time (like (MgO) magnesium oxide), have a high capacity for filler materials of various industrial wastes and incorporating non-ferrous reinforcement, such as basalt fibers, can be placed in the construction using computerized robotic equipment. These cements also can have phase-change materials included in the mix, so that wall panels may release or absorb heat at different temperatures and thus become heating or cooling surfaces. (See info related to Jonathan Hampton of the Ceramic Cement Research Institute.)

2) Gasification of wood to produce charcoal for soil-building and reduce atmospheric CO_2 output, and the subsequent gain of CO_2 credits.
3) Rain and or the capture of evapotranspired atmospheric water vapor and its purification, reuse and recycling.
4) Microwave-depolymerization of municipal "waste" into diesel oil & bio-diesels.
5) Bioremediation of sewage with living eco-systems and agricultural reuse.
6) Hydrogen-peroxide generation for water/sewage sterilization.
7) Renewable energy production (wind, water, solar, geothermal, algae, etc.)
8) Energy storage for off hours by electrolytic-hydrogen from water.
9) Greenhouse and/or field food production, and its local processing.
10) Algal oil-production.
11) Halophytes for agricultural and local industrial products.
12) Permaculture methods and associated ecological processes and paradigms.

Respectively submitted,

Charles Sholten & Phil Hawes

Charles:

You may have heard of the very recent fire related events in Mosier in which our little city escaped virtual eclipse by the narrowest of margins. Such events always have their positive aspects and community solidarity, higher external recognition, and, strangely enough, even quarry consciousness have been some of the resultant effects.

Those of us who have long realized the potential of the quarry are excited here as well by your investment of time, extremely relevant qualifications, and apparent interest in pursuing this project. I'm sure you have a pretty good picture of the possibilities of this thing.

In specific response to some of your concerns, I offer the following;

* Current zoning is light industrial. Mayor Andrea Rogers, and the Mosier City Council can be expected to be very responsive to proposals such as this one. In fact, the community has a significant history in respect to supporting precisely this sort of development in the quarry. An extensively considered and fully articulated visioning process of a few years back reached very similar conclusions as to what should be done with this very special site. In fact, I just finished speaking to the Mayor and she said it would probably be a simple matter to rezone the site as required.We have a very capable, flexible, well educated, and fully rational city Council at the present time.

*Several meetings have occurred over the last few years with representatives from extremely diverse interest groups in respect to setting up a foundation to purchase the property when it is made available. It is our thinking that a private foundation would have the best chance of providing a sustainable and philosophically consistent interest in the development of the site. Included in this group were virtually all major players in the Columbia Gorge environmentally oriented development groups. There are very considerable private economic resources in Mosier. In addition, foundations such as the Meyer Memorial Trust, with its vast and specifically focused funding mission, have already invested heavily in Mosier. The city has a multi-dimensional sort of centrality that can be expected to attract resources from many sources. The nature of the project itself allows cooperative investment by a wide range various entities. Based on estimates I have received in the past, I would expect that an expenditure of even a few million dollars would create a very noticeable splash which could then be developed in a modular sort of way with partners finding their own place in the flexible matrix provided by the overall concept.

* I'm thinking a few 100' domes, and perhaps one as large as 200', with connective atria and other such features would make for a very good start. A large exhibit hall with related shops and storage facilities, a smaller planetarium/laserium/lecture hall/theater multi purpose dome, a larger dome

for indoor and amplified concert venues, and a simple minimalist outdoor theater might be things to initially consider. However, I imagine your own team can generate some highly interesting approaches as well. Housing for visitors, outdoor camping areas, smaller display facilities, might be part of the picture. In general, I like the idea of something really futuristic, flexible, and exemplary of our most forward thinking capabilities. A lens to focus the myriad progressive energies of this unique geographic area and exemplary models for larger audiences. I know a project like this would attract considerable attention and be an integral component and beacon for the systemic global changes that are necessary at this point in national and world history.

Late here and I've think I've discoursed more than sufficiently at present. I'm hoping to maintain and support your interest in this project in any way I can as I fully believe in both the location and nature of this effort. The quarry is simply a fabulous piece of real estate and should be used for something very special. I know that you have the capabilities and connections that can make this happen. I am enormously interested in continuing our dialogue and thank you greatly for the time and energy
that you and your partners have already invested. I'm sure you recognize that the potential for economic rewards, recognition, and making a significant positive impact is unlimited. Please let me know what I can do to take this to the next level...

Very Best!
Dan

Continuous Filament Basalt

A Unique Fiber Capable of Leadership in High Temperature Applications

Techtextil North America Symposium

Atlanta, GA, USA

April 9, 2002

By:

Mike Swink

With the kind assistance of:

Mr. Anthony Fanale, President - Basalt Specialty Products, Inc.

Mr. Michael Sokolinsky, Technical Director – - Basalt Specialty Products, Inc.

Mr. John Forsythe, Market Manager – BGF Industries, Inc.

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I Overview

This paper will focus on the applications for a very common material, basalt rock, in a relatively new form, continuous filament basalt (CFB). Basalt is the most common rock type in the earth's crust. During the past twenty years the technology was developed in the former Soviet Union to melt this once molten rock and form continuous fibers. The continuous strand of multiple filaments can then be twisted into a yarn, plied into a multi-strand roving or cut into chopped fiber. The CFB can be converted into woven or non-woven textiles or used to reinforce composite structures with techniques similar to those used with continuous filament fiberglass.

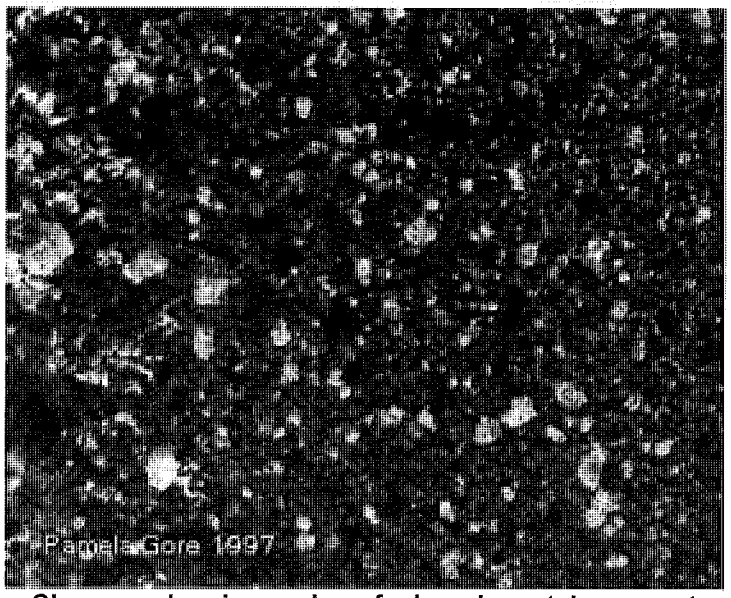
II What is Basalt?

Basalt is a hard, black volcanic rock with about 52% silica (SiO_2) by weight. Basalt rock is a mixture of minerals that has a fine grain and slight differences in chemical composition. Common minerals in basalt include olivine, pyroxene, and plagioclase. Each deposit has small deviations in chemistry but fall within the same general parameters. Some deposits are more favorable than others for the manufacture of fibers due to the presence or absence of trace elements.

Basalt lava (glowing rock) oozes over basalt lava flow (USGS photo)

According to the US Geologic Survey, because of basalt's low silica content of about 52%, it has a low viscosity. Therefore, basaltic lava can flow quickly and easily move >20 km from a volcanic vent. The low viscosity typically allows gases to escape without generating enormous eruption columns. Basaltic lava fountains and fissure eruptions, however, still form explosive fountains hundreds of meters tall. Common minerals in basalt include olivine, pyroxene, and plagioclase. Basalt is erupted at temperatures between 1100 to 1250° C.

Hawaiian basalt used as building stone



Close-up showing grains of mineral crystals present

- Basalt is the most common rock type in the Earth's crust (the outer 10 to 50 km). In fact, most of the ocean floor is made of basalt.

- Basaltic magma is commonly produced by direct melting of the Earth's mantle, the region of the Earth below the outer crust. On continents, the mantle begins at depths of 30 to 50 km.
- Shield volcanoes, such as those that make up the islands of Hawaii, are composed almost entirely of basalt. [1]
- Huge outpourings of lava called "flood basalts" are found on many continents. The Columbia River basalts cover most of southeastern Washington and regions of adjacent Oregon and Idaho.

II What is Continuous Filament Basalt (CFB)?

The direct melting of "flood basalts" has produced two major types of basalt fibers. The first and most known for many years is the wool type. Basalt wool fibers have properties similar to other types of mineral wools. This paper will focus, however, on the newer continuous filament basalt (CFB) technology. CFB is similar to special recipe fiberglass, silica and quartz fibers.

It is well known that the properties of all mineral fibers depend on their chemical composition, thermal history, manufacturing conditions, filament diameter and composition of the chemical sizing applied. Glass fibers are made from a blend of raw materials whose recipe depends on the exact properties desired, i.e. E (electrical) grade, C (chemical resistant) grade, S (high strength) grade.

Basalt fibers are made by melting a single material, basalt rock, with the properties determined by selection of the quarry from which the rock is obtained rather than a raw material recipe. Using a naturally occurring composition provides a high level of stability to basalt fiber.

Comparing the chemical composition of glass and basalt fibers reveals that natural basalt contains ingredients that are added to fiberglass to obtain special properties. Al_2O_3 is used to increase the viscosity and chemical resistance. Oxides of Calcium, Magnesium, and Titanium raise the water and corrosion resistance.

CFB meets the technical definition of a glass, however the presence of iron oxides gives basalt a golden brown color that doesn't have the translucence of fiberglass:

"any of various amorphous materials formed from a melt by cooling to rigidity without crystallization as a usually transparent or translucent material consisting especially of a mixture of silicates ". [2]

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[1] http://volcanoes.usgs.gov/Products/Pglossary/basalt.html

[2] On-line version of Merriam-Webster dictionary

Chemical Comparison of Basalt and E-Glass (% by weight)[3]

Chemical	Formula	Basalt	Basalt =/+/-	E-Glass
Silicon Dioxide	SiO_2	48-59%	=	52-56%
Boron Oxide	B_2O	<1%	-	5-10%
Calcium Oxide	CaO	6-9%	-	21-24%
Titanium Dioxide	TiO_2	0.8-2.3%	+	0-1.5%
Iron Oxides	Fe_2O_3 + FeO	7-12%	+	<1%
Alumina	Al_2O_3	15-18%	+	12-14%
Magnesium Oxide	MgO	3-5%	+	0-5%
Sodium + Potassium Oxides	NaO + K_2O	4-5%	+	0-1%

III The CFB Manufacturing Process

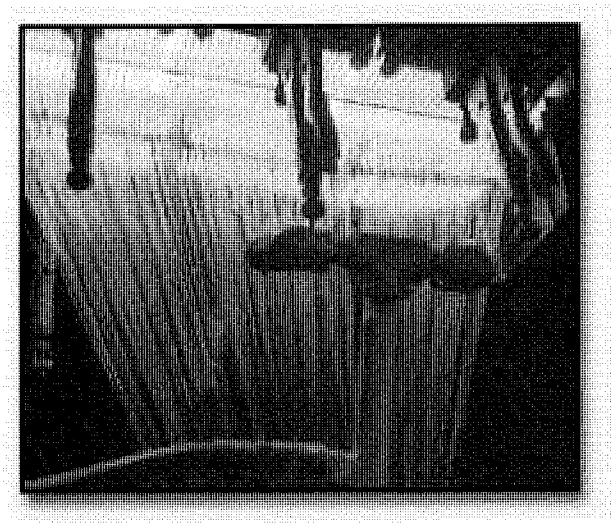
CFB is formed in a similar way to continuous filament fiberglass. While a fiberglass and basalt furnaces look externally alike, the difference in the temperatures and viscosities of their respective molten material are different enough that the furnace and fiber forming equipment are not interchangeable between the two.

CFB manufacturing differs from fiberglass in that it does not require the material blending and air pollution control equipment needed for handling raw materials. CFB uses crushed and washed basalt stone directly from the quarry with only drying required before melting.

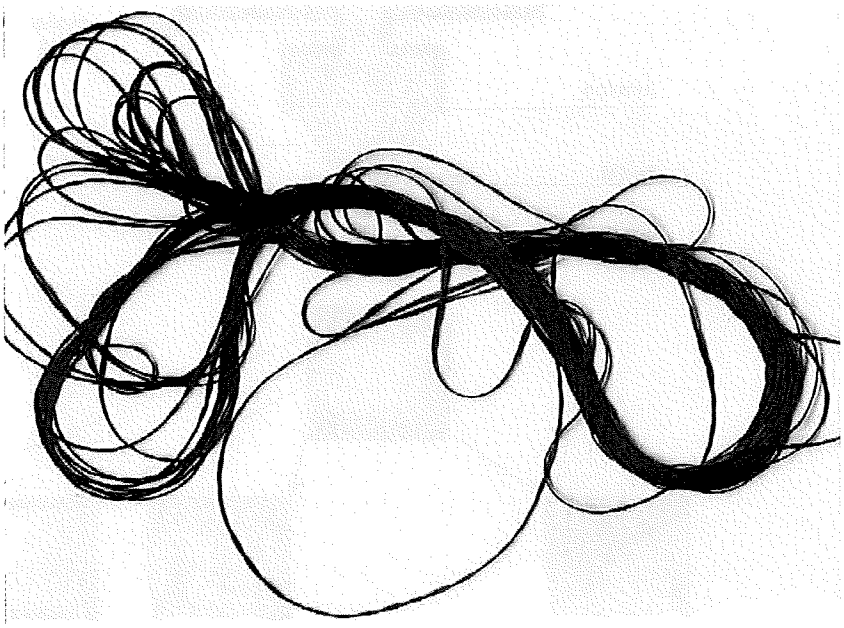
Melting natural basalt, then quickly solidifying it converts it from a partially crystalline material to an amorphous solid without any crystallinity. An amorphous solid behaves as a super-cooled liquid with extremely high viscosity. Over many years an amorphous solid, such as found in very old windowpanes, will change shape revealing its true liquid nature.

[3] Composite of published values for basalt from Russian and Ukrainian sources

Glass continuous fibers being drawn [4]



Basalt yarn after forming, twisting and plying[5]



The following diagram shows how continuous filament glass fiber (as opposed to glass wool) is made. A similar process replacing the batch house blending of raw material with a direct feed of crushed basalt rock to the furnace is used to produce basalt fiber.

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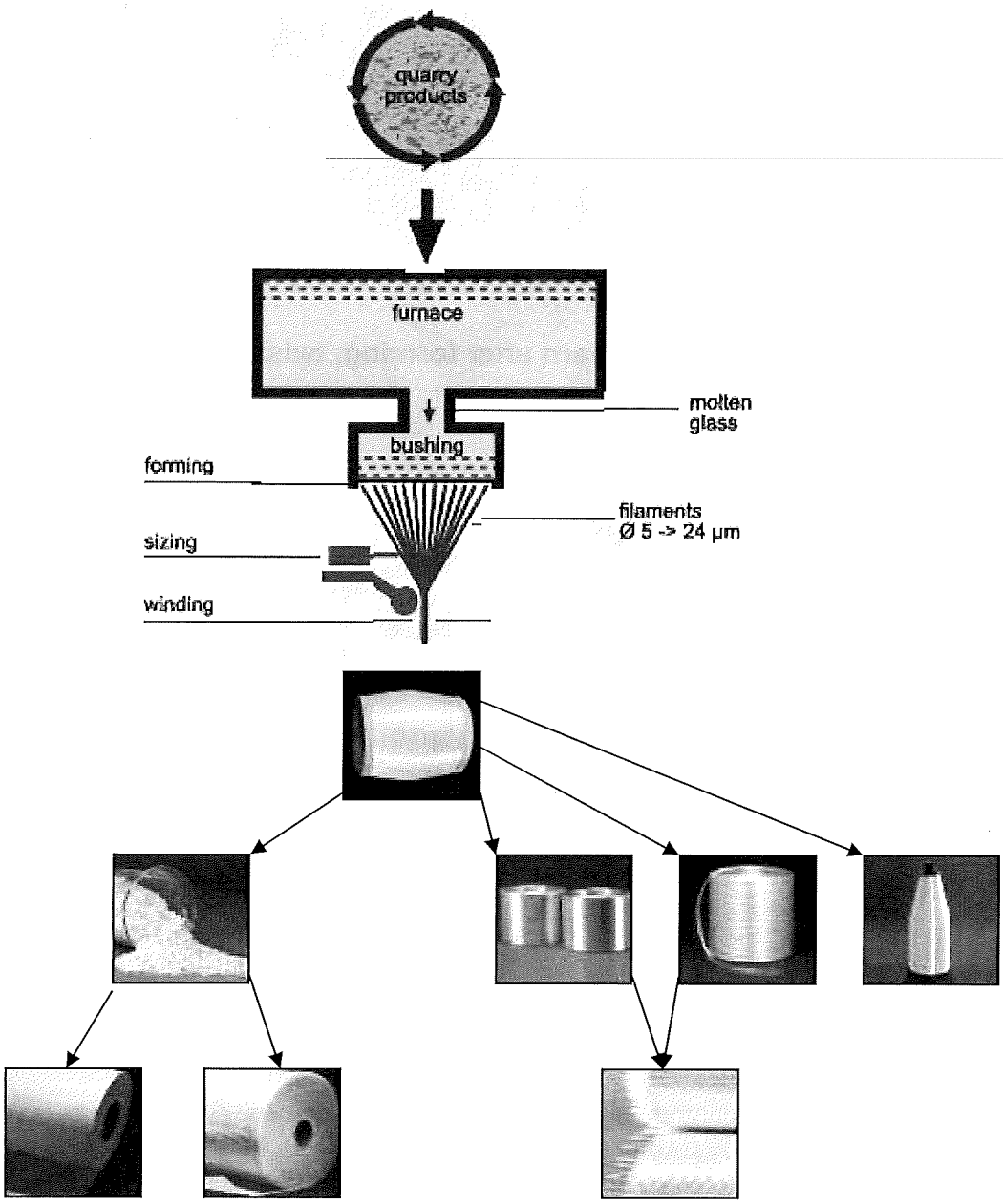
[4] Courtesy PPG Industries

[5] Courtesy Basalt Fiber Company, Inc.

Continuous Filament Fiberglass Manufacturing[6]

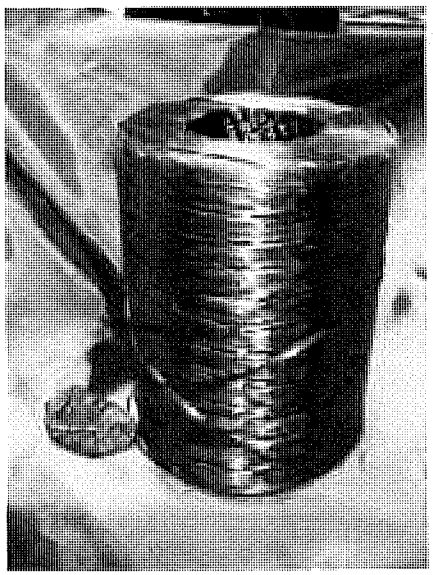


[6] Courtesy of Saint Gobain/Vetrotex

An overview of the basalt fiber manufacturing process[7] is:

- A single-component basalt material is fed into a gas-fired furnace.
- The basalt is heated to about 1,450°C (2,650° F) and melted.
- From the furnace, the molten material flows into a fore-hearth where the temperature of the molten material is more precisely controlled and distributed to each strand-making position.
- The molten material is gravity-fed from the fore-hearth at each forming position into a platinum alloy "bushing".
- Electricity is passed through the bushing to provide a final stage of resistance heating and precise adjustment of the viscosity of the molten mixture.
- Each bushing has hundreds of micro-holes each make a filament that is gathered into a single strand of continuous-filament basalt fiber.
- The combination of micro-hole size and viscosity of the melt determine the diameter of the resulting filaments (7-17μ).
- The basalt filaments are quenched with a water-based sizing to solidify the strands and deposit a small quantity of lubricant/bonding agent on the filaments.
- The strands are wound onto a bobbin called a forming package at high speed.
- The strands can then be sold as an untwisted roving, twisted/plied into a yarn for weaving, or chopped to a fixed length for production of a non-woven mat.

Before and After the Furnace [8]



[7] Courtesy Basalt Fiber Company, Inc.

[8] Courtesy of Anthony Fanale

IV Properties of CFB

A direct comparison of properties of Basalt fiber with E-Glass and S-glass fiber is useful for understanding its potential applications.

Physical Property Comparison[9]

	Basalt	E-glass	S-glass
Operating Temp.[10]	820°C (1,500°F)	540°C (1,000°F)	690°C (1,275°F)
Max. Excursion Temp.	950°C (1,740°F)	620°C (1,150°F)	760°C (1,400°F)
Thermal Conductivity (W/mK)	0.11	0.11	0.11
Density (g/cm3)	2.8	2.6	2.5
Tensile strength (Mpa)	3450-4900	3100-3800	4590- 4830
Elastic Modulus (Gpa)	88-91	76-78	88-91
Elongation at break	3.2%	4.7%	5.6%
Coefficient of Thermal Expansion	8.0	5.4	2.9
Chemical Stability after 3 hr. boiling			
H_2O	1.6%	6.2%	-
2N NaOH	2.8%	6.0%	-
2N HCl	2.2%	38.9%	-
Spec. vol. electrical resist. (ohm M)	$1x10^{12}$	$1x10^{11}$	-

E-glass and CFB have similar silica content, while S-glass has about 20% more. S-glass's higher silica content gives it its higher temperature capability and lower density when compared with E-glass. The iron oxides in CFB give it a higher density and coefficient-of-thermal-expansion than E-glass or S-glass. Thermal conductivity is equivalent between the three fibers.

Basalt compares favorably with E-glass in these ways

- 280°C (500°F) higher operating temperature
- Better strength at elevated temperatures
- Higher elastic modulus

---

[9] Data except temperatures from Sudogodskoye Steklovolokno using Russian basalt rock

[10] Temperature data from BGF Industries, Inc.

- Lower elongation at break
- Much more resistant to acid
- Less degradation by water and alkalis

One of the most significant differences between E-glass and CFB is how the tensile strength of each changes with increasing temperature. Under standard ambient temperature (23°C) test conditions, the tensile strength of E-glass and CFB are roughly equal. At 250 °C, E-glass loses up to 23% of its strength while CFB's tensile strength actually increases by up to 15%[11].

Based on this characterization, let's look at some of the product possibilities for continuous filament basalt.

V Thermal/Acoustic Insulation

There is a market opportunity for basalt needled insulation blankets for industrial use at operating temperatures above that of E-glass and below the temperatures where ceramic fibers are required. Except for operating temperature, E-glass and CFB blankets behave similarly:

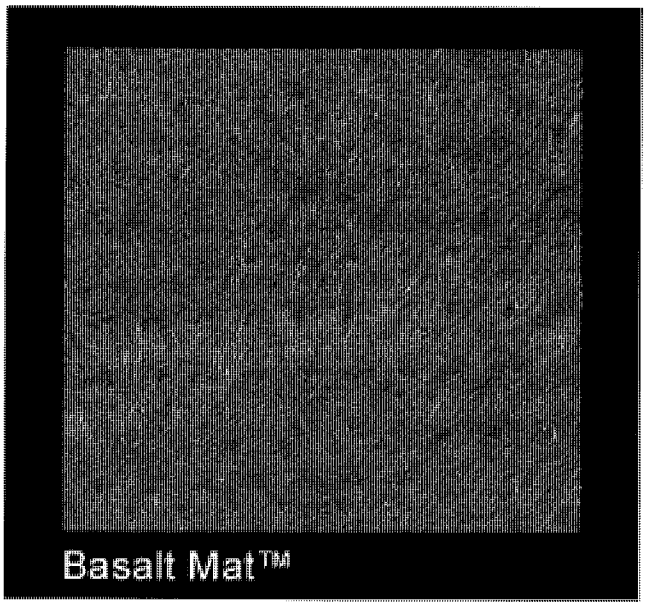
- CFB, like E-glass, is vibration resistant and will not powder like ceramic fibers
- E-glass and CFB will conform to most complex shapes.
- CFB has fiber diameters of 9-17μ, which are not deeply respirable.
- E-glass and basalt have very low chloride content and meet NRC 1.36-C-3 for use in nuclear plants.

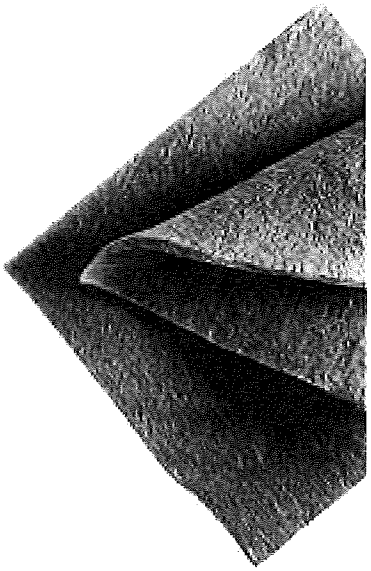
Approximate cost factors are:

- CFB = 2x E-glass
- Ceramic = 3x CFB

[11] M. Sokolinsky and A. Medvedev; "Strength Properties of Basalt Fibers", Science for the Glass Industry, vol. 10, 1991.

Truck Muffler formed from needled insulation[12]





Needled Basalt Insulation Blanket[13]

Thermal Insulation Blanket Comparison[14]

		E-glass	Basalt	Ceramic
Operating Temperature	°C	540°C (1000°F)	820°C (1,500°F)	1175°C (2150°F)
Maximum Temperature	°C	650°C (1200°F)	1050°C (1,920°F)	1260°C (2300°F)
Thermal Conductivity -*	W/mK	0.11	0.11	0.11

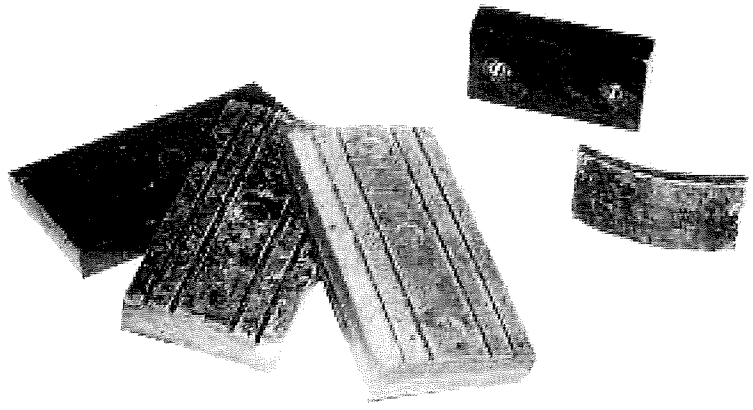
*- density of 96 Kg/m3 (6 lb/ft3), 500°C (932°F), 9μ fiber diameter

[12] Courtesy of Mtuh GmbH

[13] Courtesy of BGF Industries

[14] BGF Industries, Inc.

VI Friction Materials



The facing reinforcements used in brakes and clutches until recent years were constructed of asbestos because of its temperature resistance, strength, high coefficient of friction and low rate of wear. However, the crystalline nature of asbestos causes very fine particles to be formed when the asbestos fibers are fractured. The respirability of these fine asbestos particles led to the removal of asbestos from friction materials.

Basalt fiber has replaced asbestos in friction materials in the former Soviet Union[15]. Asbestos was a functionally superior friction material, however when asbestos was replaced with basalt, part life was extended by a factor of 1.5-2x. The longer life is attributable to basalt's better properties. The following table shows basalt with a wear rate an order of magnitude lower than asbestos while having a higher coefficient of friction:

Asbestos and Basalt Properties for use in Friction Materials-*

	Asbestos	Basalt
Operating Temperature	420°C (790°F)	450°C (840°F)
Coefficient of Friction	0.37-0.42	0.42-0.50
Wear rate (g/m)	9.01×10^{-6}	0.87×10^{-6}
Breaking load for 500 tex yarn (N)		
20°C	12.0	145
400°C	1.4	75
500°C	0.5	12.2

* - Dry friction sliding speed: 1.37-5.5 m/s with a pressure applied of 3-8 Kg/cm^2

[15] Data and photo courtesy of Tsniism

VII FRP – Fiber Reinforced Plastics

Most of the composites development using continuous basalt fiber to date has been done in the former Soviet Union. Most of the development work there was done to replace metal with basalt reinforced plastic parts. That work was focused around these key facts:

- 1 Kg of BFRP could replace 9.6 Kg of steel
- BFRP are non-conductive, so no galvanic protection is required to prevent electrolysis when used in ground or electrolyte contact
- BFRP has much higher acid resistance than standard E-glass
- BFRP has the same CTE as concrete which makes it an ideal reinforcement
- Greater strength retention than E-glass at elevated temperatures – 30% more at 400°C (750°F)
- Basalt has a lower elongation at break, 3.2% versus 4.7% for E-glass with a much higher elastic modulus

The US market (excluding exports) for fiberglass is over 2 billion pounds per year. FRP accounts for the majority with about 56% of this consumption or about 1.2 billion pounds per year. In recent years the US fiberglass industry has been motivated by stricter environmental regulations to eliminate the boron and fluorine from E-glass recipes in order to avoid expensive air pollution control equipment to treat furnace exhaust gases and collect particulate. These new boron-free formulas have found their way into the composites market as E-CR glass.

E-CR (Corrosion Resistant) glass has similar properties to E-glass, but with a significant increase in corrosion resistance as shown in this data from Fiberex Glass Fibers of Canada with Basalt test data from a Russian source for comparison:

Properties	Unit	E-Glass	E-CR Glass	Basalt
Tensile strength @ 23°C	Mpa	3100-3500	3300-3800	3450-4900
Modulus of Elasticity	Gpa	76-78	80-81	87-91
Elongation at break	%	4.4 - 4.5%	4.5 - 4.9%	3.2%
Weight loss in 10% HCl After 24 hours	%	42.0%	5.4%	-
Weight loss in 2N HCl after 3 hours boiling	%	38.9%	-	2.2%

The corrosion resistant FRP market alone is over 120 million pounds/year in the US. Basalt fiber's greater acid resistance and higher strength retention at elevated temperatures should offer it a place in the US composites market, but more testing

directly against the newer E-CR glass fiber is needed to be able to definitive comparisons as to usefulness in this market.

CFB's tensile strength is typically above E-glass and with certain sources of natural basalt, is comparable to S-glass. With CFB priced at roughly mid-way between E-CR glass and S-glass, basalt fiber should have a good future in applications requiring a high enough strength to weight ratio to use S-glass such aircraft cargo floors and other structural composites. Albarrie Canada Ltd. has tested the laminate properties of CFB and E-glass epoxy laminates. The data in this section is excerpted from their published test results:

Mechanical Properties[16]

Property	Unit	Basalt	E-Glass	S-Glass
Tensile Strength	MPa	4840	3450	4710
Elastic modulus	GPa	89	77	89
Elongation at Break	%	3.15	4.7	5.6

Basalt Fiber Laminates

The composite test panel was fabricated using resin transfer molding. The panel consisted of 5 plies of wide weave basalt fabric and the resulting composite was roughly equal to a [0°/90°] laminate. The resin used was Shell EPON-862 with curing agent W. The fiber volume in the composite was approximately 44%.

Characteristics of Basalt Laminate

Width	24.9 mm	0.979"
Thickness	3.25 mm	0.126"
Failure Load	46.205 kN	10.126 lb
Ultimate Strength	578.8 MPa	83.95 kP.S.I.
Elastic modulus	33.94 GPa	4.92 MP.S.I.
Poisson's Ratio	0.193	

[16] Courtesy of Albarrie Canada Ltd.

Comparative Characteristics of Basalt and E-Glass Laminates

Quasi-isotropic Composite	Basalt Laminate	E-Glass Laminate
Elastic modulus	34 GPa (4.9 MP.S.I.)	17.2 GPa (2.5 MP.S.I.)
Ultimate Strength	579 MPa (84 kP.S.I.)	207 MPa (30 kP.S.I.)

VIII Other Applications

The properties of continuous basalt could bring value in many other applications where extensive testing has not yet been done. For instance, E-glass is used extensively in hot gas filtration applications, but is lacking in acid and abrasion resistance. The inherent abrasion resistance which makes basalt a good friction material would be an improvement over E-glass in hot-gas filtration, particularly in pulsejet cleaned applications where the fabric is placed over a metal cage. Albarrie Canada Ltd has introduced basalt fabrics into the North American filtration market under their trademark Meteor™. Unfortunately, I have no additional data beyond the previously cited property comparisons between E-glass and CFB to data to substantiate the expected improvements in acid and abrasion resistance.

IX Summary

Continuous filament basalt is a fiber that brings value to several markets that currently use fiberglass, ceramic fibers or asbestos replacement materials. Basalt's mechanical and physical properties bring the possibility for upgrading the performance of thermal insulation blankets for use at 540-820°C (1,000-1,500°F), high temperature friction materials in clutches and brakes and structural composites requiring a high strength to weight ratio and /or chemical resistance. Continuous basalt is priced mid-way between standard E-glass and S-glass with properties that can exceed those of both.

RECEIVED

SEP 09 2016

4150 Post Canyon Drive
Hood River OR 97031
September 3, 2016

To Wasco County Planning Department,

Thanks to Senator Jeff Merkley for co-sponsoring of the "Keep It in the Ground Act". It "would stop new leases for coal, oil, gas, oil shale and tar sands... The income the federal government receives from its coal leases doesn't come close to covering the environmental costs." More of us in the North West are "realizing that our reducing energy demand at home does nothing if we keep extracting our cheap-but-destructive fuels to export abroad." (Sierra, March/April 2016) We do not want the Columbia Gorge to be a fossil fuel corridor, when the pollution just blows back at us across the Pacific, and speeds global warming.

President Obama, in his January State of the Union address, said he would "change the way we manage our oil and coal reserves, so that they better reflect the costs they impose on taxpayers and the planet".

I think Union Pacific Railroad could well be on a hurry-up-and-build extra tracks mission in Mosier. They want to have them in place so they can double the fossil fuel trains through the Gorge before the rules of the game change – no longer favoring big corporations, and instead protecting the taxpayers and the planet. Please do not allow the Union Pacific to add double tracks in Mosier.

Alison McDonald Bryan

Alison McDonald Bryan

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

Revised comment: Union Pacific second line proposal

1 message

charlie@arietellus.com <charlie@arietellus.com> Fri, Sep 9, 2016 at 3:09 PM
To: angieb@co.wasco.or.us

Dear Ms Brewer,

Thanks for the clear summary review last Tuesday of Union Pacific's proposal to extend double track on either side of Mosier, Oregon. Well done.

I have revised my written testimony. The text is attached. From one of the activist web exchanges I had the impression the hearing was to be held by the Wasco County Commission, not the Planning Commission. Several other bits of dumbness are cleaned up in the attached version. I hope you can use that one in the final record.

I did not have enough copies of my "Climate Change Primer" with me at the hearing for all of the commission members. If anyone feels left out by not getting one, please ask for more and I will send them to you by mail.

Charlie Miller
Corvallis

Wasco Co. Union Pacific 2nd line.pdf
16K

Wasco County Planning Commission
C/O Ms Angie Brewer
Wasco Co. Planning Director
Via email: angieb@co.wasco.or.us

9 September 2016

RE: Proposed second rail line past Mosier, Oregon (through Wasco Co. and the Columbia Gorge National Scenic Area)

Dear Sirs and Madames,

My concern is more global that most of the comments you will receive. The entire world is in a climate-change crisis: it is not only warming but massive rain-storm floods in places, prolonged droughts in other places, rising sea levels on all coasts, tropical species including disease vectors moving poleward (think Zika), ocean acidification and the list goes on.

The undoubted cause is increasing carbon dioxide from fossil fuel burning. The first step in damping that cause is NO NEW FOSSIL FUEL INFRASTRUCTURE. The second rail line proposed by Union Pacific is exactly that. Do not issue permits for the line. Do not issue permits for rock crushing near Memaloose State Park. Just say NO. I realize that the decisions will largely rest with the Federal Railway Administration, the courts, even Congress. However, the voice of the Wasco County Planning Commission will carry moral authority, a voice from the people "on the ground." Use that voice. Thank you.

Charles B. Miller, Ph.D.
1320 NW 30th Street
Corvallis, Oregon 97330

charlie@arietellus.com

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

RE: Website that may be of interest, ??

1 message

Peter Cornelison <Peter@gorgefriends.org> Fri, Sep 9, 2016 at 9:34 AM
To: Susan Froehlich <susfro@gmail.com>, Arlene Burns <arlenecburns@gmail.com>, "angieb@co.wasco.or.us" <angieb@co.wasco.or.us>

Susan, Thank you for your activism! You have been awesome. Here is the best map we have, so far that answers what you are looking for. Hope this helps. I don't know the answers to the other questions but will check around. Cheers, Peter

-----Original Message-----
From: Susan Froehlich [mailto:susfro@gmail.com]
Sent: Thursday, September 08, 2016 12:04 AM
To: Arlene Burns; Peter Cornelison; angieb@co.wasco.or.us
Subject: Website that may be of interest, ??

Greetings Arlene, Peter and Angie,

Thank you so much for all of your time and effort on this project. After 2 full nights,I have ?? And need to know true info. . .there seems to be a great deal of misinformation that should have a fact - check . . .maybe these sites are the closest that we can come to Fact-check or Snopes.com!!

Even on this site, it was hard to discem where the tracks/sidings are presently located. It would be great if we could see a map of the present sidings through the COI RIver Gorge - the length and the surrounding topography - so that questions of the selection of this mainline/siding location (MOSIER) could be better understood.
I still don't have a clear understanding of the Alternative Analysis portion of the application, thinking that other sites should have been presented and reasons why they were not accepted,, delineated.

In addition, The entire need statement of the application was that there was a bottle neck in Mosier, but I don't have a clear understanding of this either.

In addition to this map,
I have a few questions that seems to have a variety of answers from Union Pacific . .hoping that the real answers will surface.

1. Why was Mosier selected as the best place to unwind the "bottleneck"?
Mosier is situated 17 miles from The Dalles, where the railroad has a No-South line attaching to the East-west line from TD to PDX. The distance from TD to PDX is aprx. 80 Miles. In my math classes, Mosier would then be located 1/4 of the way to PDX. ANd this is the bottleneck location?
This is NOT in the heart of the Gorge - which would be 1/2 of the way - but is a clear 20 miles from that location.
So why Mosier?
Was there already an existing portion of track so that UP would not have to build that section, thus saving ?? With the Memaloose restrictions of "NO Access RD" was UPR then forced to go through the the entire town of Mosierr?
Was it that a deal for land transfer was implemented with the town of Mosier?
Did UP think that Mosier was a small town pushover, willing to accept a second track - AND THEN oops, June 3rd derailment?

2. How many trains provide a bottleneck of idling in the present siding?
Not many, as Kirt (of UPR)) stated. This is because most trains are too long to go into the siding of the present siding of 6300 ft. How UPR routes their trains would provide good info because 17 miles to The Dalles does not seem too far to me, to have the siding where trains of all sizes can move and switch and pass. So how many trains idle in Mosier per day?? Per week?
What kind of fluidity does UPR need? What ratios? Where does safety figure into these figures?

3. Should we not be comparing real length/weight of trains traveling through the Gorge? Instead of asking "how many trains?"/day, should we not be asking "how many cars?' Per day, or " how many tons of weight/day?" So that we can truly compare apples and oranges? One train of 10 cars does not equal one train of 96 cars . . .

PC 2 1-245

ANd 1 car of oil does not necessarily equal 1 car of linens!

4. Lastly, has anyone questioned the impact of a 2nd line on - vibration - on The land? The wildlife? The plants? The salmon?
How about noise? Its impact on wildlife? Plants? Salmon?

Again, I thank you for all of your time , effort, thoughts, energy - this is a very important decision and one that will have impact through tour lives, as well as our children and grandchildren and beyond. Please consider my questions and if you have an opportunity to respond, I would greatly appreciate it. Thank you.

http://www.up.com/cs/groups/public/@uprr/@customers/documents/up_pdf_nativedocs/pdf_up_ind-dev_guidelines.pdf

WIth kind regards,

Susan froehlich
PO Box 312
Mosier, OR. 97040

PortlandSubUnitFOGCharts.pdf
974K

Portland Sub

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SPEED CHANGE located MP xx.8

SIGNALS are for ALL MAINS & Controled Sidings
UNLESS Noted Different

Detector Talker (Always Talks)
Located MP xxx.1

% Detector (Talk On Defect Only)
Located MP xxx.5

PUBLIC at Grade Road Crossing

Private at Grade Road Crossing

DEC 2008

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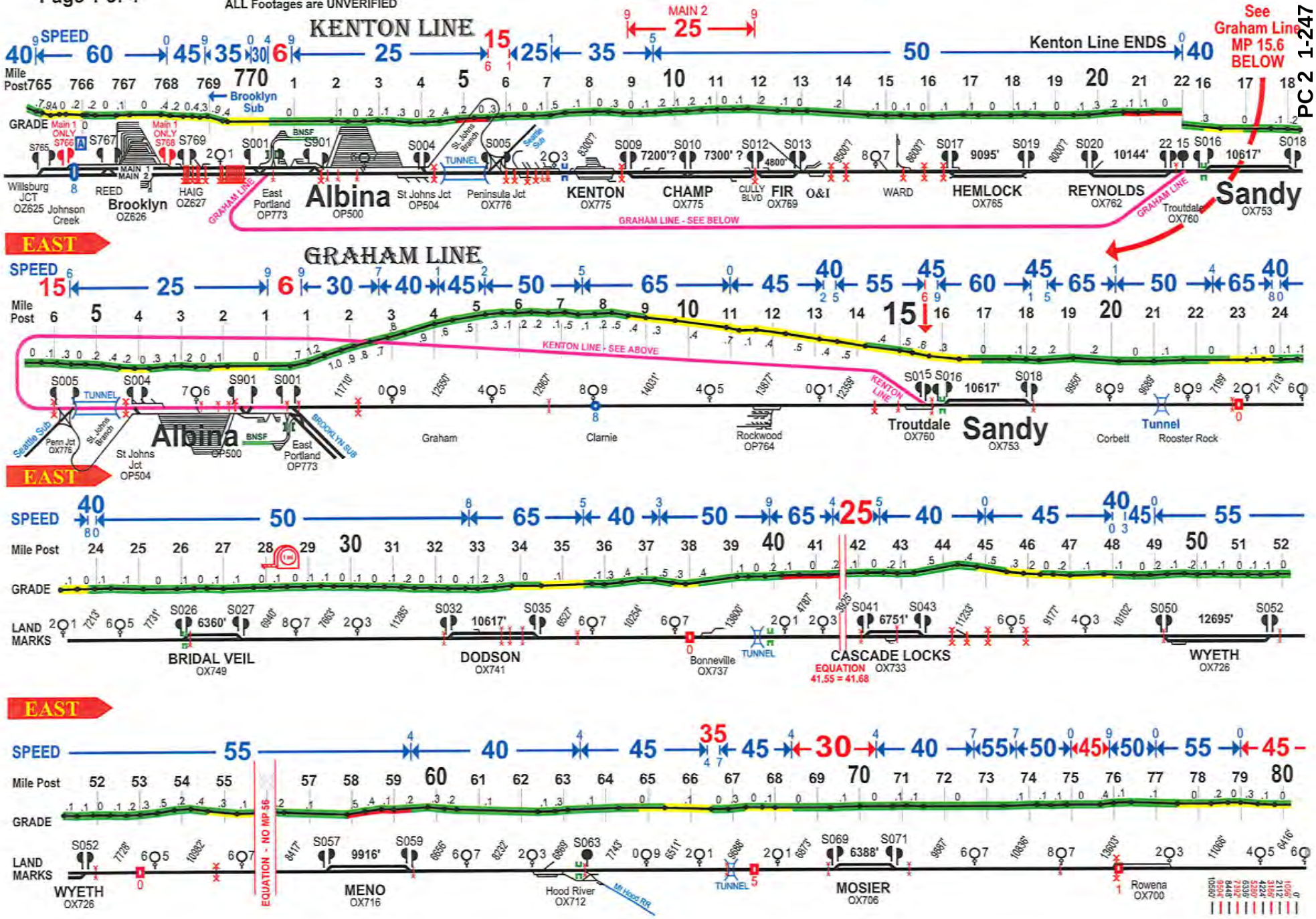

OCT 2008

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PUBLIC at Grade Road Crossing

Private at Grade Road Crossing

GRADE NOTE

GRADE determined using GPS data. Elevation taken every 2000 feet or so. Grade then calculated for those 2000 ft. Peaks and Valleys will be rounded off. Small dips and humps will be missed.

GRADE IS ROUNDED to the TENTH.

ALL Footages are UNVERIFIED

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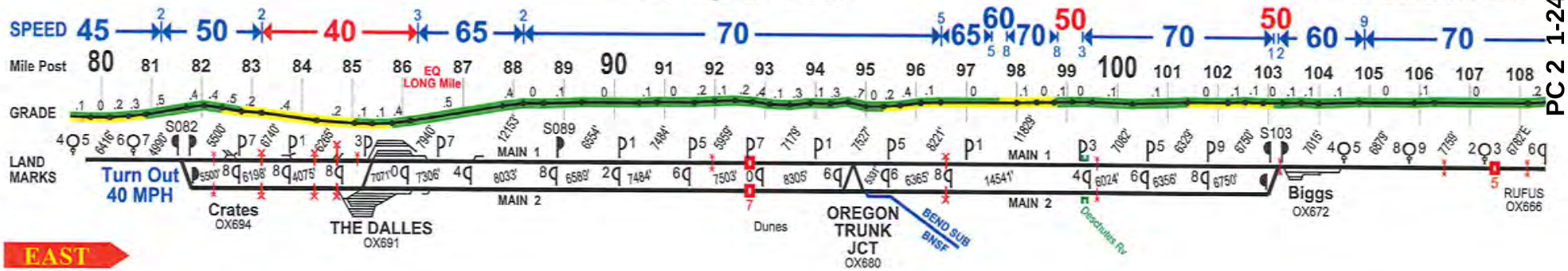

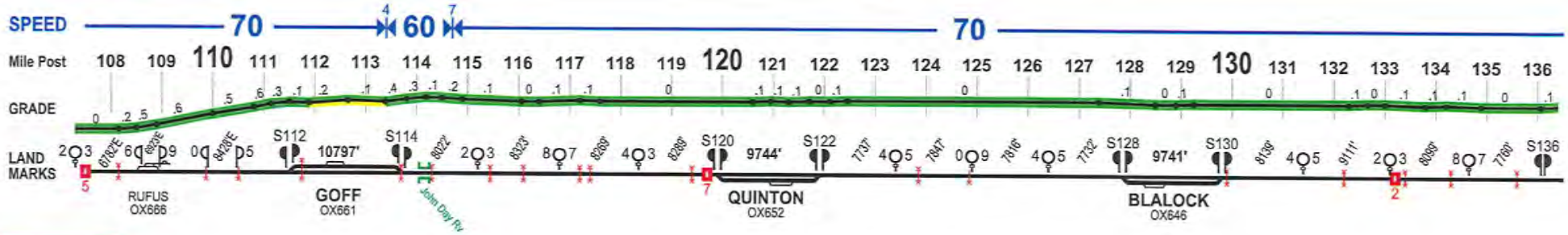

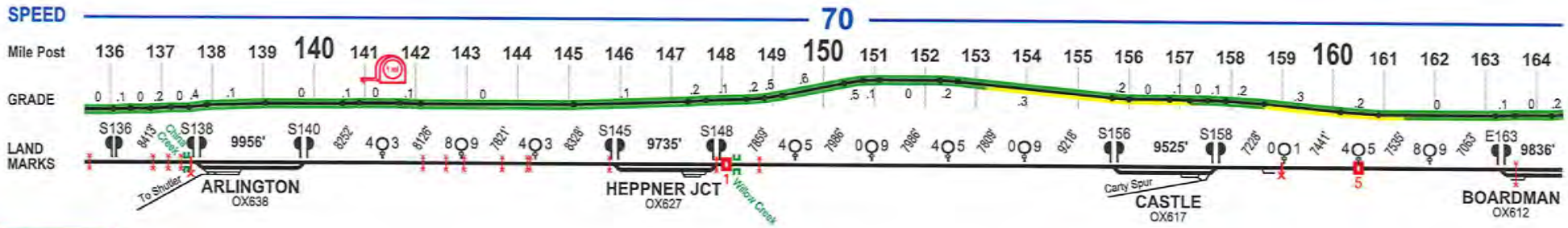

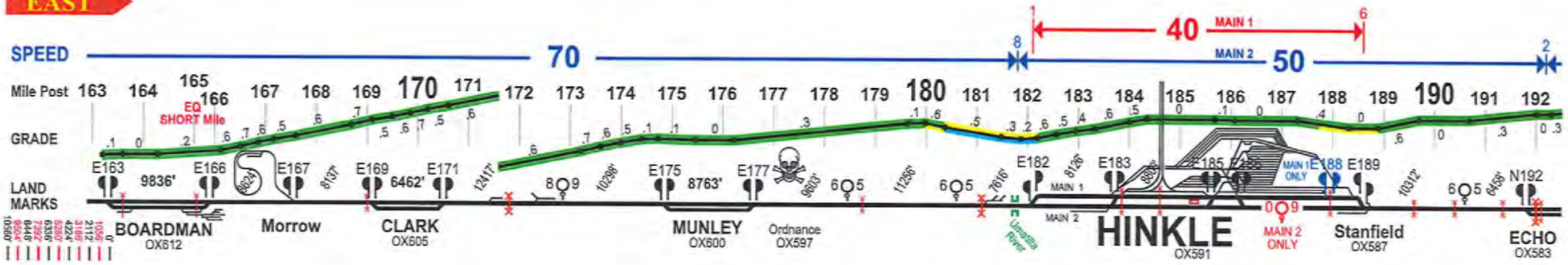

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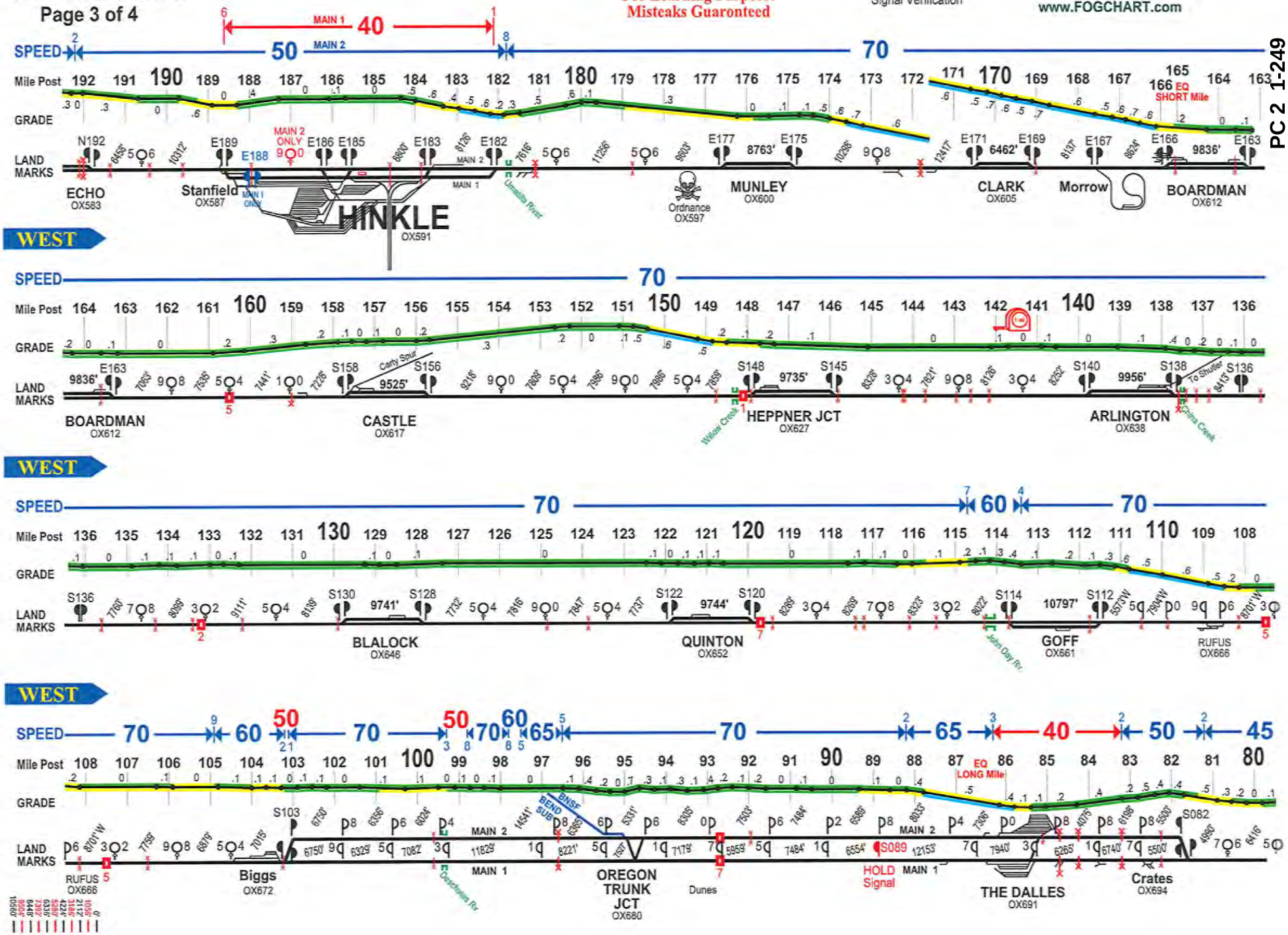

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GRADE determined using GPS data. Elevation taken every 2000 feet or so. Grade then calculated for those 2000 ft. Peaks and Valleys will be rounded off. Small dips and humps will be missed.

For accurate charts
Must hear from you
That's how it works.

DEC 2008

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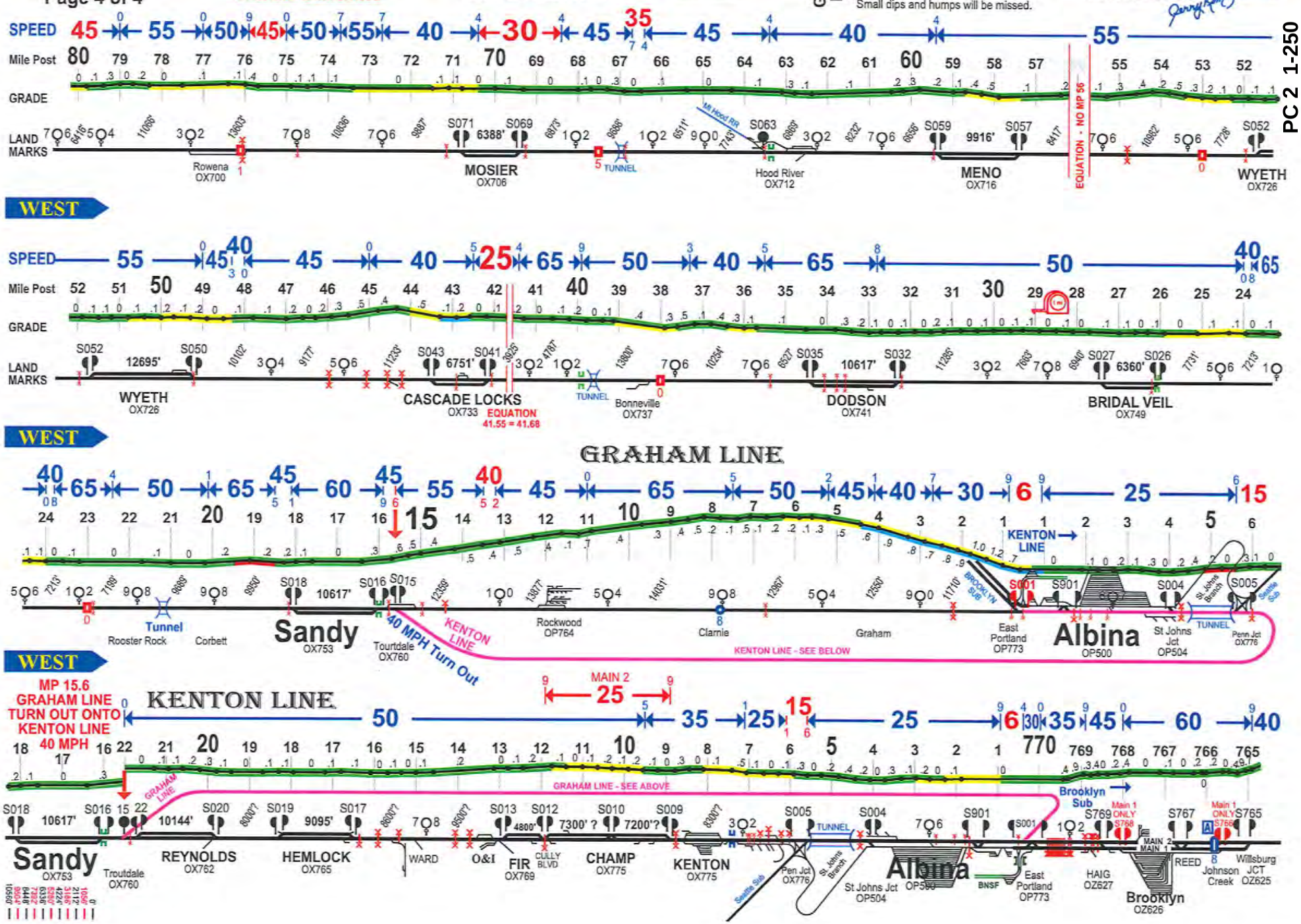

Angie Brewer <angieb@co.wasco.or.us>

Website that may be of interest, ??

1 message

Susan Froehlich <susfro@gmail.com> Thu, Sep 8, 2016 at 12:04 AM
To: Arlene Burns <arlenecburns@gmail.com>, Peter Cornelison <peter@gorgefriends.org>, angieb@co.wasco.or.us

Greetings Arlene, Peter and Angie,

Thank you so much for all of your time and effort on this project. After 2 full nights,I have ?? And need to know true info. . .there seems to be a great deal of misinformation that should have a fact - check . . .maybe these sites are the closest that we can come to Fact-check or Snopes.com!!

Even on this site, it was hard to discem where the tracks/sidings are presently located. It would be great if we could see a map of the present sidings through the COI RIver Gorge - the length and the surrounding topography - so that questions of the selection of this mainline/siding location (MOSIER) could be better understood.
I still don't have a clear understanding of the Alternative Analysis portion of the application, thinking that other sites should have been presented and reasons why they were not accepted,, delineated.

In addition, The entire need statement of the application was that there was a bottle neck in Mosier, but I don't have a clear understanding of this either.

In addition to this map,
I have a few questions that seems to have a variety of answers from Union Pacific . .hoping that the real answers will surface.

1. Why was Mosier selected as the best place to unwind the "bottleneck"?
Mosier is situated 17 miles from The Dalles, where the railroad has a No-South line attaching to the East-west line from TD to PDX. The distance from TD to PDX is aprx. 80 Miles. In my math classes, Mosier would then be located 1/4 of the way to PDX. ANd this is the bottleneck location?
This is NOT in the heart of the Gorge - which would be 1/2 of the way - but is a clear 20 miles from that location.
So why Mosier?
Was there already an existing portion of track so that UP would not have to build that section, thus saving ?? With the Memaloose restrictions of "NO Access RD" was UPR then forced to go through the the entire town of Mosierr?
Was it that a deal for land transfer was implemented with the town of Mosier?
Did UP think that Mosier was a small town pushover, willing to accept a second track - AND THEN oops, June 3rd derailment?

2. How many trains provide a bottleneck of idling in the present siding?
Not many, as Kirt (of UPR)) stated. This is because most trains are too long to go into the siding of the present siding of 6300 ft. How UPR routes their trains would provide good info because 17 miles to The Dalles does not seem too far to me, to have the siding where trains of all sizes can move and switch and pass. So how many trains idle in Mosier per day?? Per week?
What kind of fluidity does UPR need? What ratios? Where does safety figure into these figures?

3. Should we not be comparing real length/weight of trains traveling through the Gorge? Instead of asking "how many trains?"/day, should we not be asking "how many cars?' Per day, or " how many tons of weight/day?" So that we can truly compare apples and oranges? One train of 10 cars does not equal one train of 96 cars . . .
ANd 1 car of oil does not necessarily equal 1 car of linens!

4. Lastly, has anyone questioned the impact of a 2nd line on - vibration - on The land? The wildlife? The plants? The salmon?
How about noise? Its impact on wildlife? Plants? Salmon?

Again, I thank you for all of your time , effort, thoughts, energy - this is a very important decision and one that will have impact through tour lives, as well as our children and grandchildren and beyond. Please consider my questions and if you have an opportunity to respond, I would greatly appreciate it. Thank you.

http://www.up.com/cs/groups/public/@uprr/@customers/documents/up_pdf_nativedocs/pdf_up_ind-dev_guidelines.pdf

WIth kind regards,

Susan froehlich
PO Box 312
Mosier, OR. 97040

Sent from my iPad

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pdf_up_ind-dev_guidelines.pdf
1868K

Guidelines for Rail Service to New or Modified Industry Locations

Revised 5/6/15

BUILDING AMERICA®

Guidelines for Rail Service to New or Modified Industry Locations

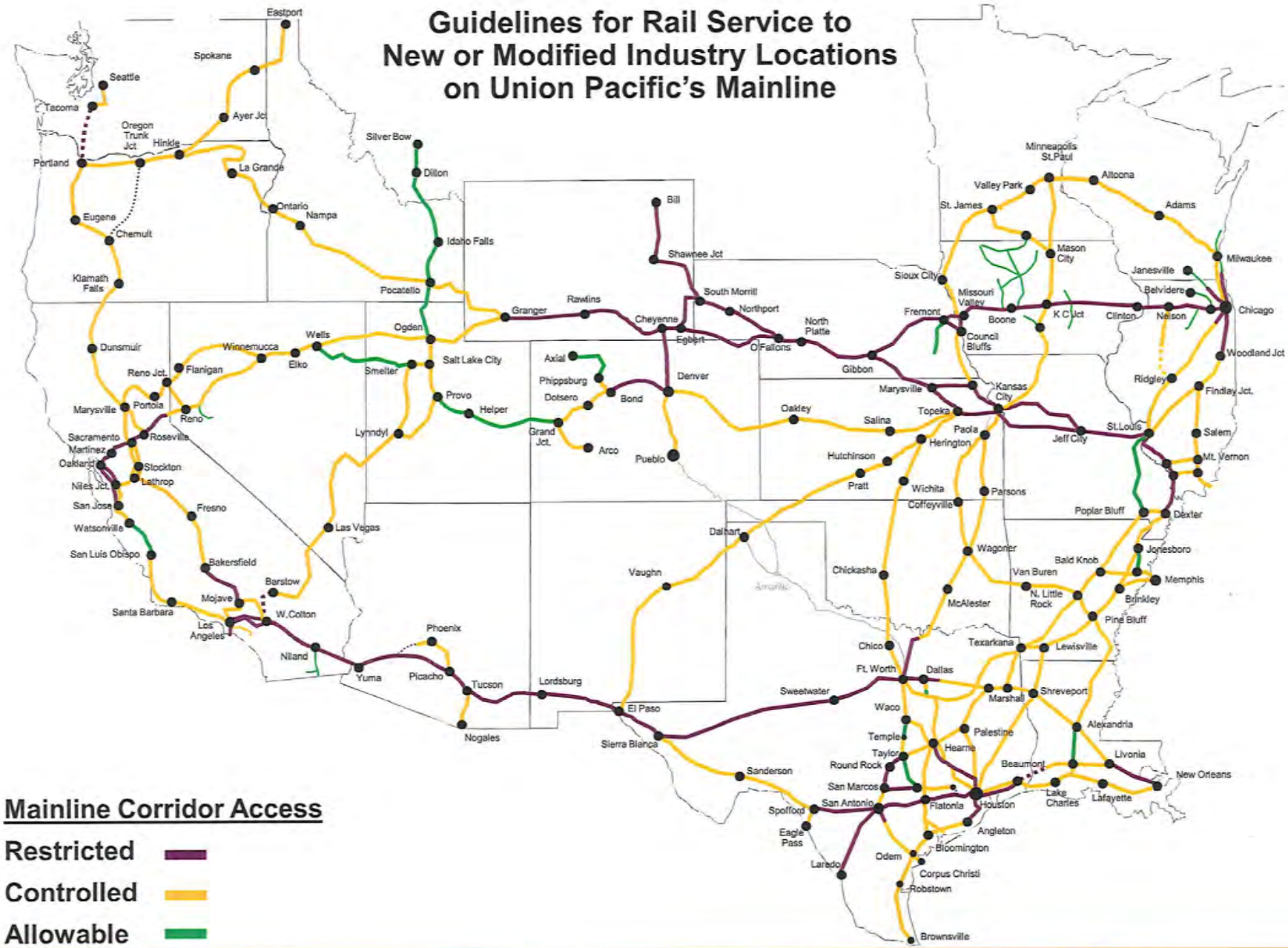
Network Corridor Line Categorization

Restricted Access - Mainline Corridor: territories within the network that are the most operationally challenged based on line density, service sensitivity/premium product corridor, lack of surplus capacity, grade and operating conditions. Objective is to manage new industry locations in a manner which prevents impediments to fluid operations and service, thus making any new facility transparent to operations with any addition to the network causing no collateral delay.

Controlled Access - Mainline Corridor: varying degree of operational challenges within the network based on line density, premium product mix, slack capacity and directional operations. Objective is to avoid train make up or switching moves on the mainline and minimize collateral delay.

Allowable Access - Mainline Corridor: relatively low density lines, some slack capacity available and a non-premium product corridor.

Guidelines for Rail Service to New or Modified Industry Locations on Union Pacific's Mainline



Mainline Corridor Access

- Restricted
- Controlled
- Allowable

BUILDING AMERICA®

Guidelines for Rail Service to New or Modified Industry Locations

Infrastructure Guidelines

		Restricted Access Mainline Corridors	Controlled Access Mainline Corridors	[illegible]	Industry Parks, Leads and Other Customer Complexes
1	Customer infrastructure must allow a full train length to clear the mainline without stopping to line switches. This requires approximately 8,500-9,000 ft of running track capacity due to train length and signal systems.	X			
2	#15 mainline power turnouts required to enable train to clear mainline in one continuous move(if applicable).	X	X		
3	If customer operations requires varying directional flow, customer facility should access mainline from both directions.	X	X		
4	Customer operation must accommodate the switching or repositioning of moves clear of the mainline or controlled sidings. Where unit trains are handled, availability of yard air at the facility may be required, depending on circumstances.	X	X		
5	Customer must have reasonably close access to power crossovers to avoid extensive counter flow movements in double track territory (if applicable).	X	X		
6	Customer facilities handling less than unit train volumes must accommodate spot upon arrival and have sufficient capacity to accommodate both loaded and empty car storage. Facilities set up to handle unit trains must have the capability to chamber a minimum of one complete train.	X	X	X	X
7	Infrastructure is 286K compatible, if required by customer operations	X	X	X	X
8	Customer infrastructure compliant with UP track and signal standards	X	X	X	X
9	Customer facility designed for a "drop and pull" service. "Drop" - Physical delivery of loads/empties, in one continuous move, onto one track, which is sufficient in length to accommodate the entire number of loads/empties of the arriving train for that location. "Pull" - Physical removal (Departure), of loads/empties, in one continuous move, from one track which is sufficient in length to accommodate the entire number of loads/empties billed for departure at the same time from that location. No intra-plant switching is performed by the Union Pacific. Track length may vary dependent upon Site Conditions and Unit/Manifest service type. "Drop and Pull" may require an additional "Run Around" track. [A "Run Around" track is a track that allows the movement of a locomotive around to the other end of cars on a track for efficient handling of those cars without interfering with other train operations on adjacent tracks.]	X	X	X	Preferred
10	Customer facility designed to accommodate customer or third party switching, including Remote Control Locomotive (RCL) application.	X	X	X	X
11	Customer facility layout does not require commodity or order specific switching assignment of railcars to unloading tracks by Union Pacific	X	X	X	X
12	Additional access requirements determined by local conditions and site specific considerations.	X	X	X	X
13	Train operations do not block road crossings	X	X	X	X
14	Other than required connections, customer tracks and facilities will be designed to be separate from UPRR right-of-way property. All customer tracks must be at least 45 feet away from any UPRR mainline or active siding.	X	X	X	Preferred

Note: Meeting the Infrastructure Guidelines may not guarantee service will be provided

Guidelines for Rail Service to New or Modified Industry Locations

Process Guidelines

	PROCESS	Restricted Access Mainline Corridors	Controlled Access Mainline Corridors	Allowable Access Mainline Corridors	Industry Parks, Leads and Other Customer Complexes
	Any route category: Any project that involves customer/3rd party using Union Pacific main track or industrial lead must have Regional Vice President sign-off and Network Access team approval.	X	X	X	X
1	Requires EVP approval by the Marketing and Operating Departments or their designates.	X			
2	Requires design review (track & signal) and sign-off at the scale concept and at the final design stages by RVP, VP-Engineering, and VP-Network Planning & Operations	X	X		
3	All Ethanol (origin & destination) projects require design review (track & signal) and sign-off by RVP, VP-Engineering, and VP-Network Plng & Operations	X	X	X	X
4	Requires approval of RVP and Marketing Business Team Leaders or their designates.	X	X	X	X
5	Requires design review by Field Operations and Engineering (Track & Signal)	X	X	X	X
6	Requires Customer requirements that can be satisfied with an agreed upon local service plan			X	X
7	Requires Customer operations can not degrade existing through rail service.	X	X	X	X
8	Lead time from infrastructure design to implementation is a minimum of 18-24 months	X	X	X	X
9	Requires approved transportation CSP and/or approval of Network Access Team and Business Rationalization Team (if applicable)	X	X	X	X

PC 2 1-257

Sept 10, 2016

Dear Planning Commission Members,

I am writing to you to oppose the permit from Union Pacific for a 2nd track. First, I would like to address safety :

1. We heard so much about safety concerns with the trains/railcars/tracks in the Public Hearing, especially in light of the derailment that occurred in June. When UNP addressed those concerns, they stated that they were all about safety, and yet, in UNP's published Guidelines for Installing New Track or Adding more mainline track (which can be easily found on the Internet, revised in 2015) there is NO mention of ANY SAFETY considerations. Not one. I find that to be disconcerting and alarming.

2. Next I would like to address environmental and health concerns on Noise and Vibrational Impacts. I feel that the environmental and health concerns on vibrational and noise impact have not been thoroughly examined and would like you to require this assessment before any consideration of allowing a permit for UNP.

There are a number of studies that address the impact of noise and excess vibration on humans, wildlife, fish, and insects. . .These should be reviewed, examined and included in your decision to allow a second track , a track that would require substantial blasting of rock walls, so close to the river/salmon – Rock Creek - and to the town of Mosier. In addition, the noise and vibrations from increased rail cars – longer trains because this was the "NEED" for the expansion – have not been thoroughly assessed even though the FRA and the US Fish and Wildlife, have plenty of information on this area, along with guidelines for assessing the environmental impact. This project is too costly in terms of overall damage to our environment, our town, our fish/water, and our safety. Please deny the permit for this project.

With Kind regards,

Susan Froehlich

302 E 2nd

Mosier, OR 97040

These clips are from a few sites found on the internet. .

From A Canadian Environmental Study from Dec 2011 . . .The potential effect of vibration on fish is analysed with reference to Fisheries and Oceans Canada's (DFO) "Guideline for the Use of Explosives In or Near Canadian Fisheries Waters" (DFO 1998) provided under the *Fisheries Act* (Government of Canada 1985). The DFO guideline recommends a setback distance from the centre of detonation of a confined explosive to spawning habitat to achieve 13 mm/s guideline criteria to be at least 150.9 m for 100 kg explosive charge.

And another, although from 1988 . .

U.S. Air Force, U.S. Fish and Wildlife Servics, Dept of the Interior
NERC 88-29

Effects of Aircraft Noise and Sonic Booms on Domestic Animals and Wildlife: A Literature Synthesis

The concluding remarks. . .

environmental noise is largely determined by their response to transient perturbations (Shepherd and Horwood 1979). The most important features of the transient response are described by the return time, which is the characteristic time taken for the population to return to equilibrium after perturbation. The return time may either increase or decrease when a population is exploited, depending on the nature of the mechanisms that regulate population size. Unfortunately, the limited literature concerning noise effects on populations is inadequate to formulate management plans based on projected impacts of noise for most species.

Historical and preimpact data for a particular population provides useful information for comparing populations before and after noise disturbance. However, few studies have had this type of information available to use for comparison with data collected during noise disturbance to a population. An exception to this includes work done on the Channel Islands in California (Jehl and Cooper 1980). Concern that the intense sonic booms from proposed space shuttle flights might have adverse effects on the resources of the Channel Islands prompted a number of field, laboratory, and library investigations undertaken from 1978-1980.

Large data gaps exist on the behavioral and resultant population impacts. This deficiency is due to a lack of experimentally controlled studies on the subject, as well as to the inherent problems of wildlife field research. Occasionally, researchers monitoring behavioral changes due to aircraft noise can become a probable cause of behavioral change themselves (Black et al. 1984). Research studies must be designed to ensure that wild animals are not aware of observers or that observation is not incorporated into the experimental design in such a way as to negate or account for potential adverse researcher effects.

Literature on the effects of aircraft noise and sonic boom on animals indicates that effects are variable from species to species. Thus, further research is needed to fully quantify noise impact on individual domestic and wildlife species (Boutelier 1968; Bond 1971; Bender 1977). A number of incidents have been recorded that indicate the effects may be more detrimental to wildlife than to domestic animals (Bond 1971).

Further research needed to answer critical questions about the effects of noise on animals includes: (1) studies of individual species, as individual animals and in social groups (e.g., herds, flocks) to examine the acoustic nature (e.g., frequency, intensity, temporal patterns) of critical events (e.g., mating, territoriality, alarm, nurture); (2) more complete investigation of the spectrum of environmental sound and of an animal's hearing sensitivity; (3) effects of noise on a declining animal population, regardless of the cause of the population decline; (4) stressor effects of noise combined with other stresses on an animal; (5) long- and short-term noise effects; and (6) further studies of possible critical sound propagation in the field (Fletcher 1980).

Due to scarcity of data, environmental impact assessments rarely consider noise effects on wildlife. A complete and accurate assessment of a given impact should include an assessment of how animals will react (both physically and behaviorally) to various noise levels of varying frequencies produced by

the impact (Bender 1977). However, this type of information is presently unavailable for most situations; at best, information can only be surmised from laboratory experiments and limited field observations. In addition, the hearing ability of many species has not been investigated. More studies to determine the hearing ability of species are needed to improve the ability to accurately assess the potential effects of noise on individual species.

The advent of jet aviation resulted in increased interest in developing a sound-level scale that more closely correlates with the human ear's response to aircraft noise. While propeller engine aircraft engines generally produce low-frequency noise, jet engines produce a large amount of noise in the middle- and high-frequency range. Therefore, jet aircraft are typically judged to be more noisy and annoying, at least to human listeners. This principle also may apply to some, if not most, species of wildlife.

In addition to a generally higher noise frequency range, the presence of discrete tones tends to make jet engine noise more annoying and thus more impacting than it would be without these tones. To deal effectively with the noise analysis problem with regard to animals, models need to be developed to approximate more closely individual species' or groups of species' (e.g., raptors) subjective response to aircraft engine noise in terms of relative noisiness or annoyance. The models should involve the addition, in a nonlinear manner, of the noise component of each frequency band in the noise frequency spectrum.

In general, the perceived noisiness and resultant annoyance to sound increases with the duration of the noise event as well as with its loudness. For this reason, an animal noise impact assessment methodology must account for both the magnitude and duration of aircraft noise exposure. Thus, two different types of noise measurement are essential to assess aircraft noise and sonic boom impacts on wildlife: one to measure the noise from individual sorties (aircraft missions) and another to measure or describe the cumulative effect of numerous sorties over a specified time period. Such models need to consider not only the duration and intensity of individual aircraft noise events, but also any synergistic effects that may occur as the number of sorties reaches some species threshold, such as one that would cause animals to leave areas critical to their survival.

As useful as these aircraft noise measures may be, it is still essential to employ an environmental noise description to assess the animal, population, or community response to a variety of aircraft noise events throughout a desired period. Such noise impact descriptors also should make suitable allowances not only for the effect of a single noise event but also for the number, time of day, and season of such events.

All of the above considerations should be taken into account in any methodology for assessing the probable impact of aircraft noise on a wide variety of wildlife species over different geographic areas.

Wasco County Planning Commission
C/O Ms Angie Brewer
Wasco Co. Planning Director
Via email: angieb@co.wasco.or.us

9 September 2016

RE: Proposed second rail line past Mosier, Oregon (through Wasco Co. and the Columbia Gorge National Scenic Area)

Dear Sirs and Madames,

My concern is more global that most of the comments you will receive. The entire world is in a climate-change crisis: it is not only warming but massive rain-storm floods in places, prolonged droughts in other places, rising sea levels on all coasts, tropical species including disease vectors moving poleward (think Zika), ocean acidification and the list goes on.

The undoubted cause is increasing carbon dioxide from fossil fuel burning. The first step in damping that cause is NO NEW FOSSIL FUEL INFRASTRUCTURE. The second rail line proposed by Union Pacific is exactly that. Do not issue permits for the line. Do not issue permits for rock crushing near Memaloose State Park. Just say NO. I realize that the decisions will largely rest with the Federal Railway Administration, the courts, even Congress. However, the voice of the Wasco County Planning Commission will carry moral authority, a voice from the people "on the ground." Use that voice. Thank you.

Charles B. Miller, Ph.D.
1320 NW 30th Street
Corvallis, Oregon 97330

charlie@arietellus.com

comment regarding new rail tracks

2 message(s)

Date: Tue Sep 13 2016 13:26:38 GMT-0600 (MDT)
From: Judy Merrill
To: angieb@co.wasco.or.us
CC:
ID: 1572517abab4a154

I want to begin by thanking you Angie for the work you did in preparation for the well attended public hearing with the Wasco County Planning Commission held on September 3, 2016 at the Discovery Center.

I am asking the commission to reject Union Pacific's application for expansion plans adding new tracks near Mosier Oregon.

The plan DOES NOT exhibit TRANSPARENCY.

I feel the plan DOES NOT HAVE ANY economic benefits for Mosier, The Dalles, Hood River, Cascade Locks or any other of the surrounding communities both in Oregon and Washington.

I feel SAFETY and HEALTH for EACH individual, each community and the health of our environment are of utmost importance.

The impacts the project threatens natural resources and displaces recreation at Memaloose State Park and campground.

Union pacific states the plan is not about increasing the number of trains.

I ASK.....if the plan is approved…how can it be revoked?? What, if any, would the process be for the individuals and communities in the are?? Where is the transparency??

Please… I ask each member of Wasco County Planning Commission NOT to approve the application proposed by Union Pacific for adding tacks near Mosier. It is NOT consistent with the Columbia Gorge Scenic Act.

Thank you,

Judy Merrill

400 West 11th Street

The Dalles OR 97058

(541) 980-5038

Re: comment regarding new rail tracks

2 message(s)

Date: Tue Sep 13 2016 14:55:38 GMT-0600 (MDT)
From: Angie Brewer
To: Judy Merrill
CC:
ID: 15725556ff8bcf9b

Thank you for the kind words and additional comment, Judy.

Have a wonderful afternoon,
Angie

WASCO COUNTY
Pioneering pathways to prosperity.

Angie Brewer | *Director*
PLANNING DEPARTMENT

angieb@co.wasco.or.us | www.co.wasco.or.us
541-506-2566 | Fax 541-506-2561
2705 East Second Street | The Dalles, OR 97058

On Tue, Sep 13, 2016 at 12:26 PM, Judy Merrill <jude@gorge.net> wrote:

I want to begin by thanking you Angie for the work you did in preparation for the well attended public hearing with the Wasco County Planning Commission held on September 3, 2016 at the Discovery Center.

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Thank you,

Judy Merrill
400 West 11th Street
The Dalles OR 97058

(541) 980-5038

UPRR - PLASAR-15-01-0004

2 message(s)

Date: Tue Sep 13 2016 13:50:47 GMT-0600 (MDT)
From: Steve McCoy
To: "angieb@co.wasco.or.us"
CC: Steve McCoy
ID: 157251a29d5282de

Please accept the attached Visual Impacts Analysis and supporting materials for the above-mentioned scenic area development application. Some of these documents were hand-delivered at the September 6, 2016 Planning Commission Hearing. This electronic copy is provided as a courtesy.

Best,
Steve

Steven D. McCoy
Staff Attorney
Friends of the Columbia Gorge
522 SW Fifth Ave., Suite 720
Portland, OR 97204
(C) 503-319-2547
What's going on with Friends? Sign up to stay informed!
Facebook / Twitter / Website

2 Attachments:

Dean Apostol Resume.pdf
JordanSecterResume.pdf
P0013908W-VRA-EX01-E.pdf
P0013908W-VRA-EX01-W.pdf
VisualImpactsReport_Final.pdf

Fwd: UPRR - PLASAR-15-01-0004

2 message(s)

Date: Tue Sep 13 2016 14:33:08 GMT-0600 (MDT)
From: Angie Brewer
To: Kristen Campbell
CC:
ID: 1572540d7e27074e

WASCO COUNTY
Pioneering pathways to prosperity.

Angie Brewer | ***Director***
PLANNING DEPARTMENT

angieb@co.wasco.or.us | www.co.wasco.or.us
541-506-2566 | Fax 541-506-2561
2705 East Second Street | The Dalles, OR 97058

---------- Forwarded message ----------
From: **Steve McCoy** <steve@gorgefriends.org>
Date: Tue, Sep 13, 2016 at 12:50 PM
Subject: UPRR - PLASAR-15-01-0004
To: "angieb@co.wasco.or.us" <angieb@co.wasco.or.us>
Cc: Steve McCoy <steve@gorgefriends.org>

Please accept the attached Visual Impacts Analysis and supporting materials for the above-mentioned scenic area development application. Some of these documents were hand-delivered at the September 6, 2016 Planning Commission Hearing. This electronic copy is provided as a courtesy.

Best,
Steve

Steven D. McCoy
Staff Attorney
Friends of the Columbia Gorge
522 SW Fifth Ave., Suite 720
Portland, OR 97204
(C) 503-319-2547

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e6dc21d6b10797e0_0.0.1

2 Attachments:
Dean Apostol Resume.pdf
JordanSecterResume.pdf
P0013908W-VRA-EX01-E.pdf
P0013908W-VRA-EX01-W.pdf

VisualImpactsReport_Final.pdf

1 In-line Image(s):
e6dc21d6b10797e0_0.0.1

Union Pacific conditional use

1 message(s)

Date: Tue Sep 13 2016 12:55:15 GMT-0600 (MDT)
From: Micky
To: angieb@co.wasco.or.us
CC: John Olmsted
ID: 15724e74653ea4d7

To the Wasco County Planning Commission-

Please accept these comments on the Union Pacific request for a conditional use permit.

The request by Union Pacific for a conditional use permit to build more railroad track in the Columbia River scenic area should be denied.

Union Pacific and Wasco County agree that the proposed development will impact forests, wetland and geological features, all of which are critical to maintaining the natural state and scenic features of the gorge. Those actions cannot be fully mitigated, or even significantly mitigated by the measures recommended by the planning department. The actions described by the railroad will further cause harm to the river, the forests and wildlife. The request to cut a large number of oaks in the Gorge is reason enough to deny this permit. The loss of one of our our few Gorge wetlands is another clear reason for denial. Once lost, there is no real way they can be restored. Mitigation is not restoration, even if it is successful.

"To the extent possible" is no real standard and should not be used in writing a use permit of this magnitude. It means nothing legally and is unenforceable. The standards must be clear to be enforceable.

Should this permit be granted, additional conditions must be added to insure that the listed conditions are met. There must be a specific monitoring plan, that includes officials and citizens of Mosier and the surrounding areas. They must be granted regular and free access to the project so they can ensure that the railroad is meeting the conditions. Wasco County does not have the workforce to monitor this and a citizen group is the only logical alternative. The railroad must also make regular written reports to the county on the process of the project, and be willing to attend public meetings to address ongoing concerns.

Thank you,

Micky Ryan and John Olmsted

7450 Seven Mile Hill Road

The Dalles, OR

2817 NE 20th

Portland, Oregon 97212

Sent from my iPad

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comments on the proposal to extend the double track through Mosier

2 message(s)

Date: Tue Sep 13 2016 11:01:39 GMT-0600 (MDT)
From: Barbara Robinson
To: "angieb@co.wasco.or.us"
CC:
ID: 157247f426a4cde9

Sept. 12, 0216

Dear Wasco Co. Planning Commission:

There are many reasons to deny a second track, and you heard many at the hearing. But I would like to focus on one overwhelming reason: Unit oil trains, or "oil-bomb trains" as we can accurately call them, are an incredibly big safely hazard to the lives of everyone in the Gorge that there is currently no way mitigate, because when one car explodes or catches fire, on a high wind day it is likely to set the oil car next to it on fire and so on down the line of often over 100 cars. Unit oil trains should be outlawed by federal legislation. But until that happens, and while the railroads feel obliged to run unit oil trains, you as protectors of public safety have an obligation to deny any project that would increase the number of such trains by even one, or the number of oil cars on such trains. The railroad say it could increase the number of trains by 5 to 7, and LOG's experts say 40 or more. The railroad has a bad history of lying (sayng the first unit trains were in Dec. of 2015 when we have photos by my friend Joe Urmos showing them in April 2015, for instance), so I do not believe the railroad. But FOG and the railroad agree that if demand is there, the double rails will allow an increase in rail traffic, and if the demand is there, an increase in unit oil train traffic. Unit oil trains are a very serious threat to the lives and health of everyone in the Gorge, and anything that would potentially allow an increase in their number or length should be denied.

The Mosier derailment and fire happened June 3, a windless day that came after about a week of strong winds.

Several days of 30 mph winds are normal for the Gorge, especially in summer when it is hot and all vegetation is dried out. The way it happened, on a windless day, was the best case scenario. But in examining impacts to safety, you the Planning Commission have an obligation to also look at worst case scenarios, in other words at what could happen if a derailment and fire takes place on a windy day in summer.

Lets say the Mosier derailment and fire had happened the day before when the wind was blowing 30 – 35 mph.. I talked to Jim Appleton shortly after June 3. He said that if the fire had happened 24 hours earlier, the 35 mph west wind blowing the fire directly down the line of about 80 oil tankers could have set one car on fire after another. As it was, it was nine hours before they could control the fire in mostly one car. With just one car burning out of control and small fires on the surface of about 3 or 4 other cars, foam could not be used immediately because the metal tanker cars were so hot it would have just evaporated. They had to cool the cars down with water for hours before they could use the foam. They didn't have nearly enough water in the Mosier water system to meet the cooling need. They had to find someone with water, and then had to truck water in from Tom Garnier's place about 3 miles away on Hwy 30. (He has irrigation rights to take water out of the river.) Even with this best case senario, there was no way to put out the fire quickly. As someone at the hearing said, the railroad view of oil fires is to let them burn. If this had happened the day before and the wind had carried the fire from one car to another, I would expect that all the cars to the east of the derailment, about 80 I believe, could have caught fire, because the fire could not be put out quickly and so what could stop the spread? The smoke is not like smoke from a forest fire. Oil smoke is toxic. If the west wind were blowing and many oil cars caught fire, the smoke could have been blown right into town and east along the freeway and Hwy 30. It could have cut the visibility to zero in town and on the highways very quickly. Hwy 30 and the Freeway, and also Rock Creek Rd, would be closed or undrivable because of smoke and no visibility. The only way out of Mosier would be the back roads – Husky Rd, State Rd, and Dry Creek Rd. But if the oil cars caught fire quickly or exploded the smoke could blow quickly up the canyons on a high west wind and there could be no visibility there too. There could have been no way out of Mosier very quickly and no way to get help in, and everyone in Mosier could have died of toxic oil smoke inhalation before fire consumed the town. Meanwhile the toxic smoke from 80 burning cars would be carried east up the Columbia to Lyle, Rowena, and The Dalles. The Columbia Gorge is a tight canyon that would hold the smoke in, and again, we are talking about oil smoke. In summer though, it would set all the vegetation on fire and we already know we cannot stop a big fire in the Gorge while the 30 mph winds are blowing. So in addition to the oil cars burning, we would almost certainly have a forest fire heading east. It is very likely the whole Gorge east of the fire would have to be evacuated, and resources from across the USA would be needed to fight the fire. Please think of all the other spots in the Gorge that this derailment and fire could have happened and the consequences for the whole Gorge east of that spot on a high west wind day, or a series of high wind days as we often have.

Unit oil trains are unacceptably dangerous to the Gorge. They should not be running. But while they are, it is your obligation to deny any project that would potentially increase the number of these very hazardous trains that threaten the lives and well-being of everyone in the Gorge.

Very Sincerely, Barbara Robinson

PO Box 682, Mosier, OR 97040
541-296-5334
barbrob@gorge.net

Fw: comments on the proposal to extend the double track through Mosier

2 message(s)

Date: Tue Sep 13 2016 11:09:57 GMT-0600 (MDT)

From: Barbara Robinson
To: "angieb@co.wasco.or.us"
CC:
ID: 1572486d8d53337d

Hi Angie – I am sending this letter a second time with a couple of typo corrections, so if you can, use this version.

Sept. 12, 0216

Dear Wasco Co. Planning Commission:

There are many reasons to deny a second track, and you heard many at the hearing. But I would like to focus on one overwhelming reason: Unit oil trains, or "oil-bomb trains" as we can accurately call them, are an incredibly big safely hazard to the lives of everyone in the Gorge that there is currently no way to mitigate, because when one car explodes or catches fire, on a high wind day it is likely to set the oil car next to it on fire and so on down the line of often over 100 cars. Unit oil trains should be outlawed by federal legislation. But until that happens, and while the railroads feel obliged to run unit oil trains, you as protectors of public safety have an obligation to deny any project that would increase the number of such trains by even one, or the number of oil cars on such trains. The railroad say it could increase the number of trains by 5 to 7, and FOG's experts say 40 or more. The railroad has a bad history of lying (sayng the first unit trains were in Dec. of 2015 when we have photos by my friend Joe Urmos showing them in April 2015, for instance), so I do not believe the railroad. But FOG and the railroad agree that if demand is there, the double rails will allow an increase in rail traffic, and if the demand is there, an increase in unit oil train traffic. Unit oil trains are a very serious threat to the lives and health of everyone in the Gorge, and anything that would potentially allow an increase in their number or length should be denied.

The Mosier derailment and fire happened June 3, a windless day that came after about a week of strong winds. Several days of 30 mph winds are normal for the Gorge, especially in summer when it is hot and all vegetation is dried out. The way it happened, on a windless day, was the best case scenario. But in examining impacts to safety, you the Planning Commission have an obligation to also look at worst case scenarios, in other words at what could happen if a derailment and fire takes place on a windy day in summer.

Lets say the Mosier derailment and fire had happened the day before when the wind was blowing 30 – 35 mph.. I talked to Jim Appleton shortly after June 3. He said that if the fire had happened 24 hours earlier, the 35 mph west wind blowing the fire directly down the line of about 80 oil tankers could have set one car on fire after another. As it was, it was nine hours before they could control the fire in mostly one car. With just one car burning out of control and small fires on the surface of about 3 or 4 other cars, foam could not be used immediately because the metal tanker cars were so hot it would have just evaporated. They had to cool the cars down with water for hours before they could use the foam. They didn't have nearly enough water in the Mosier water system to meet the cooling need. They had to find someone with water, and then had to truck water in from Tom Garnier's place about 3 miles away on Hwy 30. (He has irrigation rights to take water out of the river.) Even with this best case senario, there was no way to put out the fire quickly. As someone at the hearing said, the railroad view of oil fires is to let them burn. If this had happened the day before and the wind had carried the fire from one car to another, I would expect that all the cars to the east of the derailment, about 80 I believe, could have caught fire, because the fire could not be put out quickly and so what could stop the spread? The smoke is not like smoke from a forest fire. Oil smoke is toxic. If the west wind were blowing and many oil cars caught fire, the smoke could have been blown right into town and east along the freeway and Hwy 30. It could have cut the visibility to zero in town and on the highways very quickly. Hwy 30 and the Freeway, and also Rock Creek Rd, would be closed or undrivable

because of smoke and no visibility. The only way out of Mosier would be the back roads – Husky Rd, State Rd, and Dry Creek Rd. But if the oil cars caught fire quickly or exploded the smoke could blow quickly up the canyons on a high west wind and there could be no visibility there too. There could have been no way out of Mosier very quickly and no way to get help in, and everyone in Mosier could have died of toxic oil smoke inhalation before fire consumed the town. Meanwhile the toxic smoke from 80 burning cars would be carried east up the Columbia to Lyle, Rowena, and The Dalles. The Columbia Gorge is a tight canyon that would hold the smoke in, and again, we are talking about oil smoke. In summer though, it would set all the vegetation on fire and we already know we cannot stop a big fire in the Gorge while the 30 mph winds are blowing. So in addition to the oil cars burning, we would almost certainly have a forest fire heading east. It is very likely the whole Gorge east of the fire would have to be evacuated, and resources from across the USA would be needed to fight the fire. Please think of all the other spots in the Gorge that this derailment and fire could have happened and the consequences for the whole Gorge east of that spot on a high west wind day, or a series of high wind days as we often have.

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Very Sincerely, Barbara Robinson

PO Box 682, Mosier, OR 97040
541-296-5334
barbrob@gorge.net

No more oil trains through the Columbia Gorge

1 message(s)

Date: Mon Sep 12 2016 15:43:11 GMT-0600 (MDT)
From: Amy Heyneman
To: angieb@co.wasco.or.us
CC:
ID: 157205a9e492a350

Amy Heyneman

10579 NE Manor Lane

Bainbridge Island, WA 98110

September 12, 2016

Dear Angie Brewer,

I am very concerned by Union Pacific Railroad's application to construct a new rail track near Mosier, OR. The new track and resulting increase in number, length and speed of trains pose significant risks to the National Scenic Area, the Columbia River, public health, and the environment. This is particularly true in light of the proposals to build new coal and crude oil terminals throughout the Northwest which would result in a significant increase in traffic of coal trains, and dangerous and volatile oil trains through the Gorge.

I ask you to deny this application for the following reasons:

Crude oil-by-rail threats:

- The project would facilitate the transport of oil, including explosive Bakken oil, by rail through the Columbia River Gorge National Scenic Area. Union Pacific routinely operates oil trains at speeds far in excess of the puncture threshold of oil tank cars, including DOT 111s, CPC 1232s and even the new rail cars required by the USDOT's oil tank car safety rule and the FAST Act passed by Congress in 2015. Oil trains are inherently unsafe: Approval of this project would increase the number, length, and speed of trains passing through the Columbia River Gorge, thereby increasing the risks of catastrophic derailments involving oil spills, explosions and fires. Two of the criteria for conditional use review require a determination that the proposed use will not burden fire facilities and available services, nor significantly increase fire hazards, fire suppression costs, or risks to fire suppression personnel. In light of the Mosier incident, I ask you to deny the permit on these grounds.

- The Federal Railroad Administration (FRA) released a report in June finding that Union Pacific was at fault for the oil train derailment and fire in Mosier, OR because they failed to follow safety and rail inspection requirements. According to the FRA, Union Pacific perennially has poor accident statistics when compared with its peers. The industry average of accidents caused by tracks, signals, or equipment is 44% and it is 56% for Union Pacific. This demonstrates the pattern of inadequate maintenance done by Union Pacific.

Impacts to the Columbia River Gorge National Scenic Area:

- The project is inconsistent with the purposes of the National Scenic Area Act: The project would pass through some of the most highly protected lands in the National Scenic Area. The project could increase the number of trains passing through the Gorge, the length of trains passing through the Gorge and the speed of trains. This would adversely affect scenic, natural, cultural and recreation resources and endanger local communities.

- The project would harm air quality: Air quality within the Columbia River Gorge National Scenic Area is degraded by emissions from both mobile and stationary sources. Diesel emissions from an increase in train traffic would adversely affect air quality and visibility. This violates at least one of the criteria for conditional use review.

- Adverse impacts to scenic resources: The construction of double-tracking and related development would cause adverse impacts to scenic resources in violation of County ordinance, particularly the protected views from designated key viewing areas.

- The proposed 6-acre rock crushing area adjacent to Memaloose State Park is not allowed under County ordinances and would have extreme scenic and recreation impacts.

- Harm to wetlands: The project would require large amounts of fill in multiple wetlands adjacent to the Columbia River. Filling these wetlands adversely affect wetland habitat and is not in the public's interest. Filling wetlands is prohibited in the Special Management Areas of the National Scenic Area.

- Threats to sensitive plant and animal species: The project is located in habitat for many protected species of plants and animals. More trains traveling at higher speeds would result in more collisions with wildlife attempting to cross the tracks.

- Bridges: New bridge construction would provide a potential location of new point source pollution if any uncovered commodities are transported on the new track. Higher speeds will increase likelihood of wind-blown pollution into waterways in violation of the Clean Water Act.

- Coal transported in open coal cars would result in coal blowing onto scenic area lands and into the Columbia River. As evident on the Burlington Northern track on the north side of the Columbia, every coal train pollutes the Columbia River Gorge with coal dust. This unpermitted discharge of a pollutant is a violation of the federal Clean Water Act.

Impacts of more trains:

- A recent report from Whiteside & Associates and Fauth & Associates found that Union Pacific's statements of how much this rail expansion would increase train traffic through the Gorge were significantly underestimated. Union Pacific had claimed the expansion could increase traffic by 5 to 7 trains per day, while the report finds it could increase train traffic by 10 times this amount, to up to 75 to 100 trains per day.

- The project would harm the community of Mosier: The project would create a double-track through the Mosier Urban Area, negatively impacting the local community and environment.

- The proposal would obstruct traffic in The Dalles. More trains mean more time the crossing gates are down. This inconveniences drivers, hampers first responders, and violates the conditional use review criteria.

More review needed:

- The project should be reviewed as new development: Considering the size and potential impacts on the community and surrounding environment, this project should be considered a new facility rather than an expansion.

- Harm to parks and recreation resources: The project would construct an additional rail line through Memaloose State Park, which would lead to trains traveling at higher speeds through the recreation area. This would adversely affect recreation resources and endanger public safety. Oregon Parks and Recreation Department must ensure that any sale of land would not conflict with the National Scenic Area Recreation Development Plan, which includes plans to expand Memaloose Campground and improve access to the Columbia River. Oregon Parks should deny the sale of our park land for rail expansion: OPRD may not sell any land to Union Pacific without first adopting findings that the land is either not needed for public use or that the sale would further the public interest.

- UPRR excluded details on development within the Mosier Urban Area from the NSA application. That information must be considered as part of NSA cumulative impacts analysis.

- The County ordinance requires field surveys by professional wildlife biologist hired by the applicant and a professional botanist hired by the applicant.

- Project necessity: The project should be evaluated to see if it is necessary to provide a public service. If it is indeed necessary, alternatives should be evaluated that have less adverse impacts to resources within the Columbia River Gorge National Scenic Area, such as siting the project outside of the National Scenic Area.

Finally, the project area has a very high probability of containing Native American cultural resource sites that could be adversely affected in violation of County ordinance. These resources must be protected and proper consultation done.

Thank you this opportunity to comment and I look forward to your reply on this matter.

Sincerely,

Sincerely,

Amy Heyneman

Oil Train track near Mosier, OR

1 message(s)

Date: Mon Sep 12 2016 10:32:32 GMT-0600 (MDT)
From: Nancy Cubbage
To: angieb@co.wasco.or.us
CC:
ID: 1571f3e3382684b1

Nancy Cubbage

12955 22nd Ave NE

Seattle, WA 98125

September 12, 2016

Dear Angie Brewer,

I am very concerned by Union Pacific Railroad's application to construct a new rail track near Mosier, OR. The new track and resulting increase in number, length and speed of trains pose significant risks to the National Scenic Area, the Columbia River, public health, and the environment. This is particularly true in light of the proposals to build new coal and crude oil terminals throughout the Northwest which would result in a significant increase in traffic of coal trains, and dangerous and volatile oil trains through the Gorge.

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Thank you this opportunity to comment and I look forward to your reply on this matter.

Sincerely,

Sincerely,

Nancy Cubbage

UPRR Project Narrative link

2 message(s)

Date: Thu Sep 08 2016 13:23:11 GMT-0600 (MDT)
From: Angie Brewer
To: Mosier Fire
CC:
ID: 1570b40febc55ee1

http://co.wasco.or.us/planning/landuse_actions/UPRR_PLASAR-15-01-0004/02_ProjectNarrative.pdf

Let me know when you're ready to chat.

Thanks for the call today!
Angie

WASCO COUNTY
Pioneering pathways to prosperity.

Angie Brewer | ***Director***
PLANNING DEPARTMENT

angieb@co.wasco.or.us | www.co.wasco.or.us
541-506-2566 | Fax 541-506-2561
2705 East Second Street | The Dalles, OR 97058

Re: UPRR Project Narrative link

2 message(s)

Date: Mon Sep 12 2016 09:22:06 GMT-0600 (MDT)
From: Mosier Fire
To: Angie Brewer
CC:
ID: 1571efdbbdabc521

Thanks Angie--
I spoke with Wes Luhan Friday late.
Please call when convenient. I want to make the most of the chance to disallow the west segment.
Jim Appleton
Mosier Fire Chief (mobile)
541-478-3333
mosierfire@gmail.com

mosierfire.com

On Sep 8, 2016 12:23 PM, "Angie Brewer" <angieb@co.wasco.or.us> wrote:
http://co.wasco.or.us/planning/landuse_actions/UPRR_PLASAR-15-01-0004/02_ProjectNarrative.pdf

Let me know when you're ready to chat.

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Angie

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Angie Brewer | ***Director***
PLANNING DEPARTMENT

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541-506-2566 | Fax 541-506-2561
2705 East Second Street | The Dalles, OR 97058

Wasco County Planning Commission/Union Pacific Application/Public Hearing Addenda

1 message(s)

Date: Sun Sep 11 2016 22:58:44 GMT-0600 (MDT)
From: Daniel Rasmussen
To: angieb@co.wasco.or.us
CC: brendaj@co.wasco.or.us
ID: 1571cc3111393cbf

11 September 2016

Wasco County Planning Commission
The Dalles, Oregon

Honorable Commissioners:
Thank you for your attention to the application by Union Pacific Railroad, and thank you for your attention to the following letter. I'm sure your desks are heaped high with documents in abundance, and your ears full of contentious and often negative rhetoric.
What is suggested here is that the issue of safety be set aside, momentarily, and the inevitability and importance of rail transportation be fully embraced. Rail transportation offers economies and opportunities that may be especially critical at this time. Railroads have been of great historical importance in opening up new land and creating future possibilities. There is an opportunity for Union Pacific, and all of us together, to engage and continue with this fine tradition.
You will probably recall my attempt to summarize and suggest a somewhat divergent look at the current situation, vis-a-vis the railroad application, at this week's public hearing. Three minutes is not much time for addressing the issue, and my purpose here is to be as succinct as possible in finishing my presentation. I spoke of the centrality of the City of Mosier, of the vast number of people that flow through the Gorge, of the special piece of real estate that lies just west of Mosier, and of the many decades in which people of vision have considered the development of this land. The ODOT quarry certainly cannot be returned to its original state, piles of gravel are hardly suitable for development as a park of some sort, and something of a special character, hopefully supporting the public good, should certainly be built there. Conversations between ODOT and the City of Mosier have recently suggested the possibility of transferring ownership of this area. Education and the future of our young people is the common concern of Mosier residents.
Development of the ODOT Quarry has been rendered in relatively specific terms. The Mosier Institute, located there. would be an educational entity, working in concert with the Mosier School, and a myriad of other entities, partners,

foundations, and corporate organizations, to showcase, explicate, and explore humanity's future. Some have framed it as a sort of permanent World's Fair. In any event, the Institute would be a world-class attraction that would enormously impact economic and educational development in the Gorge and, moreover, protect Mosier residents from unwanted, and random, development by clearly defining both philosophical and concrete development directions. Whatever the Planning Commission decides, the railroad's role in Mosier would still be enormously relevant to this effort. In the event that approval is determined, perhaps certain conditions that coincide with the proposed development in Mosier could be attached to that approval. Not only would this lay the cornerstone of the quarry project, but would also represent economies related to obviating later retrofitting. Railroad public relations would be greatly enhanced, and cutting-edge ideas evidenced and garnered for improving the rail system in our region and beyond.

Specifically, a station for passengers in Mosier might be a condition for double tracking. This would allow for passenger trains on the Oregon side of the Columbia River once again. Such a transportation option would allow for safer travel and presage the transportation requirements of the Institute. This station might include a small museum operating in conjunction with the Mosier Institute. Hands-on displays would highlight the past and future of train travel. Ideas like magnetic levitation, solar powered trains, and structures that promote greater safety and aesthetic dimensions might be explored. Providing exemplary city infrastructure could be another condition. Mitigations and accommodations to promote safety, attenuate sound, and screen unwanted optics, might be constructed, evaluated, and then duplicated in other areas of the country that face similar issues with trains. Students, teachers, transportation professionals, and the general public might be invited to make suggestions for improvements in this regard. One never knows what insights could arise from this interface.

In any event, various documents are appended to this letter to provide greater insight, credibility, and delineation of the project envisioned in Mosier. These documents represent a small fragment of the work that has been accomplished in respect to bringing the Mosier Institute into reality. I would be pleased to meet with you, and other principals in this project, to discuss these matters at length and in detail. Thank you for your attention and careful consideration in this matter.

Respectfully Submitted,

Daniel M. Rasmussen
Teacher/Facilitator

1 Attachments:
MOSIER INSTITUTE MISSION STATEMENT.pdf
downloadfile (1)A.pdf
scan0001.jpg
DMR_CV.pdf
SMITH LETTER.doc
Phil Hawes CV.pdf
Phil Hawes Qualification Outline Letter 090609.pdf
Mosier Institute Preliminary Draft Propsal 090609.pdf
Charles.doc
Basalt+paper1.pdf

Oil Trains

1 message(s)

Date: Sun Sep 11 2016 21:21:24 GMT-0600 (MDT)
From: Marsha Adams
To: angieb@co.wasco.or.us
CC:

ID: 1571c69e7054632b

Marsha Adams

2201 SE Maple Valley Hwy #82

Renton, WA 98057

September 11, 2016

Dear Angie Brewer,

I am very concerned by Union Pacific Railroad's application to construct a new rail track near Mosier, OR. The new track and resulting increase in number, length and speed of trains pose significant risks to the National Scenic Area, the Columbia River, public health, and the environment. This is particularly true in light of the proposals to build new coal and crude oil terminals throughout the Northwest which would result in a significant increase in traffic of coal trains, and dangerous and volatile oil trains through the Gorge.

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passing through the Gorge, the length of trains passing through the Gorge and the speed of trains. This would adversely affect scenic, natural, cultural and recreation resources and endanger local communities.

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Thank you this opportunity to comment and I look forward to your reply on this matter.

Sincerely,

Sincerely,

Marsha Adams

Oil Trains through Mosier

1 message(s)

Date: Sun Sep 11 2016 19:11:17 GMT-0600 (MDT)
From: Linda Catlin
To: angieb@co.wasco.or.us
CC:
ID: 1571bf2c8949ad34

Linda Catlin

PO Box 773

Armonk, NY 10504

September 11, 2016

Dear Angie Brewer,

I am very concerned by Union Pacific Railroad's application to construct a new rail track near Mosier, OR. The new track and resulting increase in number, length and speed of trains pose significant risks to the National Scenic Area, the Columbia River, public health, and the environment. This is particularly true in light of the proposals to build new coal and crude oil terminals throughout the Northwest which would result in a significant increase in traffic of coal trains, and dangerous and volatile oil trains through the Gorge.

I ask you to deny this application for the following reasons:

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Thank you this opportunity to comment and I look forward to your reply on this matter.

Sincerely,

Linda Catlin

Linda Catlin

Union Pacific Proposal

1 message(s)

Date: Sun Sep 11 2016 18:14:10 GMT-0600 (MDT)
From: jee@gorge.net
To: angieb@co.wasco.or.us
CC:
ID: 1571bbe85d485e24

Hello Angie and Members of the Wasco County Planning Commission,

As an attendee of last week's meeting, a Wasco County resident, and as a very concerned citizen, I would like to offer the following support for you to DENY Union Pacific's proposal for a 2nd track in Mosier:

1) I need not list the multitude of legal, environmental, safety, tribal, and scenic area points that can (each alone in itself) provide a basis for your denial of this proposal. The items listed in chapter 5 criteria stand alone as well. It is overwhelmingly clear that the communities involved are not in favor of this proposal. Fire safety experts have testified that risk is too high. The 3 mayors are united in their support of your denying this proposal.

2) Team Mosier and Union Pacific have not reached a settlement. As stated in my earlier letter, 3 entities in Mosier have formed a separate entity, Team Mosier, to be the sole agency responsible for communication with Union Pacific

for the sole purpose of reaching a legal settlement. During Union Pacific's rebuttal last Tuesday, one of the men stated, "We are talking with Team Mosier...". This does not mean that they are even close to a settlement. Of course UP is "talking to Team Mosier", their negligence has caused a fire, they have to talk with Team Mosier. If given their 2nd track, UP has ZERO motivation for negotiating a realistic and fair settlement for the city of Mosier.

3) UP rebuttal: The many points brought up during UP rebuttal regarding, "We are doing lots of things since the derailment....", are all "services" and assistance that should have been performed on a routine basis BEFORE the derailment, and in NO way should UP be commended on their "efforts" since. The clean up, track maintenance, etc, is a complete separate issue, and has NOTHING to do with the proposal for 2nd track.

4) THERE IS NO WAY TO ENFORCE A LIMIT ON THE NUMBER OF TRAINS THAT GO THROUGH THE GORGE AFTER A SECOND TRACK IS CONSTRUCTED. REGARDLESS OF WHAT UP STATES NOW, WE CANNOT AFFORD TO PLACE TRUST IN WHAT A PRIVATE FOR PROFIT COMPANY SAYS CURRENTLY. IT WANTS SOMETHING FROM US. THE ONLY WAY TO ENSURE A LIMIT ON TRAIN TRAFFIC AND SAFETY THROUGH THE GORGE IS TO DENY THIS PROPOSAL. Regardless of ANY type of agreement from UP on train limits during and following a 2nd track construction, we all know that UP has NO interest in the limitation of train traffic through the Gorge.

5) THE CITY OF MOSIER WILL "TANK" IF THIS PROPOSAL IS APPROVED. As Emily and Arlene stated during last week's meeting, the city of Mosier is opposed to this proposal. I am a resident in Mosier. Mosier is just getting some traction for tourism, commerce, real estate. Double tracks and trains will block river access, cause an increase of noise that will deter visitors, pose a significant safety risk, further decrease property values. The train noise level has progressively increased over the last 6 years. Conversation of tourists, residents, business patrons has to STOP when a train passes, because of noise levels. Pollution levels will increase with a 2nd track. Property values have been adversely affected since fire, and we will definitely see a further decrease in our property values if this proposal is granted. PLEASE TAKE CARE OF YOUR PEOPLE, WE HAVE NO SAY BUT THROUGH YOU!!!! To be very honest, I am just plain scared. We stand to lose soooo much as a town, as a scenic area, as a clean area for our families....and I personally (along with thousands) stand to lose my hard earned savings with a decrease in my only home's property value.

6) THERE IS NO BENEFIT FOR MOSIER, WASCO COUNTY, THE GORGE, OR THE STATE OF OREGON from the construction of a 2nd track. UNION PACIFIC IS THE ONLY ENTITY THAT WILL BENEFIT.

PLEASE DENY THIS PROPOSAL.

Sincerely,

Jayne Elken
Mosier and Wasco County resident
Employed in Wasco County over 20 years

No more oil trains through the Columbia Gorge

1 message(s)

Date: Sun Sep 11 2016 15:41:04 GMT-0600 (MDT)
From: Pamela Lacey
To: angieb@co.wasco.or.us
CC:
ID: 1571b3252204c67c

Pamela Lacey

145 E. Home St.

Rialto, CA 92376-3516

September 11, 2016

Dear Angie Brewer,

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Thank you this opportunity to comment and I look forward to your reply on this matter.

Sincerely,

Sincerely,

Pamela R. Lacey

No more oil trains through the Columbia Gorge

1 message(s)

Date: Sun Sep 11 2016 14:41:01 GMT-0600 (MDT)
From: kathy durrum
To: angieb@co.wasco.or.us
CC:
ID: 1571afb564e397b5

kathy durrum

1818 s fundy wy

aurora, CO 80017

September 11, 2016

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Kathy Durrum

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No more oil trains through the Columbia Gorge

1 message(s)

Date: Sun Sep 11 2016 14:20:59 GMT-0600 (MDT)
From: Justin McCullough
To: angieb@co.wasco.or.us
CC:
ID: 1571ae9034df912b

Justin McCullough

Utah St.

San Diego, CA 92104

September 11, 2016

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Sincerely,

Sincerely,

Justin McCullough

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concerns

1 message(s)

Date: Sat Sep 10 2016 21:19:54 GMT-0600 (MDT)
From: Bonnie Hearthstone
To: angieb@co.wasco.or.us
CC:
ID: 15717422c7822652

Bonnie Hearthstone

8 Country Commons

Vergennes, VT 05491

September 10, 2016

Dear Angie Brewer,

I am very concerned by Union Pacific Railroad's application to construct a new rail track near Mosier, OR. The new track and resulting increase in number, length and speed of trains pose significant risks to the National Scenic Area, the Columbia River, public health, and the environment. This is particularly true in light of the proposals to build new coal and crude oil terminals throughout the Northwest which would result in a significant increase in traffic of coal trains, and dangerous and volatile oil trains through the Gorge.

I ask you to deny this application for the following reasons:

Crude oil-by-rail threats:

- The project would facilitate the transport of oil, including explosive Bakken oil, by rail through the Columbia River Gorge National Scenic Area. Union Pacific routinely operates oil trains at speeds far in excess of the puncture threshold of oil tank cars, including DOT 111s, CPC 1232s and even the new rail cars required by the USDOT's oil tank car safety rule and the FAST Act passed by Congress in 2015. Oil trains are inherently unsafe: Approval of this project would increase the number, length, and speed of trains passing through the Columbia River Gorge, thereby increasing the risks of catastrophic derailments involving oil spills, explosions and fires. Two of the criteria for conditional use review require a determination that the proposed use will not burden fire facilities and available services, nor significantly increase fire hazards, fire suppression costs, or risks to fire suppression personnel. In light of the Mosier incident, I ask you to deny the permit on these grounds.

- The Federal Railroad Administration (FRA) released a report in June finding that Union Pacific was at fault for the oil train derailment and fire in Mosier, OR because they failed to follow safety and rail inspection requirements. According to the FRA, Union Pacific perennially has poor accident statistics when compared with its peers. The industry average of accidents caused by tracks, signals, or equipment is 44% and it is 56% for Union Pacific. This demonstrates the pattern of inadequate maintenance done by Union Pacific.

Impacts to the Columbia River Gorge National Scenic Area:

- The project is inconsistent with the purposes of the National Scenic Area Act: The project would pass through some of the most highly protected lands in the National Scenic Area. The project could increase the number of trains passing through the Gorge, the length of trains passing through the Gorge and the speed of trains. This would adversely affect scenic, natural, cultural and recreation resources and endanger local communities.

- The project would harm air quality: Air quality within the Columbia River Gorge National Scenic Area is degraded by emissions from both mobile and stationary sources. Diesel emissions from an increase in train traffic would adversely affect air quality and visibility. This violates at least one of the criteria for conditional use review.

- Adverse impacts to scenic resources: The construction of double-tracking and related development would cause adverse impacts to scenic resources in violation of County ordinance, particularly the protected views from designated key viewing areas.

- The proposed 6-acre rock crushing area adjacent to Memaloose State Park is not allowed under County ordinances and would have extreme scenic and recreation impacts.

- Harm to wetlands: The project would require large amounts of fill in multiple wetlands adjacent to the Columbia River. Filling these wetlands adversely affect wetland habitat and is not in the public's interest. Filling wetlands is prohibited in the Special Management Areas of the National Scenic Area.

- Threats to sensitive plant and animal species: The project is located in habitat for many protected species of plants and animals. More trains traveling at higher speeds would result in more collisions with wildlife attempting to cross the tracks.

- Bridges: New bridge construction would provide a potential location of new point source pollution if any uncovered commodities are transported on the new track. Higher speeds will increase likelihood of wind-blown pollution into waterways in violation of the Clean Water Act.

- Coal transported in open coal cars would result in coal blowing onto scenic area lands and into the Columbia River. As evident on the Burlington Northern track on the north side of the Columbia, every coal train pollutes the Columbia River Gorge with coal dust. This unpermitted discharge of a pollutant is a violation of the federal Clean Water Act.

Impacts of more trains:

- A recent report from Whiteside & Associates and Fauth & Associates found that Union Pacific's statements of how much this rail expansion would increase train traffic through the Gorge were significantly underestimated. Union Pacific had claimed the expansion could increase traffic by 5 to 7 trains per day, while the report finds it could increase train traffic by 10 times this amount, to up to 75 to 100 trains per day.

- The project would harm the community of Mosier: The project would create a double-track through the Mosier Urban Area, negatively impacting the local community and environment.

- The proposal would obstruct traffic in The Dalles. More trains mean more time the crossing gates are down. This inconveniences drivers, hampers first responders, and violates the conditional use review criteria.

More review needed:

- The project should be reviewed as new development: Considering the size and potential impacts on the community and surrounding environment, this project should be considered a new facility rather than an expansion.

- Harm to parks and recreation resources: The project would construct an additional rail line through Memaloose State Park, which would lead to trains traveling at higher speeds through the recreation area. This would adversely affect recreation resources and endanger public safety. Oregon Parks and Recreation Department must ensure that any sale of land would not conflict with the National Scenic Area Recreation Development Plan, which includes plans to expand Memaloose Campground and improve access to the Columbia River. Oregon Parks should deny the sale of our park land for rail expansion: OPRD may not sell any land to Union Pacific without first adopting findings that the land is either not needed for public use or that the sale would further the public interest.

- UPRR excluded details on development within the Mosier Urban Area from the NSA application. That information must be considered as part of NSA cumulative impacts analysis.

- The County ordinance requires field surveys by professional wildlife biologist hired by the applicant and a professional botanist hired by the applicant.

- Project necessity: The project should be evaluated to see if it is necessary to provide a public service. If it is indeed necessary, alternatives should be evaluated that have less adverse impacts to resources within the Columbia River Gorge National Scenic Area, such as siting the project outside of the National Scenic Area.

Finally, the project area has a very high probability of containing Native American cultural resource sites that could be adversely affected in violation of County ordinance. These resources must be protected and proper consultation done.

Thank you this opportunity to comment and I look forward to your reply on this matter.

Sincerely,

Sincerely,

Bonnie Hearthstone

Planning Commission - 2nd Rail track in Mosier

1 message(s)

Date: Sat Sep 10 2016 12:22:14 GMT-0600 (MDT)
From: Susan Froehlich
To: Angie Brewer
CC: Arlene Burns , Peter Cornelison
ID: 15715563cbb3f6b2

Sept 10, 2016

Dear Planning Commission Members,
I am writing to you to oppose the permit from Union Pacific for a 2nd track. First, I would like to address safety :
1. We heard so much about safety concerns with the trains/railcars/tracks in the Public Hearing, especially in light of the derailment that occurred in June. When UNP addressed those concerns, they stated that they were all about safety, and yet, in UNP's published Guidelines for Installing New Track or Adding more mainline track (which can be easily found on the Internet, revised in 2015) there is NO mention of ANY SAFETY considerations. Not one. I find that to be disconcerting and alarming.
2. Next I would like to address environmental and health concerns on Noise and Vibrational Impacts. I feel that the environmental and health concerns on vibrational and noise impact have not been thoroughly examined and would like you to require this assessment before any consideration of allowing a permit for UNP.
There are a number of studies that address the impact of noise and excess vibration on humans, wildlife, fish, and insects. . .These should be reviewed, examined and included in your decision to whether to allow a second track , a track that would require substantial blasting of rock walls, so close to the river/salmon – Rock Creek - and to the town of Mosier. In addition, the noise and vibrations from increased rail cars – longer trains because this was the "NEED" for the expansion – have not been thoroughly assessed even though the FRA and the US Fish and Wildlife, have plenty of information on this area, along with guidelines for assessing the environmental impact. This project is too costly in terms of overall damage to our environment, our town, our fish/water, and our safety. Please deny the permit for this project.

1 Attachments:
mosier.planning.opposition.2ndtrack.docx

Mosier Rail Expansion

1 message(s)

Date: Fri Sep 09 2016 22:15:43 GMT-0600 (MDT)
From: Tom Hons
To: angieb@co.wasco.or.us
CC:
ID: 157124edd0a39e2f

Hi,

I'm writing to register my deep concern about the proposed expansion of Union Pacific rail, and subsequent increase in trains. This would be planning, and creating more problems, not "if" they happen, but an assurance that there would be problems, and not small ones. I manage the Wastewater Treatment Plant in Bingen which is right next to BNSF rails, and have seen a train run into a log truck, coal dust on the tracks, seen the constant passage of hazardous tankers including chlorine, ammonia, liquid sulfur, etc etc. Plus the incredible disturbance and ear splittings horns that each train makes as it passes. It is a violent enterprise, which we should not accept so callously.

In the Aug.25th issue of the White Salmon Enterprise is an article about the Dept. of Ecology penalizing BNSF $75,000 for violations. The article ends "Creosote-treated wood is toxic to aquatic life. Washington agencies have invested millions of dollars to remove creosote treated wood from marine and estuary waters."

Sincerely,
Thomas Hons
hons@gorge.net
541-386-5771
1355 Country Club Rd.
Hood River, OR 97031

Website that may be of interest, ??

3 message(s)

Date: Thu Sep 08 2016 01:04:24 GMT-0600 (MDT)
From: Susan Froehlich
To: Arlene Burns , Peter Cornelison , angieb@co.wasco.or.us
CC:
ID: 157089da6ebc45d4

Greetings Arlene, Peter and Angie,

Thank you so much for all of your time and effort on this project. After 2 full nights,I have ?? And need to know true info. . .there seems to be a great deal of misinformation that should have a fact - check . . .maybe these sites are the closest that we can come to Fact-check or Snopes.com!!

Even on this site, it was hard to discern where the tracks/sidings are presently located. It would be great if we could see a map of the present sidings through the COl RIver Gorge - the length and the surrounding topography - so that questions of the selection of this mainline/siding location (MOSIER) could be better understood.

I still don't have a clear understanding of the Alternative Analysis portion of the application, thinking that other sites should have been presented and reasons why they were not accepted,, delineated.

In addition, The entire need statement of the application was that there was a bottle neck in Mosier, but I don't have a

clear understanding of this either.

In addition to this map,

I have a few questions that seems to have a variety of answers from Union Pacific . .hoping that the real answers will surface.

1. Why was Mosier selected as the best place to unwind the "bottleneck"?

Mosier is situated 17 miles from The Dalles, where the railroad has a No-South line attaching to the East-west line from TD to PDX. The distance from TD to PDX is aprx. 80 Miles. In my math classes, Mosier would then be located 1/4 of the way to PDX. ANd this is the bottleneck location?

This is NOT in the heart of the Gorge - which would be 1/2 of the way - but is a clear 20 miles from that location.

So why Mosier?

Was there already an existing portion of track so that UP would not have to build that section, thus saving ?? With the Memaloose restrictions of "NO Access RD" was UPR then forced to go through the the entire town of Mosierr?

Was it that a deal for land transfer was implemented with the town of Mosier?

Did UP think that Mosier was a small town pushover, willing to accept a second track - AND THEN oops, June 3rd derailment?

2. How many trains provide a bottleneck of idling in the present siding?

Not many, as Kirt (of UPR)) stated. This is because most trains are too long to go into the siding of the present siding of 6300 ft. How UPR routes their trains would provide good info because 17 miles to The Dalles does not seem too far to me, to have the siding where trains of all sizes can move and switch and pass. So how many trains idle in Mosier per day?? Per week?

What kind of fluidity does UPR need? What ratios? Where does safety figure into these figures?

3. Should we not be comparing real length/weight of trains traveling through the Gorge? Instead of asking "how many trains?"/day, should we not be asking "how many cars?' Per day, or " how many tons of weight/day?" So that we can truly compare apples and oranges? One train of 10 cars does not equal one train of 96 cars . . .

ANd 1 car of oil does not necessarily equal 1 car of linens!

4. Lastly, has anyone questioned the impact of a 2nd line on - vibration - on The land? The wildlife? The plants? The salmon?

How about noise? Its impact on wildlife? Plants? Salmon?

Again, I thank you for all of your time , effort, thoughts, energy - this is a very important decision and one that will have impact through tour lives, as well as our children and grandchildren and beyond. Please consider my questions and if you have an opportunity to respond, I would greatly appreciate it. Thank you.

http://www.up.com/cs/groups/public/@uprr/@customers/documents/up_pdf_nativedocs/pdf_up_ind-dev_guidelines.pdf

WIth kind regards,

Susan froehlich

PO Box 312

Mosier, OR. 97040

3 Attachments:
pdf_up_ind-dev_guidelines.pdf

RE: Website that may be of interest, ??

3 message(s)

Date: Fri Sep 09 2016 10:34:21 GMT-0600 (MDT)
From: Peter Cornelison
To: Susan Froehlich , Arlene Burns , "angieb@co.wasco.or.us"
CC:
ID: 1570fccd6d59801a

Susan, Thank you for your activism! You have been awesome. Here is the best map we have, so far that answers what you are looking for. Hope this helps. I don't know the answers to the other questions but will check around.
Cheers, Peter

-----Original Message-----

From: Susan Froehlich [mailto:susfro@gmail.com]

Sent: Thursday, September 08, 2016 12:04 AM

To: Arlene Burns; Peter Cornelison; angieb@co.wasco.or.us

Subject: Website that may be of interest, ??

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WIth kind regards,

Susan froehlich

PO Box 312

Mosier, OR. 97040

3 Attachments:
PortlandSubUnitFOGCharts.pdf

Re: Website that may be of interest, ??

3 message(s)

Date: Fri Sep 09 2016 17:34:36 GMT-0600 (MDT)
From: Angie Brewer
To: Susan Froehlich
CC: Arlene Burns , Peter Cornelison
ID: 157114d868b8990c

Hi Susan,

Great questions - I'll do my best to respond!

Your first two question may be best addressed by the application narrative, which you can read online here: http://co.wasco.or.us/planning/landuse_actions/UPRR_PLASAR-15-01-0004/02_ProjectNarrative.pdf

Section 2 includes the "purpose and need" and Section 3 includes "alternatives analysis"

Your third question is a good one, but it did not come up as a concern from any of our emergency services, public safety or transportation engineer professionals. If you have information about the detrimental effects of train weight, please provide it by 9/13/16, an email to me is fine.

Your fourth question regarding vibrations is also good but again, it was not raised as a concern by any of the public health or environmental health professionals included in our consultation process - which includes the Public Health Department and Fish and Wildlife agencies. If you have information about these potential effects, please submit them for the record in time of the Planning Commission to consider them (by 9/13).

I will of course add your email to the record and share it with the Planning Commissioners, but would also strongly encourage you to also provide your concerns to your City Council and Fire Department, to further the community's message. You should also feel welcome to contact the Oregon Department of Fish and Wildlife and the North Central Public Health District if you have questions for them about possible impacts...

Thank you, Susan for your passion and great questions. The Gorge is lucky to have you in it!

Have a nice weekend,
Angie

WASCO COUNTY
Pioneering pathways to prosperity.

Angie Brewer | ***Director***
PLANNING DEPARTMENT

angieb@co.wasco.or.us | www.co.wasco.or.us
541-506-2566 | Fax 541-506-2561
2705 East Second Street | The Dalles, OR 97058

On Thu, Sep 8, 2016 at 12:04 AM, Susan Froehlich <susfro@gmail.com> wrote:

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WIth kind regards,

Susan froehlich
PO Box 312
Mosier, OR. 97040

Sent from my iPad

PLASAR-15-01-0004 - Response to UPRR Rebuttal

3 message(s)

Date: Thu Sep 08 2016 17:31:38 GMT-0600 (MDT)
From: Steve McCoy
To: "angieb@co.wasco.or.us"
CC:
ID: 1570c248eb393305

Please accept the attached document into the record for the above-mentioned scenic area development application and, due to UPRR's improper offering of new evidence during rebuttal, immediately distribute it to the Planning Commission. We will be offering additional testimony responding to the staff report and the September 6, 2016 Wasco County Planning Commission hearing by September 13.

Thank you,
Steve

Steven D. McCoy
Staff Attorney
Friends of the Columbia Gorge
522 SW Fifth Ave., Suite 720
Portland, OR 97204
(C) 503-319-2547
What's going on with Friends? Sign up to stay informed!
Facebook / Twitter / Website

3 Attachments:
UPRR PLASAR-15-01-0004 Response to Rebuttal + Enc (W).pdf

Fwd: PLASAR-15-01-0004 - Response to UPRR Rebuttal

3 message(s)

Date: Fri Sep 09 2016 11:22:22 GMT-0600 (MDT)
From: Angie Brewer
To: Kristen Campbell
CC:

ID: 1570ff8bf12f6b97

Assuming I need to send this to the applicant, but thought I'd start with you first. Thoughts? Or just send it along?

Angie Brewer | *Director*
PLANNING DEPARTMENT

angieb@co.wasco.or.us | www.co.wasco.or.us
541-506-2566 | Fax 541-506-2561
2705 East Second Street | The Dalles, OR 97058

---------- Forwarded message ----------
From: **Steve McCoy** <steve@gorgefriends.org>
Date: Thu, Sep 8, 2016 at 4:31 PM
Subject: PLASAR-15-01-0004 - Response to UPRR Rebuttal
To: "angieb@co.wasco.or.us" <angieb@co.wasco.or.us>

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3 Attachments:
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1 In-line Image(s):
a7d77259faf5bc81_0.0.1

Fwd: PLASAR-15-01-0004 - Response to UPRR Rebuttal

3 message(s)

Date: Fri Sep 09 2016 17:13:25 GMT-0600 (MDT)
From: Angie Brewer
To: "Luke M. Baatz" , "Linnea.Eng@CH2M.com" , "Ty K. Wyman" , "Linda K. Odermott"
CC:
ID: 157113a24c8b914d

For your records:

Angie Brewer | *Director*
PLANNING DEPARTMENT

angieb@co.wasco.or.us | www.co.wasco.or.us
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3 Attachments:
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1 In-line Image(s):
a7d77259faf5bc81_0.0.1

Safe Treasures

1 message(s)

Date: Fri Sep 09 2016 16:38:03 GMT-0600 (MDT)
From: Allen Meyer
To: angieb@co.wasco.or.us
CC:
ID: 1571119c409ebbd1

Allen Meyer

18271 S Dillman Rd

Oregon City, OR 97045

September 9, 2016

Dear Angie Brewer,

I am very concerned by Union Pacific Railroad's application to construct a new rail track near Mosier, OR. The new track and resulting increase in number, length and speed of trains pose significant risks to the National Scenic Area, the Columbia River, public health, and the environment. This is particularly true in light of the proposals to build new coal and crude oil terminals throughout the Northwest which would result in a significant increase in traffic of coal trains, and dangerous and volatile oil trains through the Gorge.

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- Threats to sensitive plant and animal species: The project is located in habitat for many protected species of plants and animals. More trains traveling at higher speeds would result in more collisions with wildlife attempting to cross the tracks.

- Bridges: New bridge construction would provide a potential location of new point source pollution if any uncovered commodities are transported on the new track. Higher speeds will increase likelihood of wind-blown pollution into waterways in violation of the Clean Water Act.

- Coal transported in open coal cars would result in coal blowing onto scenic area lands and into the Columbia River. As evident on the Burlington Northern track on the north side of the Columbia, every coal train pollutes the Columbia River Gorge with coal dust. This unpermitted discharge of a pollutant is a violation of the federal Clean Water Act.

Impacts of more trains:

- A recent report from Whiteside & Associates and Fauth & Associates found that Union Pacific's statements of how much this rail expansion would increase train traffic through the Gorge were significantly underestimated. Union Pacific had claimed the expansion could increase traffic by 5 to 7 trains per day, while the report finds it could increase train traffic by 10 times this amount, to up to 75 to 100 trains per day.

- The project would harm the community of Mosier: The project would create a double-track through the Mosier Urban Area, negatively impacting the local community and environment.

- The proposal would obstruct traffic in The Dalles. More trains mean more time the crossing gates are down. This inconveniences drivers, hampers first responders, and violates the conditional use review criteria.

More review needed:

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- Project necessity: The project should be evaluated to see if it is necessary to provide a public service. If it is indeed necessary, alternatives should be evaluated that have less adverse impacts to resources within the Columbia River Gorge National Scenic Area, such as siting the project outside of the National Scenic Area.

Finally, the project area has a very high probability of containing Native American cultural resource sites that could be adversely affected in violation of County ordinance. These resources must be protected and proper consultation done.

Thank you this opportunity to comment and I look forward to your reply on this matter.

Sincerely,

Sincerely,

Allen Meyer

Revised comment: Union Pacific second line proposal

2 message(s)

Date: Fri Sep 09 2016 16:09:53 GMT-0600 (MDT)
From: charlie@arietellus.com
To: angieb@co.wasco.or.us
CC:
ID: 15711000085a3c14

Dear Ms Brewer,

Thanks for the clear summary review last Tuesday of Union Pacific's proposal to extend double track on either side of Mosier, Oregon. Well done.

I have revised my written testimony. The text is attached. From one of the activist web exchanges I had the impression the hearing was to be held by the Wasco County Commission, not the Planning Commission. Several other bits of dumbness are cleaned up in the attached version. I hope you can use that one in the final record.

I did not have enough copies of my "Climate Change Primer" with me at the hearing for all of the commission members. If anyone feels left out by not getting one, please ask for more and I will send them to you by mail.

Charlie Miller
Corvallis2 Attachments:
Wasco Co. Union Pacific 2nd line.pdf

Re: Revised comment: Union Pacific second line proposal

2 message(s)

Date: Fri Sep 09 2016 16:15:07 GMT-0600 (MDT)
From: Angie Brewer
To: charlie@arietellus.com
CC:
ID: 1571104c564ccca0

Thank you for the kind words and additional comment, Charlie!

Have a nice weekend.

Angie

WASCO COUNTY
Pioneering pathways to prosperity.

Angie Brewer | ***Director***
PLANNING DEPARTMENT

angieb@co.wasco.or.us | www.co.wasco.or.us
541-506-2566 | Fax 541-506-2561
2705 East Second Street | The Dalles, OR 97058

On Fri, Sep 9, 2016 at 3:09 PM, <charlie@arietellus.com> wrote:
Dear Ms Brewer,

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Charlie Miller
Corvallis

No more oil trains through the Columbia Gorge

1 message(s)

Date: Fri Sep 09 2016 15:58:00 GMT-0600 (MDT)
From: Jeffrey Hemenez
To: angieb@co.wasco.or.us
CC:
ID: 15710f51dfa31057

Jeffrey Hemenez

2600 Camino Ramon

San Ramon, CA 94583-5000

September 9, 2016

Dear Angie Brewer,

I am very concerned by Union Pacific Railroad's application to construct a new rail track near Mosier, OR. The new track and resulting increase in number, length and speed of trains pose significant risks to the National Scenic Area, the Columbia River, public health, and the environment. This is particularly true in light of the proposals to build new coal and crude oil terminals throughout the Northwest which would result in a significant increase in traffic of coal trains, and dangerous and volatile oil trains through the Gorge.

I ask you to deny this application for the following reasons:

Crude oil-by-rail threats:

- The project would facilitate the transport of oil, including explosive Bakken oil, by rail through the Columbia River Gorge National Scenic Area. Union Pacific routinely operates oil trains at speeds far in excess of the puncture threshold of oil tank cars, including DOT 111s, CPC 1232s and even the new rail cars required by the USDOT's oil tank car safety rule and the FAST Act passed by Congress in 2015. Oil trains are inherently unsafe: Approval of this project would increase the number, length, and speed of trains passing through the Columbia River Gorge, thereby increasing the risks of catastrophic derailments involving oil spills, explosions and fires. Two of the criteria for conditional use review require a determination that the proposed use will not burden fire facilities and available services, nor significantly increase fire hazards, fire suppression costs, or risks to fire suppression personnel. In light of the Mosier incident, I ask you to deny the permit on these grounds.

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Impacts to the Columbia River Gorge National Scenic Area:

- The project is inconsistent with the purposes of the National Scenic Area Act: The project would pass through some of the most highly protected lands in the National Scenic Area. The project could increase the number of trains passing through the Gorge, the length of trains passing through the Gorge and the speed of trains. This would adversely affect scenic, natural, cultural and recreation resources and endanger local communities.

- The project would harm air quality: Air quality within the Columbia River Gorge National Scenic Area is degraded by emissions from both mobile and stationary sources. Diesel emissions from an increase in train traffic would adversely affect air quality and visibility. This violates at least one of the criteria for conditional use review.

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Finally, the project area has a very high probability of containing Native American cultural resource sites that could be adversely affected in violation of County ordinance. These resources must be protected and proper consultation done.

Thank you this opportunity to comment and I look forward to your reply on this matter.

Sincerely,

Sincerely,

Jeffrey Hemenez

9-6-16 Richard Hodgin's Public Hearing testimony on Union Pacific's planned Expansion

1 message(s)

Date: Fri Sep 09 2016 11:27:11 GMT-0600 (MDT)
From: Richard Hodgin
To: angieb@co.wasco.or.us
CC:
ID: 1570ffd2bb417f53

Richard Hodgin

6524 26th Ave NE

Seattle, WA 98115

September 9, 2016

Dear Angie Brewer,

Dear Wasco County Planning Commission -

9-6-16 Testimony at Public Hearing on Union Pacific's planned Expansion (I shared this testimony at the public hearing. I've added some spontaneous remarks that I made during my statement.)

My name is Richard Hodgin and I speak for myself.

My faith requires me to speak out on this moral issue of protecting our environment. My faith community teaches us we are here on earth to heal ourselves, our communities and our world. We have a healing prayer and two of its lines really impact and challenge me and they read:

Help us find the courage

To make our lives a blessing

Please note the line states Help us find the courage and not Give us the courage. We are all in the carbon crisis together however we must individually and collectively find the courage to get off this fossil fuel merry-go-round.

Jim Appleton, the fire chief in Mosier, OR has found his courage. He said in the past, he's tried to reassure his town (Mosier, OR) that the Union Pacific Railroad has a great safety record and that rail accidents are rare.

He's changed his mind.

After a long night working with hazardous material teams and firefighters from across the Northwest to extinguish a fire that started when a train carrying Bakken crude derailed in his town, Appleton no longer believes shipping oil by rail is safe.

"I hope that this becomes death knell for this mode of shipping this cargo. I think it's insane," he said. "I've been very hesitant to take a side up to now, but with this incident, and with all due respect to the wonderful people that I've met at Union Pacific, shareholder value doesn't outweigh the lives and happiness of our community."

This past week we learned from the Pope that Mother Teresa is now officially a saint. I want you to know that I've already submitted Mr. Appleton's name to the Pope for consideration as a future saint.

In 1966, my senior year at Mt. Vernon High School our choir traveled to our WA. States Legislature in Olympia. Wearing our white dress shirts and green cummerbunds we passionately sang our state's song, Washington My Home.

We Washingtonians and Oregonians are neighbors and we share this spectacular, heavenly Columbia River Gorge. Here is the refrain for

Washington My Home:

Washington my home;

Where ever I may roam;

This is my land, my native land,

Oregon, my home.

Our verdant forest green,

Caressed by silvery stream;

From mountain peak to fields of wheat.

Washington, my home.

I want to save and protect my home and all the homes along the Columbia River Gorge so BAN THE BOMB TRAINS.

Thank you.

Richard Hodgin 206-729-8900 home

6524 26th Ave NE, Seattle WA 98115

Sincerely,

Richard Hodgin

No more oil trains through the Columbia Gorge!

1 message(s)

Date: Fri Sep 09 2016 06:06:46 GMT-0600 (MDT)
From: Mary and David Dudley
To: angieb@co.wasco.or.us
CC:
ID: 1570ed7d1744341f

Mary and David Dudley

PO Box 37

Ola, ID 83657

September 9, 2016

Dear Angie Brewer,

I am very concerned by Union Pacific Railroad's application to construct a new rail track near Mosier, OR. The new track and resulting increase in number, length and speed of trains pose significant risks to the National Scenic Area, the Columbia River, public health, and the environment. This is particularly true in light of the proposals to build new coal and crude oil terminals throughout the Northwest which would result in a significant increase in traffic of coal trains, and dangerous and volatile oil trains through the Gorge.

I ask you to deny this application for the following reasons:

Crude oil-by-rail threats:

- The project would facilitate the transport of oil, including explosive Bakken oil, by rail through the Columbia River Gorge National Scenic Area. Union Pacific routinely operates oil trains at speeds far in excess of the puncture threshold of oil tank cars, including DOT 111s, CPC 1232s and even the new rail cars required by the USDOT's oil tank car safety rule and the FAST Act passed by Congress in 2015. Oil trains are inherently unsafe: Approval of this project would increase the number, length, and speed of trains passing through the Columbia River Gorge, thereby increasing the risks of catastrophic derailments involving oil spills, explosions and fires. Two of the criteria for conditional use review require a determination that the proposed use will not burden fire facilities and available services, nor significantly increase fire hazards, fire suppression costs, or risks to fire suppression personnel. In light of the Mosier incident, I ask you to deny the permit on these grounds.

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Impacts of more trains:

- A recent report from Whiteside & Associates and Fauth & Associates found that Union Pacific's statements of how much this rail expansion would increase train traffic through the Gorge were significantly underestimated. Union Pacific had claimed the expansion could increase traffic by 5 to 7 trains per day, while the report finds it could increase train traffic by 10 times this amount, to up to 75 to 100 trains per day.

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Finally, the project area has a very high probability of containing Native American cultural resource sites that could be adversely affected in violation of County ordinance. These resources must be protected and proper consultation done.

Thank you this opportunity to comment and I look forward to your reply on this matter.

Sincerely,

Sincerely,

Mary and David Dudley

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county approval to rebuild railroad tracks

1 message(s)

Date: Thu Sep 08 2016 22:06:08 GMT-0600 (MDT)
From: Joseph Hiss
To: angieb@co.wasco.or.us
CC:
ID: 1570d1fc626b381b

Joseph Hiss

225 17th;. Ave. SE

Olympia, WA 98501-2238

September 9, 2016

Dear Angie Brewer,

I am very concerned by Union Pacific Railroad's application to construct a new rail track near Mosier, OR. The new track would facilitate the transport of fossil fuels that will add to the earth's burden of carbon dioxide when the fuel is burned.

I applaud the detailed letter of Ms. Angie Brewer, who has asked you not to approve the project for 16 good reasons. However, all of these involve the Columbia Gorge only, not the whole world. I think there's ample evidence that any proposed action that facilitates more mining, transporting, and burning fossil fuels affects the entire globe, and must be analyzed at that level. It is on this basis that I personally ask you not to grant the permit.

Sincerely,

Sincerely,

Joseph M. Hiss

No more oil trains through the Columbia Gorge

1 message(s)

Date: Thu Sep 08 2016 20:46:02 GMT-0600 (MDT)
From: Kraig and Valerie Schweiss
To: angieb@co.wasco.or.us
CC:
ID: 1570cd675e67e4f9

Kraig and Valerie Schweiss

19720 Pennington Rd.

Sterling, IL 61081

September 8, 2016

Dear Angie Brewer,

We are very concerned by Union Pacific Railroad's application to construct a new rail track near Mosier, OR. The new track and resulting increase in number, length, and speed of trains pose significant risks to the National Scenic Area, the Columbia River, public health, and the environment. This is particularly true in light of the proposals to build new coal and crude oil terminals throughout the Northwest which would result in a significant increase in traffic of coal trains, and dangerous and volatile oil trains through the Gorge.

We ask you to deny this application for the following reasons:

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Sincerely,

Kraig and Valerie Schweiss

No More Oil Trains

1 message(s)

Date: Thu Sep 08 2016 20:15:59 GMT-0600 (MDT)
From: Linda Peterson
To: angieb@co.wasco.or.us
CC:
ID: 1570cbaeec3d3094

Linda Peterson

404 Wood Lark Ct.

Indian Trail, NC 28079

September 8, 2016

Dear Angie Brewer,

I am very concerned by Union Pacific Railroad's application to construct a new rail track near Mosier, OR. The new track and resulting increase in number, length and speed of trains pose significant risks to the National Scenic Area, the Columbia River, public health, and the environment. This is particularly true in light of the proposals to build new coal and crude oil terminals throughout the Northwest which would result in a significant increase in traffic of coal trains, and dangerous and volatile oil trains through the Gorge.

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- Threats to sensitive plant and animal species: The project is located in habitat for many protected species of plants and animals. More trains traveling at higher speeds would result in more collisions with wildlife attempting to cross the tracks.

- Bridges: New bridge construction would provide a potential location of new point source pollution if any uncovered commodities are transported on the new track. Higher speeds will increase likelihood of wind-blown pollution into waterways in violation of the Clean Water Act.

- Coal transported in open coal cars would result in coal blowing onto scenic area lands and into the Columbia River. As evident on the Burlington Northern track on the north side of the Columbia, every coal train pollutes the Columbia River Gorge with coal dust. This unpermitted discharge of a pollutant is a violation of the federal Clean Water Act.

Impacts of more trains:

- A recent report from Whiteside & Associates and Fauth & Associates found that Union Pacific's statements of how much this rail expansion would increase train traffic through the Gorge were significantly underestimated. Union Pacific had claimed the expansion could increase traffic by 5 to 7 trains per day, while the report finds it could increase train traffic by 10 times this amount, to up to 75 to 100 trains per day.

- The project would harm the community of Mosier: The project would create a double-track through the Mosier Urban Area, negatively impacting the local community and environment.

- The proposal would obstruct traffic in The Dalles. More trains mean more time the crossing gates are down. This inconveniences drivers, hampers first responders, and violates the conditional use review criteria.

More review needed:

- The project should be reviewed as new development: Considering the size and potential impacts on the community and surrounding environment, this project should be considered a new facility rather than an expansion.

- Harm to parks and recreation resources: The project would construct an additional rail line through Memaloose State Park, which would lead to trains traveling at higher speeds through the recreation area. This would adversely affect recreation resources and endanger public safety. Oregon Parks and Recreation Department must ensure that any sale of land would not conflict with the National Scenic Area Recreation Development Plan, which includes plans to expand Memaloose Campground and improve access to the Columbia River. Oregon Parks should deny the sale of our park land for rail expansion: OPRD may not sell any land to Union Pacific without first adopting findings that the land is either not needed for public use or that the sale would further the public interest.

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- Project necessity: The project should be evaluated to see if it is necessary to provide a public service. If it is indeed necessary, alternatives should be evaluated that have less adverse impacts to resources within the Columbia River Gorge National Scenic Area, such as siting the project outside of the National Scenic Area.

Finally, the project area has a very high probability of containing Native American cultural resource sites that could be adversely affected in violation of County ordinance. These resources must be protected and proper consultation done.

Thank you this opportunity to comment and I look forward to your reply on this matter.

Sincerely,

Sincerely,

Linda L. Peterson

No more oil trains through the Columbia Gorge

1 message(s)

Date: Thu Sep 08 2016 18:15:52 GMT-0600 (MDT)
From: Natalie Ryan
To: angieb@co.wasco.or.us
CC:
ID: 1570c4cfbbe0b0f4

Natalie Ryan

1617 Sarah Circle

Conway, AR 72034

September 8, 2016

Dear Angie Brewer,

I am very concerned by Union Pacific Railroad's application to construct a new rail track near Mosier, OR. The new track and resulting increase in number, length and speed of trains pose significant risks to the National Scenic Area, the Columbia River, public health, and the environment. This is particularly true in light of the proposals to build new coal and crude oil terminals throughout the Northwest which would result in a significant increase in traffic of coal trains, and dangerous and volatile oil trains through the Gorge.

I ask you to deny this application for the following reasons:

Crude oil-by-rail threats:

- The project would facilitate the transport of oil, including explosive Bakken oil, by rail through the Columbia River

Gorge National Scenic Area. Union Pacific routinely operates oil trains at speeds far in excess of the puncture threshold of oil tank cars, including DOT 111s, CPC 1232s and even the new rail cars required by the USDOT's oil tank car safety rule and the FAST Act passed by Congress in 2015. Oil trains are inherently unsafe: Approval of this project would increase the number, length, and speed of trains passing through the Columbia River Gorge, thereby increasing the risks of catastrophic derailments involving oil spills, explosions and fires. Two of the criteria for conditional use review require a determination that the proposed use will not burden fire facilities and available services, nor significantly increase fire hazards, fire suppression costs, or risks to fire suppression personnel. In light of the Mosier incident, I ask you to deny the permit on these grounds.

- The Federal Railroad Administration (FRA) released a report in June finding that Union Pacific was at fault for the oil train derailment and fire in Mosier, OR because they failed to follow safety and rail inspection requirements. According to the FRA, Union Pacific perennially has poor accident statistics when compared with its peers. The industry average of accidents caused by tracks, signals, or equipment is 44% and it is 56% for Union Pacific. This demonstrates the pattern of inadequate maintenance done by Union Pacific.

Impacts to the Columbia River Gorge National Scenic Area:

- The project is inconsistent with the purposes of the National Scenic Area Act: The project would pass through some of the most highly protected lands in the National Scenic Area. The project could increase the number of trains passing through the Gorge, the length of trains passing through the Gorge and the speed of trains. This would adversely affect scenic, natural, cultural and recreation resources and endanger local communities.

- The project would harm air quality: Air quality within the Columbia River Gorge National Scenic Area is degraded by emissions from both mobile and stationary sources. Diesel emissions from an increase in train traffic would adversely affect air quality and visibility. This violates at least one of the criteria for conditional use review.

- Adverse impacts to scenic resources: The construction of double-tracking and related development would cause adverse impacts to scenic resources in violation of County ordinance, particularly the protected views from designated key viewing areas.

- The proposed 6-acre rock crushing area adjacent to Memaloose State Park is not allowed under County ordinances and would have extreme scenic and recreation impacts.

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Finally, the project area has a very high probability of containing Native American cultural resource sites that could be adversely affected in violation of County ordinance. These resources must be protected and proper consultation done.

Thank you this opportunity to comment and I look forward to your reply on this matter.

Sincerely,

Sincerely,

Natalie Ryan

RE: PLASAR-15-01-0004 (Union Pacific Railroad Application)

2 message(s)

Date: Wed Sep 07 2016 21:42:37 GMT-0600 (MDT)
From: John Hall
To: angieb@co.wasco.or.us
CC:
ID: 15707e3fa8169291

Hello, Angie,

My wife and I attended the hearing yesterday until the break—about 5:45 PM. We were both very impressed with your opening presentation. You were clear, concise and presented a large amount of information. Unlike many of the speakers, you were calm and collected (if you were not, please take the compliment that it did not show at all). We were also impressed that you were attentive to all the speakers and were taking many notes.

Most of the attendees were clearly beyond retirement age. The Commission should note that fact and assume that far more people would have attended had they not been constrained by their jobs. Since not a single person spoke in favor of the application, the Commission can safely assume that there are far more people opposed to the application than were actually present.

In addition, you said that the comment period has been extended until September 13th, so here are my comments.

Emily Reed, Mosier City Council President, spoke of all the hard work that Mosier has done to improve the town and enhance its economic viability. We recently purchased one of the Mosier Creek condominiums. We were drawn to the charm of the small town, its businesses, and the incredible beauty of the area. UP claims that double track will mitigate the noise from the trains idling on the siding (just below our condominium). We would far rather live with the current noise, and that from the additional 5 to 7 trains that UP states would be added (and which can be accommodated by the siding), than risk having UP actually bringing the total trains per day to the 75 to 100 that double track would enable.

Clearly public concern is focussed on hazardous materials in the trains. We want the the double track application to be denied for clear and obvious safety reasons. This is the only way to prevent a major increase in the probability that tragic accidents far worse than the Mosier derailment will occur. The danger to people, homes and businesses, and the scenic treasure we all cherish is already much too high.

Several people mentioned that June 3rd could easily have been a day with 25 MPH+ west winds that could have sent the fire through Mosier, destroying much of the town, and on toward the Dalles. Had been a windy day in August when the vegetation is tinder-dry, who knows where the fire could have been stopped.

I did not hear anyone specifically mention the following points:

It was unbelievably fortuitous that the spill and fire happened where it did. The site was easily accessible. Much of the UP track is on man-created ballast out in the river. There will be no access to such a section of track when a derailment happens there. Conditions were placed on approval that fire fighting capacity must be increased, but short of a fleet of fire boats stationed at short intervals along the river, no increase will be adequate. Unless that change is mandated and fulfilled, there cannot be adequate fire fighting capability.

Furthermore, because the Mosier derailment happened to decapitate just the right manhole cover, nearly all the spilled oil went into the sewage treatment ponds, containing it. Along most of the track, spilled oil will flow directly into the river. I don't need to tell you what a catastrophe that will be—major salmon and sturgeon death, bird deaths, miles of river bank coated in oil, burning oil floating downstream and/or upwind, thus starting additional fires, etc.

So please advise the Planning Commission to deny UP's Application completely.

Thank you for my comments adding my comments to the Commission's considerations, and hang in there with all the hard work you and the rest of your staff have been doing.

Sincerely yours,

John A. Hall

25 Mosier Place

Mosier

Re: PLASAR-15-01-0004 (Union Pacific Railroad Application)

2 message(s)

Date: Thu Sep 08 2016 15:28:29 GMT-0600 (MDT)
From: Angie Brewer
To: John Hall
CC:
ID: 1570bb3b683fab79

Thank you for the kind words Mr. Hall. This is certainly a challenging proposal!

I will add your comments to the record and share them with the Planning Commissioners today.

I hope you will be able to join us on the 26th for the continued hearing - it will be at the same time and same place.

Have a wonderful afternoon,
Angie

WASCO COUNTY
Pioneering pathways to prosperity.

Angie Brewer | *Director*
PLANNING DEPARTMENT

angieb@co.wasco.or.us | www.co.wasco.or.us
541-506-2566 | Fax 541-506-2561
2705 East Second Street | The Dalles, OR 97058

On Wed, Sep 7, 2016 at 8:42 PM, John Hall <jhall@aracnet.com> wrote:

Hello, Angie,

My wife and I attended the hearing yesterday until the break—about 5:45 PM. We were both very impressed with your opening presentation. You were clear, concise and presented a large amount of information. Unlike many of the speakers, you were calm and collected (if you were not, please take the compliment that it did not show at all). We were also impressed that you were attentive to all the speakers and were taking many notes.

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So please advise the Planning Commission to deny UP's Application completely.

Thank you for my comments adding my comments to the Commission's considerations, and hang in there with all the hard work you and the rest of your staff have been doing.

Sincerely yours,
John A. Hall
25 Mosier Place
Mosier

Union Pacific Railroad shipping oil through the Columbia Gorge

1 message(s)

Date: Thu Sep 08 2016 13:25:31 GMT-0600 (MDT)
From: Robert Swope
To: angieb@co.wasco.or.us
CC:
ID: 1570b4325b0cd356

Robert Swope

2002 S. 91st. Ave.

Yakima, WA 98903

September 8, 2016

Dear Angie Brewer,

I am very concerned by Union Pacific Railroad's application to construct a new rail track near Mosier, OR. The new track and resulting increase in number, length and speed of trains pose significant risks to the National Scenic Area, the Columbia River, public health, and the environment. This is particularly true in light of the proposals to build new coal and crude oil terminals throughout the Northwest which would result in a significant increase in traffic of coal trains, and dangerous and volatile oil trains through the Gorge.

I ask you to deny this application for the following reasons:

Crude oil-by-rail threats:

- The project would facilitate the transport of oil, including explosive Bakken oil, by rail through the Columbia River Gorge National Scenic Area. Union Pacific routinely operates oil trains at speeds far in excess of the puncture threshold of oil tank cars, including DOT 111s, CPC 1232s and even the new rail cars required by the USDOT's oil tank car safety rule and the FAST Act passed by Congress in 2015. Oil trains are inherently unsafe: Approval of this project would increase the number, length, and speed of trains passing through the Columbia River Gorge, thereby increasing the risks of catastrophic derailments involving oil spills, explosions and fires. Two of the criteria for conditional use review require a determination that the proposed use will not burden fire facilities and available services, nor significantly increase fire hazards, fire suppression costs, or risks to fire suppression personnel. In light of the Mosier incident, I ask you to deny the permit on these grounds.

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Thank you this opportunity to comment and I look forward to your reply on this matter.

Sincerely,

Sincerely,

Robert E. Swope

Just saying no...

2 message(s)

Date: Wed Sep 07 2016 23:54:36 GMT-0600 (MDT)
From: Janet Lyon
To: angieb@co.wasco.or.us
CC:
ID: 157085cba2764691

Janet Lyon

PO Box 8032

Missoula, MT 59801

September 8, 2016

Dear Angie Brewer,

I am very concerned by Union Pacific Railroad's application to construct a new rail track near Mosier, OR. The new track and resulting increase in number, length and speed of trains pose significant risks to the National Scenic Area, the Columbia River, public health, and the environment. This is particularly true in light of the proposals to build new coal and crude oil terminals throughout the Northwest which would result in a significant increase in traffic of coal trains, and dangerous and volatile oil trains through the Gorge.

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PO Box 8032

Missoula, MT 59801

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Thank you this opportunity to comment and I look forward to your reply on this matter.

Sincerely,

Sincerely,

Janet Lyon

Columbia Gorge

1 message(s)

Date: Wed Sep 07 2016 17:33:59 GMT-0600 (MDT)
From: Joseph Quirk
To: angieb@co.wasco.or.us
CC:
ID: 157070043cf1644a

Joseph Quirk

147 Avenue A #2R

New York, NY 10009

September 7, 2016

Dear Angie Brewer,

I am very concerned by Union Pacific Railroad's application to construct a new rail track near Mosier, OR. The new track and resulting increase in number, length and speed of trains pose significant risks to the National Scenic Area, the Columbia River, public health, and the environment. This is particularly true in light of the proposals to build new coal and crude oil terminals throughout the Northwest which would result in a significant increase in traffic of coal trains, and dangerous and volatile oil trains through the Gorge.

I ask you to deny this application for the following reasons:

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Sincerely,

Sincerely,

Joseph Quirk

No more oil trains through Columbia Gorge

1 message(s)

Date: Wed Sep 07 2016 17:13:56 GMT-0600 (MDT)
From: Maggie Shields
To: angieb@co.wasco.or.us
CC:
ID: 15706edeb3bd9860

Maggie Shields

185 Clinton Rd

Sterling, MA 01564

September 7, 2016

Dear Angie Brewer,

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Thank you this opportunity to comment and I look forward to your reply on this matter.

Sincerely,

Sincerely,

Maggie Shields

No more Oil Trains

1 message(s)

Date: Wed Sep 07 2016 15:33:48 GMT-0600 (MDT)
From: Denise Lenardson
To: angieb@co.wasco.or.us
CC:
ID: 15706923a0f59cf4

Denise Lenardson

8772 1/2 Wyngate St

Sunland, CA 91040-1916

September 7, 2016

Dear Angie Brewer,

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Thank you this opportunity to comment and I look forward to your reply on this matter.

Sincerely,

Sincerely,

Denise Lenardson

No more oil trains through the Columbia Gorge

1 message(s)

Date: Wed Sep 07 2016 14:23:44 GMT-0600 (MDT)
From: Naira Bribiesca Hueper
To: angieb@co.wasco.or.us
CC:
ID: 157065215199d3a3

Naira Bribiesca Hueper

3176 Woodview Ridge

Kansas City, KS 66103

September 7, 2016

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Naira Bribiesca Hueper

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stop oil trains

1 message(s)

Date: Wed Sep 07 2016 14:13:43 GMT-0600 (MDT)
From: Asano Fertig
To: angieb@co.wasco.or.us
CC:
ID: 1570648ec01fa574

Asano Fertig

11 Virginia Gardens

Berkeley, CA 94702

September 7, 2016

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- Harm to wetlands: The project would require large amounts of fill in multiple wetlands adjacent to the Columbia River. Filling these wetlands adversely affect wetland habitat and is not in the public's interest. Filling wetlands is prohibited in the Special Management Areas of the National Scenic Area.

- Threats to sensitive plant and animal species: The project is located in habitat for many protected species of plants and animals. More trains traveling at higher speeds would result in more collisions with wildlife attempting to cross the tracks.

- Bridges: New bridge construction would provide a potential location of new point source pollution if any uncovered commodities are transported on the new track. Higher speeds will increase likelihood of wind-blown pollution into waterways in violation of the Clean Water Act.

- Coal transported in open coal cars would result in coal blowing onto scenic area lands and into the Columbia River. As evident on the Burlington Northern track on the north side of the Columbia, every coal train pollutes the Columbia River Gorge with coal dust. This unpermitted discharge of a pollutant is a violation of the federal Clean Water Act.

Impacts of more trains:

- A recent report from Whiteside & Associates and Fauth & Associates found that Union Pacific's statements of how much this rail expansion would increase train traffic through the Gorge were significantly underestimated. Union Pacific had claimed the expansion could increase traffic by 5 to 7 trains per day, while the report finds it could increase train traffic by 10 times this amount, to up to 75 to 100 trains per day.

- The project would harm the community of Mosier: The project would create a double-track through the Mosier Urban Area, negatively impacting the local community and environment.

- The proposal would obstruct traffic in The Dalles. More trains mean more time the crossing gates are down. This inconveniences drivers, hampers first responders, and violates the conditional use review criteria.

More review needed:

- The project should be reviewed as new development: Considering the size and potential impacts on the community and surrounding environment, this project should be considered a new facility rather than an expansion.

- Harm to parks and recreation resources: The project would construct an additional rail line through Memaloose State Park, which would lead to trains traveling at higher speeds through the recreation area. This would adversely affect recreation resources and endanger public safety. Oregon Parks and Recreation Department must ensure that any sale of land would not conflict with the National Scenic Area Recreation Development Plan, which includes plans to expand Memaloose Campground and improve access to the Columbia River. Oregon Parks should deny the sale of our park land for rail expansion: OPRD may not sell any land to Union Pacific without first adopting findings that the land is either not needed for public use or that the sale would further the public interest.

- UPRR excluded details on development within the Mosier Urban Area from the NSA application. That information must be considered as part of NSA cumulative impacts analysis.

- The County ordinance requires field surveys by professional wildlife biologist hired by the applicant and a professional botanist hired by the applicant.

- Project necessity: The project should be evaluated to see if it is necessary to provide a public service. If it is indeed necessary, alternatives should be evaluated that have less adverse impacts to resources within the Columbia River Gorge National Scenic Area, such as siting the project outside of the National Scenic Area.

Finally, the project area has a very high probability of containing Native American cultural resource sites that could be adversely affected in violation of County ordinance. These resources must be protected and proper consultation done.

Thank you this opportunity to comment and I look forward to your reply on this matter.

Sincerely,

Sincerely,

Asano Fertig

Protect the Columbia from bomb trains

1 message(s)

Date: Wed Sep 07 2016 12:03:21 GMT-0600 (MDT)
From: Tierra Curry
To: angieb@co.wasco.or.us
CC:
ID: 15705d18e42ace5f

Tierra Curry

PO Box 11374

Portland, OR 97213

September 7, 2016

Dear Angie Brewer,

I am very concerned by Union Pacific Railroad's application to construct a new rail track near Mosier, OR. The new track and resulting increase in number, length and speed of trains pose significant risks to the National Scenic Area, the Columbia River, public health, and the environment. This is particularly true in light of the proposals to build new coal and crude oil terminals throughout the Northwest which would result in a significant increase in traffic of coal trains, and dangerous and volatile oil trains through the Gorge.

I ask you to deny this application for the following reasons:

Crude oil-by-rail threats:

- The project would facilitate the transport of oil, including explosive Bakken oil, by rail through the Columbia River Gorge National Scenic Area. Union Pacific routinely operates oil trains at speeds far in excess of the puncture threshold of oil tank cars, including DOT 111s, CPC 1232s and even the new rail cars required by the USDOT's oil tank car safety rule and the FAST Act passed by Congress in 2015. Oil trains are inherently unsafe: Approval of this project would increase the number, length, and speed of trains passing through the Columbia River Gorge, thereby increasing the risks of catastrophic derailments involving oil spills, explosions and fires. Two of the criteria for conditional use review require a determination that the proposed use will not burden fire facilities and available services, nor significantly increase fire hazards, fire suppression costs, or risks to fire suppression personnel. In light of the Mosier incident, I ask you to deny the permit on these grounds.

- The Federal Railroad Administration (FRA) released a report in June finding that Union Pacific was at fault for the oil train derailment and fire in Mosier, OR because they failed to follow safety and rail inspection requirements. According to the FRA, Union Pacific perennially has poor accident statistics when compared with its peers. The industry average of accidents caused by tracks, signals, or equipment is 44% and it is 56% for Union Pacific. This demonstrates the pattern of inadequate maintenance done by Union Pacific.

Impacts to the Columbia River Gorge National Scenic Area:

- The project is inconsistent with the purposes of the National Scenic Area Act: The project would pass through some of the most highly protected lands in the National Scenic Area. The project could increase the number of trains passing through the Gorge, the length of trains passing through the Gorge and the speed of trains. This would adversely affect scenic, natural, cultural and recreation resources and endanger local communities.

- The project would harm air quality: Air quality within the Columbia River Gorge National Scenic Area is degraded by emissions from both mobile and stationary sources. Diesel emissions from an increase in train traffic would adversely affect air quality and visibility. This violates at least one of the criteria for conditional use review.

- Adverse impacts to scenic resources: The construction of double-tracking and related development would cause adverse impacts to scenic resources in violation of County ordinance, particularly the protected views from designated key viewing areas.

- The proposed 6-acre rock crushing area adjacent to Memaloose State Park is not allowed under County ordinances and would have extreme scenic and recreation impacts.

- Harm to wetlands: The project would require large amounts of fill in multiple wetlands adjacent to the Columbia River. Filling these wetlands adversely affect wetland habitat and is not in the public's interest. Filling wetlands is prohibited in the Special Management Areas of the National Scenic Area.

- Threats to sensitive plant and animal species: The project is located in habitat for many protected species of plants and animals. More trains traveling at higher speeds would result in more collisions with wildlife attempting to cross the tracks.

- Bridges: New bridge construction would provide a potential location of new point source pollution if any uncovered commodities are transported on the new track. Higher speeds will increase likelihood of wind-blown pollution into waterways in violation of the Clean Water Act.

- Coal transported in open coal cars would result in coal blowing onto scenic area lands and into the Columbia River. As evident on the Burlington Northern track on the north side of the Columbia, every coal train pollutes the Columbia River Gorge with coal dust. This unpermitted discharge of a pollutant is a violation of the federal Clean

Water Act.

Impacts of more trains:

- A recent report from Whiteside & Associates and Fauth & Associates found that Union Pacific's statements of how much this rail expansion would increase train traffic through the Gorge were significantly underestimated. Union Pacific had claimed the expansion could increase traffic by 5 to 7 trains per day, while the report finds it could increase train traffic by 10 times this amount, to up to 75 to 100 trains per day.

- The project would harm the community of Mosier: The project would create a double-track through the Mosier Urban Area, negatively impacting the local community and environment.

- The proposal would obstruct traffic in The Dalles. More trains mean more time the crossing gates are down. This inconveniences drivers, hampers first responders, and violates the conditional use review criteria.

More review needed:

- The project should be reviewed as new development: Considering the size and potential impacts on the community and surrounding environment, this project should be considered a new facility rather than an expansion.

- Harm to parks and recreation resources: The project would construct an additional rail line through Memaloose State Park, which would lead to trains traveling at higher speeds through the recreation area. This would adversely affect recreation resources and endanger public safety. Oregon Parks and Recreation Department must ensure that any sale of land would not conflict with the National Scenic Area Recreation Development Plan, which includes plans to expand Memaloose Campground and improve access to the Columbia River. Oregon Parks should deny the sale of our park land for rail expansion: OPRD may not sell any land to Union Pacific without first adopting findings that the land is either not needed for public use or that the sale would further the public interest.

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- The County ordinance requires field surveys by professional wildlife biologist hired by the applicant and a professional botanist hired by the applicant.

- Project necessity: The project should be evaluated to see if it is necessary to provide a public service. If it is indeed necessary, alternatives should be evaluated that have less adverse impacts to resources within the Columbia River Gorge National Scenic Area, such as siting the project outside of the National Scenic Area.

Finally, the project area has a very high probability of containing Native American cultural resource sites that could be adversely affected in violation of County ordinance. These resources must be protected and proper consultation done.

Thank you this opportunity to comment and I look forward to your reply on this matter.

Sincerely,

Sincerely,

Tierra Curry

Union Pacific Application

2 message(s)

Date: Wed Sep 07 2016 10:45:43 GMT-0600 (MDT)
From: Daniel Rasmussen
To: angieb@co.wasco.or.us
CC:
ID: 157058a7f6e9e8d5

Ms. Brewer,

Has the deadline passed on which written materials may be submitted to the Commission that are relevant to their decision on the UP Application?

Additionally, I would like to join the many others who were impressed with the succinct clarity and professionalism of your presentation during yesterday's proceedings. Thank you!

Sincerely,

D.M. Rasmussen

Re: Union Pacific Application

2 message(s)

Date: Wed Sep 07 2016 11:35:06 GMT-0600 (MDT)
From: Angie Brewer
To: Daniel Rasmussen
CC:
ID: 15705b7b04b10cec

Thank you for the kind words!

The deadline for public comment is 9/13. Please feel free to send it to me directly, but copy our coordinator Brenda Jenkins at brendaj@co.wasco.or.us to make sure it gets to the Planning Commissioners as quickly as possible.

Thank you for coming out last night. I appreciated your testimony.

Best,
Angie

Angie Brewer | *Director*
PLANNING DEPARTMENT

angieb@co.wasco.or.us | www.co.wasco.or.us
541-506-2566 | Fax 541-506-2561
2705 East Second Street | The Dalles, OR 97058

On Wed, Sep 7, 2016 at 9:45 AM, Daniel Rasmussen <vivaldischool@gmail.com> wrote:

Ms. Brewer,

Has the deadline passed on which written materials may be submitted to the Commission that are relevant to their decision on the UP Application?

Additionally, I would like to join the many others who were impressed with the succinct clarity and professionalism of your presentation during yesterday's proceedings. Thank you!

Sincerely,

D.M. Rasmussen

No More Oil Trains Through The Columbia Gorge

1 message(s)

Date: Tue Sep 06 2016 23:12:22 GMT-0600 (MDT)
From: Jude Misurelli
To: angieb@co.wasco.or.us
CC:
ID: 157030fb4db37a10

Jude Misurelli

22 Mayapple La.

Brevard, NC 28712

September 7, 2016

Dear Angie Brewer,

I am very concerned by Union Pacific Railroad's application to construct a new rail track near Mosier, OR. The new track and resulting increase in number, length and speed of trains pose significant risks to the National Scenic Area, the Columbia River, public health, and the environment. This is particularly true in light of the proposals to build new coal and crude oil terminals throughout the Northwest which would result in a significant increase in traffic of coal trains, and dangerous and volatile oil trains through the Gorge.

I ask you to deny this application for the following reasons:

Crude oil-by-rail threats:

- The project would facilitate the transport of oil, including explosive Bakken oil, by rail through the Columbia River Gorge National Scenic Area. Union Pacific routinely operates oil trains at speeds far in excess of the puncture threshold of oil tank cars, including DOT 111s, CPC 1232s and even the new rail cars required by the USDOT's oil tank car safety rule and the FAST Act passed by Congress in 2015. Oil trains are inherently unsafe: Approval of this project would increase the number, length, and speed of trains passing through the Columbia River Gorge, thereby increasing the risks of catastrophic derailments involving oil spills, explosions and fires. Two of the criteria for conditional use review require a determination that the proposed use will not burden fire facilities and available services, nor significantly increase fire hazards, fire suppression costs, or risks to fire suppression personnel. In light of the Mosier incident, I ask you to deny the permit on these grounds.

- The Federal Railroad Administration (FRA) released a report in June finding that Union Pacific was at fault for the oil train derailment and fire in Mosier, OR because they failed to follow safety and rail inspection requirements. According to the FRA, Union Pacific perennially has poor accident statistics when compared with its peers. The industry average of accidents caused by tracks, signals, or equipment is 44% and it is 56% for Union Pacific. This demonstrates the pattern of inadequate maintenance done by Union Pacific.

Impacts to the Columbia River Gorge National Scenic Area:

- The project is inconsistent with the purposes of the National Scenic Area Act: The project would pass through some of the most highly protected lands in the National Scenic Area. The project could increase the number of trains passing through the Gorge, the length of trains passing through the Gorge and the speed of trains. This would adversely affect scenic, natural, cultural and recreation resources and endanger local communities.

- The project would harm air quality: Air quality within the Columbia River Gorge National Scenic Area is degraded by emissions from both mobile and stationary sources. Diesel emissions from an increase in train traffic would adversely affect air quality and visibility. This violates at least one of the criteria for conditional use review.

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Finally, the project area has a very high probability of containing Native American cultural resource sites that could be adversely affected in violation of County ordinance. These resources must be protected and proper consultation done.

Thank you this opportunity to comment and I look forward to your reply on this matter.

Sincerely,

Sincerely,

Jude Misurelli

wcplanning wcplanning <wcplanning@co.wasco.or.us>

Letter that replaces September 11th letter

1 message

Sheila Dooley <sdooley3300@yahoo.com> Mon, Sep 12, 2016 at 4:00 PM
Reply-To: Sheila Dooley <sdooley3300@yahoo.com>
To: "wcplanning@co.wasco.or.us" <wcplanning@co.wasco.or.us>

Attached is a letter that we have written to replace the one that was dated and submitted on September 11th. After doing some research today, we have found that the earlier letter contained some inaccuracies. Please remove the September 11th letter and use this letter to the Planning Commission dated September 12th instead.

Thank you,

Sheila Dooley and Phil Swaim

Wasco County UP letter 9-12-16 (1).docx
17K

PC 2 1-369

September 12, 2016

Dear Wasco County Planning Commission:

Please consider the following in your deliberations:

1. Require Oregon Parks and Recreation land transfer pre considering application.

Why are you considering application involving property that UP has no right to? You would never do this for any other applicant.

2. Require a noise mitigation plan for noise issues related to current railroad conditions and for new noise resulting from the double track project.

Current and future railroad noise is a huge issue for Mosier residents and others including visitors to Memaloose Park. When asked about noise mitigation at the September 7th Mosier City Council meeting, the UP spokesperson said "I'm not an acoustical engineer." They need to hire one.

3. Require UP to provide its plan to provide river access across the double tracks.

If you don't get a provision for river access now (such as through an over or underpass), it may be difficult and expensive to get it later. UP needs to provide safe access at Mosier Creek and Memaloose Park.

UP referred to pedestrians as "trespassers" at the September 7th meeting with the Mosier City Council, which pretty much sums up its position in regards to access.

4. Require UP to answer the questions the public has regarding the number of trains that have to idle, the location and length of the other double tracks to the west, and the amount of time trains have to idle.

How can UP submit a request on the grounds of creating better efficiency when they claim to not know the answers to these questions (at September 7th Mosier City Council meeting). If this is true, then this means they don't know the extent of the problem that they claim to be trying to solve.

Why is Mosier a pinch point while other segments of double tracks to the west aren't? Are other segments of double tracks five miles long? If not, then the pinch point is just being moved further west. Another consideration is that The Dalles has a long segment of double tracks only 15 miles from Mosier.

When asked about train traffic, they always reply, "we're a common carrier and have to ship." That may be true but claiming to not have any usage statistics makes no sense and I don't believe it's an honest answer. They are most likely avoiding answering the questions so that they can later say train traffic hasn't increased. In reality this project is in preparation for increased train traffic, especially more oil and coal trains, which would be a disaster for both safety and health reasons.

5. This entire request is inappropriate and conflicts with the NSA and conditional use criteria.

Other land developers and homeowners wanting to do even minor projects have to meet numerous requirements to preserve the integrity of the NSA yet UP is requesting permission to permanently destroy a rock wall and wetlands.

We're not at a Disneyland theme park and don't want fake rock walls. We are preserving this area for future generations. That was the intent of designating it as a NSA. The Columbia River Gorge will be here long after the trains are gone.

The wetland replacement area would destroy fertile agricultural land that is currently farmed.

Please support the condition prohibiting of the clearing of the 6.62 acres of white oak as this a unique and valuable habitat.

In conclusion we urge you to deny UP's proposal. We share the concerns expressed by the Friends of the Columbia Gorge in both its written and oral testimony.

Sincerely,

Sheila Dooley
Phil Swaim
3300 Vensel Rd.
Mosier, Oregon 97040

wcplanning wcplanning <wcplanning@co.wasco.or.us>

Comments for Planning Commission regarding UPRR application

Sheila Dooley <sdooley3300@yahoo.com>
Reply-To: Sheila Dooley <sdooley3300@yahoo.com>
To: "wcplanning@co.wasco.or.us" <wcplanning@co.wasco.or.us>

Sun, Sep 11, 2016 at 9:51 PM

Attached please find our comments regarding the UPRR application.

Sincerely,

Sheila Dooley and Phil Swaim

Wasco County UP letter 9-11-16.docx
17K

PC 2 1-373

September 11, 2016

Dear Wasco County Planning Commission:

Please consider the following in your deliberations:

1. Require Oregon Parks and Recreation land transfer pre considering application.

Why are you considering application involving property that UP has no right to? You would never do this for any other applicant.

2. Require a noise mitigation plan for noise issues related to current railroad conditions and for new noise resulting from the double track project.

Current and future railroad noise is a huge issue for Mosier residents and others including visitors to Memaloose Park. When asked about noise mitigation at the September 7th Mosier City Council meeting, the UP spokesperson said "I'm not an acoustical engineer." They need to hire one.

3. Require UP to provide its plan to provide river access across the double tracks.

If you don't get a provision for river access now (such as through an over or underpass), you'll never get it later. UP needs to provide safe access at Mosier Creek and Memaloose Park.

The City of The Dalles was unable to get permission from UP for an underground pedestrian crossing for access to its Festival Park. If UP were really safety oriented, why wouldn't it have agreed to a temporary minor inconvenience in exchange for a crossing that would have provided public safety. The only explanation is that maximum profit is valued more by UP than long term public safety.

UP referred to pedestrians as "trespassers" at the September 7th meeting with the Mosier City Council, which pretty much sums up its position in regards to access.

4. Require UP to answer the questions the public has regarding the number of trains that have to idle, the location and length of the other double tracks to the west, and the amount of time trains have to idle.

How can UP submit a request on the grounds of creating better efficiency when they claim to not know the answers to these questions (at September 7th Mosier City Council meeting). If this is true, then this means they don't know the extent of the problem that they claim to be trying to solve.

Why is Mosier a pinch point while other segments of double tracks to the west aren't? Other segments of double tracks aren't five miles long.

When asked about train traffic, they always reply, "we're a common carrier and have to ship." That may be true but claiming to not have any usage statistics makes no sense and I don't believe it's an honest answer. They are most likely avoiding answering the questions so that they can later say train traffic hasn't increased. In reality this project is in preparation for increased train traffic, especially more oil and coal trains, which would be a disaster for both safety and health reasons.

5. This entire request is inappropriate and conflicts with the NSA and conditional use criteria.

Other land developers and homeowners wanting to do even minor projects have to meet numerous requirements to preserve the integrity of the NSA yet UP is requesting permission to permanently destroy a rock wall and wetlands.

We're not at a Disneyland theme park and don't want fake rock walls. We are preserving this area for future generations. That was the intent of designating it as a NSA. The Columbia River Gorge will be here long after the trains are gone.

The wetland replacement area would destroy fertile agricultural land that is currently farmed.

Please support the condition prohibiting of the clearing of the 6.62 acres of white oak as this a unique and valuable habitat.

In conclusion we urge you to deny UP's proposal. We share the concerns expressed by the Friends of the Columbia Gorge in both its written and oral testimony.

Sincerely,

Sheila Dooley
Phil Swaim
3300 Vensel Rd.
Mosier, Oregon 97040

wcplanning wcplanning <wcplanning@co.wasco.or.us>

Public comment union pacific railway expansion

1 message

Chris Turner <caturner458@gmail.com> Thu, Sep 8, 2016 at 2:02 PM
To: wcplanning@co.wasco.or.us

Union Pacific's expansion was created to increase rail traffic by lengthening the trains. Start counting train cars not trains. Spending millions of dollars to add 2 cars per train is not efficient. Average 100 cars per train. Add 25 cars-25% increase, 50 cars more likely 50% increase. Old limit 30 trains a day, plus (per Union Pacific 7 addl) that would be a 85% increase in train traffic. Smart Companies expand and plan ahead, length of time for permits and approvals demand it. Another issue. (12) combination signals-22 ft tall , (5)wireless signaling monopoles (53ft tall). Most towers are regulated by "wireless tower ordinances" in county or city codes. Get pictures, exact locations, scale, possible impacts to natl scenic area. Consider this as separate issue for extreme scrutiny. Please deny this permit citing increased rail traffic which is prohibited, more than 50% variances, damage to buffer zones, setbacks, wetlands, plant, wildlife, and overall impacts to the gorge and National Scenic Area because of the tracks and structures associated with this expansion. Thank you Chris Turner

wcplanning wcplanning <wcplanning@co.wasco.or.us>

Train through gorge

1 message

Patty Rolen <deschutes@hotmail.com> Wed, Sep 7, 2016 at 4:02 PM
To: "wcplanning@co.wasco.or.us" <wcplanning@co.wasco.or.us>

As I am driving from White Salmon to The Dalles down the Washington side, I am passing a coal train. If I remember right, we were told that the coal cars would be covered so no coal dust would blow off into the rivers and surrounding land. Everyone of these cars were NOT covered. There were too many cars to count as we were traveling opposite directions. When are we going to stop selling out our beautiful gorge? If we don't protect it, no one else will. Hauling coal on one side and now oil on the other. What are you thinking? It is time to say NO. No more tracks! No more trains! We don't need more trains going through our community.
Patricia Rolen
The Dalles
Sent from my iPhone

PC 2 1-379

wcplanning wcplanning <wcplanning@co.wasco.or.us>

RE: Union Pacific Rail Double-track Application, File number PLASAR-15-01-0004

1 message

Laurie Dougherty <lauriedougherty@gmail.com>
Reply-To: lauriedougherty@gmail.com
To: wcplanning@co.wasco.or.us

Tue, Sep 6, 2016 at 4:41 PM

Laurie Dougherty
462 20th St. SE
Salem, OR 97301

September 6, 2016

Dear Wasco County Planning Commission,

The Columbia River Gorge is a national treasure. We who live in Oregon are fortunate to have this magnificent river so close to home and we bear a particular responsibility to protect its beauty and its economic vitallity. We also bear a responsibility to protect the health and safety of the communities in the Gorge. The explosive oil train wreck in Mosier in June showed what can happen and it could have been much worse. I concur with following statement prepared by the Friends of the Columbia Gorge and urge the Wasco County Planning Commission not to allow Union Pacific to build new track in the National Scenic Area of the Columbia Gorge.

The oil train derailment and fire in Mosier on June 3, 2016 affirmed our worst fears about the transport of oil-by-rail through the Columbia River Gorge National Scenic Area and our neighborhoods. The fact that Union Pacific so quickly started running oil trains through the Gorge after this disaster, despite requests from the government of Mosier as well as Governor Brown and our Congressional representation that they halt oil shipments until the safety issues could be addressed, demonstrates that Union Pacific cares nothing for the safety of our communities and environment. Union Pacific is not to be trusted, and any effort to expand or continue oil shipments through the Gorge should be halted.

I am very concerned by Union Pacific Railroad's application to construct a new rail track near Mosier, OR. The new track and resulting increase in number, length and speed of trains pose significant risks to the National Scenic Area, the Columbia River, public health, and the environment. This is particularly true in light of the proposals to build new coal and crude oil terminals throughout the Northwest which would result in a significant increase in traffic of coal trains, and dangerous and explosive oil trains through the Gorge. I ask you to deny this application for the following reasons:

• Increase in oil-by-rail: The project would facilitate the transport of oil, including explosive Bakken oil, by rail through the Columbia River Gorge National Scenic Area. Union Pacific routinely operates oil trains at speeds far in excess of the puncture threshold of oil tank cars, including DOT 111s, CPC 1232s and even the new rail cars required by the USDOT's oil tank car safety rule and the FAST Act passed by Congress in 2015. Oil trains are inherently unsafe: Approval of this project would increase number, length, and speed of trains passing through the Columbia River Gorge, thereby increase the risks of catastrophic accidents involving oil spills, explosions and fires. Two of the criteria for conditional use review require a determination that the proposed use will not burden fire facilities and available services, nor significantly increase fire hazards, fire suppression costs, or risks to fire suppression personnel. In light of the Mosier incident, I ask you to deny the permit on these grounds.

• The project is inconsistent with the purposes of the National Scenic Area Act: The project would pass through some of the most highly protected lands in the National Scenic Area. The project could increase the number of trains passing through the Gorge, the length of trains passing through the Gorge and the speed of trains. This would adversely affect scenic, natural, cultural and recreation resources and endanger local communities.

• A recent report from Whiteside & Associates and Fauth & Associates found that Union Pacific's statements of how much this rail expansion would increase train traffic through the Gorge were significantly underestimated. Union Pacific had claimed the expansion could increase traffic by 5 to 7 trains per day, while the report finds it could increase train traffic by 10 times this amount, to up to 75 to 100 trains per day.

• The Federal Railroad Administration (FRA) released a report in June finding that Union Pacific was at fault for the oil train derailment and fire in Mosier, OR because they failed to follow safety and rail inspection requirements. According to the FRA, Union Pacific perennially has poor accident statistics when compared with its peers. The industry average of

accidents caused by tracks, signals, or equipment is 44% and it is 56% for Union Pacific. This demonstrates the pattern of inadequate maintenance done by Union Pacific.

• The project would harm the community of Mosier: The project would create a double-track through the Mosier Urban Area, negatively impacting the local community and environment.

• The project would harm air quality: Air quality within the Columbia River Gorge National Scenic Area is degraded by emissions from both mobile and stationary sources. Diesel emissions from an increase in train traffic would adversely affect air quality and visibility. This violates at least one of the criteria for conditional use review.

• The project should be reviewed as new development: Considering the size and potential impacts on the community and surrounding environment, this project should be considered a new facility rather than an expansion. These are new tracks and thus a new use.

• The project is not necessary to provide a public service. Union Pacific currently provides adequate rail service through the Columbia River Gorge. Even if the project is necessary, there are alternatives that have less adverse impacts to resources within the Columbia River Gorge National Scenic Area, such as siting the project outside of the National Scenic Area.

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Sincerely,
Laurie Dougherty

wcplanning wcplanning <wcplanning@co.wasco.or.us>

RE: Union Pacific Rail Double-track Application, File number PLASAR-15-01-0004

1 message

Neil Mangrum <neilmangrum@gmail.com>
Reply-To: neilmangrum@gmail.com
To: wcplanning@co.wasco.or.us

Tue, Sep 6, 2016 at 3:31 PM

Neil Mangrum
518 3rd Ave.
Dallesport, WA 98617

September 6, 2016

Dear Wasco County Planning Commission,

The oil train derailment and fire in Mosier on June 3, 2016 affirmed our worst fears about the transport of oil-by-rail through the Columbia River Gorge National Scenic Area and our neighborhoods. The fact that Union Pacific so quickly started running oil trains through the Gorge after this disaster, despite requests from the government of Mosier as well as Governor Brown and our Congressional representation that they halt oil shipments until the safety issues could be addressed, demonstrates that Union Pacific cares nothing for the safety of our communities and environment. Union Pacific is not to be trusted, and any effort to expand or continue oil shipments through the Gorge should be halted.

I am very concerned by Union Pacific Railroad's application to construct a new rail track near Mosier, OR. The new track and resulting increase in number, length and speed of trains pose significant risks to the National Scenic Area, the Columbia River, public health, and the environment. This is particularly true in light of the proposals to build new coal and crude oil terminals throughout the Northwest which would result in a significant increase in traffic of coal trains, and dangerous and explosive oil trains through the Gorge. I ask you to deny this application for the following reasons:

• Increase in oil-by-rail: The project would facilitate the transport of oil, including explosive Bakken oil, by rail through the Columbia River Gorge National Scenic Area. Union Pacific routinely operates oil trains at speeds far in excess of the puncture threshold of oil tank cars, including DOT 111s, CPC 1232s and even the new rail cars required by the USDOT's oil tank car safety rule and the FAST Act passed by Congress in 2015. Oil trains are inherently unsafe: Approval of this project would increase number, length, and speed of trains passing through the Columbia River Gorge, thereby increase the risks of catastrophic accidents involving oil spills, explosions and fires. Two of the criteria for conditional use review require a determination that the proposed use will not burden fire facilities and available services, nor significantly increase fire hazards, fire suppression costs, or risks to fire suppression personnel. In light of the Mosier incident, I ask you to deny the permit on these grounds.

• The project is inconsistent with the purposes of the National Scenic Area Act: The project would pass through some of the most highly protected lands in the National Scenic Area. The project could increase the number of trains passing through the Gorge, the length of trains passing through the Gorge and the speed of trains. This would adversely affect scenic, natural, cultural and recreation resources and endanger local communities.

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Sincerely,
Neil Mangrum

wcplanning wcplanning <wcplanning@co.wasco.or.us>

RE: Union Pacific Rail Double-track Application, File number PLASAR-15-01-0004

2 messages

Nancy Cushwa <tenwa@jps.net> Tue, Sep 6, 2016 at 2:41 PM
Reply-To: tenwa@jps.net
To: wcplanning@co.wasco.or.us

Nancy Cushwa
2715 N. Terry St
Portland, OR 97217

September 6, 2016

Dear Wasco County Planning Commission,

The oil train derailment and fire in Mosier on June 3, 2016 affirmed our worst fears about the transport of oil-by-rail through the Columbia River Gorge National Scenic Area and our neighborhoods. The fact that Union Pacific so quickly started running oil trains through the Gorge after this disaster, despite requests from the government of Mosier as well as Governor Brown and our Congressional representation that they halt oil shipments until the safety issues could be addressed, demonstrates that Union Pacific cares nothing for the safety of our communities and environment. Union Pacific is not to be trusted, and any effort to expand or continue oil shipments through the Gorge should be halted.

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Sincerely,
Peter Teneau

Nancy Cushwa <tenwa@jps.net> Tue, Sep 6, 2016 at 2:41 PM
Reply-To: tenwa@jps.net
To: wcplanning@co.wasco.or.us

[Quoted text hidden]
Nancy Cushwa

wcplanning wcplanning <wcplanning@co.wasco.or.us>

RE: Union Pacific Rail Double-track Application, File number PLASAR-15-01-0004

1 message

James Loacker <jdloacker@hotmail.com>
Reply-To: jdloacker@hotmail.com
To: wcplanning@co.wasco.or.us

Tue, Sep 6, 2016 at 1:01 PM

James Loacker
PO Box 1103
Manzanita, OR 97130-1103

September 6, 2016

Dear Wasco County Planning Commission,

I oppose the Union Pacific's proposal for construction of four miles of mainline track through the Columbia River Gorge National Scenic Area. Expansion of rail, particularly to help facilitate dangerous oil trains, is an unacceptable threat and risk to the Columbia River Gorge and our communities. I believe all the specific objections have been presented and I agree with them. Thank you for letting me comment.

Sincerely,
James Loacker

wcplanning wcplanning <wcplanning@co.wasco.or.us>

RE: Union Pacific Rail Double-track Application, File number PLASAR-15-01-0004

1 message

MariRuth Petzing <mpetzing@gmail.com>
Reply-To: mpetzing@gmail.com
To: wcplanning@co.wasco.or.us

Tue, Sep 6, 2016 at 12:51 PM

MariRuth Petzing
1020 Sherman Ave Apt 3
Hood River, OR 97031-1443

September 6, 2016

Dear Wasco County Planning Commission,

I am very concerned by Union Pacific Railroad's application to construct a new rail track near Mosier, OR. The new track and resulting increase in number, length and speed of trains pose significant risks to the National Scenic Area, the Columbia River, public health, and the environment. This is particularly true in light of the proposals to build new coal and crude oil terminals throughout the Northwest which would result in a significant increase in traffic of coal and oil trains through the Gorge. I ask you to deny this application for the following reasons:

• Climate change: The purpose of the proposed expansion is to be able to increase shipping of fossil fuels to proposed facilities along the coast. The continued burning of fossil fuels and resulting climate change poses as existential threat to our society. We must immediately work to transition away from fossil fuels and towards renewable sources of energy. We cannot continue to develop fossil fuel infrastructure.

• The project is inconsistent with the purposes of the National Scenic Area Act: The project would pass through some of the most highly protected lands in the National Scenic Area. The project could increase the number of trains passing through the Gorge, the length of trains passing through the Gorge and the speed of trains. This would adversely affect scenic, natural, cultural and recreation resources and endanger local communities.

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• The Federal Railroad Administration (FRA) released a report in June finding that Union Pacific was at fault for the oil train derailment and fire in Mosier, OR because they failed to follow safety and rail inspection requirements. According to the FRA, Union Pacific perennially has poor accident statistics when compared with its peers. The industry average of accidents caused by tracks, signals, or equipment is 44% and it is 56% for Union Pacific. This demonstrates the pattern of inadequate maintenance done by Union Pacific.

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Sincerely,
MariRuth Petzing

wcplanning wcplanning <wcplanning@co.wasco.or.us>

RE: Union Pacific Rail Double-track Application, File number PLASAR-15-01-0004

1 message

Don Stephens <shreddad@gmail.com>
Reply-To: shreddad@gmail.com
To: wcplanning@co.wasco.or.us

Tue, Sep 6, 2016 at 12:41 PM

Don Stephens
908 SE Cora St
Portland, OR 97202-5019

September 6, 2016

Dear Wasco County Planning Commission,

In addition to the important points described below, this issue is particularly concerning to me. I own property just west of The Dalles, uphill from the railroad tracks, near the golf course. Two years ago my property was decimated by a wildfire that swept through powered by the winds that are so prevalent there. Additional oil trains will greatly increase the probability and severity of wildfires. Please oppose any increase in oil train traffic through the Gorge.

The oil train derailment and fire in Mosier on June 3, 2016 affirmed our worst fears about the transport of oil-by-rail through the Columbia River Gorge National Scenic Area and our neighborhoods. The fact that Union Pacific so quickly started running oil trains through the Gorge after this disaster, despite requests from the government of Mosier as well as Governor Brown and our Congressional representation that they halt oil shipments until the safety issues could be addressed, demonstrates that Union Pacific cares nothing for the safety of our communities and environment. Union Pacific is not to be trusted, and any effort to expand or continue oil shipments through the Gorge should be halted.

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Sincerely,
Don Stephens

wcplanning wcplanning <wcplanning@co.wasco.or.us>

RE: Union Pacific Rail Double-track Application, File number PLASAR-15-01-0004

1 message

Linda Mather <shindi44@gmail.com>
Reply-To: shindi44@gmail.com
To: wcplanning@co.wasco.or.us

Tue, Sep 6, 2016 at 12:01 PM

Linda Mather
1709 NE 78th Street, #138
Vancouver, WA 98665

September 6, 2016

Dear Wasco County Planning Commission,

The oil train derailment and fire in Mosier on June 3, 2016 affirmed our worst fears about the transport of oil-by-rail through the Columbia River Gorge National Scenic Area and our neighborhoods. The fact that Union Pacific so quickly started running oil trains through the Gorge after this disaster, despite requests from the government of Mosier as well as Governor Brown and our Congressional representation that they halt oil shipments until the safety issues could be addressed, demonstrates that Union Pacific cares nothing for the safety of our communities and environment. Union Pacific is not to be trusted, and any effort to expand or continue oil shipments through the Gorge should be halted.

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Sincerely,
Linda Mather

wcplanning wcplanning <wcplanning@co.wasco.or.us>

RE: Union Pacific Rail Double-track Application, File number PLASAR-15-01-0004

1 message

Erika Rench <erench@gorge.net>
Reply-To: erench@gorge.net
To: wcplanning@co.wasco.or.us

Tue, Sep 6, 2016 at 9:51 AM

Erika Rench
2019 Montello Ave
Hood River, OR 97031

September 6, 2016

Dear Wasco County Planning Commission,

I was born and raised in Idaho where there was an expression that shit rolls downhill. Wasco county and where I live in Hood River County- we are the same. What impacts Wasco County, impacts Hood River County.

The oil train wreck impacted us all. Our people, our towns, our emergency plans, our water. Union Pacific is not part of our town but they sure speak like they are. If they were then why did Union Pacific start running oil trains through the Gorge after the Mosier disaster, despite requests from the government of Mosier as well as Governor Brown and our Congressional representation? Like a tourist passing through, Union Pacific gets what they want and moves on down the line.

As a resident here in the Gorge I am very concerned by Union Pacific Railroad's application to construct a new rail track near Mosier, OR to increase number, length and speed of trains. The risks to the National Scenic Area, the Columbia River, public health, and the environment are too great.

I ask you to deny this application for the following reasons:

• Increase in oil-by-rail: Explosive Bakken oil transported by rail through the Columbia River Gorge National Scenic Area is too dangerous. Union Pacific routinely operates oil trains at speeds far in excess of the puncture threshold of oil tank cars, including DOT 111s, CPC 1232s and even the new rail cars required by the USDOT's oil tank car safety rule and the FAST Act passed by Congress in 2015. Oil trains are inherently unsafe: Approval of this project would increase number, length, and speed of trains passing through the Columbia River Gorge, thereby increase the risks of catastrophic accidents involving oil spills, explosions and fires. Two of the criteria for conditional use review require a determination that the proposed use will not burden fire facilities and available services, nor significantly increase fire hazards, fire suppression costs, or risks to fire suppression personnel. In light of the Mosier incident, I ask you to deny the permit on these grounds.

• The National Scenic Area Act must also be mandated for rails as well and this project would pass through some of the most highly protected lands in the National Scenic Area and would adversely affect scenic, natural, cultural and recreation resources and endanger local communities.

• Too many trains a day.

• The Federal Railroad Administration (FRA) faulted Union Pacific for the train derailment at Mosier, more trains more potential for more wrecks, fires, devastation.

• Mosier is a town wanting to attract more economic stability, more people more business not more tracks. More tracks would harm Mosier.

• Air quality within the Columbia River Gorge National Scenic Area is degraded by emissions from both mobile and stationary sources. Diesel emissions from an increase in train traffic would adversely affect air quality and visibility. This violates at least one of the criteria for conditional use review.

• The project should be reviewed as new development: Considering the size and potential impacts on the community and

surrounding environment, this project should be considered a new facility rather than an expansion. These are new tracks and thus a new use.

• The project is not necessary to provide a public service. Union Pacific currently provides adequate rail service through the Columbia River Gorge. Even if the project is necessary, there are alternatives that have less adverse impacts to resources within the Columbia River Gorge National Scenic Area, such as siting the project outside of the National Scenic Area.

• Adverse impacts to scenic resources: The construction of double-tracking and related development would cause adverse impacts to scenic resources in violation of County ordinance, particularly the protected views from designated key viewing areas.

•The proposed 6 acre rock crushing area adjacent to Memaloose State Park is not allowed under County ordinances and would have extreme scenic and recreation impacts.

• Harm to parks and recreation resources: The project would construct an additional rail line through Memaloose State Park, which would lead to trains traveling at higher speeds through the recreation area. This would adversely affect recreation resources and endanger public safety. Oregon Parks and Recreation Department must ensure that any sale of land would not conflict with the National Scenic Area Recreation Development Plan, which includes plans to expand Memaloose Campground and improve access to the Columbia River. Oregon Parks should deny the sale of our park land for rail expansion: OPRD may not sell any land to Union Pacific without first adopting findings that the land is either not needed for public use or that the sale would further the public interest.

• Threats to protected cultural resources: The project area has a very high probability of containing Native American cultural resource sites that could be adversely affected in violation of County ordinance.

• Harm to wetlands: The project would require large amounts of fill in multiple wetlands adjacent to the Columbia River. Filling these wetlands adversely affect wetland habitat and is not in the public's interest. Filling wetlands is prohibited in the Special Management Areas of the National Scenic Area.

Sincerely,Erika Rench
Erika Rench

wcplanning wcplanning <wcplanning@co.wasco.or.us>

RE: Union Pacific Rail Double-track Application, File number PLASAR-15-01-0004

1 message

Dave Shelman <dave.w.shelman@gmail.com> Tue, Sep 6, 2016 at 9:41 AM
Reply-To: dave.w.shelman@gmail.com
To: wcplanning@co.wasco.or.us

Dave Shelman
36141 SE Hurlburt Rd
Corbett, OR 97019-8656

September 6, 2016

Dear Wasco County Planning Commission,

Dear Planning Commission members:

Re: The Union Pacific proposed Mosier rail expansion project

What is the right thing to do? The staff recommendation, if approved by the Commission, would favor development of commerce at the expense of residences of the Gorge, the tribes of the Gorge, visitors to the National Scenic Area and the future well being of the Columbia River. It would dramatically compromise the intent of the National Scenic Area that has been in place for 25 years.

The nature of a "quasi-judicial" hearing is not clear to me, so it is also not clear what authority the Commission actually has in this decision. What is clear to me, from my career as an architect, is that conditions attached to planning decisions, are only as meaningful as the governing agency has the ability to enforce them. And that is highly limited, to say the least.

There are at least 3 solid grounds to disapprove this project:

1. It does not meet the zoning definition:
   "General Management Area Large Scale and Small-Scale Agriculture
   (A-1 (40) and A-2 (80), Open Space, and Water; and Special Management Area Public Recreation, Agriculture, and Open Space.Type III"

2. If the Commission accepts this description of impact, it is being extremely naïve about the railroads true intentions:

"The proposed development includes physical improvements to an
existing railroad corridor which currently contains an average of 20 to 30 trains per day, carrying a variety of commodities. The development does not propose changes to specifically enable any more of any one particular commodity and does not proposed to significantly increase rail traffic. In sum, the proposed project does not appear to directly impact the amount of particulate matter resulting from any one commodity, but does appear to have some potential to decrease diesel locomotive emissions.
A condition of approval is included to require the covering of coal cars."

This project is only one section of a years long upgrade to the UP rail lines to prepare for increases in coal and oil trains. They have spent too much money on these improvements to be willing to limit traffic or meet the conditions that the staff recommends.

3. This is the key:
   If this proposal is approved, and (!) even if Union Pacific complies with all conditions, and no accidents ever occur (!) and this kind of traffic begins pouring through the NSA, the very qualities that originally qualified it to be so designated, will no longer be true of this amazing natural wonder. The traffic and all that is associated with it (length of trains, pollution, risks to first responders in local communities, etc.)

Sincerely,
Dave Shelman

wcplanning wcplanning <wcplanning@co.wasco.or.us>

RE: Union Pacific Rail Double-track Application, File number PLASAR-15-01-0004

1 message

Kelly Hallam <kelly.oconnor9@gmail.com> Tue, Sep 6, 2016 at 9:41 AM
Reply-To: kelly.oconnor9@gmail.com
To: wcplanning@co.wasco.or.us

Kelly Hallam
14837 SE Rupert Dr
Milwaukie, OR 97267-2701

September 6, 2016

Dear Wasco County Planning Commission,

The oil train derailment and fire in Mosier on June 3, 2016 affirmed our worst fears about the transport of oil-by-rail through the Columbia River Gorge National Scenic Area and our neighborhoods. The fact that Union Pacific so quickly started running oil trains through the Gorge after this disaster, despite requests from the government of Mosier as well as Governor Brown and our Congressional representation that they halt oil shipments until the safety issues could be addressed, demonstrates that Union Pacific cares nothing for the safety of our communities and environment. Union Pacific is not to be trusted, and any effort to expand or continue oil shipments through the Gorge should be halted.

I am very concerned by Union Pacific Railroad's application to construct a new rail track near Mosier, OR. The new track and resulting increase in number, length and speed of trains pose significant risks to the National Scenic Area, the Columbia River, public health, and the environment. This is particularly true in light of the proposals to build new coal and crude oil terminals throughout the Northwest which would result in a significant increase in traffic of coal trains, and dangerous and explosive oil trains through the Gorge. I ask you to deny this application for the following reasons:

• Increase in oil-by-rail: The project would facilitate the transport of oil, including explosive Bakken oil, by rail through the Columbia River Gorge National Scenic Area. Union Pacific routinely operates oil trains at speeds far in excess of the puncture threshold of oil tank cars, including DOT 111s, CPC 1232s and even the new rail cars required by the USDOT's oil tank car safety rule and the FAST Act passed by Congress in 2015. Oil trains are inherently unsafe: Approval of this project would increase number, length, and speed of trains passing through the Columbia River Gorge, thereby increase the risks of catastrophic accidents involving oil spills, explosions and fires. Two of the criteria for conditional use review require a determination that the proposed use will not burden fire facilities and available services, nor significantly increase fire hazards, fire suppression costs, or risks to fire suppression personnel. In light of the Mosier incident, I ask you to deny the permit on these grounds.

• The project is inconsistent with the purposes of the National Scenic Area Act: The project would pass through some of the most highly protected lands in the National Scenic Area. The project could increase the number of trains passing through the Gorge, the length of trains passing through the Gorge and the speed of trains. This would adversely affect scenic, natural, cultural and recreation resources and endanger local communities.

• A recent report from Whiteside & Associates and Fauth & Associates found that Union Pacific's statements of how much this rail expansion would increase train traffic through the Gorge were significantly underestimated. Union Pacific had claimed the expansion could increase traffic by 5 to 7 trains per day, while the report finds it could increase train traffic by 10 times this amount, to up to 75 to 100 trains per day.

• The Federal Railroad Administration (FRA) released a report in June finding that Union Pacific was at fault for the oil train derailment and fire in Mosier, OR because they failed to follow safety and rail inspection requirements. According to the FRA, Union Pacific perennially has poor accident statistics when compared with its peers. The industry average of accidents caused by tracks, signals, or equipment is 44% and it is 56% for Union Pacific. This demonstrates the pattern of inadequate maintenance done by Union Pacific.

• The project would harm the community of Mosier: The project would create a double-track through the Mosier Urban Area, negatively impacting the local community and environment.

• The project would harm air quality: Air quality within the Columbia River Gorge National Scenic Area is degraded by

emissions from both mobile and stationary sources. Diesel emissions from an increase in train traffic would adversely affect air quality and visibility. This violates at least one of the criteria for conditional use review.

• The project should be reviewed as new development: Considering the size and potential impacts on the community and surrounding environment, this project should be considered a new facility rather than an expansion. These are new tracks and thus a new use.

• The project is not necessary to provide a public service. Union Pacific currently provides adequate rail service through the Columbia River Gorge. Even if the project is necessary, there are alternatives that have less adverse impacts to resources within the Columbia River Gorge National Scenic Area, such as siting the project outside of the National Scenic Area.

• Adverse impacts to scenic resources: The construction of double-tracking and related development would cause adverse impacts to scenic resources in violation of County ordinance, particularly the protected views from designated key viewing areas.

•The proposed 6 acre rock crushing area adjacent to Memaloose State Park is not allowed under County ordinances and would have extreme scenic and recreation impacts.

• Harm to parks and recreation resources: The project would construct an additional rail line through Memaloose State Park, which would lead to trains traveling at higher speeds through the recreation area. This would adversely affect recreation resources and endanger public safety. Oregon Parks and Recreation Department must ensure that any sale of land would not conflict with the National Scenic Area Recreation Development Plan, which includes plans to expand Memaloose Campground and improve access to the Columbia River. Oregon Parks should deny the sale of our park land for rail expansion: OPRD may not sell any land to Union Pacific without first adopting findings that the land is either not needed for public use or that the sale would further the public interest.

• Threats to protected cultural resources: The project area has a very high probability of containing Native American cultural resource sites that could be adversely affected in violation of County ordinance.

• Harm to wetlands: The project would require large amounts of fill in multiple wetlands adjacent to the Columbia River. Filling these wetlands adversely affect wetland habitat and is not in the public's interest. Filling wetlands is prohibited in the Special Management Areas of the National Scenic Area.

Sincerely,
Kelly Hallam

wcplanning wcplanning <wcplanning@co.wasco.or.us>

RE: Union Pacific Rail Double-track Application, File number PLASAR-15-01-0004

1 message

Daniel Jaffee <dsjaffee@gmail.com>
Reply-To: dsjaffee@gmail.com
To: wcplanning@co.wasco.or.us

Tue, Sep 6, 2016 at 9:41 AM

Daniel Jaffee
4723 NE 14th Ave
Portland, OR 97211

September 6, 2016

Dear Wasco County Planning Commission,

I am writing you about the Union Pacific application to create a new section of double track near Mosier, OR. The oil train derailment and fire in Mosier on June 3, 2016 affirmed our worst fears about the transport of oil-by-rail through the Columbia River Gorge National Scenic Area and our neighborhoods. The fact that Union Pacific so quickly started running oil trains through the Gorge after this disaster, despite requests from the government of Mosier as well as Governor Brown and our Congressional representation that they halt oil shipments until the safety issues could be addressed, demonstrates that Union Pacific cares nothing for the safety of our communities and environment. Union Pacific is not to be trusted, and any effort to expand or continue oil shipments through the Gorge should be halted.

I am very concerned by Union Pacific Railroad's application to construct a new rail track near Mosier, OR. The new track and resulting increase in number, length and speed of trains pose significant risks to the National Scenic Area, the Columbia River, public health, and the environment. This is particularly true in light of the proposals to build new coal and crude oil terminals throughout the Northwest which would result in a significant increase in traffic of coal trains, and dangerous and explosive oil trains through the Gorge. I ask you to deny this application for the following reasons:

• Increase in oil-by-rail: The project would facilitate the transport of oil, including explosive Bakken oil, by rail through the Columbia River Gorge National Scenic Area. Union Pacific routinely operates oil trains at speeds far in excess of the puncture threshold of oil tank cars, including DOT 111s, CPC 1232s and even the new rail cars required by the USDOT's oil tank car safety rule and the FAST Act passed by Congress in 2015. Oil trains are inherently unsafe: Approval of this project would increase number, length, and speed of trains passing through the Columbia River Gorge, thereby increase the risks of catastrophic accidents involving oil spills, explosions and fires. Two of the criteria for conditional use review require a determination that the proposed use will not burden fire facilities and available services, nor significantly increase fire hazards, fire suppression costs, or risks to fire suppression personnel. In light of the Mosier incident, I ask you to deny the permit on these grounds.

• The project is inconsistent with the purposes of the National Scenic Area Act: The project would pass through some of the most highly protected lands in the National Scenic Area. The project could increase the number of trains passing through the Gorge, the length of trains passing through the Gorge and the speed of trains. This would adversely affect scenic, natural, cultural and recreation resources and endanger local communities.

• A recent report from Whiteside & Associates and Fauth & Associates found that Union Pacific's statements of how much this rail expansion would increase train traffic through the Gorge were significantly underestimated. Union Pacific had claimed the expansion could increase traffic by 5 to 7 trains per day, while the report finds it could increase train traffic by 10 times this amount, to up to 75 to 100 trains per day.

• The Federal Railroad Administration (FRA) released a report in June finding that Union Pacific was at fault for the oil train derailment and fire in Mosier, OR because they failed to follow safety and rail inspection requirements. According to the FRA, Union Pacific perennially has poor accident statistics when compared with its peers. The industry average of accidents caused by tracks, signals, or equipment is 44% and it is 56% for Union Pacific. This demonstrates the pattern of inadequate maintenance done by Union Pacific.

• The project would harm the community of Mosier: The project would create a double-track through the Mosier Urban Area, negatively impacting the local community and environment.

PC 2 1-401

• The project would harm air quality: Air quality within the Columbia River Gorge National Scenic Area is degraded by emissions from both mobile and stationary sources. Diesel emissions from an increase in train traffic would adversely affect air quality and visibility. This violates at least one of the criteria for conditional use review.

• The project should be reviewed as new development: Considering the size and potential impacts on the community and surrounding environment, this project should be considered a new facility rather than an expansion. These are new tracks and thus a new use.

• The project is not necessary to provide a public service. Union Pacific currently provides adequate rail service through the Columbia River Gorge. Even if the project is necessary, there are alternatives that have less adverse impacts to resources within the Columbia River Gorge National Scenic Area, such as siting the project outside of the National Scenic Area.

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• Harm to parks and recreation resources: The project would construct an additional rail line through Memaloose State Park, which would lead to trains traveling at higher speeds through the recreation area. This would adversely affect recreation resources and endanger public safety. Oregon Parks and Recreation Department must ensure that any sale of land would not conflict with the National Scenic Area Recreation Development Plan, which includes plans to expand Memaloose Campground and improve access to the Columbia River. Oregon Parks should deny the sale of our park land for rail expansion: OPRD may not sell any land to Union Pacific without first adopting findings that the land is either not needed for public use or that the sale would further the public interest.

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Yours Sincerely,
Daniel Jaffee

wcplanning wcplanning <wcplanning@co.wasco.or.us>

RE: Union Pacific Rail Double-track Application, File number PLASAR-15-01-0004

1 message

patrick mulcahey <renilep@me.com>
Reply-To: renilep@me.com
To: wcplanning@co.wasco.or.us

Tue, Sep 6, 2016 at 9:21 AM

patrick mulcahey
571 Skamania Landing Road
Stevenson, WA 98648

September 6, 2016

Dear Wasco County Planning Commission,

The oil train derailment and fire in Mosier on June 3, 2016 affirmed our worst fears about the transport of oil-by-rail through the Columbia River Gorge National Scenic Area and our neighborhoods. The fact that Union Pacific so quickly started running oil trains through the Gorge after this disaster, despite requests from the government of Mosier as well as Governor Brown and our Congressional representation that they halt oil shipments until the safety issues could be addressed, demonstrates that Union Pacific cares nothing for the safety of our communities and environment. Union Pacific is not to be trusted, and any effort to expand or continue oil shipments through the Gorge should be halted.

I am very concerned by Union Pacific Railroad's application to construct a new rail track near Mosier, OR. The new track and resulting increase in number, length and speed of trains pose significant risks to the National Scenic Area, the Columbia River, public health, and the environment. This is particularly true in light of the proposals to build new coal and crude oil terminals throughout the Northwest which would result in a significant increase in traffic of coal trains, and dangerous and explosive oil trains through the Gorge. I ask you to deny this application for the following reasons:

• Increase in oil-by-rail: The project would facilitate the transport of oil, including explosive Bakken oil, by rail through the Columbia River Gorge National Scenic Area. Union Pacific routinely operates oil trains at speeds far in excess of the puncture threshold of oil tank cars, including DOT 111s, CPC 1232s and even the new rail cars required by the USDOT's oil tank car safety rule and the FAST Act passed by Congress in 2015. Oil trains are inherently unsafe: Approval of this project would increase number, length, and speed of trains passing through the Columbia River Gorge, thereby increase the risks of catastrophic accidents involving oil spills, explosions and fires. Two of the criteria for conditional use review require a determination that the proposed use will not burden fire facilities and available services, nor significantly increase fire hazards, fire suppression costs, or risks to fire suppression personnel. In light of the Mosier incident, I ask you to deny the permit on these grounds.

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• A recent report from Whiteside & Associates and Fauth & Associates found that Union Pacific's statements of how much this rail expansion would increase train traffic through the Gorge were significantly underestimated. Union Pacific had claimed the expansion could increase traffic by 5 to 7 trains per day, while the report finds it could increase train traffic by 10 times this amount, to up to 75 to 100 trains per day.

• The Federal Railroad Administration (FRA) released a report in June finding that Union Pacific was at fault for the oil train derailment and fire in Mosier, OR because they failed to follow safety and rail inspection requirements. According to the FRA, Union Pacific perennially has poor accident statistics when compared with its peers. The industry average of accidents caused by tracks, signals, or equipment is 44% and it is 56% for Union Pacific. This demonstrates the pattern of inadequate maintenance done by Union Pacific.

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Sincerely,
patrick mulcahey

wcplanning wcplanning <wcplanning@co.wasco.or.us>

Proposed Union Pacific rail expansion hearing

1 message

jilbrkrb@aol.com <jilbrkrb@aol.com> Tue, Sep 6, 2016 at 9:15 AM
To: wcplanning@co.wasco.or.us

To the Wasco County Planning Commission:

Dear Sirs;

I am writing to let you know that my husband, Charles, and I are very much opposed to Union Pacific's (UP) proposed four mile rail expansion in the Columbia River Gorge through the Mosier area. This new track will result in a very large increase in the train traffic in the Columbia River Gorge National Scenic Area (NSA) which will inevitably cause a huge risk to the environment and public health of the entire area. The oil trains, carrying explosive Bakken oil through the NSA corridor, are literally dangerous "bomb" trains which, along with the coal trains, pose a real and substantial threat to the Gorge's environment and communities. These rail oil tankers are highly volatile and can spontaneously combust simply due to high temperatures which are so common in the summer. It is not only a matter of a derailment causing an explosion and fire, but often that of a tank exploding due to the high temperatures, which then causes a derailment and subsequent fires!

Union Pacific has not been honest about the extent of their proposed increase in rail traffic and also has a very poor safety record, demonstrating their inadequate maintenance of even their existing tracks and trains, let alone four miles of new tracks! This proposal threatens the innumerable scenic, recreational, cultural and environmental resources of the Columbia River Gorge and conflicts with all the protections and inherent purpose of the CRGNSA. This proposal would severely and negatively impact the countless wetlands and habitat along the Columbia River and would necessitate filling in many of these wetlands, which is totally unacceptable and actually violates the National Scenic Area Act, a federal mandate.

The disastrous oil train derailment and fire in Mosier on June 3, 2016 demonstrated our worst concerns and fears about the transportation of oil and/or coal through the NSA. It is obvious that UP does not care about the safety or resources of the Gorge, especially since they so rapidly started running more oil trains through Mosier so soon after the devastating disaster and before a full clean-up, even though Mosier City, Oregon's governor, many Congressional representatives and most of the local citizens requested that this oil rail traffic be stopped until all the safety issues were fully and adequately addressed.

One of the biggest threats to this arid area is devastating wild fire that is so prevalent, deadly and unstoppable, especially in the windy summer months. This is already a dangerous and undeniable menace to all who live anywhere in the vicinity and who are deeply invested in their homes, farms, businesses and communities. It is unthinkable that UP, in order to add to their profit margin, would so recklessly jeopardize one of Oregon's greatest national and world-class treasures in such a transparently greedy and arrogant proposal which only benefits UP and the foreign energy markets and which only adds more pollution and degradation to such a significant river, airshed and entire region. Union Pacific is using the Gorge only as a transportation corridor, with NO local benefit, for more dirty fossil fuels which are threatening all life on the planet and should be immediately phased out! All of this is being considered without even implementing an environmental impact statement. We urge the Commission to deny this expansion as well as to stop all future oil-by-rail or coal-by-rail shipments through the Gorge!

Furthermore, we agree with and concur with all the comments submitted by The Friends of the Gorge regarding the proposed Union Pacific rail expansion. We thank you for your attention.

Sincerely,

Jill and Charles Barker
P.O. Box 572
Mosier, OR 97040

PC 2 1-405

wcplanning wcplanning <wcplanning@co.wasco.or.us>

RE: Union Pacific Rail Double-track Application, File number PLASAR-15-01-0004

1 message

Elizabeth Bickford <feliner@gorge.net>
Reply-To: feliner@gorge.net
To: wcplanning@co.wasco.or.us

Tue, Sep 6, 2016 at 8:51 AM

Elizabeth Bickford
1930 Highway 35
Hood River, OR 97031-9550

September 6, 2016

Dear Wasco County Planning Commission,

The oil train derailment and fire in Mosier on June 3, 2016 affirmed our worst fears about the transport of oil-by-rail through the Columbia River Gorge National Scenic Area and our neighborhoods. The fact that Union Pacific so quickly started running oil trains through the Gorge after this disaster, despite requests from the government of Mosier as well as Governor Brown and our Congressional representation that they halt oil shipments until the safety issues could be addressed, demonstrates that Union Pacific cares nothing for the safety of our communities and environment. Union Pacific is not to be trusted, and any effort to expand or continue oil shipments through the Gorge should be halted.

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• The project would harm the community of Mosier: The project would create a double-track through the Mosier Urban Area, negatively impacting the local community and environment.

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emissions from both mobile and stationary sources. Diesel emissions from an increase in train traffic would adversely affect air quality and visibility. This violates at least one of the criteria for conditional use review.

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• Harm to parks and recreation resources: The project would construct an additional rail line through Memaloose State Park, which would lead to trains traveling at higher speeds through the recreation area. This would adversely affect recreation resources and endanger public safety. Oregon Parks and Recreation Department must ensure that any sale of land would not conflict with the National Scenic Area Recreation Development Plan, which includes plans to expand Memaloose Campground and improve access to the Columbia River. Oregon Parks should deny the sale of our park land for rail expansion: OPRD may not sell any land to Union Pacific without first adopting findings that the land is either not needed for public use or that the sale would further the public interest.

• Threats to protected cultural resources: The project area has a very high probability of containing Native American cultural resource sites that could be adversely affected in violation of County ordinance.

• Harm to wetlands: The project would require large amounts of fill in multiple wetlands adjacent to the Columbia River. Filling these wetlands adversely affect wetland habitat and is not in the public's interest. Filling wetlands is prohibited in the Special Management Areas of the National Scenic Area.

Sincerely,
Elizabeth Bickford

RECEIVED

SEP 12 2016

325 S Davis Road
Tygh Valley, OR 97063
September 9, 2016

Steve Kramer
Wasco County Commissioner
511 Washington Street Ste 302
The Dalles, OR 97058

Dear Commissioner Kramer:

I am a resident of Pine Hollow. My home is on property which boarders South County Road. The speed limit on this road (South County) needs to be posted at 25 mph, the residential speed according to all Oregon State Traffic Statutes that come under the Basic Rule. (Numbers: 801.100, 811.105, 811.111, 810.200, 801.430). The length of South County Road is eight tenth of a mile beginning at Dodson Road and ending at the South Pine Hollow Reservoir Boat Ramp. The road is 24 feet wide, has no sidewalks or shoulders, and the pavement is bordered by approximately one foot of loose gravel; the ground then slopes into 1 to 3 foot deep drainage ditches. Six roads intersect South County Road in that 8/10 of a mile. Numerous driveways which provide access to dwellings also intersect South County Road. Distance between these driveways averages 150 feet or less.

South County Road is too narrow and unsafe for the high speeds that are being allowed. With a speed gun, I have clocked people at 70 mph and others in the higher 60's. In addition, I have observed vehicles passing other vehicles, some of which were towing trailers. People who walk and bike along this road as well as those in automobiles who pull out of driveways and side roads are placing their lives in jeopardy in doing so. I have talked to residents who have given up walking due to the traffic and high speeds on this residential roadway.

In addition to posting 25 mph speed limit signs, painting a double yellow center line on South County Road would alert drivers that passing is illegal.

I have checked with the State of Oregon Department of Transportation office in Salem and with the head of Zone 4. Both of these state entities indicated in phone conversations that the speed should be 25 mph.

"The primary reason for establishing speed zones and speed limits is safety." These words are from the preface to The ODOT Speed Source Manual. My concern is safety. Posting speed signs on South County Road now is an opportunity for the Wasco County Commissioners and Road Department to be proactive in making this area of the county safer. Please do not wait for a serious accident to be the catalyst for posting speed signs.

Thank you for your attention to this request.

Respectfully,

Ronald R Ritchie

Ronald R. Ritchie

cc: Scott Hege, Wasco County Commissioner

Rod Runyon, Wasco County Commissioner

Lane Magill, Wasco County Sheriff

Wasco County Planning Department

Wasco County Road Department

Oregon State Department of Transportation, Zone 4

Oregon State Department of Transportation

GIANT TREES, CARMANAH VALLEY, Vancouver Island, British Columbia

A magnificent example of Canada's vanishing temperate rainforest, Carmanah Valley contains some of the world's tallest trees. This valley, threatened by logging, needs our protection. Write the Premier, (Parliament Buildings, Victoria, B.C. V8X 1X4) and Prime Minister Brian Mulroney (House of Commons, Ottawa, K1A 0A6) requesting that all of Carmanah Valley be added to neighbouring Pacific Rim National Park.

PORTLAND OR 970

08 SEP 2016 PM 11

USA Kingfisher POSTCARD

ASPCA

Ms. Susan Boyl
2030 NW 7th Pl.
Gresham, OR 97030-6619

RECEIVED

SEP 12 2016

Photo by Gary Lenz, courtesy Beautiful B.C. Magazine ©1990 Printed in Canada

To Members of the Wasco Co. Planning Dept.

Bakken fuel, the type that derailed in Moiser, OR June of this year is the most volatile of it's kind.

Be good stewards of the land for future generations and follow the will of the majority of it's citizens.

I was present for your hearing on Sept. 6th. Not one person spoke in favor of this application.

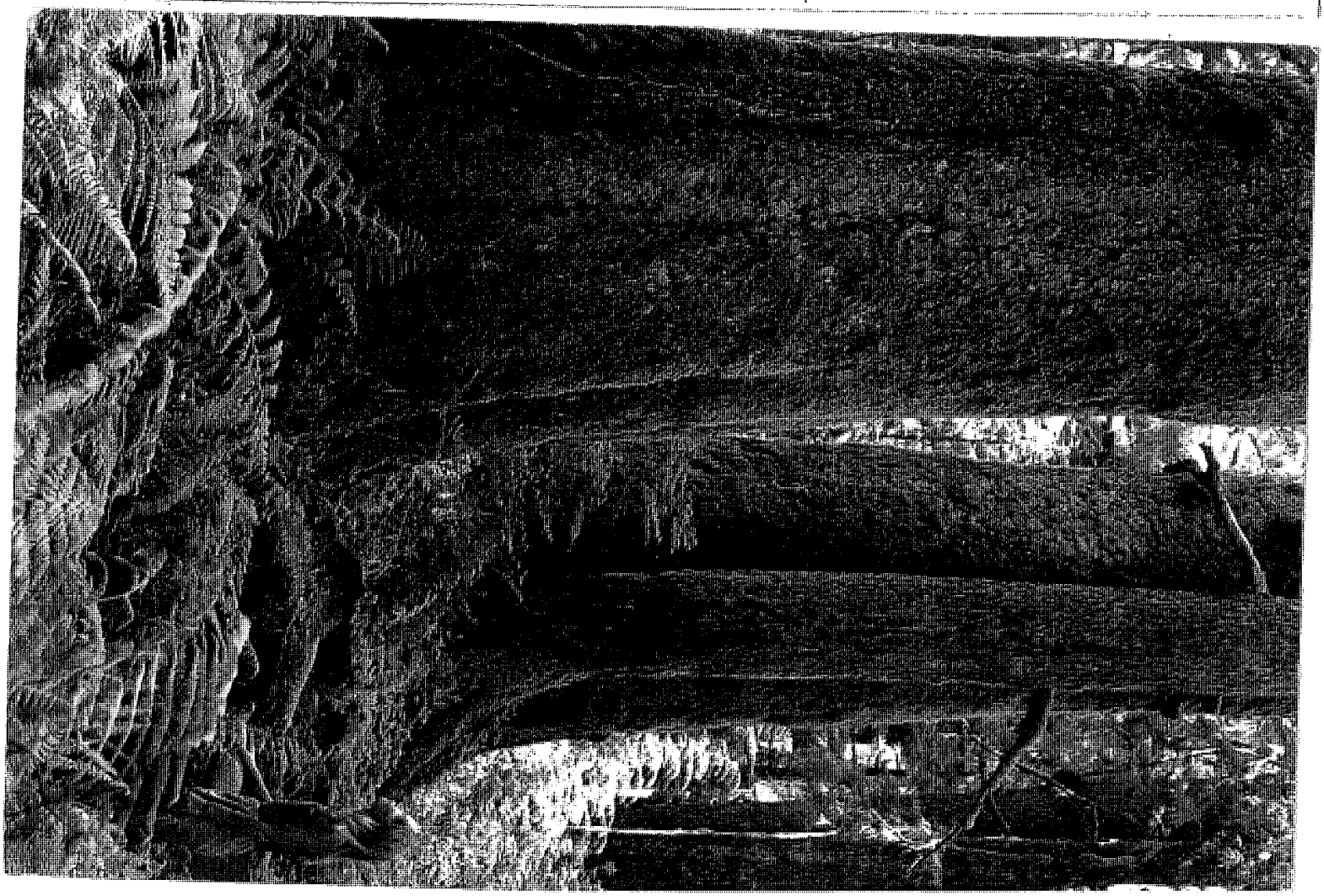
Do what is right — deny this application.

[signature]

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

For information contact:
Sierra Club of Western Canada
#314 – 620 View Street
Victoria, B.C. V8W 1J6
(604) 386-5255

97058-409799



17717 SW Washington Dr.
Aloha, OR 97078
August 31, 2016

Angie Brewer, Planning Director
Wasco County Planning and Development Office
2705 East Second St.
The Dalles, Oregon 97058

Dear Ms. Brewer and Commissioners:

I am writing concerning application PLASAR-15-01-004 for the Union Pacific Railroad (UPRR) second mainline track expansion project. I have a background in chemical engineering, and have studied rail transport in our region to become familiar with the risks and industry trends regarding the transport of crude oil by rail. This project is not in the best interest of Wasco County, as it presents significant danger to people, property, and the environment. Please deny it for the reasons below.

Oil transport is the primary goal

The second track is designed to increase oil-train shipments. While the proposal's wording attempts to disguise this, make no mistake. Oil trains are a very important part of UPRR's business. In the company's 2015 annual report, chemical transport makes up 17% of their overall business. While the breakout of crude oil in this category isn't disclosed, the report mentions several times that oil transport revenues dropped due to lower prices, impacting profitability. Oil trains are about a mile long, and the project need statement mentions "...decreasing the number of delayed or stopped trains, reducing barriers to industry-standard train lengths, and improving the efficiency and fluidity of train movements in this area, while maintaining safe operating conditions." It is almost a certainty that Union Pacific is working behind the scenes with Tesoro-Savage to create a backup rail route to Vancouver, Washington, for their proposed oil terminal there. When a derailment happens on the BNSF line in Washington, it will shut off access for oil trains to the terminal, possibly for months. Industry safety data indicate that once the terminal is in operation, every 18 months there could be an incident in the Columbia Gorge.[i] The only way to provide stable oil delivery to the terminal with such a high accident frequency is to have an alternate route. Even without the Vancouver terminal, the need for an alternate route exists today as BNSF transports oil on the Washington side of the gorge to refineries in Puget Sound.

Union Pacific's safety record

UPRR has the worst safety record of the seven Class I US railroads, those having annual carrier operating revenues of $250 million or more in 1991 dollars. The chart below shows accident rates for the leading railroads by year. UPRR has had a poorer safety record for the past ten years. Union Pacific has about a 25% market share and is the same size as BNSF. So their accident record can't be explained by their size. It indicates poor attention to safety that is part of the company's culture, not a short-term deviation.

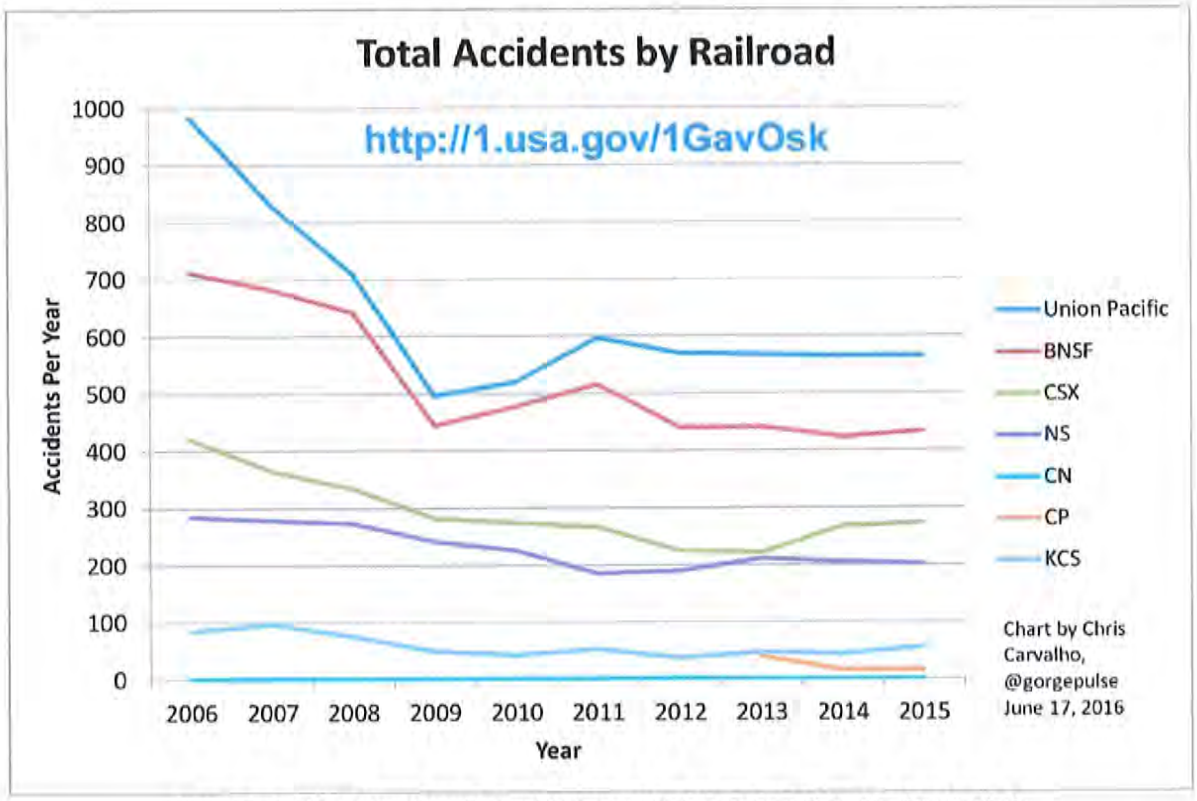


Figure 1. Accident data from Federal Railroad Administration Office of Safety Analysis

When we look more closely at the accident rates, UPRR's safety record for fire and violent rupture of cargo containers is responsible for around 75 percent of all such incidents in the US in the last two years, and their record has been poor starting around 2012 (Figure 2 below). The last two years, their rate was more than ten times that of BNSF. The data for Figures 1 and 2 were obtained from the Federal Railroad Administration's (FRA) accident record query tool at http://1.usa.gov/1GavOsk.

UPRR track maintenance was found to be at fault in the FRA preliminary findings report on the recent Mosier crude oil derailment (http://1.usa.gov/28Qkxjc). The derailment site is in the exact location where the mainline track expansion is proposed. Despite employing the industry's safer CPC-1232 tank cars, the accident still resulted in the release of 42,000 gallons of oil. We must conclude that transporting oil by rail is unsafe, and can't be made safe enough to have an acceptable risk with manageable impacts in the event of an accident.

The Oregonian/OregonLive obtained inspection records and reported (http://bit.ly/1Xhkd3A) that the FRA fined Union Pacific over $7 million from 2014 through 2015, more than any other US railroad. An Oregon Department of Transportation inspection found repeated safety violations the day before Union Pacific train cars carrying crude oil derailed and caught fire in Mosier. Conductors left trains unattended without setting brakes, the same negligence that led to the disastrous 2013 Lac-Mégantic oil-train derailment that killed 47 people. In other violations switches were left unlocked, allowing anyone to divert a train – which could lead to a collision or derailment.

In light of this atrocious safety record, Union Pacific should not be allowed to increase traffic anywhere in Wasco County until it can demonstrate that it has solved its safety problems. Any increase in traffic will result in increased accidents unless safety is improved. Because most regulation of the rail system is federal, communities have very few tools to protect against a rail operator's unsafe practices. One of the few tools the county has is to limit traffic by not allowing expansion. As a way to ensure long-term compliance, the county should not sell land to UPRR for right-of-way expansion purposes. Instead, it should lease the land to the railroad under terms that are revocable for poor safety. This approach gives the county leverage in the event that accident rates are not

improving, or if the railroad doesn't fully cover cleanup costs from an accident. Denial of this proposal is the only way the community can send the strongest possible message to UPRR that safety improvements are a non-negotiable requirement for doing business in the county.

2014

Selections: State - ALL, County - ALL
Type of Accident - Fire/violent rupture
Time Frame - From January 1975 To March 2016

Railroad	Total	Reportable Damage ($)	Casualty		Causes	
	Cnt	Amount	Kld	Inj	Eqp	Othr
Amtrak [ATK]	1	40,000	0	0	-	1
BNSF Rwy Co. [BNSF]	3	11,000	0	0	3	-
CSX Transportation [CSX]	2	20,000	0	0	1	1
Louisiana Southern [LAS]	1	102,800	0	0	1	-
Port Authority Trans Hudson [P	2	236,483	0	3	1	1
Southeastern Pennsylvania Tran	1	18,000	0	0	1	-
Union Pacific RR Co. [UP]	42	4,558,778	0	0	26	16
Wheeling & Lake Erie Rwy Co. [	1	10,709	0	0	1	-
Total Count all Railroads	53	4,997,770	0	3	34	19

http://1.usa.gov/1GavOsk

2015

Selections: State - ALL, County - ALL
Type of Accident - Fire/violent rupture
Time Frame - From January 1975 To March 2016

Railroad	Total	Reportable Damage ($)	Casualty		Causes	
	Cnt	Amount	Kld	Inj	Eqp	Othr
Amtrak [ATK]	3	611,484	0	0	1	2
Buckingham Branch RR Co. [BB	1	0	0	0	1	-
BNSF Rwy Co. [BNSF]	3	0	0	0	2	1
Canadian Pacific Rwy Co. [CP	2	500,000	0	0	1	1
CSX Transportation [CSX]	1	32,155	0	0	1	-
Kansas City Southern Rwy Co. [	1	900,000	0	0	-	1
Massachusetts Bay Transit Auth	1	100,000	0	0	1	-
Port Authority Trans Hudson [P	1	41,175	0	0	1	-
Southeastern Pennsylvania Tran	1	14,319	0	0	1	-
Union Pacific RR Co. [UP]	34	2,355,613	0	0	29	5
Wisconsin Central Ltd. [WC]	1	25,618	0	0	1	-
Total Count all Railroads	49	4,580,364	0	0	39	10

Figure 2. Fire and violent rupture accident detail, Federal Railroad Administration

Another example of lax safety standards is easily seen on the UPRR tracks east of The Dalles. Along this stretch of track are miles of abandoned telephone poles that were installed many years ago and are now in deteriorating condition. Some of the poles are leaning and could fall across the track, causing a derailment. These poles should have been removed once they were no longer in service. They are certainly not being maintained.

The project endangers sensitive lands

It's the duty of Wasco County to protect lands and habitat needed for survival of endangered or threatened species. The county would violate the public trust by approving this project. Memaloose State Park is a rare gem in the Columbia Gorge, with cultural and ecological resources such as rare plants, scenic beauty, unparalleled wildflower blooms, and Native American burial sites. An oil spill in the area could foul Memaloose Island and desecrate this important historic site. The wildflower fields of the Memaloose Hills and Mosier Plateau are some

of the most spectacular in the entire Columbia Gorge and an important driver of local tourism. We can't subject them to an unnatural source of increased fire risk.

UPRR has done a poor job of managing the lands it owns within the Columbia Gorge Scenic Area. The tracks host populations of Scotch Broom and Himalayan Blackberry, invasive species UPRR is doing nothing to control. The railroad is an east-west corridor for these plants to spread throughout the Gorge. Below is a photo at Eagle Creek, showing the healthy population of Scotch Broom with its yellow flowers. Until UPRR can demonstrate that it is managing existing lands for the benefit of the gorge, it shouldn't be allowed to obtain any more parcels.

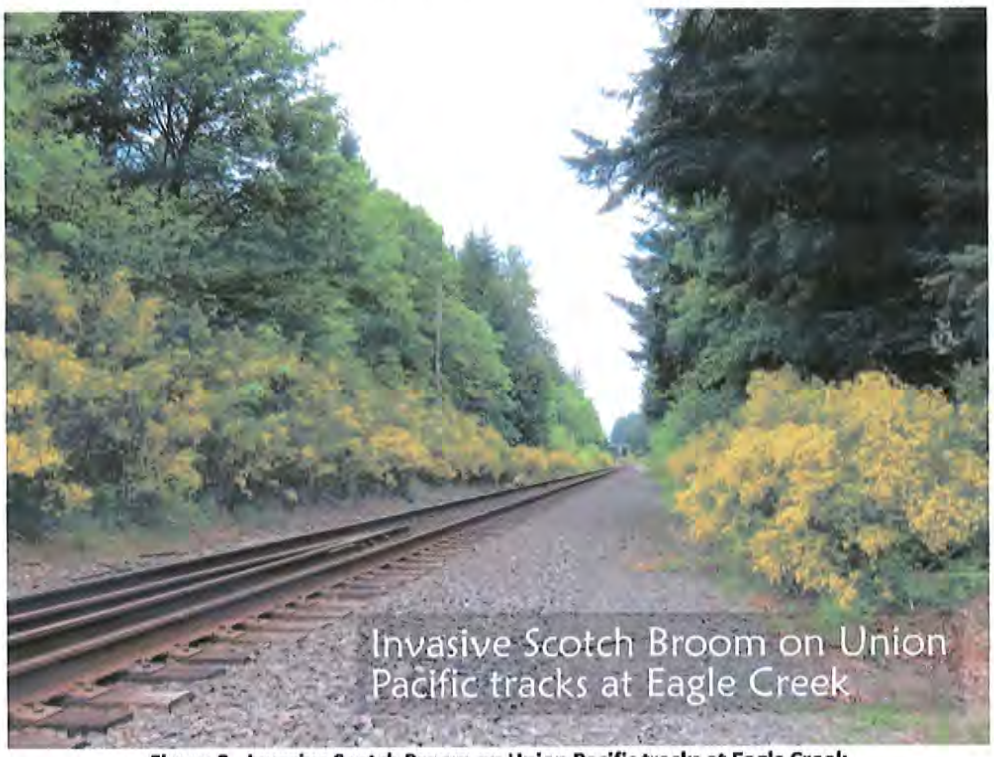


Figure 3. Invasive Scotch Broom on Union Pacific tracks at Eagle Creek

The railroad's proposal would take land that has excellent stewardship for invasive plant control and transfer it to a company that has a track record of poor stewardship. It would be a loss for our battle against invasive plants, and would set a precedent for more land to be placed in the hands of people that only want to extract profit from it. UPRR has shown repeatedly that it is not a responsible member of the community who works and sacrifices to improve the scenic and habitat resource to make the gorge a world-class tourism and recreation destination with economic benefits for local businesses.

The site location is high risk

Adding a second track in Mosier will increase the risk of a fire in a dry, windy portion of the Columbia Gorge. If an oil train burns, the result will be catastrophic. The Gorge Commission is seriously concerned about additional rail development for oil transport (http://bit.ly/1QtDkhW) and until the concerns in its letter are addressed, no further development should happen. Fires can happen even if a train isn't transporting oil so this risk is serious regardless of the cargo. Many homes, farms, and businesses in the area would also be harmed and lives endangered by an oil-train fire.

The planned track expansion is in close proximity to homes, businesses, and a school. In the Mosier derailment we saw evacuations, closure of the sewage treatment plant, and disruption to the water supply. Because it was a

calm day, the fire burned only a few trees but needed to burn for 14 hours because there is no known way to extinguish a crude oil fire owing to the extreme heat generated. Mosier's fire chief noted that foam could not be applied until the fire had cooled down enough by burning off the oil. Had it been a windy day as is often the case, the consequences would have been much worse. UPRR is now proposing that tracks be expanded in precisely the wrong location, an inhabited area.

The project will increase derailments

Derailment frequency increases when train length and train speeds increase. These are exactly the goals of the project plan. Derailment risk is a complicated subject. The current thinking is illustrated in Robert Anderson and Christopher Barkan's paper on this topic:

> *We observe that longer trains have an increased likelihood of being involved in a derailment. For a fixed number of cars; however, fewer train shipments are required for longer trains, thereby decreasing the overall risk that one or more trains will be involved in a derailment.*[ii]
>
> *...for a given position and train length, the increase in risk by shipment at 50 mph is 13-17% higher than at 25 mph.*[iii]

Anderson and Barkan's summary implies that longer trains are safer because for a given quantity of tank cars, longer trains will decrease the number of separate train trips required to deliver the cargo and reduce the overall risk. It's the same idea as trying to win a lottery by wagering a fixed number of tickets. Is it better to put them all into one drawing, or spread them out over several? Any statistician will tell you that it makes no difference at all if the odds of winning per drawing are the same. What is different is that UPRR intends to increase all four factors affecting derailment risk in tandem: the number of trains and railcars through the Columbia Gorge, the length of the trains, and the speed of the trains. Derailment risk absolutely goes up when speeds increase, trains are longer, more railcars move along the route, and when more trains travel on the tracks. The quoted risk reduction from longer trains is only realized if the total number of railcars shipped doesn't change. If more cars are shipped, this benefit vanishes. Their analysis indicates derailment risk decreases by about 17 percent by lengthening a train from 75 to 100 cars.[iv] The risk reduction shrinks to about 7 percent when the train length increases from 100 to 120 cars. It's highly likely UPRR is planning to increase oil shipments far more than seven percent, or they wouldn't devote the effort to this project.

As a requirement of the approval process, UPRR should furnish records to the county on the number of crude-oil tank cars shipped in the past four years, and projections of the number of cars to be shipped in the future, as well as the current and planned train lengths. Currently these figures are not public record, so there is no way to accurately estimate derailment risk. In order to understand the risk for present and future traffic, these numbers need to be disclosed. Washington does require disclosure.

It is possible to estimate recent crude-oil shipments in Oregon indirectly.[v] Before the Mosier accident, it is believed that UPRR was running around two unit trains per week through the Columbia Gorge. With that information we can use the following derailment risk chart (Figure 4, below) to determine the average number of months between incidents in the gorge. For the full analysis, see http://www.lensjoy.com/Blog/OUayInslee.htm.

To make this estimate, all one needs is the industry-quoted failure rate of 0.0023% for hazardous-materials shipments by rail, the average trip length, the distance the shipment travels through the Columbia Gorge, and the number of shipments per month. All these numbers are well known and not subject to bias.

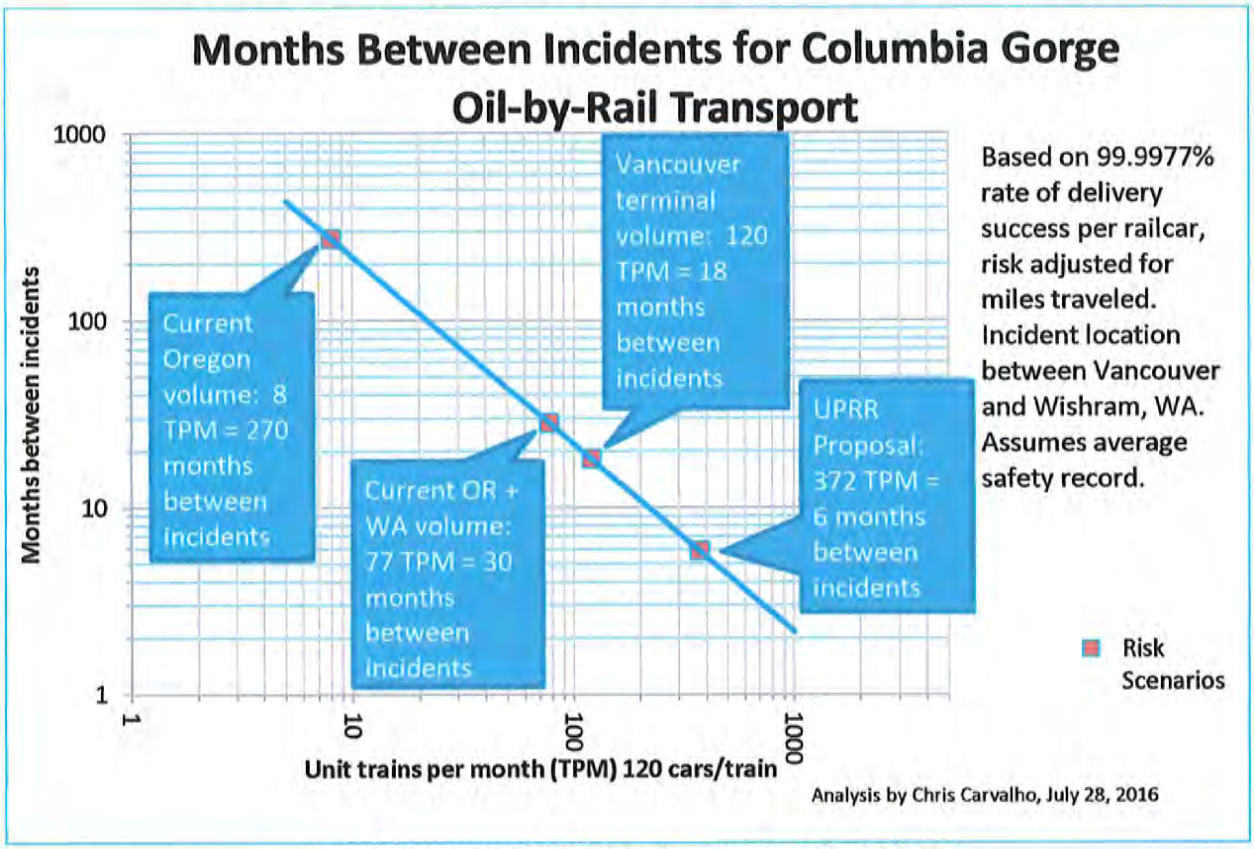


Figure 4. Risk scenarios for oil-by-rail transport in Columbia Gorge

The months between incidents somewhere in the Columbia Gorge range from 270 in Oregon alone using the railcar volume estimated before the Mosier derailment to 18 months in either Oregon or Washington if the Vancouver terminal is in operation. It's important to look at the numbers in the context of reality after the Mosier accident. How could an event happen after only three years of shipping crude by rail, when the estimate says it would take about 22 years? There are three major factors that could play a role in this discrepancy. First, a return-year (years between incidents) calculation can only give an average figure for random events, so after many events we would see the average match the calculated value. Any single event will happen on a random time scale. The second major factor is that the industry risk assumes an average safety record. Union Pacific's safety record is much worse, so the average time between incidents on their tracks will be shorter. Finally, oil-by-rail transport looks to be inherently more dangerous than the data used to establish industry-wide risk for hazardous materials shipments. It's also important to note that if we look at the current traffic levels in both Oregon and Washington, the industry risk predicts 30 months between incidents, but it cannot say whether it would be in Oregon or Washington. That prediction appears to match reality.

While we cannot know how much oil UPRR would ship after the expansion, in the near term it could be as much as what the proposed Vancouver terminal would handle, and that would mean 18 months between incidents in Oregon if UPRR rails are needed to move the oil. If oil export facilities are developed in Portland, expert consultants estimate that UPRR could run as many as twelve oil trains per day, or 372 per month.[vi] That level of traffic equates to an incident every six months. Our region simply can't afford to shoulder these levels of risk.

Since I prepared this risk analysis and presented it to Governor Inslee and published it in *The Oregonian* June 21 (http://bit.ly/28MVQ6S) no one has come forward to challenge it. Were the methodology flawed, I should have heard about it by now.

The project creates pollution and quality-of-life impacts

Oil trains produce volatile organic compound (VOC) emissions due to venting of oil vapors under certain conditions. When parked, these emissions can be unsafe for people and animals. Residents along the track will be harmed if exposed to these emissions. In March of this year, an oil train parked in front of the Full Sail Brewing plant in Hood River created emissions strong enough to be smelled by drivers in traffic along I-84 and people in the city's downtown. A second track will expose Mosier residents to increased emissions.

Much of the region's tourism business is located close to the river along with many residents. Increased rail activity in this corridor will produce more noise that harms the residents and businesses that depend on visitors who come to appreciate the peace, quiet, and beauty of the gorge.

Just a few days ago, we learned that groundwater in Mosier is contaminated from the oil release in the derailment there. It will cause environmental harm to a wetland, but fortunately didn't affect the public water supply because it was located at a higher elevation. Below is a chart of the contaminants found:

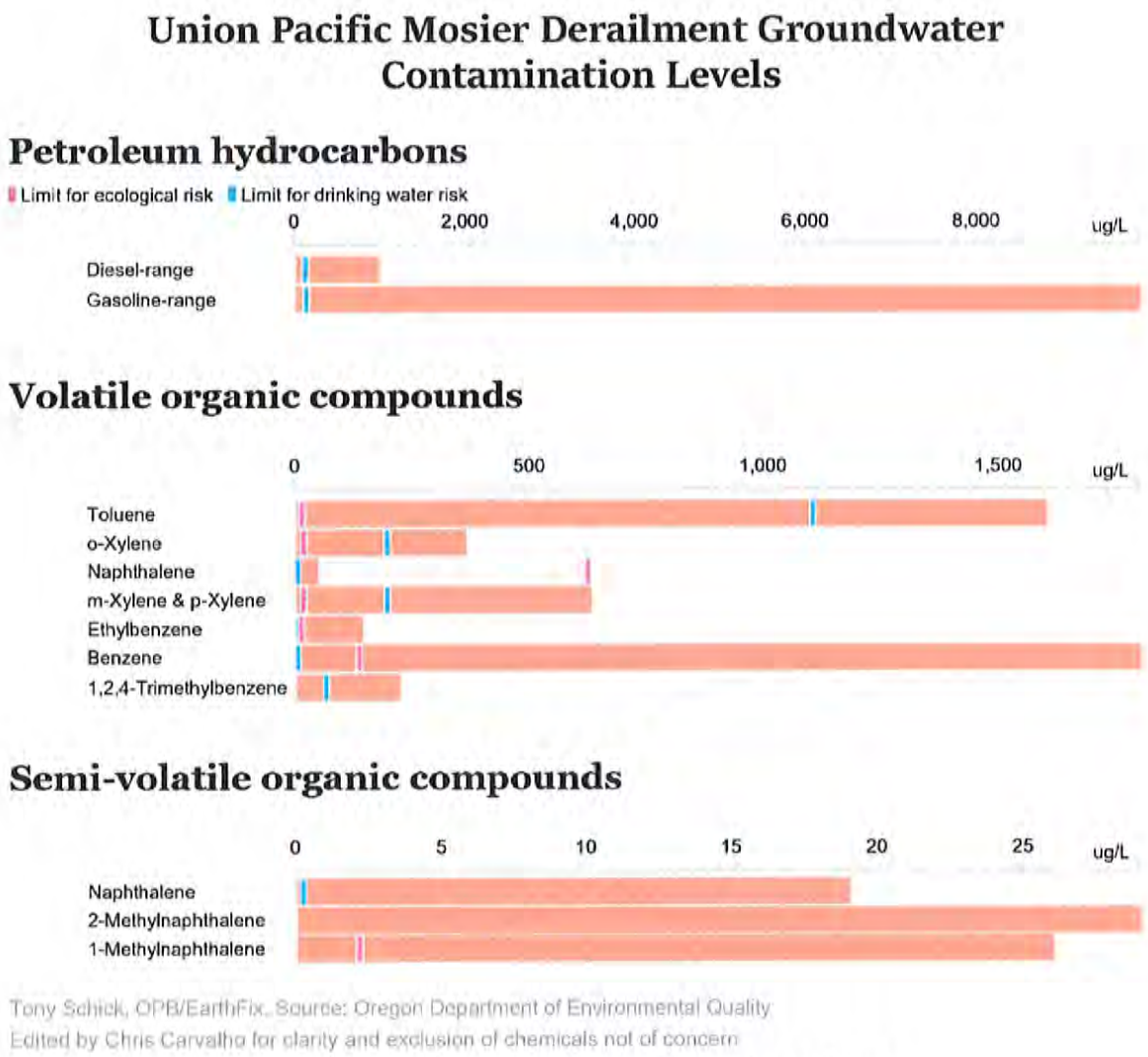


Figure 5. Groundwater contamination from Mosier derailment

Union Pacific profits while residents bear all the risks

The consequences of an accident in Wasco County or anywhere in the gorge are grave. They include a massive wildfire, an oil spill fouling the river and salmon habitat, property damage, loss of human life, wildlife impact, high cost of recovery, disruption to our lives and the local economy, and a railroad bankruptcy that would transfer the costs of cleanup to the public.

UPRR is not a good partner in the Gorge. Please don't approve this proposal. It's the wrong decision and rewards them for not working with the community. Thank you for the opportunity to comment.

Sincerely,

Chris Carvalho

---

[i] Carvalho, Chris. "An Open Letter to Jay Inslee." Web. http://www.lensjoy.com/Blog/OLJayInslee.htm (2016).

[ii] Anderson, Robert T and Christopher P.L. Barkan. "Derailment Probability Analyses and Modeling of Mainline Freight Trains." Web. http://railtec.illinois.edu/CEE/pdf/Conference%20Proceedings/2005/Anderson%20and%20Barkan%202005.pdf (2005). Page 5.

[iii] *Ibid.*, p. 6.

[iv] *Ibid.*, p. 6 (Figure 6, Derailment Risk by Length , Speed, & Position)

[v] Johnson, Miles. "Crude-by-rail in Oregon: 2012–2016." Web. http://columbiariverkeeper.org/wp-content/uploads/2016/03/Oil-by-Rail_Whpaper_FINAL.pdf (2016). Page 1.

[vi] Whiteside, Terry C. and Gerald W. Fauth III. "Testimony Concerning Union Pacific Railroad Company's Proposed Mosier Second Mainline Track Project." Web. https://gorgefriends.org/assets/images/issues/Comments%20by%20GWFauth%20and%20TWhiteside%20Final%2008-04-2016.pdf (2016). Page 8.

Testimony regarding projected rail expansion near Mosier

There are many good reasons to deny this rail expansion. One reason is that, according to rail traffic experts, there could be a 10-fold increase in rail traffic along the Columbia River. As a retired R.N., and someone who has asthma, I am concerned about the effect of this on our health.

The World Health Organization reported that air pollution killed 7 million people in 2012. This study confirms that air pollution is now the world's greatest single environmental health risk; 1 in every 8 deaths is linked to it.

Dr. Kurt Straif, head of the International Agency for Research on Cancer, said that we now know that outdoor air pollution is not only a risk to health in general, but is also a leading environmental cause of cancer. One of the greatest contributors to outdoor air pollution is diesel exhaust.

Diesel exhaust contains more than 40 toxic air pollutants and each coal and oil train has 3-4 diesel locomotives. Some of those pollutants are nitrogen oxides, sulfur dioxide and polycyclic aromatic hydrocarbons. The exhaust also contains cancer-causing agents, including formaldehyde, benzene and nickel.

One of the most dangerous pollutants is particulate matter, especially pm 2.5. These microscopic particles can enter deep into the lungs, where they enter the blood stream, resulting in heart attacks, strokes, and cancer. Particulate matter can also enter the placenta, resulting in increased incidence of autism spectrum disorder, lowered IQ, and increased behavioral symptoms of anxiety, depression, social problems, and aggression.

A Columbia River Gorge Air Quality Report in 2008 indicated that the Columbia River Gorge is home to the worst haze in the Western United States. The Washington State Department of Ecology says that air pollution in Vancouver is already so high that they may fail to meet federal air quality standards and that nearly happened last year. Clark County is already on a maintenance program for past non-compliance.

Since you plan to put conditions on this project, here is one more that I believe you should include--insist that the railroad use only tier 4 locomotives. Better yet, deny this project to protect the health of every person in each community along the rail route. Don't allow them to be sacrificed to the rail and fossil fuel corporations.

Mona Steinke, Vancouver, WA

Testimony of Angela van Patten

Thank you, commissioners, for hearing the observations of those gathered here today and from those who submitted comments online on the impacts of the four mile track extension proposed in or near Mosierby Union Pacific

My name is Angela van Patten. I live in Portland near my two grown daughters, and volunteer as frequently as I can in efforts to draw attention to the gravest threat faced by humankind and the systems of life of which we are a part and on which we all depend, that is, the effect of human-caused global warming on the climate, the climate so vital to the ongoing maintenance and sustenance of habitats so vital to all of us

In the rapid move away from fossil fuels, trains may be viewed as important modes of transport of people and of goods, modes which should be promoted and developed as agriculture and manufacturing become, ideally, relocalized as a way of reduced fossil fuel expenditures in transit.

So what could possibly be wrong with a mere four mile rail extension in the Columbia River Gorge? In addition to the harms to air, water, animal and human health you will hear spoken of eloquently today, I'd like to add my voice to concerns expressed about any fossil fuel infrastructure development which now or in a prospective future encourages greater use of fossil fuels.

Though we are talking about a 4 mile extension, it serves to repair the worst bottleneck in train traffic down this side of the river; the worst in a 200 mile stretch. Adding this extension of track would allow two trains to pass one another on parallel tracks without having to stop in a siding yard, thus, on one level, improving life for Mosier residents by reducing the noise + emissions of idling locomotives.

The problem both for immediate and long term concerns is this extension makes it possible for a doubling or tripling of train cars traveling through this region each hour, thus offsetting the promises of quality of life improvements for citizens of Mosier, and creating a much greater opportunity for oil and coal ladden trains to traverse the scenic

Columbia River Gorge on their way to proposed coastal terminals, bound for markets open overseas, and expected to open further as prices for those commodities rise.

For that is the concern. Its hard to believe the track expansion is designed to accomodate expansion of rail transport of apples, wheat, or Amazon.com. Rather, accomodating to increases in oil and coal traffic now and in the future would appear to be the goal of the project and certainly the net effect going forward. An independent study to prove or disaprove this assertion must be undertaken by the county before this project is allowed as the consequences so vital, and are so dire if indeed suspicions this will have the effect of increasing oil and coal train traffic are shown to be well founded.

There is a principal in theatre productions and in works of fiction that I actually believe applies here. Its the idea that every important detail in a work of fiction should be necessary and uniquely qualified to drive the story forward. Any details that don't drive the story forward should be removed.

Testimony of Angela van Patten

As Anton Chekhov put it, "Remove everything that has no relevance to the story. If you say in the first chapter that there is a rifle hanging on the wall, in the second or third chapter it absolutely must go off. If it's not going to be fired, it shouldn't be hanging there."

We are at a critical juncture in human history. Does this detail, this 4-mile extension of track, this doubling in capacity of 200 miles of rail, further the story we are writing of our future, or does it further the writing of a tragedy, the tragic losses of life and the heritage of life thru the short and long-term grave harms of fossil fuel usage.

Please study this decision carefully and please make a decision with the present and future of this beautiful region and beautiful world at the center of it.

To the Wasco County Planning Commission

Attn: Angie Brewer, Planning Director

From

Bonnie McKinlay,

Elementary Schoolteacher-Oregon City & Lake Oswego Public Schools, retired

7112 SW 53rd Avenue

Portland 97219

Thank you for the opportunity to express my concerns about granting of Union Pacific's Rail expansion. More oil-by-rail traffic is not beneficial to the Pacific Northwest treasure that is the Columbia River Gorge, its people, its wildlife.

For thirty years, as an elementary teacher, I joined my students in the giddy, giggling joys of the last few days of school. Students and teachers shared the memories of the past school year and looked eagerly at the summer ahead. Summer! That vast, magic, unknown adventure land, free of desks, free of due dates. A school year can contain many rich and exciting days---and some, less memorable---but The Last Days of School always pop to the top. A grade complete. We did this together! We celebrate!

On June 9th, I came to the Mosier Community School, not to watch delighted children wiggle with the thrill of an imminent vacation, but to see a solemn assembly of Northwest Tribal leaders, officials, and exhausted community members speak on the risks of oil trains and the fierce conviction to oppose them. On that day, the school was not a happy, youth-supporting center, but an efficient disaster operations site, with hard-working members of state and federal agencies taking care of the derailment clean-up. Because of the oil train derailment, the students of the Mosier Community School were denied those last auspicious days of school. Of course, this unfortunate outcome is nothing compared to the unthinkable tragedy that could have unfolded in this community without the grace of that unusual windless Gorge day of June 3rd, 2016. I say, "unthinkable" because I don't want to think of it---none of us do. To stop these terrifying thoughts, we must stop the free reign of the oil industry to put schoolchildren and their loving parents at perpetual risk. In Oregon alone, 284 schools, containing over 101,000 students, are within the mile-wide radius of an oil-by-rail blast zone. On the long list of reasons to deny Union Pacific's application, which includes maintaining air quality, honoring Tribal fishing rights, preservation of the Columbia River Gorge National Scenic Area, add the protection of schoolchildren---and their happy last week of school.

Wasco Co. Planning Commission
C/O Ms Angie Brewer
Wasco Co. Planning Director

6 September 2016

RE: Proposed second rail line past Mosier, Oregon (through Wasco Co. and the Columbia Gorge National Scenic Area) PLASAR-15-01-0001

Dear Sirs and Madames,

My concern is more global that most of the comments you will receive. The entire world is in a climate-change crisis: not only warming but massive rain-storm floods in places, prolonged droughts in other places, rising sea levels on all coasts, tropical species including disease vectors moving poleward (think Zika), ocean acidification and the list goes on.

The undoubted cause is increasing carbon dioxide from fossil fuel burning. The first step in damping that cause is NO NEW FOSSIL FUEL INFRASTRUCTURE. The ~~proposed~~ second rail line proposed by Union Pacific is exactly that. Do not issue permits for the line. Do not issue permits for rock crushing near Memaloose State Park. Just say NO. I realize that the decision~~s~~ will largely rest with the Federal Railway Administration. However, the voice of the Wasco County Planning Commission will carry moral authority, a voice from the people "on the ground." Use that voice. Thank you.

Charles B. Miller, Ph.D.
1320 NW 30th Street
Corvallis, Oregon 97330

Charles B. Miller

charlie@arietellus.com

My name is Charley Boonstra. I am 18 years old, and I am here to today to make it very clear that I stand in the upmost opposition to Union Pacific's rail track expansion.

I am so blessed to call the Columbia River Gorge my home. But the gorge is changing. In fact, the world is changing. Climate change has altered the Earth in ways we cannot even fathom.

It is because of us! We are burning so much fossil fuel that it is fundamentally changing the world.

Out of the four and 1/2 billion years that the Earth has existed, we have managed to force the extinction of one quarter of Earth's animals due to climate change in just a few thousand years. We have managed to create more intense storms and droughts in just a few thousand years.

Do you enjoy being outside? Do the Union Pacific workers enjoy taking their children to the park on weekends? Looking at the grand trees and flowing rivers?
Imagine it all gone. Because that is the trajectory that we are headed in.

This expansion of the railroad tracks to ship more of the oil and coal that is killing my future is wrong. It is immoral.

Unlike many who are older than me, I have grown up with fear that the planet might not be habitable for my children, or my grandchildren, or my favorite animals.

I cannot urge you any more strongly to reject this project with pride. Please take a step to help your grandchildren not have to fight quite as hard to save our planet when they get older.

Thank you.

PUBLIC COMMENT: Wasco County Planning Commission
Columbia River rail expansion project

Christine Turner
8 Cedar Gates Rd
Longview WA 98632
caturner458@gmail.com
360 270 2914

I have never seen a region in this country that is so hell bent on destroying the beautiful land and scenery as much as the Pacific Northwest, especially in the Columbia Gorge and Columbia River.

For all the reasons stated by the Columbia Riverkeepers and the reasons listed below, this project should be denied.

Additional trains in the gorge, with increased number, length, and speed.

Increased oil trains carrying Bakken crude. Older rail cars have been shown to puncture, and the newer ones are extremely heavy and can cause damage to rails that are poorly maintained.

Two of the criteria for conditional use review involve the increased burden on firefighters. Obviously, this will significantly increase the costs, and risks to the Gorge. Already, there are increased amounts of fires in the Gorge due to trains and their braking systems.

Union Pacific has already been judged at fault for the Mosier derailment because of failure to follow safety and rail inspection requirements.

In Mosier, oil was found to have seeped into the groundwater near the Columbia River. New bridges will further allow coal dust and other pollutants to drift into the Columbia River.

The construction of double-tracking and related development such as the 6 acre rock crushing area would cause adverse impacts to the scenic resources in violation of County ordinance.

Filling wetlands is prohibited in the Special Management Areas of the National Scenic Area.

Increase of up to 75 to 100 trains per day.

Double-tracking through the town of Mosier, a community already proven to be at risk.

This project should be reviewed as a new development because of size and potential impacts on the communities and environment.

PUBLIC COMMENT: Wasco County Planning Commission

Christine Turner
Development plans within the Mosier Urban Area were excluded from the NSA application.

The County ordinance requires field surveys by professional wildlife biologist hired by the applicant and a professional botanist hired by the applicant.

Project Necessity: This project should be evaluated to include alternatives.

Project area has a very high probability of containing Native American cultural sites.

I urge you to deny this permit, it violates the County Ordinance, Clean Water Act,* and cause harm to the Columbia River, communities surrounding the tracks, and the entire environment of the Columbia River Gorge.

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. 2012 - 250

CITY OF STEVENSON

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF STEVENSON WASHINGTON EXPRESSING CONCERN ABOUT POTENTIAL ADVERSE IMPACTS OF INCREASED RAIL TRAFFIC FROM COAL TRAINS PASSING THROUGH THE CITY AND REQUESTING THE APPROPRIATE AUTHORITY REVIEWING THE EIS TO IDENTIFY THE IMPACTS TO THE CITY OF STEVENSON

WHEREAS, the Burlington Northern Santa Fe (BNSF) maintains and operates at-grade track running east-west through the City of Stevenson; and

WHEREAS, the proposal to expand terminals in Cowlitz County to export coal will significantly increase the number of coal trains passing through the City of Stevenson; and

WHEREAS, there is an expectation that there will be a significant increase in general freight traffic on the BNSF track; and

WHEREAS, the expanded number of trains would result in an increase in train travel noise and frequency of horn blowing; and

WHEREAS, the substantial increase in train traffic, and specifically coal train traffic, will result in closure of at-grade crossings with greater frequency and longer periods that will create traffic congestion and could negatively impact emergency service response times; and

WHEREAS the City's emergency services will be a first responder to rail derailments and fires and does not have the equipment or sufficient supplies to manage a response without assistance; and

WHEREAS, Stevenson has a side-track capable of hosting a full-length waiting train and additional train traffic will result in more waiting trains and emissions from idling, plus more blown coal dust from stopped trains. Moreover, trains starting from stop result in longer at-grade closure times; and

WHEREAS, until BNSF upgrades engines to the new lower emission standards diesel emissions will remain an identified health risk; and

WHEREAS, the public has a concern that there may be health risks from coal dust and other particulates blown from open cars but the City has no way to evaluate these potential impacts; and

WHEREAS, the City of Stevenson relies on tourism for its economic base and increased train traffic and associated noise could negatively impact the community's ability to attract visitors to the area;

WHEREAS, train whistles and poorly managed train traffic does impact access to and recreational use of the city waterfront which is a key component to the tourism economy and to our citizen's general quality of life;

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF STEVENSON AS FOLLOWS:

I

We urge the appropriate authorities to require an environmental impact statement that identifies and measures the impacts on our community from the significant increase in coal train traffic and that the City be included as a party of record.

II

We request that the impact statements include impacts to traffic from increase closure of at-grade crossings, impacts to the City of Stevenson's ability to deliver emergency services due to the inability to cross the train tracks, and health and safety impacts related to coal dust and other particulates being blown from open cars and increases in diesel emissions.

III

We urge the appropriate authorities to hold at least one of the environmental impact statement hearings at a location in Skamania County.

IV

We urge the US Corps of Engineers to include freight traffic and the City of Stevenson as a 'Party of Record' in their review of the Gateway Pacific Terminal Project, Cowlitz County, Washington and the Cherry Point Terminal Project, Cowlitz County, Washington.

V

This Resolution shall take effect and be in full force upon passage and signatures hereon. Dated and signed this 17th day of May, 2012.

CITY OF STEVENSON

Frank Cox

Frank Cox, Mayor

ATTEST:

Mary Ann Duncan-Cole

Mary Ann Duncan-Cole
Clerk to the Council

APPROVED AS TO FORM:

Kenneth Woodrich, City Attorney

My name is Deborah Romerein and I am a business owner in Portland.

You can't get to 4 by adding 1 to 2. You can't get up north by heading due south. And you can't fight climate change by building more fossil fuel terminals, pipelines and more rail tracks that will accommodate more and more oil and coal transport.

James Black, Exxon Mobil's senior scientist delivered this sobering message way back in 1977: He said "There is general scientific agreement that the most likely manner in which mankind is influencing the global climate is through carbon dioxide release from the burning of fossil fuel"

He went on to urge Exxon Mobil to act.

Exxon's response: They launched a colossal $30 million dollar campaign to spread misinformation and to sow confusion about climate change. One Exxon exec was quoted as saying "Victory will be achieved when the average person is ***uncertain*** about climate change."

Christine Lagarde, the head of the IMF, not exactly a bastion of liberalism admonished in 2014, "the planet is perilously close to a climate change **tipping point."**

And let us not forget that 9 short months ago in Paris 195 nations came together and agreed that global warming is an urgent threat and that all nations must take extreme steps to reduce CO2 emissions.

Did anyone see last Sunday's NYTimes main headline? It read:
The flooding of America's coasts, a consequence of global warming is NOT 100 years off, it's now.

Our oceans are rising.
Our ice sheets are melting.
We have set record highs for global temperatures for each of the past 14 months
And our concentration of CO2 in the atmosphere last year hit an alarming 400 parts per million —. the last time levels were this high, humans did not exist

We are in trouble here and we have no time to waste.

But as the chief scientist for Exxon Mobil found out 40 years ago, we can't depend on fossil fuel companies to make a change or on rail companies that transport their payloads to change. WE have to do it.

And now for the good news: scientists have estimated that America could generate 80-85% of its power from sun, wind and water by 2030—that's 14 years away IF IF we all put our full effort into making that happen and reject more fossil fuel projects like this Union Pacific rail expansion as though our lives depended on it because they do. Vote No on this project.

Deborah Romerein
3512 N.E.23rd #2
Portland OR 97212

I'm Don Steinke from Vancouver. My city council is officially opposed to oil trains. Same with Spokane, Hood River, Stevenson, Portland, Seattle, Cascade Locks and Mosier.

You may not think this is about oil and ethanol trains but it very likely could be.

Your staff recommends that the proposed rail expansion be approved only with certain conditions. But once the rail expansion is complete, you will have no control over the railroads.

One year ago, The City of Los Angeles voted 15-0 to oppose a project involving 5 oil trains per week. You already have nearly that many, and White Salmon has 15 per week. If the crude by rail projects in Vancouver and north are approved, there would be forty more oil trains per week coming through the Gorge. The City of Los Angeles doesn't want even 5.

If the coal terminal in Longview is approved, there would be 56 more coal trains per week.

If Union Pacific doesn't like a condition, they will say sorry, Federal Law pre-empts any local authority. Declare your conditions but don't give your approval to the project.

When a tiger invites you to dinner, recognize that you will be on the menu. For example, a month ago, the Spokane City Council tried to ban oil trains and uncovered coal trains. BNSF took out a full page add in the newspaper to oppose the City Council. The City Council reversed course a few days later.

Even if no more oil trains ever came through Wasco County, a rail expansion is inconsistent with the Gorge National Scenic Act.

According to the National Transportation Safety Board, ethanol trains are just as dangerous as crude oil trains and ethanol is already being shipped through the Gorge, and an ethanol terminal is proposed in Vancouver.

There was an ethanol train fire in Portland in early May of 2011. A log fell off of a train causing an ethanol tank car to be ruptured. The vapors were ignited. When the fire fighters ran out of water, they had to run for cover. Rough terrain made radio communication difficult. There are places in the Gorge where fire fighters have no access to the rail roads.

Don't approve this project unless the treaty tribes approve and unless Congress prohibits an increase in the number of oil, propane, ethanol and LPG trains going through the gorge.

The treaty tribes must approve, rail communities must approve and Congress must limit the volume of hazardous materials going through the Gorge.

Wasco County Planning Commission Hearings on expansion of UP rail lines

September 6th, 2016

Hello, my name is Janet Lumiansky, I'm a resident of The Dalles.

Thank you for providing us with the opportunity to register our concerns about Union Pacific's proposal to expand rail line capacity through the town of Mosier.

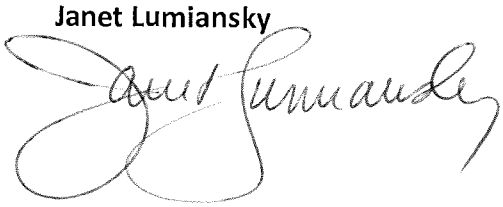
I can't imagine that there is anything new you will hear today about this issue. But, I also can't understand why we are even having this debate. Whatever the reason Union Pacific postponed these hearings after the June 3rd derailment in Mosier, I assure you, our memories are not so short. People in this area are still recovering from the trauma of oil trains derailing and igniting in front of a school filled with children.

After the derailment I went to a public meeting in Mosier with some very sincere Union Pacific representatives, promising things like 90 days of walking inspection of the rails, new floors for Mosier school gymnasium, promises that people's fears and complaints would be listened to and addressed, scientific explanations of how the bolts had sheared, etc. What I believe I witnessed was a group of men who have been love with trains and railroads since they were boys, trying to defend a system that has grown way beyond itself and relies on grossly inadequate safety regulations. Their jobs, their families, their sense of loyalty depends on their defense of trains loaded with time bombs that travel across the country, too heavy for the rails built to carry them, and too unsafe for the structures that were put in place decades ago. Cars carrying crude oil are not cars carrying lumber or supplies of 20 years ago.

There might have been a moment to build trust between the community and Union Pacific after the derailment if the intent of those men at the meeting had been matched by the actions of their corporate executives. But, when they chose to run oil trains through the Gorge so soon after the disaster, despite requests from the government of Mosier, Governor Brown and our Congressional delegation to halt oil shipments until the safety issues could be addressed, Union Pacific demonstrated that their profit margin is far more important than our lives. We know, additional tracks will only increase the risks to our children and all life in the Columbia Gorge.

For the sake of all our wellbeing, I implore you to say no to expansion and continuation of oil shipment through the Gorge.

Janet Lumiansky



Testimony to the WASCO COUNTY PLANNING COMMISSION

My name is John Boonstra, I am a creation justice minister
in the Central Pacific Conference of the United Church of Christ.
I am also an organizer for the Columbia Gorge Climate Action Network.
~~Earlier today, I offered remarks to a rally of those who are opposed to the expanded track proposal of the Union Pacific Railroad.~~

I ~~stated~~ my conviction that the proposal before ~~you~~ disregards
the collateral damage to our communities and dares us to grant
greater social license to business practices
that will cause certain dangers and risks to us all.

I urge you to not put your stamp of approval on this project.
The motives behind this project are cast in economic profit figures,
but they are *environmentally unsustainable*, *socially irresponsible*,
economically unacceptable, *medically indefensible*
& *morally unconscionable*.

This project aims to strengthen a profit driven lethal fossil fuel infrastructure.

This project aims to accelerate a short-sighted private business plan
whose goal is to empower and and build what some systems analysts
are calling a *carbon-combustion complex*.

This is not a legacy we ever want to leave as our footprint
on a dangerously warming planet.

We need to be very honest about the big picture at stake in today's hearing.
I urge the Planning Commission to play your role in unveiling the truth
about this bold, ~~in our faces~~, railroad corporate denial of what is giving
rise to climate change!

~~Complicity~~ in the face of global warming can never be an acceptable exchange
for the health of our families, our neighborhoods and our environment.

I urge you to play your role in the ultimate defeat of Union Pacific's double
track proposal.

September 6, 2016

Comments on UPRR's proposed project to expand existing railroad siding on either side of Mosier, OR for 4.02 miles of new second mainline track and realigned existing track..

First, I would like to commend the Wasco County Planning Dept. for doing their due diligence to provide a thorough review of Union Pacific's proposal to expand and build double track from rail MP66.98 eastward to rail MP72.35 within Memaloose State Park.

I notice and applaud condition #24 which states that "Clearing of 6.62 acre SMA Open Space plan east of the rock blasting site (as a temporary area for construction purposes) is prohibited." and #34 which states "Proposed clearing of SMA Open Space Areas near MP 71.53 is prohibited due to the sensitive natural resources that exist in that area and the environmental constraints that prevent the proposed impacts from being temporary."
My question is, Are there alternative construction staging areas recommended by the planning department that would have less impact on the existing habitat and landscape?

I notice condition #13, "Coal cars are required to be covered." My question is, does this condition apply to all coal cars traveling on UP tracks in the State of Oregon in the future, or just to this project area during the time of construction, or only to train cars traveling through Wasco Co.?

I notice condition #15, which states "UPRR shall stay within the existing range of 20-30 trains per day as stated in the application materials." Since this volume of traffic has been created by the present and recent past demands of commerce, if those demands increase in the future, does this condition mean that UPRR must still abide by the range of 20-30 trains per day in the future?

I applaud the inclusion of conditions #15, #16, and #17 as they relate to rail safety and fire safety.

I applaud the inclusion of condition #20 which states "The proposed development shall not directly result in significantly increased net volume of

rail traffic, including the number of individual trains, length of trains, or speed of trains."

It is good that Treaty Rights are being addressed. In particular the inclusion of condition 21, that UPRR shall provide two safe crossings for National Scenic Area treaty tribe members, one at the east and one at the west ends of the project area.

I notice condition #3, which states "If cultural resources or human remains are discovered during construction, development shall cease immediately and the owner (UPRR) shall notify the WC Planning Dept. and the NSA Heritage program manager, etc."
My concern is that it leaves these agencies having to trust the honesty of the applicant, when the stakes are high (total shutdown of the project). When and where ground is being disrupted, would it not be better to have on-site archeologists monitoring the work at active construction sites?

I applaud condition 44, that "UPRR shall work with Oregon Parks and Recreation to develop a Columbia River access feasibility study to ensure long term impacts of the railroad do not impact established recreation uses or sites. Improved access from state park properties to the Columbia River shall be the outcome of this study..."

I commend the Wasco County Planning Department for including conditions 36, 38 and 39 requiring UPRR to monitor the hydrology and vegetation of the replacement wetland for 5 years and that the applicant shall take corrective measures to ensure that it conforms with the approved plans and guidelines. Further, that UPRR shall avoid disrupting areas of identified special-status plant populations, priority habitats and sensitive wildlife and plant areas.
Again I have concern that the planning department is relying on the applicant's judgement and honest reporting as to what is happening on the ground in reports which the department reviews after the fact. I am concerned that there will be no on site monitoring, especially where it involves known sensitive environmental conditions.

In general I believe Union Pacific's proposal to expand and further develop track and related infrastructure in and around the City of Mosier will

significantly and negatively impact the existing plant and animal life and their habitats. There will be no way in which all of the many view sheds points in the National Scenic area can be protected. There will be some stark visual impacts which will degrade the traveler's experience in this area within the Columbia River Gorge. It remains to be seen whether Union Pacific will honor these conditions of approval written by the Wasco County Planning Department. There do not seem to be any consequences or penalties offered with which to enforce Union Pacific's compliance.

Thank you for your consideration of my comments in this matter.

John Nelson
524 West Third Place
The Dalles, Oregon

541 993 2683
joteg@gorge.net

Statement Opposing Train Track Expansion Sept. 6, 2016
by Jolynn Moore
Sheridan, Oregon

The June 3rd incident is one more event to observe as bad policy destroys the livability of the world. The continued development of the fossil fuel trade is simply short sited and evil. Fossil Fuel is changing the climate, melting global ice reserves, raising sea levels and acidifying the oceans, thereby causing the extinction of phytoplankton, the most effective life form at converting CO_2 to O_2.

Please be brave and join the global leaders who are acting wisely to send the message that we must save Mother Earth, we must develope policy which supports the growth and development of sustainable energy and sustainable transportation, we must stop the growth of the fossil fuel industry. Please choose to save the local environment, the local people and thereby promote wise, future policy which will save the health of our tiny planet, our only home.

Jolynn Moore

UPRR Rail Expansion Testimony September 6, 2016 Kate McBride, City Council President, City of Hood River

Thank you for listening to all the testimony today and reading an exhaustive packet of information.

My family has a personal history with fires that started on the railroad tracks in the Mosier area.

Twice fires that started on the tracks below my great-grandparents house at 8530 Hwy 30 just east of Mosier, burned up to within a few hundred yards of the house. One of those fires burned their barn to the ground.

As much as UP says all they want is *the safest possible train system*.....it is in inherently unsafe. The June 3rd derailment, fire, and oil spill with a subsequent investigation that deemed UP negligent, in maintaining a safe track, are reasons for you to deny this proposal to protect the citizens of your County and Hood River County.

I am submitting into the record today Resolutions 2012-15 and 2014-22 from the City of Hood River. Both resolutions oppose increase rail traffic through our City. Adding another track will increase rail traffic which would allow additional transportation of coal or oil.

The City of Hood River cites many reasons for opposing additional rail traffic, but first and foremost is the safety of the citizens that live there. We do not want our town and its citizens to be collateral damage for a particular industry or transportation sector. The FFA has strict standards for planes. The Dept of Transport has strict guidelines for roads, but the Railroad Commission apparently does not have rules strict enough, fines large enough, or the capacity to enforce these to make a safer rail system. I wish there were stricter rules, but there are not, so we have to protect our citizens by using common sense to limit these extreme dangers when we have criteria in our codes that will allow that protection.

The City of Hood River does not want additional rail cars of oil or coal to run through our town. A derailment and fire involving either of these commodities between exit 62 and exit 64 would be catastrophic. We lack emergency personnel to deal with this type of disaster, but the real tragedy is that no matter how many trained emergency personnel we have, when an oil train derails and starts to burn it will be hours before you can cool it enough to apply foam to extinguish the fire. All the emergency personnel can do is evacuate the persons not involved in the initial fire or explosion.

Please deny this application.....it will just add more disasters on the rail line. It is like adding more bullets to the gun in Russian roulette! Will it be The Dalles, Hood River, or the Columbia River that gets hit next?

I was in Lyle working with a crew to reduce tall grass for fire prevention on the morning of the Mosier derailment. As I drove back to Hood River on Hwy 14 I could see the black smoke rising close to Mosier and then the unit train stretching to the east. I had a really sick feeling in my stomach.

I was thinking, what if this was in the heart of Hood River.....the old Diamond Fruit Building would be on fire...and that's where my daughter works.

Your daughter may not work within 100 feet of the actual rail line, but all of your citizens deserve protection when we have the ability to make a situation safer, or at least not add bullets to the gun.

Resolution 2014-22

A Resolution stating the City of Hood River's concerns and opposition to the transportation of crude oil through the Columbia River Gorge

WHEREAS, the City Council and Mayor under the Hood River City Charter 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 City of Hood River community, environment and economy; 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; 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 the operation of the Hood River 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 assists in emergency responses throughout much of the gorge, on both sides of the Columbia River; and

WHEREAS, the Governor of Oregon's Preliminary Statewide Rail Safety Review of July 2014 and 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

BE IT FURTHER RESOLVED that the City urges the Federal Government to immediately implement safety regulations regarding train speeds and rail car designs which have not been proven to safely 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 Hood River 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 Oregon 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 transmits copies of this resolution to the Governors of Oregon and Washington, to the Columbia River Gorge Commission, to the County Commissions of Hood River, Wasco, Multnomah, Klickitat, Skamania, and Clark counties, to each state Senator and Representative in both Oregon and Washington whose districts fall within the Columbia River Gorge, 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, to the Washington Department of Ecology, to the Washington State Fire Marshal, to the Washington Department of Transportation, and to each member of the Congressional Delegations of Oregon and Washington; 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.

Approved by The Hood River City Council this 8th day of December, 2014, to take effect immediately.

_____

Arthur Babitz, Mayor

_____

Jennifer Gray, City Recorder

Resolution 2012-15

A Resolution stating the City of Hood River's concerns and opposition to transporting coal through the Columbia River Gorge

WHEREAS, The City of Hood River has committed itself to being a leader in protecting the environment, air quality, and water quality in the Columbia River Gorge, and

WHEREAS, the impacts of climate change on the Columbia River Gorge and other tourist attractions negatively impact Hood River's economy, and

WHEREAS, coal is commonly transported via open top rail cars, contaminating cities, towns, farmland, forestland, streams, and rivers within the Columbia River Gorge with coal dust and chunks of coal, and

WHEREAS, coal contains toxic heavy metals - including mercury, arsenic, lead, and uranium - and exposure to these toxic heavy metals in high concentrations is linked to a multitude of health problems, such as cancer and birth defects, and

WHEREAS, increased rail traffic will lead to an increase in diesel emissions in communities along rail lines, and

WHERAS, an additional 58 or more trains per day will have detrimental effects on traffic congestion and air quality due to idling cars, and

WHEREAS, increased noise and vibration from large freight trains have been shown to have a negative impact on psychological health, and

WHEREAS, an additional 58 or more trains per day may inhibit the travel of emergency vehicles in the Columbia River Gorge

WHEREAS, increased freight train traffic will have a negative effect on property values, and

WHEREAS, an increase in coal train traffic would raise the risk of a train derailment taking place, and communities within the Columbia River Gorge are not equipped to deal with the public safety and health risks caused by a coal train derailment, and

WHEREAS, public health risks associated with diesel emissions and other pollutants from coal trains disproportionately impact children, the elderly, and those with existing respiratory issues, and

WHEREAS, the route coal trains would follow through the Columbia River Gorge runs along the Columbia River through popular recreational areas, a major source of the economy in the Gorge, and

WHEREAS, the negative impacts of shipping coal by barge on the Columbia River will have the same affects on the Columbia River Gorge as those associated with shipping coal by rail.

Now therefore be it RESOLVED, that the City of Hood River opposes coal export projects that entail transporting coal through the Columbia River Gorge either by rail or by barge.

Be it further resolved, that the City of Hood River supports economic growth that does not jeopardize the City of Hood River's commitment to fight the serious impacts of climate change, and

Be it further resolved, that the City of Hood River urges the Governor and other decision makers to work on a comprehensive policy to prevent shipping coal through the Columbia River Gorge by rail or barge.

Be it further resolved, that the City of Hood River intends to address any impacts to public health and/or property caused by the transport of coal through The City of Hood River by actively enforcing local public health, safety, building, electrical, and fire codes, and

Be it further resolved that the City of Hood River intends to address any impacts to surface and/or groundwater caused by the transport of coal through The City of Hood River by actively enforcing applicable environmental statutes delegated to The City of Hood River, and

Be it further resolved that the City of Hood River strongly requests that the State of Oregon through its elected officials require the railroad and barge companies to mitigate any public safety hazards created by the transport of coal through the Columbia River Gorge such as access by emergency vehicles and

Be it further resolved that the City of Hood River will request from the railroad, and make public, any plans for new or expanded rail facilities or significant rail traffic volume increases within the Columbia River Gorge, and

Angie Brewer

Wasco County Planning Commission
Email: angieb@co.wasco.or.us

RE: Union Pacific Rail Double-track Application, File number PLASAR-15-01-0004

Dear Wasco County Planning Commission:

My name is Kristine Harter. I live at 2225 Dundas Way in Mosier, Oregon.

Thank you for the opportunity to state my opinion on the Union Pacific application above.

When I first heard of the proposal to build an entirely new, additional set of tracks and other infrastructure through a part of the Columbia Gorge Scenic Area on either side of the town of Mosier, it concerned me. It sounded like a hugely expensive and disruptive project for a stated goal to improve the present level of train services provided by Union Pacific.

Around the same time, I had become aware of what seemed like an increase in the number of trains I saw and heard coming through the gorge, specifically, in trains with oil cars. I began to hear more about proposals for oil refineries up and down the coasts of Oregon and Washington to refine the increasing crude oil coming through the Gorge from extraction areas in the Dakotas, Alaska and Canada.

As I became more concerned about Union Pacific's proposal, I read through the their application itself, through testimonies of experts in the environmental impact of rail transport in particular and in the transport of coal and oil specifically. Twice, I made plans to come to this hearing to give my opinion.

As you know, this is the third date for this hearing; the second postponement was after the derailment and fire in Mosier, an event that by the time it happened, seemed predictable and unprepared for.

Most recently, I have read through the one hundred pages or so of your commission's staff recommendations on this application.

Although I commend the staff for recommending conditions such as covering coal cars, provision of regular training to Gorge fire departments, wetland mitigation and rehabilitation plans for disruption to the environment, I strongly disagree with their recommendation to approve the project.

I think that the application should be denied. I do not believe that the conditions can be adequately monitored. I am very concerned that Union Pacific is not being up front about its reasons for wanting to do a major construction project on the tracks in and around Mosier.

After my readings and after my experience with Union Pacific's response to the derailment on June 3, I do not believe that this company has the necessary commitment to safety and accountability to people who live, work and recreate along their train routes. In considering a

project such as this which will certainly be disruptive for months and months and could potentially be disastrous, I consider a strong commitment to safety concerns essential.

According to Union Pacific, "the primary change in operation resulting from the new second mainline track will be to address the inadequate infrastructure and safety concerns in the project location to improve operational inefficiencies by reducing the duration of train idling, maintaining standard operating speed, improving the ability of trains to safely pass one another, and reducing limitations to using efficient longer trains." They state that they "typically move 20 to 30 trains a day through the project area," and anticipate a "similar number of daily trains with implementation of the proposed project."

I am concerned by the vague language used in Union Pacific's application. What is the "standard operating speed" which they will be maintaining? How long are "efficient longer trains"? Even if a "similar number of daily trains" passes through on the new tracks, don't longer trains mean more cars, and effectively more trains?

Union Pacific does not focus on specifics, as above, or on the disruption caused for months by construction. Instead they stress how not much will change after the expansion is completed, as in, "Once constructed, the second mainline track will operate similar to the existing rail line, in that it will continue to move a wide array of commodities through the Columbia River Gorge." They state 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."

In their recommendation, your staff elaborates on the "wide array of commodities" that UPRR currently moves through Oregon, specifically mentioning, grain, automobiles, lumber, cement, apparel and consumer electronics. Nowhere in either of these statements is the commodity, "crude oil," mentioned. Yet data from the 2016 federal Surface Transportation Board Freight Commodities Statistics show that from 2010 to 2015, Union Pacific saw a 1300% increase in revenue from oil shipments.

It is commendable that the Planning Commission staff included a condition for regular training of Gorge fire departments in their recommendations. In the wake of the near disaster in Mosier on June 3rd, it is clear to me that much more than that condition is needed.

Washington and California recently passed laws giving state government new oversight of a railroad company's response to oil train crashes. Those laws include requirements that railroads file emergency response plans, new taxes on oil-by-rail shipments to fund preparedness and a mandate that railroads must show whether they can cover the cost of a worst-case oil train spill. Just a year before the Mosier derailment, Union Pacific lobbied against similar legislation giving the state of Oregon increased oversight of oil train crashes, and the bill (HB 3225) was later gutted.

After the derailment in Mosier, the Federal Railroad Administration (FRA) released a report finding that Union Pacific was at fault for the oil train derailment and fire in Mosier, OR because they failed to follow safety and rail inspection requirements. According to the FRA, Union Pacific perennially has poor accident statistics when compared with its peers. The industry average of accidents caused by tracks, signals, or equipment is 44% and it is 56% for Union Pacific.

On June 3rd, on the very route proposed and operated by Union Pacific, a disaster did not happen. Most of us who live in the area believe that a major fire and potential loss of lives and homes were narrowly averted because it was an unusually calm day in the Gorge.

One would think that after such a warning as occurred in Mosier, a company applying to increase the risk of such an accident would do all that it could to reassure residents of the Gorge. Instead, just days after the accident, and before all the damaged cars had been removed from the tracks, residents drove through a town that looked under siege. The main Union Pacific presence that I was aware of were company police in uniforms who could not answer any of our questions because they had been flown in from somewhere else. We experienced traffic delays as the mess was cleaned up and train traffic resumed through the town.

Although asked by the town of Mosier and local, state and national elected officials to cease shipments of oil by train at least until a federal railway investigation had been completed, within three weeks after the accident, Union Pacific had resumed oil shipments. Their response was that they are required by the federal common carrier obligation to carry crude oil and other hazardous materials.

I urge you to do all within your abilities to deny this application. There are too many unanswered questions and too much potential for danger to support such a project.

Sincerely,

Kristine Harter

harterwhite@gmail.com

NOT TO MENTION DESTRUCTION OF PROPERTY & NATURAL ENVIRONMENT

In my hands is a 73 page list of rail accidents that have occurred within just the past 6 years. ACTUALLY LESS. In them, scores of innocent people were killed with even countless more being injured. None of the accidents had been planned. That you insist optimal measures are taken to insure accidents won't happen is as unrealistic ~~and fool hardy~~ as it is irresponsible. Accidents have happened and accidents – many of them fatal - will continue to happen ~~despite~~ IN SPITE OF your best intentions or policy procedures.

AND WILL ~~BE~~ CONTINUE TO BE

~~We do not need more rail traffic through the Gorge, we need less~~. The accident in Mosier underscores the point that the Columbia River Gorge is no place for additional coal or oil trains ~~let along the amount that already course along its rails~~.

I'M A NIMBY AS I BELIEVE ARE MOST OF YOU. THE COLUMBIA RIVER GORGE IS OUR BACK YARD

Lydie Boyer

LET ALONE THEIR RAIL EXPANSIONS.

PLEASE DENY THIS ILL-BEGOTTEN PROJECT!

~~SURROUNDING HOMES~~

~~MY HUSBAND & I KNEW THE FEAR OF HAVING TO EVACUATE TRAIN RAIL RELATED CATASTROPHE~~

WHEN A FIRE ERUPTED ONE SEPT DAY RESULTING IN THE LOSS OF SEVERAL HOMES ADJOINING OURS. IT WAS TERRIFYING AND IT WAS ~~TOTALLY~~ PROFOUNDLY PREVENTABLE

I KNOW THE TERROR OF HAVING TO EVACUATE ~~CAUSED~~ FROM A RAIL-RELATED ACCIDENT. PERHAPS YOU MAY RECALL THE FIRE THAT ERUPTED AT BROUTON MILL CAUSED BY A GRINDER WHICH RESULTED IN THE DESTRUCTION OF

SHARKED AN INTERNAL BLUFF THAT OBLITERATED THE HILLSIDE AND SURROUNDING HOMES

~~I AM~~ MY NAME IS LYDIE BOYSE AND I AM ABLE TO ~~CAN SPEAK~~ ATTEST

~~I KNOW~~ IN HAND THE TERROR OF HAVING TO EVACUATE FROM A RAIL-RELATED ACCIDENT.

PERHAPS SOME OF YOU MAY ~~REMEMBER~~ RECALL A WINDY SEPTEMBER DAY SEVERAL YEARS AGO WHEN THE BROUGHTON MILL FIRE ~~THAT WAS~~ CAUSED BY A RAIL GRINDER ~~SET A WINDY SEPTEMBER DAY SEVERAL YEARS AGO. WHICH~~ ~~RESULTED IN~~ IGNITED AN INFERNO THAT OBLITERATE THE FACE OF THE HILLSIDE AND ~~OUR~~ MY SURROUNDING BLUFF HOMES.

IT WAS AS TERRIFYING AS IT WAS PROFOUNDLY PREVENTABLE.

IT WASN'T INTENTIONALLY SET BUT ... IT HAPPENED.

I'M A WINDY AS I BELIEVE MANY OF YOU ARE. THE COLUMBIA RIVER GORGE IS OUR BACKYARD AND WE ~~LOVE~~ HOPE TO SEE IT PROTECTED FOR FUTURE GENERATIONS TO ENJOY. I IMPLORE YOU TO KEEP THIS ILL-BEGOTTEN PROJECT OUT OF OUR BACKYARD.

This is a **list of rail accidents since 2010.**

Contents

2010s: 2010 · 2011 · 2012 · 2013 · 2014 · 2015 · 2016
References

2000–09 ← Lists of rail accidents

2010s

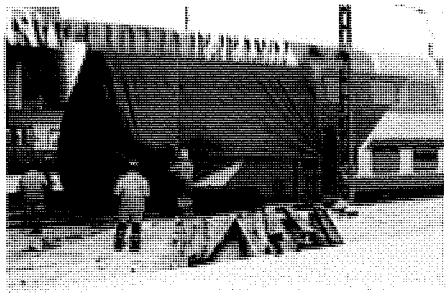
2010

- 2 January 2010 – *India* – The **first of three accidents on the same day** in Uttar Pradesh near the town of Etawah, about 170 miles (270 kilometres) southwest of Lucknow, the capital of Uttar Pradesh state, when the Lichchavi Express entering the station in heavy fog runs into the stationary Magadh Express train stopped there. Ten people, including the driver of one of the trains, were injured.[1] At least 10 people were reported to have been killed.[2]
- 2 January 2010 – *India* – The Gorakhdham Express and Prayagraj Express **collide** near the Panki railway station in Kanpur, about 100 kilometres (62 mi) southwest of Lucknow, left five people dead and about 40 injured.[3]
- 2 January 2010 – *India* – At Pratapgarh, 61 kilometres (38 mi) from Allahabad, the Sarayu Express **ploughs into a tractor trailer** at an unmanned railway crossing. Though nobody is injured, the engine of the train is severely damaged.[4]
- 2 January 2010 – *India* – The Arunachal Pradesh Express derails near Helem. All seven cars leave the track. No injuries were reported.[5] Timely actions of operators and a guard diverted the train to a secondary track, and the platform was evacuated. One of the carriages plunged into a Holiday Inn hotel's offices causing severe structural damage. There were no casualties. Only the conductor of the train, which carried no passengers, was slightly hurt.[6]
- 3 January 2010 – *Turkey* – Two trains collide between Bayirkoy and Vezirhan. One person is killed and three are injured.[7]

- 4 January 2010 – *United Kingdom* – A freight train hauled by a Class 66 locomotive derails at Carrbridge in snowy weather, blocking the Highland Main Line.[8] The freight train passed a signal at danger and was deliberately derailed on trap points.[9] The line is reopened on 12 January 2010.[10]

66 048 after the derailment at Carrbridge.

- 4 January 2010 – *Finland* – **Helsinki Central railway station accident** – A passenger train suffers a brake failure and crashes into a hotel at Helsinki Central station.[11]



After a train accident at Helsinki Central railway station, 2010.

- 12 February 2010 – *United States* – At 10.13, a train derails in the pocket track just north of Farragut North Washington Metro station when the front car leaves the tracks. Of the nearly 400 passengers on board, one person was taken to hospital.[12][13]

- 15 February 2010 – *Belgium* – **Halle train collision** - Two passenger trains collide head-on in Buizingen near Brussels. 18 people were killed and 162 were injured.[14]

- 25 February 2010 – *Canada* – A Via Rail train 15 travelling from Halifax to Montreal derails near Saint-Charles-de-Bellechasse outside Quebec City, injuring four people and causing significant damage to nearby homes.[15]

- 15 March 2010 – *United States* – A METRO bus collides with a light rail METRO train in Houston, Texas, injuring nearly 20 people.[16]

- 24 March 2010 – *Norway* – **2010 Sjursøya train crash** - Sixteen goods wagons runaway for 8 km (5 mi) from a goods yard at Alnabu in Oslo, hitting and destroying a quayside warehouse. Three people died and four were seriously injured.[17]

- 30 March 2010 – *Canada* – No one is injured in a freight train derailment when three non-operating locomotives derail and nine freight cars go off the tracks near Pickering GO station.[18]

- 1 April 2010 – *Slovakia* – A locomotive runs into a stationary passenger train after its brakes fail during a test ride in Spišská Nová Ves, Slovakia, killing three people

and seriously injuring eight.[19]

- 12 April 2010 – *Italy* – **2010 Merano train derailment** - A passenger train is hit by a landslide and partially derails near Merano, South Tyrol, killing 9 and injuring 28.[20]

Merano.

- 21 April 2010 – *South Africa* – **Pretoria train accident** - The coaches of a luxury tourist train operated by Rovos Rail run away and derail at Pretoria during a locomotive changeover. Three crew members died in the incident: two died at the scene while the third, a woman four months pregnant, died in the hospital. The accident left 9 passengers injured, six of them critically.[21]

- 4 May 2010 – *Australia* – A passenger train collides with a freight train approximately 3 km (2 mi) south of Craigieburn railway station, injuring 5.[22]

- 13 May 2010 – *United States* – A northbound Amtrak *Piedmont* collides with a truck towing a low loader in Mebane, North Carolina. 11 are injured.[23]

- 23 May 2010 – *China* – **2010 Jiangxi train derailment** - A passenger train derails in China, killing 19 people and injuring 71, after being knocked off the tracks by a landslide in a mountainous area of Jiangxi province.[24]

- 25 May 2010 – *India* – A passenger train derails at Naugachia, injuring eleven people.[25]

- 28 May 2010 – *India* – **Jnaneswari Express train derailment** - A train derails in the West Midnapore district of West Bengal, caused by either sabotage or a bomb that damaged the railway track, and was struck by an on-coming goods train, resulting in 148 passenger deaths.[26]

- 4 June 2010 – *India* – A mini bus is hit by the Coimbatore–Mettupalayam special train at an unmanned level-crossing at Idigarai near Coimbatore. Five people were killed in the accident.

- 6 June 2010 – *United Kingdom* – **Falls of Cruachan derailment** - A passenger train collides with boulders that had fallen on the line near Falls of Cruachan, derails and catches fire. Several people were hospitalised and the line was blocked for a week.[27][28][29][30][31]

- 17 June 2010 – *India* – A passenger train collides with a freight train at Peine.

Sixteen people are injured.[32]

- 18 June 2010 – *India* – Eight coaches and two engines of the Vasco-Howrah Amaravati Express (8048) derail near Koppal in Karnataka, India after the train had struck a road roller at an un-manned level-crossing. Six people, including the drivers of the road roller and the train, are injured.[33]

- 20 June 2010 – *South Africa* – A steam-hauled passenger train from Pretoria to Cullinan derails near Cullinan due to defective track. A number of sleepers had been stolen. 15F 4-8-2 No 3117 was severely damaged as it ended up lying on its side.[34]

- 22 June 2010 – *Republic of the Congo* – **2010 Yanga train derailment** - A passenger train derails between Bilinga and Tchitondi, about 60 km (37 mi) from Pointe-Noire. At least 76 people died, and others were injured.[35][36]

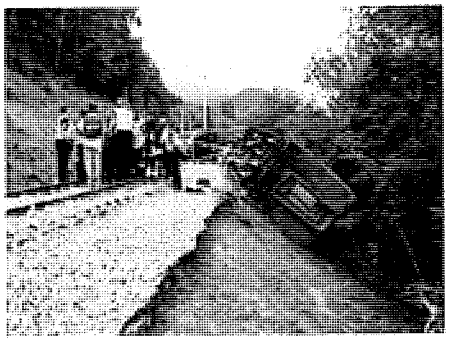
- 23 June 2010 – *Spain* – **Castelldefels rail accident** - 12 people die and 14 are injured when they are struck by an Alaris while crossing the railway tracks at Castelldefels Playa station.[37]

- 28 June 2010 – *Czech Republic* – **Ústí nad Labem derailment** - A CityElefant passenger train from Prague to Ústí nad Labem derails while entering the Ústí nad Labem station, killing the driver and injuring 11 passengers. The cause of the derailment is unknown; the train's 108 km/h (67 mph) speed exceeded the local 50 km/h (31 mph) speed limit and may have been a factor.[38]

- 13 July 2010 – *Poland* – Two trains collide at Korzybie, north Poland, injuring 36.[39]

- 19 July 2010 – *India* – **Sainthia rail collision** - At least 63 people die and over 150 are injured when the Uttar Banga Express is involved in a rear-end collision with the stationary Vananchal Express at Sainthia railway station, Sainthia.[40][40][41][41][42]

- 23 July 2010 – *Switzerland* – **Fiesch derailment** - One person is killed and 42 are injured when an east-bound Glacier Express derails near Fiesch on the Matterhorn Gotthard Bahn.[43][44]



- 25 July 2010 – *Netherlands* – The driver and a

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second rail worker are injured when a Speno railgrinder fails to stop in front of the buffer stop at Stavoren. A shop lying behind the track is demolished.[45]

Fiesch.

- 6 August 2010 – *Italy* – **Circumvesuviana derailment** - One person dies and about 40 are injured in a train derailment in Naples, Italy, on the Circumvesuviana railway.

- 6 August 2010 – *Israel* – A passenger train strikes a minibus near Kiryat Gat; seven people die and 20 are injured.[46]

- 17 August 2010 – *United Kingdom* – **2010 Little Cornard derailment** - A sewage tanker lorry strikes and derails a passenger train (the 17.31 service from Sudbury to Marks Tey) on a level crossing at Little Cornard, Suffolk. Eighteen people are injured, two of them seriously.[47]

- 17 August 2010 – *Germany* – The Intercity-Express from Frankfurt to Paris hits a truck that had slid onto the railway near Lambrecht. The first two carriages derail and ten people are injured, one seriously.[48]

- 17 August 2010 – *India* – Four people die in a train accident on the Faizabad-Lucknow rail-section at Goryamau railway station of Barabanki district located between the towns of Rudauli and Rozagaon.[49]

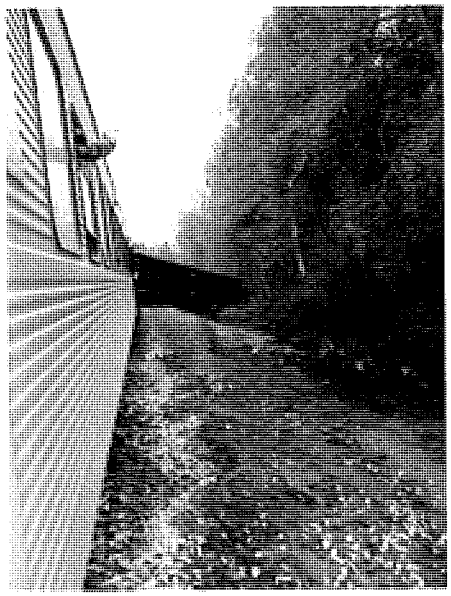
- 25 August 2010 – *South Africa* – **Blackheath level crossing accident** - A Metrorail commuter train strikes a minibus taxi carrying children to school. Ten are killed and five injured. Witnesses state that the minibus drove around closed booms; the driver was charged with culpable homicide.[50] On 12 December 2011, the taxi driver was convicted in the Western Cape High Court on ten counts of murder and four counts of attempted murder and on 28 February 2012, the judge sentenced him to an effective 20 years imprisonment.[51]

- 10 September 2010 – *United States* – A conductor loses his arm when two trains collide in Fontana, California.[52]

- 12 September 2010 – *Sweden* – A woman dies, two people are seriously injured and 15 more are brought to hospital with minor injuries, when an X 2000 high speed train collides with a backhoe loader at Kimstad near Linköping.[53]

- 15 September 2010 – *Belgium* – Two trains collide at Aarlen, injuring 30–40 people, two seriously.[54]

- 24 September 2010 – *Tunisia* – **2010 Bir El Bay train collision** - Two trains collide at Bir El Bay, killing one and injuring 57.
- 25 September 2010 – *New Zealand* – A freight train derails after hitting a landslip in the Manawatu Gorge. The crew remained unhurt, but the line was closed for nine days while the slip was cleared.[55]
- 30 September 2010 – *New Zealand* – A Wellington commuter EMU derails after striking a landslip and is struck less than a minute later by a sister unit travelling on the opposite line. Two people are hospitalised and others suffer light injuries. The drivers of the two units were father-and-son.
- 30 September 2010 – *United States* – Two Canadian National ore trains collide head on twelve miles north of Two Harbors, Minnesota, injuring all five crew members.[56]
- 1 October 2010 – *Norway* – **2010 Skotterud train derailment** - 40 people are injured when a train derails at Skotterud.
- 2 October 2010 – *Indonesia* – **2010 Petarukan train collision** - 36 people are killed and 60 are injured when a train runs into the back of another at Petarukan.
- 2 October 2010 – *Indonesia* – A train crashes at Solo killing one person.[57]
- 12 October 2010 – *Ukraine* – **2010 Marhanets train and bus collision** - At least 43 people are killed in a collision between a train and a bus at Marhanets, Dnipropetrovsk Oblast.[58]
- 5 November 2010 – *United Kingdom* – Six passengers are injured when a lorry falls off an overbridge onto a passing train at Oxshott, Surrey (pictured). The driver of the lorry is seriously injured.[59]
- 8 December 2010 – *Bangladesh* – Two passenger trains are in a head-on collision near Narsingdi. Nineteen people are killed.[60][61]



Skotterud.

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Oxshott rail accident

- 23 December 2010 – *Estonia* – One person is killed and two are injured when a drunk former train driver takes control without permission of an empty passenger train and drives it in a head-on collision with a freight train near Aegviidu.

- 28 December 2010 – *United Kingdom* – A passenger train runs into a large amount of ice in Summit Tunnel, Todmorden, West Yorkshire and derails.[62]

2011

- 1 January 2011 – *Argentina* – Two passenger trains collide in Buenos Aires, injuring forty-five people.[63]

- 11 January 2011 – *Netherlands* – An ICE express train collides with a freight train and is derailed at Zevenaar. There are no injuries.[64]

- 29 January 2011 – *Germany* – **2011 Saxony-Anhalt train collision** – a freight train and a passenger train collide near Hordorf in Saxony-Anhalt on the Magdeburg–Thale line. The passenger train derails. Ten people die and twenty-three people are injured.[65]

- 15 February 2011 – *Germany* – A collision occurred when two trains were being joined together at Berlin Ostbahnhof. One passenger was taken to hospital.[66]

- 17 February 2011 – *Argentina* – According to AOL News online, a train departing from Retiro station in the capital runs into the back of another train near San Miguel rail station. Four passengers die, one hundred and twenty are injured, fourteen severely. Federal Judge Juan Manuel Yalj is in charge of the investigation. Two of the four brakes from the Ferrobaires train's engine are reported un-usable because "one was blocked and the other had been locked and nailed down."

- 11 March 2011 – *Japan* – **2011 Tohoku earthquake and tsunami** – four trains are missing on lines running along the north east coast of Japan following an earthquake and subsequent tsunami.[67]

Train washed off tracks by a tsunami at Onagawa.

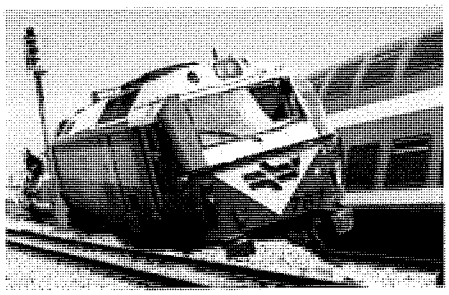
- 13 March 2011 – *United States* – **2011 California BART train derailment** – two cars of a ten car BART train derail in Northern California. Three minor back injuries are reported.[68]

- 23 March 2011 – *Germany* – A passenger train collides with a lorry on a level crossing near Gronau. Fourteen passengers are injured.[69]

- 27 March 2011 – *Canada* – About 20 cars of a 116-car train derail Sunday afternoon near Port Hope en route to Toronto. Families in twenty houses flee and a major passenger rail corridor is shut down. One empty derailed car catches fire and burns for about an hour.[70]

- 28 March 2011 – *United States* – A CSX train travelling through Newton Falls, Ohio with an estimated 100-cars of mixed freight (including hoppers and tankers), suffers a 12-car derailment at approximately 07.00 (local time) Eastern Daylight Time. Three rail cars fall off a bridge and onto Center Street.[71] Several of the tank cars are carrying chlorine; none are involved in the derailment. Initial reports indicate that at least one car may have leaked ammonia, but officials do not believe that any hazardous materials have escaped into the environment. Residents within 150 metres of the incident are evacuated, and most roads leading into town are closed by law enforcement officers. Local HAZMAT officials arrive to assess the scene, and the United States Federal Bureau of Investigation opens an inquiry into the incident 'as a matter of standard procedure'.[72][73]

- 7 April 2011 – *Israel* – Two trains collide near Netanya, injuring 60 people.[74]


Netanya.

- 17 April 2011 – *United States* – A Burlington Northern Santa Fe Railway train hauling 130-cars of coal from Wyoming to Chicago rear-ends another train hauling maintenance equipment near Red Oak, Iowa about 07.00 (local time) on Sunday 17 April 2011. The lead locomotive on the coal train derails and fire engulfs the cab. The crew of two, the conductor and engineer, on the coal train are killed. Ten cars on the maintenance train derail. The two crew members on the maintenance train are not injured. The line is heavily trafficked and is shut down for 24 hours, with trains re-routed. An investigation is conducted by the NTSB.[75][76]

- 27 April 2011 – *Taiwan* – Six people are killed and 61 injured in Alishan when a falling tree strikes a train carrying mostly tourists from mainland China.[77]

- 28 April 2011 – *Poland* – A train derails after hitting a lorry in Mosty, Pomeranian Voivodeship, killing two and injuring at least twenty people.[78]

- 20 May 2011 – *South Africa* – 857 people are injured, 25 seriously, when a rear-end collision occurs at Soweto.[79]

- 27 May 2011 – *Japan* – The limited-express train *Super Ozora* No. 14, en route from Kushiro to Sapporo in Hokkaido, catches fire in a tunnel on the Sekisho Line after the second car of the six-car formation derails. None of the 245 passengers and crew are killed, but 39 are treated for smoke inhalation or minor burn injuries, and the train is a total loss. It is the first in a series of incidents over the summer that lead to harsh criticism of JR Hokkaido's safety procedures, as well as the apparent suicide of the company president.[80]

- 3 June 2011 – *United States* – A Burlington Northern commuter train from Aurora, Illinois and an Amtrak train heading to Carbondale, Illinois collide at Chicago's Union Station at about 08.15, injuring at least five people. One of the trains derails.[81]

- 16 June 2011 – *Norway* – **2011 Hallingskeid Station fire** – A fire started in the snow tunnel at Hallingskeid Station. It was caused by sparks from welding.[82]

- 24 June 2011 – *United States* – Miriam (near Reno), Nevada: Despite the working signals on the track, a semi, driving on a rural stretch of U.S. Route 95 near Reno and Sparks, strikes one of the cars of a west-bound California Zephyr Amtrak passenger train, killing at least six people, according to Nevada Highway Patrol Trooper Dan Lopez and the Churchill County Sheriff's Office (the driver of the semi, whose reason or motivation remains unclear at this time, and an Amtrak conductor on board the train are two confirmed deaths so far).[83]

- 7 July 2011 – *India* – A Mathura Chhapra Express train rams into a bus carrying wedding guests around 02.00 at an un-manned railway crossing in Thanagaon, Kanshiram Nagar district, Uttar Pradesh, killing 38 and injuring thirty.[84]

- 10 July 2011 – *India* – **Fatehpur derailment** – The Kalka Mail train running from Howrah to Delhi derails near the town of Fatehpur in Uttar Pradesh, killing seventy people and injuring more than three hundred.[85][86]

- 10 July 2011 – *India* – The engine along with four coaches of the Guwahati Puri Express derails between Rangiya and Ghagrapar, Nalbari district, Assam and capsizes in a rivulet, injuring more than one hundred people, twenty critically.[87]

- 11 July 2011 – *United States* – An Amtrak Downeaster passenger train from

Boston, Massachusetts heading to Portland, Maine is struck by a dustbin lorry at a crossing in North Berwick, Maine, killing the driver of the lorry and setting the locomotive and one passenger car on fire.[88]

- 23 July 2011 – *China* – **Wenzhou train collision** – Due to signal failure, a high-speed train rear-ends a stopped high-speed train at a speed of 99 km/h (62 mph) near Wenzhou in the province of Zhejiang, killing forty people and injuring at least 192.[89] Six carriages derail, four carriages fall off a viaduct.[90]

Wenzhou.

- 26 July 2011 – *Germany* – A locomotive caught on fire within the Berlin Ostbahnhof around 15:40 CET. Traffic was interrupted for a few hours while the fire was fought down. There were no casualties, but the locomotive was destroyed and the coach coupled to it was damaged.[91][92]

- 26 July 2011 – *Poland* – Seven goods wagons roll uncontrolled 2 km (1.2 mi) and then derail and crash into a Strzelce Krajenskie Wschód railway station building. Three people die.[93]

- 31 July 2011 – *India* – The engine and some coaches of the Guwahati Bangalore Express derail and are hit by another train in Malda district, West Bengal. At least three people are killed and two hundred are injured.[94]

- 8 August 2011 – *Switzerland* – A passenger train and locomotive collide at Döttingen. Twenty-two people are injured. The passenger train had passed a signal at danger.[95]

- 12 August 2011 – *Poland* – **2011 Baby derailment** – A passenger train with 280 passengers derails due to high speed at Baby, Piotrków County, killing one passenger and injuring 84.[96]

- 31 August 2011 – *India* – Two goods trains collide near Tangiriapal railway station, about 65 km (40 mi) from Keonjhar on the Jakhapura-Banspani railway line around 01.30. Five members of the train crew are killed.[97]

- 13 September 2011 – *India* – A passenger train fails to slow at a signal and slams into a stationary cargo train near Chennai, Tamil Nadu, killing ten and injuring fifty-two.[98]

- 13 September 2011 – *Argentina* – **2011 Flores rail crash** – In the Flores *barrio* of Buenos Aires, a bus crashes into a train, which derails and collides with a second train, killing eleven and injuring 228, twenty severely. Lights were flashing but the crossing barriers may have been blocked from fully lowering.[99][100]

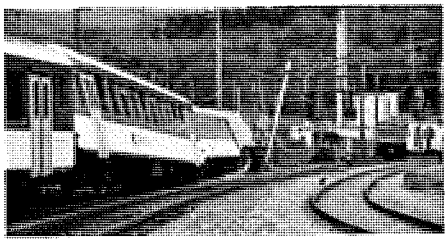
- 15 September 2011 – *Argentina* – A collision in Buenos Aires between a bus, a concrete mixer and a light-rail train injures 90 people during morning rush-hour traffic.[101]

- 17 September 2011 – *Sri Lanka* – **2011 Alawwa rail accident** – A passenger train rams into an observation car at the back of another train near Alawwa, about 60 km (37 mi) northeast of Colombo, killing three and injuring 30+.[102]

Alawwa.

- 6 October 2011 – *Switzerland* – Two trains collide at Olten. Two people are injured.[95]

- 7 October 2011 – *United States* – 26 cars of a 131-car freight train derail and explode near Tiskilwa in Bureau County, Illinois, approximately 160 kilometres (99 mi) west of Chicago. No injuries are reported; 800 people are evacuated.[103][104]



Olten.

- 12 October 2011 – *United States* – In Oakland, California a southbound Amtrak San Joaquin train passes a red signal and collides with a stopped Coast Starlight train at low speed, injuring seventeen people.[105]

- 31 October 2011 – *Malaysia* – A Sabah State Railway train carrying 200 passengers collides with a petrol tanker in Kota Kinabalu resulting in an explosion injuring twelve passengers.[106]

- 1 November 2011 – *Moldova* – A bus collided with a train in Anenii Noi, killing eight people and leaving a dozen injured, all the casualties were on the bus.[107]

- 2 November 2011 – *Argentina* – A freight train collides with a school bus in a rural area of San Luis Province, eight girls are killed and 41 are injured.[108]

- 22 November 2011 – *India* – A fire on board a Doon Express train in Jharkhand destroys two coaches, killing seven people including one Australian woman.[109]

- 28 November 2011 – *Netherlands* – a Sprinter collides with a stationery Sprinter at Leiden Centraal. Three passengers are injured.[110]

- 27 December 2011 – *Australia* – Flood waters from Tropical Cyclone Grant wash away the southern abutment of the Edith River bridge, derailing a northbound Genesee & Wyoming Australia intermodal freight train on its way to Darwin near Katherine, south of Darwin, injuring one crew member. A crew van and five wagons fall into the river.[111][112][113]

2012

- 6 January 2012 – *United States* – Three CSX freight trains collide in a remote section of Porter County, Indiana resulting in a fire and possible HAZMAT situation. Two injuries are reported.[114]

- 11 January 2012 – *India*– Five persons were killed and nine others injured in a collision between the Delhi-bound Brahmaputra Mail and a stationary goods train.

- 13 January 2012 – *Germany* – A passenger train of Nord-Ostsee-Bahn collides with a herd of cattle on the track from Sylt island to Hamburg, near Bargum, Nordfriesland. One passenger dies and three are injured.[115][116]

- 17 January 2012 – *Canada* – two freight trains collide 55 kilometres (34 mi) north of Hinton, Alberta.[117]

- 17 January 2012 – *United States* – A BNSF freight train collides with a tractor trailer in northeast Montana, causing ten rail cars to derail, including four locomotives and blocking the traffic on the rail line.[118]

- 19 January 2012 – *Spain* – A commuter train collides with an empty train at Barcelona Clot Aragó station after the first train failed to obey a restriction signal. six people are injured.[119]

- 20 January 2012 – *Canada* – Eighteen CN freight train cars derail near the hamlet of Hay Lakes, Alberta. No hazardous goods are on the train.[120]

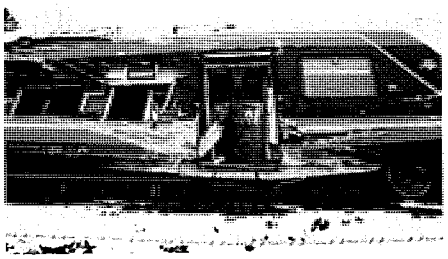
- 21 January 2012 – *Canada* – CN train derails roughly halfway across the Wainwright, Alberta railway bridge. 31 grain cars derail, 17 of them fall off the bridge and into the valley below.[117]

- 1 February 2012 – *United States* – The Amtrak *Wolverine* train from Pontiac, Michigan to Chicago, carrying 71 passengers and 5 crew, strikes a stalled tractor

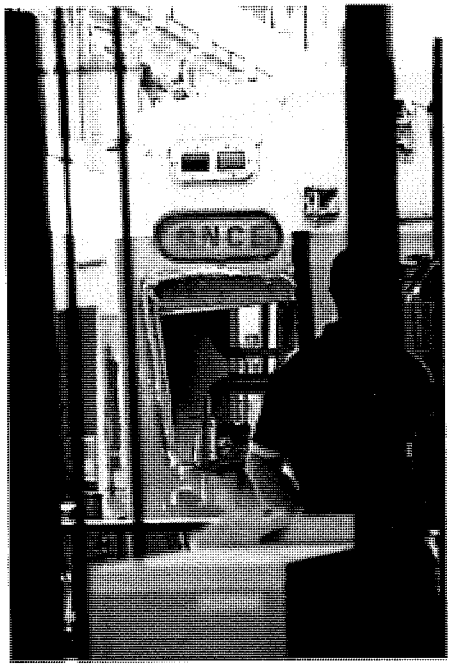
trailer (carrying equipment for oil production) on tracks in Leoni Township, Michigan. The lead engine and at least two cars derail. There are no fatalities, and six people suffer non-life-threatening injuries, according to the Jackson Citizen Patriot and the Blackman-Leoni Public Safety Department.[121]

- 3 February 2012 – *India* – A passenger train derails after striking a construction vehicle in the Indian state of Assam, killing three people and injuring fifty.[122]

- 9 February 2012 – *Spain* – A commuter train crashes into a buffer stop at Mataró station, 30 km (19 mi) northeast of Barcelona. The driver is seriously injured and ten passengers are injured.[123]
- 15 February 2012 – *Norway* – A brand-new passenger train derails near Nykirke after going far too fast on the Vestfold Line, because of driver error. Five crew members are injured. There are no passengers on board. There is no automatic surveillance of most curve speed limits on this line.[124]


Nykirke

- 22 February 2012 – *Argentina* – **2012 Buenos Aires rail disaster** – A train crashes into a buffer stop at a station in Buenos Aires. 51 people die and more than 700 are injured.[125]


2012 Buenos Aires rail disaster

- 26 February 2012 – *Canada* – **2012 Burlington VIA derailment** – A Via Rail train derails near Burlington, Ontario. Three engineers die, and dozens are injured.[126]
- 3 March 2012 – *Poland* – **Szczekociny rail crash** – Two passenger trains derail in a head-on collision near Szczekociny. sixteen people die and 58 are injured.[127]

- 6 March 2012 – *Ireland* – A number of detonators explode in the driver's kit in the train cab of a DART train, injuring the train driver's hands and possibly his hearing. Train drivers carry 10 detonators for safety reasons; they are placed on tracks if there has been an accident or

engineering works to notify other train drivers. These should only explode with the force of a train going over them. They are replaced every 5 years and the ones in question had been replaced just over a year before. Irish Rail have withdrawn all detonators that were replaced January 2011 as a precaution. The train was taken out of service as there was damage to the train cab.[128][129]

Szczekociny.

- 26 March 2012 – *India* – A loco pilot of a Mainline Electric Multiple Unit (MEMU) train and a truck driver were killed when the speeding passenger train rammed into a boulder-ferrying truck at the Kannamangala gate on the outskirts of Bangalore.

- 13 April 2012 – *Germany* – A regional train on its way from Frankfurt to Hanau collides with a railway maintenance vehicle (a combined excavator and crane as a road-rail vehicle) on the same track. This accident near Offenbach claims the lives of the train's driver and of two construction workers. 12 train passengers and one conductor sustain injuries; several of these have to be treated in a hospital. The investigation finds that the excavator had been deployed onto the wrong track: not the one reserved for construction works, but on the live track.[130][131][132]

- 21 April 2012 – *Netherlands* – **Sloterdijk train collision** – Two trains are involved in a head-on collision between Amsterdam Centraal and Amsterdam Sloterdijk stations; one person dies, at least 117 people are injured.[133][134]

Sloterdijk train collision

- 10 May 2012 – *Romania* – More than 92 people are injured in a crash involving three trams in western Bucharest.[135]

- 22 May 2012 – *India* – **Penukonda train collision** – In the early hours of 22 May 2012, the Bangalore bound Hampi Express crashed into a stationary freight train near Penukonda, in the Indian state of Andhra Pradesh. The incident killed twenty-five people while 43 people were said to be injured.[136]

- 31 May 2012 – *India* – **Mahrawa derailment** – four people die and over fifty are injured in the Mahrawa derailment of the Doon express in the Indian state of Uttar Pradesh.[137]

- 12 June 2012 – *Germany* – A tram ran full speed into two waiting trams at a tramstop in Essen. The operator of the tram was unable to stop within time to avoid a collision. 28 people are injured.[138]

- 24 June 2012 – *United States* – Three crew members were killed when two Union Pacific trains slammed into each other just east of Goodwell, about 480 kilometres northwest of Oklahoma City. The crash triggered a diesel-fueled fireball that appeared to weld the locomotives together.[139][140]

- 4 July 2012 – *United States* – A Union Pacific coal train heading to Wisconsin derails, collapsing an overpass on Shermer Road in Glenview, Illinois at about 13.45. A day later, a couple, having been crushed by the falling coal and cars, are found dead in their car buried beneath the rubble.[141]

- 11 July 2012 – *United States* – A Norfolk Southern train with 2 locomotives and 98 cars derails in Columbus, Ohio, near the Ohio State Fairgrounds at 02.05 CDT. The resulting explosion, caused in part due to the burning of 76,000 litres (17,000 imperial gallons) of ethanol, causes a mile-wide evacuation. At the time of the explosion, two nearby individuals are injured; they drive themselves to hospital.[142]

- 12 July – *United Kingdom* – A passenger train collides with cattle on the line at Letterston, Pembrokeshire and is derailed. There are no injuries amongst those on board.[143]

- 13 July 2012 – *South Africa* – **Hectorspruit level crossing accident** – A goods train hauling coal from Witbank to Maputo smashes into a truck carrying 44 farm workers at a controlled level crossing near Hectorspruit, Mpumalanga, killing 26 people.[144]

- 17 July 2012 – *Egypt* – A passenger train strikes wooden planks and chunks of metal put down by people to cross the tracks and derails at Giza, near Cairo, injuring fifteen passengers.[145]

- 19 July 2012 – *India* – – One person was killed, four were injured seriously, and nine sustained minor injuries in a collision between a local train and Vidarbha Express near Khardi station near Nashik on Mumbai-Kasara route.

- 21 July 2012 – *United States* – A Kansas City Southern freight train collides with a BNSF coal train and derails in Barton County, MO, injuring two railway workers.[146]

- 30 July 2012 – *India* – **Nellore train fire** – 32 passengers die and 27 are injured in the early morning Nellore train fire on the Delhi-Chennai Tamil Nadu Express near Nellore, Andhra Pradesh.[147]

- 6 August 2012 – *Argentina* – At least 35 people are injured, six seriously, when a train derails and crashes into an electricity pylon in a central station of Retiro in the city of Buenos Aires.[148]

- 21 August 2012 – *United States* – Two women celebrating the night before their return to university on a railway bridge die shortly after midnight when a CSX coal train derails on the bridge in downtown Ellicott City, Maryland, burying the women under coal.[149] The NTSB investigation attributed the probable cause of the derailment to a broken rail.[150]

- 30 August 2012 – *United Kingdom* – A passenger train strikes a landslide and derails at St. Bees, Cumbria.[151]

- 8 September – *Romania* – A passenger train collided with a tractor on a level crossing near Chilieni, Covasna. Fifteen people were on a trailer that the tractor was pulling. Eight people, including the tractor driver, were killed.[152][153]

- 11 September 2012 – *Netherlands* – A HTM city tram crashed into the back of another HTM city tram at an intersection near the railroad station of The Hague Hollands Spoor. Both were carrying a good amount of passengers. 36 people got injured, including one of the operators.[154]

- 14 September 2012 – *Australia* – At 6.32am, a northbound Queensland Rail passenger train collided with a heavy vehicle that had become grounded on the St Vincents Road level crossing at Banyo. The driver of the heavy vehicle sustained serious injuries.[155]

- 24 September 2012 – *Italy* – The train driver died, and 25 passengers were injured when a high-speed Freccia Argento train, travelling between Rome and Lecce collided with a lorry at a level crossing in Cisternino. The lorry driver was arrested and charged with manslaughter.[156]

- 1 October 2012 – *United States* – In California Amtrak Train 712, travelling from Oakland, CA to Bakersfield, CA, is hit by a lorry carrying cotton at a gated level crossing. Three of the train's five cars as well as the trailing GE P42DC locomotive, #94, derailed. No deaths, 50 injuries.

- 4 October 2012 – *Indonesia* – A commuter train from Bogor to Jakarta derailed in Cilebut station. The train used a former Tokyo Metro 05 series EMU. No injuries reported, but the third car was damaged following the accident.
- 23 October 2012 – *Indonesia* – Prambanan Express train derailed between Brambanan – Maguwo, the first car (women-only coach) was derailed and followed by another cars.
- 26 October 2012 – *Philippines* – Bicol Express train, bound for Ligao City was derailed a little past midnight in a flooded area of in Sariaya, Quezon, injuring eight of the 128 passengers rescued from the wreckage.[157]
- 26 October 2012 – *Slovakia* – Two trains collided between railway stations Bratislava-Vinohrady and Bratislava-Main Station, leaving 23 injured. At 15:24 local time, passenger train Os2018 hit from astern another passenger train Os4618 that had stopped on the track. Preliminary investigation suspects the driver of the train Os2018 to cause the crash.[158]
- 29 October 2012 – *United States* – Thirteen cars of a 57-car Paducah & Louisville (P&L) freight train derail near West Point, Kentucky. A tank car loaded with butadiene leaked and later caught fire while workers were repairing the track. No deaths, 5 injured. On 31 October, the train derailment exploded at 13:30 causing evacuations to be ordered in a 2 kilometre radius and an 8 kilometre radius to stay indoors. 3 were seriously burned in the explosion.
- 1 November 2012 – *Ukraine* – Passenger train Kyiv-Sevastopol derails near Zaporizhzhia. There were 34 passengers in the overturned carriage, including 12 children. There are no victims in the accident.[159]
- 3 November 2012 – *Australia* – A Metro Trains Melbourne Comeng collides with a lorry at the Abbots Road level crossing in Dandenong South on the Cranbourne line. The train is derailed and first car 306M ends up on its side. One passenger fatality due to a heart attack and 8 with minor injuries, and the driver was seriously injured. The lorry driver is uninjured.[160]
- 4 November 2012 – *United Kingdom* – A passenger train from Edinburgh to Aberdeen derails at Inverkeilor, Angus with one minor injury reported. The cause is believed to be non-accidental.[161]
- 5 November 2012 – *Moldova* – A wedding minibus collides with a passenger train

Bender-Chi?inau in Merenii Noi, Moldova, leaving four people dead and six injured.[162]

- 9 November 2012 – *Burma* – **2012 Burma train crash** – A train carrying liquid fuel and travelling from central Mandalay to Myitkyina in the north crashes and bursts into flames near Kantbalu in central Burma; at least 27 people die and more than 80 are injured[163]

- 15 November 2012 – *United States* – **Midland train crash** – Around 16.30 four people die and 16 others are injured when a Union Pacific train strikes a parade float headed to an event honouring wounded veterans in Midland, Texas.[164][165]

- 17 November 2012 – *Egypt* – **Manfalut railway accident** – A school bus carrying about 60 pre-school children is hit by a train near Manfalut, 350 km (230 miles) south of the capital Cairo. At least 50 children and the bus driver die in the crash; more than a dozen people are injured. The Egyptian minister of transport, Mohamed Rashad Al Matini, resigns.[166]

- 22 November 2012 – *South Korea* – A subway train rear ends another in Busan, South Korea, injuring 40.[167]

- 25 November 2012 – *Italy* – A train hits a van at a level crossing near Rossano, Province of Cosenza, Calabria, killing at least six workers from Romania and Bulgaria.[168][169]

- 29 November 2012 – United States, Amtrak train 91 The Silver Star carrying 153 people to Miami slams into a dump truck in Orlando, Florida splitting it in half. The dump truck driver dies and the engine of The Silver Star is damaged. 10 passengers are hospitalized for minor injury's. Witnesses say that the truck driver failed to stop at a stop sign, and authorities claim the train was not speeding at the time of the impact. The rest of the passengers are taken to a downtown Orlando station.

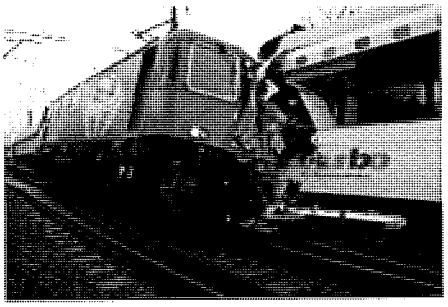
- 30 November 2012 – *United States* – One of three daily trains that cross an old style swing bridge derails near Paulsboro, New Jersey, resulting in one car leaking vinyl chloride into the air. The NTSB Report found the conductor was not trained how to tell if the bridge was locked after it had malfunctioned. About 100 people were treated for exposure to the chemical. Equipment damage estimates were $451,000. The emergency response and remediation costs totaled about $30 million.[170]

- 17 December 2012 – *United States* – A BNSF intermodal train from Chicago derails when a landslide strikes it in Everett, Washington. This event is captured on video.[171][172]

- 19 December 2012 – *Germany* – Around 20:20 CET, two freight trains tore through a broken-down bus and then derailed at a level crossing in Düsseldorf. There were no casualties, but the bus driver had to be treated for shock.[173][174]

2013

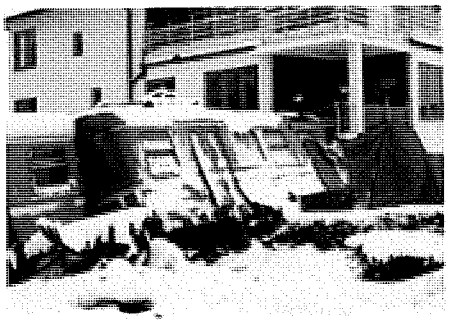
- 10 January 2013 – *Switzerland* – **2013 Neuhausen am Rheinfall train collision** – Two trains collided on the Rheinfall railway line, about 360 metres (1,180 ft) from the station at Neuhausen am Rheinfall, Switzerland. 27 people were injured.[175]



Neuhausen am Rheinfall.

- 15 January 2013 – *Egypt* – **Badrashin railway accident** – A passenger train derailed at Giza and collided with a freight train. 29 people died and 230 were injured.[176][177]

- 15 January 2013 – *Sweden* – **2013 Saltsjöbanan train crash** – A passenger train on the Saltsjöbanan overran a set of buffer stops and crashed into a block of flats at Stockholm.[178] While it was first announced that a cleaner had driven the train without authority, further investigations revealed that she accidentally started the train that was parked in a depot without proper safety measures.[179][180] She was seriously injured, no one else was injured.



2013 Saltsjöbanan train crash

- 21 January 2013 – *Austria* – Two Vienna S-Bahn trains packed with morning commuters collided on a single-track stretch of line between Hütteldorf and Penzing in Vienna's suburbs in eastern Austria, leaving 41 people injured, five of them seriously. Among the injured was the driver of one of the trains. Both trains were operating the Line S45 service, and both trains were made up of 4024-series rolling stock.[181][182][183][184]

- 21 January 2013 – *Portugal* – **Alfarelos train crash** - An InterCity train from

Lisbon to Porto collides with a Regional train that it was supposed to overtake, after both trains fail to stop before a signal on red at Alfarelos, leaving 25 people injured.[185][186]

- 23 January 2013 – *Slovakia* – An intercity train IC507 from Bratislava to Košice hits a snowplow vehicle near Liptovský Mikuláš around 21.00 CET. The train driver died.[187]

- 31 January 2013 – *Australia* – A passenger train overshot the railway line and collided with Cleveland railway station, severely damaging a toilet block and injuring 14 people.[188][189][190] The train was removed from the station in the early hours of the following morning.[191]

- 31 January 2013 – *South Africa* – Two passenger trains packed with school children and rush-hour commuters collided near Pretoria, South Africa, injuring up to 300 people, 28 of them seriously.[192][193][194] A moving train slammed into the back of a stationary train near Kalafong station.[195]

- 12 February 2013 – *Japan* – 15 people are injured when a Sanyo Electric Railway non-stop limited express train approaching Arai station collides with the rear end of a lorry and derails.[196][197]

- 21 March 2013 – *United Kingdom* – 1 man dies after his car is struck by a High Speed Train at Athelney level Crossing in Somerset.[198] It is suspected that the driver attempted to weave around the half-lane barriers.[199]

- 10 April 2013 – *India* – Seven compartments of the 15228 Muzaffarpur-Yeshvantpur Weekly Express derailed near Arakkonam, 40 km from Chennai killing one passenger and leaving another seriously injured.

- 16 April 2013 – *France* – At 08:30 a regional EMU travelling from Miramas to Marseille crashes at 30 kph into a crane-lorry on a level crossing. The crane driver is seriously injured and thirty two passengers have minor injuries.[200]

- 26 April 2013 – *United States* – At a rural Buffalo & Pittsburgh Railroad crossing, in Butler County, Pennsylvania (near Pittsburgh), an Allegheny Valley Railroad freight train carrying asphalt (with 2 locomotives, 29 cars; traveling at the 25 mph limit) strikes an Alliance for Nonprofit Resources Inc. Butler Area Rural Transit Authority bus carrying impaired seniors and younger adults at the Maple Street intersection. It's unclear whether the bus stopped on or before the tracks; the train's

brakes are believed to have been applied and the horn to have sounded. Two people are flown by helicopter to area trauma centres–one was in critical condition, and a 91-year-old woman dies later at Allegheny General Hospital. Ten others, including the bus driver, are also hospitalised.[201]

- 30 April 2013 – *Chile* – A freight train derails near Collipulli and is then assaulted by men with fireweapons.[202][203] Interior minister Andrés Chadwick says the Chilean Antiterrorist Law would be applied to those responsible for the attack.[202]

- 2 May 2013 – *Serbia* – Two passenger trains collide in a tunnel between Novi Beograd and Zemun. The two trains running in the same direction, one from Belgrade to Novi Sad, strike another running from Belgrade to Šid at 13.30 CET. No fatalities are reported, many are injured.[204][205]

- 3 May 2013 – *Belgium* – A freight train derails in Schellebelle near Ghent. Three wagons carrying acrylonitrile explode and catch fire. One person dies and 33 are injured from toxic fumes in local neighbourhoods.[206]

- 17 May 2013 – *United States* – **Fairfield train crash** – Sixty people are injured (five critically) and rail traffic from New York to Boston is shut down after a Metro-North commuter train derails and plows into a second train in Fairfield, Connecticut.[207]

- 20 May 2013 – *New Zealand* – A morning peak Tranz Metro EMU commuter train derails near central Wellington after part of the undercarriage comes loose, puncturing a hole in the carriage floor in the process. Four people are injured and thousands of commuters affected as services are cancelled and 26 trains are withdrawn from service out of safety concerns.[208]

- 25 May 2013 – *United States* – Seven people are injured when two freight trains collide early in the morning at a rail intersection in southeast Missouri, causing a highway overpass to collapse (this occurred shortly after a bridge collapse in Washington state and the above-mentioned Fairfield, Connecticut commuter train collision). The accident occurs when a Union Pacific train T-bones a Burlington Northern Santa Fe train outside of Scott City, Missouri about 190 kilometres (120 mi) south of St. Louis, Missouri. One of the trains derails, sending rail cars smashing into an overpass support pillar. Five of the injured are in automobiles, and two are on the train. All but one of the injured are treated and released from the hospital. 37.209636°N 89.745727°W [209][210]

- 28 May 2013 – *United States* – A freight train derails outside Rosedale, Maryland, just outside Baltimore after colliding with a garbage truck. Fifteen cars from the CSX train Q409 derail and two catch fire. An explosion damages nearby buildings. Only the truck driver is injured. Those within a 20-block radius of the crash site are asked to evacuate. Hazardous materials crews are sent to the scene. The National Transportation Safety Board sends a team to investigate the accident.[211]

- 4 June 2013 – *Denmark* – A morning train collides with a tractor close to a crossing near the city of Holbæk. The tractor driver dies and six train passengers are injured.[212]

- 13 June 2013 – *Argentina* – **2013 Castelar rail accident** – A passenger train travelling during the morning rush hour hits an empty stationary train, near Castelar station, in Buenos Aires Province, about 30 km (19 miles) from Buenos Aires. At least three people die and another 315 are injured.

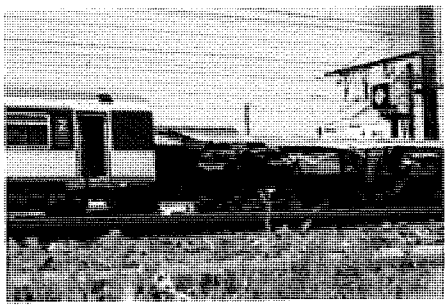
- 20 June 2013 – *Canada* – A rail bridge in Calgary, Alberta, weakened by recent flooding, collapses with 4 empty tank cars hanging just above the still swollen Bow River. No one is injured, and the cars are removed safely.

- 6 July 2013 – *Canada* – **Lac-Mégantic rail disaster** – A freight train containing 72 tank cars of crude oil runs away while unattended and derails in Lac-Mégantic, Quebec. Several cars explode, destroying over 30 buildings in the town's centre, roughly half of the downtown area, and requiring the demolition of all but three of the remainder of the buildings in the downtown area due to contamination by petroleum from the train; these combine to require the evacuation of 2,000 people, a third of the town's population. 42 are confirmed killed, along with 5 missing and presumed dead, making this the fourth-deadliest rail accident in Canadian history, and the deadliest since Canadian Confederation in 1867.

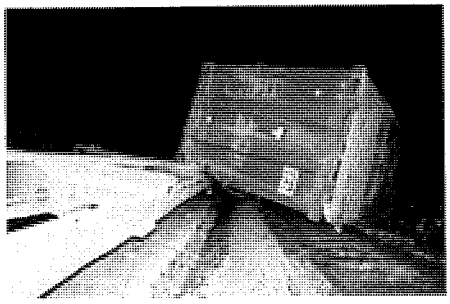
Image from space of the fire resulting from the Lac-Mégantic rail disaster, as bright as the lights of Quebec City

- 6 July 2013 – *Pakistan* – At least 14 people die and one person is injured when a rickshaw collides with a train near Shekhupura, Punjab, at a level crossing.[213]

- 7 July 2013 – *Russia* – At least 75 are injured in a train from Novosibirsk to Sochi when it derails between Krylovskaya and Kislyakovka in the Krasnodar region.[214]
- 12 July 2013 – *France* – **Brétigny-sur-Orge train crash** – A passenger train with 385 passengers is derailed at speed by a track defect soon after leaving Paris, and smashes into a station platform. Six are confirmed dead and almost 200 are injured.[215]

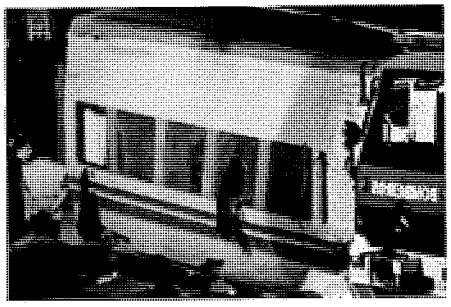

Brétigny-sur-Orge.

- 12 July 2013 – *France* – Bessines-sur-Gartempe – A train carrying nuclear waste derails and travels about 90 m (300 ft) before coming to a stop. It is reported that the *Le Populaire du Centre* newspaper received a message from an unknown anti-nuclear group taking responsibility for the Areva train derailment, although its authenticity was not confirmed.[216]
- 18 July 2013 – *United States* – **July 2013 Spuyten Duyvil derailment** – A CSX freight train carrying New York City municipal waste to an out-of-state landfill derails between the Marble Hill and Spuyten Duyvil stations on Metro-North Railroad's Hudson Line along the Harlem River the New York City borough of The Bronx. There are no injuries or deaths; however thousands of commuters are inconvenienced when that section of the line is closed for four days while the cars are rerailed and the spilled garbage cleaned up.[217] Total damage done amounts to US$827,000; the National Transportation Safety Board determined that the cause was excessive track gauge due to inadequate maintenance by Metro-North.[218]


Spuyten Duyvil.

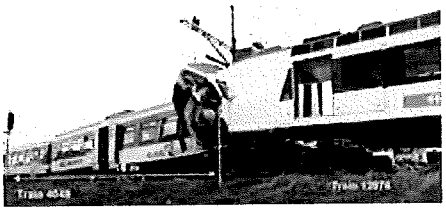
- 21 July 2013 – *United Kingdom* – Two passenger trains collide at Norwich, injuring eight people.[219]
- 24 July 2013 – *Spain* – **Santiago de Compostela derailment** – A high-speed train from Madrid to Ferrol, travelling at 190 km/h, well above the speed limit of 80 km/h,[220] derails on a curve in Santiago de Compostela; at least 79

passengers die and 140 are injured.[221]



Santiago de Compostela.

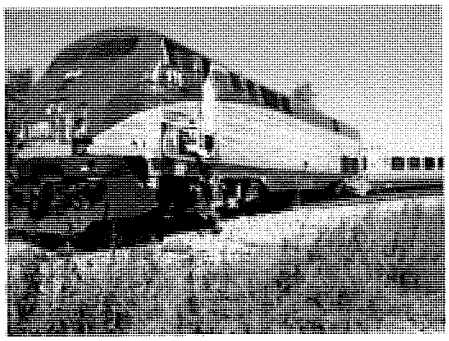
- 25 July 2013 – *Pakistan* – A passenger train travelling from Lahore to Rawalpindi overshoots and runs aground on a closed track in Gujranwala, Punjab; at least 2 people die and many are injured.[222]
- 29 July 2013 – *Switzerland* – **Granges-près-Marnand train crash** – Two passenger trains collide between the towns of Moudon and Payerne, at Granges-pres-Marnand. One person dies and more than 40 are injured.[223]



Granges-pres-Marnand.

- 5 August 2013 – *United States* – More than 20 cars of Union Pacific train derail in Louisiana near Lawtell.[224]
- 19 August 2013 – *India* – A high-speed Rajya Rani Express crashes into a crowd of Hindu pilgrims crossing the tracks at a remote station in the Saharsa District east India; 37 people die, more are injured.
- 25 August 2013 – *Mexico* – A cargo train ridden by Central American migrants heading to the U.S. derails in a remote region of southern Mexico in the Tabasco state; at least five die, at least 35 are injured. A number of people are trapped.[225]
- 2 September 2013 – *Netherlands* – The operator of a local train of Nederlandse Spoorwegen ignored a red light and was traveling way beyond the speed limit. The Automatic Train Control system didn't work. Therefore, the train severely damaged a turnout and ended up on the wrong track almost colliding with an intercity train at high speed. The train operators of both trains activated the brake systems just in time, thus avoiding a collision.[226][227]
- 16 September 2013 – *United States* – A freight train derails near Seville, Illinois when a bridge over the Spoon River collapses under it.[228]
- 18 September 2013 – *Canada* – **Ottawa bus-train crash** – An OC Transpo double decker bus collides with a Via Rail train in the Ottawa, Ontario suburb of Barrhaven near Fallowfield Station; at least six bus passengers including the driver die. No one on board the train dies.[229]

- 19 September 2013 – *United States* – A CSX train derails in Southampton County, Virginia injuring two engineers and starting a fire.[230]



Ottawa.

- 30 September 2013 – *United States* – An out-of-service Chicago Transit Authority train crashes head-on into a stopped train in Forest Park, Illinois, injuring 33 people.[231]

- 9 October 2013 – *United States* – A Union Pacific train hits a stalled tractor trailer carrying pipes in Midland, Texas. The accident caused the pipes to go flying and 100 gallons of diesel fuel from the locomotive to leak. Accident was caught on tape. No injuries.[232]

- 11 October 2013 – *United States* – A truck carrying logs collides with a Durbin and Greenbrier Valley Railroad train carrying 63 people in Randolph County, West Virginia. The driver of the truck dies, and 23 on the train are injured, six of them seriously.[233]

- 15 October 2013 – *United Kingdom* – A freight train derails and runs for four miles until it is stopped at Gloucester. An investigation finds the cause to be poor track condition and an inadequate maintenance regime.[234]

- 19 October 2013 – *Canada* – A train with 13 cars carrying crude oil and liquefied petroleum gas derails west of Edmonton, Alberta. Local residents are evacuated in Gainford, Alberta located some 85 km (53 miles) from the capital. A fire results and no one was injured.[235]

- 19 October 2013 – *Argentina* – At least 80 people are injured when a train crashes into a walk in the center of Buenos Aires.[236]

- 24 October 2013 – *United States* – One person dies when four freight cars loaded with gravel derail at the SunRail station on State Road 46 in Sanford, Florida.[237]

- 31 October 2013 – *Kenya* – At least eleven people died and thirty-four people are injured in Nairobi when a passenger train runs into bus at a high rate of speed. Lack of proper safety measures at a railway crossing is listed as a possible cause.[238]

- 2 November 2013 – *India* – 10 people died and 20 were injured as they were run over by 13352 Alapuzha-Dhanbad express, in Vizianagaram district. The victims had alighted the 57271 Vijayawada-Rayagadatrain onto the tracks at Gotlam station

when they heard a rumour that a compartment was on fire and they did not see the coming train.

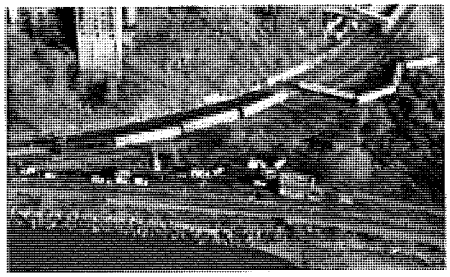
- 8 November 2013 – *United States* – A 90-car freight train carrying crude oil from the Bakken shale patch in North Dakota (possibly similar to the type carried in the July 2013 Lac-Mégantic derailment in Quebec, Canada), from Amory, Mississippi to a refinery in Walnut Hill, Florida, derails and explodes in the morning in Pickens County, Alabama (west AL); the flames, which shot upward 300 feet high, were left to burn themselves out, which may take up to 24 hours. There were no fatalities or injuries.[239]

- 13 November 2013 – *India* – A herd of 40 elephants was struck by a passenger train in Chapramari Wildlife Sanctuary.

- 15 November 2013 – *India* – 13 Coaches of Ernakulam Bound 12618 Mangala Lakshadweep Superfast Express were derailed near Ghoti village. 3 to 4 people died and dozens were injured.

- 20 November 2013 – *United Kingdom* – A passenger train collides with the buffers at Chester railway station, Cheshire. One passenger is injured.[240]

- 30 November 2013 – *United States* – Southwestern Railroad (New Mexico) train derails outside Silver City, New Mexico, resulting in the death of the conductor Steven "Steve" Crose, 60, engineer Donald "D.A." White, 38, and ride-along passenger Ann Thompson, 50. The train is leaving a mine operated by Freeport-McMoRan Copper and Gold on a 6% slope when it experiences braking failure. Traveling out of control for miles, the locomotive, which contains all three occupants, eventually leaves the track on a curve completely disconnecting from the eight cars heavily loaded with magnetite and slides into an arroyo (creek). All three occupants of the locomotive are killed immediately on impact and must be extricated from the badly damaged locomotive by emergency responders. The eight freight cars continue on the track a short distance before stopping. It is originally reported that all three occupants are male employees,[241] but a correction later specifies that the female ride-along passenger was not an employee.[242]
- 1 December 2013 – *United States* –
December 2013 Spuyten Duyvil derailment - Derailment at Spuyten Duyvil, the Bronx, New York City – The engineer of a Metro-North


Spuyten Duyvil derailment.

Railroad passenger train from Poughkeepsie to Grand Central Terminal falls asleep with the train at full throttle. It enters a 30 mph (48 km/h) curve just before Spuyten Duyvil station at 82 mph (132 km/h) and derails, killing 4 and injuring 63. It is the first Metro-North accident with passenger fatalities.[243] The engineer's fatigue was caused by severe, undiagnosed sleep apnea in combination with a recent shift change.[244]

- 5 December 2013 – *United States* – A runaway Canadian National ore train rear-ends an ore train in Two Harbors, Minnesota. Two crew members jumped clear and two crew members were hospitalized when they stayed in a trailing locomotive.

- 9 December 2013 – *Indonesia* – A commuter train bound for Tanah Abang from Maja (Train number KA 1131, using Tokyo Metro 7000 series set 7021) collides with a truck loaded with oil, which explodes. Five people die; another is seriously injured. The accident is caused by the truck driver attempting cross the grade crossing shortly before being hit by an oncoming train from Pondok Ranji. The accident occurred at Grade Crossing number 57 at the S curve between Kebayoran and Pondok Ranji Station. The train involved is immediately written off because of major damage to car 7121 (7221 received minor damage)[245][246][247][248]

- 22 December 2013 – *Kenya* – A cargo train derailed in the Nairobi slum of Kibera several people are injured.[249][250]

- 27 December 2013 – *Canada* – Seven rail cars of a CN freight train derailed while passing through the Wainwright Rail Yard at low speed. Three empty grain cars came completely off the tracks; the other four remained upright, with some damage to an auto rack car. No damage was apparent to an overpass that the train was passing under.[251]

- 28 December 2013 – *India* – At least 26 died and 12 were injured when an AC coach of the 16594 Bangalore City-Hazur Sahib Nanded express caught fire near Kothacheruvu in Anantapur district of Andhra Pradesh.

- 30 December 2013 – *United States* – **Casselton train derailment** – Several grain cars from a westbound train derail and strike an eastbound train carrying crude oil on an adjoining track near Casselton, North Dakota. Several crude oil cars explode, resulting in large clouds of black smoke which forced an evacuation of the

area. No casualties were reported.[252]

2014

- 7 January 2014 – *Canada* – A CN train carrying crude oil and propane derails near Plaster Rock, New Brunswick. The resulting fire forces an evacuation of the area within a two-kilometre radius. No injuries are reported.[253][254]

- 7 January 2014 – *United States*– A CTA Yellow Line passenger train derails in the Rogers Park neighborhood of Chicago, Illinois. The two-car train derailed in the early afternoon, briefly disrupting late afternoon rush hour traffic. No injuries were reported.[255]

- 11 January 2014 – *Canada*– A CP train carrying metallurgic coal derails in Burnaby. Seven cars of a 157 car train derail and spill coal into a fish-bearing stream.[256]

- 13 January 2014 – *United States*– A BNSF train derails near Kent, Washington after a landslide. The landslide also disrupted Amtrak and Sound Transit passenger rail service.[257]

- 15 January 2014 – *Netherlands*– A passenger train from Dutch Railways derails near the central station of Hilversum. The train was carrying approx. 550 passengers. No injuries were reported.[258][259]

- 17 January 2014 – *United States* – A BNSF train hauling fruits, vegetables and empty intermodal cars derails near Williston, North Dakota. The derailment also disrupted Amtrak passenger rail service between Minot, North Dakota and Havre, Montana. No injuries were reported.[260]

- 17 January 2014 – *United States* – A CSX train carrying coal derails near Dunnellon, Florida. Twelve cars of the 100-car train derailed in a rural area. The train was transporting the coal to the Duke Energy Crystal River Energy Complex. No injuries were reported.[261]

- 19 January 2014 – *United States* – A Union Pacific train carrying coal derails near Caledonia, Wisconsin. Nineteen cars of the 135-car train derailed. The cause is believed to be cracked rails caused by unusually cold winter conditions. No injuries were reported.[262]

- 20 January 2014 – *United States* – A CSX train carrying crude oil derails in

Philadelphia, Pennsylvania. Seven cars of a 101-car train derailed on a bridge over the Schuylkill Expressway, causing the road to be shut down for brief periods of time as emergency crews drained the tankers. No injuries were reported.[263]

- 21 January 2014 – *Netherlands* – An empty, out-of-service tram/LRT vehicle of HTM's Randstadrail service crashed into an in-service tram/LRT Randstadrail vehicle at a tram stop. 4 passengers were injured.[264]

- 22 January 2014 – *United States* – A BNSF train transporting 18 empty intermodal rail cars derails inside the Lindenwood Yard in St. Louis, Missouri. No injuries were reported and the derailment was cleared the same day.[265]

- 23 January 2014 – *United States* – A BNSF train carrying corn derails near Ross, North Dakota. The derailment of eleven cars disrupted transportation of crude oil from the Bakken oil formation to ports in Montana. No injuries were reported.[266]

- 25 January 2014 – *United States* – A Union Pacific freight train derails near Morrow, Louisiana. No injuries were reported, and no chemical or hazardous materials were reported as spilled.[267]

- 27 January 2014 – *Canada* – A CN train hauling liquefied petroleum gas, clay, and automobiles derails near the Saint-Basile community of Edmunston, New Brunswick. Five cars left the tracks, three carrying automobiles, and one each of LPG and clay. No injuries were reported.[268]

- 27 January 2014 – *United States* – A Union Pacific train carrying scrap paper derails near Pollard Flat, California. Only one box car in the four-car train was carrying cargo, with no cargo spillage. The derailment caused disruption to Amtrak passenger rail service, resulting in riders being transported via buses between Oregon and California.[269]

- 28 January 2014 – *United States* – A CN train carrying plastic pellets derails near Mundelein, Illinois. One set of wheels on a hopper in a 110-car train derailed on a single lane track, resulting in disruptions of service over two days for several passenger and freight services as trains needed to be rerouted.[270]

- 28 January 2014 – *United States* – A CSX train carrying phosphoric acid derails near McDavid, Florida. 23 of the 69 cars derailed, resulting in the destruction of the tracks and bridge over Fletcher Creek, and chemicals leaking into the water. No injuries were reported.[271]

- 30 January 2014 – *United States* – A NS train transporting 179 empty coal cars derailed near Jewell Ridge, Virginia. No injuries were reported, and the accident was cleared on the same day.[272]

- 31 January 2014 – *United States* – A CN train carrying crude oil, methane and liquid fertilizer derails near New Augusta, Mississippi. 18 to 24 cars of the 85-car train derailed and began leaking. The derailment occurred in a rural area, but resulted in 12 families being evacuated and four lanes of U.S. 98 closed as emergency responders began to clean up the spill. No injuries were reported.[273]

- 4 February 2014 – *Ukraine* – **2014 Ukraine train bus collision** - Bus driver ignores flashing crossing signals killing 13 and injuring 6.

- 8 February 2014 – *France* – **2014 Chemins de Fer de Provence derailment** - A train derails between Digne-les-Bains and Nice when it is hit by a rock that rolled down the mountainside. Two people die and seven are injured.[274]

- 15 February 2014 – *Japan* – Two commuter trains, operating in heavy snow and limited vision, bound for Yokohama Motomachi, collide. A subsequent two-car train derails in Motosumiyoshi Station, Tokyu Toyoko Line, Kawasaki, Kanagawa Prefecture. 19 persons are injured.[275]

- 17 March 2014 – *Netherlands* – A passenger train from Syntus crashes into the trailer of a truck that got stuck at a railroad crossing near the town of Almen. The truck driver escapes just in time. 3 train passengers are injured. The train was carrying 100 people.[276]

- 17 March 2014 – *Netherlands* – A tram/LRT vehicle of HTM's Randstadrail service crashes into a city tram on an intersection near the city border with Delft. 20 people are injured, one of them severely.[277]

- 20 March 2014 – *India* – An 18-year-old student was killed while nine persons were injured when six coaches of a local train derailed after getting uncoupled from the rest of the train at Titwala.

- 24 March 2014 – *United States* – **O'Hare CTA station train crash** - A train in Chicago, Illinois overruns the buffers and goes up the escalator at O'Hare International Airport, injuring 32 people.[278]

- 5 April 2014 – *Indonesia* – **Tasikmalaya derailment**

- 13 April 2014 – *China* – 15 people are sent to hospital after a passenger train derails in Northeast China's Heilongjiang province.[279]
- 16 April 2014 – *Estonia* – A truck crashes into Elron's train Stadler Flirt at Raasiku railway crossing. The train was heading from Tallinn to Tartu. Truck driver and one passenger are killed, 12 people are injured.[280]
- 22 April 2014 – *Democratic Republic of the Congo* – **2014 Katanga train derailment** - 48+ fatalities.
- 30 April 2014 – *United States* – CSX derailment: 15 tankers carrying crude oil derail and catch fire in Lynchburg, Virginia, striking fears of water contamination in the local area and beyond.[281]
- 1 May 2014 – *United States* – CSX coal train derailed three locomotives and 10 cars in Bowie, MD.[282]
- 2 May 2014 – *South Korea* – a Seoul Metro train collides with another train in a mechanic problem stopping at Sangwangsimni Station, causing more than 200 injuries.[283]

Seoul.

- 4, May 2014 – *India* – a train traveling the Konkan Railway derails near Nidi railway station in Maharashtra, killing at least 18 and injuring 124.[284]
- 10 May 2014 – *United States* – a train traveling in Colorado derails and spills 6,500 US gallons (25,000 l; 5,400 imp gal) of oil west of LaSalle, Colorado.[285]
- 20 May 2014 – *Russia* – **Naro-Fominsk rail crash** - Near Naro-Fominsk, a freight train derails and fouls an adjacent line. A passenger train runs into it, killing nine and injuring around 50 people.[286]
- 26 May 2014 – *India* – Gorakhpur bound Gorakhdham Express rams into a stationary goods train near Khalilabad station in Sant Kabir Nagar district of Uttar Pradesh killing at least 25 and injuring over 50.[287]
- 5 June – *Iran* – A passenger train is in collision with a freight train in the north of Iran. Ten people are killed.[288]
- 25 June 2014 – *India* – Dibrugarh Rajdhani Express (12236) derails near Bihar's

Chapra town, four die and eight are injured.[289]

- 3 July 2014 – *United States* – A Norfolk Southern Railway train derails in Sewickley, PA.

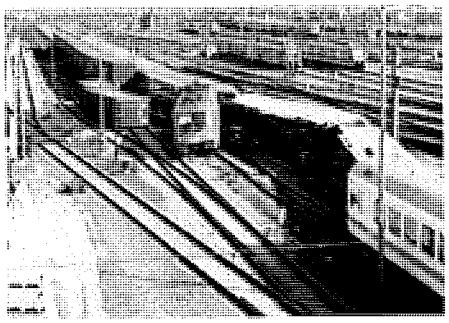
- 4 July 2014 – *United States* – 19 cars of a Montana Rail Link train, carrying manufactured plane parts, soybeans, and alcohol from Kansas City, Kansas to Renton, Washington, derail. 3 airplane fuselages spill into a local river. No injuries are reported, and the nearby river pass and fishing gorge is closed to remove debris.[290]

- 12 July 2014, – *Bulgaria* – A long distance passenger train derails at Kaloyanovets station, killing the driver and injuring 14 others. The train passed through turnouts set to diverging track at 104 km/h, 2.5 times over the limit of 40 km/h. EBICAB-700 protection system was available but wasn't turned on and the driver was not trained to use it.[291][292]

- 15 July 2014 – *Russia* – **2014 Moscow Metro derailment** - A passenger train derails between Slavyansky Bulvar and Park Pobedy stations on the Moscow Metro. Twenty-one people die and over 150 are injured.[293]

- 17 July 2014 – *France* – **Denguin rail crash** - A TGV train collides with a regional TER train near Denguin in south western France. Several casualties are reported.[294]

- 23 July 2014 – *India* – A school bus is hit by Nanded Passenger train at an unmanned railway level crossing in Masaipet village of Medak district. 18 bus passengers died including 16 students.

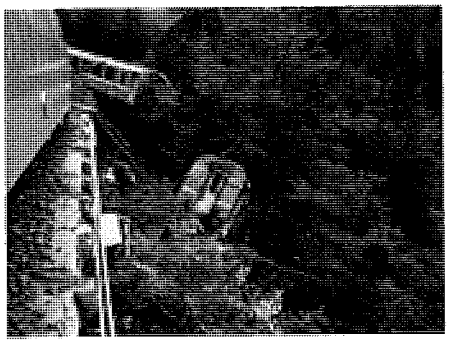

Mannheim

- 2 August 2014 – *Germany* – A EuroCity express train of Deutsche Bahn collides with a freight train in the central station of Mannheim. 45 persons are hurt, five of which sustain severe injuries.[295]

- 13 August 2014 – *Switzerland* – **Tiefencastel derailment** - A Rhaetian Railway passenger train is struck by a landslide and derails at Tiefencastel. Eleven people are injured.[296]

- 17 August 2014 – *United States* – two Union

Pacific locomotives hit head on, in Hoxie, Arkansas, killing two crewmen and injuring two others. Several cars derail, resulting in a fire that causes the evacuation of 500 residents.[297]


Tiefencastel, Switzerland.

- 22 August 2014 – *Australia* – a V/line V/locity (carrying just the driver and conductor) runs into a Metro Trains Comeng from Werribee to Flinders Street (carrying 60 passengers) between Former stations Galvin and Paisley on the express section of the Werribee line. 9 were injured in the collision.[298]

- 30 September 2014 – *India* – the Lucknow–Barauni Express is rear-ended near Gorakhpur by the following train, the Krishak Express, which should have stopped at a red signal. At least 12 die and 46 are injured, 12 critically.[299]

- 5 October 2014 – *United States* – a Norfolk Southern freight train slams into a lowboy trailer in Mer Rouge, LA, seriously injuring both railroad crew and causing two engines along with 17 cars to derail. 50 homes are evacuated for about two hours due to the leakage of argon gas from the tank car.[300]

- 7 October 2014 – *Canada* – A CN train hauling dangerous goods derails near Clair, Saskatchewan. Twenty six of the 100 rail cars derail, two of which leaki petroleum distillate and catch fire. The approximately 50 residences of Clair and surrounding farms are evacuated and Highway 5 is shut down.[301]

- 16 October 2014 – *United States* – An excursion train of the Arkansas-Missouri Railroad stalls on the mainline near West Fork, Arkansas; the crew of the locomotive sent to help the train does not have the precise location of the stalled train and runs into the stalled train's locomotive after rounding a curve. 44 people are injured in the collision, 5 critically.[302][303] An NTSB team was dispatched to investigate.[304]

- 28 October 2014 – *United States* – 24 were injured when an Amtrak train collides with a semi truck on U.S. Route 421.[305]

- 6 November 2014 – *Canada* – A QNSL train hits a landslide, causing the lead locomotives to derail, falling down an embankment into a river near Sept-Îles, Quebec. The lone engineer was killed.[306][307]

- 22 November 2014 – *Kazakhstan* – A truck driver dies after two trains hit a truck at a level crossing. Four empty freight cars were derailed. The event was caught on video from a CCTV camera. The CCTV footage showed that the driver of the truck was unable to stop in time due to icy road conditions.[308]

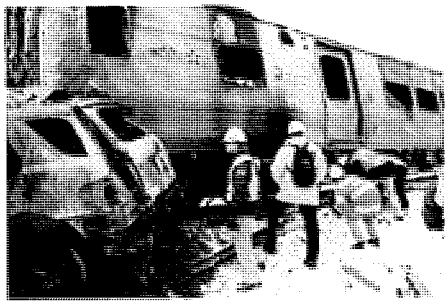
- 14 December 2014 – *India* – 11 sleeper coaches and a pantry car (AC Hot Buffer Car) of the 12381 UP Howrah – New Delhi Poorva Express derail at 8.27 am after leaving Howrah at 8.15 am. There was no casualty or injury.

2015

- 7 January – *Canada* – A CN freight train hauling 114 cars heading east from Edmonton, Alberta to Saskatoon, Saskatchewan derails between the community of Jarrow, Alberta and village of Irma. Twenty-three cars derail, of which one begins leaking a non-dangerous liquid adhesive. The ensuing cleanup resulted in the temporary closure of a section of Highway 14.[309]

- 14 January – *United States* – A Texas Department of Criminal Justice bus with 12 inmates and three officers is traveling from Abilene, Texas to El Paso, Texas when it collides with a train, near Odessa, Texas, killing 10.[310]

- 3 February – *United States* – **Valhalla train crash** - A Metro-North Railroad train strikes one car at a crossing near Valhalla, New York, and catches fire, killing six people.[311]


Valhalla, New York

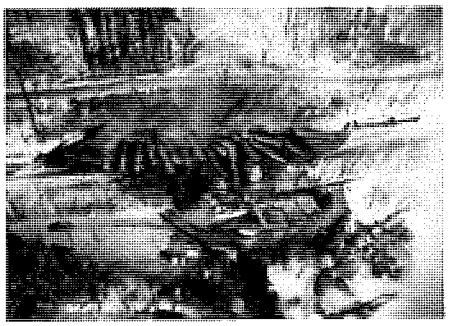
- 13 February – *India* – **Anekal derailment** - Derailment of a Intercity Express in the Bangalore of Karnataka, India kills ten and injures 150 more.[312][313]

- 16 February – *Canada* – A CN freight train transporting crude oil derails 80 km south of Timmins, Ontario. 29 of 100 cars derail, and seven crude oil tank cars catch fire. There are no injuries and the burning oil is contained to the area.[314]

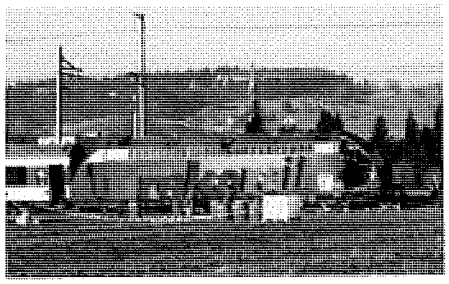
- 16 February – *United States* – **2015 Mount Carbon train derailment** - A CSX freight train derails in West Virginia. A broken rail caused nineteen Bakken crude oil tank cars to catch fire, with over 1,100 people evacuated from their

homes nearby.[315]

- 20 February – *Switzerland* – **Rafz train crash** - An S-Bahn train and an Interregio express train collide at Rafz.[316]



Mount Carbon



Rafz

- 22 February – *United Kingdom* – The London to Penzance express hits remains of a stone bridge parapet in Froxfield, Wiltshire. A police emergency number operator, improperly trained, sent police to investigate the truck hitting the parapet and should have also contacted the local rail control centre.[317]

- 24 February – *United States* – **2015 Oxnard train derailment** - A Metrolink train hits a road vehicle at Oxnard, California and derails.[318] The train engineer dies and 29 others are injured.

- 25 February – *United States* – A CN freight train traveling from Winnipeg, Manitoba to Superior, Wisconsin derails 25 miles northwest of Duluth, Minnesota. Thirteen of the 107 cars in the train derail, some of which contain naphthalene. No injuries or spills were reported.[319][320]

- 2 March – *United States* – A Union Pacific train hauling hazardous material derails near Meacham, Oregon; 10 cars jump the tracks in a narrow canyon overlooking Meacham Creek.[321]

- 5 March – *United States* – A BNSF oil train derails in a rural area near Galena, Illinois. Twenty-one of the 105 cars, containing Bakken formation crude oil, leave the track and catch fire, which continues to burn. No injuries are reported.[322]

- 6 March – *Netherlands* – A passenger train runs into the rear of a freight train between Tilburg Universiteit and Tilburg stations. A few passengers suffer slight injuries.[323]

- 7 March – *Canada* – A CN freight train derails near the small Northern Ontario village of Gogama, Ontario. Forty of 100 cars derail, with 5 entering the Makami River and 7 carrying crude oil catching fire and burning for several days. It is the second CN derailment in the area in the past month.[324]

- 7 March – *United Kingdom* – **2015 Wootton Bassett SPAD incident** - A charter train overruns a signal at Wootton Bassett, Wiltshire and comes to a stop foul of a junction, where an express train has passed through a minute earlier. As a direct result of the incident, West Coast Railway Company were banned from accessing all rail lines in the United Kingdom until remedial preventions were put in place.[325]

- 9 March – *United States* – **2015 Halifax train crash** - An Amtrak passenger train collides with a tractor trailer in Halifax, North Carolina. No life-threatening injuries were reported. The accident was caught on video.[326]

- 10 March – *Vietnam* – **Dien Sanh train crash** - A passenger train collides with a vehicle on a level crossing in Hai Lang District and is derailed. The train driver is killed and four people are seriously injured.[327]

- 12 March – *Netherlands* – A fire occurs on a passenger train at Abcoude, Utrecht. All on board are evacuated.[328] Twenty-four people are taken to hospital.[329]

- 15 March – *United States* – A car ignores warning signals at an open grade crossing in Louisville, Kentucky. A Union Pacific freight train crashes into the car with 4 Bhutanese passengers in it where they were returning from soccer practice. 2 passengers sitting on the right side were killed in the crash while 2 were critically injured and taken to a nearby hospital. The accident was also caught on camera by two railfans.[330][331]

- 20 March – *India* – **2015 Uttar Pradesh train accident** - 15 people are killed, 150 are injured as the Dehradun-Varanasi Janta Express derails in Uttar Pradesh's Rae Bareli.[332]

- 26 March – *Thailand* – **2015 Phachi collision** - A passenger train runs into the rear of another in Phachi District. 52 people are injured in the collision,[333] three seriously.[334]

- 28 March – *United States* – **2015 Los Angeles train crash** - An Expo Line train collides with an automobile at an intersection, injuring 12.[335]

- 31 March – *Australia* – A freight train runs into the rear of another at Keswick, Adelaide, South Australia. At least one of the trains is derailed and two level crossings are blocked.[336]

- 10 April – *Canada* – A freight train derails north east of Calgary, Alberta.[337]

- 15 April – *United Kingdom* – A empty Southern Class 377 train unit no. 118 derails in Lovers Walk, Brighton causing damage to electrical cables that supply power. No passengers were in the train and the driver is not injured by the results. Buses replaced trains in the afternoon and the morning of 16/04/15. 73202 was attached to the rear/north end of 377118 at 16/04/15 and the line blockage was reopened after 377118 was re-railed on the track.[338]

- 27 April – *United States* – Several well cars of a Union Pacific train derail off a bridge near Bridge City, Louisiana during a severe storm. The event is caught on tape from a car's dashcam.[339]

- 28 April – *South Africa* – **Denver train crash** - Two passenger trains collide at Denver station, near Johannesburg. One person is killed and about 240 are injured.[340]

- 5 May – *Austria* – two passenger trains are in collision at Graz. The driver of one of the trains is killed. Eight passengers are injured.[341]

- 6 May – *United States* – A train derails near Heimdal, North Dakota, which ignites a crude oil fire in six tanker cars and forces the evacuation of approximately 40 nearby residents. No injuries or fatalities were reported.[342]

- 12 May – *United States* – **2015 Philadelphia train derailment** - Amtrak passenger train Northeast Regional Train 188, *en route* from Washington, D.C. to New York City and carrying an estimated 238 passengers and five crew, derails and partially rolls over on its side in Philadelphia, Pennsylvania, in the Port Richmond neighborhood. Out of the 243 passengers and crew on the train more than 200 are injured in the derailment,[343] with a confirmation of 8 deaths. With the current death toll of 8, as of Thursday, May 14, 2015, this is the U.S.'s deadliest train incident in almost six years.[344][345] The accident occurred at almost the same spot as another fatal accident.[346]

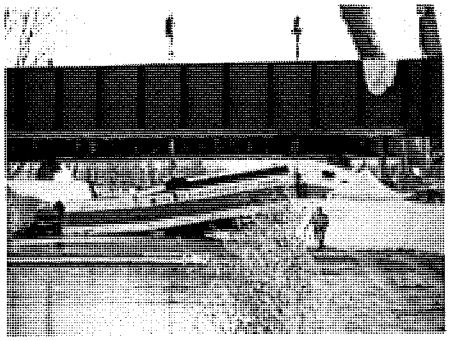
Philadelphia.

- 13 May – *United States* – A CSX freight train collides with a bus in East Point, Georgia that was trapped on a railroad crossing by traffic while stopped at a traffic light. Six people were injured in the wreck. The accident was caught on tape by cameras inside the bus.[347][348]

- 16 May – *Germany* – A passenger train collides with an agricultural vehicle on a level crossing at Ibbenbüren, North-Rhine Westphalia. Two people are killed and twenty are injured.[349]
- 25 May – *India* – An express train derails between Athsarai and Sirathu stations, Uttar Pradesh. Two people are killed and over 100 are injured.[350]
- 30 May – *United Kingdom* – Two electric multiple units collide at Cambridgeat low speed while coupling. Three people are injured.[351]
- 11 June – *United States* – Nine cars (and a locomotive) of an 84-car Kansas City Southern freight train derail in Houston, Texas. Two cars fall from the track, with one falling onto a road below. No injuries were reported and no cargo was spilled.[352]
- 16 June – *Tunisia* – 19 people are killed and 98 injured when a rush hour passenger train hits a lorry and derails at an unmarked crossing south of Tunis. Most of the dead were passengers on the train, which hit the lorry around 60 kilometres south of the capital, the transport ministry said.[353]
- 28 June – *India* – An electric multiple unit overruns the buffers at Churchgate, Mumbai. Five people are injured.[354]
- 30 June – *United Kingdom* – A freight train is derailed near Langworth, Lincolnshire.[355]
- 2 July – *United States* – **2015 Tennessee train derailment** - A train carrying hazardous materials goes off of its tracks near Knoxville, Tennessee.[356]
- 2 July – *Pakistan* – **2015 Gujranwala derailment** - A Pakistan Army passenger train is derailed when a bridge over a canal collapses under it at Gujranwala. Nineteen of the 300 people on board are killed.[357]
- 17 July – *South Africa* – Two passenger trains are in collision at Booysens, Johannesburg. Over 100 people are injured.[358]
- 22 July – *Czech Republic* – **2015 Studénka train crash** - A train collides with a truck at Studénka. 3 people die and 13 others are injured.[359]
- 26 July – *United Kingdom* – A Southeastern Class 375 collides with a herd of cattle on the line at Godmersham, between Chilham, Kent and 375703's front coach is derailed. There are no injuries amongst the 70 passengers ad crew.[116][360]

- 1 August – *United Kingdom* – A ballast train runs into the rear of another ballast train near Cumnock, Ayrshire. Both trains are derailed.[361]
- 4 August – *India* – **Kudawa derailment** - Two passenger trains are derailed near Kudawa, Madhya Pradesh due to the trackbed being washed away by the Machak River. Twenty-nine people are killed.[362]
- 8 August – *Russia* – Passenger train number 233 in Mordovia derails because of boarding of the rails. Four railcars of a passenger train en route from Yekaterinburg to Adler run off the rails in Mordovia. Five passengers are injured.[363]
- 16 August – *Hungary* – Two passenger trains collide head on at low speed when both the first train's driver and the station master of Galgamácsa forget to tell each other that the train crossing on the single-track railroad was moved to Nógrádkövesd from Acsa-Erdokürt and went forward from Nógrádkövesd despite the reserved track. The accident took place near Galgaguta. 26 injuries (0 fatal) occurred.
- 24 August – *India* – A Bangalore-Nanded Express train number 16594 is rammed by a granite-laden truck at a level crossing near Madakasira in Anantapur district, leading to the derailment of four coaches and killing six people.[364]
- 12 September – *Germany* – A passenger train collides with a car in Monzingen, killing the five occupants of the car.[365]
- 12 September – *India* – A passenger train derails on the Kalka-Shimla Railway killing two and injuring nine of the 37 passengers on board.[366]
- 16 September – *Germany* – A passenger train collides with a bus on a level crossing at Hedendorf. All those on board the bus, which had stalled, had been evacuated before the accident. One passenger on the train is injured.[367]
- 5 October – *United States* – An Amtrak passenger train strikes rocks on the line and derails near Northfield, Vermont.[368][369]
- 24 October – *United States* – A southbound Union Pacific freight train hauling 64 cars of gravel and concrete materials is swept off the tracks by flood waters just north of Corsicana, Texas, after Hurricane Patricia's weak remnants dumped 18 inches of rain on the area over a two-day period. Both crew members were rescued from the flood waters uninjured.[370]
- 11 November – *Australia* – An X'Trapolis 100

electric multiple unit is stolen and derailed at Hurstbridge, Victoria.[371]


Eckwersheim.

- 14 November – *France* – **Eckwersheim train crash** - A high-speed TGV test train derails near Eckwersheim, north of Strasbourg (Alsace), killing 11 people and injuring the remaining 49 survivors; no criminal cause is suspected, despite the event taking place hours after the November 2015 Paris attacks.[372][373]

- 14 November – *United States* – A freight train collides with a Toyota Camry in North Carolina, killing the two elderly passengers of the vehicle.[374]

- 17 November – *Pakistan* – **Aab-e-Gum derailment** - The *Jaffar Express* is derailed at Aab-e-Gum. Twenty people are killed and 96 are injured.

- 28 November – *United Kingdom* – A passenger train collides with cattle on the line at Dalreoch, Dunbartonshire and is derailed.[116]

- 1 December – *Austria* – A freight train on the Semmering railway line collides with a single locomotive that had been ordered to tow the train back into a station when it had to stop on the track because another train ahead had broken down. The engineer in the assistant locomotive is injured and several rail cars are derailed in the Polleroswand tunnel causing a complete shutdown of the Semmering line for two weeks. Investigations suggest that the freight train driver had released the brakes of his train too early which made the train roll back on the steep track crashing into the approaching support engine.[375]

- 27 December – *Australia* – A freight train carrying 819,000 litres of sulphuric acid derails about 20 kilometres (12 mi) east of Julia Creek, Queensland, leaking up to 31,500 litres of sulphuric acid.[376][377]

2016

- 4 January – *United States* – A Tri-Rail passenger train collides with a garbage truck which had broken down on a grade crossing at Lake Worth station, Florida and is derailed. Twenty-two people are injured.[378]

- 8 January – *Thailand* – A passenger train collides with a Cattle truck near Phetchaburi Railway Station, Phetchaburi province and is derailed. 3 people are

killed, 34 are injured.[379]

- 12 January – *Philippines* – A PNR Metro South Commuter Line train from Alabang collides with a jeepney at the Pedro Gil Street crossing near Paco station in Paco, Manila. One person dies from head injuries and 6 are injured.[380]

- 20 January – *Italy* – a head on crash between 2 light rail trains in Cagliari at a rate of 30 km/h-40 km/h results in the injuries of 70 passengers, mostly students from a nearby school.[381]

- 28 January – *United States* – A northbound Tri-Rail train derails in Pompano Beach, Florida. One person is injured.[382]

- 31 January – *Egypt* – Seven are killed and scores injured when a train crashes into a truck in Giza, just outside Cairo. Reports say the gatekeeper forgot about the coming passenger train until a truck pulled out in front of the crossing; the gatekeeper is now under investigation.[383]

- 9 February – *Germany* – **Bad Aibling rail accident**: Eleven people are killed in a head-on collision between two passenger trains near Bad Aibling;[384][385] investigators attributed it to the dispatcher giving the trains incorrect information while he was distracted by a game he was playing on his mobile phone.[386]

- 21 February – *Switzerland* – a steam railcar collides with wagons at Sihlbrugg. Sixteen of the 56 people on board are injured,the other 40 suffer from shock.[387]

- 23 February – *Netherlands* – **Dalfsen train crash**; A passenger train collides with a crane at Dalfsen, Overijssel. One person is killed, six are injured.[388]

- 7 March – *United States* – An Altamont Corridor Express train derails after striking a fallen tree in Niles Canyon near Sunol, California. The lead car falls into Alameda Creek. Fourteen people are injured, four seriously.[389]

- 14 March – *United States* – **Cimarron train derailment**; Amtrak's Southwest Chief derails about 20 miles (32 km) west of Dodge City in Kansas; five cars are derailed. Thirty-two people are injured.[390]

- 25 March – *United States* – **Callaway train crash**; A collision between a train and a semi-tanker carrying propane causing a large explosion and injuring two train crew members.

- 30 March – *Isle of Man* – a Snaefell Mountain Railway tramcar runs away from

Summit station. It derails before reaching Bungalow station and is totally destroyed. Nobody is on board at the time.[391]

- 3 April – *United States* – **2016 Chester, Pennsylvania train derailment**: Two people die, and thirty-one suffer injuries, when an Amtrak train collides with a backhoe on the tracks and a car derails in Chester, near Philadelphia.[392]

- 3 April – *United Kingdom* – A passenger train collides with a stationary train at Plymouth, Devon, injuring up to twenty people.[393]

- 4 April – *Thailand* – A double decker bus rams into a train at an unguarded railway crossing in Nakhon Chai Si District, Nakhon Pathom Province, killing three people and injuring 25 others.[394]

- 8 April – *Costa Rica* – Two commuter trains collide head on near Pavas injuring more than 200.[395]

- 9 April – *Sweden* – An empty passenger train crashes though buffer stops at Karlstad whilst being shunted into a siding that was too short for it. Several staff on board are injured.[396]

- 10 April – *United Kingdom* – A passenger train collides with an agricultural tractor on a level crossing at Roudham, Norfolk. The tractor driver is seriously injured, six passengers sustain minor injuries.[397]

- 13 April – *Japan* – An out of service bullet train owned by the Kyushu Railway Co. derails near Kumamoto Station after a 6.5 magnitude earthquake had hit the nation. Nobody is injured in the derailment.[398]

- 19 April – *Thailand* – A garbage truck breaks through a grade crossing and hits passenger train No. 447 from Surat Thani to Sungai Kolok with six carriages in the Phunphin District, Surat Thani Province. The truck hits the 5th and 6th cars, severely damaging and them and derailing the train. The truck driver is killed and six persons are injured.[399]

- 22 April – *South Korea* – A passenger train is derailed near Yulchon station, Yeosu, probably due to excessive speed. One person is killed and eight are injured.[400]

- 1 May – *United States* – A freight Train derails in northeast Washington D.C. spilling hazardous chemicals. Nobody is injured, but metropolitan and Amtrak

service to and from Washington is disrupted.[401]

- 8 May – *Nigeria* – A runaway train comes off the tracks in Jebba, bringing up 4 casualties.[402]

- 20 May – *Kazakhstan* – A collision between two freight trains near the Sino-Kazakh border derails 18 cars and damages 150 metres (490 ft) of track, leaving several other trains stranded in the Alataw Pass.[403]

- 20 May – *Switzerland* – A high-speed train collides with a tour bus at Interlaken leaving 16 people injured.[404]

- 3 June – *United States* – A crude oil train derails and catches fire at Mosier, Oregon due to defective track. The town was evacuated.[405]

- 6 June – *Belgium* – **Hermalle-sous-Huy train collision**: A passenger train runs into the rear of a freight train at Hermalle-sous-Huy. Three people are killed, about 40 are injured, nine seriously.

- 23 June – *South Africa* – 130 people are injured in a head on crash between 2 trains near the city of Durban.[406]

- 26 June – *United States* – A Amtrak passenger train collides with a van on a grade crossing in southern Colorado. Five of the six persons in the van dies.[407]

- 28 June – *United States* – Two BNSF Railway freight trains are in a head-on collision near Panhandle, Texas. 2 crewmen were killed, 1 was injured, and another is still missing. The wrecked diesel locomotives caught fire following initial impact.[408]

- 12 July – *Italy* – **2016 Andria train crash** - Two passenger trains are in a head-on collision near Andria. At least 27 people are killed and dozens more- at least 50- are injured, some of whom are in critical or serious condition; the death toll could still rise.[409]

- 13 July – *Australia* – A V/Line passenger train is derailed in a collision with a lorry at an unprotected level crossing near Colac, Victoria. Nineteen people on board are injured, the lorry driver seriously.[410] The crossing had been slated for an upgrade before the accident.[411]

- 14 July - *United States* - Early in the morning, Norfolk Southern train 164 hits a tractor-trailer in Chattanooga, Tennessee, resulting in the train derailing.[412]

- 22 July - *Iran* - At least 30 people were injured after a train collides with a truck at a railway crossing in Mazandaran.[413]
- 13 August - *Finland* - Two cargo trains collide, causing a derailment of a locomotive and three cargo wagons in Oulu. The rail yard and train equipment suffered substantial damages. A driver of the colliding locomotive was brought to hospital with minor injuries.[414][415][416]
- 17 August – *France* – At least twelve people are injured, two seriously, when a passenger train collides with a fallen tree obstructing the railway line at Saint-Aunès, Hérault.[417]

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cbc
Cascade Building Components

Q Ask yourselves - Why would UP invest so much capital in upgrades for a small increase in traffic service

Answer: They are anticipating a much larger increase in service

Question: Why would the planning commission support this increase in rail traffic in Mosier. When the community of Mosier provides such a large tax base for Wasco Co.

Answer: Its ~~probably~~ not a good idea for rail expansion. ~~The~~ Mosier's growth is languishing because of the rail line. Increasing noise, pollution & cutting off access to the river are responsible for many people investing in the urban Mosier community.

TIM 806-6722

509-637-2678
cascadebuildingcomponents.com
Bingen, WA

Question: Why risk the future of the Environment in the gorge

A Much of the testamony about the environmental impacts here provided you well thought legal support to deny the proposal before you. Please take this opportunity to take the good council provided

Testamony provided by Mary Ruginen
PO Box 214
Mosier Or

Testimony before the Wasco County Planning Commission
By Michael Lang, Conservation Director, Friends of the Columbia Gorge
In Opposition to Union Pacific Railroad's application PLASAR-15-01-0004
September 6, 2016

Thank you for the opportunity to comment on Union Pacific's application for four miles of new rail track within the Columbia River Gorge National Scenic Area in Wasco County.

1. **The project would result in a significant increase in rail traffic through the Columbia River Gorge and the region.**

In order to better understand the project's effect on rail traffic through the Columbia River Gorge and its communities, Friends of the Columbia Gorge ("Friends") asked two experts, Terry Whiteside and Gerald Fauth, to perform an independent analysis of rail traffic that could result from the Union Pacific rail expansion project in Wasco County. Mr. Whiteside and Mr. Fauth have extensive experience working with the railroads and their clients on a broad range of rail transportation issues. Their resumes are attached to their expert testimony, which has been submitted into the record.

The rail traffic experts found that Union Pacific's (UP) proposed rail expansion in the Columbia River Gorge National Scenic Area would result in a significant expansion in the number of trains that could travel through Mosier and would not provide the health and safety benefits touted by the railroad. Due to its location, small improvements to the railroad infrastructure through Mosier could have tremendous ripple effects throughout Wasco County and the Pacific Northwest. The experts found that the practical capacity of the improved line would be 75-100 trains per day.

With the lifting of the crude oil export ban, numerous proposals for oil-by-rail terminals in the region and a massive coal export terminal proposed on the Columbia River in Longview, the experts said, "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." They concluded that "UP clearly has its eyes focused on increasing oil and coal shipments to the Pacific Northwest."

According to Union Pacific, 25 to 30 trains per day currently move through Mosier. Union Pacific claims that the four-mile long expansion could increase traffic by 5-7 trains per day, to 30 to 37 trains. In its application, UP even implies that there will be *fewer* trains on the line by the utilization of larger trains. Even if Union Pacific utilizes longer trains, it is likely that more trains and substantially more carloads will move through Mosier.

Contrary to Union Pacific's claims, the experts found that, based on estimates by the American Association of Railroads, the current capacity of the Union Pacific rail line should be 30 to 48 trains per day, well within the projected capacity levels of 5 to 7 more trains per day. If Union Pacific's estimates of rail traffic increases are to be believed, the current track configuration is adequate and project is not necessary.

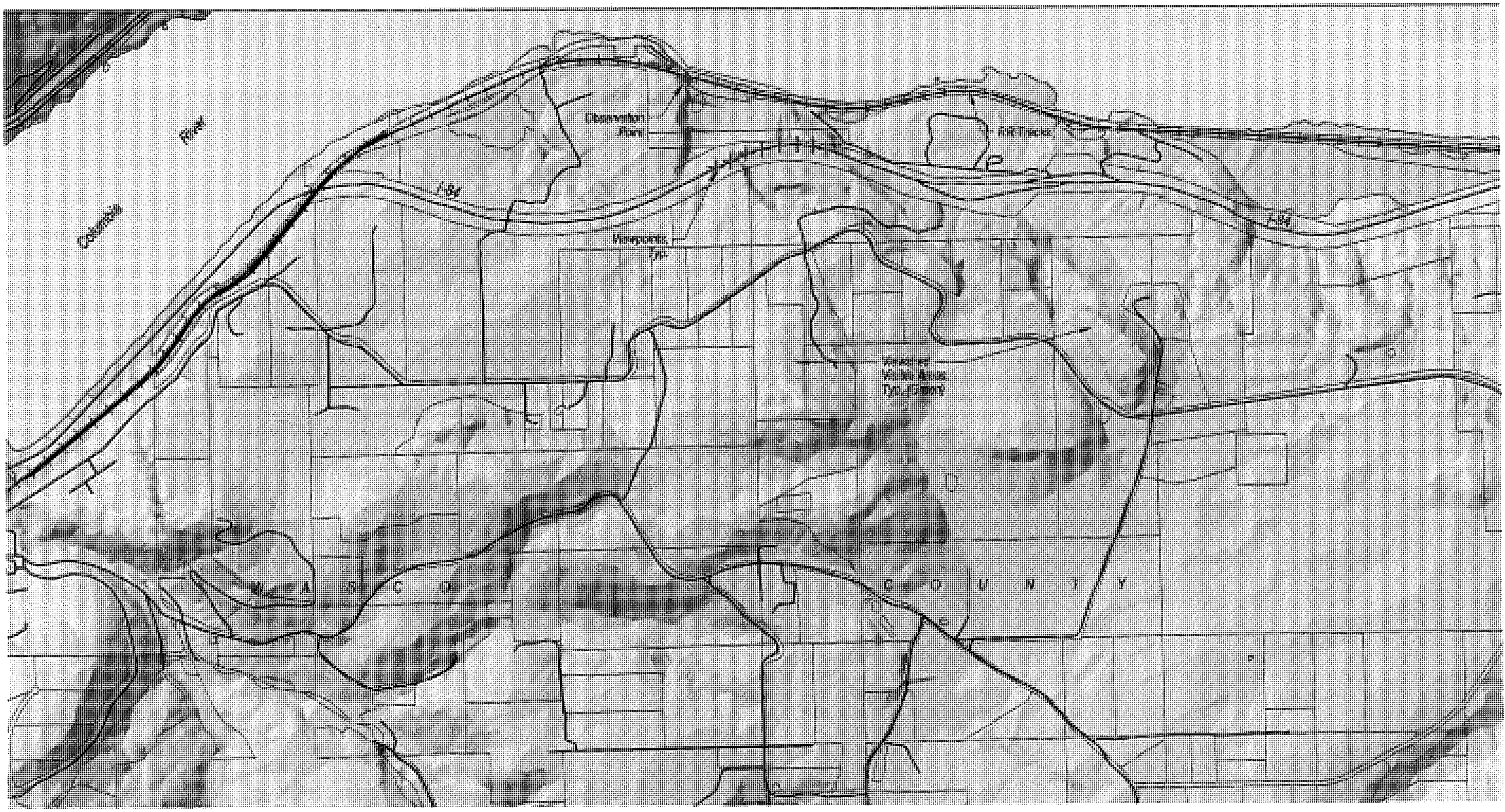
2. **Union Pacific was at fault for the Mosier derailment.**

The City of Mosier is still recovering from the Union Pacific oil train derailment, spill and fire on June 3 that leaked 42,000 gallons of crude oil and contaminated groundwater in the small town. The Federal Railroad Administration (FRA) released a report in June finding that Union Pacific was at fault for the accident because it failed to follow safety and rail inspection requirements. This report has been submitted into the record.

3. **Union Pacific has a poor safety record.**

Unfortunately, according to the FRA, Union Pacific perennially has poor accident statistics when compared with its peers. For example, in 2015 UP experienced 3.17 accidents per 1 million train miles travelled. The 2015 industry average was 2.59 accidents per 1 million train miles travelled. While the 11,504 train accidents in the United States in 2015 is unacceptably high, if Union Pacific operated all of the trains and tracks in the US at its current accident rate there would have been about 2,576 more train accidents. 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. The industry average of accidents caused by tracks, signals, or equipment is 44% and it is 56% for Union Pacific. This demonstrates the pattern of inadequate maintenance done by Union Pacific. These FRA safety records have been submitted into the record.

Conclusion: The project, including the likely increases in rail traffic coupled with Union Pacific's poor safety record, would harm Gorge resources, its economy and its communities and should be denied. Instead of adding new tracks that will result in more trains, accidents and derailments, Union Pacific needs to focus on maintaining the tracks, signals, and equipment it already has and fixing its poor safety record.



VISUAL RESOURCE ANALYSIS

FRIENDS OF THE COLUMBIA GORGE

OREGON

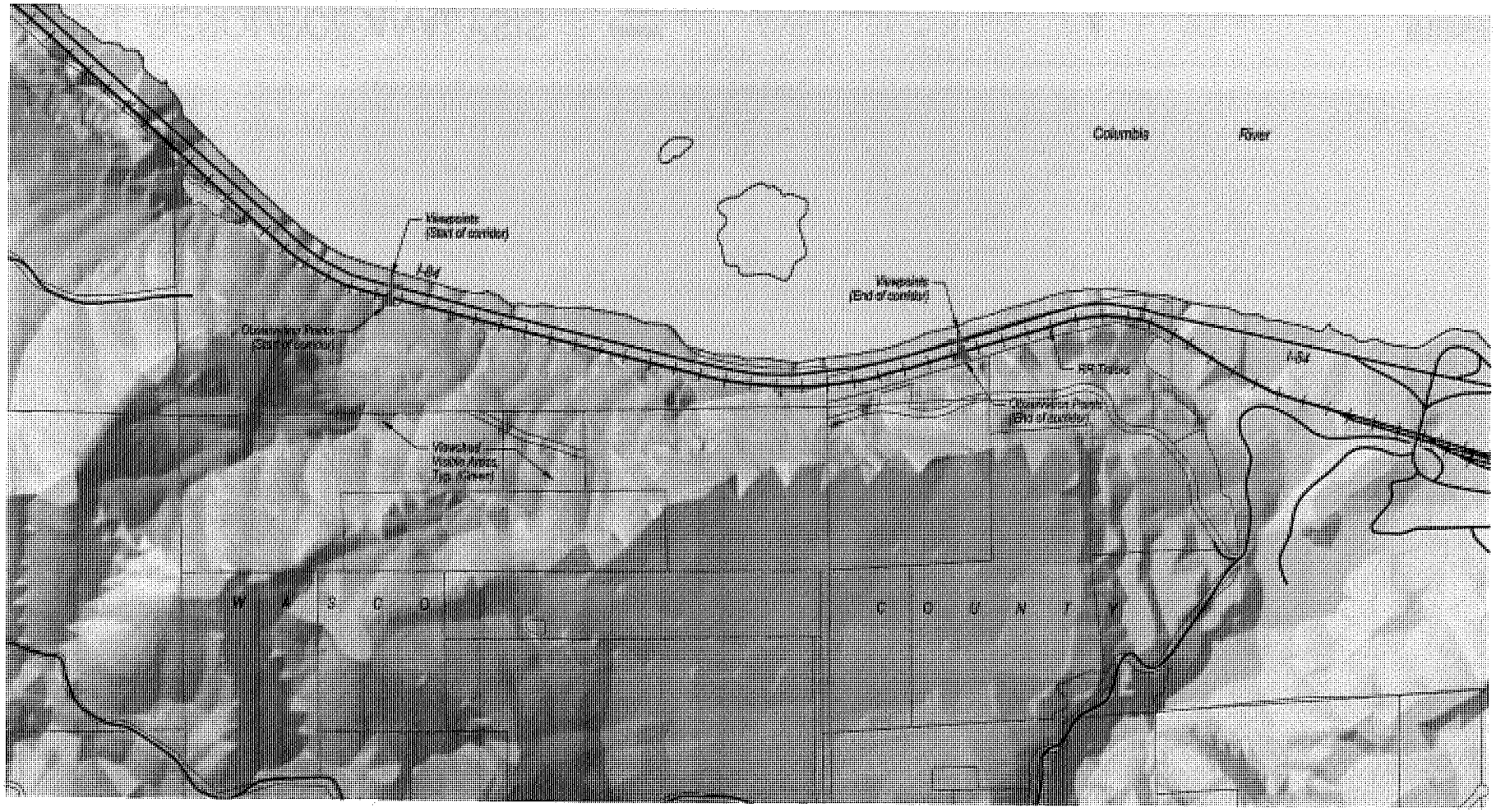
Legend

- Surface locations visible from viewpoints
- Hillshade
- Viewpoints
- Observation point (Focus of View)

N

May 24, 2016

WHPacific



VISUAL RESOURCE ANALYSIS

FRIENDS OF THE COLUMBIA GORGE

OREGON

Legend

- Surface locations visible from viewpoints
- Hillshade
- Viewpoints
- Observation points (Beginning & end of viewing corridor)

N

SCALE

05/12/16

WHPacific

PC 2 1-547

Summary:

Jordan Secter of WHPacific and Dean Apostol, Environmental Planner, both experts on scenic resource impact analysis, were asked by the Friends of the Columbia Gorge to provide a review of the scenic impact analysis for a proposal to add new tracks in two segments of the Union Pacific Railroad (UPRR) near Mosier, Oregon. This analysis included a review of the application prepared by CH2MHill for UPRR and Wasco County. Additional work included a field visit, GIS visibility analysis, and Google Earth analysis.

The joint professional opinion of WH Pacific and Dean Apostol is that the analysis of visual impacts provided by CH2MHiLL is inadequate, and their findings are not supported by the information provided. Deficiencies include:

- Potential visibility from Key Viewing Areas is understated, and was not determined using appropriate and readily available methods.
- Important project features, particularly rock cuts and staging areas, are not well described, mapped, or analyzed.
- Views from the Columbia River were not analyzed or accounted for.
- Varying view angles from Key Viewing Areas (KVAs) were not properly analyzed.
- Mitigation measures to reduce or compensate for potential impacts were not included.
- The analysis fails to address the visual character and impact of existing rail features, including overhead powerlines and rock control fencing.

The Wasco County Planning Commission should require UPRR and their consulting team to provide additional analysis consistent with standards commonly used to assess visual impacts within the National Scenic Area.

Typical components of a Visual Impact Analysis for sensitive landscapes, including those within the Columbia Gorge National Scenic Area are:

- **Analysis of existing and inherent scenic character, including discordant elements**
- **Identification of Key Viewing Areas (KVAs), including corridors (roads, river, trails)**
- **Analysis of potential visibility from KVAs, including distances**
- **Analysis of visual contrast resulting from the project**
- **Measurement of the impact, including deviation from a scenic standard if one exists.**
- **Identification of methods to lessen or mitigate the impacts**

Background

Visual impact analysis within the Columbia River Gorge national scenic Area (CRGNSA) follows the Forest Service Visual Management System (VMS) and the updated version known as the Scenery Management System (SMS).

This system is a strategic approach that helps land managers and regulators determine a varying level of scenic value depending on natural and cultural features, and the way they are viewed. The CRGNSA was analyzed in detail through inventories and studies during the process that led to development of the 1992 management plan. Visual Quality Objectives (VQO's) were assigned along with landscape typologies (i.e. Canyon Walls, Pastoral) within two main land use zones, General Management Area (GMA) and Special Management Area (SMA). Visual Quality Objectives (VQOs) are established for allowed land uses within each zone. Each of these overriding zones help define the degree of visual protection and level of development allowed within a specific area. The degree of protection is selected after careful analysis, including the types of activities allowed within an area, public use and expectations, and VQOs created to be in balance with other resources in a given area.

The SMS system and VQO'S provide a framework for analysis and a way to measure, describe and evaluate potential visual impacts. Visual Contrast is a term used to help understand the degree to which a project affects the visual environment by considering color, texture, line and form along with factors like distance to understand the potential change to the valued landscape character caused by a given project.

Two main VQOs apply to lands within the CGNSA: Not Visually Evident meaning visual changes should not be evident as seen from KVAs, and Visual Subordination (VS), meaning that changes can be evident, but are not allowed to dominate over the valued landscape character.

Visibility Analysis is a commonly used method to determine how visible a project may be from Key Viewing Areas. It is done using a Geographic Information System (GIS) to determine if topography, or in some cases vegetation or buildings, block views of a project from a given KVA. GIS analysis is typically supplemented by field investigations to see if a project is as visible as the computer generated data suggests.

Design methods, like reducing color contrast, are used to help a project meet a given visual standard. If a project cannot meet the standard, then additional mitigation measures may be required, including reducing visual contrast from existing projects within a given viewshed. Design and mitigation measures help either reduce or offset the visual impacts. An important tool for measuring and evaluating visual contrast and potential impacts is to create photo realistic simulations to show, as accurately as possible, how a project will appear from important viewpoints. If the visual is medium or high, then VQOs may not be met.

Zone of Visual Impact Visibility Analysis

The project description provided by CH2M and UPRR failed to include a visibility analysis. Visibility was determined only through field investigation, which is inadequate because some KVAs, particularly the Columbia River, were overlooked. WHPacific staff did perform a visibility analysis using GIS data on topography, and KVAs listed in the Scenic Area Plan to analyze the potential visibility of project features, including new tracks, rock cuts, and staging areas. We determined that much of the project is potentially visible from: I-84, Historic Columbia River Highway (Memaloose Overlook), the Columbia River (including Memaloose Island) and SR 14. It is visible from both eastbound and westbound lanes on I-84, though the

CH2MHill analysis claimed it is not visible from westbound lanes. Our GIS analysis was supplemented by a field visit that validate the findings.

Range of photos provided.
The information provided in the project description included only 5 photo points that are not fully representative of the range of views from KVAs. For example, there are no photos from the Columbia river looking towards segment 2, even though our GIS analysis (and Google Earth) provides clear evidence that people on the river, a KVA, will clearly see the east end of the large cut through the mesa. Additionally there are potentially clear views of the mesa cut from I-84 that were overlooked or not considered. And there are multiple potential views from SR 14, in addition to the single photo provided.

Simulations
The application failed to provide photo realistic simulations of the project from affected KVAs. This failure makes accurate analysis of impacts very difficult. Our visibility analysis and field work demonstrates that much of the project is visible, but without simulations it is hard to know how strong visual contrast will be, and visual contrast is a key factor in understanding visual impacts. We strongly recommend that simulations be required from those viewing positions where the most visual contrast is likely.

Description of Impacts
The description of potential visual impacts is significantly understated. The VQO standards for scenic quality in the Special Management portion of the CGNSA are mostly"not visually evident," meaning no obvious change or contrast, and "visual subordination," which limits visual change or contrast. There is a high potential that the project as proposed will not meet either standard, particularly the east end of the cut through the rock mesa as viewed from one or more KVAs. While it is possible that design and mitigation could reduce impacts to within Scenic Area standards, it is impossible to know without more analysis.

Additional comments on the application

- Figure 5-6. If the view is moved east the mesa cut would likely be more visible.
- Figure 5-7. Our analysis shows that the rock mesa & proposed staging area would be clearly visible from Memaloose overlook. A visual simulation should be provided from this vantage point.
- Figure 5-8. The assumption in the report that visual change would be "subtle" is not supported. A visual simulation should be provided noting the visual contrast and determining whether the project meets the NSA scenic standard.
- Figure 5.5. The analysis claims the mesa cut would be shielded from SR 14 and the River evidenced by this figure. But if the angle of view is changed east or west it is not likely very shielded.
- Page 5-6. The discussion of possible impacts from the mesa cut on viewers at old SR 14 is too dismissive. At the middleground distance a fresh rock cut could be high contrast depending on sun angle and atmospheric conditions. This view should be simulated to test visual contrast.
- Page 5-6 & 5-7. The discussion of visibility of the mesa rock cut viewed from river is not supported by the evidence provided. Our analysis shows views up the mesa cut from the river.
- Page 5-7. The claim that the RR is not visible from the Historic Hwy is not supported by the evidence provided, which shows clear visibility of portions of the RR from Memaloose overlook,

which is part of the HCRH. Additionally, the overlook provides a long term view which raises its sensitivity.

- Page 5-8. It is claimed that visual changes due to tree removal & grading of the staging area at east end of mesa cut will be minimal & temporary. But growth of replanted vegetation in that location would likely be very slow given the dry, harsh, windy conditions. Temporary in this case could be decades.

Recommendations

We recommend that Wasco County require UPRR to do additional analysis before this project is considered for approval. This additional analysis should include:

- A GIS based assessment of potential visibility of the project from KVAs within at least a 5 mile radius
- Additional field photos, including from the Columbia River and I-84 above the mesa
- More detailed identification of proposed staging areas regarding their impacts to the visual condition
- Visual simulations from KVAs with the most potential for visual impacts
    - Changes to contours and vegetation removal need to be modeled in these simulations, as well as new tracks and buildings
- Additional photos should be provided, especially from KVAs that have views of the mesa cut area
- Existing visually discordant elements of the railroad should be identified

Suggested Design & Mitigation Measures

If visual contrast of the project is determined to be outside the standards of the NSA, we recommend that the following design & mitigation measures be required:

- Existing white (painted) posts of rockfall fence are high contrast. Paint could be removed to reduce visual contrast.
- Overhead wires along segment 1 could be placed underground
- Screening vegetation could be planted between I-84 and RR along segment 1.
- Rock cut at mesa will likely be highly visible from I-84 & River. High contrast is probable if not treated to darken exposed rock face.
- A performance guarantee for replanted vegetation, with a realistic time frame for growth should be required.
- Mitigation measures should be sufficiently offsetting to result in no net impacts from the project.

Testimony from Portland Raging Grannies
Joana Kirchhoff
Edie Gillis
Ellen Heatham

MOSIER OIL TRAIN DERAILMENT

Lyrics by RobBee Lapp Tune-Freight Train, Freight Train by Elizabeth Cotton

Modified by Natalie Reich 7/9/16

Freight train, oil train going thru,

Carry no oil or coal while you do.

Please don't blow up any towns,

Keep that crude right in the ground!

Mosier, Oregon may be small,

What happened there ~~tells us~~ says, "Heed the call"

To stop destructive coal and oil

Don't let our gorge be spoiled!

~~Salmon swimming up our rivers,~~

~~Boaters, windsurfers enjoying them too~~

~~Orchards and those many flowers~~

~~Tell us now: " Speak truth to power!"~~

~~Portland~~, Oregon, is big enough, ~~to~~

~~to~~ Make a HUGE difference if we stand tough.

Demand to keep it in the ground

So our Gorge is safe and sound.

> SPOKEN> NO OIL TRAINS IN THE GORGE!

Roll Out the Barrels post Mosier edit

Posted on January 26, 2010, filed in: Environment and Energy

- Author: Gail Sredanovic, Raging Grannies Action League, SF Bay Area edit jk 2016
- Tune: Roll Out the Barrel

Roll back the barrels,

Union Pacific's NO fun!

More oil disasters!

PORTLAND WON'T BE THE NEXT ONE

On Bakken Oil's Route

Oil train explosions are WRONG!

No fiery, smoky train derailments.

We won't go along!

Stinky flame and sulfur

Watching our children get sick.

Asthma and cancer

Corrupting the feds is their trick.

We need protection.

SAFETY IS OUR HUMAN RIGHT!

Tell them the buck stops in Portland

We will stand and fight!

Must not adversely affect air, water, land

NOISE

Sept 6, 2016

Wasco Co Planning Commission
Wasco, OR

must minimize noise, dust odor in all phases

Dear Planning Commission Members,

Thank you for finally holding this public hearing for the proposed 2nd track of Union Pacific through our small town of Mosier, OR. I understand the pressure from all sides, but the rescheduling of this legal public hearing has been frustrating at best – I believe this is the 3rd or 4th reschedule. A public hearing is just that – an opportunity for the public to speak and for the elected/appointed officials to hear them. In addition, this hearing – a title 3 – quasi-judicial hearing, which is used when the matter at hand is more complicated and important, was scheduled at 3 PM on the day after Labor Day. How convenient for Union Pacific – to slash the numbers of people who could attend by at least ½ or more. And one more addition, if the meeting could take place at the Discovery Center, why then could it not have taken place at the very heart of the matter? Mosier School would have surely opened its doors to this hearing. This type of game playing should have no seat in the discussion of what happens in Mosier and the National Scenic Area.

I will not repeat the points already made or those that will be made.

There is a plaque at the top of the Mosier Twin Tunnels that says, The Columbia River Gorge, a national treasure that deserves the protection of a lifetime. As the river and surrounding land cannot attend this hearing today, we, the people, need to speak out loud for this protection. Many people today are speaking on important points that need to be listened to, and used, when stating that the permit is not approved. The noise, safety record, disruption to the entire town of Mosier, wetlands, etc. need to be considered and used in the denial of this permit.

expansion would create 5.27 miles – New reg in WA –

Union Pacific, in their application, stated that they were submitting this application because they were good neighbors and wanted everyone to get along – that they did not need to do this, as evidenced by 2 court cases. a scare tactic? The 1-2 year process of submitting forms, developing surveys, etc. was not a small process. UP did this because they actually did need to do it and are hoping to avoid litigation because it is very costly, and these steps would have needed to be done anyway should it get to litigation. One of the interesting pieces of the process was to look at alternative placements of the mainline track. Where are those alternatives and are they outside of the scenic area?

This is the National Scenic Area, with its own set of rules and regulations. You, as the Planning Commission, have an arm in these permitting procedures and can exert the will of the people to do this. Rules and regulations for the railroad industry are changing esp in light of the derailments and accidents. Washington state has just tightened up the regulations for oil shipments. The regulations are getting more stringent because there are other ways to ship and transport goods, even with the lobbying power of the railroad industry.

More stringent rules should be required

Deny application based on previous Public Testimony

Terms like "being railroaded" definitely came from high powered manipulation at the National level when railroads/tracks were being laid. Please don't let that happen to us. Please show your strength and listened to the people ~~of Mosier~~ here today and the Gorge and deny this permit. Develop a better saying that will gain national attention – we "stopped them in their tracks!"

how many trains ~~need~~ stand idly daily? Monthly? ~~Aren't~~ Isn't there a train yard in TD? Could this not be the alternative?

Susan Froehlich
PO Box 312
Mosier, OR 97040

environmental & scenic disturbances – demolition of basalt

Sound of trains causes environmental damage

lava flow on south side of track – affecting fish, wildlife

Confed. Tribes of Umatilla Natio

Thank you for your concern, support and courage to confront UP —

~~The Col River Gorge belongs to you~~ —

Thank you for the opportunity to comment on Union Pacific's application for four miles of new rail track within the Columbia River Gorge National Scenic Area in Wasco County.

1. **The project would result in a significant increase in rail traffic through the Columbia River Gorge and the region.**

In order to better understand the project's effect on rail traffic through the Columbia River Gorge and its communities, Friends of the Columbia Gorge ("Friends") asked two experts, Terry Whiteside and Gerald Fauth, to perform an independent analysis of rail traffic that could result from the Union Pacific rail expansion project in Wasco County. Mr. Whiteside and Mr. Fauth have extensive experience working with the railroads and their clients on a broad range of rail transportation issues. Their resumes are attached to their expert testimony, which has been submitted into the record.

The rail traffic experts found that Union Pacific's (UP) proposed rail expansion in the Columbia River Gorge National Scenic Area would result in a significant expansion in the number of trains that could travel through Mosier and would not provide the health and safety benefits touted by the railroad. Due to its location, small improvements to the railroad infrastructure through Mosier could have tremendous ripple effects throughout Wasco County and the Pacific Northwest. The experts found that the practical capacity of the improved line would be 75-100 trains per day.

With the lifting of the crude oil export ban, numerous proposals for oil-by-rail terminals in the region and a massive coal export terminal proposed on the Columbia River in Longview, the experts said, "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." They concluded that "UP clearly has its eyes focused on increasing oil and coal shipments to the Pacific Northwest."

According to Union Pacific, 25 to 30 trains per day currently move through Mosier. Union Pacific claims that the four-mile long expansion could increase traffic by 5-7 trains per day, to 30 to 37 trains. In its application, UP even implies that there will be *fewer* trains on the line by the utilization of larger trains. Even if Union Pacific utilizes longer trains, it is likely that more trains and substantially more carloads will move through Mosier.

Contrary to Union Pacific's claims, the experts found that, based on estimates by the American Association of Railroads, the current capacity of the Union Pacific rail line should be 30 to 48 trains per day, well within the projected capacity levels of 5 to 7 more trains per day. If Union Pacific's estimates of rail traffic increases are to be believed, the current track configuration is adequate and project is not necessary.

2. Union Pacific was at fault for the Mosier derailment.

The City of Mosier is still recovering from the Union Pacific oil train derailment, spill and fire on June 3 that leaked 42,000 gallons of crude oil and contaminated groundwater in the small town. The Federal Railroad Administration (FRA) released a report in June finding that Union Pacific was at fault for the accident because it failed to follow safety and rail inspection requirements. This report has been submitted into the record.

3. Union Pacific has a poor safety record.

Unfortunately, according to the FRA, Union Pacific perennially has poor accident statistics when compared with its peers. For example, in 2015 UP experienced 3.17 accidents per 1 million train miles travelled. The 2015 industry average was 2.59 accidents per 1 million train miles travelled. While the 11,504 train accidents in the United States in 2015 is unacceptably high, if Union Pacific operated all of the trains and tracks in the US at its current accident rate there would have been about 2,576 more train accidents. 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. The industry average of accidents caused by tracks, signals, or equipment is 44% and it is 56% for Union Pacific. This demonstrates the pattern of inadequate maintenance done by Union Pacific. These FRA safety records have been submitted into the record.

Conclusion: The project, including the likely increases in rail traffic coupled with Union Pacific's poor safety record, would harm Gorge resources, its economy and its communities and should be denied. Instead of adding new tracks that will result in more trains, accidents and derailments, Union Pacific needs to focus on maintaining the tracks, signals, and equipment it already has and fixing its poor safety record.

TREATY BETWEEN THE CAYUSE, UMATILLA AND WALLA WALLA TRIBES, IN CONFEDERATION,

AND

THE UNITED STATES

JUNE 9, 1855

TREATY WITH THE WALLAWALLA, CAYUSE, ETC., 1855.

June 9, 1855.

[12 Stat. 945. Ratified March 8, 1859. Proclaimed April 11, 1859.]

Articles of agreement and convention made and concluded at the treaty-ground, Camp Stevens, in the Walla-Walla Valley, this ninth day of June, in the year one thousand eight hundred and fifty-five, by and between Isaac I. Stevens, governor and superintendent of Indian affairs for the Territory of Washington, and Joel Palmer, superintendent of Indian affairs for Oregon Territory, on the part of the United States, and the undersigned chiefs, head-men, and delegates of the Walla-Wallas, Cayuses, and Umatilla tribes, and bands of Indians, occupying lands partly in Washington and partly in Oregon Territories, and who, for the purposes of this treaty, are to be regarded as one nation acting for and in behalf of their respective bands and tribes, they being duly authorized thereto; it being understood that Superintendent I. I. Stevens assumes to treat with that portion of the above-named bands and tribes residing within the Territory of Washington, and Superintendent Palmer with those residing within Oregon.

ARTICLE 1

The above-named confederated bands of Indians cede to the United States all their right, title, and claim to all and every part of the country claimed by them included in the following boundaries, to wit: Commencing at the mouth of the Tocannon River, in Washington Territory, running thence up said river to its source; thence easterly along the summit of the Blue Mountains, and on the southern boundaries of the purchase made of the Nez Perces Indians, and easterly along that boundary to the western limits of the country claimed by the Shoshonees or Snake Indians; thence southerly along that boundary (being the waters of Powder River) to the source of Powder River, thence to the head- waters of Willow Creek, thence down Willow Creek to the Columbia River, thence up the channel of the Columbia River to the lower end of a large island below the mouth of Umatilla River, thence northerly to a point on the Yakama River, called Tomah-luke, thence to Le Lac, thence to the White Banks on the Columbia below Priest's Rapids, thence down the Columbia River to the junction of the Columbia and Snake Rivers, thence up the Snake River to the place of beginning: *Provided, however,* That so much of the country described above as is contained in the following boundaries shall be set apart as a residence for said Indians, which tract for the purposes contemplated shall be held and regarded as an Indian reservation; to wit: Commencing in the middle of the channel of Umatilla River opposite the mouth of Wild Horse Creek, thence up the middle of the channel of said creek to its source, thence southerly to a point in the Blue Mountains, known as Lee's Encampment, thence in a line to the head- waters of Howtome Creek, thence west to the divide between Howtome and Birch Creeks, thence northerly along said divide to a point due west of the southwest corner of William C. McKay's land-claim, thence east along his line to his southeast corner, thence in a line to the place of beginning; all of which tract shall be set apart and, so far as necessary, surveyed and marked out for their exclusive use; nor shall any white person be permitted to reside upon the same without permission of the agent and superintendent. The said tribes and bands agree to remove to and settle upon the same within one year after the ratification of this treaty, without any additional expense to the Government other than is provided by this treaty, and until the expiration of the time specified, the said bands shall be permitted to occupy and reside upon the tracts now possessed by them, guaranteeing to all citizen[s] of the United States, the right to enter upon and occupy as settlers any lands not actually enclosed by said Indians: *Provided, also,* That the exclusive right of taking fish in the streams running through and bordering said reservation is hereby secured to said Indians, and at all other usual and accustomed stations in common with citizens of the United States, and of erecting suitable buildings for curing the same; the privilege of hunting, gathering roots and berries and pasturing their stock on unclaimed lands in common with citizens, is also secured to them. *And provided, also,* That if any band or bands of Indians, residing in and claiming any portion or portions of the country described in this article, shall not accede to the terms of this treaty, then the bands becoming parties hereunto agree to reserve such part of the several and other payments herein named, as a consideration for the entire country described as aforesaid, as shall be in the proportion that their aggregate number may have to the whole number of

Indians residing in and claiming the entire country aforesaid, as consideration and payment in full for the tracts in said country claimed by them. *And provided, also,* That when substantial improvements have been made by any member of the bands being parties to this treaty, who are compelled to abandon them in consequence of said treaty, (they) shall be valued under the direction of the President of the United States, and payment made therefor.

ARTICLE 2

In consideration of and payment for the country hereby ceded, the United States agree to pay the bands and tribes of Indians claiming territory and residing in said country, and who remove to and reside upon said reservation, the several sums of money following, to wit: eight thousand dollars per annum for the term of five years, commencing on the first day of September, 1856; six thousand dollars per annum for the term of five years next succeeding the first five; four thousand dollars per annum for the term of five years next succeeding the second five, and two thousand dollars per annum for the term of five years next succeeding the third five; all of which several sums of money shall be expended for the use and benefit of the confederated bands herein named, under the direction of the President of the United States, who may from time to time at his discretion, determine what proportion thereof shall be expended for such objects as in his judgment will promote their well- being, and advance them in civilization, for their moral improvement and education, for buildings, opening and fencing farms, breaking, land, purchasing teams, wagons, agricultural implements and seeds, for clothing, provision and tools, for medical purposes, providing mechanics and farmers, and for arms and ammunition.

ARTICLE 3

In addition to the articles advanced the Indians at the time of signing this treaty, the United States agree to expend the sum of fifty thousand dollars during the first and second years after its ratification, for the erection of buildings on the reservation, fencing and opening farms, for the purchase of teams, farming implements, clothing, and provisions, for medicines and tools, for the payment of employees, and for subsisting the Indians the first year after their removal.

ARTICLE 4

In addition to the consideration above specified, the United States agree to erect, at suitable points on the reservation, one saw-mill, and one flouring- mill, a building suitable for a hospital, two school-houses, one blacksmith shop, one building for wagon and plough maker and one carpenter and joiner shop, one dwelling for each, two millers, one farmer, one superintendent of farming operations, two school-teachers, one blacksmith, one wagon and plough maker, one carpenter and joiner, to each of which the necessary out-buildings. To purchase and keep in repair for the term of twenty years all necessary mill fixtures and mechanical tools, medicines and hospital stores, books and stationery for schools, and furniture for employees.

The United States further engage to secure and pay for the services and subsistence, for the term of twenty years, (of) one superintendent of farming operations, one farmer, one blacksmith, one wagon and plough maker, one carpenter and joiner, one physician, and two school-teachers.

ARTICLE 5

The United States further engage to build for the head chiefs of the Walla-Walla, Cayuse, and Umatilla bands each one dwelling-house, and to plough and fence ten acres of land for each, and to pay to each five hundred dollars per annum in cash for the term of twenty years. The first payment to the Walla- Walla chief to commence upon the signing of this treaty. To give to the Walla-Walla chief three yoke of oxen, three yokes and four chains, one wagon, two ploughs, twelve hoes, twelve axes, two shovels, and one saddle and bridle, one set of wagon-harness, and one set of plough-harness, within three months after the signing of this treaty.

To build for the son of Pio-pio-mox-mox one dwelling-house, and plough and fence five

acres of land, and to give him a salary for twenty years, one hundred dollars in cash per annum, commencing September first, eighteen hundred and fifty-six.

The improvement named in this section to be completed as soon after the ratification of this treaty as possible.

It is further stipulated that Pio-pio-mox-mox is secured for the term of five years, the right to build and occupy a house at or near the mouth of Yakama River, to be used as a trading-post in the sale of his bands of wild cattle ranging in that district: *And provided, also,* That in consequence of the immigrant wagon-road from Grand Round to Umatilla, passing through the reservation herein specified, thus leading to turmoils and disputes between Indians and immigrants, and as it is known that a more desirable and practicable route may be had to the south of the present road, that a sum not exceeding ten thousand dollars shall be expended in locating and opening a wagon-road from Powder River or Grand Round, so as to reach the plain at the western base of the Blue Mountain, south of the southern limits of said reservation.

ARTICLE 6

The President may, from time to time at his discretion cause the whole or such portion as he may think proper, of the tract that may now or hereafter be set apart as a permanent home for those Indians, to be surveyed into lots and assigned to such Indians of the confederated bands as may wish to enjoy the privilege, and locate thereon permanently, to a single person over twenty-one years of age, forty acres, to a family of two persons, sixty acres, to a family of three and not exceeding five, eighty acres; to a family of six persons and not exceeding ten, one hundred and twenty acres; and to each family over ten in number, twenty acres to each additional three members; and the President may provide for such rules and regulations as will secure to the family in case of the death of the head thereof, the possession and enjoyment of such permanent home and improvement thereon; and he may at any time, at his discretion, after such person or family has made location on the land assigned as a permanent home, issue a patent to such person or family for such assigned land, conditioned that the tract shall not be aliened or leased for a longer term than two years, and shall be exempt from levy, sale, or forfeiture, which condition shall continue in force until a State constitution, embracing such land within its limits, shall have been formed and the legislature of the State shall remove the restriction: *Provided, however,* That no State legislature shall remove the restriction herein provided for without the consent of Congress: *And provided, also,* That if any person or family, shall at any time, neglect or refuse to occupy or till a portion of the land assigned and on which they have located, or shall roam from place to place, indicating a desire to abandon his home, the President may if the patent shall have been issued, cancel the assignment, and may also withhold from such person or family their portion of the annuities or other money due them, until they shall have returned to such permanent home, and resumed the pursuits of industry, and in default of their return the tract may be declared abandoned, and thereafter assigned to some other person or family of Indians residing on said reservation: *And provided, also,* That the head chiefs of the three principal bands, to wit, Pio-pio-mox-mox, Weyatenatemany, and Wenap-snoot, shall be secured in a tract of at least one hundred and sixty acres of land.

ARTICLE 7

The annuities of the Indians shall not be taken to pay the debts of individuals.

ARTICLE 8

The confederated bands acknowledge their dependence on the Government of the United States and promise to be friendly with all the citizens thereof, and pledge themselves to commit no depredation on the property of such citizens, and should any one or more of the Indians violate this pledge, and the fact be satisfactorily proven before the agent, the property taken shall be returned, or in default thereof, or if injured or destroyed, compensation may be made by the Government out of their annuities; nor will they make war on any other tribe of Indians except in self-defense, but submit all matter of difference between them and other Indians, to the Government of the United States or its agents for decision, and abide thereby; and if any of the said Indians commit any

depredations on other Indians, the same rule shall prevail as that prescribed in the article in case of depredations against citizens. Said Indians further engage to submit to and observe all laws, rules, and regulations which may be prescribed by the United States for the government of said Indians.

ARTICLE 9

In order to prevent the evils of intemperance among said Indians, it is hereby provided that if any one of them shall drink liquor, or procure it for others to drink, (such one) may have his or her proportion of the annuities withheld from him or her for such time as the President may determine.

ARTICLE 10

The said confederated bands agree that, whenever in the opinion of the President of the United States the public interest may require it, *that* all roads highways and railroads shall have the right of way through the reservation herein designated or which may at any time hereafter be set apart as a reservation for said Indians.

ARTICLE 11

This treaty shall be obligatory on the contracting parties as soon as the same shall be ratified by the President and Senate of the United States.

In testimony whereof, the said I. I. Stevens and Joel Palmer, on the part of the United States, and the undersigned chiefs, headmen, and delegates of the said confederated bands, have hereunto set their hands and seals, this ninth day of June, eighteen hundred and fifty-five.

Isaac I. Stevens, (L.S.)
Governor and Superintendent Washington Territory.

Joel Palmer, (L.S.)
Superintendent Indian Affairs, O.T.

Pio-pio-mox-mox, his x mark, head chief of Walla-Wallas. (L.S.)
Meani-teat or Pierre, his x mark. (L.S.)
Weyatenatemany, his x mark, head chief of Cayuses. (L.S.)
Wenap-snoot, his x mark, head chief of Umatilla. (L.S.)
Kamaspello, his x mark. (L.S.)
Steachus, his x mark. (L.S.)
Howlish-wampo, his x mark. (L.S.)
Five Crows, his x mark. (L.S.)
Stocheania, his x mark. (L.S.)
Mu-howlish, his x mark. (L.S.)
Lin-tin-met-cheania, his x mark. (L.S.)
Petamyo-mox-mox, his x mark. (L.S.)
Watash-te-waty, his x mark. (L.S.)
She-yam-na-kon, his x mark. (L.S.)
Qua-chim, his x mark. (L.S.)
Te-walca-temany, his x mark. (L.S.)
Keantoan, his x mark. (L.S.)
U-wait-quaick, his x mark. (L.S.)
Tilch-a-waix, his x mark. (L.S.)
La-ta-chin, his x mark. (L.S.)
Kacho-rolich, his x mark. (L.S.)
Kanocey, his x mark. (L.S.)
Som-na-howlish, his x mark. (L.S.)
Ta-we-way, his x mark. (L.S.)
Ha-hats-me-cheat-pus, his x mark. (L.S.)

Pe-na-cheanit, his x mark. (L.S.)
Ha-yo-ma-kin, his x mark. (L.S.)
Ya-ca-lox, his x mark. (L.S.)
Na-kas, his x mark. (L.S.)
Stop-cha-yeou, his x mark. (L.S.)
He-yeau-she-keaut, his x mark. (L.S.)
Sha-wa-way, his x mark. (L.S.)
Tam-cha-key, his x mark. (L.S.)
Te-na-we-na-cha, his x mark. (L.S.)
Johnson, his x mark. (L.S.)
Whe-la-chey, his x mark. (L.S.)

Signed in the presence of - -
James Doty, secretary treaties.
Wm. C. McKay, secretary treaties.
C. Chirouse, O.M.I.
A. D. Pamburn, interpreter.
John Whitford, his x mark, interpreter.
Mathew Dofa, his x mark, interpreter.
William Craig, interpreter.
James Coxey, his x mark, interpreter.
Patrick McKenzie, interpreter.
Arch. Gracie, jr., brevet second lieutenant, Fourth Infantry.
R. R. Thompson, Indian agent.
R. B. Metcalfe, Indian sub-agent.

Testimony before Wasco County Planning Commission: September 6, 2016

Re: Union Pacific Railroad proposed double track project in Wasco County

PLASAR-15-01-0004

My name is William White, and I live full time in Mosier, Oregon. My wife and I moved to Mosier in 2007, attracted by the beauty and tranquility of the Columbia River Gorge, together with the assurance that the National Scenic Area designation would help to protect these qualities in the Gorge.

The current Union Pacific application to construct a second railroad line, roughly centered on the town of Mosier, would significantly degrade many of the qualities that originally drew us to this area. We request that Wasco County deny the Union Pacific application for the following reasons:

Increased train traffic: The new double track would dramatically increase the number, size, and speed of trains that currently move through Wasco County and the town of Mosier. According to railroad experts Terry Whiteside and Gerald Fauth III, the Mosier double tracking project, coupled with the proposed modern train signaling, would provide infrastructure to increase rail traffic through Mosier by 45 to 52 trains per day. This dramatic increase in train traffic would create more noise and pollution, as well as a demonstrated danger of fire and explosions. In addition, the increased length and number of trains would result in more frequent traffic interruptions for citizens and first responders at all railroad crossings.

While Union Pacific has stated that they are not building the second line in order to increase shipments through the Gorge, the facts are that the number of railroad cars moved through Oregon by Union Pacific has increased by 27% between 2013 and 2015 alone. (Whiteside and Fauth testimony, Figure 2)

Impact on National Scenic Area: The proposed second mainline track will negatively impact the Columbia Gorge National Scenic Area by constructing new roads and bridges, blasting through existing mesas and crushing the resulting rock debris on site, disturbing areas likely containing historic Native American artifacts, and altering setbacks for scenic travel corridors, wetlands, and sensitive plant buffer areas.

The Columbia River Gorge National Scenic Act it mandated that development actions not adversely affect the scenic, cultural, recreation, and natural resources of the National Scenic Area - including actions which are individually insignificant but which may have cumulatively significant impacts. Furthermore, the Oregon Supreme Court found that an applicant must accept any conditions that are necessary to ensure that a development take place without affecting scenic resources. Based on my reading of materials from a variety of experts, I do not believe the Union Pacific application meets these standards

Impact on Memaloose State park: The proposal would definitely have a negative impact on Memaloose State Park. The Oregon Parks & Recreation Department Commission in April directed staff to stop negotiations with Union Pacific for a land transfer that would have allowed the company to build a second track through Memaloose State Park. The Parks Commission found no overall benefit to state park system, and cited public safety and state liability as reasons to reject the land transfer.

Thus Union Pacific's application is based on inaccurate assumptions because it relies on a land transfer that will not take place.

Increased oil and coal shipments: The proposed new second line will likely result in many more oil trains passing through Wasco County. The county's Planning Staff report notes that Union Pacific claims the commodities currently transported are not proposed to be altered by the proposed track development. However, the railroad also acknowledged that the commodities carried are driven by current market demand. (pg. 32)

According to the federal Surface Transportation Board statistics, Union Pacific revenues from oil shipments skyrocketed from $18 million in 2010 to well over $400 million in 2013 and 2014. The rush to move highly-volatile Bakkan crude oil from North Dakota and Montana gave a huge financial boost to Union Pacific. While the level of shipments eased off in 2015, it is clear that the commodities shipped through the Gorge by UP are primarily driven by demand and profits.

The fact that Congress has removed the prohibition on exporting crude oil and demand for coal is growing in Asia, when added to the proposed development of oil and coal shipping facilities in the Pacific Northwest, opens the door to the Columbia Gorge becoming the preferred conduit for fossil fuel shipments. Whiteside and Faust conclude that "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." (Page 8)

While coal use is declining in the United States, huge inventories of coal in this country have created a surge in rail shipments of coal through the Gorge for shipment to Asia. In addition to the dangers posed by burning coal in countries with weak environmental regulations on coal, the dust from uncovered coal cars directly impacts the Gorge.

According to a recent study by Dr. Daniel Jaffe of the University of Washington, rail shipment of uncovered coal results in respirable particulate levels twice as high as those emitted by other diesel trains. This creates health hazards and degrades air quality for residents of Wasco County and the Columbia Gorge. If the double track proposal is approved and the demand for

coal exports continues to grow, more coal will be transported by Union Pacific on the Oregon side of the river.

Safety: Union Pacific's poor safety record is very troubling. The railroad's rate of accidents per one million train miles travelled is 22% above the industry average. Oregon officials said the tracks near Mosier were inspected on April 27, just weeks before the June 3 derailment, using methods designed to ensure the tracks were safe enough to carry crude oil trains.

In Mosier 16 of the 96 oil cars derailed, one tank car was punctured, the volatile Bakkan crude ignited, and three additional tank cars caught on fire. I was in Mosier shortly after the train derailed. The wind was unusually still for a summer day in the Gorge. If winds had been in the neighborhood of 20 miles per hour, the explosions and resulting fire damage would have been dramatically worse. Many people could have been wounded or killed, and the Mosier elementary school and other facilities would have been imperiled.

On June 23rd, the Federal Railroad Administration determined that "Union Pacific's failure to maintain its track and track equipment resulted in the derailment."

Railroad experts Whiteside and Fauth reported that "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.

The final statement of their testimony concludes that "the increase in train traffic that this proposed project would allow will make Mosier and Wasco County more dangerous places to live."

The city of Mosier, having witnessed first-hand the derailment of a Union Pacific oil train, has gone on record opposing the application for a second rail line, and I support this position.

Lack of state oversight: It is important to note that Washington and California recently passed laws giving state government new oversight of a railroad company's response to oil train crashes. Those laws include requirements that railroads file emergency response plans, new taxes on oil-by-rail shipments to fund preparedness and a mandate that railroads must show whether they can cover the cost of a worst-case oil train spill. Just a year before the Mosier derailment, Union Pacific lobbied against similar legislation giving the state of Oregon increased oversite of oil train crashes, and the bill (HB 3225) was later gutted.

Lack of local control: I have read the report of the Wasco County Planning Staff, and commend the careful work that their summary represents. I strongly agree with some of the conditions proposed by the staff report, including the requirement the number of trains not be allowed to

increase, that coal cars be covered, and that Union Pacific provide training and consider assisting with needed supplies and equipment for fire departments in the Gorge.

While I agree with conditions such as those proposed by planning staff, I do not believe that Union Pacific is likely to comply with such standards. Railroads have historically taken the position that they are regulated at the federal level, and they have opposed standards being set by local governments. I know of no powers possessed by Wasco County that would ensure that trains that begin their trip one or two thousand miles to the east of Oregon will comply with local standards once they reach the border of Wasco County.

Accordingly, I urge our Planning Commission to reject the Union Pacific application for a second mainline track through portions of Wasco County.

William L. White
P. O. Box 657
Mosier, OR 97040

September 5, 2016